



International Amateur Radio Union

Region 1



Monitoring System

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The monthly newsletter for Region 1

December 2013

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Acknowledgements

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++ URE: EB1TR - Fabian ++ USKA: HB9CET - Peter ++ VERON: PA2GRU - Dick ++ ZRS: S56ZDB – Darko ++
++ G3VZV – Graham (satellite) ++ TG9ADV – Jorge (Co-ordinator Region 2) ++ VK3MV – Peter (Co-ordinator Region 3) ++
++ DF8FE – (Webmaster assis.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++
++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ PB2T – Hans (IARU R1 President) ++ 9A5W - Nikola (EC-IARU-R1
++ PTTs: German (BNetzA), BAKOM (Switzerland), OFCOM (UK) ++ Dutch AT ++ SK6AW – DX-Cluster ++ YO9RIJ - Petrica

Part 1: News and infos

Part 2: Detailed reports of the national co-ordinators

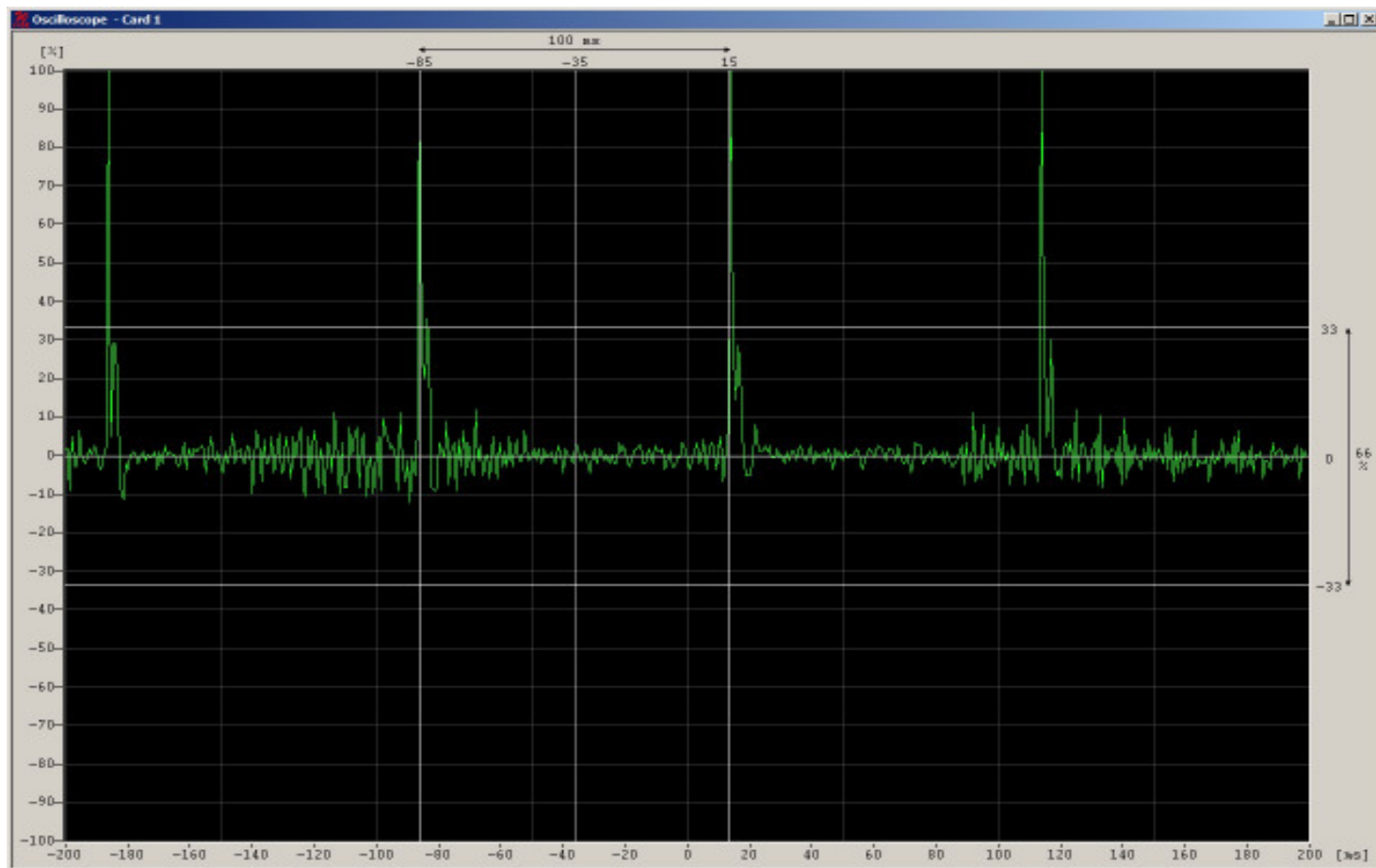
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Part 1: News and Infos

1. New Russian OTH radar

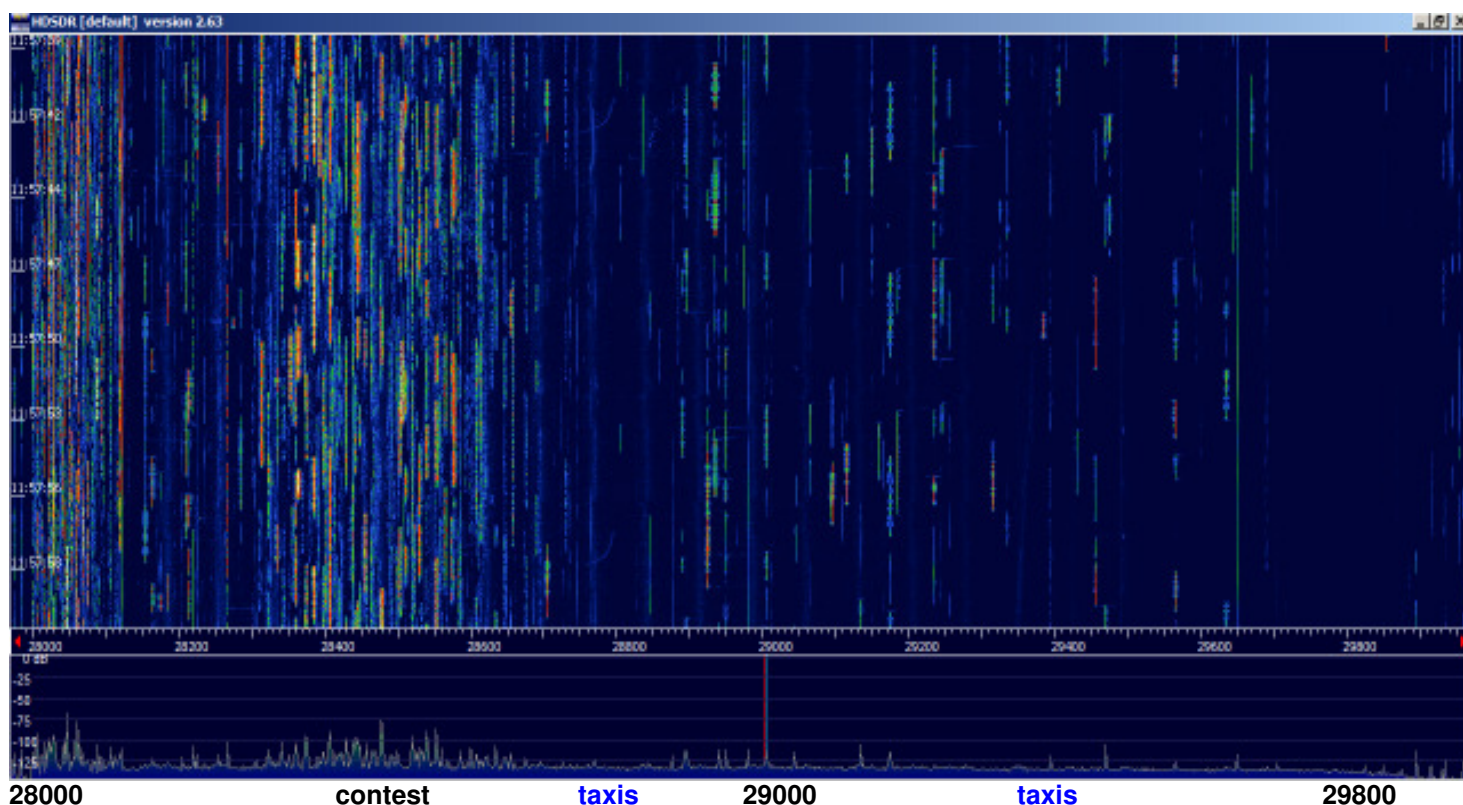
A new Russian OTH radar appeared on 14 MHz. Parameters: 10 sps and 10 kHz wide, often jumping. Location: Nizhny Novgorod. Screenshot: DK2OM with W-Code - showing the oscilloscope analysis.

