



Monitoring System

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The monthly newsletter for Region 1

March 2015

The 29 members of the IARUMS Region 1 Monitoring Team:



Acknowledgements

ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ 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) ++ 9K2RR – Faisal (EC-IARU-R1 ++ PTTs: BAKOM (Swiss), BNetzA Konstanz (Germany) ++ OFCOM (UK) ++ Dutch AT ++ SK6AW – DX-Cluster ++ YO9RIJ – Petrica

Part 1: News and Infos

1. The IARU Monitoring System Region 1 now with 29 members

Our Monitoring Team has now 29 members. 27 members are official, because their societies are members of the IARU. The Tunisian society CAST and Romanian ARR will remain as unofficial members but well accepted and informed as before.

New member: Tunisian ARAT as official IARU member. 3V8CB – Ahmed – is now the ARAT MS-Coordinator. Welcome to our family dear Ahmed!

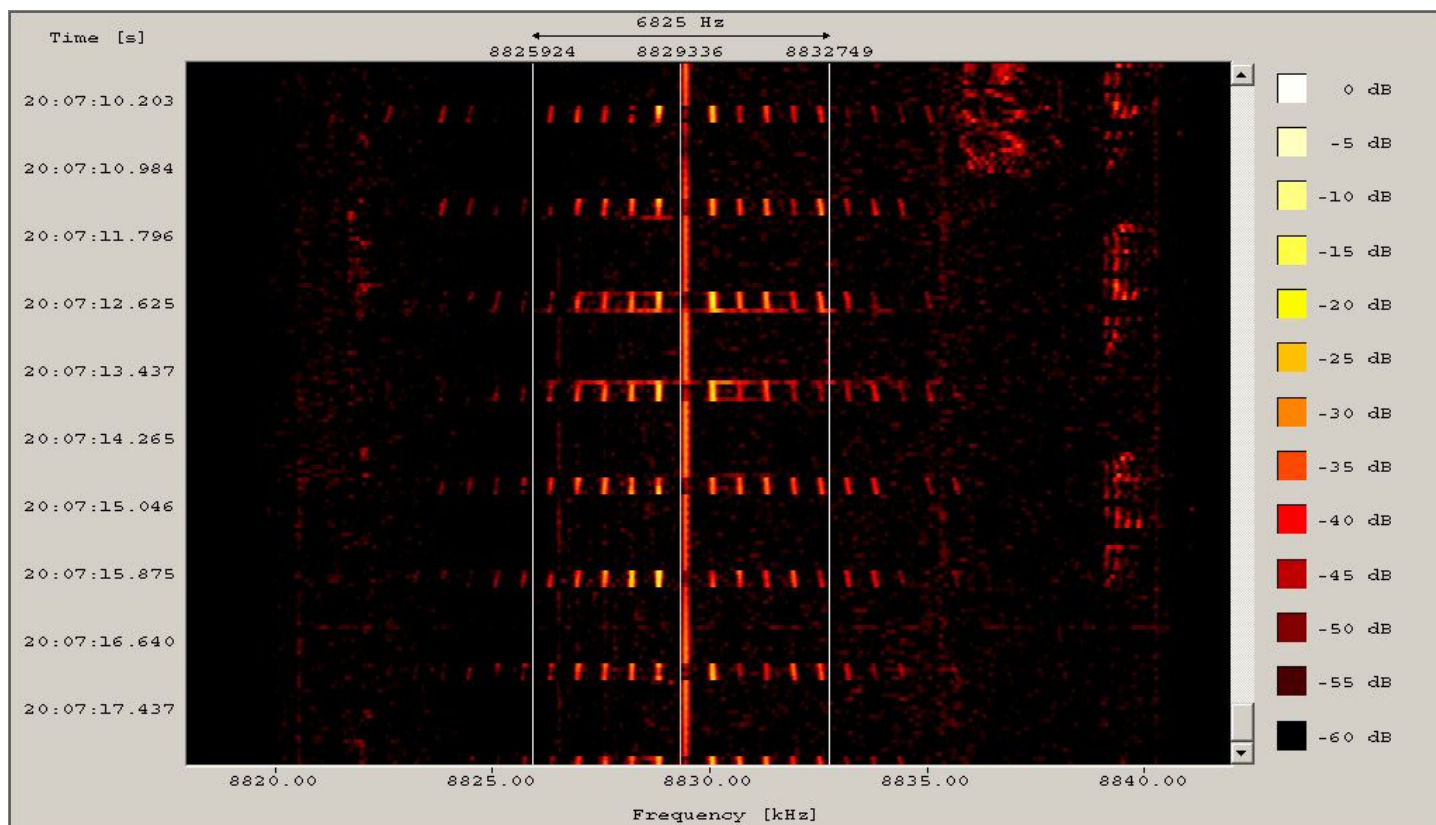
3V8CB – Ahmed – in front of his equipment



2. Russian Radio Navigation System BRAS-3/RS-10 on our bands

This hyperbolic navigation system is well known since many years. It is a helpful tool for ship navigation and still in use by the Russian Navy. You can find it daily on 1814 kHz (location Kaliningrad) and 3756 kHz (location Tuapse – east-coast of Black Sea). Parameters: Transmission mode A3E – carrier and both sidebands with short tone bursts (master and slave) or DSB (both sidebands without a carrier). The system on 3756 kHz is not located in Ukraine! Earlier bearings were not precise enough. The following screenshot by DK2OM shows the carrier and each sideband with 7 tones. Screenshot with Wavecom W61PC

soundfile: <http://www.iarums-r1.org/iarums/sound/3756rus.wav>



3. Good News

The Russian (F1B = FSK) system on 7018 kHz (ident REA4) operated by the Russian Airforce Moscow was no longer active in March 2015.

4. Bad News - BC

Radio Hargaysa (Somalia) was still transmitting on 7120 kHz every afternoon. Radio Ertrea appeared on 7175 kHz with very strong signals in Europe. The carrier was unstable.

The BC-transmitter operated by IRIB Tehran on 21510 kHz still caused severe spurious emissions on 21440 and 21380 kHz in March 9th. I informed the German PTT.

Voice of Turkey on 7205 kHz (daily at 1830 UTC) produced splatters down to 7190 kHz. The transmitter seemed to be overmodulated.

Voice of Iran on 7200 was also audible on 7195.5 during the afternoons. The German PTT was informed.

5. Bad News – 21 MHz

The Russian voice scrambler “Yakhta” was daily heard on 21000 kHz with voice traffic and the inband synchro signal on 21001.5 kHz in F1B mode with 100 Bd and 150 Hz shift. Location: Nizhny Tagil (area of Jekaterinburg)

The Australian OTH radar “JORN” was daily operating on 21295 in seeklight mode with different sweep rates.

6. Bad News – 28 MHz

An Iranian OTH radar disturbed our band daily on 28300, 28600 and 29000 kHz with 307 and 870 sweeps/sec. (low and high tone). The transmissions covered 50 kHz and the splatters +/- 300 kHz.

7. CIS pirates still on 80 m-band

I found again CIS pirates between 3500 and 3550 kHz during the late evenings. They were operating in A3E = AM with unstable carriers. Locations: Russia and possibly Belarus or Ukraine. It is difficult to find them without the assistance of a sonagram (waterfall). Observe my entries below!

8. Mysterious beacon “V” from Vietnam

I observed a mysterious beacon “V” on 14001.4 kHz transmitting in A1A (= CW) only the letter “V”.

