



Monitoring System

DK2OM – Wolf Hadel
Co-ordinator of IARUMS Region 1
Editor of the Newsletter

HB9CET – Peter Jost
Vice Co-ordinator of IARUMS Region 1

The monthly newsletter for Region 1

March 2014

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: EI5DD – Steve ++ KARS: 9K2RR – Faisal ++
++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++
++ OEVSU: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose
++ RSGB: G4BOH - Chris ++ SARL: ZS1FCS - Fred ++ 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 (Switzerland), OFCOM (UK) ++ Dutch AT ++ SK6AW – DX-Cluster ++ YO9RIJ - Petrica

Part 1: News and Infos

1. A new member in our team – F5MIU

The IARU Monitoring System Region 1 has now 27 members. Francis is the new REF Monitoring System Coordinator. Welcome to our family dear Francis Boulot, F5MIU. Here his introduction:

I am Jean-Francis BOULOT, actually F5MIU but before I have being :

F1AIJ in 1968, ZR6ME for 8 years in South Africa, VK6AJB for 2 years at Perth, K2/FE5MIU at Tuscaloosa Alabama, and now F5MIU, at my different business affectations. Professionally, I have being On board aeronautical engineer radar, X-ray Engineer in RSA & Australia, computer process controller in Thailand & USA, last System Architect on armored radio-communication systems (tank) and now, ... retired !!!

The actual station :

- Collins HF80 rack with 851-S1 Rx, HF-8010 1.5 to 30MHz exciter ant HF-8020 HF 1KW linear amplifier, all rebuild from scrap !
- Icom-756 proIII to confirm intruders
- TS-790 for VHF-UHF
- SDR Transfox TRx covering 1 to 1600MHz, best for intruder's monitoring
- TA33jr 3 elem beam 20-15-10m
- ECO 4 elem beam 40-30-20-17-15-12-10-6m (after modification !)
- Trap dipole 80-40m plus 17-12m
- 18AVQ 5 bands vertical

Project : Gonio antenna covering 450 to 14000kHz (above beam antenna are doing well).

Thanks for the support, all is new now, I think I will need a month to get on top !

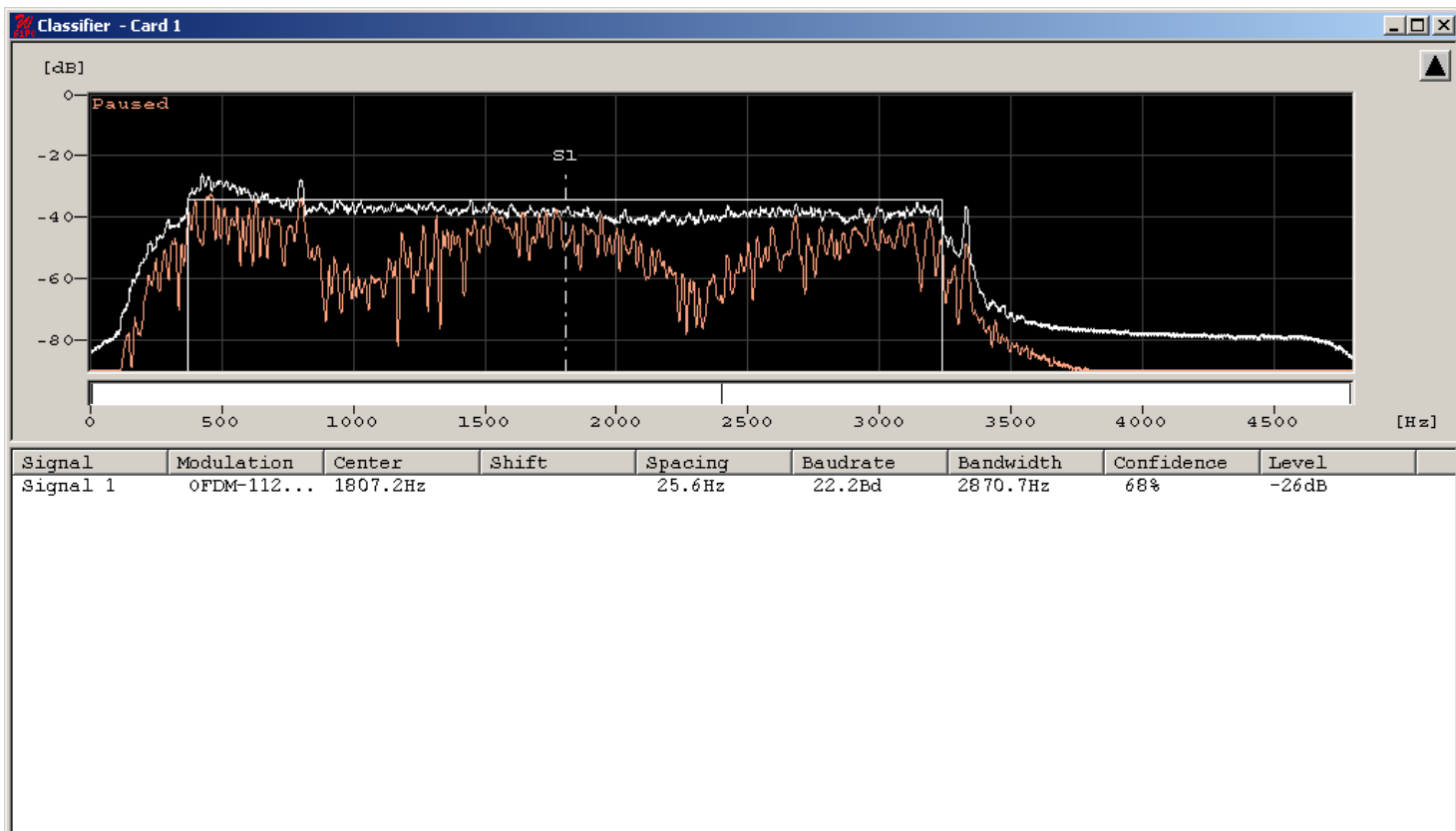
2. Spurious BC emissions

7190 daily disturbed by Voice of Turkey on 7205 kHz from 1830 – 1930 utc. The German PTT sent an official complaint. TA1E had been informed and tried to help.

21445 daily disturbed by IRIB Tehran on 21510 kHz from 1020 – 1120 utc. The German PTT was informed.

3. MIL emissions

Russian MIL stations produced many harmonic emissions as before. Even the cluster beacon "F" (7039.2 kHz) at Vladivostok was audible on 14078.4 kHz, too. Observed by remote Japan. Many other MIL emissions from Russia were also observed. The screenshot below shows a Russian OFDM 112 system on 14000 kHz analyzed by the **Wavcom W-Code Classifier (W-Code V. 8.500)**. Screenshot: DK2OM



11. Homepage IARU Region 1

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

Homepage IARUMS Region 1

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

Homepage IARUMS Region 2

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

Homepage IARUMS Region 3

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

Intruderlogger Region 1

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

ITU-Monitoring Reports:

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

Greetings from DJ9KR – Uli – earlier IARUMS Region 1 Vice Co-ordinator

Dear fellow Intruder Busters,

Wolf Hadel, DK2OM, has asked me to give you a "life sign" how I am feeling now in spring 2014.

Well, on February 29, 2014 (sri, there is only February 28 in 2014!) I "celebrated" 50 years of my ham radio license. I had my license exam on February 29, 1964, 50 years ago. I know this date so well, as this exam took place on my 24th birthday.



50 years later:



The first steps of Benedikt, grandson of DJ9KR, in order to become a radio amateur



I want to wish Wolf DK2OM and his worldwide crew a lot of success monitoring and hunting the various intruders in our exclusive ham radio bands. Good luck, and keep up your good work!

Ulrich Bihlmayer, DJ9KR

March 2014

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 2014

There were the usual broadcasts from Radio Hargeisha on 7120 kHz, Khartoum on 7200 kHz, An unidentified net which seems to be somewhere in central Africa is frequently on 7075 kHz and what may be military on 7000 kHz. Almost two weeks spent at Kilifi on the coast this month were spent with a power cut over six days and more, so no serious listening was possible.

