



# Monitoring System

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

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

The monthly newsletter for Region 1

## October 2015

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



### Acknowledgements

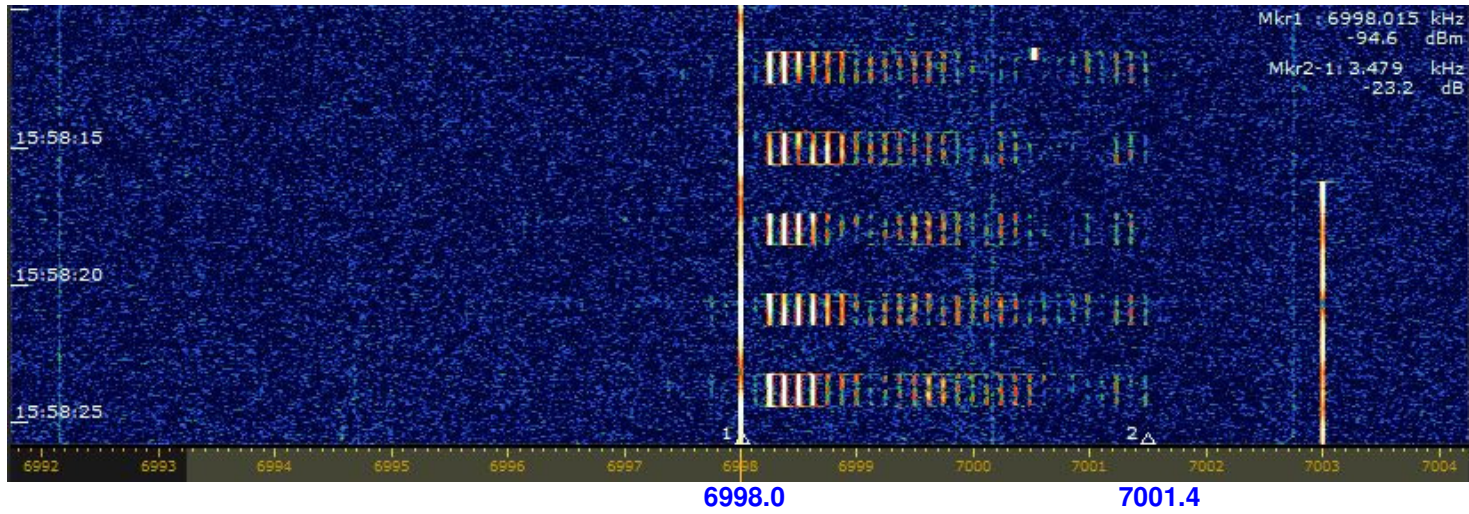
ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – 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

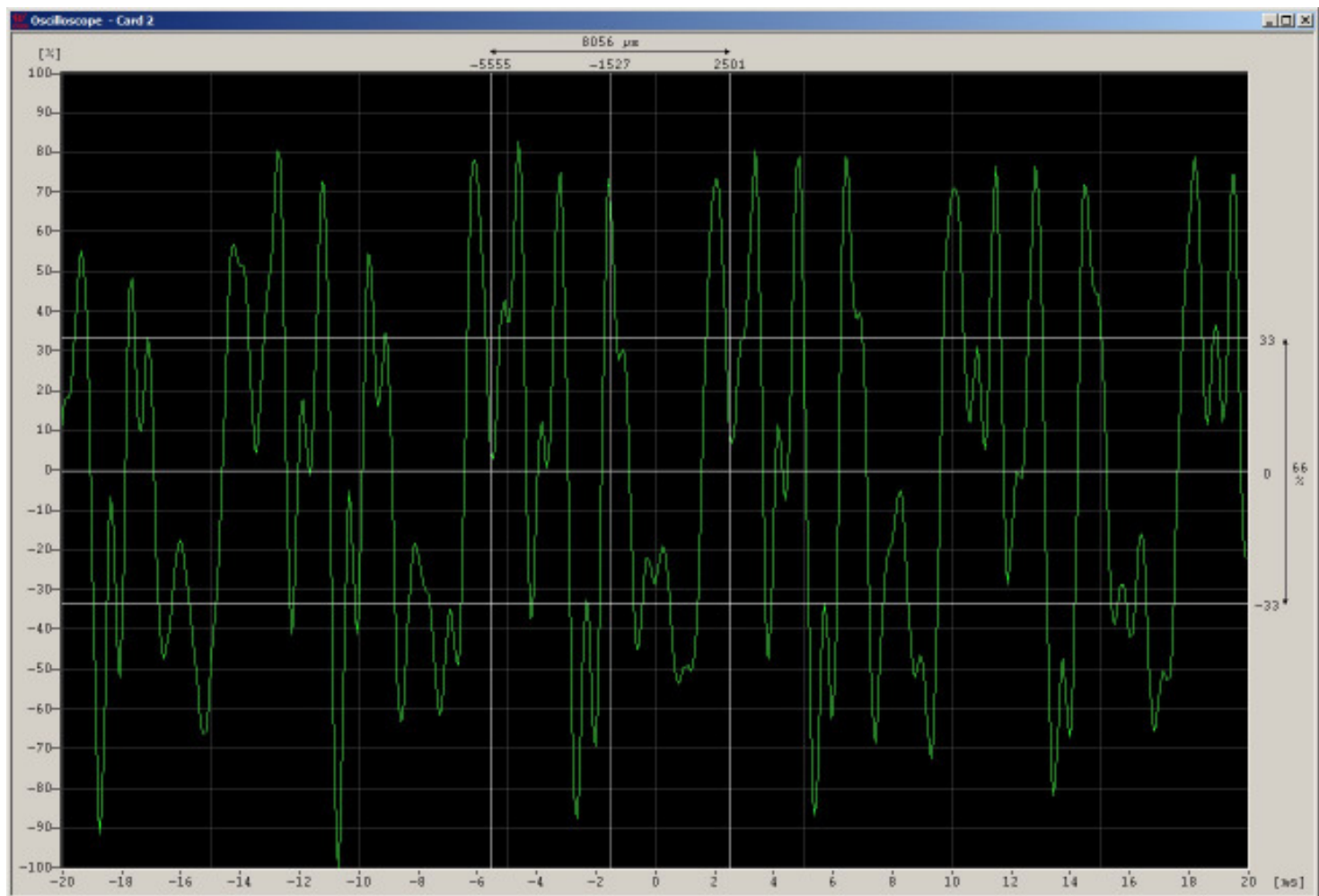
## 1. The Russian “Buzzer” on 7000 kHz

Peter, HB9CET, and I found the Russian “Buzzer” on 6998.0 kHz (carrier QRG) on H3E (carrier + upper sideband). Parameters: H3E, 3.4 kHz wide and modulated with a rough 125 Hz tone. Purpose: Possibly a channel marker. Location: Area of Moscow – Daily active since Oct. 17<sup>th</sup> – The German PTT was informed. Screenshot by DK2OM with Perseus

Soundfile: <http://www.iarums-r1.org/iarums/sound/7000-buzz.wav>



AF analysis of the rough 125 Hz tone with W-Code oscilloscope option – screenshot: DK2OM with W-Code



Another Buzzer is well known on 4625 kHz transmitting on H3E since many years. While looking in the Internet you can find many stories about the purpose of this Buzzer. The earlier ident was UVB76,

If you are interested, look here: <https://en.wikipedia.org/wiki/UVB-76>

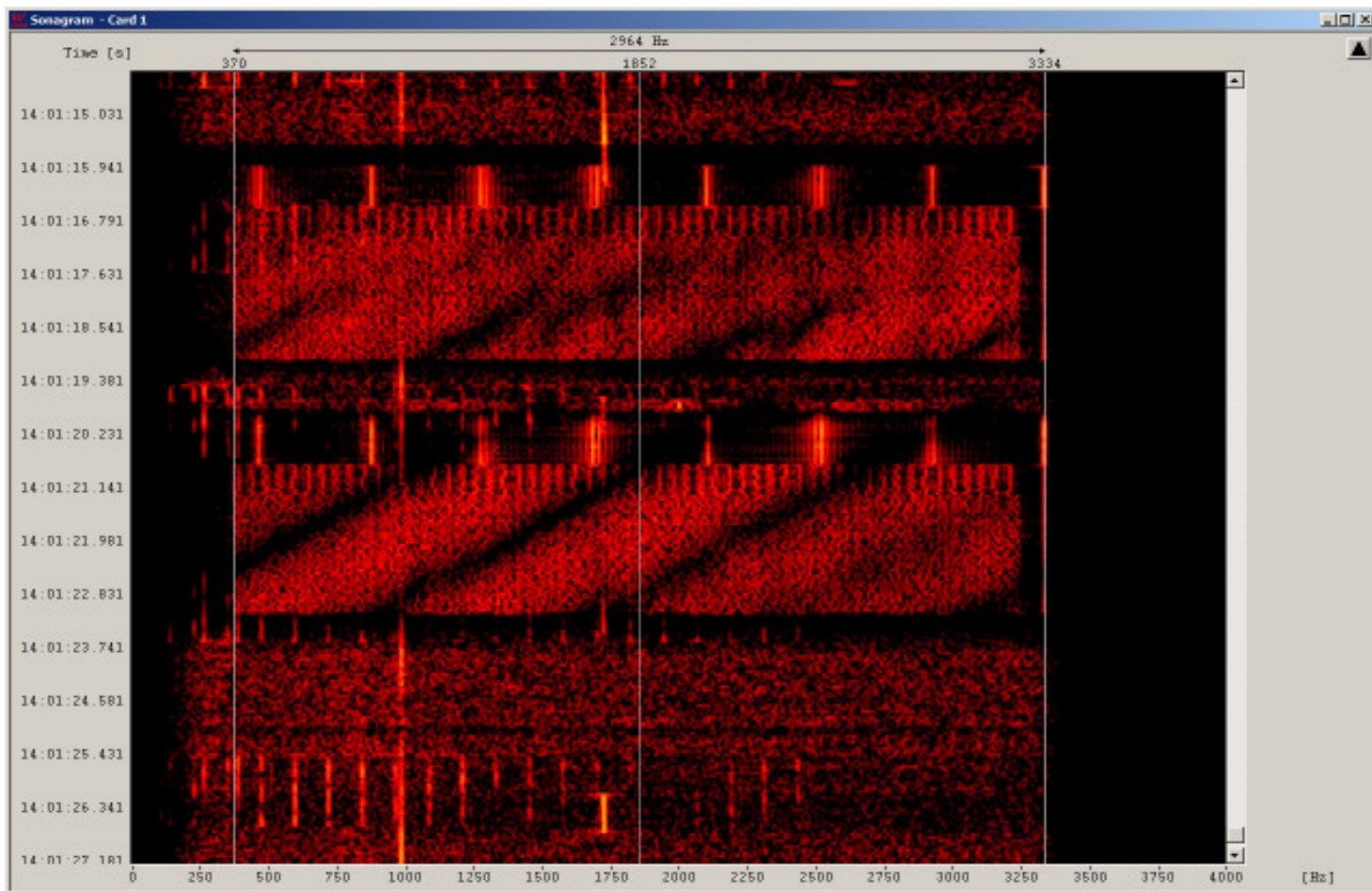


## 2. Russian OFDM 112 on 7000,8 kHz ( 6999.0 kHz RF QRG )

We found a strong OFDM 112 signal on 7000.8 kHz on Oct. 22<sup>nd</sup> at 1400 UTC and later.