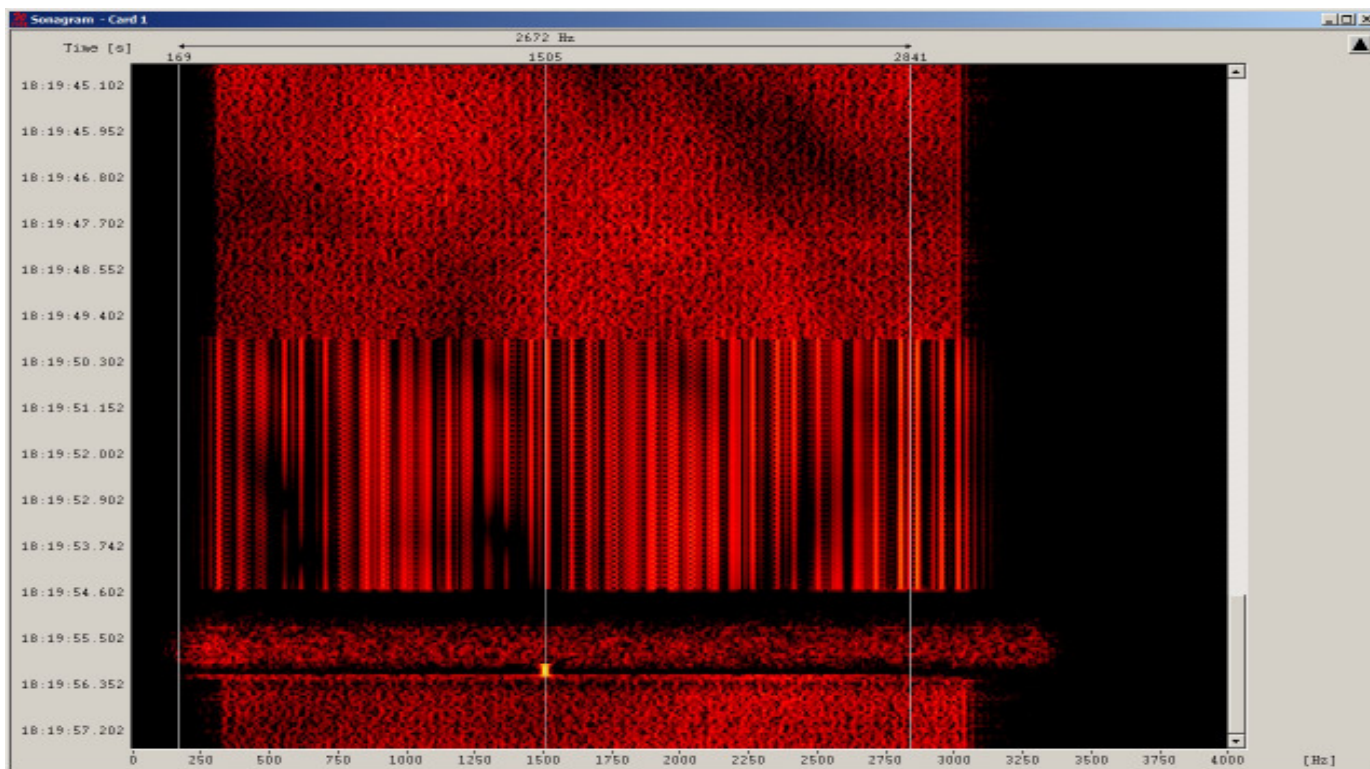
Location: Southern part of Vietnam. Purpose: unknown

9. HFD+VL on 14351.690 kHz

Amateurs asked me for the system on 14351.690 kHz. The system HFD+VL is a test version operated by the University of Las Palmas. It is sounding similar to HF-ACARS (= HFDL) with its intro-tone (1500 Hz AF).

Please observe: The transmissions are out of band! Parameters: OFDM with 73 carriers, shift 2700 Hz

Screenshot: DK2OM with W-Code



10. 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://iaru-r3.org/iaru-region-3-monitoring-system-newsletter/>

Intruderlogger Region 1

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

ITU-Monitoring Reports:

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

updates on our homepage: [Gallery and History of IARUMS Region 1](#)

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 March 2015

Again Radio Hargeisha was heard in full force on 7,120 kHz with broadcasts both by day and night and the Voice of the Broad Masses, Eritrea, came back on 7185 kHz with one day on 7175 kHz. Unidentified stations were again heard on 7,000, 7040 and 7075 kHz. Those on 7,000 kHz were heard more strongly at the coast and may be Kenya military or Police using both English and KiSwahili with phonetics.

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	3	E. Africa	?	J3Eu	Unidentified, KiSwahili, East Africa. Possibly Kenya military or Police.
ARSK	7,038.40	0340	10	3	?	?	A1A	Continuous letter D
ARSK	7,040.00	1245	6	3	E. Africa	?	J3Eu	Unidentified, KiSwahili and vernacular, East Africa.
ARSK	7,075.00	vt	dly	3	E. Africa	?	J3Eu	Unknown African language
ARSK	7,120.00	vt	dly	3	Rep.of Somalia	Hargeisha	A3E	Broadcast
ARSK	7,175.00	1655	4	3	ERI?	VOBM?	A3E	Unidentified language and music. Possibly Ethiopian or Eritrean. Voice of the Broad Masses, Eritrea? Stops at 0600 Z
ARSK	7185.00	1430	26	3	ERI?	VOBM?	A3E	May be VOBM.

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

DG0JBJ (Mario) observed 44 OTH radars on 20 m, 89 OTH radars on 15 m and 97 OTH radars on 10 m in March 2015. A Chinese OTH radar disturbed 160 kHz of our 7 MHz-band on several evenings. The Russian OTH radar Contayner caused strong interference on 7 MHz on several evenings.

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	1814,0	2053	16	03	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1852,0	1830	14	03	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	1829	14	03	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	1829	14	03	I	IQN	USB			Lampedusa Radio, weather

