



# Monitoring System

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The monthly newsletter for Region 1

## September 2015

### The 29 members of the IARUMS Region 1 Monitoring Team:



### Acknowledgements

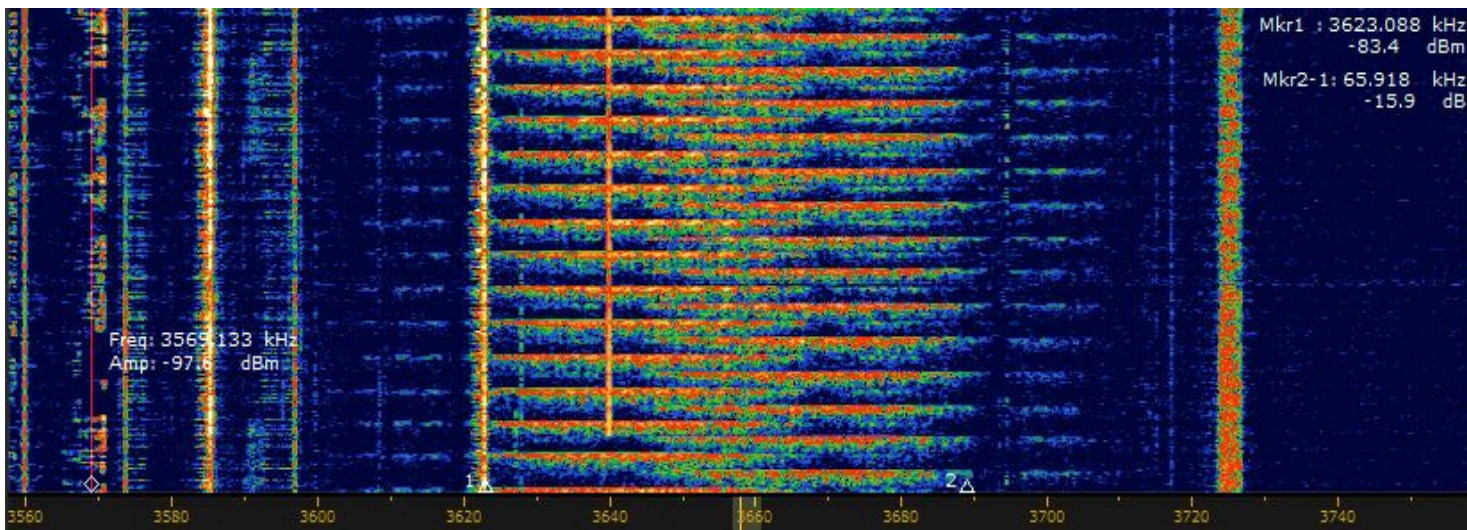
ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI9GSB - Lisa ++ KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVS: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: M0VRR - Vaughan ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: ON4PN - Patrick URE: EB1TR - Fabian ++ USKA: HB9CET - Peter ++ VERON: PA2GRU - Dick ++ ZRS: S56ZDB – Darko ++ G3VZV – Graham (satellite) ++ TG9ADV – Jorge (Co-ordinator Region 2) ++ VK3MV – Peter (Co-ordinator Region 3) ++ DF8FE – (Webmaster assis.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1 ++ PTTs: BAKOM (Swiss), BNetzA Konstanz (Germany) ++ OFCOM (UK) ++ Dutch AT ++ SK6AW – DX-Cluster ++ YO9RIJ – Petrica

# Part 1: News and Infos

## 1. OTH radar intrusions

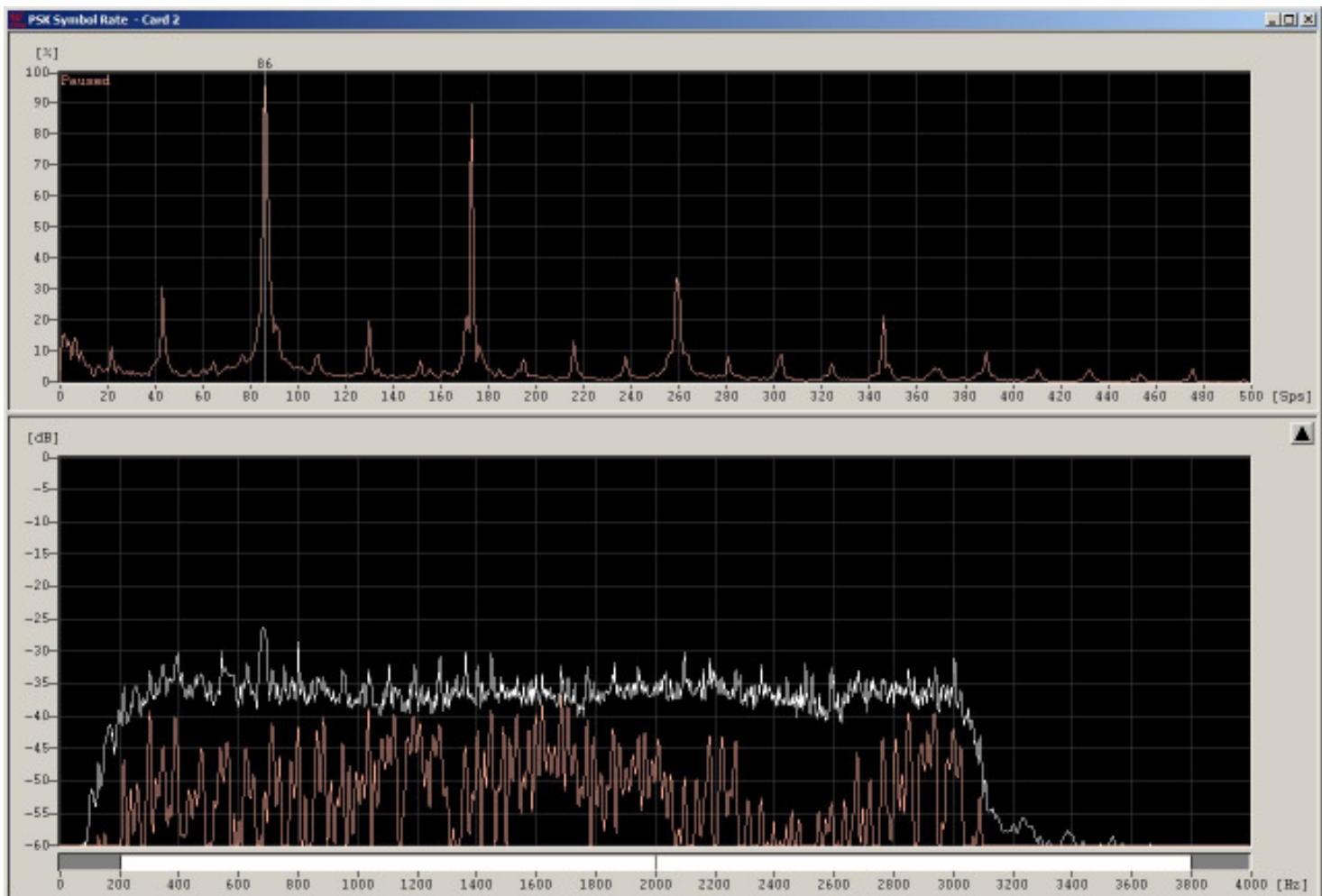
The Russian OTH radar in Gorodezh (near Nizhny Novgorod) was often causing strong QRM and with splatters on 7 and 14 MHz. The OTH radar from Cyprus was active on 10 and 21 MHz. Chinese OTH radars often disturbed 3.5, 7 and 14 MHz. The screenshots below are showing the situation in Region 3 in September 2015. Screenshots by DK2OM with Perseus (remote) and W-Code (Wavecom).

Chinese radar on 3620 – 3690 kHz with 86 sps = PRF 86. PRF = pulse repetition frequency – Sept. 30<sup>th</sup> at 1330 utc



