



Monitoring System

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The monthly newsletter for Region 1

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The 27 members of the IARUMS Region 1 Monitoring Team:



Acknowledgements

ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++ ERASD: SU1SA – Sayed ++ IARC: 4Z1AB – Amos ++ IRTS: EI9GSB - Lisa ++ KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVS: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ROARS: A41MA - Younis ++ RSGB: M0VRR - Vaughan ++ SARL: ZS4GJA - Gideon ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: ON4PN - Patrick 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 (Swiss), OFCOM (UK) ++ Dutch AT ++ SK6AW – DX-Cluster ++ YO9RIJ – Petrica

Part 1: News and Infos

1. Pirates on 28 MHz

We often found pirates from Far East mostly transmitting on FM in the mornings. Locations possibly China, Taiwan and South-Korea.

Chinese intruders on FM:

28125 – 28200 - 28325 – 28350 - 28425 - 28750 – 28875 - 28900 – 28925 - 29012,5 – 29025 - 29100 – 29175
29350 - 29400 – 29512 – 29525 – 29530 - 29575 – 29675

Other intruders as usual: Russian taxis, Brazilian, French and Spanish CBers, fishery buoys, GPS buoys.

28000 – 29000 kHz was crowded of pirates from South America on Sept. 29th in the noon. Many carriers from AM modulated illegal transmissions were visible on the screen. Many Spanish and Portuguese voices were audible. The 10 m-band seems to be a lost band in South America, too.

2. 28 MHz – again OTH radar Iran

The OTH radar from Iran was often disturbing 28600 kHz with strong splatters +/- 400 kHz. Parameters: 307 and 870 sweeps/sec.

3. BC problems

18080 kHz: Sound of Hope – Taiwan and Chinese mainland BC jammer every morning.

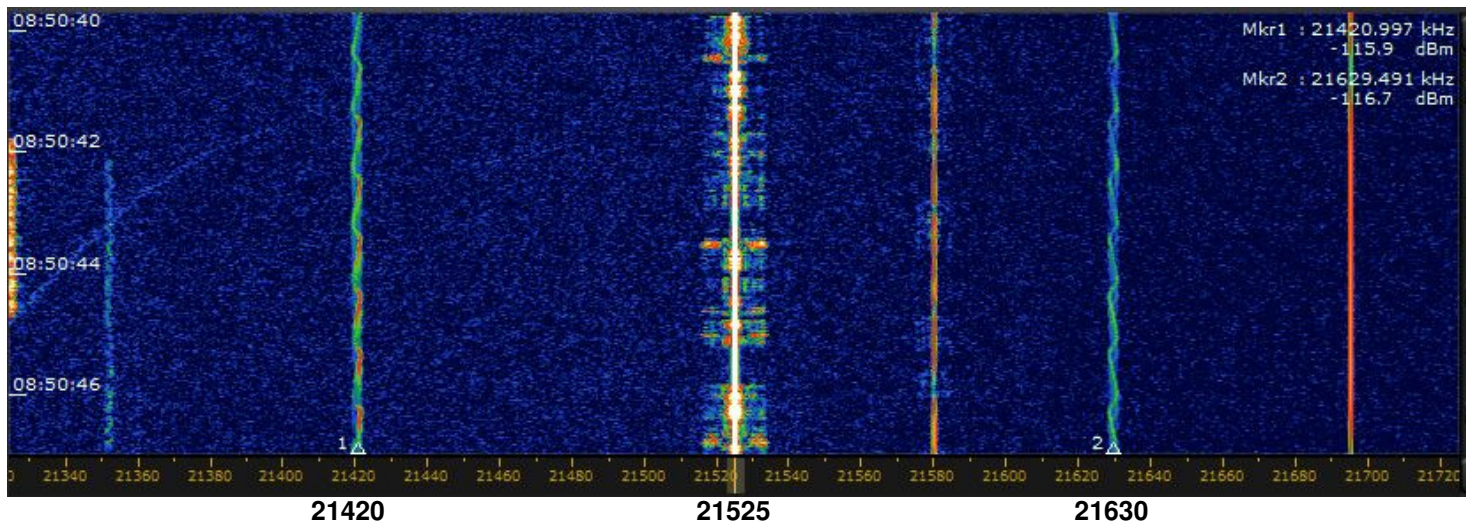
14295.1 kHz: harmonic from Radio Tajikistan on 4765 kHz still active. Complaints by the German and other European PTTs were not observed.

4. Voice of Iran (IRIB) on 21420 kHz with spurious emissions

Voice of Iran produced spurious emissions on 21420 every morning at 0820 utc and later.

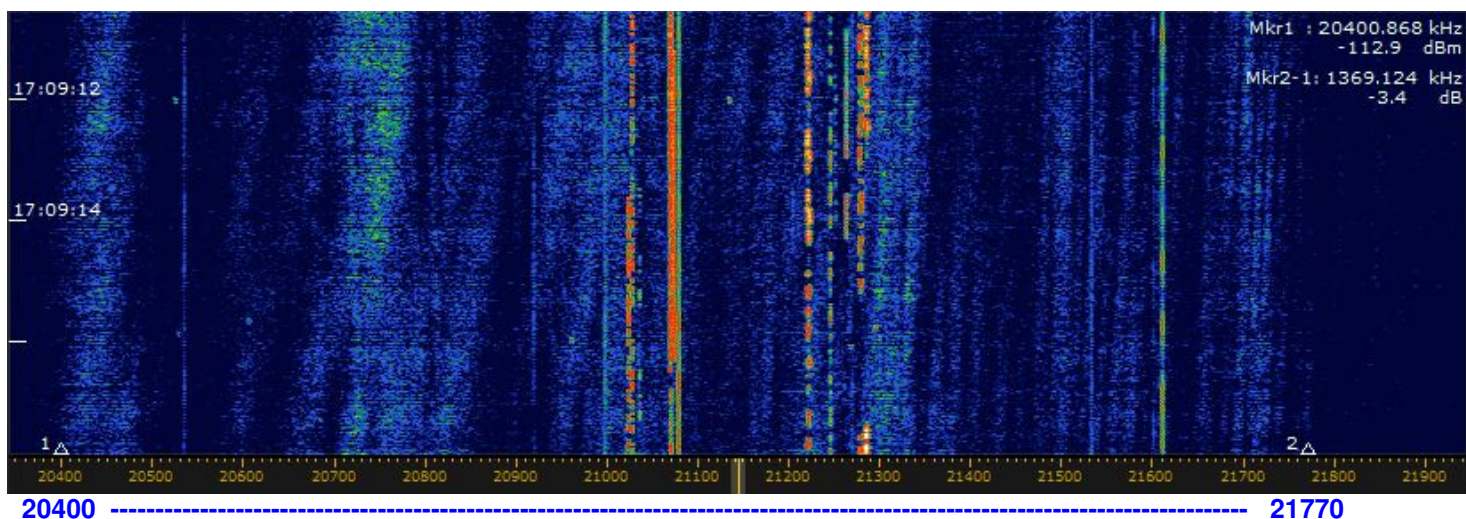
The original BC transmission was on 21525 kHz. The spurious emissions appeared on 21420 and 21530

kHz. The German PTT (BNetzA) filed a complaint **Screenshot by DK2OM on Sept. 13th – timestamps: UTC**



5. Noise floor by the Russian OTH radar “Contayner” on 21 MHz

The Russian OTH radar Contayner produced a noise floor, which covered the complete 21 Mhz-band at Sept. 15th at 1700 utc. **Screenshot by DK2OM on Sept. 15th – timestamps: UTC**



6. 7117 – Russian Airforce again on 40 m

The Russian Airforce Moscow came back to 7117 kHz in time on Sept. 1st. Parameters: F1B (FSK) – 100 Bd – 1000 Hz shift – mostly idling – ident in CW: **REA4** – very unclear signals. Earlier complaints by the German PTT (BNetzA)

brought no results.

