



# Monitoring System

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The 28 members of the IARUMS Region 1 Monitoring Team:



## Acknowledgements

ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4BV - Kamweti ++ DARC: DK2OM – Wolf ++ EARS: A61M – Obaid ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVSV: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA – Younis ++ RSGB: G4DYA - Richard ++ SARC: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – N.N. ++ UBA: ON8IM – Ivan +++ URE: EA6AMM - Gaspar ++ USKA: HB9CET - Peter ++ VERON: PG1R - Ruud ++ ZRS: S56ZDB – Darko ++ LU1BCE – Carlos (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster supp.) ++ DL8AAM (ALE) ++ DJ7KG (BOOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1 ++ unofficial member: ++ ASTRA - DL1BDF - Mustapha ++ PTTs: BAKOM (Swiss) ++ OFCOM (UK) ++ Dutch AT ++ Austrian PTT ++ German PTT BNetzA Konstanz

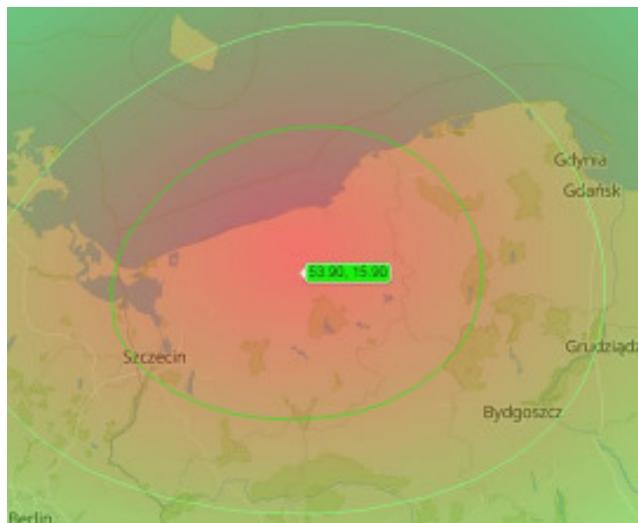
## Part 1: News and Infos

### 1. BC on 7190 kHz – problem solved

An Australian BC appeared on 7190 kHz. The transmitter (ident KNX) is located in Kununurra (North-West-Australia). Transmission times: 1500 – 1530 utc. ACMA had licensed this frequency. Our worldwide community took several steps to solve this problem. The German and Swiss PTTs were informed. In the meantime the problem is solved. The transmitter left 7190 and went up to 7530 kHz. Many thanks to all involved HAMs. A great success!

### 2. 7000.0 – Polish military

Polish military was using this QRG on digital mode daily and all day. Parameters: Center QRG 7001.8 kHz MIL-188-110B bursts – PSK8A – 2400 Bd – 2400 Hz shift. The German PTT Konstanz filed an official complaint.