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										reports
DK2OM	1880,0	2110	dly	03	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1888,0	2055	16	03	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1925,0	1831	14	03	I	IPL	USB			Livorno Radio, weather reports – daily, vt
DK2OM	3500,0	vt	dly	03	TUR		FSK8	120	1750	ALE, “201” - Turkish Red Crescent – legal!
DK2OM	3500,0	1640	03	03	FEa		F1B	40.5	500	system Frost 1
DK2OM	3500,1	2040	29	03	CIS		A3E			CIS pirates – unstable carrier – distorted modulation
DK2OM	3501,1	2130	06	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3502,0	2032	02	03	I		LSB			Italian pirates
DK2OM	3503,0	2206	03	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3503,0	2040	09	03	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3503,5	vt	dly	03	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3504,0	2023	02	03	HOL		USB			Dutch fishery – also: 18.03.2015 at 2100 utc
DK2OM	3504,9	2039	09	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3507,7	2020	02	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3508,3	2038	02	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3517,1	2015	15	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3522,0	2105	10	03	D		PSK8	2400	2400	Stanag4285 - Rostock
DK2OM	3523,2	2052	04	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3523,5	2222	18	03	RUS		F1B	150	200	F1B bursts – 4 sec length – RUS selcal system R-016W – Arkhangelsk
DK2OM	3524,0	1920	17	03	UKR		PSK2A	120	2600	AT3004D – submode idle and traffic
DK2OM	3524,5	2208	18	03	UKR		PSK4B	120	2600	AT3104D - Odessa
DK2OM	3526,0	2025	15	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3527,0	2055	04	03	RUS		F1B	50	200	Severomorsk
DK2OM	3527,9	2018	15	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3528,2	2028	15	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3528,9	2017	15	03	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3530,0	vt	dly	03			FSK8	125	1750	ALE, “11141”
DK2OM	3531,8	1930	31	03	CYP		PSK4	75	2300	LINK11-CLEW – ship, area of Cyprus
DK2OM	3533,8	2032	10	03	F		PSK4	75	2300	LINK11-CLEW – area of Brest
DK2OM	3550,0	vt	vd	03	ALG	no ITU	FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	3550,0	0600	dly	03	F		A3E			French amateurs not respecting bandplans - daily
DK2OM	3550,7	2016	02	03	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial - legal operation
DK2OM	3552,0	2109	05	03	RUS		F1B	50	250	Murmansk
DK2OM	3553,8	2016	02	03	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long - TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3560,0	2109	18	03	G		USB			UK fishery – very obscene
DK2OM	3560,0	1745	25	03	E		USB			Spanish fishery
DK2OM	3567,0	vt	dly	03	CHN ?	no ITU	FSK8	125	1750	ALE, “103” “106”
DK2OM	3572,0	2033	18	03	RUS		PSK2	120	2600	AT3004D – submode idle - Kaliningrad
DK2OM	3574,0	2140	23	03	RUS		PSK2A	120	2600	AT3004D - Sochi
DK2OM	3576,4	ady	dly	03	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3585,0	2223	28	03	TWN	HLL	F1C			120 rpm, IOC 576, WX-fax - daily - legal!
DK2OM	3586,5	1750	25	03	F		PSK4A	44.44	1800	OFDM27 – area of Bordeaux
DK2OM	3587,0	vt	vd	03	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3590,0	vt	dly	03	PAK	no ITU	FSK8	125	1750	ALE, "KW" "KHAIBAR" – Pakistan navy
DK2OM	3593,8	2010	11	03	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – "RMP"
DK2OM	3594,0	---	--	03	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - "RIW"
DK2OM	3594,3	---	--	03	RUS	D	A1A			Cluster beacon – Sevastopol RUS Navy – "RCV"
DK2OM	3595,0	vt	dly	03	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	---	--	03	RUS		USB			woman in Russian voice – often spelling figures - St. Peterburg - daily
DK2OM	3596,0	vt	dly	03	D, S, HRV		FSK8	125	1750	ALE, "DK3CW" "SA6CBK" "9A0PZ" – just for info!
DK2OM	3596,0	1930	19	03	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic - Kaliningrad
DK2OM	3617,0	vt	dly	03	HRV	9A5EX	FSK8	125	1750	ALE, "9A5EX" – HAM-ALE - just for info
DK2OM	3617,0	1816	12	03	CHN		PSK2B	60	2400	PRC 30 tone – LSB mode – PSK2B – pilottone 450 Hz AF - China
DK2OM	3622,5	2224	28	03	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3635,0	2110	01	03	CHN		FMCW		103k	Chinese OTH radar – 3635.0 – 3738.0 kHz – 43.5 sps
DK2OM	3637,0	2018	03	03	CHN		FMCW		53k	Chinese OTH radar – 43.5 sps 3637 – 3690 kHz
DK2OM	3640,0	vt	vd	03	G		FSK8	125	1750	ALE, "XSS" - British MIL Tascomm – just for info!
DK2OM	3642,0	1947	18	03	CHN		A1A			endless slip – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3649,0	vt	vd	03	ALG	no ITU	FSK8	125	1750	ALE, "BI20" PA20"
DK2OM	3662,0	vt	vd	03	FEa		A1A			endless slip – RA5J de BP2S
DK2OM	3664,0	2111	30	03	CHN		FMCW		118k	Chinese OTH radar – 43.5 sps – 3664 – 3782 kHz
DK2OM	3688,0	1925	06	03	CHN		FMCW		53k	Chinese OTH radar – 43.5 sps 3688 – 3741 kHz
DK2OM	3697,0	1830	31	03	FEa		F1B	200	850	200 Bd async.
DK2OM	3697,6	1955	17	03	CHN		PSK2	60	2400	PRC 30 tone – USB mode – pilottone 450 Hz - China
DK2OM	3711,2	2000	27	03	G		OFDM	20	2400	OFDM51 – UK MIL – daily, all day
DK2OM	3720,0	vt	dly	03	S		FSK8	125	1750	ALE, "YU" "YT" "YV" "DZ" – Swedish MIL
DK2OM	3720,0	1818	26	03	BLR		F1B	100	250	Minsk
DK2OM	3744,5	2007	12	03	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial - legal operation
DK2OM	3751,5	vt	dly	03	POL	no ITU	FSK8	125	1750	ALE, "IZ3" "MI3"
DK2OM	3756,0	13	03	03	RUS		A3E			RUS – pip – 14 tones – hyperbolic navigation system – BRAS-2/RS-10 – 3756.022 kHz – daily – all day – location: Tuapse – East Black Sea
DK2OM	3761,5	vt	vd	03	POL	no ITU	FSK8	125	1750	ALE, "NI9" "PL7" "AB2" – Polish MIL
DK2OM	3777,0	2030	19	03	FEa		A1A			"RIS9 de M8JF" – endless slip – rcvd via JA
DK2OM	3791,0	2000	27	03	D	DK0ESD	FSK8	125	1750	ALE, "DK0ESD" – daily just for info!
DK2OM	6998,0	vt	dly	03	GRC		FSK8	125	1750	ALE, "GEF" "EK9" – highest tone on 7000.5 kHz – Greek military
DK2OM	6999,0	vt	dly	03			FSK8	125	1750	ALE, "537" "725" – signal center = 7000.625 kHz
DK2OM	7000,0	vt	dly	03	?	no ITU	FSK8	125	1750	ALE, "210" "20989" "2205" "203"
DK2OM	7000,0	vt	dly	03	INS		USB			Indonesian pirates – daily –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
							LSB			audible in Europe in the evenings
DK2OM	7000,0	vt	dly	03	ALG		USB			male persons in Arabic voice
DK2OM	7000,0	---	--	03	RUS	D	A1A			spurious from Cluster beacon – Sevastopol RUS Navy – “RCV” on 7038.7 kHz
DK2OM	7000,0	1619	03	03	ISR		N0N			carrier – long lasting - Israel
DK2OM	7001,5	1842	02	03	ALG		PSK4A	62.5	1750	Clover 2000 – 8 x 62.5 Bd – Algeria – daily, vt
DK2OM	7008,0	1710	23	03	RUS		F1B	50	250	Gagarin
DK2OM	7013,0	1740	24	03	1740		MFSK			CIS-60 - Smolensk
DK2OM	7018,0	---	--	03	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident at full hour + 40 min.
DK2OM	7026,0	1709	17	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	7029,0	1522	23	03	FEa		F1B	40.5	500	system Frost1 = CIS-40.5-500
DK2OM	7030,0	vt	dly	03	INS		LSB USB			Indonesian pirates
DK2OM	7030,0	0315	06	03	RUS		FMCW		13k	OTH radar “Contayner” – 50 sps – Nizhny Novgorod
DK2OM	7035,0	2044	06	03	RUS		FMCW		13k	OTH radar “Contayner” – 50 sps – Nizhny Novgorod
DK2OM	7037,0	1334	12	03	RUS		PSK2A	120	2600	AT3004D – west of Moscow
DK2OM	7038,7	1548	03	03	RUS	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV” - daily – all day
DK2OM	7038,8	---	--	03	RUS	P	A1A			Cluster beacon – 7038.780 kHz - Kaliningrad RUS Navy – “RMP”
DK2OM	7038,9	1630	03	03	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	7039,0	1546	03	03	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DK2OM	7039,2	1542	03	03	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	1942	14	03	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	7039,4	---	--	03	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7040,0	vt	dly	03	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	7040,0	ady	dly	03	I		A1A			IZ3DVW – uncoordinated and unwanted beacon
DK2OM	7040,5	vt	dly	03	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7047,37	vt	vd	03	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7049,5	1452	18	03	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info! daily – various times
DK2OM	7051,5	2150	27	03	AZB		F1B	100	150	voice scrambler Yakhta – F1B inband synchro (T219)
DK2OM	7055,5	vt	vd	03	MEa	no ITU	FSK8	125	1750	ALE, “111” “132” “133” - Caucasus
DK2OM	7060,0	2330	05	03	ALG		FSK8	125	1750	Thales 3000 – close to border of Mali
DK2OM	7065,0	2001	07	03	RUS		FMCW		15k	OTH radar “Contayner” – 50 sps – Nizhny Novgorod
DK2OM	7066,0	1834	11	03	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7066 – 7098 kHz
DK2OM	7070,0	2011	09	03	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7077,4	---	--	03	RUS	D	A1A			spurious from Cluster beacon – Sevastopol RUS Navy – “RCV” on 7038.7 kHz
DK2OM	7088,8	---	---	03	S	SL0FRO	A1A			7088.830 - cw-trainee, Sweden – kHz – SL0FRO - just for

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										info!
DK2OM	7089,0	1920	06	03	FEa		FMCW		33k	Codan like ocean surface radar 2.6 sps – 7089 – 7122 kHz
DK2OM	7089,8	vt	dly	03	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – area of Izmir
DK2OM	7091,5	---	--	03	KAZ	V	A1A			beacon “V” endless – Almaty – Kazakhstan – daily, all day
DK2OM	7092,0	vt	vd	03			FSK8	125	1750	ALE, “3014”
DK2OM	7099,5	vt	dly	03	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	dly	03	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
DK2OM	7110,0	vt	dly	03	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7110,0	vt	dly	03			FSK8	125	1750	ALE, “1101” “1112”
DK2OM	7117,5	1835	02	03	RUS		A1A			encrypted msgs – letters and figures - Chita
DK2OM	7120,0	1700	01	03	SOM		A3E			Radio Hargaysa – Somalia – daily – even audible in Australia and Japan
DK2OM	7121,0	2105	01	03	CHN		PSK2	60	2400	PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz - China
DK2OM	7137,0	1827	31	03	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7137 – 7169 kHz
DK2OM	7137,0	vt	dly	03	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	7137,0	1833	14	03	RUS		F1B	50	200	Kaliningrad
DK2OM	7162,0	0815	19	03	RUS		F1B	75	250	ship – White Sea
DK2OM	7171,0	0920	12	03	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	7175,0	1720	17	03	ERI		A3E			BC – unstable carrier – Voice of Eritrea
DK2OM	7183,0	vt	dly	03	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	0825	18	03	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7190,0	1830	07	03	TUR		A3E			Voice of Turkey from 7205 kHz
DK2OM	7195,5	1520	02	03	IRN		A3E		9k	Voice of Iran from 7200.0 kHz - daily
DK2OM	7197,0	vt	dly	03	TUR	no ITU	FSK8	125	1750	ALE, “8241” “206102” “8151” “3021” “3761” “8021” “8141” “3061” “3241” “8411” – Turkish organisations = Turkish Civil Defense - source: DL8AAM – daily, various times
DK2OM	10100,8	ady	dly	03	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10110,0	vt	dly	03	SNG	no ITU	FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
DK2OM	10111,8	0320	06	03	MRC		USB			male persons – West Sahara
DK2OM	10113,0	vt	dly	03	TUN	no ITU	FSK8	125	1750	ALE, “TUD”
DK2OM	10114,0	vt	dly	03		no ITU	FSK8	125	1750	ALE, “BSF” “ZEN” “CM2OR2”
DK2OM	10114,8	0725	05	03	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	vd	03		no ITU	FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10116,5	vt	vd	03	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10120,0	vt	dly	03		no ITU	FSK8	125	1750	ALE, “9066” “9067” “8001” “2001”
DK2OM	10120,0	1928	05	03	E		USB			Spanish fishery