Soundfile: <http://www.iarums-r1.org/iarums/sound/14305rus.wav> Recording by DK2OM!



2. CIS taxis – worse as ever before

Screenshot with HDSR (DK2OM) on Dec. 15th. Contest traffic between 28000 and 28550 kHz and above many CIS taxis.

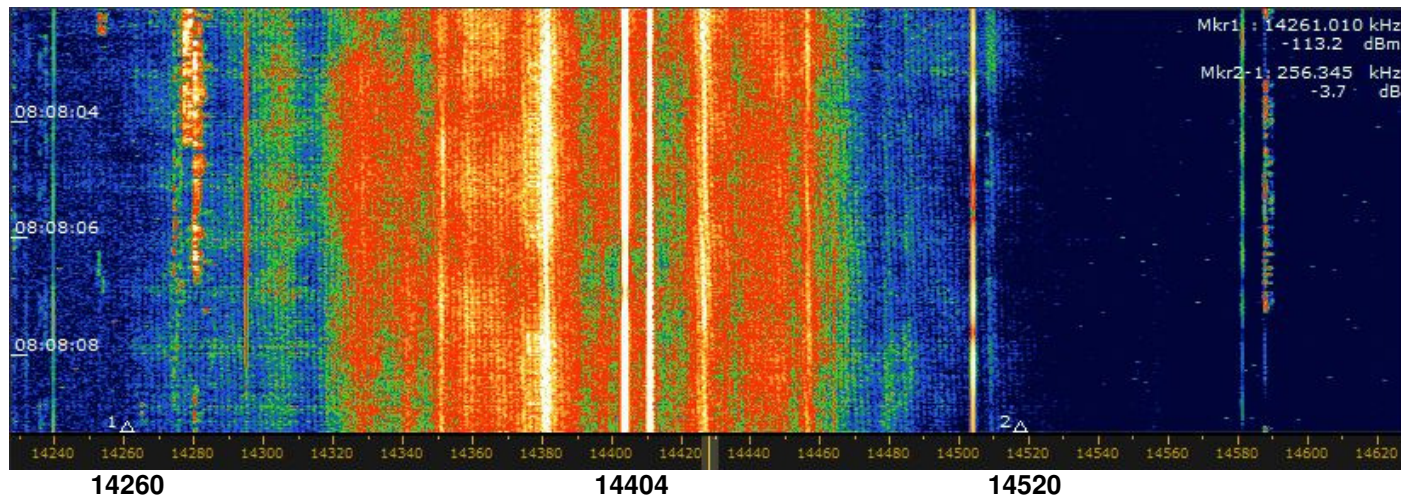


3. Fishery traffic on our bands as usual

Fishery traffic every morning and evening on 3500 – 3550, 10101, 10120, 10125, 10130, 10131 and 10133 kHz on USB: Involved: Fishermen from France, Spain, Netherlands, Great Britain and Morocco. No callsigns, only names and sometimes very obscene. The Spanish fishermen used the vocoder CRY 2001 on 7000 and 3570 kHz from time to time. My DX-Cluster entries were not observed.

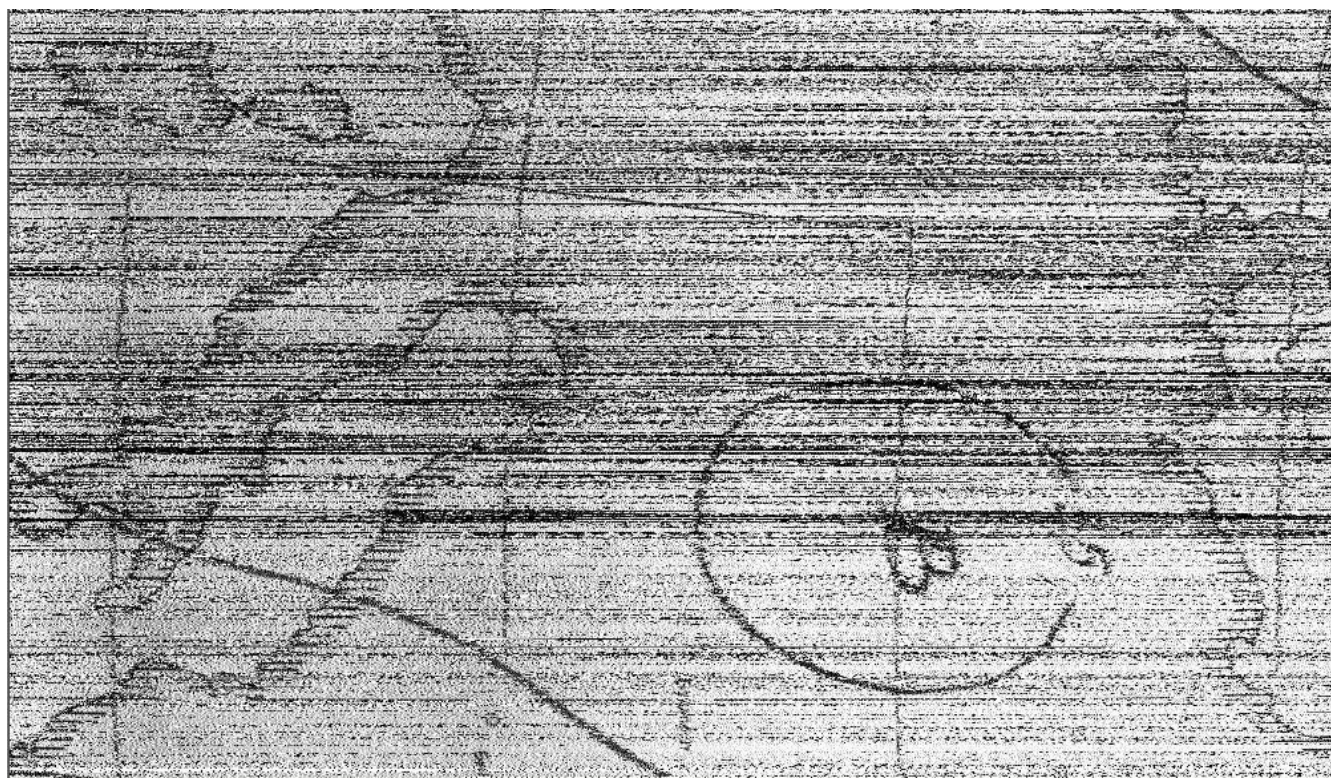
4. Noise floor on 14 MHz caused by a Russian F1B

A Russian broken F1B on 14404 kHz caused strong interference between 14260 and 14350 on several days.



5. WX-Fax from Sevastopol on 7090.0 kHz on Dec. 9th

DK2OM found a WX-Fax transmission on 7090.0 kHz. Parameters: 60 rpm – IOC 576 – operated by an old fax-machine. The fax showed the Mediterranean Region, the Black Sea and kyrilic letters. Similar transmissions were observed in 2009. Location: Sevastopol - Ukraine. The screenshot shows a small part!



6. Homepage IARU Region 1

<http://www.iaru-r1.org/>

Homepage IARUMS Region 1

<http://www.iarums-r1.org>

Homepage IARUMS Region 2

<http://www.iaru-r2.org/>

Homepage IARUMS Region 3

<http://www.iaru-r3.org/ms/>

Intruderlogger Region 1

<http://peditio.net/intruder/bluechat.cgi>

ITU-Monitoring Reports:

<http://www.itu.int/ITU-R/index.asp?category=terrestrial&mlink=terrestrial-monitoring&lang=en>

7. A happy and prosperous year 2014 to all our members and friends!

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 DECEMBER 2013

Most listening this month took place at Kilifi on the coast, but very little was observed and propagation appeared to have deteriorated. The broadcast station at Hargeisha, Somaliland, on 7120 kHz was heard daily, but Kampala on 7195 was not. Whether it has departed the frequency or was too weak to be heard is unknown.

