International Amateur Radio Union

Region 1

Monitoring System

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The monthly newsletter for Region 1

December 2018

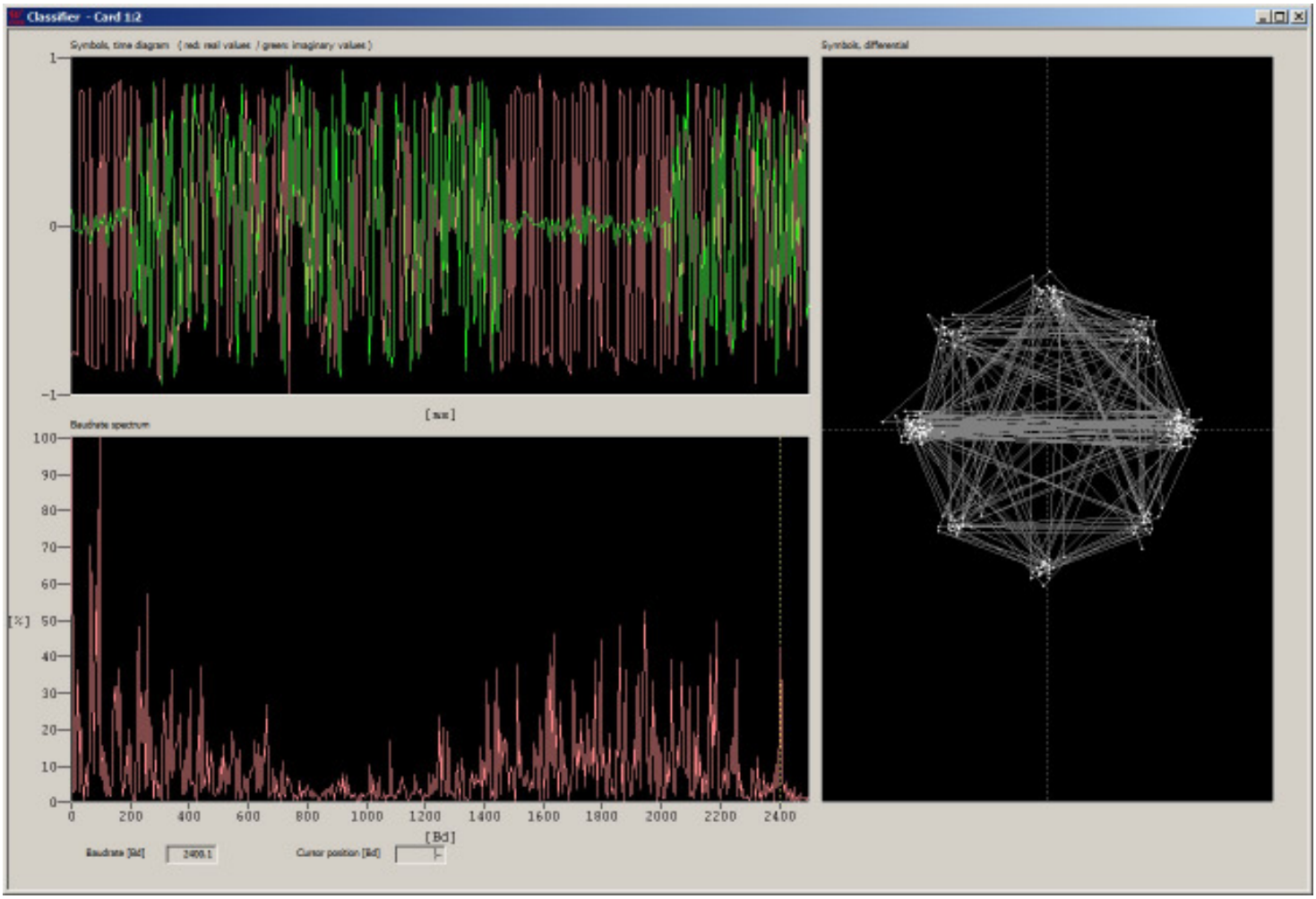
The 28 members of the IARUMS Region 1 Monitoring Team:

Acknowledgements

ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4BV - Kamweti ++ DARC: DK2OM – Wolf ++ EARS: A61M – Obaid ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVSV: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: G4DYA - Richard ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – N.N. ++ UBA: ON8IM – Ivan +++ URE: EA6AMM - Gaspar ++ USKA: HB9CET - Peter ++ VERON: PG1R - Ruud ++ ZRS: S56ZDB – Darko ++ LU1BCE – Carlos (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster supp.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1) ++ PTTs: BAKOM (Swiss) ++ OFCOM (UK) ++ Dutch AT ++ Austrian PTT ++ German BNetzA Konstanz

Part 1: News and Infos

1. **5361 .80 kHz - Stanag-4285 – Danish Navy – legal operation!**
   The Danish Navy in Aarhus is operating on Stanag-4285 on 5361.8 kHz from time to time.
   PSE observe: The Danish Navy is a primary user!
   Screenshot: DK2OM with Wavecom W-Code showing the Baudrate and the phase plane (PSK8A traffic mode)



2. **7070.0 ALE net (MIL-188-141A)**
   We observed again an ALE net on 7070.0 kHz from Georgia.

3. **7070.0 Fishery meeting point**
   Illegal fishery traffic on USB was found on 7070 kHz often like telephone. Location probably North-West Africa.

4. **7120 kHz - Radio Hargeisa still off**
   Radio Hargeisa was not heard on 7120 kHz.

5. **14221.0 – F1B from Kyrgyzstan**
   The F1B on 14221.0 from Kyrgzystan (Bishkek) was still daily active. Parameters: F1B , 50 Bd, 200 Hz shift, mostly idling. The German BNetzA Konstanz filed another complaint.

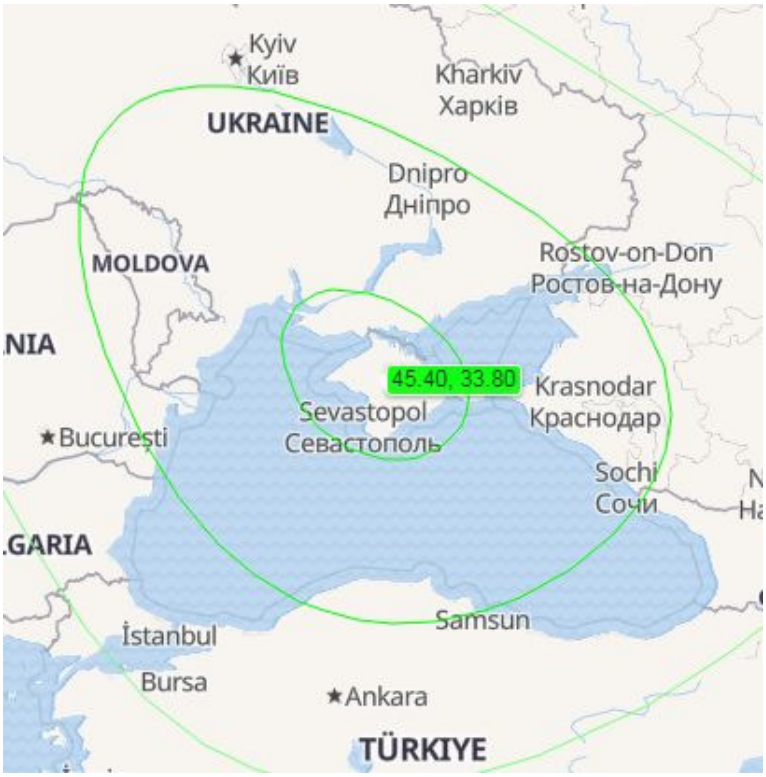
6. **7002.0 Pactor 1 net from Algeria**
   A Pactor 1 net was observed on 7002.0 kHz (center). The emissions were daily heard at various times.

7. **7193.0 F1B from Kaliningrad (Russia)**
   The F1B transmission on 7193.0 from Kaliningrad were often audible. Parameters: 50 Bd, 200 Hz shift, ident: RDL (Russian Navy) The German BNetzA Konstanz prepared another complaint.

