International Amateur Radio Union

Region 1

Monitoring System

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Editor of the Newsletter

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The monthly newsletter for Region 1

April 2016

The 29 members of the IARUMS Region 1 Monitoring Team:

Acknowledgements

ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: 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: M0VRR - Vaughan ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: ON8IM – Ivan +++ URE: EB1TR - Fabian ++ USKA: HB9CET - Peter ++ VERON: PA2GRU - Dick ++ ZRS: S56ZDB – Darko ++ G3VZV – Graham (satellite) ++ TG9ADV – Jorge (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster assis.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1 ++ PTTs: BAKOM (Swiss), BNetzA Konstanz (Germany) ++ OFCOM (UK) ++ Dutch AT ++ YO9RIJ – Petrica

Part 1: News and infos
Part 2: Detailed reports of the national co-ordinators

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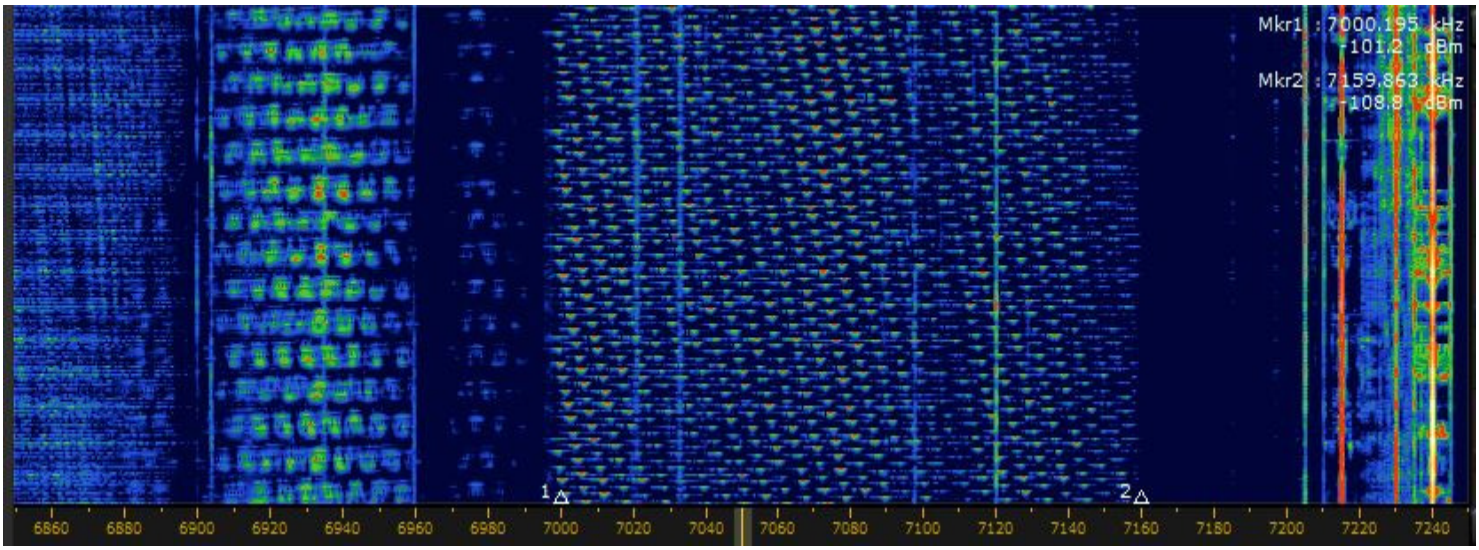
Part 1: News and Infos

1. **Chinese broadband OTH radars**
   Chinese broadband OTH radars were transmitting on 7, 10, 14 and 21 MHz with 10 sweps/sec and 160 kHz wide. Please observe the details in my table.

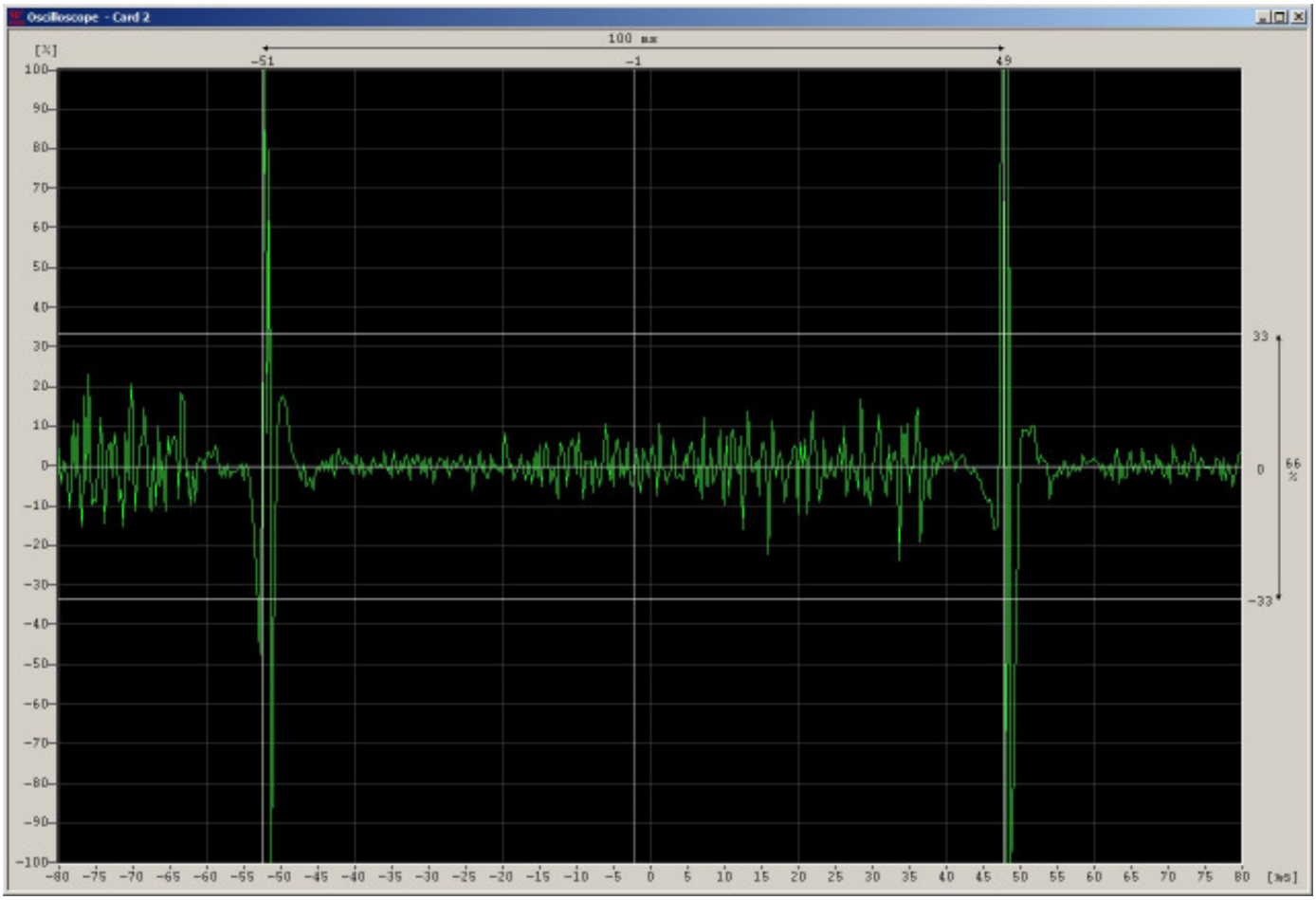
   Screenshots below: DK2OM with Perseus and Wavecom W-Code

   Chinese OTH radar with 10 sps and 160 kHz wide on 7000 – 7150 kHz vy strong in Europe on April 7th at 1730 UTC



7000 **7160**

Measuring the sweeprate (PRF) with the W-Code oscilloscope function – 100 msec between the sweeps
calculation: 1 sec (1000 msec) : 100 msec = 10 sweeps/sec



Chinese broadband OTH radar – The radar sound was similar to a woodpecker caused by the narrow filters in amateur transceivers.

soundfile: http://www.iarums-r1.org/iarums/sound/7mhz-chn-broad.wav

2. **Russian OTH radar "Contayner"**
   The Russian OTH radar Contayner located in Gorodezh was often and long lasting disturbing the 7 Mhz-band during the evenings and nights. The same radar disturbed 14 Mhz in the noons and afternoons. Parameters: 50 sps and 13 kHz wide (measurement without splatters)

3. **Russian digital MIL traffic**
   Russian digital MIL traffic was observed on 7 and 14 MHz rather often. For example:
   Three FSK-systems and three OFDM-60 systems on the 14 MHz band on April 14th .
   Main locations: Moscow, Kaliningrad and Sevastopol

4. **6998.5 Polish MIL – no change**
   Polish Military was still transmitting on 6998.5 kHz on MIL-188-141A (ALE), MIL-188-110A and USB voice trsffic. The 7 MHz-band was affected up to 7001.5 kHz every morning at about 07 utc. The German PTT (BNetzA) sent an official complaint to the Polish PTT in February 2016.

5. **CIS pirates on 80 m**
   We found again CIS pirates in the CW range of the 80 m-band every evening. They were using AM gears with unstable carriers and not respecting any Ham traffic as usual.

6. **Apocalypse on 28 MHz**
   During some good conditions on 28 MHz we found again many well known intruders:
   Fishery buoys **http://www.iarums-r1.org/iarums/buoys.pdf**
   Datawell buoys, GPS-buoys, CB traffic from Brazil, CIS taxis and Far East intruders.

7. **"Sound of Hope" - BC from Taiwan and Chinese jammer on 18080 kHz**
   Sound of Hope was audible with BC transmissions on 18080 kHz together with the Chinese mainland jammer every morning at about 6 utc and later under daylight conditions.
   The Chinese jammer was much stronger than SOH. The BC transmissions on this band are illegal.
   I informed the German PTT.

8. **Illegal fishery traffic on 21 and 10 MHz**
   Moroccan fishermen had their skeds on 21002.0 USB often in the evenings. You can also find them on the 30 m-band. They never respect any amateur traffic.

9. **7 MHz – Indonesian Village Radio – no change**
   The Indonesian intruders on 7000 kHz and up in 5 kHz increments are still transmitting tere on LSB and USB.