E.H.M. Alleyne, 5Z4NU

ARSK – Kenya – 5Z4NU (Ted)

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

DG0JBJ (Mario) observed 94 OTH radars on 20 m, 77 OTH radars on 15 m and 99 OTH radars on 10 m in December 2013. Russian OTH radars are active again on 20 m!

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	1812,0	1720	24	12	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1881,4	ady	dly	12	F		QPSK	100	100	BC-PSK – radio navigation – Nantes – daily, all day
DK2OM	1896,5	ady	dly	12	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy – daily, all day
DK2OM	1925,0	vt	dly	12	I	IPL	USB			Livorno Radio, weather reports – daily, vt
DK2OM	3500,0	vt	dly	12	E		USB			Spanish fishery – every evening
DK2OM	3500,0	vt	dly	12	TUR		FSK8	120	1750	ALE, “201” - Turkish Red Crescent – legal!
DK2OM	3500,0	2259	16	12			USB			someone transmitting music
DK2OM	3500,2	1944	27	12	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3500,9	2248	07	12	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3501,6	vt	dly	12			FSK8	125	1750	Thales 3000 (3500.0 kHz RF) -
DK2OM	3503,0	2000	15	12	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3503,5	vt	dly	12	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3503,7	1713	06	12	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial
DK2OM	3510,0	2103	16	12	E		USB			Spanish fishery

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3519,0	2216	10	12	HOL		USB			Dutch fishery
DK2OM	3520,0	2035	01	12	F		USB			French fishery
DK2OM	3520,0	2045	16	12	I		USB			Italian pirates
DK2OM	3524,0	1623	18	12	BLR		F1B	75	200	Orwha
DK2OM	3527,0	2234	07	12	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3530,0	2133	11	12	E		USB			Spanish fishery – also: 15.12.13 at 2025 utc
DK2OM	3532,0	vt	vd	12	F		PSK4	75	2400	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3535,0	0740	10	12	F		USB			French fishery
DK2OM	3535,0	0749	01	12	E		USB			Spanish fishery – daily, various times
DK2OM	3540,0	1747	19	12	HOL		USB			Dutch fishery
DK2OM	3543,0	2219	19	12	F		USB			French fishery
DK2OM	3545,0	2055	15	12	E		USB			Spanish fishery
DK2OM	3545,0	1559	16	12	F		USB			French fishery
DK2OM	3545,8	1918	14	12	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3548,0	1920	26	12	RUS		F1B	50	200	Moscow
DK2OM	3550,0	vt	vd	12	ALG		FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	3550,0	vt	dly	12	F		A3E			French amateurs not respecting the bandplans – daily (unstable carriers) – every morning
DK2OM	3550,8	2257	16	12	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3553,8	ady	dly	12	TUR		PSK8	2400	2400	Stanag4285 – TUR MIL - Ankara
DK2OM	3560,0	1945	09	12	E		USB			Spanish fishery
DK2OM	3560,5	2032	07	12	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3560,5	2050	17	12	UKR		F1B	75	250	
DK2OM	3561,0	1811	25	12	BLR		F1B	75	250	
DK2OM	3561,8	2032	07	12	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3570,0	2055	01	12	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	3570,0	2111	11	12	E		USB			Spanish fishery with vocoder CRY 2001
DK2OM	3570,0	2010	19	12			USB			2 women in RUS voice
DK2OM	3573,0	1835	13	12	HOL		USB			Dutch fishery
DK2OM	3574,0	1452	09	12	E		USB			Spanish fishery with vocoder CRY 2001
DK2OM	3585,0	2000	dly	12	TWN	HLL	F1C			120 rpm, IOC 576, Wxfax - daily legal!
DK2OM	3587,0	vt	vd	12	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3590,0	vt	dly	12	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy
DK2OM	3591,4	1750	19	12	F		OFDM	44.4	2000	OFDM28 – south of Bordeaux
DK2OM	3593,7	2118	17	12	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	3593,9	2119	17	12	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	3594,0	2120	17	12	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DK2OM	3595,0	vt	dly	12	D		FSK8	125	1750	ALE – German customs
DK2OM	3597,0	vt	dly	12	D		PSK8	2400	2400	Link11 SLEW
DK2OM	3597,0	2120	15	12	UKR		LSB			music, long lasting
DK2OM	3608,0	2307	09	12	RUS		F1B	50	200	Kaliningrad
DK2OM	3617,0	vt	dly	12	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	1930	26	12	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3630,0	2027	15	12	RUS		FMCW		40k 40k	OTHR – 43.5 sps – 3630 – 3670 kHz -- also: 3680 – 3720 kHz – Dagestan – Caspian Sea
DK2OM	3630,0	2125	13	12	RUS		FMCW		30k 30k	OTHR – 43.5 sps – 3630 – 3660 kHz - also: 3685 - 3715 kHz – Makhachkala – Caspian Sea
DK2OM	3700,0	1923	01	12	RUS		FMCW		30k	OTHR – 43.5 sps – 3700 – 3730

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
			02						30k	and 3745 - 3775 kHz – synchronous - Makhachkala – Caspian Sea – also: 02.12.13 at 1950 utc
DK2OM	3720,0	2230	23	12	RUS		FMCW		35k 35k	OTHR – 43.5 sps – 3720 – 3755 kHz and 3760 – 3795 kHz Makhachkala – Caspian Sea – also: 24.12.13 at 1730 utc
DK2OM	3725,0	1617	19	12	RUS		F1B	100	250	idle – very unclear - Kaliningrad
DK2OM	3744,8	2035	22	12	ISR		PSK4 PSK8	75 2400	2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial
DK2OM	3751,5	vt	dly	12	POL	no ITU	FSK8	125	1750	ALE, “IZ3” “MI3”
DK2OM	3756,0	ady	dly	12	UKR		A3E			UKR – pip – 14 tones – hyperbolic navigation system – BRAS-2/RS-10
DK2OM	3761,5	vt	vd	12	POL		FSK8	125	1750	ALE, “NI9” “PL7” “AB2” – Polish MIL
DK2OM	3770,0	1934	28	12	RUS		FMCW		60k	OTHR – 87 sps – 3770 – 3830 kHz – Makhachkala – Caspian Sea – also: 29.12.13 at 2230 utc
DK2OM	3776,0	1939	10	12	RUS		FMCW		60k	OTHR – 43.5 sps – 3776 – 3836 kHz – Makhachkala – Caspian Sea
DK2OM	3782,0	ady	dly	12	POR	CTP	F1B	75	850	POR Navy headquarter Lisbon – disturbed by Russian OTH radar on 18.08.2013 at 1945 utc
DK2OM	3791,0	vt	vd	12	D	DK0ESD	FSK8	125	1750	ALE, “DK0ESD” – just for info!
DK2OM	3792,0	1602	19	12	RUS		F1B	50	200	Kaliningrad
DK2OM	3795,0	1715	24	12	CIS		F1B	81	250	
DK2OM	7000,0	2121	03	12	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV” – spurious from 7038.7 kHz
DK2OM	7000,0	0715	12	12	E		USB			Spanish fishery, sometimes with vocoder CRY 2001
DK2OM	7000,0	1559	18	12	INS		LSB USB			Indonesian pirates singing and chatting – audible in Europe every noon and evening
DK2OM	7000,0	2005	18	12	FEa		FMCW		32k	CODAR like ocean radar with 2.5 sps – 7000 – 7032 kHz - daily
DK2OM	7012,0	1850	05	12	CHN		FMCW		10k	Chinese OTH radar 47 sps – 5.4 sec bursts – audible in Europe and Japan
DK2OM	7012,9	0749	12	12	RUS		OFDM	30	2800	OFDM60 - Kaliningrad
DK2OM	7016,0	2315	03	12	RUS		OFDM			OFDM 93 – Rostov na Donu – very unclear
DK2OM	7018,0	ady	dly	12	RUS		F1B	50	1000	most of the time idle – Russian airforce Moscow – – ident at full hour + 41 min – daily, all day
DK2OM	7020,0	vt	vd	12			FSK8	125	1750	ALE, “CS5004A” “RS0013D” – NC3A network? – area of Kosovo
DK2OM	7020,0	vt	dly	12	INS		USB LSB			Indonesian pirates – village radio - daily
DK2OM	7020,0	1100	05	12	CHN		FMCW		30k	Chinese OTH radar 43.5 sps – 7020 – 7050 kHz
DK2OM	7020,0	1740	06	12	CHN		FMCW		90k	Chinese OTH radar – 43.5 sps – 7020 – 7050 and 7110 - 7140 and 7160 – 7190 kHz – disturbing Region 3
DK2OM	7020,0	1930	28	12	CHN		FMCW		37k	Chinese OTH radar 43.5 sps – 7020 – 7057 kHz – disturbing Region 3
DK2OM	7030,0	1919	01	12	CHN		FMCW		65k	Chinese OTH radar 43.5 sps – 7030 – 7095 kHz
DK2OM	7032,0	2039	08	12	RUS		PSK2A	120	2600	AT3004D - Smolensk
DK2OM	7038,7	1937	02	12	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	7038,8	2141	05	12	RUS	P	A1A			Cluster beacon – Kaliningrad