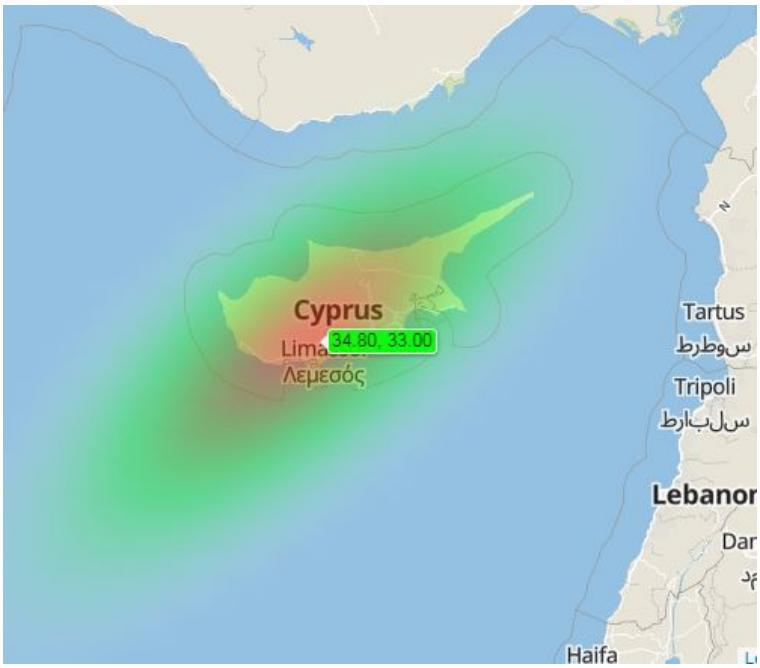
8. **29650.0 – Datawell buoy at the area of Amrum – Germany**
   A German HAM reported an F1B transmission on 29650.0 kHz. Parameters: F1B – 81.9 Bd – 140 Hz shift, well known for Datawell buoys at coastal regions. The transmissions were finished.

9. **Russian OTH radar Contayner on 7200 kHz**
   The Russian OTH radar “Contayner” was on air on 7200 kHz on Dec. 11th.

10. Bearings with TDoA:



The Russian MIL system AT3004D (12 x 120 Bd PSK2A) on 3511.0 kHz on Dec. 11th.
Please observe: Shared band!



OTH radar Cyprus on 21170 kHz on Dec. 11th
Parameters: FMCW, 50 sweeps/sec, 20 kHz wide

11. Miscellaneous news:

3516.0 kHz – USB – Spanish fishermen every morning
5350.0 kHz – USB – Spanish fishery – splattering up to 5353.0 kHz
7070.0 kHz – USB – Spanish fishery
7120.0 kHz – A3E – Radio Hargeisa mostly off in Dec. 2018
7140 and 7180 kHz – A3E – Radio Eritrea without QRM (German PTT informed)
14295.0 kHz – harmonic from Radio Tajik on 4765 kHz (no change)

12.

Homepage IARU Region 1 http://www.iaru-r1.org/
Homepage IARUMS Region 1 http://www.iarums-r1.org
Homepage IARUMS Region 2 http://www.iarums-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/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx

Part 2: Detailed reports of the national Co-ordinators

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

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

DG0JBJ (Mario) observed 4 OTH radar on 40 m, 8 OTH radars on 20 m, 65 OTH radars on 17m, 28 OTH radars on 15 m and 0 OTH radars on 10 m in December 2018. Mario has finished his service on Dec. 31st 2018. Many thanks dear Mario for your long lasting support!

DARC 2 – Germany - DK2OM (Wolf)

FSK transmissions -> center frequency between mark and space
PSK transmissions -> center QRG - ALE (MIL188-141A) -> USB QRG
exclusive bands -> black – shared bands -> blue - voice traffic -> green - BC -> red
SH = shift - SP = spread (radar) – SPS = sweeps/sec (radar) -> (aka PRF)

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	1810,5	ady	dly	12	ROU		A1A			CW beacon – YR2TOP – 1810.518 kHz – just for info
DK2OM	1812,0	2058	07	12	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1855,0	2028	10	12	I	IQP	USB			San Benedetto Radio, weather reports - daily
DK2OM	1888,0	1955	31	12	I	IPD	USB			Civitavecchia Radio, weather reports - daily
DK2OM	1925,0	2030	10	12	I	IPL	USB			Livorno Radio, weather reports - daily
DK2OM	**3500,0**	**0920**	**12**	**12**	**E**		**USB**			**Spanish fishery**
DK2OM	3503,5	vt	dly	12	G	no ITU	FSK8	125	1750	ALE – "XSS" "XPU" "XJR" – British MIL Tascomm – vt, daily - legal!
DK2OM	3506,0	2010	19	12	RUS		PSK2A	120	2600	AT3004D – submode idle – area of Tambov
DK2OM	3511,0	1957	11	12	RUS		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	3525,0 RF	---	--	12	F		PSK8	2400	2400	Link11 – SLEW - area of Marseille
DK2OM	3527,0	2000	dly	12	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3529,0 RF	2024	03	12	Atlantic		PSK4	75	2400	LINK11-CLEW – ship area of Azores Islands
DK2OM	3531,0	---	--	12	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: full hour + 40 min - daily
DK2OM	3532,0	2100	12	12	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3548,0	2023	04	12	RUS	RDL	F1B	50	200	RUS navy Kaliningrad
DK2OM	**3550,0**	**0630**	**dly**	**12**	**F**		**A3E**			**French amateurs not respecting bandplans – every morning**
DK2OM	3550,0	2000	08	12	RUS		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	**3550,0**	**1620**	**16**	**12**	**E**		**USB**			**Spanish fishery**
DK2OM	3550,7	1629	16	12	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial - legal operation!
DK2OM	3553,8	ady	dly	12	TUR		PSK8A	2400	2400	Stanag4285 – 600 bps long -TUR

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										MIL - Ankara – daily, all day - legal operation
DK2OM	**3566,0**	**2042**	**13**	**12**	**E**		**USB**			**Spanish fishery**
DK2OM	3579,6	1743	12	12	BLR		F1B	81	280	very unclean
DK2OM	3585,0	ady	dly	12	TWN	HLL	F1C		800	WX-fax Taiwan - 120 rpm, IOC 576 - daily, all day - legal!
DK2OM	3586,0	vt	dly	12	HOL		PSK2A	40	40	Amsterdam - daily
DK2OM	3586,0	2058	20	12	RUS		F1B	66	200	idle – unclean – Veliky Novgorod
DK2OM	3590,0	1950	19	12	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	3590,0	1620	31	12	F		A3E			French amateurs not respecting bandplans
DK2OM	3594,2	---	--	12	RUS	F	A1A			Cluster beacon F - Vladivostok RUS Navy - **"RJS"**
DK2OM	3595,0	---	--	12	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **"RCC"**
DK2OM	3596,0	vt	dly	12	J		FSK8	125	1750	ALE, "JH1ESB" – just for info!
DK2OM	3622,5	ady	dly	12	J	JMH	F1C		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!!!
DK2OM	3635,0	2030	07	12	UKR		PSK4 A	120	2600	AT3104D – West-Ukraine
DK2OM	3716,5	2027	11	12	RUS		PSK2A	120	2600	AT3004D – submode idle - Kaliningrad
DK2OM	3756,0	1800	dly	12	RUS		USB			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG – daily
DK2OM	3792,0	2030	11	12	RUS		F1B	50	200	Kaliningrad – shared band!
DK2OM	5285,0	2247	17	12	RUS		FMOP		120k	Russian coastal radar "Sunflower" – 43 sps – 5285 – 5405 kHz - Makhachkala
DK2OM	**5350,0**	**---**	**--**	**12**	**E**		**USB**			**Spanish fishery – splattering up**
DK2OM	5352,0	1952	11	12			USB			unid pirates – weak signal
DK2OM	5355,0	1957	02	12	RUS		FMOP		50k	Russian coastal radar "Sunflower" – 43 sps – 5355 – 5405 kHz - Makhachkala
DK2OM	5360,5	1440	22	12	RUS		F1B	50	200	Moscow - legal
DK2OM	5361,8 RF	1510	17	12	DNK	OUA15	PSK8A	2400	2400	Stanag-4285 – 600 bps long – assigned to Danish Navy Aarhus - legal – primary user !
DK2OM	5362,0	1235	21	12	RUS		PSK2A	120	2600	AT3004D – submode idle – NW of Bryansk – legal!
DK2OM	7000,0	ady	dly	12	RUS		FMOP		14k	coastal radar Sunflower - 43 sps 7000 – 7005 kHz – NE of Vladivostok
DK2OM	7008,0	1130	19	12	RUS		F1B	75	250	Moscow - daily
DK2OM	7010,0	vt	vd	12	ALB	no ITU	FSK8	125	1750	ALE, "RS0" - Tirana
DK2OM	7010,0	1400	27	12	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	7018,0	---	--	12	RUS	REA4	F1B	100	800	mostly idling – Russian airforce Moscow – ident at full hour + 41 min. on F1A
DK2OM	7020,0	vt	vd	12	ALB		FSK8	125	1750	ALE, "CS004A" "RS004D" "CS004" - daily
DK2OM	7031,0 RF	0900	18	12	RUS		unid			pulsing carrier and spurious – 7032.170 - Sevastopol
DK2OM	7036,0	1713	29	12	RUS		F1B	50	250	Samara
DK2OM	7038,8	**---**	**--**	12	RUS	P	A1A			Cluster beacon „P"– Kaliningrad RUS Navy – **"RMP"**
DK2OM	7039,0	---	--	12	RUS	C	A1A			Cluster beacon „C" - Moscow RUS Navy - "**RIW**"
DK2OM	7039,2	---	--	12	RUS	F	A1A			Cluster beacon „F" - Vladivostok RUS Navy - **"RJS"**
DK2OM	7039,3	---	--	12	RUS	K	A1A			Cluster beacon "K" Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **"RCC"** - daily
DK2OM	7039,4	ady	dly	12	RUS	M	A1A			Cluster beacon „M" – Magadan