3620 -----3690

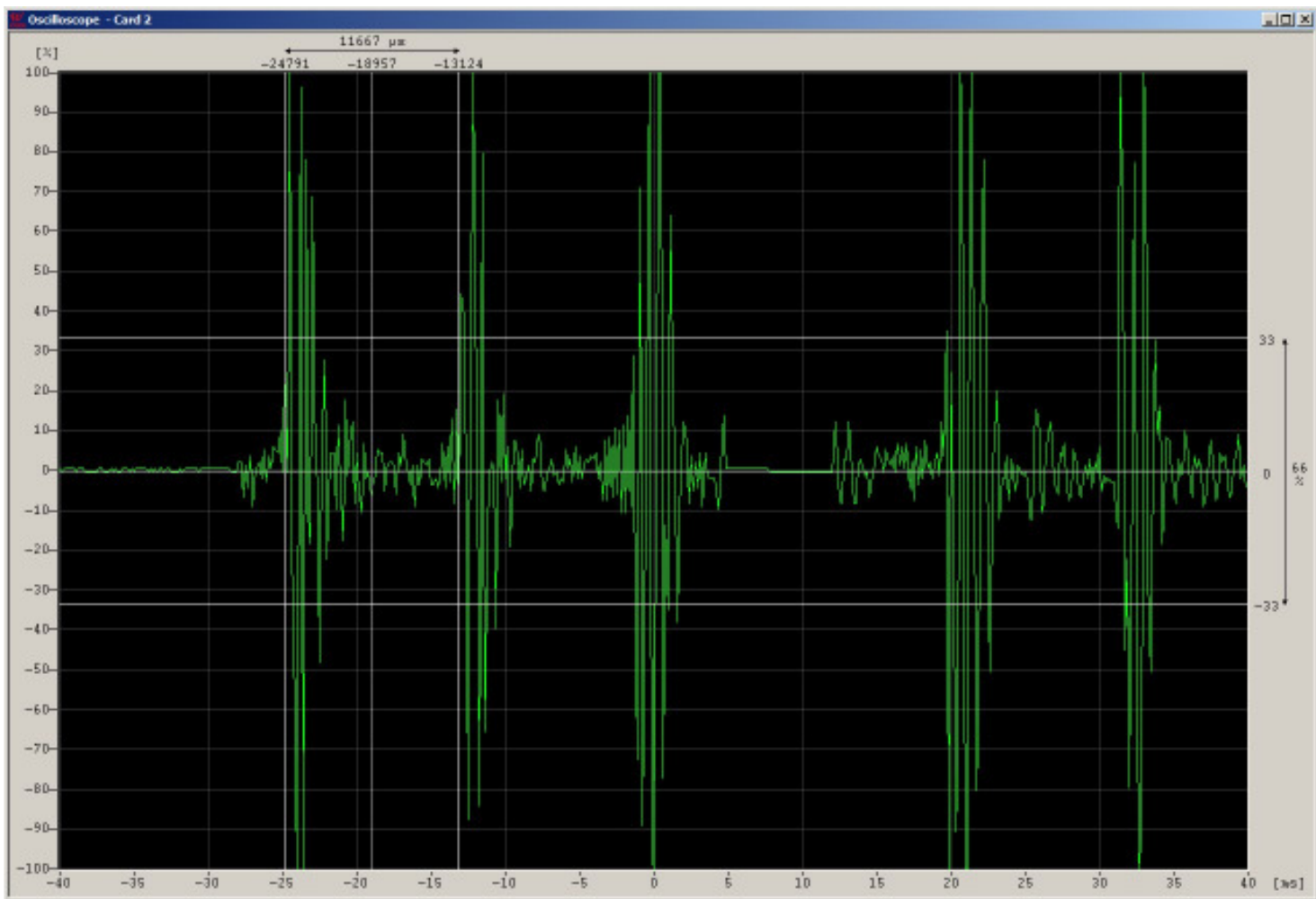
The W-Code symbolrate option allows a fast measurement of the PRF or sweeps/sec. In this case 86 sps.





Another and exact method is operating with the oscilloscope analysis. The next screenshot shows the measurement of PRF by the W-Code oscilloscope. Time division is set to 10 msec. Please observe the white cursor lines. You can see the time difference between 2 sweeps (11667 mikro-sec = 11.667 msec). Calculation: 1 sec = 1000 msec : 11.667 msec = 85.71 sweeps/sec

Chinese OTH radar as above. Now W-Code oscilloscope analysis.



## 2. BC problems and no end

IRIB Tehran was still transmitting on 7200 kHz as before. RFI France on 7205 kHz produced splatters down to 7185 kHz. IRIB Tehran on 21455 kHz caused splatters down to 21445 kHz. Sound of Hope from Taiwan and the Chinese mainland jammer were audible on 18080 kHz every morning, no change as expected. The German PTT was informed. Please observe the detailed entries in my table.

## 3. Harmonic emissions by Russian MIL transmitters

Such emissions are very common on shortwave and of course on our bands, too. I found a harmonic emission on 21160 kHz (mode F1B 100 Bd, 2000 Hz shift) caused by a F1B transmission on 5290 kHz. Location: St. Peterburg.

## 4. CIS taxi intrusions on 10 m

Due to very poor conditions on the 10 m-band we could only hear few taxis. It is not possible to say that the unwanted traffic has really disappeared or the low MUF does not allow to give us a real overview.

## 5. Increasing problems by PLC and switching power supplies worldwide

While checking some remote Perseus systems in Europe and other parts of the world I saw that many systems are disturbed by such products. Working on the lower bands especially in the evening hours is very difficult or sometimes impossible. Only CW operation with narrow filters brings a bit success. The ionosphere and our shortwave seem to be a large dustbins worldwide. Meeting German or European Hams on PSK modes on 160 and 80 meters does not run in the evenings, only few exceptions. We have excellent receivers with high sensitivity. Wherefor?

6. 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 – now here:  
<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 = orthogonal frequency division multiplex  
**ALE (MIL-188-141A)** = automatic link establishment \*\*\* MUX = multiplex \*\*\* **Ui (unid)** = unidentified \*\*\* **Illicit** = illegal \*  
**UiILL** = unidentified illegal \*\*\* **BC** = broadcast \*\*\* **MIL** = military \*\*\* **PTR** = printer \*\*\* **NGO** = non governmental organization \*\*\* **ITU** = ITU country abbreviation \*\*\* **PRC** = People's Republic of China \*\*\* **PLA** = People's Liberation Army \*\*\* **MFA** = Ministry of Foreign Affairs \*\*\* **MOI** = Ministry of Interior \*\*\* **MOPO** = Ministry of Public Order \*\*\* **IARUMS** = IARU Monitoring System \*\*\* **UTC** = Universal Time Coordinated \*\*\* **PRF** = pulse repetition frequency (radar) \*\*\* **sps** = sweeps/sec (radar systems) \*\*\* **FMCW** = frequency modulated continuous wave (OTH and coastal Radars) \*\*\* **5BL** = cyrillic 5 lettergroups

### ARSK MONITORING OVERVIEW FOR SEPTEMBER 2015

Radio Hargeisha remained on 7,120 kHz with broadcasts. Again 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)

H'd by	kHz	UTC	dd	mm	ITU	Identity	MODE	Details
ARSK	7.000.00	vt	dly	9	E. Africa	?	J3Eu	Unidentified, KiSwahili, East Africa. Possibly military.
ARSK	7,074.00	vt	dly	9	E. Africa ?	?	J3E	Unidentified language,
ARSK	7,075.00	vt	dly	9	E. Africa	?	J3Eu	Unidentified language
ARSK	7,120.00	vt	dly	9	Rep.of Somalia	Hargeisha	A3E	Broadcast

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

DG0JBJ (Mario) observed **19** OTH radars on 20 m, **63** OTH radars on 15 m and **0** OTH radars on 6 m in September 2015. A Chinese OTH radar often appeared on the 80 m-band in Region 3.

#### 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	1810,0	2040	14	09	E		USB			Spanish fishery - daily
DK2OM	1812,0	1605	02	09	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – no carrier - daily, all day
DK2OM	1852,0	2039	02	09	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	2039	02	09	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	2039	02	09	I	IQN	USB			Lampedusa Radio, weather reports
DK2OM	1880,0	---	--	09	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1888,0	2040	02	09	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1896,5	1834	03	09	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy
DK2OM	1925,0	2040	02	09	I	IPL	USB			Livorno Radio, weather reports – daily, vt
DK2OM	3500,0	vt	dly	09	TUR		FSK8	120	1750	ALE, “201” - Turkish Red