10. **Broadcast and (or) QRM on 7, 10 and 14 MHz**
    7080 kHz – intermodulation from All India Radio during several evening hours
    7120 kHz – Radio Hargaysa Somalia, daily
    7205 kHz – Voice of Islamic Republic Iran splattering down to 7195 kHz (1920 – 1950 UTC)
    14060 kHz – intermodulation from BBC-WS on 13660 and 13860 kHz. After complaints by British Hams the BBC solved the problem. Many thanks to our UK Hams!
    10120 kHz – intemodulation from Voice of Iran on 9580 and 9850 kHz – German PTT was informed
    14295 kHz – harmonic from Radio Tajik on 4765 kHz – no change as usual

11. **Hamradio 2016 – Invitation to all coordinators and friends!**

IARUMS Region 1 and DARC Monitoring System Meeting at the HAM-RADIO 2016 in Friedrichshafen:

Saturday, June 25th 2016 from 10.00 – 11.30 local time - Room Swiss (180) – Hall A2

Agenda:

1. **Official opening by DK2OM and HB9CET**
2. **Main lecture "Monitoring and bearing today" by Dr. Ing. Christof Rohner (DL7TZ / 9V1CR) – Fa. Rohde&Schwarz**

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.iaru-r2.org/
    Homepage IARUMS Region 3 http://iaru-r3.org/iaru-region-3-monitoring-system-newsletter/
    Intruderlogger Region 1 http://peditio.net/intruder/bluechat.cgi
    ITU-Monitoring Reports http://www.itu.int/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

ARSK MONITORING OVERVIEW FOR APRIL 2016

Radio Hargeisha remained on 7,120 kHz with broadcasts. As usual there were some local or Central African intruders observed on 7,000, 7,074 and 7,075 kHz.

E.H.M. Alleyne, 5Z4NU - ARSK National IARUMS Co-ordinator

ARSK – Kenya – 5Z4NU (Ted)

N.A.

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

DG0JBJ (Mario) observed 26 OTH radars on 40 m, 5 OTH radars on 20 m, 34 OTH radars on 17m, 17 OTH radars on 15 m and 4 OTH radars on 10 m in April 2016. Chinese OTH radars appeared on the 15, 20, 30, 40 and 80 m-bands.

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	1812,0	1910	01	04	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – no carrier - daily, all day
DK2OM	1852,0	1850	12	04	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	1911	01	04	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	1849	12	04	I	IQN	USB			Lampedusa Radio, weather reports
DK2OM	1888,0	1917	21	04	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1896,5	1957	05	04	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy – daily, all day
DK2OM	1925,0	1848	12	04	I	IPL	USB			Livorno Radio, weather reports
DK2OM	**3500,0**	**1656**	**01**	**04**	**HOL**		**USB**			**Dutch fishery**
DK2OM	3500,0	---	--	04	F		FMCW		20k	French burst radar, 6 sps, similar Codar sounding, South France
DK2OM	3500,0	vt	dly	04	TUR		FSK8	125	1750	ALE, "2016" "4017" – Turkish Red Crescent – just for info!
DK2OM	3501,0	vt	dly	04	UKR		FSK8	125	1750	ALE, "H10" "B10" "I10" "D10" "G10"
DK2OM	**3502,1**	**1852**	**30**	**04**	**CIS**		**A3E**			**CIS pirates – unstable carrier**
DK2OM	3503,5	vt	dly	04	G	no ITU	FSK8	125	1750	ALE – "XSS" "XPU" "XJR" – British MIL Tascomm – vt, daily - legal!
DK2OM	3510,0	1838	14	04	CHN		FSK8	125	1750	ALE, "103"
DK2OM	**3515,5**	**1853**	**30**	**04**	**CIS**		**A3E**			**CIS pirates – unstable carrier**
DK2OM	**3516,5**	**1853**	**30**	**04**	**CIS**		**A3E**			**CIS pirates – unstable carrier**

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	**3517,1**	**1857**	**30**	**04**	**CIS**		**A3E**			**CIS pirates – unstable carrier**
DK2OM	3520,0	vt	vd	04	KAZ		USB			2 women in Russian voice - Kazakhstan
DK2OM	3525,0	1917	26	04	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Marseille – legal!
DK2OM	3526,0	1919	07	04			PSK2A	120	2600	AT3004D -
DK2OM	3526,0	1909	28	04	RUS		PSK2A	120	2600	AT3004D – Kaliningrad
DK2OM	3527,0	2000	29	04	RUS		F1B	50	200	Severomorsk
DK2OM	3528,0	1553	05	04	CHN		FSK8	120	1750	ALE, “920”
DK2OM	3531,0	---	--	04	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily
DK2OM	3532,0	1918	08	04	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3540,0	1856	05	04	E		USB			Spanish fishery
DK2OM	**3541,0**	**1855**	**30**	**04**	**CIS**		**A3E**			**CIS pirates – unstable carrier**
DK2OM	**3550,0**	**0530**	**dly**	**04**	**F**		**A3E**			**French amateurs not respecting bandplans - daily**
DK2OM	3550,0	vt	vd	04	ALG	no ITU	FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	3550,8	1740	03	04	ISR		PSK4 PSK8	75 2400	2600 2600	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3552,0	2003	29	04	RUS		F1B	50	200	Kaliningrad
DK2OM	3553,8	ady	dly	04	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long - TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3560,0	1601	05	04	CHN		FSK8	120	1750	ALE, “244” “991”
DK2OM	3576,6	ady	dly	04	I	IZ3DVW	A1A			3576.550 - uncoordinated beacon – disturbing JT65
DK2OM	3578,0	1827	29	04	CHN		FSK8	125	1750	ALE, “715”
DK2OM	3585,0	1924	13	04	TWN	HLL	F1C		800	WX-fax Taiwan - 120 rpm, IOC 576, - daily, all day - legal!
DK2OM	3586,0	vt	dly	04	G		PSK2A	40	40	encrypted – every evening Great Britain – purpose unknown
DK2OM	3587,0	vt	vd	04	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3588,0	1631	24	04	CHN		FSK8	125	1750	ALE, “694” “355” “865”
DK2OM	3590,0	vt	dly	04	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy
DK2OM	3593,7	---	--	04	RUS	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	3593,8	---	--	04	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
DK2OM	3593,9	---	--	04	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	3594,0	---	--	04	RUS	C	A1A			Cluster beacon C - Moscow RUS Navy - “RIW”
DK2OM	3595,0	---	--	04	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **“RCC”**
DK2OM	3596,0	1854	27	04	D		FSK8	125	1750	ALE, “DK0ESD” – just for info!
DK2OM	3596,8	1830	08	04	ALB		PSK4	75	2400	Link11 – CLEW also 12.04.2016 at 1845 utc
DK2OM	3603,0	1822	29	04	CHN		FSK8	125	1750	ALE, “590” “962”
DK2OM	3608,0	1633	24	04	CHN		FSK8	125	1750	ALE, “176” “901”
DK2OM	3617,0	vt	dly	04	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	1923	13	04	J	JMH	F1C		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!!!
DK2OM	3624,0	1606	30	04	CHN		FSK8	125	1750	ALE, “838”
DK2OM	3634,0	1752	29	04	CHN		FSK8	125	1750	ALE, “488”
DK2OM	3640,0	vt	dly	04	G		FSK8	125	1750	ALE, “XSS” - British MIL Tascomm – just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3642,0	ady	dly	04	CHN		A1A			loop – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3648,0	---	--	04	ARS		FSK8 LSB	125	1750	ALE, "AAI" "AAN"
DK2OM	3649,0	vt	vd	04	ALG	no ITU	FSK8	125	1750	ALE, "BI20" PA20"
DK2OM	3658,0	---	--	04	UZB		A1A			beacon "V" - Tashkent
DK2OM	3661,0	1528	04	04	FEa		FMOP		93k	OTH radar – 43 sps - 3661 – 3754 kHz
DK2OM	3718,0	vt	vd	04	FEA	7CJK	A1A			loop "7CJK"
DK2OM	3720,0	vt	dly	04	S		FSK8	125	1750	ALE, "YU" "YT" "YV" "DZ" – Swedish MIL
DK2OM	3751,0	ady	dly	04	FEa		A1A			"99 ?? 2T48 ??" - loop
DK2OM	3751,5	vt	dly	04	POL	no ITU	FSK8	125	1750	ALE, "IZ3" "MI3"
DK2OM	3756,0	1938	02	04	RUS		A3E			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG – daily – even audible in Japan
DK2OM	3757,0	ady	dly	04	FEa	RIS9	A1A			"M8JF de RIS9" - loop
DK2OM	3761,5	vt	vd	04	POL	no ITU	FSK8	125	1750	ALE, "NI9" "PL7" "AB2" – Polish MIL
DK2OM	3761,6	1645	30	04	CHN		PSK2B	60	2400	PRC 30 tone
DK2OM	3772,0	ady	dly	04	FEa	A4JC	A1A			"A4JC" - loop
DK2OM	3777,0	ady	dly	04	FEa		A1A			"M8JF de RIS9" – loop – dly
DK2OM	3791,0	vt	vd	04	D	DK0ESD	FSK8	125	1750	ALE, "DK0ESD" – daily just for info!
DK2OM	3791,8	1830	12	04	NOR		PSK8	2400	2400	Stanag-4285 – 600 bps long - Stavanger
DK2OM	3797,0	ady	dly	04	FEa		A1A			"M8JF de RIS9" – loop
DK2OM	6905,0	1944	07	04	CHN		FMCW		160k	Chinese broadband OTH radar – 6905 – 7065 kHz – 10 sps
DK2OM	6998,5	0614	19	04	POL		FSK8 PSK8 USB	125 2400	1750 2400	ALE, "ZE2" "OL1" "GO7" "MA3" "SZ4" and MIL-188-110A – until 7001.500 kHz – Polish MIL
DK2OM	7000,0	0839	20	04	INS		USB LSB			Indonesian pirates – daily – all day - audible in Europe in the evenings
DK2OM	**7000,0**	**ady**	**dly**	**04**	**RUS**		**H3E**		**3.4 k**	**buzzer – 1 sec bursts - 118 Hz AF rough sinus – carrier on 6998.0 + upper sideband - with splatters 10 kHz wide – daily, all day - Moscow**
DK2OM	7000,0	vt	dly	04	?	no ITU	FSK8	125	1750	ALE, "210" "20989" "2205" "203"
DK2OM	7000,0	1726	07	04	CHN		FMCW		160k	Chinese broadband OTH radar – 7000 – 7160 kHz – 10 sps
DK2OM	7000,0	1450	27	04	CHN		FSK8	125	1750	ALE, "157" "162"
DK2OM	7001,5	0700	vd	04	POL		PSK8	2400	2400	RF QRG 6998.5 kHz – 7000.3 kHz center - MIL-188-110A – 600 / 300 bps short – Polish MIL
DK2OM	7005,0	1723	05	04	INS		USB LSB			Indonesian pirates
DK2OM	7008,0	1917	25	04	RUS		F1B	75	250	Omsk
DK2OM	7010,0	0907	27	04	INS		USB LSB			Indonesian and Philippine pirates
DK2OM	7015,0	0911	27	04	INS		USB LSB			Indonesian pirates
DK2OM	7015,0	1736	28	04	RUS		PSK4B	120	2600	AT3104D - Kaliningrad
DK2OM	7016,0	1910	21	04	RUS		F1B	75	250	Kazan
DK2OM	7018,0	---	--	04	RUS	REA4	F1B	100	800	mostly idling – Russian airforce Moscow – ident at full hour + 41 min. on F1A
DK2OM	7020,0	0908	27	04	INS		USB LSB			Indonesian pirates
DK2OM	7020,0	---	--	04	ALB		FSK8	125	1750	ALE, "CS004A" "RS008D" "RS0" – Albanian coast - daily
DK2OM	7020,0	0912	03	04	RUS		F1B	75	250	Nishny Novgorod – also