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										RUS Navy – **„RTS“ - daily**
DK2OM	7040,5	vt	dly	12	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7049,5	vt	dly	12	HRV G F I	9A0ALE M1DFO F6BAZ IW3IPM	FSK8	125	1750	Amateur ALE, just for info! daily – various times
DK2OM	7050,0	vt	dly	12	KGZ		FSK8	125	1750	ALE, “X” “810” “820615” “810698” – Kyrgyzstan MIL
DK2OM	7055,0	vt	dly	12	UKR		LSB			music and Russian voices
DK2OM	7070,0	2227	05	12	GEO		FSK8	125	1750	ALE, „20001“ „10003“ „2201“ „2203“ „686“ „288“ „220“ „571“
DK2OM	7070,0	1100	06	12	E		USB			Spanish fishery – like telephone
DK2OM	7071,0	0900	12	12		PJN	A1A			CW asking for QSY
DK2OM	7072,0	1110	10	12	RUS		PSK4A	120	2600	AT3104D - Moscow
DK2OM	7088,8	---	--	12	S	SL0FRO	A1A			7088.830 kHz - cw-trainee, Sweden - SL0FRO - just for info!
DK2OM	7089,0	1757	13	12	RUS		PSK2A	120	2600	AT3004D - Penza
DK2OM	7089,8	---	--	12	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft ? west of Izmir
DK2OM	7099,5	vt	dly	11	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	vd	12	HRV SUI D	9A0MIL	FSK8	125	1750	ALE, “9A3MIL” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
DK2OM	7110,0	vt	dly	12	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7111,0 LSB	1832	05	12	CHN		PSK4A	60	2350	burst system “PRC-30” – 30 tones – 450 Hz pilot tone
DK2OM	7112,0	1420	27	12	RUS		PSK2A	120	2600	AT3004D – ssubmode idle
DK2OM	7117,0	---	--	12	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident on CW at 1640 utc on the mark-QRG
DK2OM	**7120,0**	**---**	**--**	**12**	**SOM**		**A3E**		**9k**	**Radio Hargeisa – Somaliland**
DK2OM	7137,0	vt	dly	12	TWN		FSK8 LSB	125	1750	ALE, “EDKLT” “EVSNG” “ECCLT” “EFNGX” “EVNNM” “EVWRK” “EGFXA” “ECQUY” “EFYMO” “EWPEN” “ECXKF” “EWRAJ” “ECHTD” “EUIQE” “EBPGH” Taiwanese navy
DK2OM	**7140,0**	**1827**	**dly**	**12**	**ERI**		**A3E**		**9k**	**7140.024 kHz - Radio Eritrea**
DK2OM	7156,0	1400	05	12	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7156 – 7188 kHz
DK2OM	7160,0	vt	30	12	FEa		FMOP		32	Codar like ocean surface radar 2.6 sps – 7160 – 7192 kHz
DK2OM	**7180,0**	**1526**	**dly**	**12**	**ERI**		**A3E**		**9k**	**7180.022 kHz - Radio Eritrea**
DK2OM	7185,0	vt	dly	12	HRV		FSK8	125	1750	ALE, „9A5EX“ – just for info
DK2OM	7185,5	vt	dly	12	J TWN		FSK8	125	1750	ALE, “BV4AS” “JH1ESB” - just for info - daily
DK2OM	7193,0	0919	03	12	RUS	RDL	F1B	50	200	CIS36-50 - Kaliningrad
DK2OM	7197,0	vt	dly	12	TUR		FSK8	125	1750	ALE, „353013“ „334018“ „314013“ - Turkish Sivil Avunma – Turkish Civil Defense
DK2OM	7198,0	0927	24	12	RUS		PSK2A	120	2600	AT3004D – Moscow
DK2OM	**7200,0**	**---**	**--**	**12**	**MMR**		**A3E**		**9k**	**Myanmar Radio**
DK2OM	7200,0	1236	11	12	RUS		FMCW		6k	OTH radar Contayner – 7197 – 7203 kHz
DK2OM	10100,8	ady	dly	12	D	DDK9	F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10110,0	vt	dly	12	SNG		FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	10113,0	vt	vd	12	TUN		FSK8	125	1750	ALE, "TUD" "STAT5" "STAT154"
DK2OM	10114,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "BSF" "ZEN" "CM2OR2"
DK2OM	10115,0	vt	dly	12	MRC		FSK8	125	1750	ALE, "100" "114" "203" "XXZ" – West Sahara
DK2OM	10120,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "CM6" "01012016"
DK2OM	10120,0	1610	24	12	CYP		FMCW		20k	OTH radar Cyprus – 10110 – 10130 kHz
DK2OM	10123,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "CM3" "COF" "BSF" "CM2" "ESA" – Algerian Airforce
DK2OM	10124,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "OEB" - ALG airforce
DK2OM	10129,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "CM1" "CTF" "772"
DK2OM	10130,0	0820	07	12	RUS		F1B	50 100	500	unclean - area of Chita – daily, all day
DK2OM	10130,0	vt	dly	12	MLI		FSK8	125	1750	ALE, „105002" „105018" - Mali
DK2OM	10130,0	1457	10	12	CYP		FMCW		20k	OTH radar Cyprus - 50 sps – 10120 – 10140 kHz
DK2OM	10132,0	vt	vd	12	F		USB			French amateurs not respecting bandplans and disturbing beacons
DK2OM	10136,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "CM3" "BLD" "CNC" "TF2"
DK2OM	**10144,0**	**ady**	**dly**	**12**	**D**	**DK0WCY**	**A1A**			**10144.000 kHz - DK0WCY – German aurora beacon – just for info!**
DK2OM	10145,5	vt	dly	12		JH1ESB	FSK8	125	1750	ALE, "JH1ESB" - just for info - daily
DK2OM	10145,5	vt	dly	12	TWN AUS	BV4AS	FSK8	125	1750	ALE, "BV4AS" "VK4SAA"– just for info!
DK2OM	**14000,0**	**vt**	**dly**	**12**	**FEa**		**USB**			**Far East pirates – east of Indonesia**
DK2OM	14100,0	vt	dly	12	ALG		FSK8	125	1750	ALE, "6206" "6204" "6212" "6202" "6203" "6207" "6217" "MTL" "IJI" – Mauritanian border – daily, all day
DK2OM	14108,0	---	--	12	RUS	6TY5	A1A			encrypted groups – RUS MIL – area of Moscow
DK2OM	14109,0	vt	dly	12	TWN	HAM	FSK8	125	1750	ALE, "BV4AS" – daily - just for info!
DK2OM	14109,0	vt	dly	12	S HRV D		FSK8	125	1750	ALE, "SM3FXL" "9A4OS" "9A3BRV" "DK0ESD" - just for info!
DK2OM	14109,0	vt	vd	12	J		FSK8	125	1750	ALE, "JH1ESB" – just for info
DK2OM	14120,0	0949	19	12	RUS		PSK2A	120	2600	AT3004D – submode idle, test and traffic - Petrozavodsk
DK2OM	14155,0	0818	13	12	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14155 – 14315 kHz
DK2OM	14160,0	vt	dly	12	MRC		FSK8	125	1750	ALE, "9204" "9228" "9236"
DK2OM	14173,0	vt	vd	12	?		FSK8	125	1750	ALE, „ABC" „AK0" „DD2" „XYZ"
DK2OM	14192,0	vt	dly	12	RUS		F1B	50 75 50 100 100	500 500 200 500 200	RUS navy Kaliningrad - daily
DK2OM	14221,0	0520	14	12	KGZ		F1B	50	200	Bishkek – mostly idling - daily various times
DK2OM	14260,0	vt	dly	12	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	**14260,0**	**---**	**--**	**12**	**UKR**		**A3E**			**female voice with encrypted msgs – figures – "SZRU" = Foreign Intelligence Service of Ukraine in Rivne**
DK2OM	14295,0	vt	dly	12	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	14346,0	vt	dly	12	POR		FSK8	125	1750	ALE, "CT2IXQ" just for info –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										various times, daily
DK2OM	14348,5	0847	20	12	THA	HS0ZEA	A1A			HS0ZEA beacon – 14348.488 kHz - every 5 minutes – daily - just for info!
DK2OM	18055,0	0915	08	12	CYP		FMCW		20k	OTH radar splattering up to 18068 kHz
DK2OM	18070,0	0850	31	12	CYP		FMCW	20k		OTH radar Cyprus – 50 sps - 18060 – 18080 kHz
DK2OM	**18080,0**	**0630**	**dly**	**12**	**TWN**		**A3E/BC**			**Sound of Hope – Taiwan and Chinese BC jammer – daily at 06 utc and later**
DK2OM	18100,0	vt	dly	12	MRC		FSK8	125	1750	ALE, "A2" "A4" "A5" "A7" "S6" – "C3" "R3" "G401" "CD" "09" "G2" "LG6" "G301" "ELJADIDNET4" - daily, various times
DK2OM	18106,0	vt	vd	12	POR	CT2GOY	FSK8	125	1750	ALE, "CT2GOY" – just for info!
DK2OM	18106,2	vt	dly	12	TWN		FSK8	125	1750	ALE, "BV4AS" – just for info!
DK2OM	18107,0	vt	vd	12	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow – idle and traffic – daily - Russian navy – shared band!
DK2OM	18150,0	---	--	12	RUS		F1B	100	1000	harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad
DK2OM	18160,0	0940	26	12	CYP		FMCW		20k	OTH radar Cyprus – 50 sps - 18160 – 18180 kHz
DK2OM	**21000,0**	**---**	**--**	**12**	**B**		**USB**			**Brazilian pirates – Rio de Janeiro with North Brazil – very often**
DK2OM	21096,0	vt	dly	12	INS	YD0OXH	FSK8	125	1750	ALE, "YD0OXH3" – daily, various times - just for info!
DK2OM	21096,0	vt	vd	12	G		FSK8	125	1750	ALE, "M1DFO" – just for info!
DK2OM	21145,0	vt	dly	12	MRC		FSK8	125	1750	ALE, "A" "B301" "C3", "IR4" "H4" "IR6" "T4" "E4" "A2" "CD" "K3" "KB2" "J5" "J52" "GR2" "GS4" "R3" "R301" "R33" "R8" "R5" "Y1" "S51" "S3" "S4" "S512" "S552" "G2" "G501" - various times, daily
DK2OM	21170,0	0942	11	12	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	21190,0	---	--	12	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow
DK2OM	21400,0	---	--	12	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow
DK2OM	21438,0	vt	vd	12	RUS	RCV	A1A			RKZ – RJV de RCV - RUS Navy Sevastopol - often
DK2OM	21446,0	---	--	12	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	---	--	12	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day – just for info!
DK2OM	**28000,0**	**---**	**--**	**12**	**B**		**A3E**			**Brazilian CBers – 28000 – 28325 – daily, all day - no change**
DK2OM	**28000,0**	**---**	**--**	**12**	**CIS**		**F3E**			**28000 – 29700 numerous CIS taxi nets – no change**
DK2OM	28025,0	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28051,5	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28065,0	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28075,0	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Atlantic Ocean - Enagal GPS buoy
DK2OM	28085,1	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28212,0	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28275,0	---	--	12	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	**28435,0**	**----**	**--**	**12**	**E**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 28435.040 kHz – Costa del Sol – Malaga**
DK2OM	28459,8	---	--	12	GAB		A3E		1060	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon - daily
DK2OM	**28499,8**	**---**	**--**	**12**	**MEa**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 28499.875 kHz – Persian Gulf**
DK2OM	28746,5	---	--	12	GAB		A3E			carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon
DK2OM	28751,6	---	--	12	GAB		A3E		1080	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon
DK2OM	28860,0	---	--	12	IRN		AM-pulse		55k	Iranian radar bursts – 313 and 150 sps – long lasting
DK2OM	29114,0	---	--	12	RUS		F1B	100	2000	harmonic from14557.0 kHz - Moscow
DK2OM	**29249,9**	**---**	**--**	**12**	**E**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29249.880 kHz – Spain Fuerteventura – reported by CT2IWW**
DK2OM	**29375,0**	**---**	**--**	**12**	**I**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29374.898 kHz – Gallipoli, South Italy - daily, all day**
DK2OM	**29387,5**	**---**	**--**	**12**	**IND**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day**
DK2OM	**29400,0**	**---**	**--**	**12**	**USA**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day**
DK2OM	**29450,0**	**---**	**--**	**12**	**MRC**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29449.863 kHz - area of El Aaiun – Morocco - daily, all day**
DK2OM	**29500,0**	**---**	**--**	**12**	**G**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29499.974 kHz- area of Gibraltar – daily, all day**
DK2OM	**29525,0**	**---**	**--**	**12**	**MRC**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day**
DK2OM	**29625,0**	**---**	**--**	**12**	**USA**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day**
DK2OM	**29650,0**	**ady**	**dly**	**12**	**D**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – area of Sylt / Amrum – German PTT informed**
DK2OM	29685,0	---	--	12	I		VFT		2300	Italian MIL – Brescia - daily
DK2OM	29699,5	---	--	12	I		VFT		1600	Italian MIL – Brescia - daily
DK2OM	**50100,0**	**vt**	**dly**	**12**	**D**		**QRM**			**1.8 - 50 MHz strong QRM by a neighbouring LED lamp - since April 2016 - "many thanks" to German "PTT" Eschborn** 