**Parameters:** OFDM 112 PSK4 in burst mode with 22,22 Bd. You can see 7 intro tones, the preamble and the pilot tone on 3333 Hz AF. The Buzzer is also visible during the breaks. Location: Kaliningrad, Russia

**Screenshot: DK2OM with W-Code**



## 3. Mysterious beacon "V" on 7091.5 kHz in A1A = CW

The mysterious beacon "V" ( endless slip ) is still on air. Location: Almaty, Kazakhstan – purpose unknown

## 4. Situation on the 10 m-band

Every morning and noon many Brazilian CBers on A3E = AM were abusing 28005 – 28325 kHz.

No change as expected. Due to lower F<sub>2</sub> layers we found many taxis from Russia and other CIS countries transmitting on F3E = FM between 28000 and 29700 kHz. Sometimes we could hear pirates from Far East on F3E, too. Other illegal users like fishery buoys and GPS boys were active as usual.

## 5. Tunisian voice traffic on 14000 kHz

We were rather astonished to find Tunisian voice traffic on 14000.0 kHz USB in Arabic voice on Oct. 16<sup>th</sup> and 21<sup>st</sup>. The traffic came from the Tunisian east coast. Purpose unknown, perhaps fishery traffic.

## 6. The "Alligator" on the 80 m-band

What does an Alligator on the 80 m-band? The solution is easy. "Alligator" is another name for the NATO system LINK-11 CLEW, also known as TADIL-A. TADIL = Tactical Digital Information Link. This rather old system has been created by the US Navy and Rockwell Collins. It was in use on several QRGs on the 80 m-band, sometimes on both sidebands without a carrier, often in burst mode. You could hear the Doppler-tone, 14 tones for traffic and the synchronization signal. The signals were coming from France and UK.

**Do not forget: The 80 m-band is a shared band! You can find many legal MIL emissions on this band.**

## 7. Good News

I was informed, that IRIB Tehran will leave 7200.0 kHz. Many thanks to IRIB Tehran!

## 8. Homepage IARU Region 1

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 = 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 OCTOBER 2015

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)

H'd by	kHz	UTC	dd	mm	ITU	Identity	MODE	Details
ARSK	7.000.00	vt	dly	11	E. Africa	?	J3Eu	Unidentified, KiSwahili, East Africa. Possibly military.
ARSK	7,074.00	vt	dly	11	E. Africa ?	?	J3E	Unidentified language,
ARSK	7,075.00	vt	dly	11	E. Africa	?	J3Eu	Unidentified language
ARSK	7,120.00	vt	dly	11	Rep.of Somalia	Hargeisha	A3E	Broadcast

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

DG0JBJ (Mario) observed 27 OTH radars on 20 m, 60 OTH radars on 15 m and 91 OTH radars on 10 m in October 2015. A Chinese OTH radar often appeared on the 40 and 80 m-bands 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	1809,0	1944	26	10	HOL		USB			Dutch male persons – splattering up
DK2OM	1810,0	vt	dly	10	E		USB			Spanish fishery - daily
DK2OM	1810,8	1657	12	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	1812,0	2004	02	10	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – no carrier - daily, all day
DK2OM	1852,0	2051	07	10	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	2052	07	10	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	2052	07	10	I	IQN	USB			Lampedusa Radio, weather reports
DK2OM	1880,0	---	--	10	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1888,0	1623	16	10	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1896,5	vt	vd	10	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy - daily
DK2OM	1925,0	1622	16	10	I	IPL	USB			Livorno Radio, weather reports – daily, vt

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3500,0	vt	dly	10	TUR		FSK8	120	1750	ALE, "201" - Turkish Red Crescent – legal!
DK2OM	3500,0	18046	06	10	E		USB			Spanish fishery – daily, all day
DK2OM	3500,0	1510	02	10	HOL		USB			Dutch fishery - also 08.10.2015 at 1508 utc
DK2OM	3500,5	1640	30	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3500,7	1940	23	10	RUS		A3E			CIS pirates – unstable carrier
DK2OM	3501,0	1744	26	10	F		LSB			French pirates
DK2OM	3501,6	2108	25	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3503,5	vt	vd	10	G	no ITU	FSK8	125	1750	ALE – "XSS" "XPU" "XJR" – British MIL Tascomm – vt, daily - legal!
DK2OM	3503,8	2147	28	10	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3505,3	1709	12	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3505,8	2057	11	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3506,5	1710	12	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3508,0	1607	25	10	CHN		FMCW		47k	Chinese OTH radar – 43 sps 3508 – 3555 kHz
DK2OM	3512,0	1517	02	10	CHN		FMCW		36k	Chinese OTH radar – 43 sps 3512 – 3548 kHz
DK2OM	3520,0	2015	08	10	POR		USB			Portuguese fishery
DK2OM	3524,0	2052	05	10	RUS		F1B	100	250	idling, unclean - Moscow
DK2OM	3527,0	2040	25	10	RUS		F1B	50	200	CIS-50-200 – Severomorsk – daily – on 25.10.2015 at 2110 utc disturbed by a German HAM with CW dashes on the space QRG
DK2OM	3530,3	1955	04	10	CIS		A3E			CIS pirates – unstable carrier
DK2OM	3530,5	1817	07	10	UKR		F1B	100	250	area of Kyiv - at 1832 utc disturbed by a German HAM with CW dashes on the space QRG
DK2OM	3531,0	---	--	10	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily
DK2OM	3534,5	vt	dly	10	HOL		FSK8	125	1750	ALE, "A03" "A15" "A10"
DK2OM	3540,0	1631	05	10	E		USB			Spanish fishery – sometimes with voice scrambler CRY 2001 – very often
DK2OM	3545,0	1540	29	10	HOL		USB			Dutch fishery
DK2OM	3546,0	1819	03	10	RUS		PSK2A	120	2600	AT3004D – area of Moscow
DK2OM	3548,0	1952	06	10	RUS		F1B	75	200	CIS-75-200 – Moscow disturbed by a German HAM with CW dashes and a carrier – also: 25.10.2015 at 2040 utc
DK2OM	3550,0	vt	vd	10	ALG	no ITU	FSK8	125	1750	ALE, "IU50" "IU52" "FN50"
DK2OM	3550,0	1953	06	10	E		USB			Spanish fishery - daily
DK2OM	3550,0	2058	09	10	MEa		PSK2	120	2600	AT3004D – submode idle – ship – South Black Sea
DK2OM	3550,0	0640	10	10	F		A3E			French amateurs not respecting bandplans - daily
DK2OM	3550,8	1959	06	10	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3552,0	2000	21	10	RUS		F1B	75	200	CIS-75-200 – Kaliningrad
DK2OM	3553,8	ady	dly	10	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long - TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3565,0	1713	04	10	G		PSK8	2400	2400	Stanag4285 – 600 bps long - Scotland
DK2OM	3567,0	vt	dly	10	CHN ?	no ITU	FSK8	125	1750	ALE, "103" "106"
DK2OM	3570,0	1546	26	10	E		USB			Spanish fishery
DK2OM	3570,0	1705	26	10	F		USB			French fishery
DK2OM	3576,4	ady	dly	10	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3585,0	1802	11	10	TWN	HLL	FIC			120 rpm, IOC 576, WX-fax -

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										daily - legal!
DK2OM	3586,0	vt	dly	10	G		PSK2A	40	40	encrypted – every evening Great Britain – purpose unknown
DK2OM	3587,0	vt	vd	10	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3590,0	vt	dly	10	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy
DK2OM	<b>3590,0</b>	<b>0735</b>	<b>07</b>	<b>10</b>	<b>E</b>		<b>USB</b>			<b>Spanish fishery – also with scrambler CRY 2001 - daily</b>
DK2OM	3591,8	2115	25	10	F		PSK4	75	2300	LINK11-CLEW - Brest
DK2OM	3591,8	0856	09	10	G		PSK8	2400	2400	Stanag4285 – 600bps long – South English coast
DK2OM	3595,0	vt	dly	10	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	---	--	10	RUS		USB			woman in Russian voice – often spelling figures - St. Peterburg
DK2OM	3596,0	vt	dly	10	D, S, HRV		FSK8	125	1750	ALE, “DK3CW” “SA6CBK” “9A0PZ” – just for info!
DK2OM	3597,0	1509	22	10	CHN		PSK4	60	2400	PRC 30 tone modem – USB mode – pilottone 450 Hz
DK2OM	3612,3	2200	28	10	I		PSK4	75	2300	LINK11-CLEW – west of Rome
DK2OM	3615,0	1900	11	10	F		USB			French fishery
DK2OM	3617,0	vt	dly	10	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	1920	06	10	J	JMH	FIC			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3630,0	1605	25	10	CHN		FMCW		100k	Chinese OTH radar – 43 sps 3630 – 3730 kHz
DK2OM	3640,0	vt	vd	10	G		FSK8	125	1750	ALE, “XSS” - British MIL Tascomm – just for info!
DK2OM	3642,0	ady	dly	10	CHN		A1A			endless slip – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3642,0	1644	29	10	CHN		FMCW		50k	Chinese OTH radar – 43 sps 3642 – 3692 kHz
DK2OM	3649,0	vt	vd	10	ALG	no ITU	FSK8	125	1750	ALE, “BI20” PA20”
DK2OM	3650,0	0130	12	10	E		USB			Spanish fishery
DK2OM	3653,0	1328	13	10	CHN		PSK4	60	2350	PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz
DK2OM	3660,0	2117	26	10	CHN		FMCW		64k	Chinese OTH radar – 43 sps 3660 – 3724 kHz
DK2OM	3662,0	vt	vd	10	FEa		A1A			endless slip – RA5J de BP2S
DK2OM	3674,0	1550	04	10	CHN		FMCW		44k	Chinese OTH radar – 43 sps - 3674 – 3718 kHz
DK2OM	3694,0	1925	24	10	CHN		FMCW		46k	Chinese OTH radar – 43 sps 3694 – 3740 kHz – also: 20.09.2015 at 0848 utc
DK2OM	3698,0	1825	16	10	CHN		FMCW		114k	Chinese OTH radar – 43 sps 3698 – 3812 kHz
DK2OM	3712,0	0638	15	10	I		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – Sicily Island
DK2OM	3716,5	1930	31	10	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3720,0	vt	dly	10	S		FSK8	125	1750	ALE, “YU” “YT” “YV” “DZ” – Swedish MIL
DK2OM	3723,0	0958	07	10	RUS		PSK4A	120	2600	AT3104D – Far East Russia
DK2OM	3725,0	1820	12	10	SRB		FSK4	100	12k	Belgrade
DK2OM	3733,0	1947	12	10			F1B	75	250	
DK2OM	3738,0	1300	03	10	E		USB			Spanish fishery
DK2OM	3751,5	vt	dly	10	POL	no ITU	FSK8	125	1750	ALE, “IZ3” “MI3”
DK2OM	3754,0	1515	02	10	CHN		FMCW		46k	Chinese OTH radar – 43 sps 3754 – 3800 kHz
DK2OM	3756,0	1839	04	10	RUS		A3E			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG
DK2OM	3761,5	vt	vd	10	POL	no ITU	FSK8	125	1750	ALE, “NI9” “PL7” “AB2” – Polish MIL