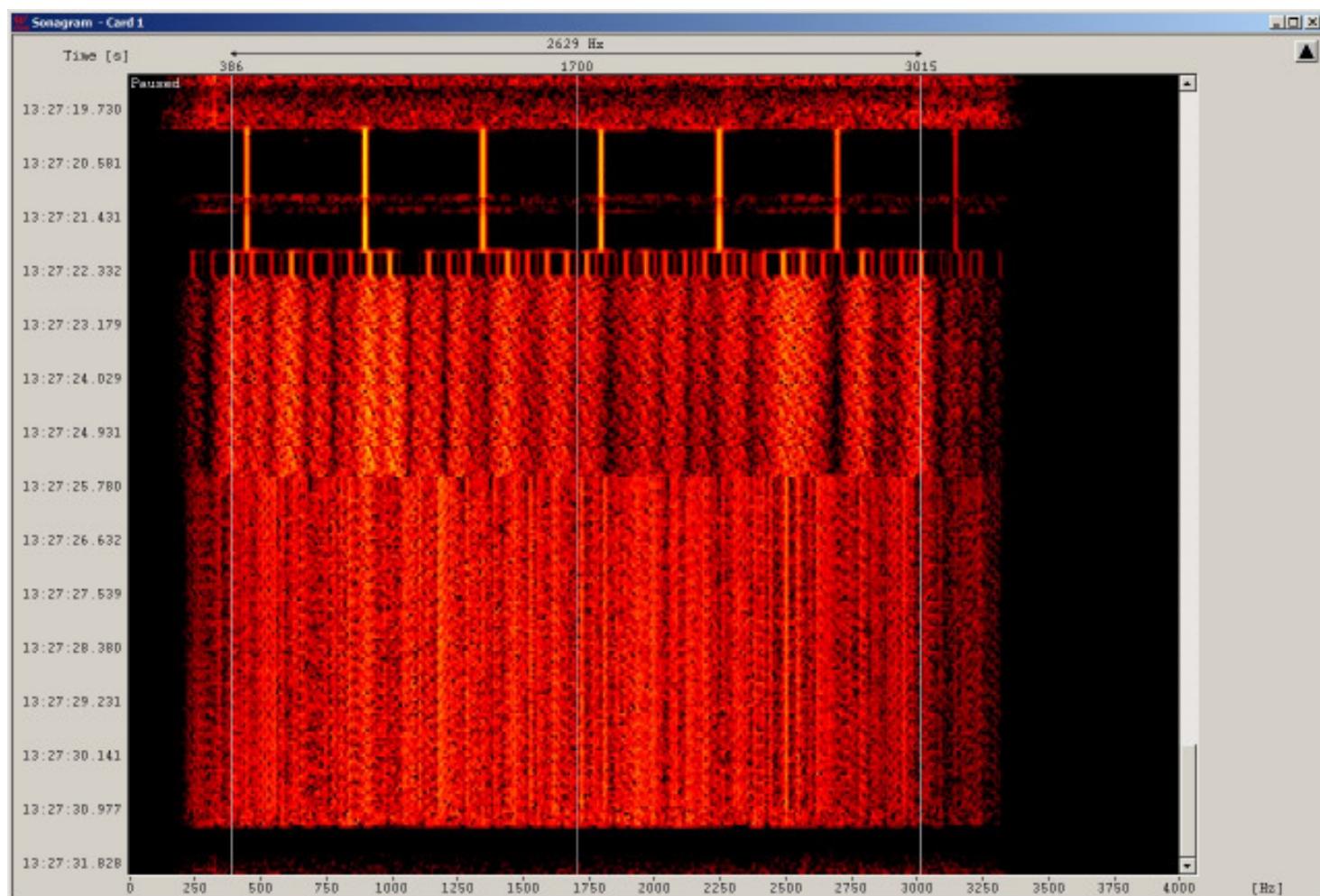


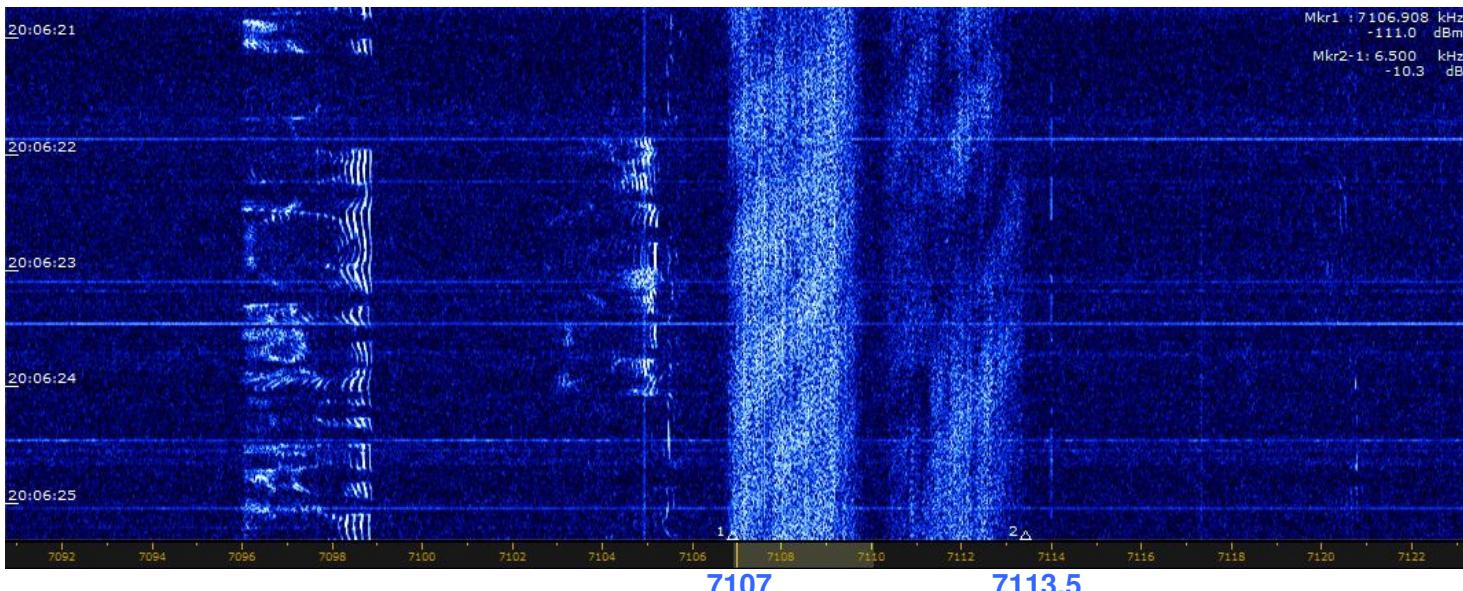
The system was located in North-Poland. DF with Kiwi-TDoA. Google Maps cannot be used any longer without paying fees.