E.H.M. Alleyne, 5Z4NU

ARSK – Kenya – 5Z4NU (Ted)

H'd by	kHz	UTC	DD	MM	ITU	IDENT	MODE	Details
ARSK	7,000.0	vt	dly	3	E. Africa	NGO?	J3E	Vernacular, English. Messages in phonetics.
ARSK	7,075.0	vt	dly	3	E. Africa	?	J3E	Unknown African language
ARSK	7120.0	vt	dly	3	Rep.of Somaliland	Hargeisha	A3E	Daily broadcasts.
ARSK	7195.0	0650 to mid-afternoon	10 to 30	3	UGA	Uganda Radio	A3E	B'cast in KiSwahili, music, Luganda & English, to about 1200Z or later.

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

DG0JBJ (Mario) observed 43 OTH radars on 20 m, 49 OTH radars on 15 m and 109 OTH radars on 10 m in March 2014. Russian OTH radars are active again on 20 m with 10 and 50 sps!

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	2024	05	03	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1880,0	1925	19	03	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1881,4	ady	dly	03	F		QPSK	100	100	BC-PSK – radio navigation – Nantes – daily, all day
DK2OM	1896,5	ady	dly	03	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy – daily, all day
DK2OM	1925,0	vt	dly	03	I	IPL	USB			Livorno Radio, weather reports – daily, vt
DK2OM	3500,0	vt	vd	03	E		USB			Spanish fishery – every evening La Coruna and Bay of Biscay
DK2OM	3500,0	vt	dly	03	TUR		FSK8	120	1750	ALE, “201” - Turkish Red

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Crescent – legal!
DK2OM	3500,0	1850	27	03	F		USB			French fishery
DK2OM	3500,3	2210	08	03	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3501,0	1730	18	03	RUS		F1B	81	250	Kaliningrad
DK2OM	3501,0	2234	22	03	BLR		PSK4B	12	2600	AT3104D – area of Brest, West-BLR
DK2OM	3501,5	1933	26	03	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3502,3	1918	08	03	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3503,5	vt	dly	03	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3503,7	2056	06	03	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3504,2	1855	24	03	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3509,5	2026	12	03	MEa		PSK2	120	2600	AT3004D – submode idle - ship Black Sea
DK2OM	3515,6	1958	09	03	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3517,4	vt	vd	03	E		LSB			Spanish fishery
DK2OM	3520,0	2100	11	03	HOL		USB			Dutch fishery
DK2OM	3520,0	1850	24	03	E		USB			Spanish fishery – also: 27.03.2014 at 1917 utc and daily
DK2OM	3527,0	2024	05	03	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3527,0	2013	06	03	UKR		USB			man and woman in RUS voice - Odessa
DK2OM	3530,0	vt	dly	03			FSK8	125	1750	ALE, “11141”
DK2OM	3531,5	1720	04	03	CIS		A3E			CIS pirates, unstable carrier
DK2OM	3531,6	2120	05	03	FEa		PSK2	1350	1350	unid data bursts with intro tones
DK2OM	3532,0	2215	07	03	F		PSK4	75	2400	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3535,6	2034	11	03	HOL		USB			Dutch fishery
DK2OM	3540,0	1841	23	03	CHN		FMCW		50k 55k	Chinese OTH radar – 3540 – 3590 kHz and 3760 – 3815 kHz 43.5 sps
DK2OM	3540,0	2042	27	03	RUS		FMCW		50k	OTHR – 43.5 sps – 3540 – 3590 kHz – Makhachkala – Caspian Sea
DK2OM	3548,0	1926	24	03	RUS		F1B	50	200	Kaliningrad
DK2OM	3550,0	vt	vd	03	ALG		FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	3550,0	vt	dly	03	F		A3E			French amateurs not respecting the bandplans (unstable carriers) – every morning
DK2OM	3550,0	2100	21	03	F		USB			French fishery
DK2OM	3550,5	1936	04	03	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3550,7	1930	17	03	UKR		F1D	1200	1200	unid system – Ukraine – long lasting
DK2OM	3552,0	1838	26	03	RUS		F1B	50	200	CIS50-50 – ship – North-East Baltic Sea
DK2OM	3553,8	ady	dly	03	TUR		PSK8	2400	2400	Stanag4285 – TUR MIL - Ankara – legal operation
DK2OM	3557,5	1939	25	03	RUS		PSK4B	120	2600	AT3104D – west of Kirov
DK2OM	3560,0	2000	14	03			USB			Scandinavians
DK2OM	3567,0	vt	dly	03	CHN ?		FSK8	125	1750	ALE, “103” “106”
DK2OM	3570,0	1734	03	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3571,0	2037	22	03	RUS		PSK4B	120	2600	AT3104D - Kaliningrad
DK2OM	3576,4	ady	dly	03	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3580,0	2120	17	03	F		USB			French fishery
DK2OM	3582,0	1821	21	03	BLR		PSK2A	120	2600	AT3004D – area of Minsk
DK2OM	3585,0	2000	dly	03	TWN	HLL	F1C			120 rpm, IOC 576, Wxfax - daily - legal!
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	3587,0	1950	16	03	UKR		PSK2A	120	2600	AT3004D
DK2OM	3590,0	vt	dly	03	PAK	no ITU	FSK8	125	1750	ALE, "KW" "KHAIBAR" – Pakistan navy
DK2OM	3592,0	1738	09	03	UKR		PSK2A	120	2600	AT3004D – submode idle and traffic – area of Crimea
DK2OM	3595,0	vt	dly	03	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	1951	24	03	RUS		USB			woman in Russian voice – St. Petersburg
DK2OM	3596,0	vt	dly	03	D, S, HRV		FSK8	125	1750	ALE, "DK3CW" "SA6CBK" "9A0PZ" – just for info!
DK2OM	3596,0	1954	24	03	UKR		PSK2	120	2600	AT3004D – submode idle - Lviv
DK2OM	3597,5	2132	14	03	UKR		PSK2A	120	2600	AT3004D – traffic and submode idle - west of Kyiv
DK2OM	3600,0	2035	27	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3600,2	1848	27	03	?		F1B	75	1000	
DK2OM	3602,0	2037	10	03	RUS		PSK4B	120	2600	AT3104D - Kaliningrad
DK2OM	3617,0	vt	dly	03	HRV	9A5EX	FSK8	125	1750	ALE, "9A5EX" – HAM-ALE - just for info
DK2OM	3622,5	1900	dly	03	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3659,0	1705	28	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3660,0	1836	13	03	CHN		FMCW		120k	Chinese OTH radar – 3660 – 3780 kHz – 43.5 sps
DK2OM	3670,0	1448	26	03	CHN		FMCW		100k	Chinese OTH radar – 3670 – 3770 kHz – 43.5 sps
DK2OM	3710,0	1812	05	03	RUS		FMCW		30k	OTHR – 43.5 sps – 3710 – 3740 kHz – Makhachkala – Caspian Sea
DK2OM	3710,0	2125	06	03	RUS		FMCW		35k	OTHR – 43.5 sps – 3710 – 3745 kHz - Makhachkala – Caspian Sea
DK2OM	3751,5	vt	dly	03	POL	no ITU	FSK8	125	1750	ALE, "IZ3" "MI3"
DK2OM	3756,0	ady	dly	03	UKR		A3E			UKR – pip – 14 tones – hyperbolic navigation system – BRAS-2/RS-10
DK2OM	3760,0	1915	25	03	RUS		FMCW		40k	OTHR – 43.5 sps – 3760 – 3800 kHz – Makhachkala – Caspian Sea
DK2OM	3761,5	vt	vd	03	POL		FSK8	125	1750	ALE, "NI9" "PL7" "AB2" – Polish MIL
DK2OM	3765,0	1838	23	03	RUS		FMCW		30k	OTHR – 43.5 sps – 3765 – 3795 kHz – Makhachkala – Caspian Sea
DK2OM	3767,0	1702	28	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3781,5	2115	06	03	UKR		OQPSK	1280	1280	Kyiv - Ukraine
DK2OM	3782,0	ady	dly	03	POR	CTP	F1B	75	850	POR Navy headquarter Lisbon – disturbed by Russian OTH radar on 18.08.2013 at 1945 utc
DK2OM	3791,0	vt	vd	03	D	DK0ESD	FSK8	125	1750	ALE, "DK0ESD" – just for info!
DK2OM	3796,0	2020	20	03	UKR		F1B	75	1000	West-UKR
DK2OM	3797,0	1945	23	03	UKR		F1B	75	225	very unclear – east of Lvov
DK2OM	7000,0	2004	02	03	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – "RCV" - daily
DK2OM	7000,0	1640	17	03	INS		LSB USB			Indonesian pirates singing, chatting and playing music – audible in Europe every afternoon and evening
DK2OM	7000,0	vt	vd	03	?		FSK8	125	1750	ALE, "210" "20989" "2205"
DK2OM	7000,0	1815	25	03	ALG		USB			male persons in Arabic voice, Codan beep
DK2OM	7020,0	vt	vd	03	SRB		FSK8	125	1750	ALE, "CS5004A" "RS0013D" – NC3A network? – area of Kosovo
DK2OM	7025,9	1528	27	03	UKR		PSK4A	1200	1200	East-UKR - Kharkiv
DK2OM	7036,0	1811	04	03	RUS		F1B	50	500	CIS50-500 -
DK2OM	7038,7	1833	02	03	UKR	D	A1A			Cluster beacon – Sevastopol