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										27.04.2016 at 1640 utc
DK2OM	7025,0	1640	09	04	INS		USB LSB			Indonesian pirates
DK2OM	7027,5	---	--	04	KAZ	„V“	A1A			beacon “V” - Almaty
DK2OM	7030,0	0908	27	04	INS		LSB			Indonesian pirates
DK2OM	7032,0	1924	08	04	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	7033,0	0643	22	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 7033 – 7192 kHz
DK2OM	7034,0	0007	26	04	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	7035,0	0909	27	04	INS		USB LSB			Indonesian pirates
DK2OM	7035,0	1539	13	04	RUS		PSK2A	120	2600	AT3004D – Moscow
DK2OM	7039,0	---	--	04	RUS	C	A1A			Cluster beacon C - Moscow RUS Navy - “**RIW**”
DK2OM	7039,1	---	--	04		A	A1A			beacon “A” - loop
DK2OM	7039,3	---	--	04	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **“RCC”** - daily
DK2OM	7039,4	1905	06	04	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – **„RTS“ –** distorted by spurious emissions
DK2OM	7040,0	1624	08	04	INS		USB LSB			Indonesian pirates
DK2OM	7040,0	vt	dly	04	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	**7040,0**	**ady**	**dly**	**04**	**I**		**A1A**			**IZ3DVW – uncoordinated and unwanted beacon**
DK2OM	7040,5	vt	dly	04	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7047,37	vt	vd	04	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7048,0	1744	14	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7048 – 7080 kHz
DK2OM	7049,5	vt	vd	04	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	125	1750	Amateur ALE, just for info! daily – various times
DK2OM	7050,0	0550	04	04	UKR		PSK2A	120	2600	AT3004D - Rivne
DK2OM	7051,0	1933	07	04	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	7055,5	vt	vd	04	MEa	no ITU	FSK8	125	1750	ALE, “111” “132” “133” - Kaukasus
DK2OM	7060,0	1825	13	04	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	7066,0	1604	12	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7066 – 7098 kHz
DK2OM	**7068,0**	**1920**	**25**	**04**	**IND**		**A3E/BC**		**40k**	**spurious from AIR**
DK2OM	7070,0	vt	vd	04	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7076,0	1857	19	04	RUS		F1B	75	250	Kaliningrad
DK2OM	7080,0	1720	26	04	RUS		F1B	50	200	Kaliningrad
DK2OM	7088,8	---	--	04	S	SL0FRO	A1A			7088.830 kHz - cw-trainee, Sweden - SL0FRO - just for info!
DK2OM	7089,8	---	--	04	TUR CYP		PSK8	2400	2400	Link11 - SLEW – aircraft – west of Cyprus
DK2OM	7090,0	0411	26	04	RUS		PSK2A	120	2600	AT3004D - Crimea
DK2OM	7091,5	---	--	04	KAZ	„V“	A1A			loop – ident “V” – Almaty - Kazakhstan
DK2OM	7092,0	vt	vd	04			FSK8	125	1750	ALE, “3014”
DK2OM	7099,5	vt	dly	04	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
DK2OM	7102,0	1649	30	04	TWN		FSK8	125	1750	ALE, “BV4AS” – just for info!
DK2OM	7102,0	vt	vd	04	HRV SUI D	9A0MIL	FSK8	125	1750	ALE, “9A0MIL” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7106,0	1820	12	04	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh – long lasting
DK2OM	7110,0	vt	dly	04	HRV	9A0ALE	FSK8	125	1750	ALE, "9A0ALE" – just for info
DK2OM	7112,0	2026	21	04	CHN		PSK2B	60	2400	PRC 30 tone – LSB mode – PSK2B – pilottone 450 Hz AF - China
DK2OM	7112,0	1646	22	04	RUS		F1B	50	200	very unclean – idling - Kaliningrad
DK2OM	**7120,0**	**vt**	**dly**	**04**	**SOM**		**A3E**		**9k**	**Radio Hargaysa – Somalia – daily – even audible in Australia and Japan**
DK2OM	7122,0	---	--	04	FEa	V	A1A			loop "V"
DK2OM	7127,0	1846	26	04	RUS		F1B	75	250	Krasnoyarsk
DK2OM	7132,0	1412	20	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7132 – 7164 kHz
DK2OM	7137,0	1435	17	04	TWN		FSK8 LSB	125	1750	ALE, "CBIUN" "CBWPC" "CQYTX" "CAPLJ" "CTFOJ" "CEGTO" "CSNYI" "CEIPN" "CRXWT"- Taiwanese navy – daily
DK2OM	7140,0	vt	vd	04	FEa		FSK8	125	1750	ALE. "1111"
DK2OM	7144,0	1727	29	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7144 – 7176 kHz
DK2OM	7149,0	1929	26	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7149 – 7181 kHz
DK2OM	7155,0	1726	12	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7155 – 7187 kHz
DK2OM	7162,0	0700	25	04	RUS		F1B	75	250	Moscow
DK2OM	7162,0	1749	25	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7162 – 7194 kHz
DK2OM	**7163,0**	**---**	**--**	**04**	**UKR**		**A3E**			**encrypted MSGs - SZRU in Rivne**
DK2OM	7164,0	1927	13	04	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7164 – 7196 kHz
DK2OM	7170,0	vt	vd	04	CHN	no ITU	FSK8	125	1750	ALE, "103" "103"
DK2OM	7176,0	0413	26	04	RUS		F1B	75	250	Moscow
DK2OM	7183,0	vt	dly	04	SUI		FSK8	125	1750	ALE, "HB9MHB" – just for info!
DK2OM	7185,5	vt	vd	04	D HRV		FSK8	125	1750	ALE, "9A5EX" "DK0ESD" just for info - daily
DK2OM	7186,0	0348	28	04	RUS		PSK2A	120	2600	AT3004D - Severomorsk
DK2OM	7197,0	vt	dly	04	TUR	no ITU	FSK8	125	1750	ALE, "206102" "318013" "365013" – Turkish organisations and Turkish Civil Defense - source: DL8AAM – daily, various times
DK2OM	7200,0	1424	08	04	MMR		A3E			Myanmar Radio – 0930 – 1500 utc
DK2OM	7200,0	---	--	04	TWN		A3E			Radio Taiwan Int. – 1000 – 1300 utc
DK2OM	**7205,0**	**1920**	**12**	**04**	**IRN**		**A3E**		**20k**	**Voice of Iran with splatters down to 7195 kHz – 1920 – 1950 utc daily**
DK2OM	10100,8	ady	dly	04	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10102,0	1401	22	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 10102 – 10262 kHz
DK2OM	10110,0	vt	dly	04	SNG	no ITU	FSK8	125	1750	ALE, "CN6" "68" – Singapore Navy - Changi Naval Base
DK2OM	10111,0	1750	10	04	RUS		MFSK		3200	MFSK - 2 x 34 tones - Moscow
DK2OM	10113,0	vt	vd	04	TUN	no ITU	FSK8	125	1750	ALE, "TUD" "STAT5" "STAT154"
DK2OM	10114,0	vt	dly	04	ALG	no ITU	FSK8	125	1750	ALE, "BSF" "ZEN" "CM2OR2"
DK2OM	10114,8	0733	13	04	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	dly	04	MRC	no ITU	FSK8	125	1750	ALE, "100" "114" "201" "XXZ" – Western Sahara