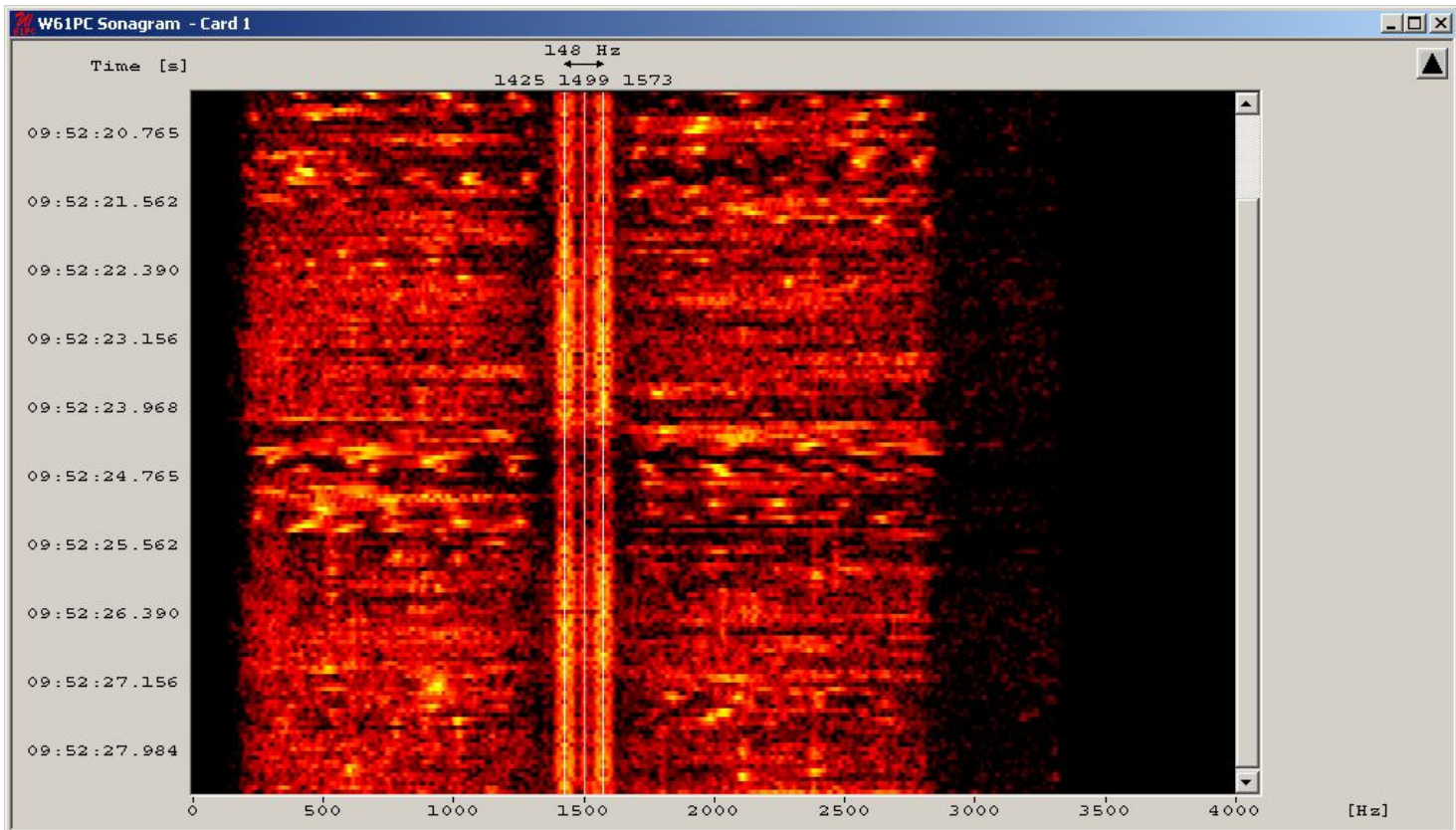
soundfile: <http://www.iarums-r1.org/iarums/sound/7117-rea4.wav>

7. Russian voicescrambler "Yakhta" again on 21000 kHz

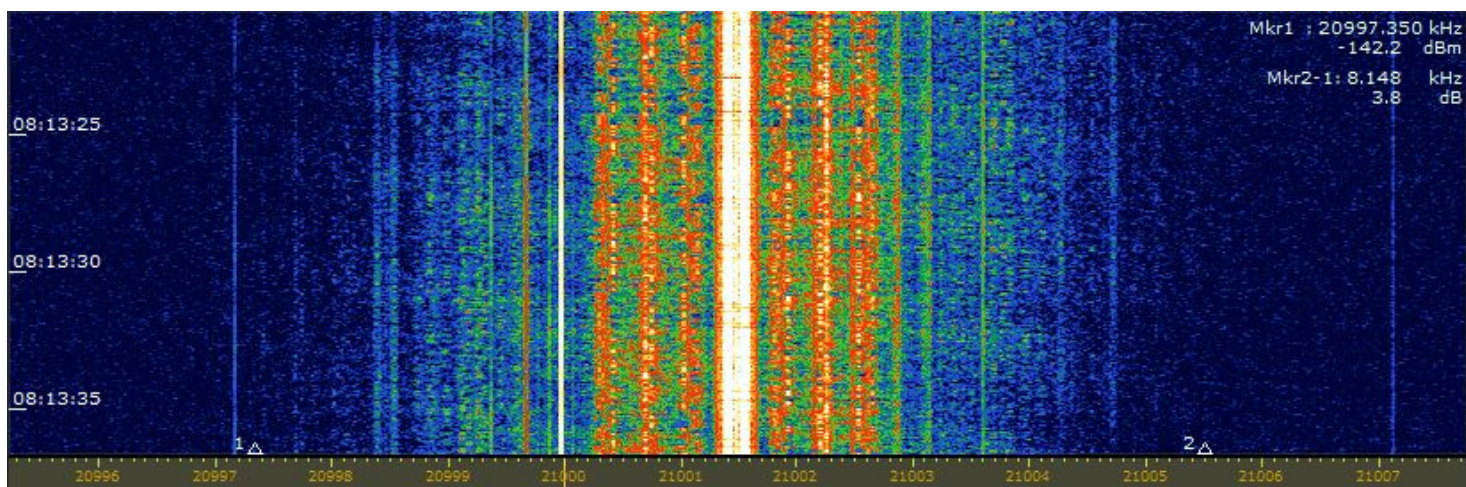
The Russian voicescrambler named "Yakhta" was daily transmitting on 21000 kHz on USB with voice encryption or F1B (FSK) synchro signal. The synchro signal was emitted with 100 Bd and 150 Hz shift. Location: Nizhny Tagil. Observe: Voicescramblers are working on analogue base and often using a FSK-synchro signal! Earlier complaints by the German PTT (BNetzA) were not successful.

soundfile: <http://www.iarums-r1.org/iarums/sound/f1b-yakhta1.wav>

Screenshot: DK2OM with Wavecom W61PC showing the encrypted voice traffic and the inband synchro signal.



Russian voicescrambler Yakhta inband synchro FSK-signal (100 Bd – 150 Hz shift) on 21001.5 kHz with spurious emissions covering about 8 kHz - Location: Nizhny Tagil - screenshot: DK2OM



21001.5

- 9. 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> - The service will continue! TNX OH2BLU!
- ITU-Monitoring Reports: <http://www.itu.int/ITU-R/index.asp?category=terrestrial&mlink=terrestrial-monitoring&lang=en>

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 = othogonal 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 SEPTEMBER 2014

Radio Hargeisha on 7120 kHz continued as usual, but Uganda Radio on 7195 kHz was observed on one day only, although coverage 24/7 is not possible. Unidentified intruders using KiSwahili (who may be military) on 7,000 kHz and others unidentified on 7,075 kHz were also active.

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	7.0000	am	dly	9	?		J3Eu	Unidentified, KiSwahili, East Africa.
ARSK	7,075.00	vt	dly		E. Africa	?	J3E	Unknown African language
ARSK	7120.00	vt	dly	9	Rep.of Somaliland	Hargeisha	A3E	Daily/nightly broadcasts.
ARSK	7195.00	vt	26	9	UGA	Uganda Radio	A3E	B'cast in KiSwahili, music, Luganda & English.

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

DG0JBJ (Mario) observed 56 OTH radars on 20 m, 26 OTH radars on 15 m and 44 OTH radars on 10 m in September 2014. Russian OTH radars were active again on 20 m with 10 and 50 sps – partly 40 kHz wide with splatters!

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	1950	07	09	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1852,0	1950	28	09	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	2011	26	09	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	2014	26	09	I	IQN	USB			Lampedusa Radio, weather reports
DK2OM	1880,0	2016	02	09	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1888,0	2050	14	09	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1925,0	2055	14	09	I	IPL	USB			Livorno Radio, weather reports – daily, vt