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										RUS Navy – “RCV”
DK2OM	7038,8	1833	02	03	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
DK2OM	7038,9	1941	16	03	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	7039,0	1941	16	03	RUS	C	A1A			Cluster beacon - Moscow RUS Navy - “RIW”
DK2OM	7039,1	---	---	03	KGZ	A	A1A			Cluster beacon – Bishkek RUS Navy – “RJH25”
DK2OM	7039,2	1941	16	03	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	---	---	03	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	7039,4	1944	16	03	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7039,95	ady	dly	03	I	IZ3DVW	A1A			IZ3DVW – uncoordinated beacon, daily, all day
DK2OM	7040,0	vt	dly	03	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	7040,5	vt	dly	03	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7047,0	1742	04	03	UKR		PSK2A	120	2600	AT3004D – traffic - Simferopol
DK2OM	7047,37	1600	17	03	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7049,5	vt	dly	03	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info!
DK2OM	7054,0	---	---	03	RUS		F1B	50	200	CIS50-50 - RUS Navy Moscow – not active
DK2OM	7055,5	vt	vd	03	GEO		FSK8	125	1750	ALE, “111” “132” “133” - Georgia
DK2OM	7057,0	2200	18	03	MEa		FSK8	125	1750	ALE, “145” “168”– ship, East Black Sea
DK2OM	7060,0	1838	13	03	FEa		FMCW		32k	CODAR like ocean radar with 2.5 sps – 7060 – 7092 kHz - daily
DK2OM	7070,0	vt	dly	03	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7079,0	1825	16	03	RUS		F1B	75	200	Black Sea
DK2OM	7088,8	vd	vt	03	S	SL0FRO	A1A			7088.830 - cw-trainee, Sweden – kHz – SL0FRO - just for info!
DK2OM	7089,8	1644	27	03	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – Turkish SE coast
DK2OM	7099,5	vt	dly	03	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	dly	03	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” “9A2KS” “HB9MHB” “9A0ZG” “DK0ESD” – just for info!
DK2OM	7105,0	2200	dly	03	CHN		unid		7.5k	broadband digital signal – 7105 kHz center – daily at 2200 - 2300 utc – jammer? – West- China
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	7120,0	1700	dly	03	SOM		A3E		9k	Radio Hargaysa Somalia, daily
DK2OM	7124,0	1809	21	03	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	7128,5	1835	08	03	UKR		PSK2A	120	2600	AT3004D – North-Crimea
DK2OM	7134,5	1735	05	03	UKR		PSK2A	120	2600	AT3004D - Kyiv
DK2OM	7135,5	1813	04	03	UKR		PSK2A	120	2600	AT3004D - Kyiv
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	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7138,5	1606	06	03	UKR		PSK2A	120	2600	AT3004D – east of Kyiv
DK2OM	7141,5	1620	08	03	UKR		PSK2A	120	2600	AT3004D – west of Kyiv
DK2OM	7143,5	1713	03	03	UKR		PSK2S	120	2600	AT3004D - Sevastopol
DK2OM	7145,5	1740	07	03	UKR		PSK2A	120	2600	AT3004D - Kyiv
DK2OM	7154,0	1529	09	03	CHN		OFDM	60	2400	LSB - OFDM32
DK2OM	7157,0	1820	25	03	RUS		PSK2A	120	2600	AT3004D – Far East Russia
DK2OM	7179,0	1711	03	03	UKR		PSK2A	120	2600	AT3004D – Kyiv – also: 17.03.2014 at 1550 utc
DK2OM	7183,0	1703	02	03	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	1530	25	03	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7188,5	1942	12	03	UKR		PSK2A	120	2600	AT3004D - Crimea
DK2OM	7190,0	1825	dly	03	TUR		A3E		30k	spurious from Voice of Turkey on 7205 kHz +/- 15 kHz – daily from 1825 – 1930 utc – transmission in German
DK2OM	7192,0	0720	26	03	UKR		PSK2A	120	2600	AT3004D - Crimea
DK2OM	7197,0	0708	18 and dly	03	TUR		FSK8	125	1750	ALE, “8241” “206102” “8151” “3021” “3761” “8021” “8141” “3061” “3241” “8411” – Turkish Sivil Avunma = Turkish Civil Defense - source: DL8AAM
DK2OM	7200,0	2200	dly	03	CHN TWN		A3E			Sound of Hope TWN and Chinese jammer – 2 carriers 4 Hz difference - daily
DK2OM	10100,8	ady	dly	03	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10113,0	vt	dly	03	TUN	no ITU	FSK8	125	1750	ALE, “TUD”
DK2OM	10114,8	0640	28	03	RUS		F1B	100	1000	CIS14 – Penza - daily
DK2OM	10115,0	vt	vd	03			FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10123,0	vt	dly	03	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “COF” “BSF”
DK2OM	10125,0	2049	14	03	MRC		USB			Moroccan fishery
DK2OM	10125,0	1830	25	03	CLN		USB			Sinhala fishery
DK2OM	10125,0	1938	26	03	F		USB			French fishery
DK2OM	10130,0	vt	dly	03	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10132,0	2045	10	03	CIS		LSB			men in Russian voice
DK2OM	10133,0	2050	10	03	MRC		USB			Moroccan fishery
DK2OM	10136,0	vt	dly	03	ALG		FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	10136,0	1730	05	03	RUS		F1B	50	200	Chita – Far East Russia - daily
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	9A5EX	FSK8	125	1750	ALE, “9A5EX” “SM5VRH” “DK0ESD” “F6BAZ” - just for info - daily
DK2OM	10149,5	1655	27	03	I		USB			male people in Italian voice
DK2OM	14000,0	2120	19	03	B		USB			Brazilian pirates – also: 22.03.2014 at 1920 utc
DK2OM	14000,0	2215	27	03	FEa		USB			Far East pirates
DK2OM	14001,6	2243	06	03	FEa		USB			Far East pirates
DK2OM	14001,9	0827	19	03	RUS		OFDM	22.3	2900	OFDM112 - Kaluga
DK2OM	14002,5	2140	11	03	CLN		LSB			Sinhala fishery
DK2OM	14006,0	0748	22	03	RUS		PSK2	120	2600	AT3004D – modem idle - Kaliningrad
DK2OM	14008,0	0745	22	03	RUS		F1B	50	250	CIS50-250 - Moscow
DK2OM	14016,0	0755	07	03	RUS		PSK2A	120	2600	Moscow
DK2OM	14026,0	1450	16	03	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14046,2	0712	11	03	RUS		PSK2A	120	2600	AT3004D - Irkutsk
DK2OM	14060,0	vt	vd	03	ISR		FSK8	125	1750	ALE, “AAA” - Israel
DK2OM	14078,4	1952	29	03	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS” – harmonic from 7039.2
DK2OM	14109,0	vt	dly	03	ISR	4X1	FSK8	125	1750	ALE, “4X1” “CT2IXQ” – just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14109,0	vt	dly	03	CAN		FSK8	125	1750	ALE, "VE3GDZ" – just for info!
DK2OM	14141,0	1132	01	03	RUS		F1B	75	200	Moscow
DK2OM	14190,0	1603	06	03	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14205,0	vt	dly	03		no ITU	FSK8	125	1750	ALE, "505" "822" – 60 deg. from DL - CHN ?
DK2OM	14221,0	2236	28	03	KGZ		F1B	41.8	200	idle - Bishkek
DK2OM	14253,0	0750	03	03	RUS		F1B	75	250	Penza – also: 07.03.2014 at 1420 utc
DK2OM	14253,0	1427	09	03	RUS		FMCW		10k	OTH radar 50 sps – Nizhny Novgorod – many splatters
DK2OM	14255,0	0830	26	03	RUS		PSK2A	120	2600	AT3004D - Penza
DK2OM	14260,0	vt	dly	03	SRB		FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	14260,8	0755	19	03	RUS		J7D	35.6	2780	CIS60 - Bryansk
DK2OM	14263,0	0910	15	03	RUS		F1B	75	250	Penza
DK2OM	14265,0	vt	vd	03	TUR		FSK8	125	1750	ALE, "526"
DK2OM	14267,0	1255	31	03	CHN		PSK4A	44.44	2300	ARQ-burst - PRC 39 tone - China
DK2OM	14275,0	0745	20	03	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14278,5	1250	31	03	RUS		F1D	1200	600	Moscow
DK2OM	14280,0	1010	Wed	03	UKR		A3E			female voice with encrypted msgs – figures – "SZRU" = Foreign Intelligence Service of Ukraine at Rivne – every Wednesday
DK2OM	14294,0	1015	31	03	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14295,0	vt	dly	03	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	14295,1	ady	dly	03	TJK		A3E			3 rd from Radio Tajik on 4765 kHz
DK2OM	14306,0	0740	12	03	RUS		PSK2A	120	2600	AT3004D - Penza
DK2OM	14317,0	vt	vd	03	UKR	RCV	A1A			RUS naval base Sevastopol - encrypted, cyrillic letters
DK2OM	14322,0	vt	dly	03	CHN		FSK8	125	1750	ALE, "402"
DK2OM	14328,0	vt	dly	03	CHN		FSK8	125	1750	ALE, "139" "534" "772" – West China
DK2OM	14330,0	vt	dly	03			FSK8	125	1750	ALE, "BV4"
DK2OM	14344,7	1436	01	03	CHN		PSK8	2400	2400	preamble similar MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	vt	dly	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, "C3" "R3"
DK2OM	18107,0	1703	03	03	RUS	RDL	F1B	50	200	Moscow – idle and traffic – Russian navy – various days and times – legal operation
DK2OM	18140,0	vt	dly	03	SRB	YU1BI	FSK8	125	2600	ALE, "YU1BI" – just for info!
DK2OM	21000,0	1800	14	03	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil
DK2OM	21000,0	1132	12	03	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	1446	01	03	RUS		USB			vocoder Yakhta - encrypted voice traffic – Nizhny Tagil
DK2OM	21000,0	1625	15	03	MRC		USB			Moroccan fishery
DK2OM	21001,5	1135	01	03	RUS		F1B	100	150	vocoder Yakhta inband synchro – Nizhny Tagil
DK2OM	21001,9	1125	12	03	RUS		OFDM	22.3	2900	OFDM112 - pilotone: 21003.333 Hz - Orenburg
DK2OM	21002,1	2028	27	03	SDN	!0000	F1B	100	170	21002.15 kHz - Factor 1 encrypted – MFA Sudan – Khartoum with emba Yemen
DK2OM	21096,0	vt	dly	03	INS	YD00XH	FSK8	125	1750	ALE, "YD00XH3" – daily, various times - just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	21121,7	1025	13	03	RUS		F1B	1200	1200	ARQ - burst system - Orenburg
DK2OM	21141,5	1255	26	03	MEa		PSK8	2400	2400	MIL-188-141B – App.C – daily, various times
DK2OM	21145,0	2010	27	03	MRC		FSK8	125	1750	ALE, “B301”, “C3”, “IR4” “T4” “E4” “A2” “CD” “K3” “KB2” “J5” “GS4” – various times, daily
DK2OM	21318,5	0955	31	03	GNB		F1D	600	600	DPRK-FSK 600 – North Korean emba Guinea-Bissau
DK2OM	21323,5	0457	20	03	IND		F1D	600	600	DPRK-FSK 600 – North Korean emba New Delhi
DK2OM	21330,0	0807	19	03	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	21400,0	0915	04	03	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	0645	28	03	RUS		F1B	100	2000	CIS14 – harmonic from 10704.75 - Jekaterinburg
DK2OM	21425,0	1444	16	03	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	21438,0	1440	01	03	UKR	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21445,0	1118	05	03	IRN	IRIB	A3E			spurious from 21510 – IRIB Tehran - distorted
DK2OM	21446,0	ady	dly	03	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	24910,0	0930	09	03	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	24930,0	1445	20	03	CYP		FMCW		4k	OTH radar Cyprus - 25 sps – long lasting
DK2OM	24990,0	0749	12	03	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	24990,0	1015	28	03	RUS		F3E			male persons – North Caucasian region
DK2OM	25000,0	ady	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
DK2OM	28000,0	1303	12	03	F		FMCW		20k	OTH radar – 2.5 sps - South France – sounding similar to CODAR
DK2OM	28001,0	1746	03	03			USB			Korean fishery, Atlantic
DK2OM	28005,0	ady	dly	03	RUS		F3E			taxi net St. Peterburg, daily, all day
DK2OM	28025,0	1833	09	03	POR		F1B	51	320	F1B bursts - west of Lisbon – daily
DK2OM	28030,0	vt	dly	03	POR		F1B	51	320	F1B bursts - west of Lisbon
DK2OM	28035,0	vt	dly	03	RUS		F3E			taxi Moscow - daily
DK2OM	28040,1	vt	dly	03	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28045,0	1817	05	03	B		A3E			Brazilian CBers
DK2OM	28050,0	1740	23	03	POR		F1B	51	320	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28055,0	1750	05	03	RUS		F3E			taxi Moscow - daily
DK2OM	28065,0	vt	dly	03	RUS		F3E			taxi Moscow - daily
DK2OM	28065,0	0824	09	03	E		A3E			Spanish CBers
DK2OM	28100,2	1646	17	03	POR		F1B	51	320	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28105,0	vt	dly	03	RUS		F3E			taxi Moscow
DK2OM	28115,0	vt	dly	03	RUS		F3E			taxi - Moscow – daily – disturbing AFU PSK on 28120
DK2OM	28125,0	1423	23	03	POR		F1B	51	320	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28135,0	vt	dly	03	RUS		F3E			taxi – Barnaul - daily