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										RUS Navy – “RMP”
DK2OM	7038,9	0743	14	12	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	7039,0	2141	05	12	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DK2OM	7039,1	---	---	12	KGZ	A	A1A			Cluster beacon – Bishkek RUS Navy – “RJH25”
DK2OM	7039,2	ady	dly	12	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	2030	02	12	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	7039,4	1938	02	12	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7039,95	ady	dly	12	I	IZ3DVW	A1A			IZ3DVW – uncoordinated beacon, daily, all day
DK2OM	7040,0	vt	dly	12	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	7040,0	1604	18	12	CHN		FMCW		55k	Chinese OTH radar 43.5 sps – 7040 – 7095 kHz – disturbing Region 3
DK2OM	7040,5	vt	dly	12	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7049,5	vt	dly	12	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info!
DK2OM	7054,0	---	---	12	RUS		F1B	50	200	CIS50-50 - RUS Navy Moscow – not active
DK2OM	7055,5	vt	vd	12	GEO		FSK8	125	1750	ALE, “111” “132” “133” - Georgia
DK2OM	7056,0	1925	19	12	CHN		FMCW		10k	Chinese OTH radar 66.7 sps – 5.3 sec bursts - jumping
DK2OM	7060,0	1939	02	12	FEa		FMCW		32k	CODAR like ocean radar with 2.5 sps – 7060 – 7092 kHz - daily
DK2OM	7060,0	1919	22	12	CHN		FMCW		96k	Chinese OTH radar 43.5 sps – 7060 – 7156 kHz - long lasting
DK2OM	7064,0	1424	04	12	CHN		FMCW		10k	Chinese OTH radar 66.7 sps – 2 sec bursts – also audible in West- Canada
DK2OM	7070,0	vt	dly	12	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7072,0	1055	16	12	RUS		PSK2	120	2600	AT3004D – modem idle - Moscow
DK2OM	7077,4	2123	03	12	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV” – spurious from 7038.7 kHz
DK2OM	7088,8	1434	09	12	S	SL0FRO	A1A			7088.830 - cw-trainee, Sweden – kHz – SL0FRO - just for info!
DK2OM	7089,0	0711	09	12	RUS		PSK2	120	2600	AT3004D – submode idle - Voronezh
DK2OM	7089,8	1440	09	12	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – Turkish SE coast
DK2OM	7090,0	1400	09	12	UKR		F1C		800	WX-Fax – 60 rpm – IOC 576 - Sevstopol
DK2OM	7098,0	0838	10	12	RUS		F1B	75	250	Moscow
DK2OM	7099,5	vt	dly	12	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	dly	12	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” “HB9MHB” “9A0ZG” “DK0ESD” – just for info!
DK2OM	7105,0	2200	15	12	CHN		unid		7.5k	broadband digital signal – 7105 kHz center – daily at 2200 - 2300 utc – jammer? – West-China
DK2OM	7105,0	1029	14	12	CHN		FMCW		55k	Chinese OTH radar – 43.5 sps – 7105 – 7160 kHz – disturbing Region 3
DK2OM	7105,0	1140	27	12	CHN		FMCW		40k	Chinese OTH radar – 43.5 sps – 7105 – 7145 and 7155 - 7195 kHz – disturbing Region 3

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7108,0	2018	08	12	CHN		FMCW		37k	Chinese OTH radar – 43.5 sps – 7108 – 7145 kHz
DK2OM	7110,0	vt	dly	12	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7110,0	1921	19	12	CHN		FMCW		42k	Chinese OTH radar – 43.5 sps – 7110 – 7152 kHz - long lasting
DK2OM	7120,0	1700	21	12	SOM		A3E		9k	Radio Hargaysa Somalia, daily
DK2OM	7124,0	1420	04	12	CHN		FMCW		66k	Chinese OTH radar 43.5 sps – 7124 – 7190 kHz - long lasting – also strong in West-Canada
DK2OM	7154,0	1920	19	12	CHN		FMCW		10k	Chinese OTH radar 66.7 sps – 3.9 sec bursts - jumping
DK2OM	7159,0	0817	20	12	RUS		F1B	75	200	
DK2OM	7170,0	1435	29	12	CHN		FMCW		33k	Chinese OTH radar – 43.5 sps – 7170 – 7203 kHz – disturbing Region 3 – audible in West-Canada
DK2OM	7176,0	2300	02	12	RUS		F1B	75	250	Jekaterinburg
DK2OM	7184,0	0720	15	12	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	7185,5	vt	dly	12	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7186,0	0903	29	12	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic – Severomorsk – also: 30.12.13 at 1555 utc
DK2OM	7193,0	0503	03	12	RUS		F1B	50	500	Kaliningrad – very unclear
DK2OM	7193,0	0910	20	12	RUS		F1B	50	200	Kaliningrad
DK2OM	7195,0	1638	28	12	UKR		A1A			encrypted 5 letter groups – “RCV” “RGZ25” – RUS navy Sevastopol
DK2OM	7197,0	1647	24	12	TUR		FSK8	125	1750	ALE, “8241” “206102” “8151” “3021” “3761” “8021” “8141” “3061” “3241” “8411” – Turkish Sivil Avunma = Turkish Civil Defense - source: DL8AAM
DK2OM	7200,0	2200	dly	12	CHN TWN		A3E			2 BCs in Chinese language – Chinese BC and SOH
DK2OM	10100,8	ady	dly	12	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10101,0	1656	11	12	MRC		USB			Moroccan fishery - daily
DK2OM	10102,0	1735	15	12	MRC		USB			Moroccan fishery
DK2OM	10112,0	ady	dly	12	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long – NE of Izmir
DK2OM	10113,0	vt	dly	12	TUN	no ITU	FSK8	125	1750	ALE, “TUD”
DK2OM	10114,8	0630	dly	12	RUS		F1B	100	1000	CIS14 – Penza - daily
DK2OM	10115,0	0720	19	12			FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10120,0	1405	10	12	E		USB			Spanish fishery
DK2OM	10120,0	1555	19	12	FEa		USB			Far East pirates
DK2OM	10121,0	1713	24	12	MRC		USB			Moroccan fishery
DK2OM	10125,0	1741	01	12	E	Manolo	USB			Spanish fishery – also : 06.12.13 at 1730 utc – “Manolo”
DK2OM	10125,0	1650	02	12	TUR		FMCW		20k	OTH radar NW-Turkey – 50 sps
DK2OM	10125,0	1636	04	12			FMCW			Superdarn ionospheric radar - daily
DK2OM	10125,0	1734	06	12	MRC		USB			Moroccan fishery
DK2OM	10130,0	vt	dly	12	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10130,0	1603	12	12	MRC		USB			Moroccan fishery
DK2OM	10130,0	1450	24	12	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	10133,0	1652	16	12	MRC		USB			Moroccan fishery
DK2OM	10134,0	1644	17	12			MRC			Moroccan fishery
DK2OM	10134,6	1455	03	12	F		FSK8	125	1750	Thales 3000 bursts – South France
DK2OM	10135,0	0906	25	12			MFSK		2000	amateurs with ROS – just for info
DK2OM	10135,7	1710	31	12	MRC		USB			Moroccan fishery
DK2OM	10137,8	2245	03	12	IND		PSK8	2400	2400	MIL-188-110A – 600 bps long – Himalaya region
DK2OM	10144,0	ady	dly	12	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – just for