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Crescent – legal!
DK2OM	3500,0	0855	02	09	E		USB			Spanish fishery – daily, all day
DK2OM	3500,0	1843	03	09	G		USB			UK fishery
DK2OM	3500,0	1536	07	09	RUS		F1B	40.5	500	system “Frost 1” – Far East Russia
DK2OM	3500,6	1954	11	09	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3501,8	1919	15	09			PSK8	2400	2400	Stanag4285 – 600 bps long -
DK2OM	3503,5	1736	27	09	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3506,0	1430	28	09	CHN		FMCW		66k	Chinese OTH radar – 43 sps 3506 – 3572 kHz
DK2OM	3511,0	1418	29	09	RUS		PSK2A	120	2600	AT3004D – Far East Russia
DK2OM	3512,0	2015	22	09	HOL		USB			Dutch fishery
DK2OM	3520,0	1825	21	09	E		USB			Spanish fishery
DK2OM	3527,0	2110	11	09	RUS		F1B	50	200	CIS-50-200 – Severomorsk - daily
DK2OM	3530,0	1946	23	09	RUS		PSK2	120	2600	AT3004D – Far East Russia
DK2OM	3531,0	2013	02	08	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily
DK2OM	3532,0	2035	09	09	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3534,0	1930	23	09	F		PSK4	75	2300	LINK11-CLEW – (CLEW = Conventional Link 11 Waveform) - Brest
DK2OM	3534,5	vt	dly	09	HOL		FSK8	125	1750	ALE, “A03” “A15” “A10”
DK2OM	3535,0	1829	21	09	HOL		USB			Dutch fishery
DK2OM	3535,0	2014	02	09	E		USB			Spanish fishery
DK2OM	3540,0	1952	25	09	E		USB			Spanish fishery – sometimes with voice scrambler CRY 2001 – very often
DK2OM	3540,0	1935	21	09	HOL		USB			Dutch fishery
DK2OM	3540,5	2045	01	09	UKR		PSK2A	120	2600	AT3004D - Vinnitsa
DK2OM	3543,0	1833	21	09	HOL		USB			Dutch fishery
DK2OM	3548,0	1845	21	09	RUS		F1B	75	200	CIS-75-200 – Moscow - disturbed by an amateur with CW dashes and a carrier
DK2OM	3550,0	vt	vd	09	ALG	no ITU	FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	3550,0	2054	04	09	E		USB			Spanish fishery – also: 26.09.2015 at 2115 utc
DK2OM	3552,0	1848	21	09	RUS		F1B	75	200	CIS-75-200 – Kaliningrad – on 22.09.2015 at 1945 utc disturbed by a German HAM with dashes on the space QRG
DK2OM	3553,8	ady	dly	09	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long - TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3565,0	1940	29	09	G		PSK8	2400	2400	Stanag4285 – 600 bps long - Scotland
DK2OM	3565,3	1850	14	09	CHN		PSK4	75	2250	PRC 4+4 – traffic and idle
DK2OM	3567,0	vt	dly	09	CHN ?	no ITU	FSK8	125	1750	ALE, “103” “106”
DK2OM	3576,0	1713	23	09	RUS		F1B	75	250	CIS-75-250 – NW of Moscow – space QRG disturbed by a German HAM at 1750 utc by CW dashes
DK2OM	3576,4	ady	dly	09	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3585,0	1006	14	09	TWN	HLL	F1C			120 rpm, IOC 576, WX-fax - daily - legal!
DK2OM	3586,0	1925	09	09	G		PSK2A	40	40	encrypted – every evening Great Britain – purpose unknown
DK2OM	3587,0	vt	vd	09	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3590,0	vt	dly	09	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3590,0	1934	08	09	E		USB			Spanish fishery – also with scrambler CRY 2001 – very often
DK2OM	3590,0	2121	29	09	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) - Brest
DK2OM	3591,0	1946	24	09	RUS		F1B	75	250	CIS-75-250 - Vladimir
DK2OM	3595,0	vt	dly	09	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	vt	vd	09	RUS		USB			woman in Russian voice – often spelling figures - St. Peterburg
DK2OM	3596,0	vt	dly	09	D, S, HRV		FSK8	125	1750	ALE, “DK3CW” “SA6CBK” “9A0PZ” – just for info!
DK2OM	3597,3	1730	04	09	CHN		PSK4	75	2250	PRC 4+4 - idling
DK2OM	3617,0	vt	dly	09	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	1007	14	09	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3624,0	1000	30	09	CHN		FMCW		65k	Chinese OTH radar – 43 sps 3624 – 3689 kHz
DK2OM	3640,0	vt	vd	09	G		FSK8	125	1750	ALE, “XSS” - British MIL Tascomm – just for info!
DK2OM	3642,0	ady	dly	09	CHN		A1A			endless slip – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3647,0	1930	04	09	RUS		F1B	41.5	500	system Frost 1 – Far East Russia
DK2OM	3649,0	vt	vd	09	ALG	no ITU	FSK8	125	1750	ALE, “BI20” PA20”
DK2OM	3649,0	1420	28	09	CHN		PSK4	60	2400	PRC 30 tone modem – USB mode – pilottone 450 Hz and USB voice traffic
DK2OM	3662,0	vt	vd	09	FEa		A1A			endless slip – RA5J de BP2S
DK2OM	3672,0	1948	23	09	CHN		FMCW		94k	Chinese OTH radar – 43 sps 3672 – 3766 kHz
DK2OM	3697,0	1535	16	09	FEa		F1B	200	850	async. – Far East
DK2OM	3699,0	1050	15	09	CHN		FMCW		69k	Chinese OTH radar – 86 sps - 3699 – 3768 kHz
DK2OM	3704,5	1410	01	09	FEa	D63	A1A			D63 – UA63 - UA53A3 – UT7NA3AAU
DK2OM	3716,0	1741	16	09	CHN		FMCW		42k	Chinese OTH radar – 43 sps 3716 – 3758 kHz – also: 20.09.2015 at 0848 utc
DK2OM	3720,0	vt	dly	09	S		FSK8	125	1750	ALE, “YU” “YT” “YV” “DZ” – Swedish MIL
DK2OM	3751,5	vt	dly	09	POL	no ITU	FSK8	125	1750	ALE, “IZ3” “MI3”
DK2OM	3756,0	1939	20	09	RUS		A3E			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG
DK2OM	3761,5	vt	vd	09	POL	no ITU	FSK8	125	1750	ALE, “NI9” “PL7” “AB2” – Polish MIL
DK2OM	3777,0	1540	07	09	FEa		A1A			“M8JF de RIS9” – endless slip – dly
DK2OM	3779,0	1550	03	09	CHN		PSK4	60	2400	PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz
DK2OM	3791,0	vt	vd	09	D	DK0ESD	FSK8	125	1750	ALE, “DK0ESD” – daily just for info!
DK2OM	3797,0	ady	dly	09	FEa		A1A			“M8JF de RIS9” – endless slip – rcvd via JA
DK2OM	6999,0	1726	15	09	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic – pilot tone at 7000.300 kHz - Moscow
DK2OM	7000,0	vt	dly	09	?	no ITU	FSK8	125	1750	ALE, “210” “20989” “2205” “203”
DK2OM	7000,0	1005	14	09	INS		USB LSB			Indonesian pirates – daily – all day - audible in Europe in the evenings
DK2OM	7001,5	---	--	09	ALG		PSK4A	62.5	1750	Clover 2000 – 8 x 62.5 Bd – Algeria – daily, vt
DK2OM	6998.5	vt	vd	09	POL		FSK8	125	1750	ALE, “ZI3” “OLI” “OD6”

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
							PSK8	2400	2400	“SZ4” and MIL-188-110A - until 7001.000 kHz – Polish MIL
DK2OM	7005,0	1450	24	09	INS		USB LSB			Indonesian pirates
DK2OM	7010,0	1528	24	09	INS		USB LSB			Indonesian and Philippine pirates
DK2OM	7013,0	1900	15	09	RUS		OFDM	35.5	2750	OFDM60 – PSK4B - Kaluga
DK2OM	7015,0	1647	20	09	INS		USB LSB			Indonesian pirates
DK2OM	7018,0	---	--	09	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident at full hour + 40 min.
DK2OM	7020,0	1530	11	09	INS		USB LSB			Indonesian pirates
DK2OM	7020,0	0845	25	09	CHN		FMCW		32k	Chinese OTH radar – 43 sps – 7020 – 7052 kHz
DK2OM	7025,0	1536	11	09	INS		USB LSB			Indonesian pirates
DK2OM	7027,5	ady	dly	09	KAZ	„V“	A1A			beacon “V” - Almaty
DK2OM	7030,0	1554	03	09	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7030 – 7062 kHz
DK2OM	7030,0	1614	20	09	INS		LSB			Indonesian pirates
DK2OM	7032,0	1948	08	09	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7032 – 7064 kHz
DK2OM	7035,0	1641	20	09	INS		USB LSB			Indonesian pirates
DK2OM	7039,2	----	--	09	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - “RJS” – now on <b>7509.2 kHz</b>
DK2OM	7039,3	1834	07	09	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC” - daily
DK2OM	7039,4	1834	07	09	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7040,0	vt	dly	09	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	<b>7040,0</b>	<b>ady</b>	<b>dly</b>	<b>09</b>	<b>I</b>		<b>A1A</b>			<b>IZ3DVW – uncoordinated and unwanted beacon</b>
DK2OM	7040,0	1450	24	09	INS		USB LSB			Indonesian pirates
DK2OM	7040,5	vt	dly	09	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7046,0	1832	02	09	RUS		F1B	75	500	CIS-75-500 - Omsk
DK2OM	7047,0	1827	07	09	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7047 – 7079 kHz
DK2OM	7047,37	vt	vd	09	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7049,5	1932	19	09	HRV	9A0ALE G M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info! daily – various times
DK2OM	7050,0	1224	19	09	INS		USB			Indonesian pirates
DK2OM	7051,0	2042	02	09	RUS		F1B	50	200	CIS-50-200 - Sevastopol
DK2OM	7055,5	vt	vd	09	MEa	no ITU	FSK8	125	1750	ALE, “111” “132” “133” - Caucasus
DK2OM	7064,0	1917	23	09	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Gorodezh
DK2OM	7070,0	vt	vd	09	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7076,0	0819	03	09	RUS		F1B	75	250	CIS-75-250 - Smolensk
DK2OM	7080,0	1857	02	09	RUS		F1B	50	200	CIS-50-200 – Kaliningrad – also 06.09.2015 at 2040 utc and 23.09. at 1830 utc
DK2OM	7081,0	0714	24	09	RUS		PSK2A	120	2600	AT3004D – Crimea
DK2OM	7085,0	1959	16	09	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Gorodezh
DK2OM	7088,8	vt	vd	09	S	SL0FRO	A1A			7088.820 - cw-trainee, Sweden – kHz – SL0FRO - just for