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3776,5	0915	12	10	IRL		USB			Irish fishery – Gerry and Richard – home QTH Bantry
DK2OM	3777,0	1836	04	10	FEa		A1A			“M8JF de RIS9” – endless slip – dly
DK2OM	3788,0	0916	13	10	RUS		PSK2A	120	2600	AT3004D – Far East Russia
DK2OM	3791,0	vt	vd	10	D	DK0ESD	FSK8	125	1750	ALE, “DK0ESD” – daily just for info!
DK2OM	3795,0	1650	09	10	F		USB			French fishery
DK2OM	3797,0	ady	dly	10	FEa		A1A			“M8JF de RIS9” – endless slip – rcvd via JA
DK2OM	7000,0	1838	02	10	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic – pilot tone at 7001.300 kHz - Moscow
DK2OM	7000,0	vt	dly	10	?	no ITU	FSK8	125	1750	ALE, “210” “20989” “2205” “203”
DK2OM	7000,0	1412	09	10	INS		USB LSB			Indonesian pirates – daily – all day - audible in Europe in the evenings
DK2OM	7000,0	ady	dly	10	RUS		H3E		3.4 k	buzzer – 1 sec bursts - 125 Hz AF rough sinus – carrier on 6998.0 + upper sideband - with splatters 10 kHz wide – daily, all day - Moscow
DK2OM	7000,0	1542	20	10	I		USB			Italian pirates
DK2OM	7000,8	1400	22	10	RUS		OFDM PSK4	22.22	2960	OFDM 112 bursts – RF 6999.0 kHz - Kaliningrad
DK2OM	7001,0	0618	09	10	RUS		OFDM	22.73	3000	OFDM 93 – PSK4 - Novorosijsk
DK2OM	7001,5	---	--	10	ALG		PSK4A	62.5	1750	Clover 2000 – 8 x 62.5 Bd – Algeria – daily, vt
DK2OM	7001,8	0910	05	10	I		PSK8	2400	2400	MIL-188-110A – 150 bps long - Rome
DK2OM	6998.5	vt	vd	10	POL		FSK8 PSK8	125 2400	1750 2400	ALE, “ZI3” “OL1” “OD6” “SZ4” and MIL-188-110A - until 7001.000 kHz – Polish MIL
DK2OM	7005,0	1458	21	10	INS		USB LSB			Indonesian pirates
DK2OM	7009,0	1548	04	10	RUS		PSK2A	120	2600	AT3004D - Bratsk
DK2OM	7010,0	1511	31	10	INS		USB LSB			Indonesian and Philippine pirates
DK2OM	7010,0	0525	17	10	RUS		A1A			dashes - Rostov
DK2OM	7015,0	1512	31	10	INS		USB LSB			Indonesian pirates
DK2OM	7016,0	0859	05	10	RUS		F1B	75	250	Kaliningrad
DK2OM	7018,0	---	--	10	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident at full hour + 40 min.
DK2OM	7020,0	1511	31	10	INS		USB LSB			Indonesian pirates
DK2OM	7025,0	1513	31	10	INS		USB LSB			Indonesian pirates
DK2OM	7027,5	---	--	10	KAZ	„V“	A1A			beacon “V” - Almaty
DK2OM	7030,0	1514	31	10	INS		LSB			Indonesian pirates
DK2OM	7032,0	1500	30	10	RUS		PSK2A	120	2600	AT3003D - Moscow
DK2OM	7035,0	1514	31	10	INS		USB LSB			Indonesian pirates
DK2OM	7039,3	1833	04	10	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC” - daily
DK2OM	7039,4	1833	04	10	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – „RTS“
DK2OM	7040,0	vt	dly	10	F	F6BAZ	FSK8	125	1750	ALE, “F6BAZ” – just for info
DK2OM	7040,0	ady	dly	10	I		A1A			<b>IZ3DVW – uncoordinated and unwanted beacon</b>
DK2OM	7040,0	1514	31	10	INS		USB LSB			Indonesian pirates

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7040,5	vt	dly	10	HRV		FSK8	125	1750	ALE, "9A5EX" "9A0ALE" – just for info
DK2OM	7047,37	vt	vd	10	D		FSK8	125	1750	ALE, "DL0NOT" – just for info!
DK2OM	7049,5	vt	dly	10	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info! daily – various times
DK2OM	7050,0	1516	31	10	INS		USB			Indonesian pirates
DK2OM	7055,0	1824	06	10	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7055 – 7087 kHz
DK2OM	7055,5	vt	vd	10	MEa	no ITU	FSK8	125	1750	ALE, "111" "132" "133" - Kaukasus
DK2OM	7066,0	1503	22	10	CHN		FMCW		10k	OTH radar – 67 sps - 3.1 sec bursts
DK2OM	7070,0	vt	vd	10	GEO	no ITU	FSK8	125	1750	ALE, "MV" "244" "686" "334" "204" "571" – daily active
DK2OM	7076,0	1823	20	10	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7076 – 7108 kHz
DK2OM	7087,0	1500	22	10	CHN		FMCW		10k	OTH radar – 83 sps - 3.8 sec bursts
DK2OM	7088,8	vt	vd	10	S	SL0FRO	A1A			7088.820 - cw-trainee, Sweden – kHz – SL0FRO - just for info!
DK2OM	7089,8	vt	vd	10	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft – west of Cyprus
DK2OM	7091,5	1910	17	10	KAZ	„V“	A1A			endless slip – ident "V" – Almaty - Kazakhstan
DK2OM	7092,0	vt	vd	10			FSK8	125	1750	ALE, "3014"
DK2OM	7092,5	1930	21	10	IRN		BC/A3E			spurious from IRIB on 7205 kHz
DK2OM	7096,0	1023	15	10	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7096 – 7128 kHz
DK2OM	7098,0	1505	22	10	CHN		FMCW		10k	OTH radar – 83 sps - 3.1 sec bursts
DK2OM	7099,5	vt	dly	10	HRV	9A0ZG	FSK8	125	1750	ALE, "9A0ZG" "9A5EX1P" "9A0OS" – daily - just for info!
DK2OM	7100,0	1900	17	10	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Gorodezh
DK2OM	7102,0	vt	dly	10	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, "9A0ALE" "9A2KS" "HB9MHB" "9A0ZG" "9A4OS" "DK0ESD" – just for info!
DK2OM	7104,0	1244	09	10	CHN		FMCW		64k	Chinese OTH radar – 43 sps – 7104 – 7168 kHz
DK2OM	7110,0	vt	dly	10	HRV	9A0ALE	FSK8	125	1750	ALE, "9A0ALE" – just for info
DK2OM	7110,0	vt	dly	10			FSK8	125	1750	ALE, "1101" "1112"
DK2OM	7117,0	1524	05	10	RUS	REA4	F1B	100	800	mostly idling – Russian airforce Moscow – ident at full hour + 40 min. - daily, all day
DK2OM	7120,0	1710	03	10	SOM		A3E			Radio Hargaysa – Somalia – daily – even audible in Australia and Japan
DK2OM	7122,0	---	--	10	FEa	V	A1A			endless slip "V"
DK2OM	7132,0	1242	05	10	FEa		FMCW		32k	Codan like ocean surface radar 2.6 sps – 7132 – 7164 kHz
DK2OM	7137,0	1246	11	10	TWN	no ITU	FSK8	125	1750	LSB – ALE , "BENVY" "BYGCY" "BTIEU" "BWFGG" "BBRDA" – Taiwanese navy – daily – various times - tnx for info: DL8AAM
DK2OM	7152,0	1507	31	10	CHN		FMCW		38k	Chinese OTH radar – 43 sps – 7152 – 7190 kHz
DK2OM	7163,0	vt	vd	10	UKR		A3E			encrypted MSGs - SZRU in Rivne
DK2OM	7164,0	1323	07	10	RUS		PSK4A	120	2600	AT3104D – Far East Russia
DK2OM	7164,0	2049	07	10	RUS		PSK2	120	2600	AT3004D – submode idle – Far East Russia



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7176,0	1240	02	10	RUS		F1B	75	250	CIS-75-250 – St. Peterburg - space QRG disturbed by a German HAM at 1244 utc with CW dashes
DK2OM	7179,0	1620	10	10	RUS		PSK2A	120	2600	AT3004D - Crimea
DK2OM	7179,0	1408	19	10	RUS		F1B	75	200	Severomorsk
DK2OM	7182,0	1445	21	10	RUS		PSK2A	120	2600	AT3004D - Stavropol
DK2OM	7183,0	vt	dly	10	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7184,0	0705	08	10	RUS		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	7185,5	1511	30	10	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7186,0	0740	07	10	RUS		PSK2A	120	2600	AT3004D – Severomorsk
DK2OM	7197,0	vt	dly	10	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	7200,0	1740	dly	10	IRN		A3E/BC		9k	IRIB Tehran – 1720 – 1820 utc - daily
DK2OM	7200,0	1256	12	10	MMR		A3E			Myanmar Radio
DK2OM	7205,0	2050	dly	10	F	RFI	A3E/BC		38k	Radio France International splattering 7185 – 7225 kHz – 2000 – 2200 utc - daily
DK2OM	10100,8	ady	dly	10	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10110,0	vt	dly	10	SNG	no ITU	FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
DK2OM	10113,0	vt	vd	10	TUN	no ITU	FSK8	125	1750	ALE, “TUD” “STAT5” “STAT154”
DK2OM	10114,0	vt	dly	10		no ITU	FSK8	125	1750	ALE, “BSF” “ZEN” “CM2OR2”
DK2OM	10114,8	0750	dly	10	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	vd	10		no ITU	FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10116,5	vt	vd	10	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10120,0	vt	dly	10		no ITU	FSK8	125	1750	ALE, “9066” “9067” “8001” “2001”
DK2OM	10120,0	1647	28	10	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	10121,0	0709	12	10	RUS		F1B	75	250	Sevastopol
DK2OM	10123,0	vt	dly	10	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “COF” “BSF” “CM2” “ESA”
DK2OM	10125,0	1845	09	10	E		USB			Spanish fishery - Galicians
DK2OM	10125,0	1526	12	10	INS		USB			Indonesian pirates
DK2OM	10129,0	vt	dly	10	ALG	no ITU	FSK8	125	1750	ALE, “CM1” “CTF” “772”
DK2OM	10136,0	vt	dly	10	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	10136,0	ady	dly	10	RUS		F1B	50	200	CIS-50-200 - Chita – daily, all day
DK2OM	10140,0	vt	vd	10	CHN ?		FSK8	125	1750	ALE, “205” “201” “LT”
DK2OM	10144,0	ady	dly	10	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – just for info!
DK2OM	10145,5	vt	dly	10	HRV S / D F / G	9A5EX	FSK8	125	1750	ALE, “9A5EX” “SM5VRH” “DK0ESD” “F6BAZ” “MIDFO” - just for info - daily
DK2OM	13978,0	0811	01	10	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh – splattering up to 14020 kHz
DK2OM	14000,0	1252	09	10	FEa		USB			pirates from Far East - daily
DK2OM	14000,0	0815	13	10	IRN		USB			men in French voice – roger beep
DK2OM	14000,0	0833	16	10	TUN		USB			male persons – Tunisian east-coast – also: 21.10.2015 at 1014 utc