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3500,0	vt	dly	09	TUR		FSK8	120	1750	ALE, "201" - Turkish Red Crescent – legal!
DK2OM	3500,0	2011	13	09	E		USB			Spanish fishery
DK2OM	3500,0	1935	30	09	G		USB			UK fishery
DK2OM	3503,5	vt	dly	09	G	no ITU	FSK8	125	1750	ALE – "XSS" "XPU" "XJR" – British MIL Tascomm – vt, daily - legal!
DK2OM	3527,0	2042	08	09	RUS		F1B	50	200	Severomorsk
DK2OM	3530,0	vt	dly	09			FSK8	125	1750	ALE, "11141"
DK2OM	3531,0	1900	vd	09	RUS	REA4	N0N			carrier with spurious emissions, RUS airforce Moscow, ident: 1940 utc – daily, all day
DK2OM	3532,0	2003	21	09	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3550,0	vt	vd	09	ALG		FSK8	125	1750	ALE, "IU50" "IU52" "FN50"
DK2OM	3550,0	0540	08	09	F		A3E			French amateurs not respecting bandplans, every morning
DK2OM	3550,0	2030	01	09	RUS		PSK2A	120	2600	AT3004D – area of Sevastopol
DK2OM	3553,8	ady	dly	09	TUR		PSK8	2400	2400	Stanag4285 – TUR MIL - Ankara – legal operation
DK2OM	3567,0	vt	dly	09	CHN ?		FSK8	125	1750	ALE, "103" "106"
DK2OM	3576,2	1920	23	09	CHN		PSK4	75	2250	3576.23 kHz - PRC4+4
DK2OM	3576,4	ady	dly	09	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3585,0	ady	dly	09	TWN	HLL	FIC			120 rpm, IOC 576, Wxfax - daily - legal!
DK2OM	3587,0	vt	vd	09	E	no ITU	FSK8	125	1750	ALE, "TVV" "TXX" - Spanish Guardia Civil
DK2OM	3590,0	vt	dly	09	PAK	no ITU	FSK8	125	1750	ALE, "KW" "KHAIBAR" – Pakistan navy
DK2OM	3595,0	vt	dly	09	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	1900	vd	09	RUS		USB			woman in Russian voice – often spelling figures - St. Peterburg - daily
DK2OM	3596,0	vt	dly	09	D, S, HRV		FSK8	125	1750	ALE, "DK3CW" "SA6CBK" "9A0PZ" – just for info!
DK2OM	3617,0	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, "9A5EX" – HAM-ALE - just for info
DK2OM	3622,5	ady	dly	09	J	JMH	FIC			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3642,0	1845	12	09	CHN		A1A			endless slip – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3741,5	1831	25	09	RUS		F1B	50	200	Severodvinsk
DK2OM	3751,5	vt	dly	09	POL	no ITU	FSK8	125	1750	ALE, "IZ3" "MI3"
DK2OM	3756,0	2027	28	09	UKR		A3E			UKR – pip – 14 tones – hyperbolic navigation system – BRAS-2/RS-10
DK2OM	3761,5	vt	vd	09	POL		FSK8	125	1750	ALE, "NI9" "PL7" "AB2" – Polish MIL
DK2OM	3767,0	1939	03	09	RUS		PSK2A	120	2600	AT3004D – also 25.09.2014 at 1950 utc - Kaliningrad
DK2OM	3782,0	ady	dly	09	POR	CTP	F1B	75	850	POR Navy headquarter Lisbon
DK2OM	3791,0	vt	vd	09	D	DK0ESD	FSK8	125	1750	ALE, "DK0ESD" – just for info!
DK2OM	7000,0	vt	vd	09	?	no ITU	FSK8	125	1750	ALE, "210" "20989" "2205"
DK2OM	7000,0	1330	20	09	RUS		PSK2A	120	2600	AT3004D – west of Moscow
DK2OM	7000,0	1800	vd	09	FEa		USB			Far East pirates
DK2OM	7000,0	2109	06	09	I		LSB			Italian pirates – splattering up - daily
DK2OM	7000,0	1855	30	09	RUS	D	A1A			spurious from Cluster beacon – Sevastopol RUS Navy – "RCV"
DK2OM	7001,5	2100	06	09	ALG		PSK4A	62.5	1750	Clover 2000 – 8 x 62.5 Bd – South Algeria – also 29.09.204 at 1945 utc
DK2OM	7002,0	1730	08	09	I		LSB			Italian pirates
DK2OM	7020,0	vt	vd	09	INS		LSB USB			Indonesian pirates – village radio – daily, all day
DK2OM	7020,0	vt	vd	09			FSK8	125	1750	ALE, "CS5004A" "RS0013D" –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										NC3A network? – area of Kosovo
DK2OM	7032,0	1915	07	09	RUS		PSK2A	120	2600	AT3004D – Smolensk
DK2OM	7038,7	1935	03	09	RUS	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	7038,8	2002	03	09	RUS	P	A1A			Cluster beacon – 7038.780 kHz - Kaliningrad RUS Navy – “RMP”
DK2OM	7038,9	1936	03	09	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	7039,0	---	---	09	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DK2OM	7039,2	1935	03	09	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	---	---	09	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	7039,4	1950	03	09	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7040,0	vt	dly	09	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	7040,0	ady	dly	09	I		A1A			IZ3DVW – uncoordinated and unwanted beacon
DK2OM	7040,5	vt	dly	09	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7044,0	1601	03	09			F1B	50	250	
DK2OM	7047,37	vt	vd	09	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7049,5	vt	dly	09	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info!
DK2OM	7050,0	1800	dly	09	UKR RUS		LSB			music and chats mentioning Ukraine - daily
DK2OM	7054,0	---	---	09	RUS		F1B	50	200	CIS50-50 - RUS Navy Moscow – not active
DK2OM	7055,5	vt	vd	09	GEO	no ITU	FSK8	125	1750	ALE, “111” “132” “133” - Georgia
DK2OM	7070,0	vt	dly	09	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7071,0	0541	20	09	RUS		PSK2A	120	2600	AT3004D - Samara
DK2OM	7077,4	1900	30	09	RUS	D	A1A			spurious from Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	7078,0	1914	07	09	UKR		PSK2	120	2600	AT3004D – submode idle – north UKR border
DK2OM	7080,0	1850	28	09	RUS		F1B	50	200	Irkutsk
DK2OM	7088,8	---	---	09	S	SL0FRO	A1A			7088.830 - cw-trainee, Sweden – kHz – SL0FRO - just for info!
DK2OM	7089,8	---	---	09	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – area of Izmir
DK2OM	7092,0	vt	vd	09			FSK8	125	1750	ALE, “3014”
DK2OM	7099,5	vt	dly	09	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX” “9A0OS” – daily - just for info!
DK2OM	7102,0	1911	07	09	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” “9A2KS” “HB9MHB” “9A0ZG” “DK0ESD” – just for info!
DK2OM	7110,0	vt	dly	09	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7110,0	vt	dly	09			FSK8	125	1750	ALE, “1101” “1112”
DK2OM	7117,0	2034	01	09	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident at full hour + 40 min. - daily, all day
DK2OM	7120,0	1700	dly	09	SOM		A3E		9k	Radio Hargaysa Somalia, daily
DK2OM	7137,0	vt	dly	09	TWN	no ITU	FSK8	125	1750	LSB – ALE , “ACCENT” “ABLAZE” “ABOUND” “AGHAST” “ARTIST” “ANYWAY” “ABJECT” “ADROIT” – Taiwanese navy – daily – various times - tnx for info: DL8AAM
DK2OM	7139,0	2020	29	09	RUS		PSK2A	120	5200	AT3004D – LSB + USB - Severomorsk

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7141,0	2020	29	09			PSK2	120	2600	submode idle – modem idle -
DK2OM	7153,0	0550	20	09	RUS		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	7160,0	1829	25	09	G		PSK2	120	2600	AT3004D – submode idle – ship – British Channel
DK2OM	7173,0	1608	03	09	UKR		PSK2A	120	2600	AT3004D – traffic and submode idle – West UKR
DK2OM	7183,0	vt	dly	09	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	vt	dly	09	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7186,0	1755	02	09	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic –Severomorsk – also at1856 utc on 06.092014
DK2OM	7195,0	0804	20	09	CHN		unid		10k	Chinese jammer
DK2OM	7197,0	vt	dly	09	TUR	no ITU	FSK8	125	1750	ALE, “8241” “206102” “8151” “3021” “3761” “8021” “8141” “3061” “3241” “8411” – Turkish Sivil Avunma = Turkish Civil Defense - source: DL8AAM – daily, various times
DK2OM	10100,8	ady	dly	09	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10105,0	1732	02	09	RUS		FMCW		85k	Russian OTH radar – 43sps Makhachkala – Caspian Sea - 10105 – 10190 kHz
DK2OM	10110,0	1645	26	09	SNG		FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
DK2OM	10113,0	vt	dly	09	TUN	no ITU	FSK8	125	1750	ALE, “TUD”
DK2OM	10114,8	0600	01	09	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	vd	09		no ITU	FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10117,0	1920	20	09			unid		4.5	broadband system
DK2OM	10123,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “COF” “BSF” ”CM2” “ESA”
DK2OM	10123,0	0613	01	09	RUS		F1B	75	200	Kaliningrad
DK2OM	10123,0	1614	04	09	RUS		PSK2	120	2600	AT3004D – submode idle - Vorkuta
DK2OM	10124,0	2140	16	09	RUS		PSK2	120	2600	AT3004D – modem and submode idle – Far East Russia
DK2OM	10125,0	1012	20	09	MEa		PSK2	120	2600	AT3004D – modem idle and traffic – ship East Mediterranean Sea
DK2OM	10129,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, “CM1” “CTF” “772”
DK2OM	10130,0	vt	dly	09	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10130,0	2000	dly	09	MLE	no ITU	FSK8	125	1750	ALE, “001” “068” – Kuala Lumpur
DK2OM	10133,8	2004	29	09			PSK8	2400	2400	
DK2OM	10136,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	10144,0	ady	dly	09	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – just for info!
DK2OM	10145,5	vt	vd	09	HRV S / D F / G	9A5EX	FSK8	125	1750	ALE, “9A5EX” “SM5VRH” “DK0ESD” “F6BAZ” “MIDFO”- just for info - daily
DK2OM	10150,0	2027	15	09	MRC		USB			Moroccan fishery
DK2OM	14000,0	1647	11	09	PHL		USB LSB			Philippine pirates – daily 1300 utc and later
DK2OM	14000,0	1706	28	09	RUS		FMCW		20k	OTH radar 10 sps – Nizhny Novgorod
DK2OM	14000,0	2130	01	09	RUS		FMCW		250k	spurious from Russian OTH radar – 50sps – 13850 - 14100
DK2OM	14000,0	2037	02	09	E		USB			Spanish fishery
DK2OM	14000,0	2030	19	09	B		USB			Brazilian pirates - Curitiba
DK2OM	14001,3	1655	03	09	MRC		USB			Moroccan fishery
DK2OM	14001,8	vt	dly	09			F1B	100	170	14001.785 kHz - Codan selcal – idents: 9503 - 9504
DK2OM	14001,8	1608	23	09	INS		PSK8	2400	2400	MIL-188-110A – 600 bps long
DK2OM	14001,9	0553	11	09	RUS		OFDM	420	2950	OFDM112 - Moscow