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										info!
DK2OM	7089,8	vt	vd	09	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – west of Cyprus
DK2OM	7089,8	1913	15	09	MEa		PSK8	2400	2400	Stanag4285 – western part of Black Sea
DK2OM	7092,0	vt	vd	09			FSK8	125	1750	ALE, “3014”
DK2OM	7099,5	vt	dly	09	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	dly	09	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
DK2OM	7110,0	vt	dly	09	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7110,0	vt	dly	09			FSK8	125	1750	ALE, “1101” “1112”
DK2OM	7110,0	1700	29	09	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic - Crimea
DK2OM	7111,0	1328	22	09	CHN		PSK4	60	2350	PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz
DK2OM	7117,0	1900	02	09	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident at full hour + 40 min. - daily, all day
DK2OM	7119,0	1734	16	09	RUS		PSK2	120	2600	AT3004D – submode idle – Far East Russia
DK2OM	<b>7120,0</b>	<b>1626</b>	<b>08</b>	<b>09</b>	<b>SOM</b>		<b>A3E</b>			<b>Radio Hargaysa – Somalia – daily – even audible in Australia and Japan</b>
DK2OM	7122,0	---	--	09	FEa	V	A1A			endless slip “V”
DK2OM	7134,0	1830	07	09	RUS		F1B	50	250	CIS-50-250 - Far East Russia – also: 13.09.2015 at 1457 utc
DK2OM	7137,0	vt	dly	09	TWN	no ITU	FSK8	125	1750	LSB – ALE , “ACCENT” “ABLAZE” “ABOUND” “AGHAST” “ARTIST” “ANYWAY” “ABJECT” “ADROIT” – Taiwanese navy – daily – various times - tnx for info: DL8AAM
DK2OM	7140,0	1940	24	09	CHN		FMCW		38k	Chinese OTH radar – 43 sps – 7140 – 7178 kHz
DK2OM	7141,8	0850	25	09	CHN		PSK8	2400	2400	modified MIL-188-110A
DK2OM	7143,0	1932	25	09	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7143 – 7175 kHz
DK2OM	7146,0	1543	16	09	RUS		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	7148,0	1325	22	09	CHN		FMCW		33k	Chinese OTH radar – 43 sps – 7148 – 7181 kHz
DK2OM	7150,0	1412	01	09	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7150 – 7182 kHz
DK2OM	<b>7150,0</b>	<b>0855</b>	<b>04</b>	<b>09</b>	<b>F</b>		<b>USB</b>			<b>French fishermen – daily – reported by Francis</b>
DK2OM	7155,0	1905	29	09	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7155 – 7187 kHz
DK2OM	<b>7163,0</b>	<b>vt</b>	<b>vd</b>	<b>09</b>	<b>UKR</b>		<b>A3E</b>			<b>encrypted MSGs - SZRU in Rivne</b>
DK2OM	7167,7	1744	17	09	RUS		PSK2A	120	2600	AT3004D – area of Grosny
DK2OM	7171,0	1750	17	09	CHN		FMCW		10k	Chinese OTH burst radar – 85 sps
DK2OM	7176,0	1833	07	09	RUS		F1B	40.5	250	system “Frost 1” - Far East Russia
DK2OM	7176,0	0702	05	09	RUS		F1B	75	200	CIS-75-200 - Balashov
DK2OM	7177,0	1712	20	09	RUS		F1B	50	200	CIS-50-200 - Crimea
DK2OM	7178,0	1914	17	09	RUS		PSK2A	120	2600	AT3004D - Ufa
DK2OM	7179,0	1650	17	09	RUS		PSK2A	120	2600	AT3004D - Crimea
DK2OM	7183,0	vt	dly	09	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	vt	dly	09	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7186,0	0903	04	09	RUS		PSK2A	120	2600	AT3004D – Severmorsk – also: 17.09.2015 at 1315 utc



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7197,0	vt	dly	09	TUR	no ITU	FSK8	125	1750	ALE, "8241" "206102" "8151" "3021" "3761" "8021" "8141" "3061" "3241" "8411" – Turkish organisations and Turkish Civil Defense - source: DL8AAM – daily, various times
DK2OM	<b>7200,0</b>	<b>1740</b>	<b>04</b>	<b>09</b>	<b>IRN</b>		<b>A3E/BC</b>		<b>9k</b>	<b>IRIB Tehran – 1720 – 1820 utc - daily</b>
DK2OM	<b>7205,0</b>	<b>2054</b>	<b>02</b>	<b>09</b>	<b>F</b>	<b>RFI</b>	<b>A3E/BC</b>		<b>38k</b>	<b>Radio France International splattering 7185 – 7225 kHz – 2000 – 2200 utc - daily</b>
DK2OM	10100,8	ady	dly	09	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10101,0	1932	09	09	UKR		USB			men in Russian voice - Melitopilj
DK2OM	10102,8	1044	26	09	RUS		F1B	72	250	CIS-50-250 - 10102.750 kHz - Kaliningrad
DK2OM	10110,0	vt	dly	09	SNG	no ITU	FSK8	125	1750	ALE, "CN6" "68" – Singapore Navy - Changi Naval Base
DK2OM	10113,0	vt	vd	09	TUN	no ITU	FSK8	125	1750	ALE, "TUD" "STAT5" "STAT154"
DK2OM	10113,3	0832	06	09	F		PSK8	2400	2400	Stanag4285 – 600 bps long - Toulouse
DK2OM	10114,0	vt	dly	09		no ITU	FSK8	125	1750	ALE, "BSF" "ZEN" "CM2OR2"
DK2OM	10114,8	0758	15	09	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	vd	09		no ITU	FSK8	125	1750	ALE, "2001" "2002"
DK2OM	10116,0	1910	30	09	RUS		F1B	50	250	Moscow
DK2OM	10116,5	vt	vd	09	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10120,0	vt	dly	09		no ITU	FSK8	125	1750	ALE, "9066" "9067" "8001" "2001"
DK2OM	<b>10120,0</b>	<b>1103</b>	<b>04</b>	<b>09</b>	<b>E</b>		<b>USB</b>			<b>Spanish fishery – reported by Paulo</b>
DK2OM	10120,0	1850	16	09	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	10123,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, "CM3" "COF" "BSF" "CM2" "ESA"
DK2OM	10124,0	0947	15	09	CHN		PSK4	60	2350	PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz
DK2OM	10129,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, "CM1" "CTF" "772"
DK2OM	10130,0	vt	dly	09	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10130,0	1449	13	09	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	10131,0	0916	07	09	RUS		F1B	75	250	CIS-75-250 - Moscow
DK2OM	10135,0	1719	16	09	AUS		FMCW		10k	Australian OTH radar JORN – 3.4 sec bursts - 20 sps – intro tones
DK2OM	10135,0	1747	21	09	CYP		FMCW		20k	OTH radar Cyprus – 25 sps
DK2OM	10136,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, "CM3" "BLD" "CNC" "TF2"
DK2OM	10136,0	1003	30	09	RUS		F1B	50	200	CIS-50-200 - Chita – daily, all day
DK2OM	10140,0	vt	vd	09	CHN ?		FSK8	125	1750	ALE, "205" "201" "LT"
DK2OM	10141,0	0520	08	09	GRC		F3E			male voice from Athens
DK2OM	10144,0	ady	dly	09	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – <b>just for info!</b>
DK2OM	10145,0	1902	29	09	CHN		FMCW		37k	Chinese OTH radar – 43 sps 10145 – 10182 kHz
DK2OM	10145,5	vt	dly	09	HRV S / D F / G	9A5EX	FSK8	125	1750	ALE, "9A5EX" "SM5VRH" "DK0ESD" "F6BAZ" "MIDFO"- just for info - daily
DK2OM	14000,0	1330	08	09	FEa		USB			pirates from Far East
DK2OM	14001,5	1455	10	09	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14001,8	1008	10	09	RUS		OFDM	22.2	2850	OFDM 112 – PSK4A - Moscow
DK2OM	14014,0	0722	7	09	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14026,0	0755	22	09	RUS		PSK2A	120	2600	AT3004D – Moscow
DK2OM	14050,0	0737	29	09	RUS		F1B	75	250	CIS-75-250 - Irkutsk
DK2OM	14051,0	0800	05	08	RUS		F1B	75	200	Vladivostok
DK2OM	14052,0	0953	29	09	RUS		PSK2A	120	2600	AT3004D – 2 pilot tones Chelyabinsk
DK2OM	14066,0	1040	16	09	RUS		FMCW		13k	OTH radar Contayner - 50 sps Nizhny Novgorod
DK2OM	14100,0	vt	dly	09	ALG	no ITU	FSK8	125	1750	ALE, “6206” – “6204” - “6202” “6207” “6217” “MTL” “IJ” – Mauritanian border – daily, all day
DK2OM	14105,0	---	--	09	F		FMCW		20k	French burst radar, 6 sps, similar Codar sounding, South France
DK2OM	14108,0	vt	vd	09	RUS		A1A			ZM8S and 7BGK – encrypted traffic – RUS MIL Moscow with St. Peterburg
DK2OM	14109,0	0952	01	09	POR	HAM	FSK8	125	1750	ALE, “CT2IXQ” “DK0ESD” “HB9MHB” – just for info!
DK2OM	14109,0	vt	dly	09	RUS	RV3APM	FSK8	120	1750	ALE, “RV3APM” – just for info!
DK2OM	14110,0	0947	01	09	RUS		FMCW		20k	OTH burst radar Contayner - 10 sps - Nizhny Novgorod
DK2OM	14119,4	0835	06	09	RUS		F1B	50	467	exact QRG: 14119.370 - Moscow
DK2OM	14120,0	0759	15	09	RUS		FMCW		10k	OTH burst radar Contayner - 10 sps - Nizhny Novgorod
DK2OM	14122,8	0720	29	09	CHN		OFDM	44.45	2400	OFDM 39 and voice traffic
DK2OM	14123,0	0758	22	09	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Nizhny Novgorod
DK2OM	14139,0	0958	24	09	CHN		FSK8	125	1750	ALE, “809”
DK2OM	14141,0	0715	13	09	RUS		F1B	75	500	CIS-75-500 - Moscow
DK2OM	14152,0	1141	03	09	RUS		F1B	75	500	CIS-75-500 - Moscow
DK2OM	14160,0	0840	21	09	MRC		FSK8	125	1750	ALE, “9204” “9228” “9236”
DK2OM	14169,0	1534	23	09	RUS		F1B	50	200	CIS-50-200 - Smolensk
DK2OM	14180,0	0935	04	09	RUS		F1B	50	200	CIS-50-200 - Sevastopol
DK2OM	14192,0	vd	vt	09	RUS		F1B	50 75	200 500	RUS navy Kaliningrad
DK2OM	14205,0	vt	dly	09	CHN ?	no ITU	FSK8	125	1750	ALE, “505” “822” – 60 deg. from DL - CHN ?
DK2OM	14221,0	2030	dly	09	KGZ		F1B	50	200	CIS-50-50 - Bishkek – daily
DK2OM	14240,0	0821	02	09	RUS		F1B	50	250	CIS-50-250 - Irkutsk
DK2OM	14259,0	0850	08	09	RUS		USB			800 Hz tone – RUS MIL Kaluga
DK2OM	14260,0	vt	dly	09	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14260,9	0720	16	09	RUS		OFDM	35.6	2750	OFDM60 – PSK4B - Kaluga
DK2OM	14265,0	vt	vd	09	TUR	no ITU	FSK8	125	1750	ALE, “526”
DK2OM	14268,0	1330	30	09	RUS		F1B	50	500	cyrillic letters – Far East Russia
DK2OM	14280,0	1005	Wed.	09	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – every Wednesday at 1005 utc
DK2OM	14295,0	vt	dly	09	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14295,0	1040	29	09	CHN		FSK8	125	1750	ALE, “320” – “532”
DK2OM	14295,6	0823	02	09	TJK		A3E		9k	3 <sup>rd</sup> from Radio Tajik on 4765 kHz – daily, all day – exact (14295.590 kHz on Sep. 7 <sup>th</sup> )
DK2OM	14296,6	1029	29	09	CHN		OFDM	44.45	2400	OFDM 39 and voice traffic
DK2OM	14301,8	1610	02	09	CHN		PSK2	75	2200	PRC 16 tone modem – USB mode – pilot tone 450 Hz - China – Shanghai – daily – all day - audible worldwide
DK2OM	14322,0	vt	dly	09	CHN	no ITU	FSK8	125	1750	ALE, “402”
DK2OM	14328,0	vt	dly	09	CHN	no ITU	FSK8	125	1750	ALE, “139” “534” “772” –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										West China
DK2OM	14330,0	vt	dly	09			FSK8	125	1750	ALE, "BV4"
DK2OM	14334,0	vt	vd	09	CHN	no ITU	FSK8	125	1750	ALE, "249" "255" "763"
DK2OM	14344,7	vt	vd	09	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short - 14344.650 kHz - daily, all day
DK2OM	14345,9	0753	29	09	RUS		F1B	75	250	CIS-75-250 - very unclean - Moscow
DK2OM	14346,0	vt	vd	09	HRV RUS D		FSK8	125	1750	ALE, "9A0ZG" "RX3ARZ" "DK0ESD" - just for info - various times, daily
DK2OM	14346,0	vt	dly	09	THA	HS0ZEA	A1A			HS0ZEA beacon - 14345.950 kHz - every 5 minutes - just for info!
DK2OM	14351,7	1439	11	09	E		OFDM	30	2700	OFDM 73 + intro tone - experimental transmissions - Las Palmas - just for info!
DK2OM	18070,0	2120	03	09	E		USB			Spanish fishery - reported by mco
DK2OM	18080,0	0650	03	09	TWN CHN		A3E/BC		9k	Sound of Hope / Taiwan and Chinese mainland BC jammer
DK2OM	18090,0	0840	27	09	CYP		FMCW		20k	OTH radar Cyprus - 50 sps
DK2OM	18100,0	vt	vd	09	MRC	no ITU	FSK8	125	1750	ALE, "CD" "C3" "R3" "G3" "E4" "E5" "Z2" "FORD" - daily, various times
DK2OM	18106,0	vt	vd	09	POR	CT2GOY	FSK8	125	1750	ALE, "CT2GOY" - just for info!
DK2OM	18107,0	0932	07	09	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow - idle and traffic - Russian navy - various days and times - shared band!
DK2OM	18117,5	vt	vd	09	POR	CT2IXQ	FSK8	125	1750	ALE, "CT2IXQ" - just for info
DK2OM	18140,0	vt	dly	09	SRB	YU1BI	FSK8	125	2600	ALE, "YU1BI" - just for info!
DK2OM	21000,0	---	--	09	SDN		USB			MFA Sudan - Khartoum with emba Yemen - voice traffic
DK2OM	21000,0	1033	02	09	B		USB			Brazilian pirates - Rio de Janeiro with North Brazil - also: 24.09.2015 at 1650 utc
DK2OM	21002,2	---	--	09	SDN	!0000 !9999	F1B	100	170	21002.15 kHz - Pactor 1 encrypted - MFA Sudan - Khartoum with emba Yemen - daily, vt - also 16.07.2015 at 1615 utc
DK2OM	21050,0	0846	05	09	TUR		FMCW		20k	OTH radar West-Turkey - 50 sps
DK2OM	21060,0	1040	30	09	CYP		FMCW		20k	OTH radar Cyprus - 50 sps
DK2OM	21096,0	vt	dly	09	INS	YD00XH	FSK8	125	1750	ALE, "YD00XH3" - daily, various times - just for info!
DK2OM	21123,6	1430	29	09	CME		F1B	600	600	DPRK-FSK 600 - 21123.550 kHz - DPRK emba Yaounde Cameroon
DK2OM	21131,0	vt	vd	09	CHN	no ITU	FSK8	125	1750	ALE, "A92" "L02" - Chinese diplo
DK2OM	21140,9	0848	07	09	GEO		PSK8A	2400	2400	Stanag4538 - GEO MIL with AFG - daily
DK2OM	21145,0	vt	dly	09	MRC	no ITU	FSK8	125	1750	ALE, "B301", "C3", "IR4" "T4" "E4" "A2" "CD" "K3" "KB2" "J5" "GS4" "R3" - various times, daily
DK2OM	21145,8	ady	dly	09	I	IZ3DVW	A1A			IZ3DVW beacon - 21145,75 kHz - not coordinated with IARU
DK2OM	21160,0	1233	29	09	RUS		F1B	100	2000	4th from 5290 kHz (500 Hz shift) - St. Peterburg
DK2OM	21190,0	---	--	09	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow - daily
DK2OM	21200,0	---	--	09	INS		PSK	100	1300	Pactor 3 mailbox - Indonesia