IRTS – Ireland – EI3GYB (Michael)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
IRTS	1812	1755	07	12	RUS		USB/LSB	Russian military Kaliningrad. Heard from late afternoon through all night nearly every day with medium strength.
IRTS	1846	1930	31	12			LSB	Somebody broadcasts music on and off to disturb a SOTA activation.
IRTS	1890	1840	16	12	E or MM		USB	2 Spanish fishermen. Bad audio.
IRTS	1980	1823	28	12	POR or MM		USB	2 Portuguese fishermen. Portuguese VHF traffic in the background of one of the ships. Also loud motor noise coming from one of the ships.
IRTS	3517	1130	02	12	POR or MM		USB	2 Portuguese fishermen. One of them has an unstable transmitter moving between 3517.25 and 3717.45 KHz. Chat ends at 1143z.
IRTS	3550	0700	03	12	F		AM	Group of French HAMs violating the band plan on a daily basis. Strong signals.
IRTS	3550	1340	05	12	DNK or MM		USB	2 male voices having a chat in Danish. Ends at 1350z.
IRTS	3550	1740	11	12	POR or MM		USB	Group of Portuguese fishermen. Big signals.
IRTS	3590	0705	03	12	F		AM	Second group of HAMs violating the band plan on a daily basis.
IRTS	3591.7	1504	31	12	POR or MM		USB	2 Portuguese fishermen. Medium signals.
IRTS	3600	1745	07	12	UKR/RUS		LSB	Agitprop. Donbass area. Loud.
IRTS	3640	1315	17	12	POR or MM		USB	2 Portuguese fishermen. Loud.
IRTS	3653	1800	23	12			USB	Loud pop music.
IRTS	3657	2150	11	12	UZB		CW	Letter "V" from Khiva. Strong signal.
IRTS	3676	1130	12	12	IRL or MM		USB	2 Irish fishermen. One has a Galway accent. The other one is the one with an Egyptian accent already observed several times in the past. The chat ended at 1137z. "I'll give you a shout in a couple of hours!"
IRTS	3731.5	1753	28	12	POR or MM		USB	2 Portuguese fishermen. Very loud.
IRTS	3766	1900	16	12			LSB	Very loud oriental music. Ends 1915z.
IRTS	3773	1327	09	12	POR or MM		USB	2 Portuguese fishermen. Strong signals.
IRTS	3784	1920	16	12	UKR/RUS		LSB	Agitprop in Russian.
IRTS	5280	0835	05	12	MRC or MM		USB	Group of Moroccan fishermen. They make this Irish spot frequency unusable.
IRTS	5298	1833	05	12	F or MM		USB	2 French fishermen. Splattering down on the Irish spot frequency of 5298.5KHz.Also heard on the 7th at 1300z.On the 9th at 1530z. On the10th at 1200z.
IRTS	5320	1740	09	12	E or MM		USB	2 Spanish fishermen right in the centre of a UK allocation.
IRTS	5327	2045	02	12			FMCW	Strong radar from 5327 to 5390 KHz. Observed on many evenings, all night and early mornings. Always renders the band unusable.
IRTS	5329	1433	27	12	E or MM		USB	2 Spanish fishermen. Strong signals. Splattering up to the Irish spot frequency of 5330.5 KHz. Loud motor noise from both ships.
IRTS	5360	0100	05	12	MRC or MM		USB	Moroccan fisherman. Calling at 0100 and 0130z- but gets no reply.
IRTS	5360	1800	20	12	MRC or MM		USB	North African net. Strong signals. On and off. Sometimes mobile phone ringing tones audible featuring North African music.
IRTS	5368	1355	05	12	F or MM		USB	2 French fishermen. Huge signals. Loud motor noise from both ships. One of them keeps whistling. Heavy splatter into the WARC 5