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	10123,0	vt	dly	03	ALG	no ITU	FSK8	125	1750	ALE, "CM3" "COF" "BSF" "CM2" "ESA"
DK2OM	10129,0	vt	dly	03	ALG	no ITU	FSK8	125	1750	ALE, "CM1" "CTF" "772"
DK2OM	10130,0	vt	dly	03	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10130,0	vt	dly	03	MLE	no ITU	FSK8	125	1750	ALE, "001" "068" – Kuala Lumpur
DK2OM	10130,0	2040	10	03	E		USB			Spanish fishery – also 13.03.2015 at 1038 utc
DK2OM	10135,0	vt	dly	03			FSK8	125	1750	ALE, ?
DK2OM	10136,0	vt	dly	03	ALG	no ITU	FSK8	125	1750	ALE, "CM3" "BLD" "CNC" "TF2"
DK2OM	10139,5	0915	12	03	FEa		F1B	600	600	DPRK-FSK 600
DK2OM	10140,0	2047	07	03	CHN ?		FSK8	125	1750	ALE, "205" "201" "LT"
DK2OM	10144,0	ady	dly	03	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – just for info!
DK2OM	10145,5	vt	dly	03	HRV S / D F / G	9A5EX	FSK8	125	1750	ALE, "9A5EX" "SM5VRH" "DK0ESD" "F6BAZ" "MIDFO"- just for info - daily
DK2OM	13995,0	0759	27	03	RUS		FCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14000,0	1300	dly	03	PHL		USB LSB			Philippine pirates – daily 1300 utc and later
DK2OM	14000,0	0827	18	03	E		USB			Spanish fishery - daily
DK2OM	14001,4	2025	11	03	VTN	V	A1A			unid beacon "V" – southern part of Vietnam
DK2OM	14008,0	0754	25	03	RUS		F1B	50	250	mostly idling - Moscow
DK2OM	14060,0	vt	vd	03	ISR	no ITU	FSK8	125	1750	ALE, "AAA" - Israel
DK2OM	14089,0	0742	20	03	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14100,0	vt	dly	03	ALG	no ITU	FSK8	125	1750	ALE, "6206" – "6204" - "6202" "6207" "6217" "MTL" "IJ" – Mauritanian border
DK2OM	14101,5	vt	dly	03	ALG		PSK4A	62.5	1750	Clover 2000 – 8 x 62.5 Bd – Moroccan border
DK2OM	14109,0	0903	08	03	POR	HAM	FSK8	125	1750	ALE, "CT2IXQ" "DK0ESD" "HB9MHB" – just for info!
DK2OM	14109,0	vt	dly	03	CAN		FSK8	125	1750	ALE, "VE3GDZ" – just for info!
DK2OM	14109,0	vt	dly	03	RUS	RV3APM	FSK8	120	1750	ALE, "RV3APM" – just for info!
DK2OM	14141,0	0843	15	03	RUS		F1B	75	500	Moscow – als 30.03.2015 at 0929 utc
DK2OM	14155,0	1646	11	03	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps – Nizhny Novgorod
DK2OM	14160,0	2033	10	03	F		FMCW		20k	OTH radar – 6 sps bursts - South France
DK2OM	14170,0	0737	21	03	RUS		FMCW		10k	OTH burst radar Contayner - 10 sps – Nizhny Novgorod
DK2OM	14192,0	1015	16	03	RUS		F1B	50	200	CIS-50-50 - RUS navy Kaliningrad – vd, vt
DK2OM	14205,0	vt	dly	03	CHN ?	no ITU	FSK8	125	1750	ALE, "505" "822" – 60 deg. from DL - CHN ?
DK2OM	14255,0	0858	04	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	14255,0	0915	12	03	RUS		PSK2A	120	2600	AT3004D - Penza
DK2OM	14260,0	1526	24	03	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14260,0	vt	dly	03	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	14260,	1515	24	03	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14261,0	0750	25	03	RUS		OFDM	35.56	2770	OFDM60 – Kaluga
DK2OM	14265,0	vt	vd	03	TUR	no ITU	FSK8	125	1750	ALE, "526"
DK2OM	14275,0	0913	04	03	RUS		FMCW		15k	OTH radar Contayner - 50 sps – Nizhny Novgorod – many splatters
DK2OM	14280,0	1005	Wed.	03	UKR		A3E			female voice with encrypted

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – every Wednesday at 1005 utc
DK2OM	14280,0	1009	16	03	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps – Nizhny Novgorod
DK2OM	14295,0	vt	dly	03	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14295,2	0844	01	03	TJK		A3E			3rd from Radio Tajik on 4765 kHz – daily, all day
DK2OM	14301,7	0927	12	03	CHN		PSK2	60	2400	30 tone modem – USB mode – pilottone 450 Hz - China - daily
DK2OM	14321,4	1453	19	03	E		PSK8	1800	2400	LINK11-SLEW – ship – area of Canary Islands
DK2OM	14322,0	vt	dly	03	CHN	no ITU	FSK8	125	1750	ALE, “402”
DK2OM	14328,0	vt	dly	03	CHN	no ITU	FSK8	125	1750	ALE, “139” “534” “772” – West China
DK2OM	14330,0	vt	dly	03			FSK8	125	1750	ALE, “BV4”
DK2OM	14334,0	1210	04	03	CHN	no ITU	FSK8	125	1750	ALE, “249” “255” “763”
DK2OM	14344,7	vt	dly	03	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	2036	10	03	HRV RUS D		FSK8	125	1750	ALE, “9A0ZG” “RX3ARZ” “DK0ESD” – just for info – various times, daily
DK2OM	14346,0	vt	dly	03	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950 kHz - every 5 minutes – just for info!
DK2OM	18100,0	vt	dly	03	MRC	no ITU	FSK8	125	1750	ALE, “CD” “C3” “R3” “G3” “E4” “E5” “Z2” “FORD” – daily, various times
DK2OM	18107,0	1647	11	03	RUS	RDL	F1B	50	200	Moscow – idle and traffic – Russian navy – various days and times – legal operation
DK2OM	18117,5	vt	vd	03	POR	CT2IXQ	FSK8	125	1750	ALE, “CT2IXQ” – just for info
DK2OM	18132,0	0745	11	03	RUS		OFDM			OFDM 93 - Moscow
DK2OM	18140,0	vt	dly	03	SRB	YU1BI	FSK8	125	2600	ALE, “YU1BI” – just for info!
DK2OM	21000,0	1026	03	03	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	1518	02	03	F		FMCW		20k	OTH radar – 6 sps bursts - South France
DK2OM	21000,0	0746	03	03	RUS		USB			voice scrambler Yakhta – encrypted speech – Nizhny Tagil
DK2OM	21000,0	0936	11	03			FMCW		10k	OTHR with 83 sps
DK2OM	21001,5	0900	01	03	RUS		F1B	100	150	voice scrambler Yakhta – F1B inband synchro – Nizhny Tagil
DK2OM	21002,0	1935	30	03			USB			male persons in French and Arabic voice
DK2OM	21002,2	1704	02	03	SDN	!0000	F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen – daily, vt
DK2OM	21096,0	vt	dly	03	INS	YD00XH	FSK8	125	1750	ALE, “YD00XH3” – daily, various times - just for info!
DK2OM	21130,0	1028	09	03	E		USB			Spanish fishery
DK2OM	21131,0	vt	vd	03	CHN	no ITU	FSK8	125	1750	ALE, “A92” “L02” – Chinese Navy?
DK2OM	21140,9	0849	17	03	GEO		PSK8A	2400	2400	Stanag4538 – GEO MIL with AFG - daily
DK2OM	21145,0	0915	26	03	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	03	I	IZ3DVW	A1A			21145.764 kHz – IZ3DVW uncoordinated and unwanted beacon
DK2OM	21190,0	---	--	03	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow - daily