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	21270,0	1410	29	09	CYP		FMCW		20k	OTH radar Cyprus - 50 sps
DK2OM	21295,0	1002	01	09	AUS		FMCW		10k	Australian OTH radar JORN – 12.3 sec bursts - 50 sps – intro tones
DK2OM	21318,5	---	--	09	GUI		F1B burst	600	600	DPRK-FSK 600 – Conakry North Korean emba – 21318.549 kHz
DK2OM	21330,0	0758	13	09	CYP		FMCW		20k	OTH radar Cyprus – 25 sps
DK2OM	21346,0	ady	dly	09	THA	HSOZEA	A1A			beacon “HSOZEA” – just for info!
DK2OM	21353,6	1405	17	09	CME		F1B	1200	1200	DPRK-FSK 1200 – Yaounde - Cameroon
DK2OM	21353,6	1423	29	09	NIG		F1B	600	600	DPRK-FSK 600 – 21353.550 kHz – DPRK emba Abuja
DK2OM	21400,0	---	--	09	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	---	--	09	RUS		F1B	100	2000	F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21410,0	0807	15	09	TUR		FMCW		20k	West Turkey
DK2OM	21436,0	---	--	09	RUS		PSK2A	120	5200	AT3004D – harmonic from 10718.0 kHz - Sevastopol
DK2OM	21438,0	vt	vd	09	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21445,0	1240	29	09	IRN		A3E/BC		20k	splatters from IRIB Tehran on 21455 kHz
DK2OM	21446,0	ady	dly	09	THA	HSOZEA	A1A			HSOZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	vt	vd	09	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	---	--	09	CIS		F3E			28000 – 29700 only few CIS taxi nets
DK2OM	28000,0	vt	dly	09	B		A3E			Brazilian CBers – 28000 – 28315 – no change
DK2OM	28025,0	---	--	09	POR		F1B	51	300	F1B bursts - 28100.160 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28030,0	vt	vd	09	POR		F1B	51	340	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28045,0	---	--	09	POR		F1B	51	280	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	---	--	09	POR		F1B	51		F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28051,5	vt	dly	09	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28060,0	vt	vd	09	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	---	--	09	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,6	---	--	098	GAB		A3E		980	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day
DK2OM	28075,0	---	--	09	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	vt	vd	09	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28100,2	---	--	09	POR		F1B	51	250	F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28102,1	---	--	09	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28105,0	0920	30	09	RUS		F3E			RUS taxi
DK2OM	28125,0	---	--	09	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28135,0	0820	27	09	RUS		F3E			RUS taxi
DK2OM	28146,0	vt	vd	09	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28185,0	1619	19	09	CIS		F3E			CIS taxi
DK2OM	28200,0	vt	vd	09	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28224,4	---	--	09	GAB		A3E			carrier and dots +/- 770 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28225,0	0937	07	09	CIS		F3E			CIS taxi
DK2OM	28249,6	---	--	09	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28250,5	---	--	09	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28275,1	---	--	09	AF		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28312,5	vt	vd	09	POR	CT2IXQ	FSK8	125	1750	ALE. “CT2IXQ” – just for info
DK2OM	28315,0	vt	dly	09	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28345,1	---	--	09	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28435,0	----	--	09	E		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol – Malaga</b>
DK2OM	28459,8	----	--	09	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28459,9	---	--	09	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28499,8	---	--	09	MEa		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 28499.875 kHz – Persian Gulf</b>
DK2OM	28701,1	---	--	09	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28751,2	---	--	09	GAB		A3E		1080	carrier and dots +/- 540 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28845,5	---	--	09	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28901,1	---	--	09	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	29249,9	1313	20	09	E		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29249.890 kHz – Fuerteventura - daily, all day</b>
DK2OM	29375,0	----	--	09	I		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29374.898 kHz – Gallipoli, South Italy - daily, all day</b>

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	29387,5	---	--	09	IND		F1B	81.9	140	Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29400,0	---	--	09	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day
DK2OM	29450,0	1647	25	09	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29449.896 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	09	G		F1B	81.9	140	Datawell-buoy "Waverider" – area of Gibraltar – daily, all day
DK2OM	29525,0	---	--	09	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29625,0	---	--	09	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day