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										info!
DK2OM	10144,0	1525	14	12	F		USB			French amateurs – later on 10146 kHz
DK2OM	10145,5	vt	dly	12	HRV S / D F	9A5EX	FSK8	125	1750	ALE, “9A5EX” “SM5VRH” “DK0ESD” “F6BAZ” - just for info
DK2OM	14000,0	1516	14	12	RUS		FMCW		10k	OTH radar with 10 sps
DK2OM	14001,0	vt	dly	12	CHN		FSK8	125	1750	ALE, “397”
DK2OM	14036,0	ady	dly	12	RUS		F1B	100	2000	harmonic from 7018 – REA4 - Moscow
DK2OM	14036,0	0950	15	12	RUS		PSK2	120	2600	AT3004D – modem idle - Moscow
DK2OM	14052,0	0744	17	12	RUS		PSK2A	120	2600	AT3004D - Omsk
DK2OM	14060,0	vt	vd	12	ISR		FSK8	125	1750	ALE, “AAA” - Israel
DK2OM	14066,0	0740	16	12	RUS		PSK2A A1A	120	2600	AT3004D – North of Omsk – A1A “QRJ3” “QJB3”
DK2OM	14067,9	1300	19	12	BUL		F1B	100	200	Pactor-FEC – Ham-mode – long lasting – “A_JHOST0T_” - endless slip Bulgaria – LZ3CB Pactor mailbox with wrong operation
DK2OM	14109,0	vt	dly	12	ISR	4X1	FSK8	125	1750	ALE, “4X1” “CT2IXQ” – just for info!
DK2OM	14110,0	1545	14	12	RUS		noise		90k	unstable noise floor with fading – 14110 – 14200 kHz – source: defective F1B on 14404 kHz
DK2OM	14116,0	0846	19	12	RUS		F1B	50	250	Kaliningrad
DK2OM	14119,3	0310	07	12	CHN		PSK4	75	2250	PRC 4+4 – East China - idle
DK2OM	14130,0	1144	18	12	RUS		FMCW		10k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14150,0	1526	05	12	RUS		FMCW		10k	Russian OTH radar with 50 sps – Moscow
DK2OM	14165,0	0913	31	12	RUS		FMCW		10k	Russian OTH radar with 50 sps – Nizhny Novgorod
DK2OM	14178,0	0445	03	12	RUS		FMCW		10k	Russian OTH radar with 50 sps – Nizhny Novgorod
DK2OM	14192,0	vt	vd	12	RUS		F1B	50 75	200	RUS Navy Kaliningrad – often daily
DK2OM	14200,0	0730	15	12	RUS		F1B	50	250	broadband QRM on 14200 – 14350 from 14404 F1B !
DK2OM	14205,0	vt	dly	12		no ITU	FSK8	125	1750	ALE, “505” “822” – 60 deg. from DL - CHN ?
DK2OM	14220,0	0925	23	12	RUS		F1B	50	500	Moscow
DK2OM	14221,0	1007	14	12	RUS		F1B	75	500	Moscow
DK2OM	14222,0	0909	31	12	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14234,0	ady	dly	12	RUS	REA4	F1B	100	2000	harmonic from 7117 kHz - most of the time idle – Russian airforce Moscow – ident at 1441 utc on 14235.0 in A1A – daily, all day
DK2OM	14240,0	1500	02	12	RUS		FMCW		20k	Russian OTH radar – 50 sps – area of Moscow
DK2OM	14242,0	0955	15	12	RUS		FMCW		10k	OTH radar – 50 sps – Nizhny Novgorod
DK2OM	14246,0	1155	11	12	RUS		FMCW		10k	OTH radar Nizhny Novgorod – 50 sps
DK2OM	14260,0	vt	dly	12	SRB		FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14265,0	vt	vd	12	TUR		FSK8	125	1750	ALE, “526”
DK2OM	14280,0	vt	vd	12	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine at Rivne
DK2OM	14285,0	0740	16	12	RUS		F1B	50	250	Moscow
DK2OM	14295,0	vt	dly	12	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14295,1	ady	dly	12	TJK		A3E			3 rd from Radio Tajik on 4765 kHz
DK2OM	14300,0	1435	20	12	RUS		FMCW		10k	OTH radar with 10 sps – Nizhniy Novgorod

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14305,0	1508	08	12	RUS		FMCW		10k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14305,0	1350	19	12	CHN		FMCW		10k	Chinese OTH radar 48 sps – 5.5 sec bursts
DK2OM	14309,0	0700	16	12	RUS		FMCW		10k	OTH radar – 50 sps – Nizhny Novgorod
DK2OM	14310,0	1418	04	12	RUS		FMCW		10k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14317,0	vt	vd	12	UKR	RCV	A1A			RUS naval base Sevastopol - encrypted, cyrillic letters
DK2OM	14322,0	1148	18	12	CHN		FSK8	125	1750	ALE, “402”
DK2OM	14328,0	vt	dly	12	CHN		FSK8	125	1750	ALE, “139” “534” “772” – West China
DK2OM	14330,0	vt	dly	12			FSK8	125	1750	ALE, “BV4”
DK2OM	14344,7	2253	13	12	CHN		PSK8	2400	2400	preamble similar MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	0908	13	12	HRV RUS D		FSK8	125	1750	ALE, “9A0ZG” “RX3ARZ” “DK0ESD” – just for info – various times, daily
DK2OM	14346,0	vt	dly	12	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950 kHz - every 5 minutes – just for info!
DK2OM	18100,0	vt	dly	12	MRC	no ITU	FSK8	125	1750	ALE, “C3” “R3”
DK2OM	18107,0	vt	vd	12	RUS	RDL	F1B	50	200	Moscow – idle and traffic – Russian navy – various days and times – legal operation
DK2OM	18138,0	0808	07	12			PSK2	120	2600	AT3004D – submode idle and traffic -
DK2OM	18138,0	0835	15	12	RUS		PSK2A	12	2600	AT3004D - Vladivostok
DK2OM	18140,0	vt	dly	12	SRB	YU1BI	FSK8	125	2600	ALE, “YU1BI” – just for info!
DK2OM	21000,0	vt	vd	12	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil – every Saturday
DK2OM	21000,0	vd	vd	12	E		USB			Spanish fishery, Galician voice, daily, various times
DK2OM	21000,0	1400	dly	12	INS		USB			Indonesian pirates – daily
DK2OM	21000,0	---	---	12	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	0843	07	12	POR		USB			Portuguese fishery
DK2OM	21002,1	---	---	12	SDN		F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen
DK2OM	21050,0	1040	11	12	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	21096,0	vt	dly	12	INS	YD00XH	FSK8	125	1750	ALE, “YD00XH3” – daily, various times - just for info!
DK2OM	21140,8	1028	09	12	MEa		PSK8A	2400	2400	MIL-188-141B –App.C – daily, various times
DK2OM	21145,0	vt	dly	12	MRC		FSK8	125	1750	ALE, “B301”, “C3”, “IR4” “T4” “E4” “A2” “CD” “K3” “KB2” “J5” – various times, daily
DK2OM	21148,3	1012	14	12	INS		LSB			Indonesian pirates
DK2OM	21230,0	0724	02	12	AUS		FMCW		10k	Australian OTH radar JORN – various sweeprates
DK2OM	21318,4	0950	11	12	RUS		F1B	600	600	DPRK-FSK 600 – North Korean emba Moscow
DK2OM	21380,0	1020	11	12	IRN		A3E		9k	spurious from IRIB Kamalabad – IRIB = Islamic Republic of Iran Broadcast
DK2OM	21400,0	0707	06	12	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21436,0	1010	12	12	RUS		PSK2	120	5200	AT3004D – harmonic from 10718 kHz
DK2OM	21438,0	0757	10	12	UKR	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21446,0	ady	dly	12	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	ady	dly	12	FIN		A3E			time signal Helsinki – just for