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	10116,5	---	--	04	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10120,0	vt	dly	04	ALG	no ITU	FSK8	125	1750	ALE, "CM6" "01012016"
DK2OM	**10120,0**	**1605**	**13**	**04**	**IRN**		**A3E/BC**		**9k**	**Voice of Iran - intermod. from 9580 and 9850 kHz – location Zahedan**
DK2OM	10122,0	1749	04	04	RUS		F1B	75	200	Novorossiysk
DK2OM	10123,0	vt	dly	04	ALG	no ITU	FSK8	125	1750	ALE, "CM3" "COF" "BSF" "CM2" "ESA" – Algerian Airforce
DK2OM	10129,0	vt	dly	04	ALG	no ITU	FSK8	125	1750	ALE, "CM1" "CTF" "772"
DK2OM	10130,0	vt	dly	04			FSK8	125	1750	ALE, "1144" "1608"
DK2OM	10136,0	vt	dly	04	ALG	no ITU	FSK8	125	1750	ALE, "CM3" "BLD" "CNC" "TF2"
DK2OM	10140,0	vt	vd	04	CHN ?	no ITU	FSK8	125	1750	ALE, "205" "201" "LT"
DK2OM	10144,0	ady	dly	04	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – **just for info!**
DK2OM	10144,0	0649	07	04			F1B	100	250	
DK2OM	10145,5	vt	dly	04	SUI	HB9MHB	FSK8	125	1750	ALE, "HBMHB" - just for info - daily
DK2OM	10145,5	vt	dly	04	TWN AUS	BV4AS	FSK8	125	1750	ALE, "BV4AS" "VK4SAA"– just for info!
DK2OM	13980,0	1909	30	04	MEa		FMCW		20k	OTHR – 50 sps - spurious +/- 20 kHz – TUR or CYP
DK2OM	13997,0	0803	26	04	RUS		PSK2A	120	2600	AT3004D – pilot tone on 14000.3 - Penza
DK2OM	14000,0	1555	23	04	FEa		USB			pirates from Java Sea - daily
DK2OM	14000,0	1310	21	04	E		USB			Spanish fishery
DK2OM	14000,0	1335	21	04	RUS		FMCW		10k	OTH burst radar Contayner - 10 sps - Gorodezh
DK2OM	14000,0	1520	24	04	IND		USB			pirates – Indian Ocean
DK2OM	14000,0	1318	25	04	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Gorodezh
DK2OM	14000,0	0740	29	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 51 sec blocks - 14000 – 14160 kHz
DK2OM	14008,0	0829	14	04	RUS		F1B	50	250	Moscow – also 25.04.2016 at 1240 utc
DK2OM	14044,0	1250	14	04	RUS		F1B	75	250	Far East Russia
DK2OM	14050,0	1408	23	04	RUS		F1B	75	250	Krasnoyarsk
DK2OM	14052,0	0920	05	04	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic - north of Omsk
DK2OM	**14060,0**	**1800**	**17**	**04**	**G**		**A3E/BC**			**intermodulation from BBCWS on 13660 and 13860**
DK2OM	14085,0	1347	28	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 60 sec blocks - 14085 – 14245 kHz
DK2OM	14100,0	vt	dly	04	ALG	no ITU	FSK8	125	1750	ALE, "6206" – "6204" - "6202" "6207" "6217" "MTL" "IJI" – Mauritanian border – daily, all day
DK2OM	14106,6	1352	28	04	CHN		OFDM	44.44	2320	OFDM 39
DK2OM	14109,0	vt	dly	04	S	HAM	FSK8	125	1750	ALE, "SM3FXL" – just for info!
DK2OM	14109,0	vt	dly	04	RUS	RV3APM	FSK8	120	1750	ALE, "RV3APM" – just for info!
DK2OM	14135,0	1528	10	04	RUS		FMCW		10k	OTH burst radar Contayner - 10 sps - Gorodezh
DK2OM	14148,5	1310	18	04	RUS		F1B	600	600	DPRK-FSK 600 - Moscow
DK2OM	14150,0	0834	29	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 51 sec blocks - 14150 – 14310 kHz – jumping14000, 14150 and 14180
DK2OM	14160,0	vt	dly	04	MRC		FSK8	125	1750	ALE, "9204" "9228" "9236"
DK2OM	14166,0	1741,0	09	04	RUS		FMCW		10k	OTH burst radar Contayner - 10

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										sps - Gorodezh
DK2OM	14180,0	1230	15	04	RUS		F1B	50	200	Sevastopol – also 30.04.2016 at 0740 utc
DK2OM	14180,0	0825	29	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 51 sec blocks - 14180 – 14340 kHz – jumping14000 and 14180
DK2OM	14192,0	0907	19	04	RUS		F1B	50 75	500 500	RUS navy Kaliningrad - daily
DK2OM	14205,0	vt	dly	04	CHN	no ITU	FSK8	125	1750	ALE, “505” “822”
DK2OM	14211,0	0845	27	04	CHN		FMCW		40k	Chinese OTH burst radar 67 sps – 15 sec bursts
DK2OM	14221,0	0535	19	04	KGZ		F1B	50	200	CIS-50-50 - Bishkek – daily
DK2OM	14223,5	---	--	04	RUS		F1B	600	600	DPRK-FSK 600 - DPRK emba Moscow
DK2OM	14236,6	0953	14	04	RUS		OFDM	35.55	2760	OFDM 60 – idling and traffic – east of Moscow
DK2OM	14239,0	---	--	04	CHN		PSK4	60	2350	PRC 30 tone modem – LSB mode – LSB QRG – pilot tone 450 Hz
DK2OM	14240,0	0826	09	04	RUS		F1B	50	250	Moscow
DK2OM	14242,0	0756	21	04	RUS		PSK2A	120	2600	AT3004D – Moscow
DK2OM	14247,0	0903	27	04	CHN		FMCW		10k	Chinese OTH burst radar 67 sps
DK2OM	14260,0	vt	dly	04	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14260,9	0839	14	04	RUS		OFDM	35.55	2760	OFDM 60 - Kaliningrad
DK2OM	14265,0	vt	vd	04	TUR	no ITU	FSK8	125	1750	ALE, “526”
DK2OM	14265,0	1535	26	04	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14268,0	0844	27	04	CHN		FMCW		40k	Chinese OTH burst radar 67 sps – 15 sec bursts
DK2OM	14272,0	---	--	04	RUS	RCV	A1A			RUS Navy Sevastopol
DK2OM	14285,2	0935	14	04	RUS		OFDM	35.55	2760	OFDM 60 - Moscow
DK2OM	14295,0	vt	dly	04	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	**14295,0**	**1015**	**06**	**04**	**TJK**		**A3E**		**9k**	**3rd from Radio Tajik on 4765 kHz – daily, all day**
DK2OM	14301,8	1016	06	04	CHN		PSK2	75	2200	PRC 16 tone modem – USB mode – pilot tone 450 Hz - RF 14300.0 kHz - China – Shanghai – daily – all day
DK2OM	14304,0	0927	14	04	RUS		F1B	75	250	Moscow
DK2OM	14306,0	0810	21	04	RUS		PSK2A	120	2600	AT3004 – submode idle and traffic - Penza
DK2OM	14318,0	1308	18	04	RUS		FMCW		10k	OTH burst radar Contayner - 10 sps - Gorodezh
DK2OM	14330,0	vt	dly	04			FSK8	125	1750	ALE, “BV4”
DK2OM	14334,0	vt	vd	04	CHN	no ITU	FSK8	125	1750	ALE, “249” “255” “763”
DK2OM	14344,7	--	---	04	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	1331	27	04	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950 kHz - every 5 minutes – daily - just for info!
DK2OM	14346,0	vt	vd	04	HRV RUS D		FSK8	125	1750	ALE, “9A0ZG” “RX3ARZ” “DK0ESD” – just for info – various times, daily
DK2OM	**14351,7**	**---**	**--**	**04**	**E**		**OFDM**	**30**	**2700**	**OFDM 73 + intro tone – experimental transmissions – Las Palmas – just for info!**
DK2OM	**18080,0**	**0600**	**12**	**04**	**TWN CHN**		**A3E/BC**			**Sound of Hope – Taiwan – and CHN BC jammer - daily at 06 utc and later**
DK2OM	18100,0	vt	dly	04	MRC	no ITU	FSK8	125	1750	ALE, “A2” “A5” “A7” “S6” – “C3” “G401” “CD” “09“ “G2” “LG6” “G301” “ELJADIDNET4” - daily, various times
DK2OM	18106,0	vt	vd	04	POR	CT2GOY	FSK8	125	1750	ALE, “CT2GOY” – just for info!
DK2OM	18107,0	vt	vd	04	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow – idle

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										and traffic – Russian navy – various days and times – shared band!
DK2OM	18117,5	vt	vd	04	POR	CT2IXQ	FSK8	125	1750	ALE, "CT2IXQ" – just for info
DK2OM	18140,0	vt	dly	04	SRB	YU1BI	FSK8	125	2600	ALE, "YU1BI" – just for info!
DK2OM	18165,0	0800	20	04	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	21000,0	vt	dly	04	FEa		USB			Far East pirates - daily
DK2OM	**21000,0**	**1753**	**24**	**04**	**B**		**USB**			**Brazilian pirates – Rio de Janeiro with North Brazil – very often**
DK2OM	**21000,0**	**---**	**--**	**04**	**SDN**		**USB**			**MFA Sudan – Khartoum with emba Yemen – voice traffic**
DK2OM	21000,0	1702	14	04			USB			men in French voice
DK2OM	21000,0	0802	15	04			USB			pirates in unknown voice
DK2OM	21002,0	1913	25	04	MRC		USB			Moroccan fishery
DK2OM	**21002,2**	**---**	**--**	**04**	**SDN**	**!0000 !9999 !8888**	**F1B**	**100**	**170**	**21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen**
DK2OM	21096,0	vt	dly	04	INS	YD0OXH	FSK8	125	1750	ALE, "YD0OXH3" – daily, various times - just for info!
DK2OM	21104,0	0900	12	04	CHN		FMCW		10k	Chinese OTH burst radar 67 sps – 3.8 sec bursts
DK2OM	21118,0	1030	28	04	CHN		FMCW		160k	Chinese broadband OTH radar – 10 sps – 51 sec blocks - 21118 – 21278 kHz
DK2OM	21131,0	vt	vd	04	CHN	no ITU	FSK8	125	1750	ALE, "A92" "L02" – Chinese diplo
DK2OM	21141,0	---	--	04	GEO		PSK8A	2400	2400	Stanag4538 – GEO MIL with AFG - daily
DK2OM	21145,0	0922	20	04	MRC	no ITU	FSK8	125	1750	ALE, "B301", "C3", "IR4" "T4" "E4" "A2" "CD" "K3" "KB2" "J5" "GS4" "R3" – various times, daily
DK2OM	21145,8	ady	dly	04	I	IZ3DVW	A1A			IZ3DVW beacon – 21145,75 kHz - not coordinated with IARU
DK2OM	21160,0	---	--	04	RUS		F1B	100	2000	4th from 5290 kHz (500 Hz shift) – St. Peterburg
DK2OM	21190,0	---	--	04	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow - daily
DK2OM	21207,0	0849	21	04	AUS		FMCW		10k	OTH burst radar – 7 sps – introtones - jumping
DK2OM	21277,0	0852	21	04	AUS		FMCW			OTH burst radar – 7 sps – introtones - jumping
DK2OM	21338,0	0910	12	04	CHN		FMCW		10k	Chinese OTH burst radar 67 sps – 3.8 sec bursts
DK2OM	21345,0	0908	12	04	CHN		FMCW		10k	Chinese OTH burst radar 83 sps – 3.0 sec bursts
DK2OM	21353,5	---	--	04	GAB		F1B	600 600	600 1200	DPRK-FSK 600 - Libreville DPRK-FSK 1200
DK2OM	21400,0	---	--	04	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	---	--	04	RUS		F1B	100	2000	F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21430,5	0818	12	04			A1A			only series of dashes – 21430,460 kHz
DK2OM	21436,0	---	--	04	RUS		PSK2A	120	5200	AT3004D – harmonic from 10718.0 kHz - Sevastopol
DK2OM	21438,0	vt	vd	04	RUS	RCV	A1A			RIP90, RCV. RGX94 - RUS Navy Sevastopol - daily
DK2OM	21446,0	ady	dly	04	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	vt	vd	04	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	**28000,0**	**vt**	**vd**	**04**	**B**		**A3E**			**Brazilian CBers – 28000 –**