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
								MHZ band. Frequency is actually a UK allocation for 5 MHz as well. Also heard on the 10th at 1430z.
IRTS	5400	1930	11	12	E or MM		USB	Spanish fishermen. Strong signals. Also heard on the 14th at 1820z and the 16th at 1910z.21st at 1915z.This frequency- and Irish and UK spot frequency- is very popular among fishermen.
IRTS	7050	1125	01	12	UKR/RUS		LSB	Russian-Ukrainian propaganda war. Most days with strong signals until around 2200z.
IRTS	7055	1130	01	12	UKR/RUS		LSB	Russian-Ukrainian propaganda war. Most days with strong signals until 2200z.
IRTS	7056	1146	01	12	UKR/RUS		USB	Female voice reading numbers in Russian. Very strong.
IRTS	7070	1410	05	12	E or MM		USB	2 Spanish fishermen. Chatting on and off until 1530z.Also heard on the 6th between 0700 and 1115z. One of the fishermen is named Julio.
IRTS	7070	1451	05	12	RUS or UKR		LSB	Female voice reading numbers in Russian.
IRTS	7070	1015	06	12			Digital	Digital signal. Low. Probably Russian military.
IRTS	7130	1850	14	12	INS or MM		USB	Indonesian fishermen chatting.
IRTS	7140	0430	28	12	ERI		AM	Radio Eritrea. Medium signal. Heard on some days of the month. Irregular broadcasts.
IRTS	7180	1730	11	12	ERI		AM	Radio Eritrea. Big signal. Heard very often- but not daily- in the late afternoon.
IRTS	7194	0810	04	12			Digital	Very strong digital signal. Probably Russian military.
IRTS	10100	1240	10	12			FMCW	Radar from 10100 to 10107 KHz. Monster signal makes this band again unusable.
IRTS	10107	1446	27	12			FMCW	Radar from 10107 to 10131 KHz. Very strong. All frequencies unusable. Ends 1518z. Radar was observed quite often at this time of the day on this band during the month.
IRTS	10108	1535	09	12			FMCW	Radar from 10108 to 10132 KHz. Huge signal. Band again unusable.
IRTS	10115	1510	08	12			FMCW	Radar from 10115 to 10136 KHz. Huge signal. Most of this WARC band is unusable.
IRTS	14005	1250	12	12			LSB	Female voice „Athens Volmet“. WX reports in English with a Greek accent. On and off. Sounded like somebody was rebroadcasting that station from Greece.
IRTS	18068	1300	12	12			FMCW	Radar from 18068 to 18090 KHz.

KARS – Kuwait – 9K2RR (Faisal)

MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3505,0	1827	17	12			OTHR			3500-3510 kHz, 100 Hz
MRASZ	3506,0	1944	19	12			PSK2			AT3004D
MRASZ	3511,0	1915	11	12			PSK2			AT3004D
MRASZ	3522,0	1745	16	12			A1A			"3ANL de DAL6 K"
MRASZ	3547,0	1537	08	12			F1B		200	
MRASZ	3548,0	1921	19	12			F1B		200	+ deliberate disturb.with A1 dots
MRASZ	3550,0	1754	02	12			PSK2			AT3004D
MRASZ	3550,0	0816	11	12			USB			weak, unidentified
MRASZ	3550,0	1824	17	12			PSK2			AT3004D
MRASZ	3550,0	1924	19	12			PSK2			AT3004D
MRASZ	3559,0	1536	08	12			PSK2			AT3004D
MRASZ	3559,0	1609	31	12			PSK2			AT3004D
MRASZ	3573,0	1613	31	12			A1A			dots, deliberate disturbance
MRASZ	3576,0	1635	16	12			F1B		220	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3576,5	1615	31	12			A1A			"IZ3DVW/beacon"
MRASZ	3590,0	1921	19	12			PSK2			AT3004D
MRASZ	3596,6	1805	27	12			USB			female, unidentified
MRASZ	3598,0	1854	18	12			USB			"hallo hallo"
MRASZ	3598,0	0958	21	12			PSK2			AT3004D
MRASZ	3600,0	1827	27	12			A3E			unidentified
MRASZ	3603,5	1834	17	12			PSK2			AT3004D
MRASZ	3606,0	1917	11	12			F1B		250	
MRASZ	3630,0	1557	08	12			LSB			music
MRASZ	3641,0	1530	29	12			A1A			"2P44 de UCAV QTC 711 3T 17TT"
MRASZ	3642,0	1911	18	12	CHN		A1A			"V DKG6 (3x) de 3A7D (2x)"
MRASZ	3642,0	2011	19	12	CHN		A1A			"V DKG6 (3x) de 3A7D (2x)"
MRASZ	3653,0	1534	08	12			F1B		200	
MRASZ	3653,0	1912	11	12			F1B		200	
MRASZ	3653,0	1913	19	12			F1B		200	
MRASZ	3657,0	1700	02	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3657,0	1829	17	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3657,0	1745	18	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3657,0	1914	19	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3657,0	1849	27	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3657,0	1529	29	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3657,0	1607	31	12	UZB		A1A			beacon "V", Thaskent
MRASZ	3686,0	0904	29	12			USB			"proba proba"; Rumanian ham
MRASZ	3702,0	1619	31	12			PSK2			AT3004D
MRASZ	3705,0	1537	29	12			A1A			"REChKWQ WSMSChT"
MRASZ	3707,5	1000	21	12			PSK2			AT3004D
MRASZ	3716,5	1840	11	12			PSK2			
MRASZ	3725,0	1605	31	12			LSB			chaos, distorted music
MRASZ	3726,0	1915	19	12			A1A			"OIÖJI KOPÄÄ = K"
MRASZ	3728,0	1748	18	12			F1B		250	
MRASZ	3738,0	1915	19	12			F1B		250	
MRASZ	3767,0	0822	11	12			PSK2			
MRASZ	3784,0	1917	19	12			A1A			"T85 = 118" "=11111 6T 8 44"; 5F
MRASZ	3791,0	1641	16	12			PSK2			AT3004D
MRASZ	3792,0	1525	06	12	RUS		F1B		200	Kaliningrad
MRASZ	3792,0	1532	08	12	RUS		F1B		200	Kaliningrad
MRASZ	3792,0	1830	11	12	RUS		F1B		200	Kaliningrad
MRASZ	3792,0	1920	11	12	RUS		F1B		200	Kaliningrad
MRASZ	3792,0	1752	18	12	RUS		F1B		200	Kaliningrad
MRASZ	3798,0	1425	29	12			F1B		200	
MRASZ	7010,0	0935	23	12			PSK2			AT3004D
MRASZ	7027,0	1315	06	12			OTHR			7000-7054 kHz
MRASZ	7050,0	0854	29	12			LSB			russian/ukrainian chaos
MRASZ	7055,0	0929	01	12			LSB			chaos as usual
MRASZ	7055,0	1256	06	12			LSB			chaos, music, singing
MRASZ	7055,0	0949	16	12			LSB			chaos, russian propaganda
MRASZ	7055,0	0954	23	12			LSB			chaos
MRASZ	7055,0	0855	29	12			LSB			russian, chaos
MRASZ	7056,0	0947	21	12			USB			russian spell with name's, 5L and 5F
MRASZ	7083,0	0932	25	12			PSK2			AT3004D
MRASZ	7119,0	0928	01	12			PSK2			AT3004D
MRASZ	7120,0	1657	02	12	SOM		A3E			R. Hargaysa
MRASZ	7120,0	1358	06	12	SOM		A3E			R. Hargaysa
MRASZ	7140,0	1657	02	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1359	06	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1538	08	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1828	11	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1831	17	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1656	27	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1524	29	12	ERI		A3E			R. Eritrea
MRASZ	7140,0	1610	31	12	ERI		A3E			R. Eritrea
MRASZ	7159,0	0931	23	12			F1B		110	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	7164,5	1541	08	12			F1B	45,45	170	"IT9DSZ" 3582,25, 2nd. harmonic
MRASZ	7180,0	1658	02	12	ERI		A3E			R. Eritrea
MRASZ	7180,0	1400	06	12	ERI		A3E			R. Eritrea
MRASZ	7180,0	1538	08	12	ERI		A3E			R. Eritrea
MRASZ	7180,0	1827	11	12	ERI		A3E			R. Eritrea
MRASZ	7180,0	1656	27	12	ERI		A3E			R. Eritrea
MRASZ	7180,0	1524	29	12	ERI		A3E			R. Eritrea
MRASZ	7180,0	1610	31	12	ERI		A3E			R. Eritrea
MRASZ	7193,0	1258	06	12			F1B		200	
MRASZ	7193,0	1401	06	12			F1A			"VVV XXX"
MRASZ	7193,0	1402	06	12			F1B		200	
MRASZ	7193,0	0824	11	12			F1B		200	
MRASZ	7193,0	0922	14	12			F1B		200	
MRASZ	7193,0	0859	16	12			F1B		200	
MRASZ	7193,0	0930	16	12			A1A			deliberate distrubance for F1B
MRASZ	7198,0	0853	29	12			PSK2			AT3004D
MRASZ	10103,0	0928	23	12			F1A		200	"KAVÖI NZLChL KJVÖI K"
MRASZ	10123,0	0930	25	12			F1B		230	
MRASZ	10130,0	0826	11	12			F1B		500	daily, all day
MRASZ	10144,0	0901	29	12			PSK2			AT3004D
MRASZ	18149,0	0853	11	12			OTHR			18130-18168 kHz