### IRTS – Ireland – EI9GSB (Lisa)

### KARS – Kuwait – 9K2RR (Faisal)

### MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3535,0	1932	22	9			USB			ui language, male
MRASZ	3544,0	1723	13	9			F1B		200	
MRASZ	3545,0	2023	20	9			LSB			ui. language, dutch?
MRASZ	3548,0	1821	7	9			N0N			long lasting carrier
MRASZ	3548,0	1828	7	9			F1B		200	short traffic
MRASZ	3548,0	1834	8	9			F1B		200	hrd: 10,
MRASZ	3568,0	1833	8	9			F1B		250	
MRASZ	3586,0	1832	8	9			F1B		200	
MRASZ	3595,0	1744	2	9			USB			russian women, numbers, hrd more times
MRASZ	3595,0	1838	2	9			LSB			
MRASZ	3626,0	1905	18	9			A1A			"153 153 153 7 T7 7 T7 3T 3T ="
MRASZ	3658,0	vt	dly	9			A1A			slow V string
MRASZ	3700,0	1830	8	9			F1B		250	
MRASZ	3748,0	1831	8	9			F1B		250	
MRASZ	7000,0	1939	22	9			N0N			
MRASZ	7000,0	1742	24	9			N0N			
MRASZ	7000,0	1456	26	9			N0N			
MRASZ	7007,0	1709	28	9			LSB			"ola ola ola"
MRASZ	7020,0	1344	24	9			F1B		250	
MRASZ	7020,0	1459	24	9			A1A			"50 50" deliberate disturbance
MRASZ	7035,0	1639	7	9			F1B		250	
MRASZ	7039,0	1852	8	9		C	A1A			"C" beacon
MRASZ	7039,2	1818	24	9			A1A			"v v v IK1HGI/B K"
MRASZ	7040,0	1815	24	9			A1A			"IZ3DVW/beacon"
MRASZ	7050,0	vt	dly	9			LSB			russian/ukrainian, chaos, music etc.
MRASZ	7051,0	2015	30	9			F1B		200	
MRASZ	7055,0	vt	dly	9			LSB			russian/ukrainian, chaos, music etc.

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	7072,0	1718	9	9			OTHR			7070-7074 kHz
MRASZ	7080,0	1930	10	9			F1B		200	
MRASZ	7080,0	1757	15	9			F1B		200	
MRASZ	7081,0	1346	24	9			PSK2			AT 3004D
MRASZ	7087,3	1302	18	9			F1B		450	"CQ de DDK2, DDH7,DDK9"
MRASZ	7113,9	1714	9	9			F1B		80	
MRASZ	7117,0	vt	dly	9	RUS		F1B		1000	
MRASZ	7120,0	1748	6	9	SOM		A3E			R. Harg.hrd: 7,8,9,13,15,20,23,
MRASZ	7122,0	1121	18	9			F1B		250	
MRASZ	7175,0	1713	9	9			A3E			music
MRASZ	7176,0	0823	10	9			F1B		250	
MRASZ	7179,0	1802	23	9			PSK2			AT3004D
MRASZ	7179,0	1420	24	9			PSK2			AT3004D
MRASZ	7179,3	1848	8	9			F1B		200	
MRASZ	7186,0	1226	15	9	RUS		PSK2			AT3004D
MRASZ	7200,0	1723	9	9			A3E			splatter 5 kHz down
MRASZ	7200,0	1737	20	9			A3E			splatter down 10 kHz
MRASZ	7200,0	1803	23	9			A3E			splatter 10 kHz down
MRASZ	10102,7	0730	27	9			F1A		250	5 letters russian chars.
MRASZ	10122,5	1948	18	9			USB			ui. language
MRASZ	10127,8	1940	22	9			A1A			dotter
MRASZ	10145,0	1736	20	9			OTHR			
MRASZ	10146,0	1754	30	9			OTHR			10142-10150 kHz
MRASZ	14008,0	0816	20	9			F1B		450	
MRASZ	14008,0	1101	27	9			F1B		450	
MRASZ	14029,0	1358	13	9			A1A			dots, deliberate disturbance
MRASZ	14063,9	1133	13	9			F1B		450	
MRASZ	14067,0	1801	28	9			A3E			till 1812 mixed more BC stations
MRASZ	14097,1	1757	28	9			N0N			
MRASZ	14119,3	1116	13	9			F1B		450	
MRASZ	14130,0	1125	18	9			OTHR			
MRASZ	14160,0	1756	28	9			OTHR			14155-14175 kHz
MRASZ	14174,9	1001	13	9			F1B		450	
MRASZ	14180,0	0833	5	9			F1B		200	hrd: 9,10,17,18,
MRASZ	14180,0	1906	5	9			F1A			"16566 3TT93 28261"
MRASZ	14192,0	1724	9	9			F1B		200	
MRASZ	14228,0	1709	13	9			F1B		250	
MRASZ	14270,0	1126	18	9			OTHR			
MRASZ	14271,0	1551	7	9			OTHR			
MRASZ	14295,1	vt	dly	8	TJK		A3E			R.Tajikistan, 3rd. harm.Hrd:10,13,15,18,2 8
MRASZ	14301,7	1637	15	9	CHN		PSK2			
MRASZ	14301,7	1501	26	9	CHN		PSK2			
MRASZ	14301,7	1753	28	9	CHN		PSK2			
MRASZ	14322,0	1734	9	9			F1B		850	
MRASZ	14342,0	1753	28	9			F1B		200	
MRASZ	14345,0	0952	26	9			OTHR			14345-14390 kHz
MRASZ	18079,0	0935	26	9			OTHR			18068-18090 kHz
MRASZ	18107,0	1727	9	9	RUS		F1B	50	200	only for info, hrd.10,17,18,27
MRASZ	18165,0	0821	20	9			OTHR			18165-1819 kHz
MRASZ	21445,0	1635	13	9			A1A			dots, deliberate disturbance
MRASZ	28046,0	1245	17	9			F1B		450	

### OEVSV – Austria – OE3GSA (Gerd)

### PZK – Poland – SP9BRP (Jan)

## REF 1 – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Sh /Bw	DETAILS
REF	3638	0758	21	9			LSB	3kHz	Music box 10' from DL
	10150	0734	25				fmcw	25kHz	OTHR S5 20pps
	14120	0800	22				fmcw	35kHz	OTHR S9+ 20pps
	14150	0750	16				fmcw	25kHz	OTHR S9 20pps
	18070	1528	10				fmcw	20kHz	OTHR S9 ended15h31Z
	18070	0756	17				fmcw	20kHz	OTHR S7 20pps
	18080	0755	4				AM	12kHz	BCL station Chinese ?
	18080	0751	22				AM	12kHz	S4+QSB, Sound of Hope?
	18160	1601	14				fmcw	20kHz	OTHR S7 40 pps
	18165	0750	19				fmcw	25kHz	OTHR S5 20pps
	21100	0733	13				fmcw	20kHz	OTHR S9 20 pps
	21160	0746	19				fmcw	20kHz	OTHR S6-7 20pps
	21170	0730	29				fmcw	20kHz	OTHR S6 20pps
	21270	0730	23				fmcw	20kHz	OTHR S6 20pps
	21400	0746	28				fmcw	20kHz	OTHR S6 20pps

## REF 2 – France – F5JBR (Andre)

## REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3530	20.00	11	09			J3E-U			Fishermen, unid language
REP	3710	20.04	27	09	RUS		J3E-U			Navy operations
REP	3740	17.22	06	09	E		J3E-U			Spanish fishermen
REP	7000	21.03	06	09			J3E-L			Several intruders
REP	7015	21.55	13	09			J3E-L			Unid ops
REP	7063	19.14	23	09			F1B	75	200	Unid teletype transmissions
REP	7065	21.27	01	09			J3E-L			Comercial radio rebroadcasted - music
REP	7120	17.05	17	09	SOM		8k00 A3EGN			Radio Hargaysa
REP	7120	17.40	10	09	SOM		8k00 A3EGN			Voice of Hargaysa BC, South Sudan
REP	7189	20.07	27	09	F		8k00 A3EGN			Radio France Internacional DOWN SPLATTERING 40m Ham Band
REP	7200	17.44	10	09	IRN		8k00 A3EGN			Voice of Islamic Republic of Iran BC
REP	10110	22.06	20	09			J3E-U			Unid ops
REP	10111	20.35	10	09	MRC E		J3E-U			Moroccan fishery + Spain fishery
REP	10120	19.00	11	09	MRC		J3E-U			Morocco fishery
REP	10120	11.03	04	09	E		J3E-U			Spanish fishery
REP	10122	17.29	10	09			J3E-U			Unid language fishery, engine noises
REP	10130	20.45	24	09	ALG		J3E-U			Algerian mil voice and digital comms
REP	10130	17.25	06	09			J3E/PSK			Arabic language and STANAG 4285
REP	10130	19.00	12	09	E		J3E-U			Spanish fishery
REP	10135	21.15	19	09			J3E-L			Unid language, two ops
REP	10140	17.00	17	09			FMCW			OTH radar
REP	10150	18.13	24	09			FMCW			OTH radar 50/20, 10kHz inside 30m band
REP	14026	10.39	22	09	RUS		BPSK			AT3004D Modem, 12 carriers 120Bd
REP	14100	08.38	04	09			FMCW			OTH radar, 50sps/20kHz
REP	14132	12.46	23	09			FMCW			OTH radar, 50sps/17kHz
REP	14180	09.55	03	09			FMCW			Wide OTH radar, 160kHz, bursts
REP	14180	08.43	04	09	RUS		F1B	50	200	CIS 50 encrypted, Russia
REP	14192	09.59	16	09	RUS		F1B	75	400	Russian military, encrypted
REP	14220	09.55	03	09			FMCW			OTH radar, 50sps/20kHz
REP	14240	09.07	02	09	RUS		F1B	50	250	CIS 50 encrypted, Russia
REP	14260	08.01	15	09			FMCW			OTH radar 15khz wide, burst mode
REP	14340	09.56	03	09			FMCW			160kHz wide OTH, moving around band
REP	18066	10.38	28	09			FMCW			OTH radar, burst mode, 15kHz
REP	21350	13.59	16	09			FMCW			OTH radar 50sps/20kHz
REP	28000	13.30	02	09	B		J3E-U			Brazilian CBs



SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	28050	11.50	10	09	E		F1B	50	200	Enagal GPS buoy
REP	28125	12.10	07	09	E		F1B	50	200	Enagal GPS buoy
REP	28145	14.05	01	09	RUS		F3E			Taxis
REP	28185	14.00	02	09	RUS		F3E			Russian taxi dispatcher
REP	28245	19.08	22	09	RUS		F3E			Taxis
REP	<b>28300</b>	<b>10.03</b>	<b>02</b>	<b>09</b>			<b>FMCW</b>			<b>OTH radar 50sps/20kHz</b>
REP	<b>28500</b>	<b>11.55</b>	<b>02</b>	<b>09</b>			<b>FMCW</b>			<b>OTH radar 50sps/20kHz unstable</b>
REP	<b>28850</b>	<b>11.00</b>	<b>03</b>	<b>09</b>	<b>IRN</b>		<b>FMCW</b>			<b>Iranian OTH radar</b>
REP	29045	10.06	07	09	RUS		F3E			Russian taxi dispatch
REP	<b>29070</b>	<b>15.00</b>	<b>24</b>	<b>09</b>			<b>FMCW</b>			<b>OTH radar</b>
REP	<b>29070</b>	<b>12.02</b>	<b>24</b>	<b>09</b>			<b>FMCW</b>			<b>OTH radar 50 sps/20kHz</b>
REP	29135	11.09	15	09			F3E			Unid language
REP	29150	12.00	18	09			F1B	82	160	Datawell buoy
REP	29175	11.51	18	09	RUS		F3E			Russian taxi dispatcher
REP	29185	11.44	26	09	RUS		F3E			Russian taxi dispatcher
REP	<b>29200</b>	<b>13.09</b>	<b>11</b>	<b>09</b>			<b>FMCW</b>			<b>OTH radar</b>
REP	29250	10.38	12	09	RUS		F3E			Unid ops, Asian lang
REP	29250	11.07	04	09			F1B	82	120	Datawell buoy
REP	<b>29650</b>	<b>12.56</b>	<b>09</b>	<b>09</b>			<b>FMCW</b>			<b>OTH radar 25sps/20kHz</b>

### RSGB - Great Britain – M0VRR (Vaughan)

### SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	6999,0	0410	7.	9		UiMUX	PSK2	120	2600	
SRAL	7000,0	0930-0945	25.	9		UiMUX	PSK2	120	2600	
SRAL	7000,0	0245-1920	*	9		UiCarr	N0N			Days: 20. 25. 27. 28. 29.
SRAL	7005,0	1235-1310	29.	9		UiMUX	PSK2	120	2600	
SRAL	7006,5	1320	23.	9		UiPTR	F1B			
SRAL	7008,0	1045-1500/	28.	9		UiPTR	F1B		250	
SRAL	7009,0	0530-1600	1. – 26.	9		Ui2Tone	J3E-u			Tones 1200 & 2300 Hz, sporadic russ. VOX
SRAL	7016,0	0635-1345	1. 6. 13.	9		UiPTR	F1B		250	
SRAL	7018,75	0425-2240	*	9		UiPTR/carr	F1A/N0N		250	Days: 1. 17. 18. 21. 22. 25. N0N on 7018,625 kHz
SRAL	7020,0	0630-1730/	*	9	RUS	UiPTR	F1B		200/250	Days: 5. 17. 20. 24. 28.
SRAL	7030,0	1800-1925	21.	9		UiPTR	F1B		250	
SRAL	7031,5	0800-0910	1. 6.	9		UiPTR	F1B		250	
SRAL	7032,0	1555-1850	22.	9		UiMUX	PSK2	120	2600	
SRAL	7039,0	0500-1830	13. – 30.	9	RUS	C	A1A			Moscow
SRAL	7051,0	2245-0600	*	9	RUS	UiPTR	F1B		200	Days: 1. – 4. 25. 28. – 30.
SRAL	7056,0	0545-0750	2. 25.	9		UiCW	A1A			5BL
SRAL	7062,0	1040-1100	3.	9		UiMUX	PSK2	120	2600	
SRAL	7072,0	0830-1715	5. 9.	9		UiMUX	PSK2	120	2600	
SRAL	7076,0	1345	13.	9		UiMUX	PSK2	120	2600	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7076,0	0530-1930	3. 4.	9	RUS	UiPTR	F1B		250	
SRAL	7080,0	1730-1905/	3. 28.	9		UiPTR	F1B		200	
SRAL	7081,0	0530-1400	24. 27.	9		UiMUX	PSK2	120	2600	
SRAL	7110,0	1530	29.	9		UiMUX	PSK2	120	2600	
SRAL	7111,0	1115	13.	9		UiPTR	F1B			
SRAL	7113,0	1220	25.	9		UiMUX	PSK2	120	2600	
SRAL	7116,5	1200-1320	23.	9		UiMUX	PSK2	120	2600	
SRAL	7117,0	1400-1930	1. – 27.	9	RUA	REA4	F1B		1000	
SRAL	7120,0	0330-0430	dly	9	SOM	R.Hargeisa	A3E			
SRAL	7120,0	1500-1900/	dly	9	SOM	R.Hargeisa	A3E			
SRAL	7121,0	0830	28.	9		UiMUX	PSK2	120	2600	
SRAL	7122,0	0820-1620	18. 22.	9		UiPTR	F1B		250	
SRAL	7126,0	0745-1340	14. 15.	9		UiCW	A1A			5F
SRAL	7130,0	0450-1650	*	9		UiCarr	N0N			Days: 16. 17. 20. 26. 27. 28.
SRAL	7146,0	0650-1930	16.	9		UiMUX	PSK2	120	2600	
SRAL	7149,0	0750-0800	2.	9	RUS	RMW36	A1A			
SRAL	7160,0	0830-0920	16.	9	RUS	RMW32	A1A			5BL
SRAL	7162,0	1030-1930	1. 5. 21.	9		UiPTR	F1B		250	
SRAL	7175,0	1700-1830/	2. 9. 12.	9	ERI	VoBME2	A3E			+Jamming
SRAL	7176,0	0430-1830	*	9		UiPTR	F1B/ N0N		250	Days: 5. 7. 10. 25. 30.
SRAL	7177,0	0835-1920	22. 26.	9		UiPTR	F1B		250	
SRAL	7179,0	1200-1800	*	9		UiMUX	PSK2	120	2600	Days: 13. 17. 23. 24. 26.
SRAL	7181,6	0400-1145	1. 2.	9		UiCarr	N0N			Sporadic F1B 250 Hz
SRAL	7186,0	0300-2400	4. 5. 15.	9		UiMUX	PSK2	120	2600	
SRAL	7187,0	0640-0700	14.	9		UiPTR	F1B		250	
SRAL	7200,0	/1720-1820/	dly	9	IRN	IRIB	A3E			German PX
SRAL	7200,0	/2220-2320/	dly	9	IRN	IRIB	A3E			
SRAL	7200,0	/1000-1300/	dly	9	CHN	CNR1	A3E			Used as jammer. On days: 9. 12.19. until 1500
SRAL	7 MHz	1920	23.	9	RUS	29B6	FMCW			50Hz / 15 kHz
SRAL	7 MHz	1150	24.	9	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec burst
SRAL	14000,0	1215-2400	8.	9		UiCarr	N0N			
SRAL	14000,0	0000-1130	9.	9		UiCarr	N0N			
SRAL	14008,0	0755-1150	*	9		UiPTR	F1B		250/450	Days: 16. 20. 23. 24. 25. 28.
SRAL	14026,0	0840	22.	9		UiMUX	PSK2	120	2600	
SRAL	14050,0	1050-1415	28.	9	RUS	UiPTR	F1B/A		200	
SRAL	14160,0	1135-1210	10.	9	RUS	UiPTR	F1B		250	
SRAL	14180,0	0545-	1. –	9	RUS	UiPTR	F1B		200	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
		2010	21.							
SRAL	14192,0	0600-1300	1. – 10.	9	RUS	UiPTR	F1B		200	
SRAL	14215,0	0805	23.	9		UiPTR	F1B		500	
SRAL	14219,0	0830	29.	9		UiMUX	PSK2	120	2600	
SRAL	14221,0	0330-0600/	dly	9	KGZ	UiPTR	F1B		250	
SRAL	14223,0	0830	29.	9		UiMUX	PSK2	120	2600	
SRAL	14292,0	1120	16.	9		UiPTR	F1B			
SRAL	14295,2	0400-1930	dly	9	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14 MHz	0700-1345	21. – 23.	9	RUS	29B6	FMCW			50Hz / 15 kHz
SRAL	14 MHz	0530-1715	dly	9	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec bursts
SRAL	18080,0	0600-0800	*	9	CHN	CNR1	A3E+			Days: 1. 24. 27. Used as jammer
SRAL	18107,0	0700-1600	*	9	RUS	UiPTR	F1B		200	Days: 1. 6. 20. 26. 28.
SRAL	18 MHz	0530-1825	*	9	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 1. 4. 5. 6. 19. 21. 26.
SRAL	21 MHz	0645-1140	*	9	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 6. 13. 20. 29.
SRAL	21438,0	1000-1130	20.	9	RUS	RCV	A1A			
SRAL	28 MHz	0945		9	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz – 300 kHz, no reports
SRAL	28 MHz	1130	20.	9		UiOTHR	FMCW			10Hz / 40 kHz
SRAL	28 MHz	1030-1210	6. 20.	9	RUS	Taxi disp.	F3E			11 reports