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	21210,0	1027	16	03	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps – Nizhny Novgorod
DK2OM	21295,0	0858	25	03	AUS		FMCW		10k	Australian OTH burst radar
DK2OM	21346,0	ady	dly	03	THA	HS0ZEA	A1A			beacon “HS0ZEA” – just for info!
DK2OM	21352,0	0954	18	03	RUS		PSK2	12	2600	AT3004D – modem idle and RUS USB voice traffic mentioning “test” – Rostov Na Donu
DK2OM	21398,0	0944	04	03	CHN		FMCW		10k	Chinese OTH burst radar – 50 sps – 5 sec bursts
DK2OM	21400,0	0938	04	03	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	---	--	03	RUS		F1B	100	2000	F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21432,5	vt	dly	03	SUI	HB9	FSK8	125	1750	ALE, “HB9” – missing complete ident – just for info
DK2OM	21436,0	---	--	03	RUS		PSK2A	120	5200	AT3004D – harmonic from 10718.0 kHz - Sevastopol
DK2OM	21438,0	0903	31	03	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21440,0	0820 1020	09	03	IRN		A3E			spuriuos from IRIB Tehran on 21510
DK2OM	21446,0	ady	dly	03	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	vt	dly	03	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	vt	dly	03	CIS		F3E			28000 – 29700 numerous CIS taxi nets – mostly Russia
DK2OM	28000,0	ady	dly	03	B		A3E			Brazilian CBers – 28000 – 28315 – no change
DK2OM	28025,0	1644	01	03	POR		F1B	51	300	F1B bursts - 28100.160 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28030,0	0940	08	03	POR		F1B	51	340	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28045,0	1643	01	03	POR		F1B	51	280	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	vt	dly	03	POR		F1B	51		F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28051,5	vt	dly	03	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28060,0	0855	11	03	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	vt	dly	03	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28066,8	1040	02	03	GAB		A3E		980	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day
DK2OM	28085,0	0933	08	03	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28101,0	vt	dly	03	POR		F1B	51	320	F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28102,1	1146	02	03	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										buoys - daily
DK2OM	28115,0	1106	02	03	E		F3E			Spanish CBers
DK2OM	28125,0	vt	vd	03	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28146,0	vt	vd	03	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28175,0	1848	11	03	E		A3E			Spanish CBers
DK2OM	28200,0	vt	vd	03	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28200,0	1100	02	03	E		F3E			Spanish CBers
DK2OM	28270,0	1100	02	03	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28275,1	vt	vd	03	AF		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28312,5	1035	21	03	POR	CT2IXQ	FSK8	125	1750	ALE. “CT2IXQ” – just for info
DK2OM	28315,0	vt	dly	03	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28435,0	----	--	03	E		F1B	81.9	140	Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol – Malaga
DK2OM	28499,9	---	--	03			F1B	81.9	140	Datawell-buoy “Waverider” – 29524.990 kHz – south-east
DK2OM	28600,0	1035	16	03	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28675,0	1003	15	03	IRN		FMCW		50k	OTH radar Iran – 870 sps – splattering +/- 300kHz
DK2OM	28880,0	0920	22	03	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps – splattering +/- 300kHz
DK2OM	28980,0	0940	03	03	CHN	CNR	A3E		9k	harmonic from 7245.0 kHz – China National Radio - Beijing
DK2OM	29250,0	----	--	03	E		F1B	81.9	140	Datawell-buoy “Waverider” – 29249.905 kHz – Fuerteventura - daily, all day
DK2OM	29375,0	----	--	03	I		F1B	81.9	140	Datawell-buoy “Waverider” – 29374.898 kHz – Gallipoli, South Italy - daily, all day
DK2OM	29387,5	---	--	03	IND		F1B	81.9	140	Datawell-buoy “Waverider” – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29400,0	---	--	03	USA		F1B	81.9	140	Datawell-buoy “Waverider” – 29400.070 kHz - USA north-east coast – NY daily, all day
DK2OM	29450,0	---	--	03	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29449.870 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	03	G		F1B	81.9	140	Datawell-buoy “Waverider” – area of Gibraltar – daily, all day
DK2OM	29525,0	---	--	03	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29625,0	---	--	03	USA		F1B	81.9	140	Datawell-buoy “Waverider” – 29625.024 kHz - USA north-east coast – daily, all day
DK2OM	29685,5	---	--	03	I				2000	serial modem, Italian MIL Brescia – report: SWL
DK2OM	29699,8	---	--	03	I				2000	serial modem, Italian MIL Brescia - report: SWL

IRTS – Ireland – EI9GSB (Lisa)**KARS – Kuwait – 9K2RR (Faisal)****MRASZ – Hungary - HA7PL (Laci)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3500,0	1951	20	3			A3E			music
MRASZ	3503,8	2053	17	3			USB			unidentified male
MRASZ	3504,0	2031	23	3			USB			unidentified male
MRASZ	3504,0	2038	25	3			USB			unidentified male
MRASZ	3505,0	1815	2	3			A3E			unstable carrier
MRASZ	3506,0	1901	27	3			LSB			unidentified male
MRASZ	3517,5	2114	25	3			LSB			unidentified male
MRASZ	3535,0	1905	2	3			A3E			very weak
MRASZ	3535,0	1915	9	3			A1A			5F
MRASZ	3540,0	2038	27	3			USB			unidentified male
MRASZ	3554,3	2006	27	3			A1A			dashes
MRASZ	3593,8	1925	16	3	RUS	P	A1A			„P” beacon
MRASZ	3664,0	2013	17	3			A1A			5L „GVKCR GDCBO”
MRASZ	3700,0	1939	17	3			LSB			music
MRASZ	3700,0	1950	17	3			LSB			russian language, political propaganda
MRASZ	7000,0	1721	2	3			N0N			
MRASZ	7000,0	1835	5	3	UKR	D	A1A			„D” beacon, hrd on: 7, 8, 9
MRASZ	7000,0	1653	30	3			N0N			
MRASZ	7008,0	1904	23	3			F1B		250	
MRASZ	7016,0	1656	31	3			F1B		250	
MRASZ	7026,0	1744	17	3			LSB			chaos
MRASZ	7030,0	1723	2	3			LSB			unidentified male
MRASZ	7038,7	vt	dly	3	UKR	D	A1A			"D" beacon
MRASZ	7038,9	vt	dly	3	RUS	S	A1A			"S" beacon
MRASZ	7039,2	vt	dly	3	RUS	C	A1A			"C" beacon
MRASZ	7039,2	1937	5	3	RUS	F	A1A			"F" beacon, hrd on: 9,15,19,20,23,30,31
MRASZ	7050,0	vt	dly	3			LSB			russian language, chaos with music
MRASZ	7055,0	0728	2	3			LSB			russian, ukrainian chaos with music
MRASZ	7058,2	1821	9	3			A1A			5F, 0=T
MRASZ	7070,0	1912	5	3			A3E			music + song
MRASZ	7070,0	1936	5	3			OTHR			7055-7085 kHz
MRASZ	7077,5	1940	5	3	UKR	D	A1A			„D” beacon, hrd on: 7, 8
MRASZ	7080,0	1733	7	3			F1B		200	
MRASZ	7080,0	1730	16	3			F1B		200	hrd on: 19, 23
MRASZ	7080,0	1741	30	3			F2A			5F
MRASZ	7116,0	1730	15	3			A3E			music + arabian language
MRASZ	7120,0	vt	dly	32	SOM		A3E			Radio Hargaysa, hrd: 16, 22, 24, 25, 28
MRASZ	7137,0	1733	16	3			F1B		200	
MRASZ	7175,0	1746	16	3	ERI		A3E			Radio Eritrea, hrd on: 19, 20, 27
MRASZ	7176,0	1652	31	3			F1B		250	
MRASZ	7205,0	1826	16	3			A3E			eastern music, splattering down 5 kHz
MRASZ	10102,6	1612	19	3			N0N			
MRASZ	10102,6	1658	31	3			N0N			
MRASZ	10130,0	1831	9	3			USB			
MRASZ	10130,0	1837	9	3			USB			french language?
MRASZ	10146,0	1747	17	3			LSB			chaos, same as on 7026,0 kHz
MRASZ	14001,5	1834	5	3	VTN	V	A1A			„V” beacon
MRASZ	14120,0	1443	20	3			OTHR			14110-14130 kHz
MRASZ	14130,0	1500	20	3			OTHR			14125-14140 kHz