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28145,0	1029	19	03	E		A3E			Spanish CBers
DK2OM	28146,0	vt	vd	03	ARG B		FSK8	125	1750	ALE, "LU8EX" "PY2TI" "DL1" – just for info!
DK2OM	28200,0	0950	12	03	POR		F1B	51	300	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28200,0	0939	19	03	RUS		USB F1B			vocoder Yakhta – F1B and voice traffic – SE of Novosibirsk
DK2OM	28205,0	vt	dly	03	RUS		F3E			taxi Moscow
DK2OM	28215,0	vt	dly	03	RUS		F3E			taxi Moscow
DK2OM	28255,0	vt	dly	03	RUS		F3E			taxi Moscow
DK2OM	28265,0	vt	dly	03	RUS		F3E			taxi Moscow
DK2OM	28305,0	vt	dly	03	RUS		F3E			taxi - Arkhangelsk
DK2OM	28670,0	1109	07	03	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps
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 – Galatone, 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	29450,0	0954	12	03	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29449.870 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	1440	14	03	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps - jumping
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	29660,0	1017	03	03	RUS		F1B	44.6	1000	harmonic from 14830 kHz – Krasnoyarsk – daily, all day
DK2OM	29688,0	1016	05	03	RUS		F1B	50	500	harmonic from 14844.0 - Moscow