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14002,0	0635	14	09	B		F1B	50	850	Salvador
DK2OM	14002,6	1330	25	09	CHN		OFDM	44.44	2450	OFDM39 - China
DK2OM	14008,0	0636	03	09	RUS		F1B	50	500	Moscow
DK2OM	14018,0	1524	27	09	RUS		FMCW		15k	OTH radar "Contayner" - 50 sps - Nizhny Novgorod
DK2OM	14026,0	0927	08	09	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14038,0	2114	08	09	RUS		FMCW		15k	OTHR Contayner - 50 sps - Nizhny Novgorod
DK2OM	14060,0	vt	vd	09	ISR	no ITU	FSK8	125	1750	ALE, "AAA" - Israel
DK2OM	14108,0	vt	vd	09	RUS	NKSP	A1A			RUS MIL Moscow
DK2OM	14109,0	vt	dly	09	ISR	4X1	FSK8	125	1750	ALE, "4X1" "CT2IXQ" - just for info!
DK2OM	14109,0	vt	dly	09	CAN		FSK8	125	1750	ALE, "VE3GDZ" - just for info!
DK2OM	14123,0	0757	02	09	RUS		FMCW		20k	OTH radar 10 sps - Nizhny Novgorod
DK2OM	14128,0	0755	23	09			PSK4B	120	2600	AT3104D -
DK2OM	14130,0	1315	03	09	RUS		FMCW		20k	OTH radar 10 sps - Nizhny Novgorod
DK2OM	14141,7	0905	23	09	UKR		PSK2A	120	2600	North UKR border
DK2OM	14155,0	1829	30	09	RUS		FMCW		15k	OTH radar 50 sps - Nizhny Novgorod
DK2OM	14160,0	0944	18	09	RUS		F1B	75	250	Moscow - unclear signal
DK2OM	14169,0	0651	02	09	RUS		F1B	50	200	west of Moscow
DK2OM	14180,0	0653	02	09	RUS	RDL	F1B	50	200	Sevastopol - also 08.09.2014 at 0550 utc
DK2OM	14192,0	1345	13	09	RUS		F1B	50	200	RUS navy Kaliningrad - vd, vt
DK2OM	14192,0	1022	24	09	RUS		F1B	50	500	
DK2OM	14197,0	1336	14	09	RUS		F1B	75	200	Perm
DK2OM	14203,9	0902	03	09	RUS		OFDM	29.63	2800	OFDM60 - Kaliningrad
DK2OM	14205,0	vt	dly	09	CHN	no ITU	FSK8	125	1750	ALE, "505" "822" - 60 deg. from DL - CHN ?
DK2OM	14220,0	0758	02	09	RUS		FMCW		10k	OTH radar 10 sps - Nizhny Novgorod
DK2OM	14221,0	vt	dly	09	KGZ		F1B	50	200	Bishkek - daily, every evening
DK2OM	14260,0	vt	dly	09	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" - just for info!
DK2OM	14265,0	vt	vd	09	TUR		FSK8	125	1750	ALE, "526"
DK2OM	14266,0	0818	08	09	RUS		F1B	75	250	St. Peterburg
DK2OM	14280,0	0958	19	09	RUS		FMCW		15k	OTH radar Contayner - 50 sps - Nizhny Novgorod
DK2OM	14280,0	1010	Wed	09	UKR		A3E			female voice with encrypted msgs - figures - "SZRU" = Foreign Intelligence Service of Ukraine at Rivne - every Wednesday
DK2OM	14280,0	1005	26	09	RUS		FMCW		15k	OTH radar "Contayner" - 50 sps - Nizhny Novgorod
DK2OM	14285,0	0735	13	09	RUS		2 x PSK2A	26.93	26.93	2 x PSK2A - 500 Hz distance - Moscow
DK2OM	14295,0	vt	dly	09	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" - just for info!
DK2OM	14295,1	1230	02	09	TJK		A3E			3rd from Radio Tajik on 4765 kHz - daily, all day
DK2OM	14311,0	1036	26	09	RUS		F1B	75	200	Kotelny Island
DK2OM	14314,8	1110	10	09	CHN		OFDM	44.44	2450	OFDM39 - China
DK2OM	14317,0	vt	vd	09	RUS	RCV	A1A			RUS naval base Sevastopol - encrypted, cyrillic letters
DK2OM	14322,0	vt	dly	09	CHN	no ITU	FSK8	125	1750	ALE, "402"
DK2OM	14322,0	0610	01	09			F1B	75	250	unclean F1B -
DK2OM	14328,0	vt	dly	09	CHN	no ITU	FSK8	125	1750	ALE, "139" "534" "772" - West China
DK2OM	14330,0	vt	dly	09			FSK8	125	1750	ALE, "BV4"
DK2OM	14342,0	0747	11	09			F1B	75	250	
DK2OM	14342,0	0926	23	09	RUS		F1B	75	250	Novosibirsk
DK2OM	14344,0	0915	23	09	RUS		PSK2A	120	2600	AT3004D - Novosibirsk
DK2OM	14344,7	ady	dly	09	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short - 14344.650 kHz - daily, all day
DK2OM	14346,0	vt	dly	09	HRV RUS		FSK8	125	1750	ALE, "9A0ZG" "RX3ARZ" "DK0ESD" - just for info -

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
					D					various times, daily
DK2OM	14346,0	vt	dly	09	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950 kHz - every 5 minutes – just for info!
DK2OM	18080,0	0600	dly	09	TWN CHN	SOH	A3E		9k	Sound of Hope / Taiwan and Chinese mainland BC
DK2OM	18100,0	ady	dly	09	MRC	no ITU	FSK8	125	1750	ALE, “CD” “C3” “R3” “G3” “E4” “E5” “Z2” “FORD” – daily, various times
DK2OM	18107,0	0655	02	09	RUS	RDL	F1B	50	200	Moscow – idle and traffic – Russian navy – various days and times – legal operation
DK2OM	18115,0	1040	17	09	G		FMCW		15k	British OTH radar “Cobra Mist” – SE England
DK2OM	18117,5	vt	vd	09	POR	CT2IXQ	FSK8	125	1750	ALE, “CT2IXQ” – just for info
DK2OM	18140,0	vt	dly	09	SRB	YU1BI	FSK8	125	2600	ALE, “YU1BI” – just for info!
DK2OM	21000,0	vt	vd	09	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	1930	vd	09	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil – every Saturday
DK2OM	21000,0	1605	13	09	INS		USB			Indonesian pirates - daily
DK2OM	21000,0	1640	05	09	RUS		USB			voice scrambler Yakhta – Nizhny Tagil
DK2OM	21000,0	1708	15	09			FMCW		2.4M	causing a noise floor from 20400 – 21800 kHz
DK2OM	21000,0	1732	17	09	F		FMCW			OTH radar – 6 sps bursts – South France – full hour 02 min. and then every 15 min.
DK2OM	21000,0	1040	21	09	CHN		A3E			Jammer
DK2OM	21000,0	1925	22	09	E		USB			Spanish fishery – Atlantic Ocean
DK2OM	21001,5	1638	05	09	RUS		F1B	100	150	voice scrambler Yakhta – F1B inband synchro – Nizhny Tagil
DK2OM	21002,1	vt	vd	09	SDN	!0000	F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen – daily, vt
DK2OM	21010,0	1349	13	09	VTN		USB			Far East pirates - Vietnam
DK2OM	21054,8	1510	07	09	MRC		USB			Moroccan fishery
DK2OM	21096,0	vt	dly	09	INS	YD00XH	FSK8	125	1750	ALE, “YD00XH3” – daily, various times - just for info!
DK2OM	21131,0	vt	vd	09	CHN	no ITU	FSK8	125	1750	ALE, “A92” “L02” – Chinese Navy?
DK2OM	21145,0	1855	01	09	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	vt	dly	09	I	IZ3DVW	A1A			21145.764 kHz – IZ3DVW uncoordinated and unwanted beacon
DK2OM	21184,0	1053	17	09	RUS		F1B	50	200	Vladivostok
DK2OM	21190,0	0644	22	09			F1B	100	1000	harmonic from 10595 kHz
DK2OM	21250,0	1318	30	09	AUS		FMCW		10k	Australian OTH burst radar JORN – 39 sps and other sweeprates
DK2OM	21295,0	0802	02	09	AUS		FMCW		10k	Australian OTH burst radar JORN – 44 sps – 1.6 sec bursts
DK2OM	21315,0	1639	15	09			FMCW		40k	
DK2OM	21346,0	ady	dly	09	THA	HS0ZEA	A1A			beacon “HS0ZEA” – just for info!
DK2OM	21409,5	0623	15	09	RUS		F1B	100	2000	21409,5 - F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21420,0	0820	13	09	IRN	IRIB	A3E			distorted spurious from 21525.0 “Voice of Iran” – also on 21630 kHz – daily at 0820 utc
DK2OM	21432,0	0743	16	09	RUS		PSK2A	120	2600	harmonic from 10716 kHz – Russian ship - Bosphorus