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	14141,0	0839	13	3	RUS		F1B		500	
MRASZ	14141,0	0842	15	3	RUS		F1B		500	
MRASZ	14192,0	0859	5	3	RUS		F1B		200	hrd on: 7, 13, 14, 15
MRASZ	14233,0	1518	20	3			OTHR			
MRASZ	14253,0	1517	20	3			F1B		250	
MRASZ	14260,0	1701	31	3			OTHR			
MRASZ	14265,0	1042	5	3			OTHR			14260-14270 kHz
MRASZ	14295,1	1700	7	3	TJK		A3E			R.Tajikistan, 3rd. harm, hrd on: 13, 31
MRASZ	14300,0	1757	21	3			OTHR			14300-14420 kHz
MRASZ	18107,0	0948	13	3	RUS		F1B		200	legal
MRASZ	18107,0	0954	15	3	RUS		F1B		200	legal
MRASZ	18115,0	0947	13	3			OTHR			
MRASZ	21001,5	1022	7	3	RUS		F1B	100	150	Vocoder „Yachta”. hrd on: 8, 14, 20, 22
MRASZ	24950,0	1706	31	3			OTHR			
MRASZ	28090,0	1701	30	3			OTHR			
MRASZ	28250,0	0913	8	3			OTHR			28200-28320 kHz

OEVSV – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
oevsv	14295.0	0635	20	03	unid	unid	A3A			voice & music
oevsv	18100.8	1954	19	03	unid	unid	J3Eu			

PZK – Poland – SP9BRP (Jan)

REF 1 – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Baud	Sh /Bw	DETAILS
REF	3567	0845	14	03			USB			French fisherman's S7 weak
REF	3567	1836	15	03			USB			French fisherman's
REF	3574	1820	15	03			USB			Spanish fisherman's
REF	03584	1700	13	03			USB			Spanish fisherman's ?
REF	07070	1627	04	03			lsb		3kHz	Music + unident langage
REF	07175	1730	10	03			A3E		8kHz	Speech + music
REF	07185	1805	25	03			AM		12kHz	Arabic + music 59+10 dB
REF	13995	0850	27	03			fmcw		30kHz	OTHR Mil S7 bad spectrum QRM up to 14010kHz
REF	14220	1623	04	03		Russia	fmcw		40kHz	OTHR Mil S9+30 bad spectrum
REF	21000	1525	03	03			rtty		200Hz	3x ascii ? 21000.3, 21001.5, 2102.7kHz S3
REF	29150	0905	25	03			fmcw		30kHz	OTHR Mil S7 bad spectrum

REF 2 – France – F5JBR (Andre)

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3535	19.44	01	03			J3E-U			Unid language fishery
REP	3540	08.29	30	03	E		J3E-U			Spanish fishery, Galicia
REP	3550	06.30	04	03	F		A3E			French amateurs not observing Bandplan
REP	3555	20.04	08	03			J3E-U			Unid ops
REP	3567	08.17	09	03	E		J3E-U			Fishermen
REP	3615	20.18	09	03	MRC		J3E-U			Fishermen
REP	3625	07.33	12	03	F		J3E-U			Fishermen
REP	7000	22.49	15	03			J3E-U			Unid language ops
REP	7000	07.41	21	03	E		J3E-U			Spanish ops
REP	7005	10.00	17	03			FMCW			OTH radar

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	7007	07.42	21	03			J3E-U			Unid language male ops
REP	7010	14.55	18	03	RUS		J3E-U			WxFax
REP	7010	11.35	12	03			FMCW			OTH radar
REP	7030	21.03	05	03			FMCW			OTH radar
REP	7039,0	22.33	09	03	RUS	C	A1A			MOSCOW, ADY, DLY
REP	7038,6	22.05	16	03	RUS	S	A1A			KALININGRAD, ADY, DLY
REP	7039,5	22.04	09	03	RUS	M	A1A			MAGADAN, ADY, DLY
REP	7038,7	19.05	16	03	UKR	D	A1A			SEVASTOPOL, ADY, DLY
REP	7038,8	19.44	16	03	RUS	P	A1A			MURMANSK, ADY, DLY
REP	7070	16.05	06	03	I		J3E-L			Music + QSOs jamming
REP	7120	17.11	11	03	SOM		8k00 A3EGN			Broadcasting - Radio Hargaysa
REP	7196	15.10	10	03	IRN		A3EGN			Radio Iran - Intermod from TX broadcasting on 7200 kHz
REP	10115	21.50	17	03	UKR		J3E-U			Mil stations
REP	10120	21.22	12	03			FMCW			OTH radar
REP	10123	19.15	23	03	MRC		J3E-U			Moroccan fishery
REP	10130	08.18	20	03	E		J3E-U			Spanish fishery
REP	10130	21.40	15	03			FMCW			OTH radar 50 sps/20 kHz very strong
REP	10132	10.34	Dly	03	F	Fxxx	J3E-U			French amateurs not observing Bandplan
REP	10133	10.38	02	03			J3E-U			Unid language fishery, engne sounds
REP	10135	20.24	24	03			FMCW			OTH radar 20 kHz
REP	10135	10.44	22	03			J3E-U			Unid language ops, not amateurs
REP	10140	18.08	17	03			FMCW			OTH radar
REP	10142	20.00	17	03			A3E			Letters 5, groups 10, female voice
REP	10150	18.50	10	03			FMCW			OTH radar 20 kHz
REP	14010	09.55	21	03			J3E-U			Unid language male
REP	14024	06.41	14	03	RUS		F1B	75	500	CIS encrypted F1B
REP	14026	11.00	26	03	RUS		J7D			Russian AT300D FSK
REP	14055	10.00	23	03			F1B	300	425	RY
REP	14140	13.06	16	03			FMCW			OTH radar 20 kHz/50 sps
REP	14141	09.30	13	03	RUS		F1B	75	500	
REP	14185	14.08	20	03	I		J3E-U			Music jamming over QSOs
REP	14192	14.06	11	03	RUS		F1B	50	250	FSK station
REP	14192	16.36	23	03	RUS		F1B	50	200	Russian military 50/200 daily, all day long
REP	14240	16.05	23	03			FMCW			Oth radar 50 sps/20 kHz
REP	14240	10.04	24	03			PSK4B	120	2600	AT3104D modem, unid
REP	18070	10.43	22	03			FMCW			OTH radar 20 kHz wide
REP	18090	10.20	23	03			FMCW			OTH radar
REP	21000	13.03	23	03			FMCW			OTH radar splatter from 20990 kHz
REP	21000	13.17	03	03	RUS		F1B	100	150	Yakhata voice scrambler
REP	21005	11.11	15	03	RUS		F1B	100	150	Russian in band synch
REP	21115	16.00	20	03			J3E-U			Fishermen intruders
REP	21145	14.02	06	03	MRC		FSK8	125	1750	Mil station
REP	21650	16.22	02	03			FMCW			OTH radar 20 kHz/25 sps
REP	28115	12.45	21	03	B		A3E			Brazilian illegal ops, many tx's
REP	28125	09.36	07	03	RUS		F3E			Russian language taxi dispatcher
REP	28195	09.27	07	03	RUS		F3E			Russian language taxis dispatcher
REP	28200	12.00	22	03			FMCW			OTH radar
REP	28285	13.03	15	03	RUS		F3E			Taxi dispatcher
REP	28380	12.28	29	03	RUS		F3E			YL taxi dispatcher
REP	29135	13.55	24	03	RUS		F3E			Russian taxi
REP	29155	15.12	24	03	RUS		F3E			Russian taxi

RSGB - Great Britain – M0VRR (Vaughan)