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										28325 – daily, all day - no change
DK2OM	**28000,0**	**vt**	**dly**	**04**	**CIS**		**F3E**			**28000 – 29700 numerous CIS taxi nets – no change**
DK2OM	28010,0	---	--	04	POR		F1B	51	300	F1B bursts –west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28025,0	---	--	04	POR		F1B	51	300	F1B bursts – 28025.050 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28030,0	---	--	04	POR		F1B	51	340	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28045,0	---	--	04	POR		F1B	51	280	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	1538	17	04	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28051,5	---	--	04	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28060,0	---	--	04	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	1514	18	04	RUS		F3E			RUS taxi
DK2OM	28065,2	---	--	04	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,6	---	--	04	GAB		A3E		980	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day
DK2OM	28075,0	---	--	04	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	1340	19	04	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28100,2	---	--	04	POR		F1B	51	300	F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28102,1	---	--	04	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28125,0	---	--	04	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28135,0	---	--	04	RUS		F3E			RUS taxi - daily
DK2OM	28146,0	vt	vd	04	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28200,0	---	--	04	POR		F1B	51	330	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28224,4	---	--	04	GAB		A3E			carrier and dots +/- 770 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28249,6	---	--	04	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28250,5	---	--	04	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28275,1	---	--	04	AF		F1B	51	300	F1B bursts -Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28312,5	vt	vd	04	POR	CT2IXQ	FSK8	125	1750	ALE. “CT2IXQ” – just for info
DK2OM	28315,0	---	--	04	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 buoys - daily
DK2OM	28345,1	---	--	04	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	**28435,0**	**----**	**--**	**04**	**E**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 28435.040 kHz – Costa del Sol – Malaga**
DK2OM	28459,8	----	--	04	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28459,9	---	--	04	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	**28499,8**	**---**	**--**	**04**	**MEa**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 28499.875 kHz – Persian Gulf**
DK2OM	28701,1	---	--	04	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28751,2	---	--	04	GAB		A3E		1080	carrier and dots +/- 540 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28845,5	---	--	04	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28901,1	---	--	04	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	29114,0	---	--	04	RUS		F1B	100	2000	harmonic from14557.0 kHz - Moscow
DK2OM	**29249,9**	**1612**	**11**	**04**	**E**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29249.890 kHz – Fuerteventura - daily, all day**
DK2OM	**29375,0**	**---**	**--**	**04**	**I**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29374.898 kHz – Gallipoli, South Italy - daily, all day**
DK2OM	**29387,5**	**---**	**--**	**04**	**IND**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day**
DK2OM	**29400,0**	**---**	**--**	**04**	**USA**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day**
DK2OM	**29450,0**	**1614**	**11**	**04**	**MRC**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29449.860 kHz - area of El Aaiun – Morocco - daily, all day**
DK2OM	**29500,0**	**---**	**--**	**04**	**G**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – area of Gibraltar – daily, all day**
DK2OM	**29525,0**	**---**	**--**	**04**	**MRC**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day**
DK2OM	**29625,0**	**---**	**--**	**04**	**USA**		**F1B**	**81.9**	**140**	**Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day**

IRTS – Ireland – EI3GYB (Michael)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
IRTS	3500	0720-0748	03	04	HOL		USB			3 Dutch fishermen, male. Loud motor noise. Katwijk. Harbour.
IRTS	3553	1115	22	04	POR or MM		USB			2 male Portuguese fishermen
IRTS	3560	1440	08	04	POR		USB			2 male Portuguese

					or MM					fishermen,very strong signal,endless chat
IRTS	3560	1900	23	04	E or MM		USB			2 male Spanish fishermen
IRTS	3657	0920	28	04	E or MM		USB			2 male Spanish fishermen.
IRTS	3664	1250	08	04	E or MM		USB			2 male Spanish fishermen, with typical motor noise in the background.
IRTS	3664	1115	21	04	E or MM		USB			2 male Spanish fishermen
IRTS	3664	1145	22	04	E or MM		USB			2 male Spanish fishermen
IRTS	7000	1545	19	04			AM			Buzzer
IRTS	7012	2000	08	04						Radar 7012 to 7053 kHz
IRTS	7055	1245	11	04						Strong digital signals from 7055 to 7061 kHz. Non- stop for hours.
IRTS	7055	1520	15	04			Digi			Monster digital signal from 7055 to 7061 kHz.
IRTS	7053.4	1255	08	04			Digi			Huge digital signal from 7053,4 to 7062 kHz. Persistent. Spectrum unusable.
IRTS	7081	0150	08	04						Radar from 7081- 7095 kHz.
IRTS	7089	0330	27	04			Digital			Big digital signal from 7089 to 7094 kHz
IRTS	7095	0215	13	04						Radar from 7095 to 7121 kHz. Band not usable.
IRTS	7143	2030 to beyond 2230	15	04						Radar from 7143 to 7176 kHz. Very strong, band not usable.
IRTS	7180	0515	15	04						Radar from 7180 to 7190 kHz. Very strong. Band not usable.
IRTS	10109.5	0144	10	04						Radar from 10109,5 to 10131,5 kHz, very strong.
IRTS	14088	1715	28	04						Radar from 14088 to 14243 kHz.
IRTS	14120	1130	06	04						Radar from 14120 to 14130 kHz.
IRTS	14192	0330	09	04	RUS		Digi	50	200	RUS Navy Kaliningrad, every day from early morning until late afternoon non -stop.
IRTS	14214	1045	30	04						Radar from 14214 to 14268 kHz.
IRTS	14270	1055	06	04						Very strong Radar from 14270 to 14286 kHz.
IRTS	14336	0930	05	04			Digi			Strong digital signals from 14336 to 14341 kHz.
IRTS	18118.1	1215	06	04			USB			Fishermen in an Asian language, 2 male persons.
IRTS	21196	1050	01	04						Very strong Radar from 21196 to 21222 kHz.
IRTS	21352.5	1600	01	04			Digi			Strong digital signals, probably a N.Korean embassy in W.Africa

KARS – Kuwait – 9K2RR (Faisal)

MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3518,0	1713	10	4			F1B	200	
MRASZ	3520,0	1849	22	4			USB		russian, women
MRASZ	3538,0	1917	13	4			OTHR		
MRASZ	3548,0	2016	18	4			USB		russian, male
MRASZ	3552,0	1936	21	4			A1A		dashes
MRASZ	3559,0	1916	13	4			PSK2		AT3004D
MRASZ	3572,0	1836	17	4			A1A		"63419T9763TT976599" hrd: 18
MRASZ	3609,1	1749	18	4			A1A		deliberate disturbance
MRASZ	3632,2	1853	5	4			N0N		

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3642,0	1825	15	4			A1A		"DKG6 de 3A7D V"
MRASZ	3658,0	2019	19	4			A1A		5 letters, with russian special letters
MRASZ	3716,0	1838	17	4			F1B	200	
MRASZ	3791,0	1839	17	4			F1B	200	hrd: 18
MRASZ	3797,0	1840	17	4			A1A		"RIC87 de RCV QTC 237 43 15 928 237=
MRASZ	7000,0	1938	4	4			H3E		buzzer, hrd on: 5, 7, 8, 10, 15, 17, 19
MRASZ	7001,5	1740	18	4			A1A		deliberate disturbance
MRASZ	7008,0	1739	18	4			F1B	250	hrd: 25, 26, 27
MRASZ	7008,9	1739	18	4			A1A		quick dotts or dashes
MRASZ	7020,0	1725	7	4			OTHR		till 7160 kHz
MRASZ	7020,0	1910	13	4			F1B	250	hrd: 19, 27
MRASZ	7035,0	1914	13	4			PSK2		AT3004D
MRASZ	7050,0	1603	7	4			LSB		russians, chaos, hrd:10,15,18,19,20,25,27
MRASZ	7055,0	1830	17	4			LSB		music, hrd. 19
MRASZ	7060,0	1914	13	4			OTHR		7050-7070 kHz
MRASZ	7080,0	1855	5	4			F1B	200	hrd: 7, 15, 18, 25
MRASZ	7091,5	1814	7	4			A1A		slowly "V"s
MRASZ	7093,0	1621	27	4			PSK2		AT3004D
MRASZ	7114,0	1832	17	4			F1B	200	
MRASZ	7114,0	1549	27	4			PSK2		AT3004D
MRASZ	7120,0	1854	5	4	SOM		A3E		Radio Harg. hrd: 7,15,17,18,20,24,25,27
MRASZ	7127,0	1716	26	4			F1B	250	
MRASZ	7130,0	1925	20	4			LSB		music by italian ham stations over EP3A
MRASZ	7140,0	1602	7	4			LSB		music
MRASZ	7150,0	0954	23	4			A1A		disturbance with dashes
MRASZ	7162,0	0711	24	4			F1B	250	
MRASZ	7174,0	1712	24	4			F1B	200	
MRASZ	7176,0	1711	24	4			F1B	250	
MRASZ	10120,0	1715	7	4			A3E		some arabic language
MRASZ	10130,0	1918	13	4			USB		unidentified language
MRASZ	14042,0	1916	4	4			F1B	200	
MRASZ	14050,0	0935	23	4			F1B	250	hrd: 23,
MRASZ	14130,0	1600	7	4			OTHR		14115-14145 kHz
MRASZ	14130,0	1624	20	4			OTHR		40120-14140 kHz
MRASZ	14160,0	1625	20	4			OTHR		14155-14175 kHz
MRASZ	14160,0	0718	24	4			F1B	250	
MRASZ	14170,0	0721	24	4			OTHR		
MRASZ	14180,0	1616	27	4			F1B	200	
MRASZ	14192,0	1640	26	4			F1B	500	
MRASZ	14220,0	0447	16	4			F1B	200	
MRASZ	14233,0	1554	25	4			OTHR		
MRASZ	14275,0	0936	1	4			OTHR		
MRASZ	14340,0	1626	20	4			OTHR		14340-14380 kHz
MRASZ	18070,0	1555	27	4			OTHR		

OEVSV – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
oevsv	7010.8	0445	29	04	unid	unid	J3E			Fishermen UK dialect
oevsv	7089.6	0808	24	04	Unid	YFY	A1A			
oevsv	10120.0	1714	16	04	EP	ZAH	A3A			BC arabic
oevsv	10145.9	0610	04	04	Unid	unid	J3E			Fishermen
oevsv	14178.5	1931	19	04	Unid	Unid	F3E			RTTY
oevsv	14220.0	0612	22	04	Unid	Unid	F3E			RTTY idling
oevsv	14295.0	0618	22	04	Unid	Unid	A3A			BC