REF – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
F5MIU	3532	9h04	26	3			DSB	6	2x 2400	S7 2x RTTY signal sym. French Navy Brest
F5MIU	3712	9h04	26	3			DSB	6		S8 synchron to 3532kHz sign
F5JBR	7196	6h10	30	3		PEYZ	A1A			Military Russian ? end 6h13
F5JBR	7196	6h32	31	3		PEYZ	A1A			Military Russian ? trafic
F5MIU	24930	16h27	18	3			fmcw	20		S6 end 16h52 Mil OTH
F5MIU	24980	8h40	20	3			fmcw	20		S8 Be :Est Mil OTHR
F5MIU	24990	8h57	15	3			fmcw	20		S5 end 9h00 Mil OTHR
F5MIU	28200	16h38	26	3			A3J+	3		S7 Portuguese fisherman?
F5MIU	28600	9h00	11	3			fmcw	20		S8 Mil OTHR
F5MIU	29090	8h48	14	3			fmcw	40		S9+20 Mil OTHR
F5MIU	29300	8h52	14	3			pulse	40		S9+40 Mil OTHR
F5MIU	29450	17h17	12	3			fsk	0.150	140	S4 Be210° Swell bouy ,ady
F5MIU	29500	9h27	25	3			Pulses	50		S9 pulsed 2 rates, duration 7sec
F5MIU	29540	15h53	11	3			fsk	0.150	140	S4 Be:210° Swell buoy
F5MIU	29560	15h45	12	3			Fmcw	20		S9 Mil OTHR
F5MIU	29600	8h41	22	3			fmcw	20		S8 Be :Est end 8h48 Mil OTHR

IRTS – Ireland – EI5DD (Steve)

KARS – Kuwait – 9K2RR (Faisal)

MRASZ 1 – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3520,0	1900	11	3			USB			unidentified
MRASZ	3523,0	1835	11	3			A1A			long „VVV” strings
MRASZ	3537,0	1904	11	3			A3E			unidentified
MRASZ	3582,0	2022	21	3	RUS		PSK2			AT3004D
MRASZ	3595,0	2043	10	3			USB			numbers, russian female
MRASZ	3595,0	1952	21	3			USB			numbers, russian female
MRASZ	3595,0	2020	25	3			USB			numbers, russian female
MRASZ	3608,0	2038	12	3			A1A			dashes
MRASZ	3710,0	2048	10	3			OTHR			3710-3750 kHz
MRASZ	3710,0	1811	11	3			OTHR			3710-3750 kHz
MRASZ	3790,0	2102	10	3			USB			unidentified, female
MRASZ	7000,0	1739	11	3			A1A			klick from 6999,5 kHz
MRASZ	7000,0	1815	22	3			USB			unidentified male
MRASZ	7000,1	1734	24	3			LSB			italian male's
MRASZ	7016,0	0848	7	3			F1B		250	
MRASZ	7033,0	0846	7	3	RUS		PSK2			AT3004D
MRASZ	7038,7	vt	dly	3	UKR	D	A1A			"D" beacon
MRASZ	7038,8	1946	10	3	RUS	P	A1A			„P” beacon, hrd on 11,12,25
MRASZ	7038,9	vt	dly	3	RUS	S	A1A			"S" beacon
MRASZ	7039,0	1946	10	3	RUS	C	A1A			"C" beacon, hrd on 11,14,15,31
MRASZ	7039,2	vt	dly	3	RUS	F	A1A			"F" beacon
MRASZ	7039,4	2045	12	3	RUS	M	A1A			"M" beacon
MRASZ	7052,0	2003	19	3			FSK8			ALE
MRASZ	7062,0	0930	29	3			OTHR			
MRASZ	7105,0	0659	30	3			FSK8			ALE
MRASZ	7120,0	1737	7	3	SOM		A3E			Radio Hargeysa hrd on 11,20,24
MRASZ	7124,0	2010	21	3	RUS		PSK2			AT3004D
MRASZ	7139,0	0845	7	3	RUS		PSK2			AT3004D
MRASZ	7144,0	1741	7	3	RUS		PSK2			AT3004D
MRASZ	7156,0	1738	24	3	RUS		PSK2			AT3004D
MRASZ	10125,0	1950	14	3			OTHR			10105-10130 kHz
MRASZ	14026,0	1901	24	3			USB			unidentified male
MRASZ	14192,0	0845	16	3			F1B		400	
MRASZ	14221,0	2013	21	3			F1B		200	
MRASZ	14222,0	0952	16	3			OTHR			
MRASZ	14288,0	0840	16	3			USB			flute?
MRASZ	14294,0	1853	31	3			F1B			iddle
MRASZ	14350,0	1742	24	3			USB			greek male
MRASZ	18107,0	1732	20	3			F1B		200	
MRASZ	18120,0	1811	19	3			OTHR			18015-18135 kHz
MRASZ	21000,0	1830	26	3	RUS		F1B			voice with vocoder
MRASZ	21001,5	0859	7	3	RUS		F1B	100	150	vokoder Yakhta, hrd on 11,16,19,20,24,26,31
MRASZ	28050,0	1156	15	3			F3E			russian taxi centrum
MRASZ	28055,0	1206	15	3			F3E			russian taxi centrum
MRASZ	28065,0	1155	15	3			F3E			russian taxi centrum
MRASZ	28355,0	1737	26	3			A1A			„MO” fishery buoy
MRASZ	28375,0	1615	27	3			OTHR			
MRASZ	28555,0	1133	16	3			F3E			russian taxi centrum

OEVSV – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
oevsv	10101.1	2023	01	03	unid	unid	J3Eu			males in spanish
oevsv	10101.0	0645	09	03	unid	unid	J3Eu			males in spanish
oevsv	18079.9	0604	01	04	unid	unid	A3A			chinese BC

PZK – Poland – SP9BRP (Jan)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
PZK	14026	14:30	16	03			BPSK	2400		Mil ?
PZK	24930	13:10	20	03			CW			Mil?
PZK	21312	09:30	26	03			FMCW			OTHR south east - RADAR