OEVSV – Austria – OE3GSA (Gerd)

PZK – Poland – SP9BRP (Jan)

REF – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Sh /Bw	DETAILS
R.E.F.									**December 2018**
F5MIU	7070	0955	10	12			usb		Spanish fisheries frequently
F5MIU	10120	1703	11	12			fmcw	20kHz	OTH Radar pulsed 20ms,S9+
F5MIU	10140	0900	03	12			usb		USB out of band,Spanish. lang. Fishermans ?
F5MIU	14015	0850	03	12			usb		USB on CW band, unid. lang. Fishermans ?
F5MIU	14305	0910	4	12			fmcw	10kHz	OTH Radar pulsed 24ms,S7 hopping frequency
F5MIU	18060	0845	6	12			fmcw	20kHz	OTH Radar pulsed 20ms,S9
F5MIU	18070	0849	31	12			fmcw	20kHz	OTH Radar pulsed 20ms,S9+
F5MIU	21150	0848	26	12			fmcw	20kHz	OTH Radar pulsed 20ms,S9+
F5MIU	21310	0855	10	12			fmcw	20kHz	OTH Radar pulsed 20ms,S8

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3505	06.00	02	12	E		J3E-U			Spanish fishery
REP	3520	19.58	01	12	RUS		H2A	10		Enigma M01B
REP	3550	07.04	17	12	POR		J3E-U			Portuguese fishery
REP	3550	17.37	07	12	ALG	RK37	MFSK8			Mil Std 188-141A Ale net presumed Algerian Military, exchanging LQA information w/ NX30
REP	3550	09.29	12	12	POR		J3E-U			Portuguese fishery
REP	3560	06.12	02	12	E		J3E-U			Fishery, everyday

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3570	21.11	12	12	F		J3E-U			French fishery
REP	3570	09.30	23	12	F		J3E-U			French fishery
REP	3575	07.17	08	12	E		J3E-U			Spanish fishery, dly
REP	3675	21.02	11	12	HOL	PBK	J3E-U			Netherlands Coast Guard
REP	3680	06.07	12	12	E		J3E-U			Fishery
REP	3720	22.58	12	12	E		J3E-U			Spanish fishery
REP	3731,5	17.28	13	12	E		J3E-U			Spanish fishery
REP	3750	07.37	29	12	POR		J3E-U			Portuguese fishery
REP	3755	19.15	18	12	RUS		A3E			Russian mil marker
REP	7000	19.02	03	12	B		J3E-U			Brazilian fishery, daily
REP	7000.3	17.30	06	12	I		J3E-L			Italian speaking intruders
REP	7003,5	09.03	20	12	ALG	ALOUEF	FSK	200	100	Pactor 1 mailbox system sellcalling several cities in Adrar province, Algeria. Daily, presumably Algerian Customs
REP	7005	07.15	05	12	E		J3E-U			Spanish fishery
REP	7000.5	20.33	04	12	B		J3E-U			Brazilian fishery, daily
REP	7006	07.50	08	12			J3E-U			Unid arabic fishery
REP	7007,95	10.29	22	12	RUS		FSK	50	250	CIS36-50 region of Moscow, via TDoA
REP	7008	09.40	20	12	RUS		FSK	75	250	CIS-50 Russian mil
REP	7010	17.50	04	12		920001	MFSK8 / PSK2			Mil Std 188-141A Ale net 92xxx calls, sounding and exchanging AMD packets, daily, all day. USB and LSB. Also CLOVER-2000 and voice comms.
REP	7013	18.32	04	12		10625	MFSK8			Mil Std 188-141A Ale net 10xxxx calls
REP	7013	18.27	18	12		304003	MFSK8			Mil Std 188-141A Ale net 30xxxx net, new user here. Calling 300517
REP	7014	10.40	03	12	RUS		PSK-4			CIS-12 multiple PSK modem, central Russia
REP	7014	19.04	20	12			J3E-U			Unid language voice comms
REP	7015	20.01	07	12		209000	FSK-8			ALE
REP	7018	16.56	18	12			J3E-U			Unid language voice comms
REP	7020	19.27	20	12	RUS	V	A1A			BEACON
REP	7036	23.19	20	12	RUS	P	A1A			KALINIGRAD
REP	7045	17.37	04	12		1016	MFSK8			Mil Std 188-141A Ale net 1/2xxx series unid, daily
REP	7045	17.56	10	12		92004	MFSK8			Mil Std188-141A 92xxxx net, unid location and user, daily, all day
REP	7049	11.59	07	12			J3E-U			Unid language comms
REP	7050	13.11	19	12	RUS		J3E-L			Russia / Ukraine propaganda war, daily
REP	7055	18.10	01	12	RUS		J3E-L			Russia and Ukraine propaganda
REP	7055	13.13	19	12	RUS		J3E-L			Russia / Ukraine propaganda war, daily
REP	7058	18.35	04	12	GEO		MFSK8			Mil Std 188-141A Ale net purportedly Georgian Border Guards
REP	7063	11.18	19	12	RUS		FSK			CIS36-50 encrypted Russian military 50/200
REP	7070	08.03	19	12	MRC		FSK-8			Civil Defence
REP	7070	08.50	14	12			FSK8			Several nets
REP	7070	19.01	04	12		20002	MFSK8			Mil Std 188-141A Ale net 1/2xxx series unid, daily
REP	7070	10.22	10	12	E		J3E-U			Spanish fishery
REP	7070	18.50	14	12	RUS		PSK-4			CIS-12 12x120bd 3,3k tone, idling
REP	7070	17.54	18	12	GEO		MFSK8			Mil Std 188-141A Ale net purportedly Georgian Border Guards
REP	7087,2	16.28	13	12	RUS		PSK-4			CIS12/AT3004D Russian mil, 12x120bps + 3k pilot tone
REP	7100	18.29	14	12	RUS		F1B	50	200	CIS36
REP	7120	19.17	05	12	SOM		8k00 A3EGN			Radio Hargeisa
REP	7120	19.14	03	12	SOM		A3E8K			Radio Hargeisa, Somaliland, daily
REP	7127	10.38	22	12	RUS		PSK-4			CIS12/AT3004D Russian mil, 12x120bps + 3.3k pilot tone
REP	7140	18.41	05	12	ETH		8k00 A3EGN			Radio Eritreia
REP	7160	07.12	23	12	G	Link	PSK8			Nato ship
REP	7180	17.59	02	12	ETH		A3E8K			Voice of the Broad Masses of Eritrea,

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
										Ethiopia
REP	7193	11.20	19	12	RUS		FSK	50	200	Russian CIS36-50 and dit jammer
REP	7197	16.51	13	12	TUR		MFSK8			Turkish Civil Defense Authority (AFAD) Mil Std188-141A ALE sounding, daily
REP	7198	11.23	19	12	RUS		PSK-4			CIS12/AT3004D Russian mil, 12x120bps + 3.3k pilot tone
REP	7205	17.23	13	12	CHN	RCI	A3E8K			Radio China Int. Esperanto broadcast, splattering
REP	10115	22.58	16	12	E		J3E-U			Spanish fishery
REP	10135	21.54	16	12	MRC		J3E-U			Moroccan fishery
REP	14014	11.10	25	12			J3E-U			Unid intruder net
REP	14192	11.40	25	12	RUS		FSK	50	200	Russian Navy, encrypted
REP	18075	11.00	12	12			FMCW	50	20k	OTH radar
REP	21000	12.20	21	12	E		J3E-U			Spanish fishery
REP	21210	13.32	21	12			FMCW			OTH radar
REP	21215	14.15	21	12	MRC		J3E-U			Fishermen
REP	28555	10.09	20	12	RUS		F3E			Taxis dispatchers
REP	28725	11.17	20	12	RUS		F3E			Taxis dispatchers

RSGB - Great Britain – G4DYA (Richard)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	7038.5	ady	dly	12	CZE	OK0EU	A1A			For info: QRP propagation beacon
RSGB	7120.0	vt	vd	12	SOM	Radio Hargeysa	A3E			BC
RSGB	7140.0	vt	vd	12	ERI	VoBM1	A3E			BC
RSGB	7180.0	vt	vd	12	ERI	VoBM2	A3E			BC
RSGB	7193.0	1034-1450	04	12			F1B		200	
RSGB	7198.0	1249	05	12			J7D		2K70-E	USB 7196.0 / CIS-12
RSGB	10100.8	ady	dly	12	D	DDK9	F1B	50	450	For info: Primary user: WX broadcast
RSGB	10133.0	1231	15	12					20K0-E	OTHR

RSK – Kenya – 5Z4BV (Kamweti)