PZK – Poland – SP9BRP (Jan)

REF 1 – France – F5MIU (Francis) F5JBR (Andre)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	3510,0	1639	05	04	RUS	KABIR-98	USB			KABIR-98 clg outstations in Simplex
REF	3518,0	1439	10	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	3524,0	0409	27	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode
REF	3525,0	1531	09	04	RUS	YXWR	CW			YXWR worked 7 outstations in Duplex (For information : The QSX in on 3194 kHz)
REF	3525,0	1531	23	04	RUS	2X2C	CW			2X2C worked 7 outstations in Duplex (For information : The QSX in on 3194 kHz)
REF	3526,0	1709	14	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3526,5	1701	16	04	RUS	PNVB	CW			PNVB working 3 outstations (comms checks and QTCs : 72727 and FFFFF) in Simplex
REF	3533,0	1810	13	04	RUS	9VMG	CW			9VMG worked 4 outstations in Simplex : comms checks and QTCs : 11111
REF	3536,0	0444	15	04	FRA	French Army	CW			French CSTEI Favieres/Vernon : Encrypted messages – GROUPS 5 LETTERS, GROUPS 5 FIGURES and PUNCTUATION
REF	3538	0245	14	04	RUS	Russian Military	CW			Russian Network : responses 11 outstations : comms checks and QTCs – For information : The Net Station is on 4062 kHz
REF	3544,0	0435	17	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	3548,0	1504	05	04	RUS	Russian Air Defense Army PVO	USB			Tracking (Russian Voice)
REF	3548,0	1630	15	04	RUS	Russian Navy	FSK	50	200	Encrypted messages – traffic to nuclear forces
REF	3548,0	0517	18	04	RUS	Russian Air Defense Army PVO	USB			Tracking (Russian Voice)
REF	3548,0	0519	19	04	RUS	PACTOL-78	USB			PACTOL-78 calling outstations in Simplex
REF	3552,0	0436	15	04	RUS	BHYN	CW			BHYN working outstations in Simplex
REF	3557	0246	14	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	3567,5	1508	23	04	RUS	3HAM	CW			3HAM Wkg 3 outstations in Simplex (Special features: encrypted messages "5 digits" always start with 72727 and there is no address after the preamble)
REF	3576,0	1612	15	04	RUS	RABAT-44	USB			The NCS callign outstations
REF	3580	1617	15	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3606,0	0404	27	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode
REF	3633,0	1732	21	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3674,0	1702	14	04	RUS	PR2D	CW			Russian Air Defence Forces
REF	3677,0	1733	08	04	RUS	Russian Military	CW			NCS send message (MMMMM) and QBE QSW1 and QSU1 QYT4 QSU6 K in ²Dx
REF	3677,0	1737	08	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3688,0	0356	27	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3692,5	1719	29	04	RUS	RJD56	CW			RJD56 send messages for RCP in Broacast
REF	3694,0	0446	06	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3696,0	1708	08	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1708	09	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1700	11	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1701	14	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1707	15	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1706	16	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1701	17	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3696,0	1701	29	04	RUS	QREK	CW			QREK calling R176 (no response)
REF	3703,5	0309	14	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	3716,0	0313	14	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	3716,0	0442	17	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	3719,0	1701	26	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3720,0	0750	21	04	RUS	Russian Military	CW			TWV5 wkg outstations (comms checks and QTCs) in Sx

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	3738,0	0248	24	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	3740,0	0513	06	04	RUS	RUA41	FSK	100	500	Encrypted messages – End trafic at 0633z – For information Qsx on 3300 kHz
REF	3740,0	0335	27	04	RUS	RMW32	CW			RMW32 send messages from outstation in Duplex
REF	3740,5	0332	05	04	FRA	French Military	CW			Encrypted messages – GROUPS 5 LETTERS, GROUPS 5 FIGURES and PUNCTUATION
REF	3750,0	1802	05	04	RUS	RMW46	CW			RMW46 worked 14 outstations (RGT49 ; RGR88 ; RGR89 ; RGR90 ; RGR91 ; RFH46 ; RGR92 ; RGR93 ; RGR94 ; RGR95 ; RGR96 ; RGR97 ; RDQ81 ; RGR98) in Simplex
REF	3750,0	1801	19	04	RUS	RMW46	CW			RMW46 worked 14 outstations (RGT49 ; RGR88 ; RGR89 ; RGR90 ; RGR91 ; RFH46 ; RGR92 ; RGR93 ; RGR94 ; RGR95 ; RGR96 ; RGR97 ; RDQ81 ; RGR98) in Simplex
REF	3750,0	0315	27	04	RUS	RMW46	CW			RMW46 send Alrt message yype "XXX" (XXX RGR99 ÉTZP 0909 0909 K – RGR99 is the collective callsign)
REF	3756,0	1635	19	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3758,5	0515	06	04	RUS	Russian Military	FSK	81	500	Encrypted messages (For information Qsx on 3830 kHz)
REF	3765	0557	22	04	RUS	VESTNIK	USB			VESTNIK (USB callsign from RMP) calling BRUSNIKA (USB callsign from RHM81) in Duplex (for information QSX on 4042 kHz)
REF	3791,0	0445	17	04	RUS	Russian Navy	FSK	50	200	Encrypted messages – traffic to nuclear forces
REF	3791,0	1652	19	04	RUS	Russian Navy	FSK	50	200	Encrypted messages – traffic to nuclear forces
REF	3797,0	0311	10	04	RUS	RCV	CW			RCV send QTCs for RIC87 in Broadcast
REF	3797,0	1708	16	04	RUS	RCV	CW			RCV send QTCs for RIC87 in Broadcast
REF	3797,0	1638	19	04	RUS	RCV	CW			RCV send QTCs for RIC87 in Broadcast
REF	3797,0	1735	21	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	3800,0	0508	22	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7006,5	0754	26	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7008,0	0930	18	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	7008,0	0450	25	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode
REF	7008,0	0622	26	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode
REF	7011,0	0805	18	04	RUS	Russian Military	OFDM	35,5	2800	CIS-60, Russian HDR Modem : OFDM 60T. Pilot = 3290 Hz - 60 tones between 534 and 3155 Hz - Tone separation = 44,5 Hz - Symbol rate = 35,5 - Modulation = DPSK-8 - ACF = 0 : Also Russian voice – only settings
REF	7016,0	1517	21	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7016,0	0520	22	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7020,0	1458	19	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7030,0	0628	15	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7030,0	0705	24	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7030,0	0658	25	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7041,0	1431	06	04	RUS	2TVC	CW			2TVC comms checks with 2 outstations in Dx
REF	7041,0	1431	10	04	RUS	2TVC	CW			2TVC comms checks with 2 outstations in Dx
REF	7048,0	0646	05	04	RUS	LZNM	CW			LZNM send QTCs for outstations in Duplex
REF	7048,0	0530	06	04	RUS	Russian Military	CW			Comms checks : Responses 4 outstations (For information : The Net station is on 7591 kHz)
REF	7048,0	0623	26	04	RUS	Russian Military	CW			Comms checks : Responses 4 outstations (For information : The Net station DV7A is on 7591 kHz)
REF	7076	0606	05	04	RUS	Russian Navy	FSK	50	250	Encrypted messages - naval traffic; HQ to fleet units
REF	7076,0	1500	19	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7088,0	0257	24	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7099,5	0542	05	04	RUS	YRDV	CW			YRDV comms checks and QTCs with outstations in Duplex
REF	7099,5	0601	24	04	RUS	PZQN	CW			PZQN worked outstations (comms checks and QTCs) in Duplex
REF	7100,0	0628	04	04	RUS	LEN6	CW			LEN6 comms checks and QTCs for outstations in simplex
REF	7105,0	0848	26	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7112,0	0915	20	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	7114,0	0547	27	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	7122,0	1316	29	04	RUS	Russian Military	FSK	100	250	Encrypted messages – and in telegraphy : QRJ ? QRJ 3 R k
REF	7128,0	0830	20	04	RUS	Russian Military	FSK	100	500	Encrypted messages – ACF=2
REF	7128,0	0902	26	04	RUS	Russian Military	FSK	100	500	Encrypted messages – ACF=2
REF	7138,0	1901	01	04	RUS	RMP	CW			RMP (Russian Navy HQ, Kaliningrad) use the frequency from 1900z to 0700z : Calling and QTCs with in Dx
REF	7138,0	0506	04	04	RUS	RMP	CW			RMP (Russian Navy HQ, Kaliningrad) use the frequency from 1900z to 0700z : Calling and QTCs with in Dx
REF	7138,0	0518	05	04	RUS	RMP	CW			RMP (Russian Navy HQ, Kaliningrad) use the frequency from 1900z to 0700z : Calling and QTCs with in Dx – Qsx on 5942 kHz
REF	7138,0	0642	16	04	RUS	RMP	CW			RMP worked RHC86 (comms checks) in Duplex (for information : Qsx on 5942 kHz)
REF	7138,0	0532	22	04	RUS	RMP	CW			RMP worked RHM81 (comms checks) in Duplex (for information : Qsx on 5942 kHz)
REF	7138,0	0513	23	04	RUS	RMP	CW			RMP worked RJP34 (comms checks) in Duplex (for information : Qsx on 5942 kHz)
REF	7138,0	0549	24	04	RUS	RMP	CW			RMP worked RJC30 (comms checks) in Duplex (for information : Qsx on 5942 kHz)
REF	7138,0	0605	25	04	RUS	RMP	CW			RMP worked RMS95 (comms checks) in Duplex (for information : Qsx on 5942 kHz)
REF	7140,0	0715	06	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	7141,0	0730	04	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7144,0	0731	04	04	RUS	4EMG	CW			4EMG worked outstations (comms chaecks and QTCs : MMMMM) in Duplex
REF	7144,0	0603	26	04	RUS	2GXZ	CW			2GXZ Worked 6 outstations in Duplex
REF	7147,5	0433	01	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7150,0	0643	04	04	RUS	Russian Military	FSK	96	500	Encrypted messages
REF	7150,0	0708	06	04	RUS	Russian Military	FSK	96	500	Encrypted messages
REF	7150,0	0802	20	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7150,0	0702	25	04	RUS	Russian Military	FSK	96	500	Encrypted messages