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7000,0	1300-0900	*	3	ISR	4XZ	A1A/ N0N			Days: 1.-4. 30. 31.
SRAL	7013,0	1525	13.	3		UiPTR	F1B		500	
SRAL	7013,0	1720	24.	3		UiMUX	PSK2	120	2600	
SRAL	7015,0	1415	11.	3		UiMUX	PSK2	120	2600	
SRAL	7016,0	1715-	31.	3		UiPTR	F1B		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
		1930								
SRAL	7018,0	0230-1700	1. 15.	3		UiPTR	F1B/N0N			
SRAL	7018,0	1730	22.	3		UiMUX	PSK2	120	2600	
SRAL	7018,75	0530-1345/	23.	3		UiPTR	F1B		250	
SRAL	7022,0	0630	11.	3		UiMUX	PSK2	120	2600	
SRAL	7024,0	0930-1100	3.	3		UiMUX	PSK2 ?			No subcarrier
SRAL	7030,0	0620-1800	*	3		UiPTR	F1B		250	Days: 2. 11. 15. 19. 26.
SRAL	7033,0	1305-1415	17.	3		UiPTR	F1B		250	
SRAL	7035,0	0700-0940	17.	3		UiMUX	PSK2	120	2600	
SRAL	7038,7	h24	dly	3	RUS	D	A1A			Sevastopol, spur. +/- 38.7 kHz
SRAL	7038,8			3	RUS	P	A1A			Kaliningrad, not heard
SRAL	7038,9	0315-2030	*	3	RUS	S	A1A			Severomorsk, days: 1. 4. 5. 9. 11. 17. 25.- 31.
SRAL	7039,0	0400-2030	dly	3	RUS	C	A1A			Moscow
SRAL	7059,0	1030	17.	3		UiPTR	F1B		250	
SRAL	7072,0	0700-0730	4.	3		UiMUX	PSK2	120	2600	
SRAL	7078,0	0930-0940/	10.	3		UiMUX	PSK2/A1A	120	2600	"QRJ k"
SRAL	7078,0	1255	18.	3		UiMUX	PSK2	120	2600	
SRAL	7080,0	1830-1900/	6. 25.	3		UiPTR	F1B			
SRAL	7087,0	0640-1200	7.	3		UiMUX	PSK2	120	2600	
SRAL	7100,0	1515-1550/	14.	3		UiCarr	N0N			
SRAL	7111,0	0805	16.	3		UiPTR	F1B		250	
SRAL	7111,0	0515-0545/	27.	3		UiPTR	F1B		250	
SRAL	7112,0	1300-1330	17.	3		UiPTR	F1B		250	
SRAL	7120,0	0300-0500	dly	3	SOM	R.Hargeis a	A3E			
SRAL	7120,0	1500-1900/	dly	3	SOM	R.Hargeis a	A3E			
SRAL	7160,0	0615-1000/	17. 18.	3	RUS	RMW32	A1A			5BL
SRAL	7162,0	0630-180	*	3		UiPTR	F1B		250	Days: 2. 11. 14. 15. 19. 26.
SRAL	7164,0	1230	6.	3		UiCW	A1A			
SRAL	7166,0	1120	20.	3		UiMUX	PSK2	120	2600	
SRAL	7175 A	0300-0530	3. - 30.	3	ERI	VoBME	A3E			
SRAL	7175 A	1430-1830/	3. - 30.	3	ERI	VoBME	A3E			Changes fq to avoid jamming
SRAL	7176,0	1255-1930	31.	3		UiPTR	F1B		250	
SRAL	7178,0	1230	6.	3		UiMUX	PSK2	120	2600	
SRAL	7182,0	1220-1755	11.	3		UiCW	A1A			5BL
SRAL	7196,0	0610-0950	*	3		MLIT etc.	A1A			
SRAL	7200,0	/1520-1620/	1. - 28.	3	IRN	IRIB	A3E			
SRAL	7200,0	/1720-1820/	29. - 31.	3	IRN	IRIB	A3E			
SRAL	7200,1	1400-1500/	*	3	MYA	Myanmar Radio	A3E			Days: 1. 2. 5. 12. 26.
SRAL	7 MHz	1900-0500	*	3	RUS	29B6	FMCW			50Hz / 15 kHz, days: 5. 7. 10. 13. 24.

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	14000,0	0700-1235	3. 4.	3		UiCarr	N0N/ F1A/B		250	MR 5BL
SRAL	14005,0	0950	20.	3		UiMUX	PSK2	120	2600	
SRAL	14008,0	0935	11.	3	RUS	UiPTR	F1B/ N0N		250	
SRAL	14024,0	0700-1335	14. 24.	3		UiPTR	F1B		500	
SRAL	14091,0	1220-1320/	26.	3		UiMUX	PSK2	120	2600	
SRAL	14141,0	0805-1640	*	3		UiPTR	F1B		500	Days: 13. 15. 16.
SRAL	14169,0	1215	24.	3		UiPTR	F1B			
SRAL	14221,0	0315-0600	8.- 31.	3		UiPTR	F1B			
SRAL	14240,0	1115-1700	16.	3		UiPTR	F1B			
SRAL	14240,0	0520-1045	11. 24.	3		UiMUX	PSK2	120	2600	
SRAL	14253,0	0625-1525	*	3		UiPTR	F1B		250	Days: 2. 6. 9. 12. 13. 16. 27. 30.
SRAL	14274,0	1340-1445	1.	3		UiMUX	PSK2	120	2600	
SRAL	14295,2	0430-1730	dly	3	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14 MHz	0630-1700	*	3	RUS	29B6	FMCW			50Hz / 15 kHz, days: 2. 4. 5. 11. - 14. 20. 23. - 27.
SRAL	14 MHz	0630-1900	dly	3	RUS	UiOTHR	FMCW			10Hz / 15 kHz, mostly 30 sec bursts (16 min. / cycle)
SRAL	18107,0	0615-1300	*	3	RUS	RDL	F1B		250	Days: 10. 17. 21. - 27.
SRAL	18 MHz	0640-1700	*	3	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz , days: 8. 10. 14. 22.
SRAL	18 MHz	0700	8.	3		UiOTHR	FMCW			10Hz / 160 kHz
SRAL	21001,5	0615-1415	*	3	RUS	UiVocod	F1B		140	Days: 2. - 5. 9. - 11. 13. 14. 16. 17. 20. 23. - 26. 29.
SRAL	21 MHz	0630-1430	*	3	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 2. 3. 5. 6. 11. 13. 14. 20. 23. 25. 27. 31.
SRAL	21382,0	0900-0904/	3.	3	RUS	29B6	FMCW			50Hz / 15 kHz
SRAL	21438,0	0845-1400	*	3	RUS	RCV	A1A			Days: 1. - 5. 7. 13. 17. 21. 24. 26. 28. 30. 31.
SRAL	24 MHz	1200-1250	7.	3	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz
SRAL	28 MHz	0800-1500	*	3	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 1. 7. 12. - 15. 24. 25. 28.
SRAL	28 MHz	0515-1530	*	3	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz, days: 1. - 17. 21. - 25.
SRAL	28 MHz			3	RUS	Taxi disp.	F3E			Not heard!

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3500.0	2203	10	03			J3E-U			unident language (I or EA)
USKA	3503.5	2305	09	03			PSK8	2400	~2k4	1800Hz single tone 2400Bd MIL188-110A Hybrid; short intro with 4 unmodulated tones
USKA	3532.0	2319	09	03			DQPSK	14x75	5k9	LINK 11 CLEW DSB mode often
USKA	3552.0 VFO USB	2321	09	03			PSK8	2400	~2k4	Stanag 4285 600 bps/long daily
USKA	3608.0	2324	09	03			F1B	50	200	
USKA	7000.0	1648	01	03		4XZ	A1A			endless vvv de 4XZ
USKA	7000.0	1811	03	03			N0N			often
USKA	7000.0	2228	09	03		D	A1A			Beacon ID "D", spurious daily