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	vt	dly	12	CIS		F3E			28000 – 29700 numerous CIS taxi nets – mostly Russia
DK2OM	28000,0	ady	dly	12	B		A3E			Brazilian CBers – 28000 - 28315
DK2OM	28005,0	ady	dly	12	RUS		F3E			taxi net St. Peterburg, daily, all day
DK2OM	28025,0	1227	12	12	POR		F1B	51	320	F1B bursts - west of Lisbon – daily - vt
DK2OM	28030,0	0945	13	12	POR		F1B	51	320	F1B bursts - west of Lisbon
DK2OM	28035,0	vt	dly	12	RUS		F3E			taxi Moscow - daily
DK2OM	28040,1	1602	12	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys
DK2OM	28055,0	1020	12	12	RUS		F3E			taxi Moscow - daily
DK2OM	28055,0	0917	26	12	E		A3E			Spanish CBers
DK2OM	28065,0	0842	28	12	RUS		F3E			taxi Moscow - daily
DK2OM	28100,2	ady	dly	12	POR		F1B	51	320	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys
DK2OM	28105,0	vt	dly	12	RUS		F3E			taxi Moscow
DK2OM	28115,0	vt	dly	12	RUS		F3E			taxi - Moscow - daily
DK2OM	28135,0	vt	dly	12	RUS		F3E			taxi – Barnaul - daily
DK2OM	28146,0	vt	vd	12	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TT” “DL1” – just for info!
DK2OM	28200,0	vt	dly	12	POR		F1B	51	320	F1B bursts - west of Lisbon
DK2OM	28200,0	1420	12	12	F		F3E			French pirates
DK2OM	28205,0	vt	dly	12	RUS		F3E			taxi Moscow
DK2OM	28215,0	vt	dly	12	RUS		F3E			taxi Moscow
DK2OM	28222,0	0952	04	12	RUS		USB			vocoder Yakhta – voice traffic - Ufa
DK2OM	28223,5	0952	04	12	RUS		F1B	100	150	vocoder Yakhta – inband synchro - Ufa
DK2OM	28226,8	0845	04	12	UKR		PSK2A	1200	1200	Sevastopol
DK2OM	28255,0	vt	dly	12	RUS		F3E			taxi Moscow
DK2OM	28260,0	0940	31	12	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	28265,0	vt	dly	12	RUS		F3E			taxi Moscow
DK2OM	28270,0	0850	15	12	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	28275,0	1010	03	12	FEa		A3E			Far East pirates
DK2OM	28305,0	vt	dly	12	RUS		F3E			taxi - Arkhangelsk
DK2OM	29250,0	---	--	12	E		F1B	81.9	140	Datawell-buoy “Waverider” – 29249.905 kHz – Fuerteventura - daily, all day
DK2OM	29375,0	---	--	12	I		F1B	81.9	140	Datawell-buoy “Waverider” – 29374.898 kHz – Galatone, South Italy - daily, all day
DK2OM	29387,5	---	--	12	IND		F1B	81.9	140	Datawell-buoy “Waverider” – 29387,460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29450,0	0858	15	12	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29449.870 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	12	G		F1B	81.9	140	Datawell-buoy “Waverider” – area of Gibraltar – daily, all day
DK2OM	29525,0	---	---	12	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29684,8	---	---	12	I		serial			serial modem, Italian MIL Brescia – Sporadic E!
DK2OM	29699,8	---	---	12	I		serial			serial modem, Italian MIL Brescia – Sporadic E!

IRTS – Ireland – EI5DD (Steve)**KARS – Kuwait – 9K2RR (Faisal)****MRASZ – Hungary - HA7PL (Laci)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3500,0	2033	08	12			A3E		music + unidentified voice
MRASZ	3500,0	1731	09	12			USB		unidentified
MRASZ	3505,0	2033	08	12			USB		music + unidentified voice
MRASZ	3548,0	2004	03	12			A3E		unidentified male
MRASZ	3570,0	1902	13	12			USB		russians
MRASZ	3588,0	1857	16	12			A3E		instabil carrier, weak modulation
MRASZ	3593,7	2010	03	12	UKR	D	A1A		"D" beacon, on 5,8,17
MRASZ	3593,9	2111	03	12	RUS	S	A1A		"S" beacon, on 5,
MRASZ	3595,0	1827	13	12			LSB		russian female, air transport traffic
MRASZ	3597,0	2008	03	12			LSB		ukrainian demonstration "online"
MRASZ	3601,0	2046	08	12			LSB		ukrainian demonstration "online"
MRASZ	3700,0	2022	14	12			OTHR		
MRASZ	7018,0	1426	01	12	RUS	REA4	F1B	1000	Russian N. on 3,5,8,25,26,30,31
MRASZ	7032,0	2130	08	12	RUS		PSK2		AT3004D, on 9,16,
MRASZ	7038,7	1427	01	11	UKR	D	A1A		"D" beacon on 5,9,13,19,24,25,26
MRASZ	7038,8	1427	03	12	RUS	P	A1A		9,13,14,16,17,19,24,25,26, 30,31
MRASZ	7038,9	2055	03	12	RUS	S	A1A		"S" beacon, on 21,26,30,
MRASZ	7039,0	1846	05	12	RUS	C	A1A		"C" beacon
MRASZ	7090,0	1522	26	12			N0N		
MRASZ	7114,0	2132	08	12			A1A		dotter
MRASZ	7120,0	1845	05	12	SOM		A3E		"Radio Harg."5,9,13,17,19,21,30
MRASZ	7135,0	1845	05	12			OTHR		
MRASZ	7162,0	1429	01	12			F1B	250	
MRASZ	7186,0	1552	30	12			PSK2		AT3004D, on 31,
MRASZ	10115,0	1547	31	12			OTHR		10115-10150 kHz, (S9+10dB)
MRASZ	10140,0	2133	08	12			OTHR		10128-10150 kHz
MRASZ	14023,0	1446	31	12			USB		unidentified
MRASZ	14063,8	1032	24	12			A1A		dashes
MRASZ	14250,0	1531	31	12			N0N		
MRASZ	21000,0	1321	31	12			OTHR		
MRASZ	28050,0	0908	01	12			OTHR		as usually, iranian OTHR
MRASZ	28155,0	1220	01	12			NBFM		russian taxi
MRASZ	28255,0	0951	01	12			NBFM		russian taxi

OEVSV – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
oevsv	3500.0	0630	23	12	unid	unid	J3Eu	males in spanish
oevsv	3501.2	2027	09	12	unid	unid	F1B	
oevsv	3516.0	0635	18	12	unid	unid	J3Eu	males in japanese
oevsv	3538.8	2055	09	12	unid	unid	J3Eu	male in french
oevsv	3594.4	2110	08	12	unid	D	A1A	
oevsv	14000.0	0700	10	12	unid	unid	FMcw	lower bandend unusable
oevsv	14024.8	0715	28	12	unid	A	A1A	"A" in 1sec interval

PZK – Poland – SP3UZ (Wladyslaw)