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14008,0	0630	01	10	RUS		F1B	50	450	Moscow – also: 12.10.2015 at 0925 utc
DK2OM	14018,0	0829	16	10	RUS		F1B	50	920	Moscow
DK2OM	14026,0	0940	14	10	RUS		PSK2A	120	2600	AT3004D – Moscow
DK2OM	14040,0	1030	26	10	CHN		FMCW		160k	Chinese broadband OTH radar 14040 – 14200 kHz – 10 sps - 50 sec bursts
DK2OM	14050,0	1335	04	10	FEa		USB			Far East pirates
DK2OM	14064,0	0724	29	10	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	14076,0	0905	06	10	CHN		FMCW		160k	Chinese broadband OTH radar - 10 sps – 50 sec blocks - 25 sec break - 14076 – 14236 kHz
DK2OM	14100,0	vt	dly	10	ALG	no ITU	FSK8	125	1750	ALE, “6206” – “6204” - “6202” “6207” “6217” “MTL” “IJJ” – Mauritanian border – daily, all day
DK2OM	14105,0	---	--	10	F		FMCW		20k	French burst radar, 6 sps, similar Codar sounding, South France
DK2OM	14109,0	1052	25	10	POR	HAM	FSK8	125	1750	ALE, “CT2IXQ” “DK0ESD” “HB9MHB” – just for info!
DK2OM	14109,0	vt	dly	10	RUS	RV3APM	FSK8	120	1750	ALE, “RV3APM” – just for info!
DK2OM	14113,8	0900	13	10	CHN		PSK4	44.45	2400	PRC 39
DK2OM	14138,0	0726	27	10	RUS		FMCW		13k	OTH radar Contayner - 50 sps - Gorodezh
DK2OM	14139,0	vt	dly	10	CHN		FSK8	125	1750	ALE, “809”
DK2OM	14150,0	1027	26	10	RUS		FMCW		10k	OTH burst radar Contayner - 10 sps - Gorodezh
DK2OM	14160,0	vt	dly	10	MRC		FSK8	125	1750	ALE, “9204” “9228” “9236”
DK2OM	14160,0	1020	04	10	CHN		FMCW		160k	Chinese broadband OTH radar – 14160 – 14320 kHz – 10 sps
DK2OM	14175,0	0717	07	10			FSK8	125	1750	ALE, “147”
DK2OM	14176,8	0720	07	10			OFDM		2400	OFDM 60 ? - weak
DK2OM	14177,0	0815	27	10	RUS		FMCW		5k	broken system? - many splatters – west of Moscow
DK2OM	14180,0	0847	20	10	RUS		F1B	50	200	CIS-50-200 - Sevastopol
DK2OM	14192,0	0925	19	10	RUS		F1B	50 75	500 500	RUS navy Kaliningrad
DK2OM	14204,0	0902	09	10	RUS		OFDM	35.6	2750	OFDM 60 - Kaluga
DK2OM	14205,0	vt	dly	10	CHN ?	no ITU	FSK8	125	1750	ALE, “505” “822” – 60 deg. from DL - CHN ?
DK2OM	14221,0	2030	dly	10	KGZ		F1B	50	200	CIS-50-50 - Bishkek – daily
DK2OM	14235,1	0807	21	10	RUS		OFDM	35.6	2750	OFDM 60 – PSK4B - Moscow
DK2OM	14239,0	0849	16	10	CHN		PSK4	60	2350	PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz
DK2OM	14260,0	vt	dly	10	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14265,0	vt	vd	10	TUR	no ITU	FSK8	125	1750	ALE, “526”
DK2OM	14272,0	1404	05	10	RUS		A1A			Sevastopol with ship Red Sea
DK2OM	14280,0	1005	Wed.	10	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – every Wednesday at 1005 utc
DK2OM	14280,0	0814	03	10	RUS		F1B	75	250	Moscow
DK2OM	14282,0	0833	27	10	RUS		PSK2A	120	2600	AT3004D – Ulan Ude
DK2OM	14295,0	vt	dly	10	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14295,0	vt	dly	10	CHN		FSK8	125	1750	ALE, “320” – “532”
DK2OM	14295,0	1413	01	10	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	14301,8	0753	03	10	CHN		PSK2	75	2200	PRC 16 tone modem – USB mode – pilottone 450 Hz - China – Shanghai – daily – all day - audible worldwide
DK2OM	14320,0	1503	31	10	RUS		FMCW		10k	OTH burst radar Contayner - 10

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										sps - Gorodezh
DK2OM	14322,0	vt	dly	10	CHN	no ITU	FSK8	125	1750	ALE, "402"
DK2OM	14328,0	vt	dly	10	CHN	no ITU	FSK8	125	1750	ALE, "139" "534" "772" – West China
DK2OM	14330,0	vt	dly	10			FSK8	125	1750	ALE, "BV4"
DK2OM	14334,0	vt	vd	10	CHN	no ITU	FSK8	125	1750	ALE, "249" "255" "763"
DK2OM	14344,7	vt	vd	10	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	vt	vd	10	HRV RUS D		FSK8	125	1750	ALE, "9A0ZG" "RX3ARZ" "DK0ESD" – just for info – various times, daily
DK2OM	14346,0	vt	dly	10	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950 kHz - every 5 minutes – just for info!
DK2OM	14351,7	1310	13	10	E		OFDM	30	2700	OFDM 73 + intro tone – experimental transmissions – Las Palmas – just for info!
DK2OM	18080,0	0727	10	10	TWN CHN		A3E/BC		9k	Sound of Hope / Taiwan and Chinese mainland BC jammer
DK2OM	18100,0	vt	vd	10	MRC	no ITU	FSK8	125	1750	ALE, "CD" "C3" "R3" "G3" "E4" "E5" "Z2" "FORD" – daily, various times
DK2OM	18106,0	vt	vd	10	POR	CT2GOY	FSK8	125	1750	ALE, "CT2GOY" – just for info!
DK2OM	18107,0	1235	08	10	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	10	POR	CT2IXQ	FSK8	125	1750	ALE, "CT2IXQ" – just for info
DK2OM	18140,0	vt	dly	10	SRB	YU1BI	FSK8	125	2600	ALE, "YU1BI" – just for info!
DK2OM	21000,0	vt	vd	10	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	vt	vd	10	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil – also: 24.09.2015 at 1650 utc
DK2OM	21000,0	1300	06	10	FEa		USB			Far East pirates
DK2OM	21001,5	1308	01	10	RUS		F1B	100	150	voice scrambler Yakhta – inband synchro – Nizhny Tagil
DK2OM	21002,2	vt-	vd	10	SDN	!0000 !9999 !8888	F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen – daily, vt
DK2OM	21096,0	vt	dly	10	INS	YD00XH	FSK8	125	1750	ALE, "YD00XH3" – daily, various times - just for info!
DK2OM	21131,0	vt	vd	10	CHN	no ITU	FSK8	125	1750	ALE, "A92" "L02" – Chinese diplo
DK2OM	21141,0	0951	12	10	GEO		PSK8A	2400	2400	Stanag4538 – GEO MIL with AFG - daily
DK2OM	21145,0	vt	dly	10	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	10	I	IZ3DVW	A1A			IZ3DVW beacon – 21145,75 kHz - not coordinated with IARU
DK2OM	21160,0	---	--	10	RUS		F1B	100	2000	4th from 5290 kHz (500 Hz shift) – St. Peterburg
DK2OM	21190,0	---	--	10	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow - daily
DK2OM	21266,0	0728	29	10	AUS		FMCW		10k	Australian OTH radar JORN – 2 sec bursts - 30 sps – intro tones - jumping
DK2OM	21283,0	0904	01	10	AUS		FMCW		10k	Australian OTH radar JORN – 1.3 sec bursts - 50 sps – intro tones
DK2OM	21318,5	---	--	10	GUI		F1B	600	600	DPRK-FSK 600 – Conakry