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	21438,0	0822	17	09	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21445,0	1040	02	09	CHN		A3E		20k	spurious from Radio Free Asia and Chinese jammer on 21455 kHz
DK2OM	21446,0	ady	dly	09	THA	HSOZEA	A1A			HSOZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	ady	dly	09	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	vt	dly	09	CIS		F3E			28000 – 29700 numerous CIS taxi nets – mostly Russia
DK2OM	28000,0	ady	dly	09	B		A3E			Brazilian CBers – 28000 – 28315 – no change
DK2OM	28000,0	0925	07	09	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28000,0	0926	06	09	FEa		A3E			Far East pirates
DK2OM	28005,0	vt	dly	09	RUS		F3E			taxi net St. Peterburg, daily, all day
DK2OM	28005,0	1935	07	09	MEX		A3E			pirates in Spanish voice – via remote California
DK2OM	28025,0	1730	28	09	POR		F1B	51	300	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys
DK2OM	28030,0	0930	30	09	POR		F1B	51	300	F1B bursts - west of Portugal – Enagal GPS buoys - daily
DK2OM	28035,0	vt	dly	09	RUS		F3E			taxi Moscow - daily
DK2OM	28045,0	1020	29	09	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28055,0	vt	dly	09	RUS		F3E			taxi Moscow - daily
DK2OM	28065,0	vt	dly	09	RUS		F3E			taxi Moscow - daily
DK2OM	28085,0	0627	01	09	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28085,0	0648	18	09	RUS		F3E			Russian taxi
DK2OM	28090,0	1023	30	09	RUS		F3E			Russian taxi
DK2OM	28095,0	0855	24	09	RUS		F3E			Russian taxi
DK2OM	28101,0	1756	24	09	POR		F1B	51	320	F1B bursts - 28100.780 kHz - west of Lisbon – Enagal GPS buoys – daily, all day
DK2OM	28105,0	0825	22	09	RUS		F3E			taxi Moscow
DK2OM	28105,0	0950	18	09	E		A3E			Spanish CBers – daily, vt – area of Murcia
DK2OM	28115,0	0641	09	09	RUS		F3E			taxi – Kazan – daily – disturbing AFU PSK on 28120
DK2OM	28125,0	vt	dly	09	POR		F1B	51	320	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys – daily, all day
DK2OM	28130,0	0837	24	09	RUS		F3E			Russian taxi
DK2OM	28135,0	0900	17	09	RUS		F3E			taxi – Barnaul - daily
DK2OM	28135,0	0945	24	09	E		A3E			Spanish CBers
DK2OM	28145,0	1340	12	09	RUS		F3E			RUS taxi - daily
DK2OM	28146,0	vt	vd	09	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28155,0	ady	06	09	RUS		F3E			taxi Moscow
DK2OM	28155,4	1110	29	09	RUS		A1A			with spurious – enciphered CW – 5 letter groups - Tschelyabinsk
DK2OM	28165,0	1049	24	09	RUS		F3E			Far East pirates
DK2OM	28165,0	0758	22	09	RUS		F3E			Russian taxi
DK2OM	28170,0	1031	12	09	RUS		F3E			Russian taxi
DK2OM	28175,0	1432	24	09	RUS		F3E			Russian taxi Ufa
DK2OM	28175,0	1043	24	09	FEa		F3E			Far East pirates
DK2OM	28190,0	0820	29	09	RUS		F3E			RUS taxi
DK2OM	28195,0	1005	12	09	RUS		FM			Russian taxi
DK2OM	28200,0	vt	dly	09	POR		F1B	51	300	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28200,0	1030	08	09	FEa		F3E			Far East pirates
DK2OM	28205,0	vt	dly	09	RUS		F3E			Russian taxi Saransk
DK2OM	28235,0	0931	06	09	RUS		F3E			Russian taxi

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28245,0	0940	11	09	E		A3E			Spanish CBers
DK2OM	28265,0	0931	06	09	RUS		F3E			taxi Moscow
DK2OM	28275,1	vt	dly	09	AF		F1B	51	320	F1B bursts – African west-coast – Enagal GPS buoys - daily
DK2OM	28285,0	vt	dly	09	RUS		F3E			taxi Moscow
DK2OM	28305,0	vt	dly	09	RUS		F3E			taxi Arkhangelsk
DK2OM	28315,0	vt	dly	09	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28315,0	0955	06	09	FEa		A3E			Far East pirates
DK2OM	28325,0	0826	06	09	RUS		F3E			Russian taxi
DK2OM	28335,0	0846	06	09	RUS		F3E			Russian taxi
DK2OM	28435,0	0937	30	09	E		F1B	81.9	140	Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol - Malaga
DK2OM	28500,0	1230	10	09	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28600,0	1340	12	09	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 400kHz
DK2OM	28760,0	0848	06	09	RUS		F3E			Russian taxi
DK2OM	28775,0	0938	30	09	RUS		F3E			Russian taxi
DK2OM	28815,0	1400	24	09	RUS		F3E			Russian taxi
DK2OM	28870,0	1200	18	09	RUS		F3E			RUS taxi
DK2OM	28895,0	0848	06	09	RUS		F3E			Russian taxi
DK2OM	29087,3	1245	21	09	THA		FM			pirates from Thailand
DK2OM	29250,0	---	--	09	E		F1B	81.9	140	Datawell-buoy “Waverider” – 29249.905 kHz – Fuerteventura - daily, all day
DK2OM	29375,0	---	--	09	I		F1B	81.9	140	Datawell-buoy “Waverider” – 29374.898 kHz – Gallipoli, South Italy - daily, all day
DK2OM	29387,5	---	--	09	IND		F1B	81.9	140	Datawell-buoy “Waverider” – 29387,460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29450,0	---	--	09	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29449.870 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	09	G		F1B	81.9	140	Datawell-buoy “Waverider” – area of Gibraltar – daily, all day
DK2OM	29525,0	---	---	09	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29685,5	---	--	09	I				2000	serial modem, Italian MIL Brescia
DK2OM	29699,8	---	--	09	I				2000	serial modem, Italian MIL Brescia

IRTS – Ireland – EI9GSB (Lisa)

KARS – Kuwait – 9K2RR (Faisal)

MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3510,0	1821	11	9			N0N			
MRASZ	3511,0	1833	11	9			A1A			"2T 1 2T 1 2T 1"
MRASZ	3511,0	1835	11	9			A1A			"173 173 3T 3T==T95T4 (2x) 19167 (2x)
MRASZ	3512,0	1846	11	9			F1B		250	
MRASZ	3527,0	1834	9	9			A3E			ui man, with instable carrier
MRASZ	3548,0	1823	11	9			F1B		250	
MRASZ	3548,0	1847	11	9			F1A			"RDL 69416"
MRASZ	3595,0	1748	4	9			USB			russian male/female: numbers, hrd: 11,16,
MRASZ	3725,0	1825	11	9			N0N			
MRASZ	7000,0	1659	25	9			LSB			italian ham? IT9ECY with others
MRASZ	7019,0	0830	5	9			F1B		450	
MRASZ	7027,0	1820	11	9			F1B		250	
MRASZ	7038,7	vt	ady	9	UKR	D	A1A			"D" beacon, sometime "wrong" letter
MRASZ	7038,9	1946	8	9	RUS	S	A1A			"S" beacon, hrd on: 9, 25
MRASZ	7039,0	1946	8	9	RUS	C	A1A			"C" beacon, hrd on 30
MRASZ	7039,2	1743	22	9	RUS	F	A1A			"F" beacon, hrd on 24
MRASZ	7050,0	vt	ady	9	UKR		LSB			ukr. "revolution" hrd allmost every evening
MRASZ	7055,0	vt	ady	9	UKR		LSB			ukr. "revolution" hrd allmost every evening
MRASZ	7080,0	1745	24	9			A1A			dashes hrd on 25
MRASZ	7117,0	vt	ady	9	RUS		F1B	100	1000	Russian Navy
MRASZ	7120,0	vt	ady	9	SOM		A3E			BC, Radio Hargaysa
MRASZ	7124,0	1736	4	9			PSK2			AT3004D
MRASZ	7134,0	1735	4	9			F1B		200	
MRASZ	7138,0	1629	25	9			N0N			
MRASZ	7158,0	1733	4	9			A3E			hrd on 25
MRASZ	7175,0	1728	4	9			N0N			
MRASZ	7182,0	1729	4	9			N0N			
MRASZ	7182,0	1944	8	9			F1B		200	
MRASZ	7186,0	1942	8	9			PSK2			AT3004D
MRASZ	7186,0	1824	9	9			PSK2			AT3004D
MRASZ	7199,0	1731	4	9			F1B		250	
MRASZ	10128,0	1815	11	9			F1B		250	
MRASZ	14098,5	0809	5	9			A1A			"de E3DX K" "RK"
MRASZ	14108,0	1032	25	9			N0N			
MRASZ	14150,0	1840	30	9			OTHR			14142-14162
MRASZ	14177,0	1030	25	9			F1B			hrd : 30
MRASZ	14180,0	1934	8	9	RUS		F1B		200	hrd: 11, 24,
MRASZ	14290,0	921	11	9			OTHR			
MRASZ	14295,1	1940	8	9	TJK		A3E			Radio Tajikistan, 3 x 4765 kHz, hrd 11,22,24
MRASZ	18068,0	1608	16	9			OTHR			18068-18150
MRASZ	18107,0	0832	5	9			F1B		200	hrd: 9, 25