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7000.0	2034	17	03			J3E-U			Russian
USKA	7028.0 VFO USB	0921	09	03			PSK8	2400	~2k4	MIL188-110A, frame format 600bps / long, also 300bps/short
USKA	7030.0	2224	15	03			PSK8	2400	~2k4	MIL188-110A, frame format 150bps / short, later 1200bps/long
USKA	7033.0	0949	17	03			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	7038.7	1654	01	03	UKR	D	A1A			Beacon D Sevastopol daily
USKA	7038.9	1655	01	03	RUS	S	A1A			Beacon S Murmansk daily
USKA	7039.0	2201	10	03	RUS	C	A1A			Beacon C Moscow often
USKA	7039.2	2227	09	03	RUS	F	A1A			Beacon F Vladivostok daily
USKA	7039.4	2226	09	03	RUS	M	A1A			Beacon M Magadan daily
USKA	7050.0	2301	09	03			J3E-L			Indonesian village radio
USKA	7070.0	2152	16	03			MFSK8	125	1750	MIL 188-141A (often, various ID's)
USKA	7077.4	2312	18	03		D	A1A			Beacon ID "D" almost daily
USKA	7080.0	2023	16	03			F1B	50	200	
USKA	7114.0	2232	15	03			F1B	50	200	often
USKA	7117.5	2139	16	03			A1A			letters and figures
USKA	7120.0	1832	03	03	SOM		A3E			Radio Hargaysa (back) daily
USKA	7121.0 VFO LSB	2143	16	03			OFDM30 BPSK	60	~2k4	Burst system; spacing 75Hz preamble 4x PSK4 60Bd, spacing 600Hz; Pilotone at 450Hz often
USKA	7142.0 VFO LSB	2157	01	03			OFDM30 BPSK	60	~2k4	Burst system; spacing 75Hz preamble 4x PSK4, spacing 600Hz; Pilotone at 450Hz
USKA	7153.0	1642	20	03			J3E-L			Jazz-Music, long lasting
USKA	7166.0	1701	01	03			DQPSK	14x75	5k9	LINK 11 CLEW
USKA	7166.0	1638	17	03			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	7175.0	1818	03	03			A3E		~5k	unidentified language, music and voice daily
USKA	7175.0	1607	20	03			Jammer		~15k	BC and Jammer
USKA	7178.0	1254	06	03			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	7179.289	1254	06	03			NON			Jammer, carrier over Pilot of CIS12
USKA	7197.0	1918	03	03		368018	MFSK8	125	1750	MIL 188-141A often
USKA	7197.0	1954	03	03		380013	MFSK8	125	1750	MIL 188-141A often
USKA	7197.0	1959	03	03		321013	MFSK8	125	1750	MIL 188-141A often
USKA	7197.0	2218	16	03		324013	MFSK8	125	1750	MIL 188-141A often
USKA	10130.0	2123	15	03			FMCW	50 sps	20 k	OTHR; affected BW approx 35k
USKA	13999.0	1203	20	03				50 sps	~13k	OTHR, affected BW approx 30k
USKA	14000.0	1217	03	03			NON			long lasting carrier often
USKA	14024.0	0639	31	03			F1B	75	500	
USKA	14121.0	0929	18	03			FMCW	50 sps	~13k	OTHR, affected BW approx 30k
USKA	14141.0	1653	13	03			F1B	75	500	often
USKA	14192.0	1641	01	03			F1B	50	200	CIS 50-50 daily
USKA	14221.0	2215	15	03			F1B	50	200	
USKA	14240.0	1226	16	03			F1B	75	250	
USKA	14253.0	1248	06	03			F1B	75	250	often
USKA	14255.0	0913	12	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14294.0	1156	16	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14295.1	1657	01	03	TJK		A3E			BC: 3 rd of Radio Tajik at 4765 kHz
USKA	14344.65	2221	09	03			PSK-8	2400	2k4	MIL 188-110A, variant daily
USKA	18107.0	1619	12	03			F1B	36+50	200	CIS 36-50 often
USKA	21000.0	0919	12				NON			long lasting carrier
USKA	21001.5	1652	04	03			F1B	100	150	Vocoder Yaktha (synchro) daily
USKA	21438.0	0958	13	03		RCV	A1A			letters and figures daily
USKA	21448.45	1026	12	03			F1B	600	600	ARQ system often
USKA	28600.0	1116	16	03				307 sps 870 sps	app 50k	OTHR Burst system often
USKA	28875.0	1215	20	03				307 sps 870 sps	app 50k	OTHR Burst system
USKA	29170.0	0943	17	03			FMCW	50 sps	20k	OTHR
USKA	29650.0	0912	09	03			FMCW	50 sps	20k	OTHR, affected BW ~ 35k often
USKA	29685.0	1014	12	03			FMCW	50 sps	20k	OTHR, affected BW ~ 30k often

Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3554,0	18.45	23	3	CIS	UiCW	A1A		5F (ending 699 k)
VERON	3593,0	21.00	5	3	RUS	P	A1A		beacon
VERON	7008,0	18.43	23	3		UiPTR	F1B		Ptr
VERON	7016,0	10.35	20	3		UiPTR	F1B		Fast Ptr (also at 31/3)
VERON	7038,7	18.08	7	3	RUS	D	A1A		Beacon Sevastopol
VERON	7038,7	14.56	25	3	UKR	D	A1A		D-beacon
VERON	7038,9	19.28	8	3	RUS	S	A1A		Beacon Severomorsk
VERON	7038,9	14.56	25	3	RUS	S	A1A		S-beacon
VERON	7039,0	18.08	7	3	RUS	C	A1A		Beacon Moscow
VERON	7039,0	14.56	25	3	RUS	C	A1A		C-beacon
VERON	7065,0	19.50	7	3	RUS	UiRadar	FMCW	35k	OTHR Contayner; 50pps
VERON	7065,0	19.18	10	3		OTHR	FMCW		radar
VERON	7068,0	20.55	5	3		OTHR	FMCW		radar
VERON	7070,0	12.10	2	3	UK	UiILL	J3E-u		English male voices, fshery
VERON	7088,5	16.25	18	3		BP	A1A		CJ de BP 39233316 = NRU SNCP 4L
VERON	7120,0	19.00	17	3	SOM	R.Har	A3E		speech, male
VERON	7176,0	16.26	31	3		UiPTR	F1B		Ptr
VERON	10127,0	16.17	18	3		UiPTR	F1B		Fast Ptr
VERON	14008,0	11.48	11	3	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	14008,0	08.45	1	3	RUS	UiPtr	F1	250	Ptr
VERON	14024,0	14.14	24	3		UiPTR	F1B		Fast Ptr
VERON	14087,0	07.51	20	3		OTHR	FMCW		radar
VERON	14131,0	16.00	7	3	E	UiILL	J3E-u		Spanish, male voices, fishery
VERON	14138,0	13.34	23	3	CIS	ATT2	A1A		Calls (to: 9VKP IHSS HGEJ QFVA)
VERON	14141,0	09.56	13	3	CIS	UiPTR	F1B		Ptr
VERON	14141,0	09.28	30	3	?	?	F1B	500	UiPtr
VERON	14145,0	19.13	28	3		UiRadar	FMCW	10k	OTHR; 10sps
VERON	14182,0	17.42	8	3		UiRadar	FMCW	15k	OTHR; 10sps
VERON	14192,0	vt	vd	3	CIS	UiPTR	F1B		Revs/Ptr (almost daily)
VERON	14192,0	10.33	4	3	RUS	UiPtr	F1B	200	Ptr
VERON	14192,0	12.34	23	3	RUS	UiPtr	F1B	200	Prt-Revs
VERON	14220,0	14.24	4	3		OTHR	FMCW		radar
VERON	14240,0	17.52	16	3		UiPTR	F1B		Ptr
VERON	14240,0	10.15	24	3	RUS	UiMUX	PSK		12 MPSK AT3004-D
VERON	14253,0	15.07	6	3		UiPTR	F1B		Ptr (also at 27/3)
VERON	14263,0	10.54	22	3		UiPTR	F1B		Fast Revs
VERON	14275,0	10.32	4	3		OTHR	FMCW		radar
VERON	14275,0	11.08	17	3		OTHR	FMCW		radar
VERON	18107,0	09.30	2	3	CIS	UiPTR	F1B		Revs/Ptr (allowed)
VERON	18107,0	09.20	5	3	RUS	RDL	F1A		RDL 60013 24680 k (allowed)
VERON	18107,0	13.37	23	3	RUS	RDL	F1A		RDL 24722 17080 k (allowed)
VERON	21140,0	16.03	8	3		UiRadar	FMCW	30k	OTHR; 50sps
VERON	21217,0	13.34	8	3					Frequency hopper
VERON	21438,0	16.25	25	3	RUS	RCV	A1A		RCV QSA1 QSX 8196 QWH 8770 K
VERON	21438,0	16.31	25	3	RUS	RCV	A1A		RK081 DE RCV QSU1 sk k
VERON	24900,0	10.45	6	3		OTHR	FMCW		radar
VERON	28010,0	10.24	6	3		OTHR	FMCW		radar
VERON	28035,0	10.36	4	3	RUS	Taxi	F3E		tfc, female
VERON	28155,0	10.53	11	3	RUS	Taxi	F3E		tfc, female
VERON	28165,0	10.25	6	3	RUS	Taxi	F3E		tfc, female
VERON	28255,0	10.40	6	3	RUS	Taxi	F3E		tfc, female
VERON	28300,0	10.45	6	3	RUS	Taxi	F3E		tfc, female
VERON	28530,0	14.53	7	3		UiRadar	FMCW	35k	OTHR; 50pps
VERON	28570,0	10.58	28	3			A1A		Frequency hopper

The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

Many thanks for your interest!

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