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
							burst			North Korean emba – 21318.549 kHz
DK2OM	21346,0	ady	dly	10	THA	HS0ZEA	A1A			beacon “HS0ZEA” – just for info!
DK2OM	21400,0	---	--	10	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	0734	27	10	RUS		F1B	100	2000	F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21436,0	---	--	10	RUS		PSK2A	120	5200	AT3004D – harmonic from 10718.0 kHz - Sevastopol
DK2OM	21438,0	vt	vd	10	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21446,0	ady	dly	10	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	vt	vd	10	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	0830	24	10	CIS		F3E			28000 – 29700 crowded of CIS taxi nets
DK2OM	28000,0	1400	18	10	B		A3E			Brazilian CBers – 28000 – 28315 – daily, all day - no change
DK2OM	28001,5	0951	21	10	RUS		F1B	100	150	voice scrambler Yakhta – inband synchro – Ulan Ude
DK2OM	28025,0	1704	23	10	POR		F1B	51	300	F1B bursts - 28100.160 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28030,0	vt	vd	10	POR		F1B	51	340	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28045,0	---	--	10	POR		F1B	51	280	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	---	--	10	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	1101	22	10	FEa		F3E			Far East pirates
DK2OM	28051,5	vt	dly	10	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28055,0	1310	28	10	RUS		F3E			RUS taxi - daily
DK2OM	28060,0	vt	vd	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	---	--	10	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	1401	25	10	RUS		F3E			RUS taxi - daily
DK2OM	28065,6	---	--	10	GAB		A3E		980	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day
DK2OM	28075,0	---	--	10	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	vt	vd	10	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	0958	22	10	RUS		F3E			RUS taxi - daily
DK2OM	28085,0	1004	26	10	RUS		F3E			RUS taxi
DK2OM	28100,2	0949	22	10	POR		F1B	51	300	F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28102,1	---	--	10	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	28105,0	ady	dly	10	RUS		F3E			RUS taxi - daily
DK2OM	28115,0	1312	24	10	RUS		F3E			RUS taxi - daily
DK2OM	28125,0	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28125,0	0807	24	10	RUS		F3E			RUS taxi
DK2OM	28127,0	1115	29	10	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	28135,0	0844	24	10	RUS		F3E			RUS taxi - daily
DK2OM	28140,0	ady	dly	10	RUS		F3E			RUS taxi
DK2OM	28145,0	1025	22	10	RUS		F3E			RUS taxi - daily
DK2OM	28146,0	vt	vd	10	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28155,0	1010	19	10	F		F3E			French pirates
DK2OM	28155,0	1410	24	10	RUS		F3E			RUS taxi - daily
DK2OM	28175,0	0956	17	10	RUS		F3E			RUS taxi - daily
DK2OM	28195,0	0915	17	10	RUS		F3E			RUS taxi - daily
DK2OM	28200,0	vt	vd	10	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28215,0	1320	22	10	RUS		F3E			RUS taxi
DK2OM	28224,4	---	--	10	GAB		A3E			carrier and dots +/- 770 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28225,0	1438	21	10	RUS		F3E			RUS taxi
DK2OM	28235,0	1109	28	10	RUS		F3E			RUS taxi
DK2OM	28245,0	0743	21	10	RUS		F3E			RUS taxi - daily
DK2OM	28249,6	---	--	10	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28250,5	---	--	10	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28255,0	0950	20	10	FEa		F3E			Far East pirates
DK2OM	28255,0	1425	25	10	RUS		F3E			RUS taxi
DK2OM	28275,0	1041	22	10	RUS		F3E			RUS taxi - daily
DK2OM	28275,1	---	--	10	AF		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28295,0	0959	03	10	RUS		F3E			RUS taxi
DK2OM	28305,0	0941	13	10	RUS		F3E			RUS taxi - daily
DK2OM	28312,5	vt	vd	10	POR	CT2IXQ	FSK8	125	1750	ALE. “CT2IXQ” – just for info
DK2OM	28315,0	vt	dly	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28323,0	1257	20	10	IRN		FMCW		55k	Iranian OTH radar – 307 sps bursts of 3.2 sec length
DK2OM	28345,1	---	--	10	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28355,0	1344	31	10	IRN		FMCW		50k	OTH radar Iran – 307 sps – burst mode
DK2OM	28365,0	1030	19	10	RUS		F3E			RUS taxi
DK2OM	28365,0	1319	24	10	RUS		F3E			RUS taxi
DK2OM	28365,0	0900	25	10	RUS		F3E			RUS taxi
DK2OM	28385,0	1026	19	10	RUS		F3E			RUS taxi
DK2OM	28393,0	0903	31	10	IRN		FMCW		50k	OTH radar Iran – 307 sps – jumping
DK2OM	28405,0	1102	26	10	FEa		F3E			Far East pirates
DK2OM	28435,0	----	--	10	E		F1B	81.9	140	Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol – Malaga
DK2OM	28459,8	----	--	10	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28459,9	---	--	10	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										daily and all day
DK2OM	28499,8	---	--	10	MEa		F1B	81.9	140	Datawell-buoy "Waverider" – 28499.875 kHz – Persian Gulf
DK2OM	28645,0	1024	26	10	RUS		F3E			RUS taxi
DK2OM	28666,0	0808	31	10	IRN		FMCW		50k	OTH radar Iran – 870 sps – jumping 28666 – 28640 – 28535 - 28625
DK2OM	28701,1	---	--	10	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28751,2	---	--	10	GAB		A3E		1080	carrier and dots +/- 540 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28825,0	0827	24	10	RUS		F3E			RUS taxi
DK2OM	28845,5	---	--	10	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28870,0	0845	25	10	RUS		F3E			RUS taxi
DK2OM	28875,0	0853	25	10	RUS		F3E			RUS taxi
DK2OM	28895,0	0828	24	10	RUS		F3E			RUS taxi
DK2OM	28901,1	---	--	10	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28935,0	0803	21	10	RUS		F3E			RUS taxi
DK2OM	28955,0	0828	24	10	RUS		F3E			RUS taxi - daily
DK2OM	29025,0	0838	24	10	RUS		F3E			RUS taxi
DK2OM	29035,0	0847	25	10	RUS		F3E			RUS taxi - daily
DK2OM	29055,0	0825	24	10	RUS		F3E			RUS taxi
DK2OM	29065,0	0826	25	10	RUS		F3E			RUS taxi
DK2OM	29100,0	0857	21	10	FEa		F3E			Far East pirates
DK2OM	29120,0	1256	24	10	RUS		F3E			RUS taxi
DK2OM	29155,0	1306	24	10	RUS		F3E			RUS taxi
DK2OM	29185,0	0850	25	10	RUS		F3E			RUS taxi
DK2OM	29195,0	1317	24	10	RUS		F3E			RUS taxi
DK2OM	29249,9	1538	27	10	E		F1B	81.9	140	Datawell-buoy "Waverider" – 29249.890 kHz – Fuerteventura - daily, all day
DK2OM	29375,0	----	--	10	I		F1B	81.9	140	Datawell-buoy "Waverider" – 29374.898 kHz – Gallipoli, South Italy - daily, all day
DK2OM	29387,5	---	--	10	IND		F1B	81.9	140	Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29400,0	---	--	10	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day
DK2OM	29450,0	1531	27	10	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29449.880 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29455,0	1001	25	10	RUS		F3E			RUS taxi
DK2OM	29500,0	---	--	10	G		F1B	81.9	140	Datawell-buoy "Waverider" – area of Gibraltar – daily, all day
DK2OM	29525,0	---	--	10	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29625,0	---	--	10	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	DETAILS
EI3GYB	3776.5	1300-1315	12	10	IRL		USB	Irish fishermen located in Bantry, County Cork
EI3GYB	3640	0855	13	10	Probably MM		USB	Japanese Fishermen
EI3GYB	3620	0930	13	10	Probably MM		USB	Dutch Fishermen
EI3GYB	37225.4	1230-1247	13	10	IRL		USB	Irish Fishermen stationed in Bantry, Co Cork. Several stations in a group. One station might be in Killybegs, Co. Donegal
EI3GYB	3664	1255	13	10	E/ MM		USB	Spanish Fishermen
EI3GYB	3772	1845	13	10	E or MM		USB	Spanish Fishermen
EI3GYB	3745	1855	13	10	E or MM		USB	Spanish Fishermen
EI3GYB	3636	0240	16	10	E or MM		USB	Spanish Fishermen
EI3GYB	2000	1940	16	10	E or MM		USB	Spanish Fishermen
EI3GYB	3776.5	1310-1332 and 1420	17	10	IRL		USB	Irish Fishermen from County Cork
EI3GYB	3776.5	1315-1340	18	10	IRL		USB	Group of Irish Fishermen from different locations in EI: Bantry, Skibbereen and Cobh, All County Cork. Names: John, Colum, Gerry, Danny
EI3GYB	21297.5	0850	20	10				Strong digital signals
EI3GYB	7000	1825	20	10	RUS		AM	Buzzer from 6998 kHz
EI3GYB	7000	1930	21	10			USB	Talk in Arabic
EI3GYB	1933	1945	21	10				Digital signals in and out
EI3GYB	7000	0450	23	10	RUS		AM	Buzzer from 6998 kHz
EI3GYB	1920	2245	23	10	POR or MM		USB	Portuguese Fishermen
EI3GYB	1933	2325	24	10				Digital signals in and out
EI3GYB	3664	1400	27	10	E/ MM		USB	Spanish Fishermen
EI3GYB	7055-7072	2340	27	10				Radar 59 plus 30
EI3GYB	7046-7071	1900	28	10				Radar 59 plus plus
EI3GYB	7000	1345	30	10	RUS		AM	Buzzer from 6998 kHz
EI3GYB	28410, 28280, 28345, Other as well	1345	30	10	RUS		FM	Russian Taxis, very strong, many stations
EI3GYB	21315 - 21345	1350	30	10				Radar, very strong
EI3GYB	14290	1410	30	10	GRC		LSB	Group of Greek pirates in conversation. Left frequency when I called
EI3GYB	14203-14205	1415	30	10				Radar 59 plus 20
EI3GYB	15000	Mornings, afternoon	Daily				FSK	Very strong signals, non stop all morning and afternoon. Possibly North Korean Embassy in W. Africa. Frequency is non HAM, but allocated to time signal stations

**KARS – Kuwait – 9K2RR (Faisal)**

**MRASZ – Hungary - HA7PL (Laci)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3509,5	2101	15	10			F1B	250	
MRASZ	3525,0	1722	1	10			A3E		Ui. language
MRASZ	3548,0	1826	27	10			F1B	200	
MRASZ	3548,1	1741	30	10			F1A		5 letters
MRASZ	3552,0	1826	27	10			F1B	250	
MRASZ	3555,9	1714	30	10			USB		italian language
MRASZ	3576,0	1825	27	10			F1B	250	
MRASZ	3589,0	1811	17	10			LSB		russian language
MRASZ	3593,8	1945	28	10	RUS	P	A1A		"P" beacon, hrd: 29
MRASZ	3595,0	1810	17	10			USB		numbers, russian female
MRASZ	3620,0	2006	28	10			A3E		instable carrier
MRASZ	3646,0	1916	5	10			A1A		"7. 7. 1"
MRASZ	3658,0	vt	dly	10			A1A		slowly "V" string
MRASZ	3690,0	1910	5	10			LSB		Ui. music
MRASZ	3690,0	1815	27	10			LSB		Ui. music
MRASZ	3699,5	1821	27	10			F1B	200	
MRASZ	7000,0	1847	27	10	RUS		A3E		buzzer
MRASZ	7000,0	2048	30	10	RUS		A3E		buzzer
MRASZ	7002,7	1811	19	10			LSB		Ui. language
MRASZ	7008,7	1131	1	10			F1B	250	
MRASZ	7008,7	1427	2	10			F1B	250	
MRASZ	7016,0	1604	17	10			F1B	250	
MRASZ	7017,2	0651	31	10			F1B	250	
MRASZ	7020,0	1328	1	10			F1B	250	
MRASZ	7022,9	0650	31	10			F1B	200	
MRASZ	7040,0	1327	1	10			F1B	500	
MRASZ	7047,0	1226	31	10			LSB		russian language
MRASZ	7050,0	1541	11	10			LSB		italian language
MRASZ	7050,0	1635	13	10			LSB		italian language
MRASZ	7050,0	0941	30	10			LSB		russian/italian language
MRASZ	7050,0	vt	dly	10			LSB		russian/ukrainian, chaos, music etc.
MRASZ	7051,9	1806	10	10			F1B	200	
MRASZ	7060,0	1817	27	10			OTHR		7050-7070 kHz
MRASZ	7060,0	0800	31	10			OTHR		
MRASZ	7077,0	1546	2	10			F1B	250	
MRASZ	7080,0	1736	8	10			F1B		
MRASZ	7080,0	1751	10	10			F1B	200	
MRASZ	7080,0	1750	13	10			F1B	200	
MRASZ	7080,0	1803	19	10			F1B	200	
MRASZ	7080,1	1740	13	10			F1A		"5T492 T8592 63771.....K"
MRASZ	7081,0	0830	15	10			A1A		"VVVVVVV ...K"
MRASZ	7100,0	1227	31	10			NON		
MRASZ	7117,0	1805	19	10	RUS		F1B	1000	
MRASZ	7120,0	1611	6	10	SOM		A3E		Radio Harg. hrd: 13,19,27,
MRASZ	7142,0	1239	9	10			OTHR		
MRASZ	7177,8	1548	2	10			F1B	250	
MRASZ	7200,0	1734	10	10			A3E		splatter down 10 kHz
MRASZ	10115,0	1856	7	10			OTHR		10100-10130 kHz
MRASZ	14008,0	0931	1	10			F1B	450	
MRASZ	14008,0	0912	11	10			F1B	450	
MRASZ	14076,0	1154	1	10			USB		Ui. language; "ALLO ALLO"
MRASZ	14086,9	1211	1	10			USB		Ui. female
MRASZ	14140,0	0817	15	10			OTHR		14130-14150 kHz
MRASZ	14180,0	0928	18	10			F1B	200	
MRASZ	14180,0	0923	23	10			F1B	200	
MRASZ	14180,0	1228	31	10			F1B	200	
MRASZ	14192,0	0915	23	10			F1B	500	
MRASZ	14300,0	0922	23	10			OTHR		
MRASZ	14301,7	1550	11	10	CHN		PSK2		
MRASZ	18148,0	0917	23	10			OTHR		
MRASZ	21025,0	1543	2	10			A3E		Ui. language
MRASZ	28013,7	0703	18	10			A1A		slowly dash string, local QRM?
MRASZ	28059,5	0702	18	10			A1A		slowly dash string, local QRM?
MRASZ	28120,6	0703	18	10			A1A		slowly dash string, local QRM?