OEVSV – Austria – OE3GSA (Gerd)**PZK – Poland – SP9BRP (Jan)****REF 1 – France – F5MIU (Francis)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Baud	Sh Hz	DETAILS
REF	18105,5	7h53	24	09			RTTY	50	200	continuous data no callsign stop at 8h00

REF 2 – France – F5JBR (Andre)**REP – Portugal – CT4AN (Jose Francisco)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3500	18.14	02	09			J3E-L			Unid language intruders
REP	3615	20.01	17	09	MRC		J3E-U			Fishermen
REP	3685	08.50	16	09	RUS		J3E-U			RUS Navy
REP	3770	08.12	03	09	E		J3E-U			Spanish fishery
REP	7000	11.00	04	09			FMCW			OTH radar
REP	7000	22.21	13	09	B		J3E-U			OM calling CQ
REP	7030	20.10	55	09			FMCW			OTH radar
REP	7030	21.30	15	09	E		J3E-U			Fishermen
REP	7039,0	22.51	15	09	RUS	C	A1A			MOSCOW, ADY, DLY
REP	7038,6	21.05	15	09	RUS	S	A1A			KALININGRAD, ADY, DLY
REP	7054	21.52	04	09	RUS		F1B	50	200	Encrypted FSK
REP	7070	01,30	23	09			J3E-L			Popular Portuguese music & fados
REP	7070	18.02	19	09	I		J3E-L			Italian music jamming ongoing QSO
REP	7110	02,30	23	09			J3E-L			Spanish Musics
REP	7120	22.18	06	09	SOM		8k00 A3EGN			Radio Hargeyza
REP	10100	19.54	28	09			J3E-U			Unid arabic OM
REP	10120	20.03	12	09	B		J3E-U			Brazilian military
REP	10120	22.01	19	09			FMCW			OTH radar
REP	10123	08.33	01	09	IRL		J3E-U			Irish fishermen
REP	10130	21.07	08	09	MRC		J3E-U			Moroccan fishery
REP	10135	22.04	20	09			FMCW			OTH radar 20kHz
REP	10138	21.50	09	09			FMCW			OTH radar
REP	10140	18.51	20	09			FMCW			OTH radar
REP	10141	09.00	22	09	E		J3E-U			Spanish fishery
REP	10145	20.49	05	09			A3E			Letters 5
REP	10150	19.20	26	09			FMCW			OTH radar 20kHz
REP	14000	10.02	15	09			F1B			Not Standard
REP	14035	13.40	29	09			J3E-U			Unid ops
REP	14135	12.00	30	09	RUS		FMCW			OTH radar 10kHz/10 cps, Russia
REP	14145	11.09	09	09			FMCW			OTH radar 20kHz
REP	14145	14.02	09	09	I		J3E-U			Talks ship to ship about weather
REP	14197	17.11	15	09			F1B	75	200	Unid F1B system
REP	14280	09.39	19	09	R		FMCW			OTH radar 50sps 20kHz - Russia
REP	18092	09.11	24	09			FMCW			OTH radar
REP	18100	08.15	27	09	B		A3E			Brazilian illegal ops
REP	21000	10.11	16	09	RUS		F1B	100	150	Russian
REP	21000	16.04	16	09			J3E-U			Brazilian fishermen
REP	21001	18.09	09	09	R		F1B	100	150	voice scrambler Yakhta inband synchro
REP	21115	18.48	01	09			J3E-U			Fishermen
REP	24955	18.11	30	09	B		J3E-L			Brazilian illegal ops
REP	28135	18.15	30	09	B		A3E			Brazilian illegal ops & music
REP	28155	17.08	28	09	B		A3E			Brazilian illegal ops, most afternoons
REP	28205	13.10	16	09			FMCW			OTH radar
REP	28230	11.50	16	09	IRN		FMCW			OTH radar, Iran
REP	28295	15.30	16	09	B		A3E			Brazilian cb'ers
REP	28315	18.15	30	09	B		A3E			Brazilian illegal ops
REP	28600	09.47	21	09	IRN		FMCW			Iranian OTH radar (all day)
REP	29130	14.00	18	09	RUS		F3E			Russian taxi
REP	29135	15.51	22	09	RUS		F3E			Russian taxi
REP	28xxx	-	-	09	B		A3E / F3E			Brazilian ilegal ops most afternoons

RSGB - Great Britain – M0VRR (Vaughan)