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	28xxx			03	B		A3E			Brazilian ops, mostly afternoons, everyday
REP	28xxx			03	RUS		F3E			Russian taxi dispatcher, mornings, everyday
REP	3500,0	16.28	02	03			A1			Carrier
REP	3500,0	08.13	10	03	E		J3E U			Spanish fishery from Galicia
REP	3515,0	20.13	14	03	E		J3E-U			Spanish fishermen
REP	3525,0	22.20	07	03	MRC		J3E-U			Fishermen
REP	3530,0	20.03	29	03			J3E-U			Unid lang talks
REP	3535,0	23.12	10	03			J3E-L			Unid intruders
REP	3540,0	19.02	09	03			J3E-U			Unid ops
REP	3550,0	07.22	13	03	F		A3E			INFRINGE IARU R1 BANDPLAN French amateurs in AM (DLY)
REP	3593,9	22.53	14	03	RUS	S	A1A			ARKHANGELSK
REP	3625,0	07.33	11	03	F		J3E-U			French fishermen
REP	3633,0	20.10	14	03	RUS	CEJX	A1A			Russian mil ?
REP	3690,0	20.03	05	03	RUS	RCH	J3E-U			WxFax - Tashkent Meteo ?
REP	3705,0	07.02	11	03	RUS		J3E-U			Russian Navy
REP	3736,0	11.10	01	03	E		J3E-U			Spanish fishery
REP	3743,0	21.55	18	03	P		A1A			CW code training lessons for new ham operators - 15wpm / 5 letter groups
REP	3757,0	23.03	02	03	RUS		A1A			Rostov-Volgograd mil Station “”dlia 854 032 471 331 ...””
REP	7000,0	17.55	19	03	E		J3E-U			Spanish non ham pirates
REP	7001,0	21.00	23	03			F1B	75	240	Unid FSK
REP	7001,5	10.41	23	03	F		A1A			French Station CW code practice lessons
REP	7004,0	11.25	17	03			FMCW			OTH radar
REP	7005,5	16.03	06	03	I		J3E-L			Italian outbanders
REP	7015,0	07.21	05	03			J3E-L			Unid intruders
REP	7020,0	08.50	01	03	E		J3E-U			Spanish fishermen
REP	7020,5	21.27	14	03			FMCW			OTH radar
REP	7030,0	07.44	01	03	MRC		J3E-U			Fishermen
REP	7035,0	23.12	02	03	E		J3E-U			Fishermen
REP	7038,6	22.10	13	03	RUS	S	A1A			KALININGRAD, ADY, DLY
REP	7038,8	21.27	12	03	RUS	P	A1A			MURMANSK, ADY, DLY
REP	7039,0	23.30	08	03	RUS	C	A1A			MOSCOW, ADY, DLY
REP	7039,2	23.35	08	03	RUS	F	A1A			VLADIVOSTOK, ADY, DLY
REP	7039,3	23.00	08	03	RUS	K	A1A			VOLGOGRAD, ADY, DLY
REP	7039,5	22.01	13	03	RUS	M	A1A			MAGADAN, ADY, DLY
REP	7054,1	23.54	12	03	RUS		F1B	50	240	Encrypted mil FSK
REP	7070,0	16.25	21	03	I		J3E-L			Jamming, italian music
REP	7070,0	17.20	05	03	I		J3E-L			German music oldies, jamming QSO's
REP	7110,0	21,35	12	03	BR M		8k00 A3EGN			BC station with fade (Radio Myanmar ?)
REP	7120,0	18.41	14	03	SOM		8k00			BC station Radio Hargaysa (DLY)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
							A3EGN			
REP	7200,0	22.15	11	03	CHN		8k00 A3EGN			Strong splatter from Chinese station down to 40m Ham Band, BW=+/- 9.5kHz (DLY)
REP	10125	11.09	12	03			J3E-U			Data bursts
REP	10130	09.19	04	03	E		J3E-U			Spanish fishery
REP	10135	18.33	12	03			FMCW			OTH radar
REP	10140	18.44	13	03			FMCW			OTH radar
REP	10148	18.29	30	03	MRC		J3E-U			Intruders
REP	14000	18.09	17	03			A1			Carrier and dots
REP	14005	09.30	12	03			F1B	300	425	RY RY RY 1 2 3 RY RY RY
REP	14050	08.17	10	03			FMCW			OTH radar
REP	14145	18.34	20	03	RUS		FMCW			Russian OTH radar 10kHz, 10cps
REP	14192	18.14	03	03	RUS		F1B	75	400	Navy in Kaliningrad DLY
REP	21001	13.02	19	03	RUS		F1B	100	150	Yakhata inband synchro
REP	21125	15.33	14	03	E		J3E-U			Fishermen
REP	21400	07.19	12	03			FMCW			OTH radar 20kHz
REP	24930	13.20	20	03			FMCW			OTH radar 10kHz 20cps
REP	24980	12.55	18	03			FMCW			OTH radar 20kHz/48cps
REP	28125	17.39	25	03	B		A3E			Brazilian ops disturbing WSPR
REP	28275	11.00	24	03	RUS		F3E			YL taxi dispatcher DLY
REP	28370	16.04	22	03	RUS		F3E			Russian intruders
REP	28385	12.08	12	03	RUS		F3E			YL taxi dispatcher DLY
REP	28406	11.14	08	03			F3E	100	135	Unid F1B system
REP	28490	13.00	09	03	CYP		FMCW			Cyprus OTH radar 50cps
REP	28691	13.14	21	03			A1A			Long tones – dashes, letter 8 ?
REP	29015	10.26	08	03	RUS		F3E			Russian taxi dispatcher
REP	29025	16.55	20	03	RUS		F3E			Russian taxis
REP	29045	17.00	20	03	RUS		F3E			Russian taxis
REP	29115	10.27	08	03	RUS		F3E			Russian taxi dispatcher
REP	29625	12.53	17	03			F1B			Datawell buoy, weak

RSGB - Great Britain – G4BOH (Chris)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
RSGB	7102	1100	05	03	NATO		STANAG 4285	2400	2400	Phoned Baldock with info. QRT shortly after.
RSGB	21001.5	1200	12	03	RUS		F1B	100	130	Baldock DF fix to Sverdlosk area.

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7000,0	0535	6.	3		UiVox	J3E-u			russian
SRAL	7007,0	0625	27.	3		UiPTR	F1B			
SRAL	7009,0	0625-0700	27.	3		UiMUX	PSK2	120	2600	
SRAL	7012,0	0515-0650	*	3		UiMUX	PSK2	120	2600	Days: 3. 13. 20. 27. 28.
SRAL	7016,0	1100-1200	*	3		UiPTR	F1B		200/250	Days: 1. 5. 10. 20.
SRAL	7018,7	1400-1827/	6.	3		UiCarr	N0N			
SRAL	7020,0	0645	25.	3		UiPTR	F1B		250	
SRAL	7021,0	0930	17.	3		UiMUX	PSK2	120	2600	
SRAL	7024,0	1400-1630	19.	3		UiPTR	F1B		250	
SRAL	7030,0	0530-0930	*	3		UiPTR	F1B		250	Days: 10. 13. 26.
SRAL	7033,0	1200	14.	3		UiPTR	F1B			