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	28181,6	0703	18	10			A1A		slowly dash string, local QRM?
MRASZ	28242,6	0703	18	10			A1A		slowly dash string, local QRM?
MRASZ	28303,7	0703	18	10			A1A		slowly dash string, local QRM?
MRASZ	28364,7	0709	18	10			A1A		slowly dash string, local QRM?

### OEVSU – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
oevsu	14007.8	0549	26	10	unid	unid	F3E			long periods carrier only
oevsu	14015.5	0550	26	10	RUS	unid	F3E			
oevsu	14076.5	0544	26	10	unid		F3E	100	250	bad sigs quality
oevsu	14210.0	1800	23	10	unid	ubid	A3A			music
oevsu	14220.0	0550	20	10	unid	unid	F1B			

### PZK – Poland – SP9BRP (Jan)

### REF 1 – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Baud	Sh /Bw	DETAILS
<b>R.E.F.</b>										<b>October 2015</b>
F5MIU	6998	0315	29	10			?		4kHz	Intermittent buzzer
F5MIU	7060	1815	27	10			fmcw		20kHz	OTHR S9, 20pps
F5MIU	7205	1731	26	10			AM		15kHz	BCL station in Esperanto 2kHz on 40m band (from Taiwan ?)
F5MIU	10110	0823	14	10			fmcw		20/30kHz	OTHR S9, 20pps
F5MIU	10120	1616	28	10			fmcw		20kHz	OTHR S9, 20pps
F5MIU	10155	1707	22	10			fmcw		30kHz	OTHR S9+10, 20pps splatter on OM Band !
F5MIU	14025	1520	14	10			fmcw		10kHz	Data 14 car. Bear230°
F5MIU	14037	0918	15	10			USB		2.5kHz	Fisherman ? (Arabic?)
F5MIU	14065	0857	29	10			fmcw		40kHz	OTHR S9, 20pps
F5MIU	14130	0843	13	10			fmcw		10kHz	OTHR S5 12pps
F5MIU	14185	0845	13	10			fmcw		10kHz	OTHR S5 33pps
F5MIU	14350	1628	12	10			AM		10kHz	Unknown language (Nordic?) 2 stations chatting (59-53) no calling
F5MIU	18200	0848	29	10			fmcw		<b>100kHz</b>	OTHR S4, 40pps
F5MIU	21125	0740	19	10			fmcw		20/30kHz	OTHR S9, 20pps
F5MIU	21390	0839	13	10			fmcw		25kHz	OTHR S9, 40pps
F5MIU	28210	0721	24	10			fmcw		20kHz	OTHR S7, 20pps
F5MIU	28490	0839	29	10			fmcw		25kHz	OTHR S9, 20pps
F5MIU	29200	0743	22	10			fmcw		20kHz	OTHR S7, 20pps
F5MIU	29560	0836	30	10			fmcw		<b>120kHz</b>	<b>New type of OTHR?</b> S3, subcarrier every 900Hz
F1GGS	145000	0847	18	10			FM		12.5kHz	Hunters son 2m band on dep. 63 in France

### REF 2 – France – F5JBR (Andre)



**REP – Portugal – CT4AN (Jose Francisco)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3612	09.19	20	10	E		J3E-U			Spanish fishery
REP	3650	08.30	02	10	F		J3E-U			French fishery
REP	6998	20.53	20	10	RUS		A3E		3.4k	Russian buzzer spill into 40m
REP	7000	22.19	31	10		RUS	A3A			Pulsed Buzzer 150 kHz wide
REP	7000	17.30	02	10			BPSK			AT3004D modem, 12xBPSK
REP	7035	18.40	02	10			FMCW			Short burst OTH radar
REP	7035	20.37	05	10			FMCW	50	20k	OTH radar
REP	7038	22.30	14	10	UKR	D	A1A			SEVASTOPOL
REP	7038	22.00	08	10	RUS	P	A1A			MURMANSK
REP	7039	22.02	16	10	RUS	C	A1A			MOSCOW
REP	7050	20.49	20	10	CHN		FMCW	10	160k	Chinese wide OTH radar 6970-71130 kHz
REP	7090	10.00	20	10			A1A			Letter and numbers groups code
REP	7090	17.58	09	10					2,8k	Unid digital mode
REP	7091	14.58	11	10	KAZ	V	A1A			ALMATY
REP	7137	18.00	09	10	RUS		F1B	50	200	CIS36-50 mode, Russia
REP	7200	17.45	04	10	IRN		A3E			Voice of IRI spilling into ham band
REP	7200	18.06	09	10	IRN		A3E			Voice of IRI spilling into ham band
REP	10100	14.00	12	10	MRC		J3E-U			Morrocan fishery
REP	10105	20.00	11	10			FMCW			OTH radar
REP	10110	23.00	02	10			A3E			Letters Station - 5 letters transmission
REP	10110	08.39	14	10			FMCW	50	20k	OTH radar
REP	10115	11.12	20	10			J3E-U			Unid arabic language
REP	10125	18.02	05	10			FMCW			OTH radar
REP	10125	18.08	09	10	E		J3E-U			Spanish fishery, Galicia
REP	10130	22.15	10	10	MRC		J3E-U			Fishery on sea
REP	10135	18.03	01	10			FMCW			OTH radar 20kHz wide
REP	14000	07.11	27	10			J3E-U	100	170	SELCALL bursts
REP	14000	10.16	21	10			J3E-U			Unid language, african coast
REP	14000	10.25	21	10			F1B	100	200	Unid iddling pactor mailbox
REP	14015	12.06	15	10			J3E-U			Unid language
REP	14025	20.43	10	10	RUS		BPSK	120		Mil station
REP	14063	09.53	29	10	RUS		FMCW	50	15k	Russian OTH radar
REP	14120	1044	09	10	RUS		FMCW			OTH radar 50 sps
REP	14130	08.23	12	10			FMCW		10k	Short burst OTH radar
REP	14130	15.20	16	10	RUS		J3E-U			Russian language speech, unid
REP	14240	10.15	04	10	CHN		FMCW	10	160k	160 kHz wide OTH radar, China
REP	14267	08.19	12	10			FMCW			OTH radar
REP	18107	09.20	01	10	RUS		F1B	50	200	CIS36-50 modem, Russia
REP	18200	10.05	03	10			FMCW			OTH radar 50 kHz wide
REP	21125	14.55	27	10	MRC		J3E-U			Fishermen
REP	21130	14.00	21	10			FMCW			OTH radar
REP	21150	13.08	17	10			FMCW	50	20k	OTH radar
REP	21210	15.16	01	10			FMCW			OTH radar 25/20
REP	21225	10.44	05	10			FMCW			OTH radar
REP	21250	14.02	10	10			FMCW			OTH radar 50sps/20kHz
REP	24950	18.47	10	10			FMCW			OTH radar 50sps/20kHz
REP	28050	10.59	30	10			F1B	50	270	Enagal GPS buoy, Atlantic ocean
REP	28060	11.00	07	10	RUS		F3E			Taxi dispatcher
REP	28065	10.34	21	10	B		A3E			Brazilian illegal ops up and down 28 Mhz
REP	28160	12.23	04	10	RUS		F3E			Russian taxis dispatchers
REP	28480	10.43	31	10			FMCW	50	20k	OTH radar
REP	29150	15.08	16	10			FMCW			OTH radar
REP	29175	13.20	15	10			FMCW			OTH radar 50sps/20kHz
REP	29195	10.31	31	10	RUS		F3E			Russian YL taxi dispatcher
REP	29250	10.58	17	10			F1B	82	142	Datawell Waverider buoy
REP	29550	17.09	09	10			FMCW			OTH radar 20kHz wide
REP	28x-29x				Dly		F3E/A3E			Russian taxi and brazilian truckers, daily

## RSGB - Great Britain – M0VRR (Vaughan)

### Date Time Frequency QSA Mode Rate Shift Comments

01/10/2015 07:34 18107 5 F1B 50 250 sync cipher tfc & revs  
07:35 18080 3 A3E Chinese BC station  
07:38 18150 2 F1B 100 1000 2nd harmonic of 9075 KHz /shift 500 hz /100 bd  
07:42 21190 1 F1B 100 1000 2nd harmonic of 10595 KHz /shift 500 hz /100 bd  
02/10/2015 07:39 18080 2 A3E Chinese BC station  
15:32 7059 4 F1B 75 250 sync cipher tfc & revs  
16:24 7076 4 F1B 50 250 sync cipher tfc & revs  
03/10/2015 07:39 14100 - 14141 5 FMCW OTHR 50 Hz PRF  
07:41 14280 4 F1B 75 250 sync cipher tfc & revs  
07:42 18080 2 A3E Chinese BC station  
04/10/2015 07:33 18080 1 A3E Chinese BC station  
05/10/2015 08:31 7016 4 F1B 75 250 sync cipher tfc & revs  
08:33 14008 1-2 F1B 50 500 sync cipher tfc & revs  
08:35 18080 1 A3E Chinese BC station  
06/10/2015 08:14 7177 4 J7W MS5 on trfc  
08:38 14204 - 14221 4 FMCW OTHR 10 Hz PRF  
08:30 14008 4 F1B Hold mark from 14008 BEE  
08:52 14008 4 F1B 50 500 sync cipher tfc & revs - then back to hold mark  
07/10/2015 08:37 NTR - Solar event - very disturbed conditions  
15:35 14030 - 14040 5 FMCW OTHR 10 Hz PRF  
08/10/2015 07:32 7014.5 2-3 F1B 75 100 sync cipher tfc & revs  
07:34 7182 3 J7W MS5 on tfc  
07:36 18080 1-2 A3E Chinese BC station  
07:39 14331.5 3 2 per second bursts - bandwidth approx 1000 Hz  
Link 11 - "Pactor like bursts with occasional breaks to Phase mod"  
09/10/2015 07:37 14202 2-3 F1B 50 500 sync cipher tfc & revs  
10/10/2015 07:37 NTR - conditions very disturbed  
11/10/2015 07:49 14130 - 14140 5 FMCW OTHR 10 Hz PRF  
07:50 14008 3-4 F1B 50 500 sync cipher tfc & revs  
07:52 18080 1 A3E Chinese BC station  
12/10/2015 07:38 18080 3 A3E Chinese BC station  
13/10/2015 07:47 7059 2-3 F1B 75 250 sync cipher tfc & revs  
14/10/2015 07:32 7035 5 MS5 on test/standby (test tones in each channel)  
07:35 7126 3 A1A Russian Mil net ?  
07:45 14036 - 14048 5 FMCW OTHR 10 Hz PRF

## SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	6998,0	h24	15.- 31.	10	RUS	UiTone	R3E			125 Hz tones, sporadic Russian vox "priom"
SRAL	7000,0	1750- 1830	2. 4.	10		UiCarr	N0N			
SRAL	7008,0	1215- 1400	2. 29.	10		UiPTR	F1B		250	
SRAL	7013,0	1415- 1425/	28.	10	RUS	RLO	A1A			5F, 5BL
SRAL	7015,0	0650- 1450	29. 30.	10	RUS	UiOTHR	FMCW			100Hz / 15 kHz
SRAL	7016,0	0600- 1400	*	10		UiPTR	F1B		200	Days: 2. 5. 13. 19. 23. 31.
SRAL	7020,0	0600- 1430	*	10	RUS	UiPTR	F1B		250	Days: 1. 2. 28. 31.
SRAL	7030,0	0635- 1135	*	10		UiPTR	F1B		250	Days: 20. 21. 28.
SRAL	7038,0	1200- 1445	14.	10		UiMUX	PSK2	120	2600	
SRAL	7039,0	0500- 1700	*	10	RUS	C	A1A			Moscow, days: 3. 4. 11. 18. 31. (SK3W WebSDR daily)
SRAL	7044,0	/1215- 1400/	*	10		UiPTR	F1B/ N0N		250	Days: 4. 5. 9. 15.
SRAL	7051,0	0420- 0616	1. - 11.	10	RUS	UiPTR	F1B		200	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7059,0	0600-1230	*	10		UiPTR	FiB/ NON		250	Days: 2. 5. 23. 27.
SRAL	7061,0	1000-1400	23. 29.	10		UiMUX	PSK2	120	2600	
SRAL	7076,0	0850	18.	10		UiMUX	PSK2	120	2600	
SRAL	7076,0	0930-1800	*	10		UiPTR	F1B		250	Days: 2. 18. 27.
SRAL	7080,0	0645-0800	12.	10		UiMUX	PSK2	120	2600	
SRAL	7083,0	1420	4.	10		UiMUX	PSK2	120	2600	
SRAL	7091,5	1035-1955	*	10	KAZ	V	A1A			Days: 26. 29. 30. 31.
SRAL	7112,0	1210-1300	16. 28.	10		UiPTR	F1B		250	
SRAL	7116,0	0700-1145	22. 28.	10		UiMUX	PSK2	120	2600	
SRAL	7120,0	0330-0430	dly	10	SOM	R.Hargeis a	A3E			
SRAL	7120,0	1500-1900/	dly	10	SOM	R.Hargeis a	A3E			
SRAL	7121,0	1100-1215	*	10		UiMUX	PSK2	120	2600	Days: 14. 17. 22.
SRAL	7122,0	1010-1230	7. 18.	10		UiPTR	F1B		250	
SRAL	7149,0	0830-0837/	21.	10	RUS	RMW36	A1A			
SRAL	7154,0	1530	1.	10		UiMUX	PSK2	120	2600	
SRAL	7157,5	1245	18.	10		UiCW	A1A			5BL
SRAL	7160,0	0635-0915	20. 21.	10	RUS	RMW32	A1A			5BL
SRAL	7162,0	0635-1135	20. 28.	10		UiPTR	F1B		250	
SRAL	7176,0	1200-2015	2.	10	RUS	UiPTR	F1B		250	
SRAL	7177,0	0525-2010	*	10		UiPTR	F1B			Days: 2. 3. 31.
SRAL	7178,5	0430-0840	18. 20.	10		K7ZK	A1A			5BL
SRAL	7179,0	0700-1600	6. 10.	10	RUS	UiMUX	PSK2	120	2600	
SRAL	7179,0	0630-1500	*	10		UiPTR	F1B		200/250	Days: 14. 18. 19. 21. 22. 23. 27
SRAL	7186,0	0430-1430	1. 28.	10	RUS	UiMUX	PSK2	120	2600	
SRAL	7187,5	0900-1200	3.	10		P	A1A			
SRAL	7200,0	/1720-1820/	dly	10	IRN	IRIB	A3E			German PX
SRAL	7200,0	/2220-2320/	dly	10	IRN	IRIB	A3E			
SRAL	7200,0	/1000-1300/	dly	10	CHN	CNR1	A3E			Used as jammer, TWN + 9 Hz
SRAL	7 MHz	1800-0500	*	10	RUS	29B6	FMCW			50Hz / 15 kHz , days: 6. 27. 28. 29.
SRAL	14000,0	1105	27.	10		UiCarr	N0N			
SRAL	14002,0	1300	30.	10		UiMUX	PSK2	120	2600	
SRAL	14008,0	0845-1150	*	10		UiPTR	F1B		450	Days: 11. 27. 29. 30.
SRAL	14026,0	1115	23.	10		UiMUX	PSK2	120	2600	
SRAL	14177,0	-0915/	27.	10		UiCarr	N0N			40 Hz brum
SRAL	14180,0	0650-1625	17.- 31.	10	RUS	UiPTR	F1B		200	
SRAL	14192,0			10	RUS	UiPTR	F1B		500	No skip
SRAL	14221,0	0330-0600/	*	10	KGZ	UiPTR	F1B		250	Days: 3. 4. 21. – 31.
SRAL	14266,0	1050-1345/	2.	10		UiPTR	F1B		250	
SRAL	14295,0	0330-	dly	10	TJK	R	A3E			3f 4765,00 kHz, Yangiyul

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		1700				Tojikiston				TX
SRAL	14 MHz	0600-1600	*	10	RUS	29B6	FMCW			50Hz / 15 kHz, days 3. 18. 20. 21. 23. 26. 27. 29.
SRAL	14 MHz	0600-1515	dly	10	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec bursts
SRAL	18080,0	0600-0800	1. 5.	10	CHN	CNR1	A3E+			Used as jammer
SRAL	18107,0	0530-1300	*	10	RUS	UiPTR	F1B		200	Days: 3. 4. 21. - 31.
SRAL	18 MHz	0800-0815	26.	10	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz
SRAL	21 MHz	0900-1430	*	10	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 1. 3. 17. 19. 28. 29.
SRAL	21438,0	0930-1000	3. 31.	10	RUS	RCV	A1A			
SRAL	28980,0	1030	18.	10	CHN	CNR1	A3E+			3f
SRAL	29430,0	1130	3.	10	IND	AIR	A3E			3f
SRAL	29460,0	0930-1100	31.	10	CHN	CNR1	A3E			3f
SRAL	28 MHz	1000-1045	31.	10	IRN	UiOTHR	FMCW			(307 &) 870 Hz / 60 kHz – 300 kHz, jumping fq
SRAL	28 MHz	1000-1140	*	10		UiOTHR	FMCW			25/50Hz / 20 kHz, days: 23. 25. 29.
SRAL	28 MHz	0900-1035	*	10	RUS	Taxi disp.	F3E			39 reports, days: 3. 18. 23. 29. 31.

### USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3503.8	2218	29	10			PSK8	2400	~2k6	1800Hz single tone 2400Bd MIL188-110A Hybrid; short intro with 4 unmodulated tones
USKA	3527.0	2202	29				F1B	50	200	
USKA	3548.0	2044	08				F1B	50	200	CIS system, jammed
USKA	3548.1	2044	08				A1A			stupid Jammer: fast dots only
USKA	3552.0 VFO USB	2109	07	10			PSK8	2400	~2k4	Stanag 4285; almost daily
USKA	3552.0	2206	29				F1B	50	200	
USKA	3565.0	2113	07	10			PSK8	2400	~2k4	Stanag 4285
USKA	3590.0	2118	07	10			DQPSK	14x75	5k9	LINK 11 CLEW DSB; DNCS IM
USKA	3699.5	2221	27	10			F1B	50	200	
USKA	3709.0	2218	27	10			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	3716.5	2257	29	10			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	3742.0	2214	29	10			J7D	12x120	2k7	PSK-2: CIS12 – AT3004D
USKA	6998.0	1927	16	10			H3E-U Bursts		~3k6 e	"Buzzer" up to ≥7001.5kHz modulated with 125Hz BD 1.2", BRI 3" Pause 1.8s
USKA	7000.0	1828	04	10			J7D	12x120	2k3 e	CIS-12 idling, partially in 40m band
USKA	7000.0	0449	17	10			J3E-U		2k7	unid language, sounds like italian
USKA	7000.8	1438	20	10			OFDM112 burst mode	22.23	2k97	Spacing 25.66Hz, Pilot tone at 3k3 intro-tones
USKA	7002.0	1702	23	10			J3E-U		2k7	unid language, maybe Russian
USKA	7019.0	2149	29	10			J3E-U			unident language, sounds "Asian"
USKA	7020.0	2146	14	10			FMOP	50	~13k	OTHR
USKA	7021.0	2155	29	10			J7D	12x120	2k6	CIS-12 idling (13 carriers only)
USKA	7024.0	2121	27	10			F1B	75	250	
USKA	7025.0	2202	05	10			FMOP	50	~13k	OTHR
USKA	7026.0	2009	27	10			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7039.3	2239	06	10	RUS	K	A1A			Beacon K Petropavlovsk
USKA	7039.4	2238	06	10	RUS	M	A1A			Beacon M Magadan
USKA	7050.0	1431	07	10			J3E-L		≥ 3k3	Music, voice; insultsy
USKA	7051.0	2206	05	10			F1B	50	200	CIS 50-50 almost daily
USKA	7060.0	2225	26	10	CHN ?		OTHR	10	≥ 160k	



SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7061.0	0751	09	10			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7062.0	2119	27	10			FMOP	50	~13k	OTHR
USKA	7080.0	2035	08	10			F1B	50	200	often
USKA	7089.8	1520	09	10			G1D	2400	2k4	PSK-8: Link 11- SLEW often
USKA	7091.5	1514	09	10		V	A1A			Beacon V often
USKA	7097.0	2112	13	10			FMCW	83	≤10k	OTHR, continuous, later bursts
USKA	7112.0 VFO LSB	2132	20	10			BPSK	60	~2k4	Burst system; spacing 75Hz often preamble 4x BPSK 60Bd, spacing 600Hz; Pilottone at 450Hz
USKA	7113.8	1059	12	10			F1B	100	150	
USKA	7117.0	2154	05	10			F1B	100	800	smaller as usual
USKA	7117.0	1409	07	10			F1B	100	~485	again smaller BW!
USKA	7117.0	2252	28	10			F1B	100	1000	back with 1000Hz
USKA	7120.0	1833	04	10	SOM		A3E			Radio Hargaysa daily
USKA	7120.0	0857	06	10			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7162.0	2118	11	10			A1A			short groups, approx every 5min
USKA	7179.0	1637	10	10			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7184.0	0958	08	10			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7197.0	2211	06	10		372013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2216	06	10		377018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2219	06	10		318018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2222	06	10		334123	MFSK8	125	1750	MIL 188-141A; LQA
USKA	7197.0	2223	06	10		303013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2100	14	10		309018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2105	14	10		364013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2110	14	10		348018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2111	14	10		363013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2116	14	10		327013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2119	14	10		311018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2122	14	10		332013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2130	14	10		83401	MFSK8	125	1750	MIL 188-141A
USKA	7200.0	2228	06	10	IRN	IRIB	A3E		~10k	<i>Voice of I.R. Iran, left QRG Oct. 25<sup>th</sup> to a new frequency !</i>
USKA	7205.0	1726	31	10	CHN		A3E			China Radio International splattering down to ~7198kHz
USKA	14008.0	0923	08	10			F1B	50	450	
USKA	14011.0 VFO USB	1401	07				PSK		~2k5	unident burst system (weak)
USKA	14026.0	1718	14	10			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D sometimes not all tones
USKA	14035.0	0720	09	10			FMCW	10 sps	10k	OTHR
USKA	14108.0	1225	12	10			FMOP	25 sps	~13k	OTHR
USKA	14137.0	0946	09	10			FMCW	10 sps	10k	OTHR
USKA	14180.0	0819	20	10			F1B	50	200	CIS 50-50
USKA	14192.0	1409	11	10			F1B	50	500	CIS 50-50 daily
USKA	14202.0	0738	09	10			F1B	50	500	
USKA	14272.0	0940	07	10		RCV	A1A			groups, 24 wpm; often
USKA	14295.0	1400	14	10	TJK		A3E			BC: 3 <sup>rd</sup> of Radio Tajik at 4765 kHz almost daily
USKA	14300.0 VFO USB	2234	06	10			BPSK	16x75	2k2	Burst system; 16 tones, tone spacing appx 104Hz; 2 pilottones
USKA	18107.0	0837	05	10		RDL	F1B	36+50	200	CIS 36-50 almost daily
USKA	18107.0	0902	07	10		RDL	F1A		200	CIS 36-50, letters and figures
USKA	21210.0	1100	08	10			FMCW	50	20k	OTHR
USKA	21210.0	1104	08	10			FMCW	25	20k	OTHR
USKA	21280.0	0917	08	10			FMCW	50	20k	OTHR
USKA	21315.0	0911	08	10			FMCW	50	20k	OTHR
USKA	21330.0	0811	20	10	CHN ?		FMCW	10 sps	≥ 160k	OTHR, approx every 60s
USKA	21450.0	1204	29	10			FMCW	50	20k	OTHR
USKA	28746.5	0901	06	10			PSK4	30.5/125	125	not identified
USKA	28860.0	0920	20	10				307 sps 870 sps	app 60k	OTHR Burst system; often affected BW often > 100k
USKA	29249.88	0912	20	10	E		F1B	81.92	140	Datawell buoy Canary Isl. daily
USKA	29449.88	0850	20	10	MRC		F1B	81.92	140	Datawell buoy El Aajún daily

## Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3548,0	16.55	27	10	CIS	UiPTR	F1B		Revs/Ptr
VERON	3548,0	19.10	29	10	RUS	RDL	F1A		RDL 22222 5F (Par. 7080 khz)
VERON	3552,0	16.18	28	10	CIS	UiPTR	F1B		Revs/Ptr
VERON	3563,0	18.21	9	10		UiCW	A1A		4F
VERON	3587,8	16.15	31	10		UiPTR	F1B		Idling
VERON	3699,5	17.05	27	10		UiPTR	F1B		Revs
VERON	6998,0	18.10	21	10	RUS	Buzzer	AM		AF bursts, parallel 4625 KHz
VERON	7000,0	18.30	15	10	RUS	Buzzer	A3E		6998/4625 khz AF bursts
VERON	7008,0	14.46	2	10		UiPTR	F1B		Ptr
VERON	7016,0	07.22	5	10	RUS	UiPtr	F1B	250	Ptr, F1A QRJ? Also 13/10 '07.58
VERON	7016,0	10.12	5	10		UiPTR	F1B		Ptr
VERON	7024,0	16.53	27	10		UiPTR	F1B		Ptr
VERON	7038,5	14.28	3	10		UiCar	NON		Long lasting carrier; wobbling; s8
VERON	7038,5	09.36	4	10		UiCar	NON		Long lasting carrier; wobbling; s5
VERON	7039,0	19.32	5	10	RUS	C	A1A		C-beacon
VERON	7051,0	05.20	22	10	?	?	F1B	200	revs
VERON	7051,0	22.18	3	10	RUS	UiPtr	F1B	200	
VERON	7059,0	14.45	2	10		UiPTR	F1B		Ptr
VERON	7075,0	18.31	23	10		OTHR	FMCW		radar
VERON	7076,0	14.44	2	10		UiPTR	F1B		Ptr
VERON	7080,0	18.34	23	10		UiPtr	F1B	250	Ptr, also 25/10 18.46 utc
VERON	7080,0	vt	vd	10	RUS	UiPtr	F1B	200	
VERON	7080,0	18.18	9	10	CIS	UiCW	F1A		XXX XXX (followed by F1B Revs/Ptr)
VERON	7080,0	19.02	29	10	CIS	UiPTR	F1B		Revs/Ptr
VERON	7080,0	19.10	29	10	RUS	RDL	F1A		RDL 22222 5F (Par. 3548 khz)
VERON	7095,0	21.11	24	10	RUS	UiRadar	FMCW	20k	OTHR; Contayner; 50sps
VERON	7100,0	18.53	17	10	RUS	UiRadar	FMCW	20k	OTHR; Contayner; 50sps
VERON	7114,0	18.37	3	10	RUS	UiPtr	F1B	1k	
VERON	7117,0	22.16	3	10	RUS	REA4	F1B	800	Bad modulation
VERON	7117,0	17.42	2	10	RUS	REA4	F1A		REA4 02160 99900 5F
VERON	7117,0	14.42	7	10	RUS	REA4	F1A		REA4 07130 99900 5F (ending rpt QLN k)
VERON	7120,0	15.39	21	10	SOM	R.Har	A3E		speech male
VERON	7120,0	17.49	3	10	SOM	R.Hargaysa	A3E		Arab. Speech; s5
VERON	7126,0	15.05	15	10	?	IN5N	A1A		F4AHI DE IN5N 423 27 15 1800 423 BT
VERON	7126,0	15.05	15	10	?	IN5N	A1A		ZSY 609 BT (5BL)
VERON	7136,9	17.35	17	10		UiPtr	F1B	200	
VERON	7137,0	18.16	9	10		UiPTR	F1B		Ptr
VERON	7176,0	14.49	2	10		UiPTR	F1B		Ptr
VERON	7183,0	21.18	24	10	RUS	UiRadar	FMCW	5k	OTHR; Contayner; 10sps
VERON	7194,0	17.04	17	10		UiRadar	FMCW	10k	OTHR; 33sps
VERON	7197,0	18.44	17	10		UiMux	FSK8	1k8	Plus splatters 7195kHz – 7199kHz
VERON	7200,0	17.30	3	10	IRN	IRIB	A3E		News; German language; s9++
VERON	10101,3	14.04	12	10		UiMOD	F1B		Fast UiMOD Ptr
VERON	10121,0	16.11	28	10		UiPTR	F1B		Ptr
VERON	14008,0	10.18	5	10	CIS	UiPTR	F1B		Carrier/Revs/Ptr
VERON	14008,0	10.00	27	10	RUS	UiPtr	F1	450	Ptr
VERON	14008,0	10.01	27	10	RUS	UiCW	A1A		XXX XXX 67 68 73 etc
VERON	14016,00	07.40	30	10	?	?	F1B	1000	ptr, revs
VERON	14025,0	09.48	4	10	CHN	UiRadar	FMCW	5k	OTHR; 43sps
VERON	14120,0	09.48	22	10		OTHR	FMCW		radar
VERON	14178,0	07.58	20	10	RUS	UiPtr	F1B	200	Ptr, short communication male Russian
VERON	14180,0	07.41	19	10		UiPtr	F1B	200	Ptr, also at 13.30 utc
VERON	14180,0	10.20	23	10	RUS	UiPtr	F1B	200	Ptr, also 24/10 11.50 utc
VERON	14180,0	07.32	23	10	RUS	?	F1B	250	revs, ptr

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	14180,0	vt	vd	10	RUS	UiPtr	F1B	200	
VERON	14180,0	12.53	20	10	RUS	RDL	F1A		RDL 75956 92772 k
VERON	14180,0	12.55	20	10	RUS	RDL	F1A		RDL 52991 29743 k (Par. 18107 khz)
VERON	14180,0	13.30	25	10	CIS	UiPTR	F1B		Revs/Ptr
VERON	14192,0	14.23	25	10	RUS	UiPtr	F1B	500	Ptr, also 27/10 12.52 utc
VERON	14192,0	07.25	23	10	RUS	?	F1B	500	ptr, distorted
VERON	14192,0	vt	vd	10	RUS	UiPtr	F1B	500	
VERON	14192,0	08.12	21	10	CIS	UiPTR	F1B		Revs/Ptr (also 26/10 13.23 UTC)
VERON	14200,0	07.55	13	10		UiCAR	NON		carrier
VERON	14221,0	13.23	26	10		UiPTR	F1B		Ptr
VERON	14240,0	09.39	8	10		UiCAR	NON		carrier
VERON	14260,0	09.40	8	10		UiCAR	NON		carrier
VERON	14295,0	08.11	20	10		OTHR	FMCW		radar
VERON	14300,0	10.14	14	10		OTHR	FMCW		radar
VERON	14355,00	15.35	21	10		OTHR	FMCW		radar, S9+60dB
VERON	18107,0	10.29	1	10	CIS	UiPTR	F1B		Revs/Ptr
VERON	21128,0	09.10	3	10		UiRadar	FMCW	25k	OTHR; 50sps; probably CYP
VERON	21154,0	12.42	4	10	Maroc	UiILL	J3e-U		Maroc fishery
VERON	21438,0	08.23	3	10	RUS	RCV	A1A		RFH80 DE RCV OK QYT QWH 12794
VERON	21438,0	08.31	3	10	RUS	RCV	A1A		RGX94 DE RCV QTC 946 37 3 0006 947
VERON	21438,0	08.31	3	10	RUS	RCV	A1A		BT NAWIP (etc)
VERON	21438,0	08.34	3	10	RUS	RCV	A1A		RMJA DE RCV proc
VERON	21450,0	11.11	3	10	E	UiILL	J3e-U		Spanish, female and male
VERON	28145,0	10.42	22	10	RUS	Taxi	F3E		female
VERON	28165,0	10.41	22	10	RUS	Taxi	F3E		female
VERON	28165,0	11.32	24	10		OTHR	FMCW		radar
VERON	28175,0	09.39	25	10	RUS	Taxi	F3E		female
VERON	28180,0	09.32	23	10	RUS	Taxi	F3E		female
VERON	28185,0	09.33	23	10	RUS	Taxi	F3E		female
VERON	28265,0	10.45	22	10	RUS	Taxi	F3E		female
VERON	28275,0	09.51	22	10	RUS	Taxi	F3E		female
VERON	28285,0	10.51	22	10	RUS	Taxi	F3E		female
VERON	28300,0	09.35	23	10	RUS	Taxi	F3E		female

# The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

Many thanks for your interest!

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