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7000,0	0830,1 340	12. 20.	9		UiMUX	PSK2	120	2600	
SRAL	7008,0	1630	8.	9		UiMUX	PSK2	120	2600	
SRAL	7008,0	1200	17.	9		UiPTR	F1B		250	
SRAL	7012,0	0800- 1740	14.	9	RUS	UiMUX	PSK2	120	2600	
SRAL	7018,0	1715- 1730/	11.	9		UiMUX	PSK2	120	2600	
SRAL	7018,6	0915- 1930	3.	9		UiPTR	F1B/ NON			
SRAL	7025,0	1320- 1850	11.	9		UiPTR	F1B		250	
SRAL	7026,0	1920	2.	9		UiMUX	PSK2	120	2600	
SRAL	7030,0	0800- 1000	13.	9		UiPTR	F1B			
SRAL	7032,0	0500- 1930	7. 8.	9	RUS	UiMUX	PSK2	120	2600	
SRAL	7037,0	0445- 0600	9.	9	RUS	UiMUX	PSK2	120	2600	
SRAL	7038,7	h24	dly	9	RUS	D	A1A			Sevastopol
SRAL	7038,8	0600- 1900	5.-8.	9	RUS	P	A1A			Kaliningrad
SRAL	7038,9	0730- 1920	*	9	RUS	S	A1A			Severomorsk, days: 2. 7. 13. 14. 20. 21. 28.
SRAL	7039,0	0445- 1920	*	9	RUS	C	A1A			Moscow, days: 1. 2. 3. 4. 7. 8. 10. 11. 13. 14. 15. 20. 21. 28. 29.
SRAL	7044,0	1300- 1400	4. 21.	9		UiPTR	F1B/ NON			
SRAL	7045,5	1300- 1620	24.	9		UiMUX	PSK2	120	2600	
SRAL	7045,0	1700	14.	9		UiPTR	F1B		200	
SRAL	7060,5	0850	13.	9		UiPTR	F1B			
SRAL	7072,0	1420- 1625	24.	9		UiMUX	PSK2	120	2600	
SRAL	7077,0	1330- 1355/	11.	9		UiPTR	F1B/ NON		250	
SRAL	7077,5	1225	10.	9		UiPTR	F1B/ NON		250	
SRAL	7078,0	0920- 1920	6. 7.	9		UiMUX	PSK2	120	2600	
SRAL	7079,5	0605- 1630	26.	9		UiMUX	PSK2	120	2600	
SRAL	7080,0	1620- 1930	*	9		RDL	F1B		200	Days: 5. 8. 11. 12. 13. 15. 17. 22. 26. 28. 29. 30.
SRAL	7080,0	0645- 1700	10.	9	RUS	RMW46	A1A			MR 5F
SRAL	7087,0	1645	2.	9		UiMUX	PSK2	120	2600	
SRAL	7096,0	1010- 1525/	17. 18.	9		UiMUX	PSK2	120	2600	
SRAL	7112,0	0700	3.	9		UiPTR	F1B			
SRAL	7114,0	0545	3.	9		UiMUX	PSK2	120	2600	
SRAL	7117,0	1315- 0500	dly	9		UiPTR	F1B		1000	
SRAL	7120,0	0330- 0500	dly	9	SOM	R. Hargeisa	A3E			
SRAL	7120,0	1345- 1900	dly	9	SOM	R. Hargeisa	A3E			
SRAL	7124,0	1100	13.	9		UiMUX	PSK2	120	2600	
SRAL	7132,0	0800	13.	9		UiPTR	F1B			
SRAL	7137,0	1520- 1930	*	9		RDL	F1B		200	Days: 2. 3. 9. 12. 16. 17. MR 5F
SRAL	7151,0	1130- 1430	5.	9		UiMUX	PSK2	120	2600	
SRAL	7155,0	0520- 0620	20.	9		UiMUX	PSK2	120	2600	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7160,0	0600-0700	17.	9	RUS	RMW32	A1A			MR 5BL
SRAL	7162,0	0520-1315	*	9		UiPTR	F1B			Days: 1. 5. 13. 28. 30.
SRAL	7173,0	1615-1930	3.	9		UiMUX	PSK2	120	2600	
SRAL	7176,0	1145-1410	18. 26.	9		UiPTR	F1A			
SRAL	7181,62	0420,1 920	18. 26.	9		UiCarr	N0N			
SRAL	7182,0	1610	6.	9		UiMUX	PSK2	120	2600	
SRAL	7186,0	0215-2215	1.- 19.	9		UiMUX	PSK2	120	2600	
SRAL	7196,0	1200-1400	4. 14.	9		MDVB	A1A			MR 5BL
SRAL	7198,0	1100-0130	*	9	RUS	UiMUX	PSK2	120	2600	Days: 2. 22. 23. 26.
SRAL	7199,0	1745-1930	4.	9		UiPTR	F1B/ N0N		250	
SRAL	7200,0	2200-2350	*	9	IRN	IRIB	A3E			Days: 9. 11. 15. 25. 27.
SRAL	7200,0	1420	7.	9		UiBC	A3E			
SRAL	14008,0	0745-1200	*	9	RUS	UiPTR	F1B/ N0N		500	Days: 10. 13. 14. 21. 23. 25. 26.
SRAL	14026,0	0825-1115	*	9		UiMUX	PSK2	120	2600	Days: 8. 18. 24. 27.
SRAL	14052,0	0805-0850	28.	9		UiMUX	PSK2	120	2600	
SRAL	14116,0	0945-1300	4. 18.	9	RUS	UiPTR	F1B/A		250	
SRAL	14133,0	0655-1300	5. 23.	9		UiPTR	F1B/ N0N		250	
SRAL	14137,0	1230	16.	9	RUS	RYI	A1A			
SRAL	14160,0	0600-1250	*	9	RUS	UiPTR	F1B		250	Days: 18. 19. 30.
SRAL	14169,0	0650	23.	9		UiPTR	F1B		250	
SRAL	14180,0	0430-1930	dly	9	RUS	RDL	F1B/A		200	MR 5F
SRAL	14192,0	0600-1400	*	9	RUS	UiPTR	F1B		200	Days: 1.-9. 13.-19. 21.
SRAL	14197,0	0540-1930	14.- 18.	9		UiPTR	F1B		200	
SRAL	14221,0	1900-0500	10. 11.	9	RUS/ KAZ	UiPTR	F1B		200	
SRAL	14266,0	0500-0810/	*	9		UiPTR	F1B			Days: 8. 22. 29.
SRAL	14295,2	h24	dly	9	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14302,0	0655	24.	9		UiMUX	PSK2	120	2600	
SRAL	14311,0	1055	26.	9		UiPTR	F1B		200	
SRAL	14342,0	0900-1000	23.	9		UiPTR	F1B		250	
SRAL	14344,0	0845-0930	16. 23.	9		UiMUX	PSK2	120	2600	
SRAL	14 MHz	0445-1930	*	9	RUS	29B6	FMCW			50Hz / 15 kHz , days: 8. 14. 18. 19. 20. 21. 25. 26. 30.
SRAL	14 MHz	0600-1830	dly	9	RUS	UiOTHR	FMCW			10Hz / 15 kHz, mostly 30 sec bursts
SRAL	18 MHz	0530-1200	*	9	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 1. 3. 4. 6.
SRAL	18080,0	0600-0715	6. 7.	9	TWN/ CHN	2 x BC	A3E			
SRAL	18107,0	0520-1930	dly	9	RUS	RDL	F1B/A		200	MR 5F
SRAL	21 MHz	0820-1630	*	9	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 8. 12. 24.
SRAL	21001,5	0740-1320	*	9	RUS	Uisync.	F1B		140	Days: 6. 18. 20. 23. 28. 29. 30.

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	21438,0	0730-1500	*	9	RUS	RCV	A1A			Days: 6. 10. 12. 16. 18. 21. 24. 28. 29.
SRAL	24 MHz	1030	5.	9	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz
SRAL	28 MHz	1550	12	9	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz
SRAL	28 MHz	0645-1530	*	9	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz, days: 1. 7. 8. 9. 10. 14. 15. 16. 17. 21. 22. 23. 27. 28.
SRAL	28 MHz	0740-1235	*	9	RUS	Taxi disp.	F3E			Days: 20. 21. 28. 75 reports

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
Part 1 (from holiday qth – 1. to 19. Sept)										
USKA	7024.0	2128	02	09			F1B	75	250	
USKA	7038.7	2035	01	09	UKR	D	A1A			Beacon D Sevastopol daily
USKA	7050.0	2118	01	09			LSB			Voice, chant and music often
USKA	7117.0	2118	02	09			F1B	100	1000	almost daily
USKA	7173.0	2031	03	09			J7D	12x120	2k7	CIS12
USKA	7182.0	2103	06	09			J7D	12x120	2k7	CIS12 idling
USKA	7186.0	2018	01	09			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D often
USKA	14008.0	1202	10	09			F1B	50	500	
USKA	14150.0	2001	05	09			FMCW	50 sps	20k	OTHR
USKA	14160.0	1038	19	09			F1B	75	250	
USKA	14180.0	1912	03	09			F1A		200	long CW, letters and figures
USKA	14180.0	1843	05	09			F1B	50	200	often
USKA	14192.0	1937	01	09			F1B	50	500	
USKA	14192.0	2136	09	09			F1B	50	200	CIS 50-50 daily
USKA	14197.0	2031	14	09			F1B	75	200	often
USKA	14221.0	1817	05	09			F1B	50	200	daily
USKA	14280.0	1638	09	09			F1B	75	250	
USKA	14318.5	1352	19	09			F1B	600	600	ARQ system
USKA	18107.0	1220	01	09			F1B	36	200	CIS 36-50 almost daily
USKA	18107.0	1224	01	09			F1B	50	200	CIS 36-50 almost daily
USKA	18107.0	1921	02	09			F1A		200	long CW, letters and figures
USKA	18130.0	0754	09	09			F1B	100	1k	Harmonic
USKA	18148.0	0816	15	09			F1B	100	1k	Harmonic ?
USKA	21001.5	1448	09	09			F1B	100	150	Vocoder Yakhta almost daily
USKA	21184.0	1359	19	09			F1B	50	200	
USKA	21184.0	1602	19	09			F1A		200	
USKA	21318.55	0900	10	09			F1B	600	600	ARQ system often
USKA	21318.55	1008	10	09			F1B	600	1200	ARQ system
USKA	21345.0	1024	02	09			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	21438.0	1454	03	09		RCV	A1A			letters and figures daily
USKA	24950.0	1039	05	09			FMCW	50	20k	OTHR, continuous mode

Part 2 (from home qth – starting 23. Sept)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7000.0	2231	24	09		D	A1A			Beacon D, spurious of 7038.7
USKA	7001.5	2141	29	09			BPSM QPSM	8x62.5	2k0	Clover 2000 8 tones, spacing 250Hz
USKA	7010.0	0039	29	09		810413	MFSK8	125	1750	MIL 188-141A often
USKA	7015.0	2113	29	09			A3E			sounds like asian music
USKA	7020.0	2016	29	09		810699	MFSK8	125	1750	MIL 188-141A
USKA	7020.0	2050	29	09		820613	MFSK8	125	1750	MIL 188-141A
USKA	7038.7	2134	23	09	UKR	D	A1A			Beacon D Sevastopol daily
USKA	7038.9	2138	23	09	RUS	S	A1A			Beacon S Murmansk daily
USKA	7039.0	1917	30	09	RUS	C	A1A			Beacon C Moscow
USKA	7039.2	2136	23	09	RUS	F	A1A			Beacon F Vladivostok daily
USKA	7039.4	2127	29	09	RUS	M	A1A			Beacon M Magadan daily
USKA	7070.0	2139	25	09		244	MFSK8	125	1750	MIL 188-141A: CMD LQA