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7034,0	1125-1300	13.	3		UiMUX	PSK2	120	2600	
SRAL	7036,0	0835	11.	3		UiPTR	F1B		500	
SRAL	7038,25	0450-2020	8. – 10.	3		UiCarr	N0N			+/- 3 Hz
SRAL	7038,7	h24	dly	3	UKR	D	A1A			Sevastopol
SRAL	7038,8	0420-2030	dly	3	RUS	P	A1A			Kaliningrad, days: 1. – 14. 25. – 28.
SRAL	7038,9	h24	dly	3	RUS	S	A1A			Severomorsk
SRAL	7039,0	0415-2030	dly	3	RUS	C	A1A			Moscow
SRAL	7042,0	0850	10.	3		UiMUX	PSK2	120	2600	
SRAL	7044,0	0415-2030	2. 3.	3		UiPTR	F1B		500	
SRAL	7047,0	1300-1730	4. 31.	3		UiMUX	PSK2	120	2600	
SRAL	7048,0	0530	18.	3		UiCW	A1A			MR 5L
SRAL	7057,5	0620-0815	7. 13.	3		UiCW	A1A			MR 5F, 5BL
SRAL	7066,0	1235	21.	3		UiPTR	F1B		200	
SRAL	7076,0	0540-1330/	*	3		UiPTR	F1B		250	Days: 5. 17. 22. 29.
SRAL	7079,0	0530-2020	*	3		UiPTR	F1B		200	Days: 13. 16. 19. Black Sea
SRAL	7084,0	1030-1045/	5. 12.	3		106	A1A			
SRAL	7099,9	0530-1412/	6. 7.	3		UiCarr	N0N			
SRAL	7120,0	0345-0500	dly	3	SOM	R. Hargeisa	A3E			
SRAL	7120,0	1500-1900	dly	3	SOM	R. Hargeisa	A3E			
SRAL	7124,0	1150-1950	21. 25.	3	RUS	UiMUX	PSK2	120	2600	
SRAL	7127,0	0505	17.	3		UiPTR	F1B			
SRAL	7134,5	1500-2030	5. 6.	3	UKR	UiMUX	PSK2	120	2600	
SRAL	7135,5	0615-2100	*	3	UKR	UiMUX	PSK2	120	2600	Days: 4. 5. 6. 17. 19.
SRAL	7138,5	0500-1730	6.	3	UKR	UiMUX	PSK2	120	2600	
SRAL	7139,5	0500-1730	*	3	UKR	UiMUX	PSK2	120	2600	Days: 7. 13. 14.
SRAL	7141,5	0315-2015	8. – 20.	3	UKR	UiMUX	PSK2	120	2600	
SRAL	7143,5	0745-1400	3. 4. 5.	3	UKR	UiMUX	PSK2	120	2600	
SRAL	7145,5	1400-1430	15.	3	UKR	UiMUX	PSK2	120	2600	
SRAL	7160,0	0625-0830	18. 19.	3		UiCW	A1A			MR 5BL
SRAL	7162,0	0530-1300	*	3		UiPTR	F1B		250	Days: 4. 6. 10. 11. 13.
SRAL	7163,7	0620-1800	14.	3		UiCarr	N0N			unstable
SRAL	7166,0	1330-1400	30.	3		UiMUX	PSK2	120	2600	
SRAL	7176,0	1220-1508/	5. 7. 24.	3		UiPTR	F1B		250	
SRAL	7179,0	0535-2015	*	3	UKR	UiMUX	PSK2	120	2600	Days: 6. 17. 18.
SRAL	7181,7	1230-2030	7.	3		UiCarr	N0N			
SRAL	7184,5	1755-1945/	12.	3		UiMUX	PSK2	120	2600	
SRAL	7188,5	1630-1700	12.	3		UiMUX	PSK2	120	2600	
SRAL	7190,5	0630-	4.	3		UiPTR	F1B		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		0700								
SRAL	7190,5	1500-1930	12.30.	3		UiMUX	PSK2	120	2600	
SRAL	7195,88	0645-1041/	2.	3		UiCarr	N0N			
SRAL	7196,0	0500-1415	*	3		PJEI	A1A			Days: 17. 18. 19. procedures
SRAL	7198,0	2010	1.	3		UiMUX	PSK2	120	2600	
SRAL	14000,0	0825	12.	3		UiPTR	F1A			MR 4BL
SRAL	14008,0	0730-1051/	*	3		UiPTR	F1B		250	Days: 1. 13. 17. 19. 30.
SRAL	14015,0	0655	7.	3		UiMUX	PSK2	120	2600	
SRAL	14019,0	0625	27.	3		UiPTR	F1B			
SRAL	14052,0	0705	5.	3		UiMUX	PSK2	120	2600	
SRAL	14135,0	1035-1150/	12.	3		UiPTR	F1B			
SRAL	14141,0	0950-1300	*	3	RUS	UiPTR	F1B		200/500	Days: 1. 5. 7. 10. 17. 19.
SRAL	14171,0	0620	25.	3		UiMUX	PSK2	120	2600	
SRAL	14192,0	0800-1500	dly	3	RUS	UiPTR	F1B		200	
SRAL	14220,0	0615-0700	7.	3		UiPTR	F1B		250	
SRAL	14253,0	0455-1515	*	3		UiPTR	F1B		250	Days: 3. 7. 10. 14. 17. 21. 24. 28. 31.
SRAL	14255,0	0820-0900/	6. 26.	3		UiMUX	PSK2	120	2600	
SRAL	14262,0	0745	19.	3		UiMUX	PSK2	120	2600	
SRAL	14265,0	1040-1049/	29.	3		UiMUX	PSK2	120	2600	
SRAL	14294,0	1230-1845	31.	3	RUS	UiMUX	PSK2	120	2600	
SRAL	14295,2	0030-2000	dly	3	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14304,0	0905-1000	4.	3		UiPTR	F1B		250	
SRAL	14306,0	1015-1125	11.	3		UiMUX	PSK2	120	2600	
SRAL	14 MHz	0515-1645	*	3	RUS	29B6	FMCW			50Hz / 10 kHz, days: 12. 13. 16. 17. 20. 23. 24. 30. 31.
SRAL	18 MHz	0515-2030	*	3	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz, days: 2. 19. 20. 21. 22. 24. (maybe RUS too)
SRAL	18107,0	0730-1235	dly	3	RUS	UiPTR	F1B		200	
SRAL	21 MHz	0930-1700	*	3	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz, 21. 25. 28.
SRAL	21001,5	0415-1700	dly	3	RUS	UiVocod	F1B		140	Subcarr.
SRAL	21438,0	0700-1645	dly	3	RUS	RCV	A1A			procedures
SRAL	24 MHz	0530-1600	*	3	CYP / TUR	UiOTHR	FMCW			25 & 50Hz / 20 kHz, days: 9. 10. 12. 20. 21. 22. 24.
SRAL	24930,0	1140-1758/	20.	3		UiOTHR	FMCW			25 Hz / 4 kHz
SRAL	28 MHz	0515-1700	dly	3	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz
SRAL	28 MHz	0530-1300	*	3	CYP / TUR	UiOTHR	FMCW			25 & 50Hz / 20 kHz, days: 6. 7. 9. 10. 11. 13. 19. 20. 29.
SRAL	28 MHz	0530-1645	*	3	RUS	Taxi disp.	F3E			Days: 1. - 25. 30. 31. 185 reports
SRAL	28100,0	0745-0935/	14.	3		UiOTHR	FMCW			12.5 Hz / 40 kHz

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3552.0	2249	06	03			F1B	50	200	with harmonic at 7104
USKA	7000.0	2313	01	03		D	A1A			Beacon D spurious of 7038.7 often
USKA	7000.0	1709	02	03			J3E-U			unid language
USKA	7019.0	0819	13	03			A1A			Letters in groups of 5; msg headers with #/date/time
USKA	7025.88	1443	27	03			PSK-4	1200	1k2	
USKA	7038.7	2312	01	03	UKR	D	A1A			Beacon D Sevastopol daily
USKA	7038.8	2243	06	03	RUS	P	A1A			Beacon P Kaliningrad daily
USKA	7038.9	2244	06	03	RUS	S	A1A			Beacon S Murmansk daily
USKA	7039.2	2214	13	03	RUS	F	A1A			Beacon F Vladivostok
USKA	7039.4	2328	01	03	RUS	M	A1A			Beacon M Magadan daily
USKA	7044.0	1633	02	03			F1B	40.5	500	
USKA	7077.4	2316	01	03		D	A1A			Beacon D spurious of 7038.7 often
USKA	7079.0	1836	16	03			F1B	75	200	
USKA	7089.8	2324	26	03			G1D	2400	2k4	PSK-8: Link 11- SLEW often
USKA	7096.0	2318	01	03			B7D	75	5k83	LINK 11 CLEW 75Bd DQPSK DSB mode; DNCS IWM and IM
USKA	7096.0	2323	04	03			B7D	75	5k83	LINK 11 CLEW 75Bd DQPSK DSB mode; DNCS IM
USKA	7101.8	0927	05	03			PSK-8	2400	2k4	Stanag 4285 ~320° Frame format 600bps long
USKA	7104.0	2249	06	03			F1B	50	400	harmonic of 3552 kHz
USKA	7105.0	2202	13	03			?		~7k	unidnt signal, jammer? daily
USKA	7117.0	2148	13	03			FMCW	66.66	10k	OTHR Burst system BD 3.9s
USKA	7120.0	1805	21	03	SOM		A3E			Radio Hargaysa daily
USKA	7124.0	1902	21	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7128.5	1329	06	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7134.0	0825	17	03			J7D		2k7	CIS12 system. idling
USKA	7135.0	1517	05	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7138.5	1541	06	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7140.5	1101	11	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7141.5	0921	04	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D often
USKA	7143.5	1653	03	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7166.0	2152	13	03			B7D	75	5k83	LINK 11 CLEW 75Bd DQPSK DSB mode; DNCS IWM and IM
USKA	7166.56	1618	02	03		R	A1A			Beacon ID = R
USKA	7179.0	1647	03	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D often
USKA	7192.0	1527	26	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7200.0	2245	06	03			A3E		±10k	BC, interfering 40m band daily sounds like Chinese language
USKA	14003.0	1036	04	03			F1B	75	250	
USKA	14005.0	1058	04	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14141.0	1001	05	03			F1B	75	500	
USKA	14192.0	1428	02	03			F1B	50	200	CIS 50-50 almost daily
USKA	14208.0	1534	26	03			FMCW	25 sps	20k	OTHR, only short transmission
USKA	14221.0	2315	04	03			F1B	41.85	200	
USKA	14225.0	2311	04	03			FMCW	66.66	10k	OTHR BD ~3.9 s
USKA	14288.0	1304	13	03			FMCW	50 sps	10k	OTHR
USKA	14300.0	2312	16	03			FMCW	66.66	10k	OTHR BD ~3.9 s BRI ~34s
USKA	14306.0	1020	11	03			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14331.0	2227	18	03			FMCW	47 sps	10k	OTHR, bursts BD ~5.5s BRI ~40s
USKA	14344.65	1426	02	03			PSK-8	2400	2k4	similar MIL 188-110A, modified burst system daily
USKA	18100.0	1138	11	03		C3	MFSK8	125	1750	MIL 188-141A "LQA"
USKA	18107.0	1035	08	03			F1B	50	200	CIS36-50 almost daily
USKA	18107.0	1113	08	03			F1B	36	200	CIS36-50 almost daily
USKA	18137.0	1101	04	03			F1B	50	1k8	harmonic
USKA	21001.5	1017	11	03			F1B	100	150	Vocoder Yakhta daily
USKA	21112.0	1012	11	03			FMCW	47 sps	20k	OTHR, bursts BD ~5.5s ~BRI 32s
USKA	21130.0	0938	04	03			FMCW	50 sps	20k	OTHR
USKA	21229.5	1106	05	03			OFDM	75		over hours
USKA	21305.0	1059	09	03			FMCW	47 sps	10k	OTHR, bursts BD ~5.5s ~BRI 16.5s
USKA	21347.0	0744	03	03			FMCW	66.66	10k	Burst system BD 3.9s ~BRI 33.7s