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3510	20.06	04	12			J3E-U			Fishermen about sea conditions
REP	3515	08.33	10	12	E		J3E-U			Fishermen net
REP	3530	17.20	18	12			J3E-U			Unid language (fishery ?)
REP	3545	18.04	11	12			J3E-U			Unid comms.
REP	3700	07.40	10	12	RUS		J3E-U			Russian Navy
REP	7005	07.55	10	12			J3E-U			Tests with any callsigns
REP	7010	07.36	17	12	E		J3E-U			Fishermen to harbour
REP	7015	19.37	11	12	E		J3E-U			Females talking with fishermen
REP	7015	08.19	01	12	E		J3E-U			Fishermen talking about weather
REP	7025	20.35	08	12			F1B	75	240	Unid FSK
REP	7030	22.33	08	12	E		J3E-U			Fishermen
REP	7032	20.14	21	12			FMCW			OTH radar
REP	7035	07.51	16	12	MRC		J3E-U			Fishermen
REP	7038	20.00	14	12	RUS	S	A1A			KALININGRAD, ADY, DLY
REP	7038	22.16	28	12	UKR	D	A1A			SEVASTOPOL, ADY, DLY
REP	7038	22.18	28	12	RUS	P	A1A			MURMANSK, ADY, DLY
REP	7039	22.39	28	12	RUS	C	A1A			MOSCOW, ADY, DLY
REP	7039	22.17	28	12	RUS	A	A1A			VOLGOGRAD, ADY, DLY
REP	7039	22.33	28	12	RUS	F	A1A			KAMCHATSKY, ADY, DLY
REP	7039	21.40	14	12	RUS	K	A1A			VOLGOGRAD, ADY, DLY
REP	7039	21.55	14	12	RUS	M	A1A			MAGADAN, ADY, DLY
REP	7041	21.12	14	12	RUS	L	A1A			St PETERSBURG, ADY, DLY
REP	7060	20.44	19	12			F1B	50	200	Maritime unid FSK
REP	7070	14.50	14	12	I		J3E-L			Music during all afternoon jamming QSO's
REP	10103	09.05	22	12	MRC		J3E-U			Moroccan fishery
REP	10115	23.03	20	12			A3E			Letters Station - 5 letters transmission
REP	10115	19.11	20	12			A1A			Numbers station - 5 figure groups
REP	10120	00.29	20	12			J3E-U			Unid (Navy ?)
REP	10123	14.16	19	12			J3E-U			Unid arabic language
REP	10125	21.04	23	12			J3E-U			Family talking with roger-bips
REP	10130	17.40	19	12			FMCW			OTH radar
REP	10133	17.01	19	12			FMCW			OTH radar
REP	10140	20.07	05	12	B		J3E-U			Brazilian ops
REP	10140	21.46	11	12	MRC		J3E-U			Moroccan fishery
REP	10145	19.45	01	12			FMCW			OTH radar 20kHz wide
REP	10150	16.42	26	12			FMCW			OTH radar disturbing down to 10140MHz
REP	21100	14.35	28	12			FMCW			OTH radar
REP	21115	18.35	29	12	MRC		J3E-U			Fishermen on sea
REP	21200	11.00	06	12			FMCW			OTH radar
REP	21290	14.23	06	12			FMCW			OTH radar
REP	28000	16.27	01	12	B		J3E-U			Brazilian fishermen
REP	28040	13.25	01	12			F1B	51	300	Enagal buoy off Portuguese coast
REP	28150	09.53	21	12	RUS		F3E			Russian taxis dispatchers and ham op
REP	28185	14.01	08	12	IRN		FMCW			Iranian OTH radar
REP	28200	08.52	14	12			FMCW			OTH radar 20kHz wide
REP	28540	12.46	14	12			FMCW			OTH radar 20kHz wide
REP	29155	13.30	08	12			FMCW			OTH radar
REP	29555	12.29	07	12			FMCW			OTH radar 20kHz wide

RSGB - Great Britain – G4BOH (Chris)

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7000,0	1000-1400	*	12		UiCarr	N0N			Days: 3.-10. 16. 17.
SRAL	7012,0	0920-1320/	3.	12		UiPTR	F1B		200	
SRAL	7013,0	0700-0800	12.	12		UiMUX	PSK2	120	2600	
SRAL	7014,0	1040-1225	12.	12		UiMUX	PSK2	120	2600	
SRAL	7016,0	0900-1400	30.	12		UiMUX	PSK2	120	2600	
SRAL	7018,0	1000-2330	dly	12	RUS	REA4	F1B		1000	
SRAL	7018,0	0530-0815	23. 25.	12	RUS	REA4	F1B		1000	
SRAL	7022,0	0615-1500	3. 5. 6.	12		UiMUX	PSK2	120	2600	
SRAL	7030,0	0700-0740/	3.	12		UiPTR	F1B		250	
SRAL	7032,0	0500-1800	8.-18.	12	RUS	UiMUX	PSK2	120	2600	
SRAL	7038,7	h24	dly	12	UKR	D	A1A			Sevastopol, spur. +/- 38,7 kHz
SRAL	7038,8	0445-2030	dly	12	RUS	P	A1A			Kaliningrad, spur. +/- 38,8 kHz
SRAL	7038,9	0430-1700	dly	12	RUS	S	A1A			Severomorsk
SRAL	7039,0	0445-1330	dly	12	RUS	C	A1A			Moscow
SRAL	7051,0	0835	31.	12		UiPTR	F1B		200	
SRAL	7066,0	0720	13.	12		UiCW	A1A			MR 5F
SRAL	7072,0	1000-1435	5. 16.	12		UiMUX	PSK2	120	2600	
SRAL	7089,0	0700-0800	9. 23.	12		UiMUX	PSK2	120	2600	
SRAL	7090,0	0910	3.	12		UiMUX	PSK2	120	2600	
SRAL	7098,0	0700-1000	1. 16.	12	RUS	UiPTR	F1B		250	
SRAL	7110,0	0520-1100	2.	12	RUS	UiMUX	PSK2	120	2600	
SRAL	7118,0	1500-1515	6.	12		UiMUX	PSK2	120	2600	
SRAL	7120,0	0330-0600	dly	12	SOM	R. Hargeisa	A3E			
SRAL	7142,0	0545-1100	*	12		UiPTR	F1B		250	Days: 1. 3. 9. 19. 25.
SRAL	7144,0	0945-1215	1. 3.	12		UiMUX	PSK2	120	2600	
SRAL	7155,0	0550	28.	12		UiMUX	PSK2	120	2600	
SRAL	7159,0	0900	20.	12		UiPTR	F1B		200	
SRAL	7160,0	0800-1023/	17.	12		UiDotter	A1A			25 Hz
SRAL	7162,0	1300-1400	10.	12		UiPTR	F1B		250	
SRAL	7169,0	0700-0800	4.	12		UiMUX	PSK2	120	2600	
SRAL	7170,0	0700-0800	6.	12		UiPTR	F1B		200	
SRAL	7181,7	06451210	15. 20.	12		UiCarr	N0N			
SRAL	7182,0	0910-1245	18.	12		UiMUX	PSK2	120	2600	
SRAL	7186,0	0520-1800	*	12	RUS	UiMUX	PSK2	120	2600	Days: 15. 17. 20. 29. 30. 31.
SRAL	7193,0	0530-1400	*	12	RUS	UiPTR	F1B/ N0N		200	Days: 4.-7. 10. 14.-18.

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7198,0	0840-0910	4. 8.	12		UiMUX	PSK2	120	2600	
SRAL	7199,8	0945-1500	8.	12		UiBC(?)	F3E			Russ. MX
SRAL	14000,0	0725	15.	12		UiOTHR	FMCW			10 Hz / 10 kHz, burst
SRAL	14036,0	1000-1400	dly	12		REA4	F1B		2000	2f
SRAL	14052,0	0920	11.	12		UiMUX	PSK2	120	2600	
SRAL	14068,0	1310	19.	12		UiPTR	F1B		200	
SRAL	14084,0	0655-0705	3.	12		UiCW	A1A			MR 5BL
SRAL	14084,0	0720-0912/	3.	12		UiPTR	F1B		250	
SRAL	14086,0	1020-1130	15. 27.	12		UiMUX	PSK2	120	2600	
SRAL	14116,0	0825-1310	11.	12	RUS	UiPTR	F1B		250	
SRAL	14192,0	0900-1130	1.-11.	12	RUS	UiPTR	F1B		200	
SRAL	14221,0	0920-0927/	8.	12		UiPTR	F1B		500	
SRAL	14222,0	0825	31.	12	RUS	UiMUX	PSK2	120	2600	
SRAL	14268,0	0940-1310	19.	12		UiPTR	F1B		250	
SRAL	14272,0	1150-1208/	3.	12		UiMUX	PSK2	120	2600	
SRAL	14280,0	0705	13.	12		UiOTHR	FMCW			10 Hz / 10 kHz burst
SRAL	14280,0	1115	28.	12		UiOTHR	FMCW			10 Hz / 10 kHz burst
SRAL	14280,0	1135	28.	12		UiOTHR	FMCW			10 Hz / 10 kHz burst
SRAL	14295,2	0515-1430	dly	12	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14 MHz	0700-1500	*	12	RUS	UiOTHR	FMCW			50Hz / 10 kHz, days: 4. 8. 10. 11. 12. 16. 18. 28.
SRAL	18 MHz	0720-1145	15. 25.	12	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz
SRAL	18138,0	0645-1000	1.-9.	12		UiMUX	PSK2	120	2600	
SRAL	21 MHz	0700-1400	*	12	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz, 3. 17. 18. 24. 30.
SRAL	21438,0	0700-1330	dly	12	RUS	RCV	A1A			
SRAL	24 MHz	1200-1445	*	12	CYP / TUR	UiOTHR	FMCW			25 & 50Hz / 20 kHz, days. 4. 14. 30.
SRAL	28 MHz	0920-1315	*	12	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz, days: 1. 8. 10. 12. 14. 15. 17. 20.
SRAL	28 MHz	0900-1430	*	12	CYP / TUR	UiOTHR	FMCW			25 & 50Hz / 20 kHz, days: 1. 8. 11. 13. 14. 15. 17. 20.
SRAL	28 MHz	0810-1205	*	12	RUS	Taxi disp.	F3E			Days: 10. 12.-20. 29 reports