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	7152,0	0655	04	04	RUS	Russian Military	FSK	75	250	Encrypted messages : frequency actived for trafic in QYT9 Mode
REF	7152,0	0652	06	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7152,0	0510	22	04	RUS	Russian Military	FSK	75	250	Encrypted messages – and trafffic in telegraphy : exchange QRJ and Z codes
REF	7152,0	0541	23	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7160,0	0600	20	04	RUS	RMW32	CW			RMW32 comms checks and QTC with Outstations in Simplex - (End traffic: towards 10H30z)
REF	7162,0	0644	06	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7162,0	0709	17	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode : and in telegraphy, Exchanges Q Codes with outstation : QRJ and QJB
REF	7162,0	0653	24	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7162	0700	25	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7163,0	0640	06	04	RUS	Russian Military	FSK	50	500	Encrypted messages (For information ACF = 255)
REF	7169,0	1314	29	04	RUS	Russian Navy	FSK	75	200	Encrypted messages – QYT9 Mode
REF	7176,0	0528	12	04	RUS		FSK	75	250	Encrypted messages – QYT9 Mode – and in telegraphy : exchanges QRJ
REF	7176,0	0526	25	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode
REF	7176,0	0620	26	04	RUS	Russian Military	FSK	75	250	Encrypted messages – QYT9 Mode
REF	7179,0	0539	23	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7184,0	0535	12	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7184	0458	15	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7184,0	0913	26	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	7188,0	0515	22	04	RUS	Russian Military	FSK	75	250	Encrypted messages – and trafffic in telegraphy : exchange QRJ and Z codes
REF	7196,0	0600	12	04	RUS	UDWY	CW			UDWY send Z codes for QSY

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	7196,0	1542	27	04	RUS	RAA	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages - Frequency activated by RIW (contact RFH71 - For RAA) for traffic in QYT4 Mode – For information Qsx on 6255
REF	7200	0459	15	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	7200,0	1214	18	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	14135,0	0834	21	04	RUS	Russian Military	FSK	75	250	Encrypted messages
REF	14177	1247	26	04	RUS	RJD52	FSK	75	500	Encrypted messages - Frequency activated by RAA (contact RJD52) for traffic in QYT9 Mode – For information Qsx on 14446
REF	14180	1259	26	04	RUS	Russian Navy	FSK	50	200	Encrypted messages – traffic to nuclear forces
REF	14221	0831	23	04	RUS	RAA	FSK	75	500	Encrypted messages - Frequency activated by RAA (contact RCC) for traffic in QYT9 Mode : For information Qsx on 14912 kHz
REF	14221,0	0527	30	04	RUS	Russian Navy	FSK	50	200	Encrypted messages – traffic to nuclear forces
REF	14240,0	0815	16	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages – For information Qsx on 14384
REF	14240,0	0815	16	04	RUS	Russian Military	CW			Exchanges Q Codes with outstations : QRJ and QJB – For information Qsx on 14384
REF	14240,0	0750	21	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages – For information Qsx on 14384
REF	14263,0	1149	16	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	14270,0	1255	18	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	14304,0	0817	21	04	RUS	Russian Military	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages
REF	18072	0854	23	04	RUS	RAA	FSK	75	500	Encrypted messages - Frequency activated by RAA (contact RCC) for traffic in QYT9 Mode : For information Qsx on 14912 kHz

REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3522	01.52	02	04	RUS		F1B	75.75	250	CIS 36-50
REP	3530	20.09	20	**04**	E		J3E U			Spanish fishery
REP	3552	09.29	21	**04**	E	Tucaio	J3E U			Spanish fishery

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3650	18.00	11	**04**	E		J3E-U			Fishery
REP	3664	10.13	26	**04**	E		J3E U			Spanish fishery
REP	3745	20.44	19	04			PSK2			AT3004D modem
REP	7005	18.49	27	**04**			J3E-L			Intruders
REP	7008	16.52	25	**04**	RUS		F1B	75	250	CIS50-50, Russia encrypted comms
REP	7030	21.03	18	**04**	B		J3E U			Brazilian garimpeiros (gold diggers)
REP	7032	19.11	08	04			FMCW	50	17k	OTH Radar
REP	7045	18.28	25	04			FMCW	50	15k	OTH radar
REP	7115	06.33	09	**04**			J3E-U			Fishery
REP	7120	17.50	01	04	SOM		8k00 A3EGN			Radio Hargaysa broadcast
REP	7176	20.53	24	**04**	RUS		F1B	75	240	CIS50-50, Russia encrypted comms
REP	10105	11.08	12	**04**	MRC		J3E-U			Fishery
REP	10125	18.12	16	04			J3E/PSK			STANAG 4285
REP	10130	10.21	20	**04**	MRC		J3E-U			Moroccan and Spanish fishermen
REP	10131	08.21	28	**04**			J3E U			North African fishery
REP	10135	18.00	16	04			FMCW			OTH radar
REP	14100	17.03	28	04			FMCW	50	20k	OTH radar, 50sps/20kHz
REP	14170	12.22	19	**04**			PSK2	120	3k	AT3004D 12x120bd plus 3k pilot tone
REP	14180	12.24	19	**04**	RUS		F1B	50	250	CIS36-50, Russia
REP	14253	15.53	15	**04**			F1B	75	250	Encrypted rtty
REP	14265	08.50	13	04	RUS		F1B	50	250	CIS 50
REP	14304	10.38	26	**04**	RUS		PSK2	120	3k	AT3004D 12x120bd plus 3k pilot tone
REP	18075	15.20	13	04			FMCW	50	20k	OTH radar
REP	18107	09.51	18	**04**			F1B	75	250	Russian comms on shared band
REP	28120	11.07	27	**04**	E		F1B	50	200	Enagal buoy
REP	28165	14.00	29	**04**	RUS		F3E			Russian taxi dispatcher
REP	28310	11.11	18	04			FMCW			OTH radar 50sps/20kHz
REP	29135	11.40	26	**04**	RUS		F3E			Taxi dispatcher
REP	29150	12.00	26	**04**			F1B	82	160	Datawell buoy
REP	29175	11.01	18	**04**	RUS		F3E			Taxi dispatch
REP	29185	11.33	26	**04**	RUS		F3E			Taxi dispatcher
REP	29215	13.10	07	04			FMCW			OTH radar
REP	29250	11.55	07	**04**			F1B	82	120	Datawell buoy

RSGB - Great Britain – M0VRR (Vaughan)

SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	6998,0	0230-1930	dly	4	RUS	UiTone	R3E			118 Hz tones
SRAL	7006,4	1240	29.	4		UiCarr	N0N			
SRAL	7008,0	1345-0915	*	4		UiPTR	F1B		250	Days: 7. 25. 26. 27.
SRAL	7008,5	1210	29.	4		UiMUX	PSK2	120	2600	
SRAL	7013,0	1320	12.	4		UiMUX	PSK2	120	2600	
SRAL	7015,0	1830-1850	28.	4		UiMUX	PSK2	120	2600	
SRAL	7022,0	/1325-1425/	7.	4		UiMUX	PSK2	120	2600	
SRAL	7026,0	1310	30.	4		UiMUX	PSK2	120	2600	
SRAL	7030,0	0700-1300	4. 24.	4		UiPTR	F1A		250	
SRAL	7030,0	/1300-1440/	1. 2. 3.	4	PAK	VoJ&K	A3E			Islamabad tx
SRAL	7035,0	0600-1655	*	4		UiMUX	PSK2	120	2600	Days: 13. 14. 22. 27.
SRAL	7039,0	0745-0915	30.	4	RUS	C	A1A			Moscow (daily on SK3W WEBSDR)
SRAL	7040,0	0545-0819	1.	4		UiPTR	F1B		500	
SRAL	7070 A	1600-	*	4	IND	AIR	Spur.			Days: 25. 27. 28., c. 40 kHz

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		1920/								wide
SRAL	7072,0	1130-1215	29.	4		UiMUX	PSK2	120	2600	
SRAL	7076,0	0820	21.	4		UiMUX	PSK2	120	2600	
SRAL	7079,5	0840-1320	12.	4		UiMUX				Similar to PSK2
SRAL	7080,0	1700-1930	*	4		UiPTR	F1B		200	Days: 19. 21. 27. 28. 30.
SRAL	7084,0	0845-0905/	28.	4		UiMUX	PSK2	120	2600	
SRAL	7094,0	0800-0824/	21.	4		UiCW	A1A			5F
SRAL	7111,0	0630-0733/	23.	4		UiPTR	F1B		250	
SRAL	7112,0	1130-2400	22.	4		UiPTR	F1B		250	
SRAL	7112,0	0000-0430	23.	4		UiPTR	F1B		250	
SRAL	7114,0	1700-0610/	21. 27.	4		UiPTR	F1B			
SRAL	7116,0	1050-1140/	26.	4		UiPTR	F1B		200	
SRAL	7118,0	1010-1050	26.	4		UiMUX	PSK2	120	2600	
SRAL	7120,0	/0330-0500/	dly	4	SOM	R.Hargeisa	A3E			
SRAL	7120,0	/1500-1900/	dly	4	SOM	R.Hargeisa	A3E			
SRAL	7122,0	1130-1220/	22.	4		UiMUX	PSK2	120	2600	
SRAL	7122,0	1240	29.	4		UiPTR	F1B		250	
SRAL	7127,0	1745-1900	26.	4		UiPTR	F1B		250	
SRAL	7135,0	1715-1825/	29.	4		UiCarr	N0N			
SRAL	7140,0	1625-1634	3.	4		UiTone	N0N/ A2N		1000	
SRAL	7140,0	1155-1207/	25.	4		UiMUX	PSK2	120	2600	
SRAL	7141,0	0640	21.	4		UiTone	R3E-u			Like 6998 kHz
SRAL	7144,0	1150-1205	26.	4		UiMUX	PSK2	120	2600	
SRAL	7149,5	0545-0615	1.	4	RUS	UiMUX	PSK2	120	2600	
SRAL	7152,0	0815	20.	4		UiMUX	PSK2	120	2600	
SRAL	7160,0	0550-1010/	19. 20.	4	RUS	RMW32	A1A			5BL
SRAL	7162,0	0540-1345/	*	4		UiPTR	F1B/A		250	Days: 4. 15. 17. 20. 24. 25.
SRAL	7176,0	0300-2245	*	4		UiPTR	F1B		250	Days: 4. 21. 24. 25. 26. 29.
SRAL	7177,0	1920	8.	4		UiPTR	F1B			
SRAL	7178,0	1530-1600	6.	4		UiMUX	PSK2	120	2600	
SRAL	7181,6	0640-0717/	21.	4		UiCarr	N0N			
SRAL	7186,0	0530-1400/	22. 25.	4		UiMUX	PSK2	120	2600	
SRAL	7200,0	1030-1300/	dly	4	CHN	CNR1	A3E			Used as jammer on TWN
SRAL	7200,0	1300-1500/	dly	4	MYA	R Myanmar	A3E			Days 4. 9. 15. 20.-24. Continues to 1600
SRAL	7 MHz	1700-0700	*	4	RUS	29B6	FMCW			50Hz / 15 kHz, days: 8. 9. 10. 13. 16. 17.
SRAL	10 MHz			4	RUS	29B6	FMCW			50Hz / 15 kHz (WebSDR 13 days)
SRAL	14008,0	0815	11.	4		UiCarr	N0N			
SRAL	14050,0	0515-	13.	4		UiPTR	F1B		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		1240	23.							
SRAL	14052,0	0925	22.	4		UiMUX	PSK2	120	2600	
SRAL	14180,0	0530-1930	dly	4	RUS	UiPTR	F1B		200	
SRAL	14221,0	0230-0600/	dly	4	KGZ	UiPTR	F1B		200	
SRAL	14253,0	1530-1600/	29.	4	RUS	UiPTR	F1B		250	
SRAL	14292,0	0830	30.	4		T4C8	A1A			
SRAL	14295,0	0230-1930	dly	4	TJK	R Tojikiston	A3E			3f 4765,00 kHz, Yangiyul TX
SRAL	14 MHz			4	RUS	29B6	FMCW			50Hz / 15 kHz, no reports
SRAL	14 MHz	0430-2110	dly	4	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec transmit with 16 min cycle
SRAL	18 MHz	0415-1205/	1. 28.	4	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, (WebSDR 7 days)
SRAL	18107,0	0800-1200	10.-12.	4	RUS	UiPTR	F1B		200	
SRAL	21 MHz			4	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, (WebSDR 9 days)
SRAL	21438,0	0830	30.	4	RUS	RCV	A1A			
SRAL	24 MHz	1115-1150	2.	4		UiOTHR	FMCW			No reports
SRAL	28 MHz			4	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz – 300 kHz, no reports
SRAL	28 MHz			4		UiOTHR	FMCW			25/50Hz / 20 kHz, no reports
SRAL	28 MHz			4	RUS	Taxi disp.	F3E			no reports

USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
80m band informational only! Primary allocation but shared with other also primary allocated services !										
USKA	3526.0	2234	07	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	3526.0	2107	28	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	3532.0	0714	01	04			DQPSK	14x75	5k9	LINK 11 CLEW; (STANAG 5511) DSB mode
USKA	3539.5	0051	12	04			J7D	12x120	2k7	PSK-4: CIS12 = AT3104D
USKA	3549.0 VFO USB	0057	12	04			PSK8	2400	~2k7	MIL188-110A (Hybrid), often preamble 4 tone PSK4
USKA	3552.0 VFO USB	2334	02	04			G1D	2400	~2k4	Stanag 4285; PSK8 daily
USKA	3552.0	2055	27	04			F1B	50	200	
USKA	3608.0	2337	02	04			F1B	50	200	almost daily
USKA	3716.0	2048	18	04			F1B	75	200	
USKA	3716.0	2036	27	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	3721.0	2040	27	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	3791.0	2045	18	04			F1B	50	200	
USKA	6998.0	2328	02	04			H3E-U Bursts		~3k6	"Buzzer" up to ≥7001.5kHz
USKA	7000.0	2221	21	04			MFSK8	125	1750	MIL 188-141A
USKA	7000.0	2149	27	04		157	MFSK8	125	1750	MIL 188-141A; LQA; To: 162
USKA	7008.0	0803	07	04			F1B	75	250	often
USKA	7015.0	1736	28	04			J7D	12x120	2k7	PSK-4: CIS12 – AT3104D
USKA	7016.0	2216	21	04			F1B	75	250	
USKA	7020.0	2034	27	04		820699	MFSK8	125	1750	MIL 188-141A
USKA	7020.0	2225	29	04			J3E-L		2k1	Spanish
USKA	7030.0	2133	27	04			FMCW	10 sps	160k	OTHR (6950-7110kHz)
USKA	7033.0	2241	08	04			FMOP ?	50 sps	~13k	OTHR; occup. BW approx 30k
USKA	7034.0	2143	25	04			FMCW	50 sps	~13k	OTHR; occup. BW approx 30k
USKA	7038.0	0645	27	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7039.4	0854	21	04	RUS	M	A1A			Beacon M Magadan
USKA	7057.0	2004	27	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004
USKA	7061.0	0922	27	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004
USKA	7064.0	2017	28	04			FMCW		30k	OTHR
USKA	7071.0	2013	27	04			OTHR	50 sps	~13k	OTHR; occup. BW approx 30k
USKA	7080.0	2042	18	04			F1B	50	200	often
USKA	7111.875	1620	22	04			N0N			long lasting carrier, jamming F1B
USKA	7112.0	1619	22	04			F1B	75	250	
USKA	7114.0	2122	27	04			F1B	50	200	often
USKA	7120.0	1839	19	04	SOM		A3E			Radio Hargaysa almost daily
USKA	7134.0	1641	29	04			F1B	50	200	often
USKA	7152.0	1625	22	04			J7D	12x120	2k7	CIS12 idling
USKA	7154.0 VFO LSB	2003	28	04			BPSK	60	~ 2k4	Burst system; spacing 75Hz; preamble 4x BPSK 60Bd, spacing 600Hz; Pilottone at 450Hz
USKA	7160.0	0926	27	04		RMW32	A1A			encrypted, letters and figures
USKA	7162.0	0813	25	04			F1B	75	250	also short F1A
USKA	7165.0	1648	29	04			OTHR		30k	OTHR (weak)
USKA	7197.0	2211	25	04	TUR	8241	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2229	25	04	TUR	337018	MFSK8	125	1750	MIL 188-141A
USKA	7205.0	1931	05	04			A3E		30k	BC; splattering down to 7196kHz
USKA	10120.0	1644	10				A3E			
USKA	14008.0	0840	29	04			F1B	50	250	
USKA	14050.0	0922	23	04			F1B	75	250	
USKA	14167.0	0816	29	04			FMxx	10 sps	~160k	OTHR (jumping in frequency)
USKA	14265.0	0822	29	04			FMxx	10 sps	~160k	OTHR (jumping in frequency)
USKA	14100.0	0827	29	04			FMxx	10 sps	~160k	OTHR (jumping in frequency)
USKA	14082.0	0832	29	04			FMxx	10 sps	~160k	OTHR (jumping in frequency)
USKA	14090.0	0834	29	04			FMxx	10 sps	~160k	OTHR (jumping in frequency)
USKA	14180.0	1104	25	04			F1B	36+50	200	CIS 36-50 often
USKA	14192.0	1108	25	04			F1B	50	500	CIS 50-50 almost daily
USKA	14228.5	0644	22	04			BPSK	1200	1200	
USKA	14240.0	0807	07	04			F1B	75	250	
USKA	14242.0	0818	21	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14253.0	1430	29	04			F1B	75	250	
USKA	14265.0	1655	26	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14270.0	0635	22	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14290.0	0640	22	04			FMCW	10 sps	10k	OTHR
USKA	14300.0 VFO USB	0859	21	04			BPSK	16x75	2k2	Burst system; 16 tones, often
USKA	14304.0	1302	27	04			F1B	75	250	
USKA	14306.0	0822	21	04			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14310.0 VFO USB	2208	02	04			G1D	2400	~2k4	Stanag 4285; PSK8; frame format 600bps/long (DSB mode)
USKA	14310.0 VFO LSB	2208	02	04			G1D	2400	~2k4	Stanag 4285; PSK8, frame format 600bps/long (DSB mode)
USKA	18070.0	1021	27	04			FMCW	50	20k	OTHR
USKA	18100.0	1149	21	04		ES301	MFSK8	125	1750	MIL 188-141A; LQA; To: C3
USKA	18100.0	1213	25	04		C3	MFSK8	125	1750	MIL 188-141A; LQA; To: R3
USKA	18107.0	0840	21	04		RDL	F1B	36	200	CIS36-50 daily
USKA	18107.0	0840	21	04		RDL	F1B	50	200	CIS36-50 daily
USKA	18130.0	0810	07	04			F1B	100	1000	orig 9065 100Bd/500Hz often
USKA	21438.0	0917	27	04		RCV	A1A			letters and figures almost daily

Veron – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3524,0	19.54	25	4		UiPTR	F1B		Ptr
VERON	3572,0	18.29	4	4		UiCW	A1A		5F
VERON	3608,5	19.56	25	4		UiPTR	F1B		Revs
VERON	3712,5	18.33	4	4		UiCW	A1A		5L and 5F groups
VERON	3740,5	18.36	4	4		UiCW	A1A		5L and 5F groups
VERON	3750,0	20.00	25	4	RUS	RMW46	A1A		Calls to: RGR95 RGR96

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
									RGR97 RGR98
VERON	3797,0	20.02	25	4	RUS	RCV	A1A		RIC87 de RCV QTC 229 Prip Noworossijsk
VERON	7008,0	17.29	25	4		UiPTR	F1B		Ptr also at 19.53 UTC
VERON	7080,0	17.28	25	4	CIS	UiPTR	F1B		Revs/Ptr also 28/4 at 17.10 UTC
VERON	7088,7	17.12	28	4	RUS	P S	A1A		P and S-beacon
VERON	7176,0	19.51	25	4		UiPTR	F1B		Ptr
VERON	10124,0	12.39	29	4		UiPTR	F1B	500	Ptr
VERON	14008,0	08.47	4	4	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	14008,0	10.37	14	4	RUS	UiPTR	F1B	250	Ptr
VERON	14008,0	09.14	20	4	RUS	UiPTR	F1B	250	Ptr
VERON	14014,0	12.10	20	4	CIS	UiPtr	F1B		Ptr
VERON	14180,0	08.29	5	4	CIS	UiPTR	F1B		Revs-Ptr
VERON	14253,0	08.49	4	4		UiPTR	F1B		Ptr
VERON	14304,0	10.05	4	4		UiPTR	F1B	250	Ptr
VERON	21438,0	09.02	15	4	RUS	RCV	A1A		RIP90 de RCV QTC Nawip
VERON	21438,0	09.08	15	4	RUS	RCV	A1A		RBE86 de RCV QTC Nawip
VERON	21444,0	15.38	17	4	E	UiILL	J3e-U		Spanish, male, fishery?

The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

Many thanks for your interest!

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