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	21373.0	1053	23	03			FMCW	47 sps	10k	OTHR, burst system BD ~ 10.8s BRI 21.5s
USKA	21390.0	0951	21	03			FMCW	50 sps	20k	OTHR
USKA	21400.2	1032	02	03			PSK4	8x75		PRC 4+4 system
USKA	21420.0	1722	27	03			J3E-U		2k6	Spanish, no ham, maybe fishery? several stations
USKA	21427.0	0935	11	03			FMCW	66.66 sps	10k	OTHR, bursts
USKA	21435.0	0740	03	03		RCV	A1A			letters and figures; almost daily
USKA	21451.0	0958	11	03			FMCW	47 sps	20k	OTHR, bursts BD ~5.5s BRI variable 32s and 10s
USKA	24910.0	0953	09	03			FMCW	50 sps	20k	OTHR
USKA	28001.5	1058	13	03	RUS		F1B	100	150	also encrypted voice (21000) Vocoder Yaktha
USKA	28030.34	1244	13	03			NON ?		1k	sweeping signal often
USKA	28166.0	0928	15	03			FMCW	25 sps	20k	OTHR
USKA	28213.0	0946	16	03			FMCW	40	40k	OTHR
USKA	28223.5	1117	13	03			F1B	100	150	also encrypted voice Vocoder Yaktha
USKA	28307.0	1100	31	03			FMCW	307 870	~50k	OTHR Burst system
USKA	28475.0	1103	23	03			FMCW	307 870	~50k	OTHR Burst system
USKA	28530.0	0946	04	03			FMCW	50 sps	20k	OTHR
USKA	28576.0	1224	13	03			FMCW	50 sps	20k	OTHR
USKA	28600.0	0841	17	03			FMCW	307 870	~50k	OTHR Burst system often
USKA	28755.0	1044	18	03			FMCW	307 870	~50k	OTHR Burst system often
USKA	28870.0	1210	02	03			FMCW	307 870	~50k	OTHR Burst system often
USKA	28885.0	0959	31	03			FMCW	307 870	~50k	OTHR Burst system often
USKA	28895.0	1203	02	03			FMCW	307 870	~50k	OTHR Burst system often
USKA	28940.0	1352	03	03			FMCW	25 sps	20k	OTHR
USKA	28985.0	1108	04	03			FMCW	307	~50k	OTHR Burst system often
USKA	29000.0	0959	16	03			FMCW	307 870	~50k	OTHR Bursts system often
USKA	29450.0	1332	08	03			F1B	81.92	140	Datawell buoy daily
USKA	29500.0	1045	15	03			FMCW	various	>50k	OTHR Burst system often
USKA	29630.0	0928	15	03			FMCW	50 sps	20k	OTHR

Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3552,0	20.55	17	3		UiPTR	F1B		Revs (also at 20/03 19.50)
VERON	3797,0	19.48	20	3		UiPTR	F1B		Revs/Dotter
VERON	7038,7	16.30	16	3	UKR	D	A1A		D-beacon (also at 20/03 19.45)
VERON	7038,8	19.28	1	3	RUS	P	A1A		Beacon Kaliningrad
VERON	7038,8	21.13	2	3	RUS	P	A1A		Beacon Kaliningrad
VERON	7038,9	16.30	16	3	RUS	S	A1A		S-beacon (also at 20/03 19.46)
VERON	7075,0	18.33	11	3		UiCAR	NON		carrier, S-9
VERON	7120,0	16.49	10	3	SOM	R.Har	A3E		music
VERON	7120,0	18.30	23	3	SOM	R.Har	A3E		music
VERON	7120,0	18.36	26	3	SOM	R.Har	A3E		speech
VERON	7135,0	18.50	5	3		UiMUX	PSK		12 MPSK AT3004D
VERON	7137,0	21.33	1	3	RUS?	UiPtr	F1B	200	
VERON	7141,0	19.39	17	3	RUS	UiMUX	PSK		12 MPSK AT3004D
VERON	7177,0	19.50	17	3		UiMUX	PSK		12 MPSK AT3004D
VERON	14008,0	08.13	19	3	RUS	UiPtr	F1B	500	Ptr, Moscow
VERON	14026,0	08.13	20	3	RUS	UiMUX	PSK		12 MPSK AT3004D
VERON	14135,0	10.58	12	3		UiPtr	F1B	200	Ptr
VERON	14140,0	11.16	1	3	RUS	UiPtr	F1B	200	Ptr

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	14141,0	10.30	7	3		UiPtr	F1B	500	Ptr, also 9/3 09.53 utc
VERON	14141,0	10.54	17	3		UiPtr	F1B	200	Ptr
VERON	14141,0	12.16	17	3		UiPTR	F1B		Ptr (also at 18/03 10.52)
VERON	14192,0	16.20	1	3		UiPTR	F1B		Revs/Ptr (also at 10/03 14.33)
VERON	14192,0	15.54	1	3	RUS	UiPtr	F1B	200	
VERON	14253,0	10.00	26	3		UiPtr	F1B	250	Ptr
VERON	21001,0	14.27	10	3		UiPTR	F1B		Ptr
VERON	21001,5	11.33	18	3	RUS	UiPtr	F1B	150	Vocoder Yaktha, also 26/3
VERON	21199,0	13.24	30	3		UiMux	PSK4	400	
VERON	21312,0	10.02	26	3		OTHR	FMCW		radar
VERON	21322,0	09.55	9	3					frequency hopper
VERON	24909,0	10.00	9	3	Cyprus	OTHR	FMCW		radar Cyprus
VERON	24930,0	16.01	20	3	Cyprus	OTHR	FMCW		radar
VERON	28130,0	09.37	31	3	RUS	TAXI	F3E		female
VERON	28135,0	10.25	7	3	RUS	TAXI	F3E		female
VERON	28135,0	10.58	11	3	RUS	TAXI	F3E		female
VERON	28135,0	10.55	17	3	RUS	TAXI	F3E		female, S-9, also 18/3
VERON	28145,0	10.57	11	3	RUS	TAXI	F3E		female
VERON	28145,0	11.01	17	3	RUS	TAXI	F3E		female, S-9, also 18/3
VERON	28150,0	10.36	7	3	RUS	TAXI	F3E		female
VERON	28155,0	11.05	17	3	RUS	TAXI	F3E		female, S-9
VERON	28155,0	08.40	19	3	RUS	TAXI	F3E		male, female
VERON	28165,0	10.37	7	3	RUS	TAXI	F3E		female
VERON	28165,0	09.38	31	3	RUS	TAXI	F3E		female
VERON	28185,0	11.02	3	3	RUS	TAXI	F3E		female
VERON	28190,0	11.00	11	3	RUS	TAXI	F3E		female
VERON	28195,0	09.40	31	3	RUS	TAXI	F3E		female
VERON	28223,0	11.15	13	3		UiPtr	F1B	150	Ptr
VERON	28245,0	10.57	11	3	RUS	TAXI	F3E		female
VERON	28255,0	10.56	11	3	RUS	TAXI	F3E		female
VERON	28265,0	11.08	18	3	RUS	TAXI	F3E		female, S-9 +10dB
VERON	28275,0	10.37	1	3	RUS	TAXI	F3E		female
VERON	28275,0	10.37	7	3	RUS	TAXI	F3E		female
VERON	28280,0	11.03	11	3	RUS	TAXI	F3E		female
VERON	28285,0	15.40	2	3	RUS		F3E		Taxi Traffic
VERON	28360,0	10.49	11	3		OTHR	FMCW		radar
VERON	28632,0	13:59	2	3					Frequency hopper

The monitoring team of IARU Region 1

Many thanks for your interest!

compiled and published by DK2OM

April 2014