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7000.0	2301	01	12		D	A1A			Beacon D spurious of 7038.7
USKA	7000.0	2042	02	12		21093	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	2044	02	12		2205	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	0241	19	12		102	MFSK8	125	1750	MIL 188-141A
USKA	7010.0	0305	20	12		820499	MFSK8	125	1750	MIL 188-141A
USKA	7015.8	0658	05	12			PSK-8		2k7	unid digital Signal
USKA	7018.0	1757	01	12	RUS	REA4	F1B	100	1k	ID in F1A daily
USKA	7020.0	2258	30	12		810613	MFSK8	125	1750	MIL 188-141A
USKA	7022.0	0650	05	12					2k7	CIS12 system, idling
USKA	7032.0	0925	11	12			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D daily
USKA	7038.7	2233	01	12	UKR	D	A1A			Beacon D Sevastopol daily

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7038.8	2234	01	12	RUS	P	A1A			Beacon P Kaliningrad daily
USKA	7038.9	2219	19	12	RUS	S	A1A			Beacon S Murmansk daily
USKA	7039.4	1218	13	12	RUS	M	A1A			Beacon M Magadan daily
USKA	7079.0	1443	24	12			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7081.0	2255	28	12			F1B	75	250	
USKA	7089.8	1526	18	12			G1D	2400	2k6	PSK-8: Link 11- SLEW often
USKA	7092.0	1923	16	12			A1A			no ham content often
USKA	7105.0	2252	28	12			?		~ 8k	unid signal or jammer? daily
USKA	7120.0	1800	01	12	SOM		A3E			Radio Hargaysa daily
USKA	7170.0	2215	03	12			A3E			BC, unid; music and voice
USKA	7176.0	1508	02	12			F1B	75	250	
USKA	7181.0	1413	31	12			J7D	12x120	2k7	CIS12 idling
USKA	7186.0	2247	28	12			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D often
USKA	7195.0	1629	28	12		RGZ	A1A			letters and figures often
USKA	7197.0	1948	28	12		3011	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1934	28	12		3061	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2101	28	12		3191	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2100	28	12		3231	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1919	28	12		3351	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1850	28	12		3371	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1928	28	12		3421	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1841	28	12		3451	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2111	28	12		3491	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1833	28	12		3561	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2036	28	12		3651	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1834	28	12		3781	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2105	28	12		8051	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2042	28	12		8441	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2109	28	12		8511	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2053	28	12		8611	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	2056	28	12		8721	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7197.0	1737	28	12		206102	MFSK8	125	1750	MIL 188-141A
USKA	7200.0	2251	01	12			A3E		±10k	BC, interfering 40m band daily sounds like Chinese language
USKA	14052.0	0915	11	12			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D 2 pilot tones often
USKA	14067.96	1239	19	12			F1B	100	200	Pactor-FEC, long lasting idling no content, no callsign
USKA	14116.0	1104	19	12			F1B	50	250	
USKA	14192.0	1014	05	12			F1B	50	200	daily
USKA	14220.0	0917	23	12			F1B	50	500	often
USKA	14242.0	0806	28	12			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14261.0	1056	12	12			FMCW	50	10k	OTHR
USKA	14264.0	1110	19	12			FMCW	50	10k	OTHR BD ~4.3 s, BRI ~33.7s
USKA	14268.0	1106	19	12			F1B	50	200	
USKA	14343.0	1100	19	12			FMCW	66.66	10k	
USKA	14344.65	1211	13	12			PSK-8	2400	2k4	similar MIL 188-110, modified burst system daily
USKA	18138.0	0819	05	12			J7D	12x120	2k7	CIS12 often
USKA	21145.0	1007	13	12		GS401	MFSK8	125	1750	MIL 188-141A To:C3
USKA	21145.0	1009	13	12		C3	MFSK8	125	1750	MIL 188-141A To:GS401
USKA	21145.0	1023	13	12		B301	MFSK8	125	1750	MIL 188-141A To: C3
USKA	21145.0	1032	13	12		C4	MFSK8	125	1750	MIL 188-141A To:
USKA	21145.0	1045	13	12		Q2	MFSK8	125	1750	MIL 188-141A To: J5
USKA	21300.0	1207	30	12			FMCW	50 sps	20k	OTHR
USKA	21310.0	0814	05	12			FMCW	50 sps	20k	OTHR
USKA	21318.5	1114	13	12			F1B	600	600	ARQ system often
USKA	21438.0	0831	05	12		RCV	A1A			letters and figures; often
USKA	29210.0	1121	19	12			FMCW	25 sps	20k	OTHR
USKA	29450.0	1104	12	12			F1B	81.9	140	Datawell buoy daily

Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3524,0	16.23	5	12		UiPTR	F1B		Ptr
VERON	3600,0	16.24	5	12		UiPTR	F1B		Ptr
VERON	3608,0	19.19	11	12	RUS	UiPTR	F1B	200	Revs
VERON	7000,0	11.36	26	12	POR	UiILL	J3e-L		Portugese, male voices, fishery?
VERON	7000,0	15.17	26	12	Indonesia	UiILL	J3e-L		Malasian, male voices
VERON	7018,0	14.35	24	12		UiPTR	F1B		Fast Revs (followed by: F1A 5F)
VERON	7018,0	14.41	24	12	RUS	REA4	F1A		24140 5F (followed by: F1B Fast Revs)
VERON	7018,0	21.05	28	12	RUS		F1B	1k	Printer idling
VERON	7038,7	21.31	22	12	UKR	D	A1A		Beacon Sevastopol
VERON	7038,8	16.17	31	12	RUS	P	A1A		beacon P
VERON	7038,9	18.26	28	12	RUS	S	A1A		Beacon Severomorsk
VERON	7120,0	18.50	1	12	SOM	R.Har	A3E		speech
VERON	7142,0	10.57	3	12		UiPTR	F1B		Ptr
VERON	7186,0	16.19	31	12	RUS	UiMUX	PSK2		12 MPSK AT3004D
VERON	7193,0	20.19	28	12					Frequency hopper
VERON	10112,0	14.48	11	12	TUR	UiMux	PSK8	2k4	Stanag4285
VERON	10112,0	14.40	22	12	TUR	UiMux	PSK8	2k4	Stanag4285
VERON	14068,0	12.44	19	12		UiPTR	F1B		Ptr
VERON	14109,0	14.27	22	12					Frequency hopper
VERON	14116,0	12.45	19	12		UiPTR	F1B		Ptr
VERON	14140,0	09.24	6	12		OTHR	FMCW		radar, 20 KHz wide
VERON	14192,0	vt	vd	12		UiPTR	F1B		Revs/Ptr
VERON	14192,0	10.51	3	12	RUS	UiPTR	F1B	200	Revs/Ptr, 4/12 and 6/12 also
VERON	14192,0	08.36	29	12	RUS	UiCAR	NON		carrier
VERON	14223,0	08.38	31	12		UiMUX	PSK2		12 MPSK AT3004D
VERON	14268,0	12.46	19	12		UiPTR	F1B		Ptr
VERON	14292,0	14.42	11	12	RUS	UiPtr	F1B	200	Printer idling
VERON	14308,0	10.53	3	12	RUS	UiPTR	F1B	500	Ptr
VERON	14350,0	10.28	10	12		UiCAR	A1A		Strong Carrier
VERON	21430,0	15.48	28	12	E	UiILL	J3e-U		Spanish, 2 male, 1 female voices
VERON	28209,5	14.15	11	12	KGZ	A	A1A		Beacon Bishkek; harmonic?
VERON	28285,0	13.18	14	12	CIS		F3E		Taxi traffic
VERON	28357,0	11.52	14	12					Frequency hopper
VERON	28655,0	12.11	28	12	CIS		F3E		Taxi traffic

The monitoring team of IARU Region 1

Many thanks for your interest!

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