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7070.0	2140	25	09		810207	MFSK8	125	1750	MIL 188-141A often
USKA	7070.0	2143	25	09		810210	MFSK8	125	1750	MIL 188-141A often
USKA	7070.0	2147	25	09		MV	MFSK8	125	1750	MIL 188-141A often
USKA	7070.0	2152	25	09		288	MFSK8	125	1750	MIL 188-141A: CMD LQA
USKA	7070.0	2208	25	09		821199	MFSK8	125	1750	MIL 188-141A often
USKA	7070.0	2234	25	09		810204	MFSK8	125	1750	MIL 188-141A often
USKA	7079.5	1609	26	09			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7080.0	1820	26	09			F1B	75	200	often
USKA	7080.0	1911	30	09			F1B	50	200	often
USKA	7080.1	1820	26	09			A1A			Dots only, jammer, stupid, illegal Splatter over >2k !
USKA	7080.1	1911	30	09			A1A			again: dots only, jammer, stupid Splatter up to 2k7 !
USKA	7117.0	2127	23	09			F1B	100	1000	
USKA	7119.0	2125	29	09			J7D	12x120	2k7	CIS12 system idling (weak)
USKA	7120.0	1827	26	09	SOM		A3E			Radio Hargaysa daily
USKA	7137.0	1855	30	09		AKXJUA	MFSK8	125	1750	LSB! MIL 188-141A: To: ACARRD
USKA	7137.0	1858	30	09		AKXJUA	MFSK8	125	1750	LSB! MIL 188-141A: To: AVENGE
USKA	7197.0	2040	24	09		3411	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2046	24	09		3431	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2047	24	09		8811	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2049	24	09		3231	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2051	24	09		3591	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2055	24	09		8191	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2056	24	09		3511	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2057	24	09		8051	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2100	24	09		8131	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2101	24	09		3091	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2104	24	09		8361	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2104	24	09		8491	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2106	24	09		3541	MFSK8	125	1750	MIL 188-141A; CMD LQA
USKA	7197.0	2107	24	09		3151	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2108	24	09		8601	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2110	24	09		8021	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2112	24	09		3631	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2113	24	09		3711	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2115	24	09		3241	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2116	24	09		8481	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2116	24	09		8561	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2122	24	09		3751	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2157	30	09		8141	MFSK8	125	1750	MIL 188-141A
USKA	14008.0	1018	25	09			F1B	50	500	mostly with long intervals often
USKA	14154.0	1922	30	09			FMCW	50 sps	~12k	OTHR; occupied BW >40k
USKA	14180.0	0749	25	09			F1B	50	200	
USKA	14192.0	0812	25	09			F1B	50	200	CIS 50-50 daily
USKA	14192.0	0812	25	09			F1B	50	500	
USKA	14206.0	0823	25	09			FMCW		app 10k	OTHR burst system
USKA	14248.5	1312	30	09			F1B	1200	1200	ARQ system
USKA	14280.0	0831	25	09			F1B	75	250	
USKA	14283.0	0836	26	09			FMCW	50 sps	~15k	OTHR, occupied BW approx 30k
USKA	14311.0	0846	26	09			F1B	75	200	
USKA	14344.65	2129	29	09			PSK-8	2400	2k4	MIL 188-110A variant daily burst system, short intro ton Frame format 600 bps/short
USKA	18107.0	0811	25	09			F1B	36	200	CIS 36-50 almost daily
USKA	18107.0	0811	25	09		RDL	F1A		200	letters and figures in groupes of 5
USKA	18107.0	0833	25	09			F1B	50	200	CIS 36-50 almost daily
USKA	18130.0	0800	26	09			F1B	100	1000	harmonic of 9065 often
USKA	18135.98	0753	26	09			F1B	75	185	
USKA	21001.5	0818	25	09			F1B	100	150	Vocoder Yakhta almost daily
USKA	21145.0	0951	26	09		B301	MFSK8	125	1750	MIL 188-141A often
USKA	21145.0	1001	26	09		C3	MFSK8	125	1750	MIL 188-141A often
USKA	21145.0	1004	26	09		OY	MFSK8	125	1750	MIL 188-141A often
USKA	21145.0	1444	26	09		L6	MFSK8	125	1750	MIL 188-141A often
USKA	21438.0	0821	25	09		RCV	A1A			letters and figures daily
USKA	28600.0	0806	26	09				307 sps 870 sps	app 50k	OTHR Burst system; almost daily occupied BW sometimes > 100k

Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3548,0	19.42	10	9		UiPTR	F1B		Ptr
VERON	3749,0	19.52	2	9		UiCW	A1A		nr 84 S 02 21:51:38 2014 bt WNYBF 5L
VERON	7000,0	07.55	13	9	I	UiILL	J3e-L		Italian, male voices
VERON	7000,0	08.14	14	9	I	UiILL	J3e-L		Italian, male voices
VERON	7001,0	18.05	23	9		UiCW	A1A		dots very fast
VERON	7008,0	08.54	23	9		UiPTR	F1B		Ptr
VERON	7038,7	vt	vd	9	RUS	D	A1A		Beacon Sevastopol
VERON	7038,7	21.30	25	9	RUS	D	A1A		Signing: dbdboodbdoobdbdboo etc.
VERON	7038,7	17.20	1	9	UKR	D	A1A		D-beacon (also at 23/9)
VERON	7038,7	17.37	1	9	UKR	D	A1A		D-beacon
VERON	7038,8	21.31	5	9	RUS	P	A1A		Beacon Kaliningrad
VERON	7038,90	16.35	25	9	RUS	S	A1A		S-beacon
VERON	7038,9	vt	vd	9	RUS	S	A1A		Beacon Severomorsk
VERON	7039,0	17.36	1	9	RUS	C	A1A		C-beacon
VERON	7117,0	18.10	23	9	RUS	UiMUX	PSK2		AT3004D loc. Moscow
VERON	7117,0	18.35	25	9	RUS	UiMUX	PSK2		AT3004D loc. Moscow, also 26/9
VERON	7117,0	vt	vd	9	RUS	UiPtr	F1B	1k	Mostly idling
VERON	7120,0	18.36	25	9	SOM	R.Har	A3E		speech
VERON	7130,0	14.56	6	9					Frequency hopper
VERON	7137,0	15.35	9	9	RUS	?	F1B	200	revs, ptr
VERON	7181,7	21.41	4	9		UiCar			Cont. Carrier; s9+10 with deep QSB
VERON	7184,5	21.15	26	9		UiMux		3k2	Deep QSB; possible Asia
VERON	7186,0	21.36	1	9	RUS	UiMux	PSK2A	2k6	AT3004D
VERON	7192,0	21.39	4	9		UiPtr	F1B	200	
VERON	7197,0	20.09	22	9		UiMux	PSK8	2k6	
VERON	10103,0	21.25	26	9					Frequency hopper
VERON	10112,0	21.55	4	9	TUR	UiMux	PSK8	2k4	Stanag4285
VERON	10121,0	12.23	25	9		UiPTR	F1B		Ptr
VERON	10123,0	21.43	1	9	RUS	UiPtr	F1B	250	
VERON	10123,0	17.17	1	9		UiPTR	F1B		UiPTR
VERON	10131,0	21.54	4	9		UiMux		3k2	White noise like
VERON	10134,0	21.36	25	9	RUS	UiMux	PSK2A	2k6	AT3004D
VERON	10143,0	21.32	26	9		OTHR	FMCW		Codar; 1 sps; weak, deep QSB
VERON	14008,0	vt	vd	9	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	14014,0	07.15	12	9	?	BLGB	A1A		5BL
VERON	14014,0	06.03	16	9	?	BLGB	A1A		ICXG DE BLGB: proc
VERON	14014,0	06.04	16	9	?	BLGB	A1A		4YB1 DE BLGB: proc
VERON	14014,0	06.08	22	9	?	7KGS	A1A		SMVX DE 7KGS proc
VERON	14014,0	06.18	22	9	?	7KGS	A1A		G68T DE 7KGS ZBQ ZNV ZBT QRR3 K
VERON	14014,0	09.12	9	9	CIS	E3DX	A1A		5BL ending 131 k
VERON	14014,0	09.14	9	9	CIS	E3DX	A1A		Calls (to: AMIK GVMT r 063 ? K)
VERON	14014,0	09.21	22	9	CIS	MKW4	A1A		5BL ending 863 rpt al k
VERON	14014,0	09.28	22	9	CIS	7KGS	A1A		ZBU ZNY ZNK QYT9 k (to: SMVX)
VERON	14014,0	09.37	22	9	CIS	7KGS	A1A		QTA QLX QYT9 k
VERON	14014,0	11.09	26	9	CIS	UiCW	A1A		5BL ending 763 k
VERON	14050,0	08.26	9	9		UiPTR	F1B		Ptr
VERON	14133,0	12.58	23	9		UiPTR	F1B		Ptr
VERON	14140,0	21.18	24	9	RUS	OTHR	FMCW	16k	10sps
VERON	14180,0	17.15	1	9	CIS	UiPTR	F1B		Revs/Ptr (also at 11/9)
VERON	14192,0	08.30	1	9	CIS	UiPTR	F1B		Revs/Ptr (also at 10/9)
VERON	18075,0	11.11	4	9		OTHR	FMCW		radar
VERON	18107,0	08.22	9	9	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	18107,0	17.05	11	9	CIS	UiCW	F1A		5F
VERON	18107,0	11.12	26	9	RUS	RDL	F1A		XXX RDL 99560 5F legal
VERON	21438,0	14.30	9	9	RUS	RCV	A1A		RIP90 DE RCV 376 71 9 1426 376 BT
VERON	21438,0	14.30	9	9	RUS	RCV	A1A		NAWIP 033 1819 KARTA (etc)

The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German PTT (BNetzA = Federal Network Agency)

Many thanks for your interest!

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