## USKA – Switzerland – HB9CET (Peter)

Report from EA3 Spain										
SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3532.0	2138	08	09			DQPSK	14x75	5k9	LINK 11 CLEW DSB mode
USKA	3552.0 VFO USB	1952	06	09			PSK8	2400	~2k4	Stanag 4285; often
USKA	3563.0 VFO USB	1947	06	09			PSK8	2400	2K4	Stanag 4285; daily frame format 600bps/long
USKA	3700.0	2215	07	09			F1B	75	250	
USKA	3723.0	2228	07	09			J7D	12x120	2k7	CIS12 idling
USKA	3733.0	2142	15	09			F1B	75	250	
USKA	3748.0	2220	07	09			F1B	75	250	often
USKA	7000.0	2234	07	09			J3E-U			Voice, unid language
USKA	7030.0	2134	21	09			F1B	75	250	
USKA	7046.0	2128	15	09			FMOP	50	~ 13K	OTHR
USKA	7050.0	1940	06	09			J3E-L		≥ 3k3	Voice; Noise; Insulta sounds Russian
USKA	7080.0	1928	06	09			F1B	36	200	CIS 36-50
USKA	7080.0	1930	06	09			F1B	50	200	CIS 36-50 often
USKA	7117.0	1958	06	09			F1B	100	1000	
USKA	7177.0	2206	15	09			A1A	~24wpm		Encrypted
USKA	7197.0	2125	07	09		345013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2130	07	09		366013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2101	08	09		8241	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2106	08	09		371013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2110	08	09		348018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2111	08	09		312013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2113	08	09		363013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2114	08	09		327013	MFSK8	125	1750	MIL 188-141A

**Report from EA3 Spain**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7197.0	2115	08	09		304018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2118	08	09		206102	MFSK8	125	1750	MIL 188-141A
USKA	7200.0	2230	07	09			A3E		~10k	BC down to 7195
USKA	7205.0	2002	06	09	RFI		A3E			BC, splattering down to ~7185!
USKA	10111.0	2148	13	09			J3E-U			unid. language, sounds far east
USKA	10131.0	2144	13	09			J3E-U			unid. language, sounds arabian
USKA	14001.5	2114	07	09			J3E-U			Spanish accent
USKA	14026.0	1521	22	09			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	14050.0	0746	24	09			F1B	75	250	
USKA	14130.0	0998	16	09			FMCW		160k	OTHR
USKA	14135.0	1149	11	09			FMCW	50	~13k	OTHR
USKA	14151.0	0851	16	09			FMCW	50	~13k	OTHR
USKA	14160.0	1509	15	09		9204	MFSK8	125	1750	MIL 188-141A
USKA	14180.0	1001	11	09			F1B	50	200	daily
USKA	14192.0	1915	06	09			F1B	50	200	CIS 50-50 daily
USKA	14202.0 VFO USB	1013	11	09			OFDM 60	30	2k7	PSK4; spacing 44.45Hz, pilotone at 3k3
USKA	14221.0	2032	06	09			F1B	50	200	often
USKA	14259.0 VFO USB	0854	16	09			OFDM 60		2k7	spacing 44.45Hz, pilotone at 3k3; short interrupts in USB in Russian
USKA	14280.0	1413	07	09			OTHR	10 sps	~10k	OTHR burst system, short sequence only
USKA	14290.0	0905	16	09			FMOP	50 sps	~13k	OTHR
USKA	14295.0	0816	21	09			FMCW	50 sps	20k	OTHR
USKA	18107.0	1404	07	09		RDL	F1B	50	200	CIS 36-50 almost daily
USKA	18107.0	1408	07	09		RDL	F1B	36	200	CIS 36-50 almost daily
USKA	18107.0	1900	17	09		RDL	F1A			Letters and figures in groups of 5
USKA	18113.5	1253	14	09			PSK	1200	1200	ARQ system
USKA	18130.0	1122	21	09			F1B	100	1000	Harmonic of 9065 often
USKA	18160.0	1047	23	09			FMCW	50	20k	OTHR
USKA	21170.0	0847	21	09			FMCW	50	20k	OTHR
USKA	21438.0	0918	14	09		RCV	A1A			Letters and figures daily
USKA	24992.0	0851	21	09			H3E-U or R3E-U		2k9	No ham; more like a mil style conversation?
USKA	28059.52	1832	22	09		AO	A1A			Fishery buoy

**Errors and omissions excepted**

**Veron 1 – Netherlands – PA2GRU (Dick)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3548.0	19.42	11	9	CIS	UiPTR	F1B		Revs/Ptr
VERON	3548.0	19.53	11	9	RUS	RDL	F1A		RDL 5F (par 7080 khz)
VERON	3552.0	17.45	23	9		UiPTR	F1B		Ptr
VERON	3576.0	17.46	23	9		UiPTR	F1B		Ptr
VERON	7008.0	08.15	25	9		UiPTR	F1B		Ptr
VERON	7018.0	17.51	1	9	RUS	UiCAR	NON		carrier, nr Moscow Airforce
VERON	7038,5	vt	vd	9		UiCar	NON		persistent carrier; wobbling; s5-s7
VERON	7039.0	16.18	9	9	RUS	C	A1A		C-beacon
VERON	7041.0	20.01	19	9	RUS	OTHR	FMCW		radar, 50s/ps
VERON	7050.0	22.09	12	9		UiRadar	FMCW	10k	OTHR; 10sps
VERON	7062.0	22.07	5	9		UiRadar	FMCW	20k	OTHR;50sps
VERON	7080.0	19.53	11	9	RUS	RDL	F1A		RDL 11111 5F (par 3548 khz)
VERON	7080.0	19.41	12	9		UiPtr	F1B	200	
VERON	7117.0	18.27	18	9	RUS	REA4	F1B	800	Ptr
VERON	7117.0	19.53	5	9		UiPtr	F1B	1k	printer; bad modulation
VERON	7117,5	19.40	11	9	RUS	REA4	F1A		REA4 11180 99900 5F
VERON	7117,5	17.41	23	9	RUS	REA4	F1A		REA4 23160 99900 5F
VERON	7122.0	18.26	18	9	RUS	UiPtr	F1B	250	Ptr
VERON	7150.0	11.41	2	9	F	UiILL	j3e-U		male voices, fishery?
VERON	7175.0	17.50	12	9	ERI	VoBM	A3E		Arabic speech; s9



SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	10112,7	19.21	5	9		UiMux	FSK8	3k6	
VERON	10115,0	14.02	22	9		UiPtr	F1B	200	
VERON	10127,0	08.32	7	9		UiPTR	F1B		Ptr
VERON	10143,0	14.46	12	9		UiRadar	FMCW	20k	OTHR; 50sps
VERON	14008,0	09.23	6	9	CIS	UiPTR	F1B		Carrier/Revs/Ptr (also 24/9 08.47 utc)
VERON	14050,0	11.55	28	9		UiPTR	F1B		Ptr
VERON	14129,0	12.51	12	9	RUS		FMCW	10k	OTHR; Contayner; 10sps
VERON	14129,0	13.07	23	9	RUS		FMCW	10k	OTHR; Contayner; 10sps
VERON	14141,0	08.30	7	9		UiPTR	F1B		Ptr
VERON	14141,0	09.02	13	9		UiPtr	F1B	500	
VERON	14149,0	07.41	1	9		OTHR	FMCW		radar
VERON	14150,0	08.24	16	9		OTHR	FMCW		radar
VERON	14171,8	12.07	27	9		UiCar	NON		persistent carrier; wobbling; s4
VERON	14180,0	10.47	7	9		UiPTR	F1B		Ptr
VERON	14180,0	13.52	11	9	CIS	UiCW	F1A		50665 03181 k
VERON	14180,0	13.53	11	9	CIS	UiCW	F1A		XXX (followed by F1B Revs/Ptr)
VERON	14180,0	09.33	15	9	CIS	UiPTR	F1B		Revs/Ptr
VERON	14180,0	09.37	15	9	RUS	RDL	F1A		RDL 72269 83347 k
VERON	14180,0	09.44	15	9	RUS	RDL	F1A		RDL 11111 5F
VERON	14180,0	vt	vd	9		UiPtr	F1B	200	printer; idling; bad modulation
VERON	14192,0	09.20	6	9	CIS	UiPTR	F1B		Revs/Ptr
VERON	14240,0	07.42	2	9		UiPtr	F1B	250	Ptr
VERON	14250,0	08.25	16	9		OTHR	FMCW		radar
VERON	14258,0	13.51	12	9	RUS		FMCW	10k	OTHR; Contayner; 10sps
VERON	14277,0	13.05	23	9		UiRadar	FMCW	25k	OTHR; 50sps
VERON	18107,0	14.35	28	9	CIS	UiPTR	F1B		Revs/Ptr
VERON	21348,0	10.24	6	9		UiRadar	FMCW	20k	OTHR;50sps
VERON	21401,0	12.48	2	9	Maroc	UiILL	j3e-U		Moroccon fishery
VERON	21438,0	09.44	20	9	RUS	RCV	A1A		RBE86 DE RCV: NAWIP
VERON	21438,0	10.00	20	9	RUS	RCV	A1A		RIP90 DE RCV QTC 477 35 30 1331 477
VERON	21438,0	10.00	20	9	RUS	RCV	A1A		BT NAWIP (etc)
VERON	21438,0	10.15	20	9	RUS	RJV	A1A		XXX RJV 91749 GNATEMA 8892 2211
VERON	21438,0	10.28	20	9	RUS	RCV	A1A		RBE DE RCV NR 181 RPT AA 46 K
VERON	24950,0	13.35	22	9		UiMux	FSK8	2k2	

# The monitoring team of IARU Region 1

credits:

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Many thanks for your interest!

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