Soc	kHz	UTC	DD	MM	ITU	Identity	MODE	Details
RSK	7008	0633	12	12	Kenya/ E. Africa?	?	J3E-u	Mil-Kiswahili msg net
RSK	7030	v.t.	occasional	12	E. Africa?	?	J3E-u	Mil-Kiswahili msg net
RSK	7040	1105	10	12	S. Sudan/ E. Africa?	?	J3E-u	Kiswahili msg net
RSK	7070	v.t.	occasional	12	E./ Central Africa?	?	J3E-l	Vernacular QSO
RSK	7120	v.t.	dly	12	Somaliland	Radio Hargeysa	A3E	Broadcast
RSK	7130	1905	15	12	Western Indian Ocean	?	J3E-u	Mandarin QSO
RSK	14110	a.m.	13	12	Russia	?	FMOP-OTHR	Russian 'kontayner' 20sps
RSK	14160	a.m.	20	12	Russia	?	FMOP-OTHR	Russian 'kontayner' 20sps

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	6999.0	0815-1040	1 3	12		UiMUX	PSK2	120	2600	
SRAL	7001.0	0800-0830/	17	12		UiCarr	N0N			50 Hz brum
SRAL	7008.0	0630-1900	*	12		UiPTR	F1B		250	Days: 19. 20. 22.
SRAL	7010.0	0930-1405	*	12	RUS	UiMUX	PSK2	120	2600	Days: 23. 24. 27.
SRAL	7012.0	1230-1500	4	12		UiPTR	F1B		250	
SRAL	7014.0	1020-1155/	7 15	12		UiPTR	F1B		250	
SRAL	7015.0	1000-1010/	4	12		UiCW	A1A			5F
SRAL	7016.0	1150	9	12		UiPTR	F1B		250	
SRAL	7044.0	1640	17	12		UiPTR	F1B		500	
SRAL	7062.0	0810-0840/	5 12	12	RUS	454	A3E			5F, synthetic fem.
SRAL	7063.0	0930-1215	5	12		UiPTR	F1B		250	
SRAL	7066.0	0830-0850/	3	12		UiPTR	F1B/ N0N		250	
SRAL	7066.0	0830-0855/	12	12		UiCW	A1A/ N0N			
SRAL	7081.0	0955-1010/	25	12		UiPTR	F1B		250	
SRAL	7089.0	0800-1016/	4 6	12		UiMUX	PSK2	120	2600	
SRAL	7099.5	0630-0720	6	12		9QBT	A1A			5BL
SRAL	7100.0	1245-1315	17	12		UiMUX	PSK2	120	2600	
SRAL	7117.0	1030-1345	1 21	12		UiPTR	F1A/ N0N		250	
SRAL	7119.0	1015-1037/	1	12		UiMUX	PSK2	120	2600	
SRAL	7120.0	/0330-0530/	*	12	SOM	R Hargeisa	A3A			Days: 1. - 6.
SRAL	7120.0	/1300-1400/	*	12	SOM	R Hargeisa	A3A			Days: 1. - 6.
SRAL	7120.0	/1455-2005/	*	12	SOM	R Hargeisa	A3A			Days: 1. - 6.
SRAL	7122.0	'0945	19	12		UiPTR	F1B		250	
SRAL	7129.0	0715-1130/	18 22	12		UiMUX	PSK2	120	2600	
SRAL	7140,0	0315-0630	dly	12	ERI	VoBME	A3E			
SRAL	7140,0	1345-1835/	dly	12	ERI	VoBME	A3E			
SRAL	7142.0	0650-0940/	*	12		UiPTR	F1B		250	Days: 18. - 20.
SRAL	7144.0	0730-0800	24	12		UiMUX	PSK2	120	2600	
SRAL	7159.0	1315-1330	21	12	IW	UiLINK	PSK			ship
SRAL	7160.0	0730-0800	19	12	RUS	RBL88	A1A			5BL
SRAL	7162.0	1350-1445/	10	12	RUS	UiPTR	F1B		250	
SRAL	7164.0	1225-1305/	27	12		UiMUX	PSK2	120	2600	
SRAL	7168.0	0930-1030/	13	12		UiPTR	F1B		200	
SRAL	7175.97	1230-	22	12		UiPTR	F1B		450	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
		1345								
SRAL	7176.0	1345-1415	10	12		UiPTR	F1B		250	
SRAL	7180.0	0315-0630	dly	12	ERI	VoBME	A3E			
SRAL	7180.0	1345-1835/	dly	12	ERI	VoBME	A3E			
SRAL	7193.0	0800-1500/	*	12	RUS	RDL	F1B/AN0N		200	Days: 1. - 20. 5F
SRAL	7198.0	1030-1312/	*	12		UiMUX	PSK2	120	2600	Days: 5. 10. 19.
SRAL	7200.0	0755-0925/	10	12		UiCarr	N0N			
SRAL	10 MHz			12	CYP	UiOTHR	FMCW			25/50Hz, 20 kHz (WebSDR 20d)
SRAL	10 MHz			12	CHN	UiOTHR	FMCW			40kHz (WebSDR 5d)
SRAL	14 MHz	0800-0845	2	12	CHN	UiOTHR	FMCW			40kHz/12.5Hz
SRAL	14 MHz	1010-1205/	20	12	RUS	Kontainer	FMCW			20kHz/50Hz (WebSDR 7d)
SRAL	14000.0	0645-1320	*	12	ISR?	UiCarr	N0N			Days: 1. - 4.
SRAL	14221.0	0515-0600/	*	12	KGZ	UiPTR	F1B		200	Days: 1. - 4.
SRAL	14295.0	0630-1330	*	12	TJK	R Tojikiston	A3E			Days: 8. 9. 10. 22. - 31. 3f, chirpy carrier
SRAL	18 MHz	0845-1300	*	12	CYP	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 1. 6. 17. 23. 25. 31. (WebSDR 22d)
SRAL	18 MHz	1020-1128/	8	12	RUS	Kontainer	FMCW			20kHz/50Hz (WebSDR 3d)
SRAL	21 MHz	0630-0745	29 30	12	CYP	UiOTHR	FMCW			25/50Hz / 20 kHz, (WebSDR 19d)
SRAL	21438.0				RUS	RCV	A1A			
SRAL	24 MHz			12		UiOTHR	FMCW			(WebSDR 0d)
SRAL	28 MHz			12	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz.
SRAL	28860.0			12	IRN	UiOTHR	FMCW			150 & 313 Hz / 60 kHz.
SRAL	28 MHz			12		UiOTHR	FMCW			25/50Hz / 20 kHz (WebSDR 0d)
SRAL	28 MHz			12	RUS	Taxi disp.	F3E			0 reports

URE – Spain – EA6AMM (Gaspar)

SOC	kHz	UTC	DD	M	ITU	IDENT	MODE	BD	SH	DETAILS
URE	3516	06:19	28	12			J3E-U			Unid people talking
URE	5351	06:50	29	12					15k	Unknown modem signal. 3 Burst. Video : https://bit.ly/2AjhXCQ
URE	7011.5	20:17	31	12			FSK8			ALE Bursts
URE	7014.5	06:47	29	12			FSK8			ALE Bursts
URE	7035	08:46	4	12	E/MM		J3E-U			Spanish fishermen
URE	7050	07:12	10	12			J3E-L			Agitprop. Russian, Ukrainian and English language. Music
URE	7055	06:56	10	12			J3E-L			Agitprop.. Russian, Ukrainian and English language. Music
URE	7070	12:16	6	12	E/MM		J3E-U			Spanish fishermen. Very strong signals. Also copied on 10/12/2018 at 09:30 UTC. Long chatting about fishing matters.
URE	7070	10:03	10	12			J3U-L			Music
URE	7070	08:45	11	12			J3E-U			Unid persons talking. Arabic dialect.
URE	7072	11:47	10	12			PSK2A	120	2600	AT3004D

SOC	kHz	UTC	DD	M	ITU	IDENT	MODE	BD	SH	DETAILS
URE	7081.1	9:55	25	12			F1B		250	
URE	7120	VT	VD		SOM		A3E			Radio Hargeisa Somali Land
URE	7140	VT	VD	12	ERI		A3E			Radio Voice of the Broad Massses Eritrea 1
URE	7147.5	13:33	29	12					≃4k	Unknown signal. Video: https://bit.ly/2EU4IeI
URE	7153.1	13:34	29	12					≃7k	Unknown signal. Video: https://bit.ly/2Vegs1s
URE	7180	VT	VD	12	ERI		A3E			Radio Voice of the Broad Massses Eritrea 2
URE	10104	09:30	25	15			J3E-U			Unid persons talking.
URE	10113.5	08:36	24	12			FSK	600	600	DPRK FSK 600
URE	10114.8	VT	VD	12	RUS		F1B	100	100	CIS14. Moscow
URE	10120	16:30	9	12					20k	OTH Radar from 10110 to 10130 kHz
URE	10123	10:13	25	12			F1B		200	
URE	10125	16:05	22	12					20K	OTH Radar from 10125 to 10145 kHz
URE	10130	VT	VD	12	RUS		F1B	100	500	Unclean. Area of Chita
URE	14240	08:16	13	12					160k	OTH Radar
URE	14308	08:16	13	12	RUS		F1B	75	500	Moscow
URE	18070	06:45	28	12					20k	OTH Radar from 18060 to 18080 kHz
URE	18082.5	11:08	13	12					25k	OTH Radar from 18075 to 18100 kHz

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
80m band informational only! - Amateur co-primary, shared with other also primary allocated services!										
USKA	3527.0	2252	01	12			F1B	50	200	almost daily
USKA	3525.0	2024	04	12			2x DQPSK	14x75	~6k1	LINK 11 CLEW; DSB or ISB Mode
USKA	3532.0	2124	17	12			DQPSK	14x75	~2k7k	LINK 11 CLEW
USKA	3548.0	1615 2126	01 17	12	RUS	RTL	F1B	50	200	often
USKA	3550.0	1621	01	12			J7D	12x120	2k7	BPSK; CIS12 ofte
USKA	3553.8	1618	01	12			G1D PSK8	2400	2k4	STANAG 4285 almost daily Frame format 600bps/long
USKA	3559.0	1619	01	12			DQPSK	14x75	2k7	LINK 11 ESB Mode
USKA	3563.0	2320	09	12			J7D	12x120	2k7	BPSK; CIS12
USKA	3588.0	2129	17	12			J7D	12x120	2k7	BPSK; CIS12
USKA	3608.0	2250	01	12			F1B	50	200	often
USKA	3653.0	1535	18	12			F1B	50	200	often
USKA	3660.5	2038	04	12			B7D DQPSK	14x75	~6k1	LINK 11 CLEW; DSB Mode
USKA	3702.0	1724	01	12			F1B	75	200	
USKA	3732.0	2324	09	12			F1B	75	200	
USKA	3744.8	1633	01	12			G1D PSK8	2400	2k7	MIL 188-110A D2 mod (Hybrid); preamble 4 tones, PSK4 75Bd 450Hz spacing ofte
USKA	3767.0	2134	17	12			J7D	12x120	2k7	BPSK; CIS12
USKA	3790.0	1628	01	12			J7D	12x120	2k7	BPSK; CIS12

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3792.0	1629 1631 2135	01 01 17	12			F1B	36 50	200	CIS36-50 often
USKA	3797.0	2327	09	12			F1B	75	250	often
USKA	7000.0	2021	04	12			J3E-U		2k3	Spanish (Fishery)
USKA	7000.0	1704	08	12			A3E			Asian language (weak)
USKA	7003.5	vt	vd	12			304HF1B	200	100	Pactor 1; encrypted connect ofte
USKA	7003.5	2203	20	12			304HF1B	200	100	Pactor 1; calling TSABIT often
USKA	7003.5	2206	20	12			304HF1B	200	100	Pactor 1; calling AOULEF often
USKA	7003.5	2211	20	12			304HF1B	200	100	Pactor 1; calling ZKOUNTA oft
USKA	7003.5	1352	21	12			304HF1B	200	100	Pactor 1; calling TIMIMOUNoft
USKA	7003.5	1456	21	12			304HF1B	200	100	Pactor 1; calling BBM ofte
USKA	7008.0	0859	19	12			F1B	75	250	almost daily
USKA	7010.0	1742	12	12		920018	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7010.0	1743	12	12		920001	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7014.0	1531	19	12			J7D	12x120	2k7	BPSK; CIS12 (idling)
USKA	7045.0	1756	10	12		920009	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7045.0	1806	10	12		2006	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7045.0	1848	10	12		2001	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7045.0	1932	10	12		920018	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7045.0	2101	10	12		920001	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7070.0	2140	04	12		288	MFSK8	125	1750	ALE, MIL 188-141A, To 514; often
USKA	7070.0	1601	06	12			J3E-U		2k1	French (no ham content)
USKA	7070.0	1048	10	12			J3E-U		2k1	Spanish; fishery
USKA	7072.0	1752	14	12			J7D	12x120	2k7	QPSK; CIS12
USKA	7073.0	0919	14	12			J7D	12x120	2k7	CIS12 idling (13 carriers only)
USKA	7089.0	0954	14	12			J7D	12x120	2k7	BPSK; CIS12
USKA	7116.0	0921	14	12			F1B	75	200	
USKA	7120.0	1613	01	12	SOM		A3E			BC; Radio Hargaysa almost daily
USKA	7127.9	0724	14	12			OFDM		~3k1	
USKA	7134.0	1639	19	12		ECXPH	MFSK8	125	1750	ALE, MIL 188-141A (weak)
USKA	7140.0	1609	01	12	ERI	VOBM	A3E		~ 9k	BC almost daily
USKA	7159.0	0917	10	12			F1B	75	200	
USKA	7168.0	0930	13	12			F1B	50	200	
USKA	7169.0	0749	07	12			F1B	75	200	often
USKA	7180.0	1606	01	12	ERI	VOBM	A3E		~ 9k	BC almost daily
USKA	7193.0	0828 0830	07 07	12 12	RUS	RDL	F1A F1B	36+ 50	200	CIS 36-50 almost daily ID + short encrypted msg in CW F1A
USKA	7197.0	1841	01	12	TUR	351013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1844	01	12	TUR	323018	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1845	01	12	TUR	303013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1845	01	12	TUR	340013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1846	01	12	TUR	341013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7198.0	1033	10	12			J7D	12x120	2k7	BPSK; CIS12 ofte
USKA	7200.0	1252	11	12			FMCW	50 sps	7k	strong; QRT 1259
USKA	7200.0	1308	11	12			FMCW	20 sps	7k	strong; QRT 1310
USKA	10130.0	1108	24	12			F1B	50	500	daily
USKA	14000.0	1003	02	12			N0N			Long lasting carrier often
USKA	14348.0	0951	02	12			FMOP	50 sps	10k	OTHR; Bursts; BD 5s; BRI 50s
USKA	18160.0	1339	21	12			FMCW	50 sps	20k	OTHR (strong)

Veron – Netherlands – PG1R (Ruud)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3548,0	1537	10	12	CIS	UiPTR	F1B		Revs/Ptr
VERON	3557,0	1604	04	12		UiPTR	F1B		Ptr also 20/12 at 18.23 UTC
VERON	3653,0	1510	05	12	CIS	UiPTR	F1B		Revs/Ptr also 10/12 at 15.35 UTC
VERON	3653,0	1516	05	12	CIS	UiCW	F1A		XXX followed by F1B Revs/Ptr
VERON	3792,0	1512	05	12	CIS	UiCW	F1A		XXX followed by F1B Revs/Ptr
VERON	3792,0	1524	05	12	RUS	RDL	F1A		RDL 78408 03500 K
VERON	7012,0	1345	04	12		UiPTR	F1B		Ptr
VERON	7014,0	1023	07	12		UiPTR	F1B		Ptr
VERON	7015,0	1001	05	12	RUS	RIT	A1A		RLO de RIT QTC 183 34 5 1257 183 = Radioprognoz 05128 63003 5F
VERON	7015,0	1001	07	12	RUS	RIT	A1A		RLO de RIT QTC 116 34 7 1258 116 = Radioprognoz 07128 63003 5F
VERON	7048,5	1332	30	12		UiPtr	F1B	350	S9; shift changing within 1 minute: 350 > 700 > 175 > 350
VERON	7050,0	1331	30	12	RUS/UKR		J3E-l		Russian speech; 2 TX; S5
VERON	7054,5	1328	30	12		UiPtr	F1B	200	Printer; S8
VERON	7055,0	1409	06	12	RUS/UKR		J3E-l		Russian speech; no calls; S4
VERON	7055,0	1123	15	12	RUS/UKR		J3E-l		Chaos; comments/music; S8
VERON	7193,0	1040	04	12	CIS	UiPTR	F1B		Revs/Ptr
VERON	7193,0	1409	04	12	RUS	RDL	F1A		RDL 08024 66893 K
VERON	7193,0	1416	04	12	RUS	RDL	F1A		RDL 31974 63100 K
VERON	7193,0	1413	06	12	RUS	RDL	F1B	200	Printer; S6
VERON	7193,0	1039	07	12	RUS	RDL	F1A		RDL 88956 12039 K
VERON	10130,0	1007	07	12	CIS	UiPTR	F1B		Revs also 28/12 at 10.16 UTC
VERON	14091,4	1254	08	12		UiPtr	F1B	350	Printer; S5
VERON	14281,0	1014	05	12	CIS	UiVFT	J3E-u		729 415 6 11744 5F Russian Language
VERON	14308,0	0842	13	12		UiPtr	F1B	500	

The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

All our friends and contributors worldwide!

Many thanks for your interest!

compiled and published by DK2OM - January 2019