### 3. Israel Navy on 40 m

The Israel Navy was found on 7107.0 and 7150.0 kHz with digital emissions.

Parameters: hybrid modem - precursors, pre amble and traffic - PSK4A – 75 Bd parallel and PSK8A serial 2400 Bd with 2400 Hz shift – sonogram with Wavecom W-Code





#### 4. Far East OTH radar on 14225 kHz

We observed an OTH radar from Far East daily on 14225 kHz with 30 sps and 10 kHz wide. My DF was East China, but not sure.

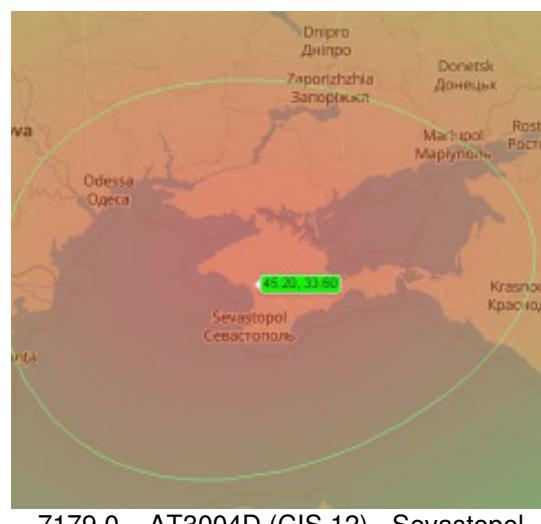
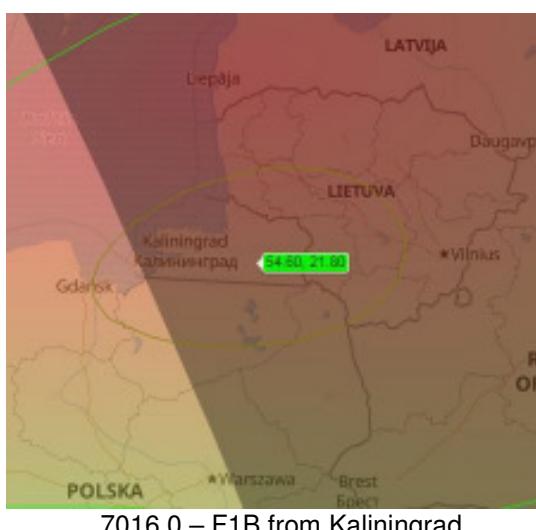
#### 5. Chinese wideband OTH radars and OTH radar foghorns on 20 m

Chinese wideband radars appeared often on our 20 m-band on FMOP – 10 sps (PRF 10), 160 kHz wide and jumping. Several OTH radars named “foghorns” were active, too. Parameters: FMOP - 66.66 sps - 10 kHz wide and 3.8 sec bursts

#### 6. No problems by military exercises

We did not find MIL intrusions on our bands during the large military exercises from Russia and the NATO. Activities out of our bands were not observed. This is not our job.

#### 7. DFs with Kiwi TDoA (DF = direction finding)



#### 8. Miscellaneous news:

3500, 3535, 3540, 3560, 3585, 3590, 7000 kHz – USB – Spanish fishermen few times  
5350.0 kHz – USB – Spanish fishery – splattering up to 5353.0 kHz  
7190.0 kHz – BC from KNX 1500 – 1530 utc

**Many OTH radar intrusions on the upper bands!**

#### 9. Homepage IARU Region 1

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

Homepage IARUMS Region 1

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

Homepage IARUMS Region 2

[http://www.iarums-r2.org/](http://www.iarums-r2.org)

Homepage IARUMS Region 3

<http://iaru-r3.org/iaru-region-3-monitoring-system-newsletter/>

Intruderlogger Region 1

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

ITU-Monitoring Reports

<http://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx>

## Part 2: Detailed reports of the national Co-ordinators

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

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

DG0JBJ (Mario) observed **2** OTH radars on 40 m, **9** OTH radars on 20 m, **61** OTH radars on 17m, **37** OTH radars on 15 m and **3** OTH radars on 10 m in October 2018.

### DARC 2 – Germany - DK2OM (Wolf)

**FSK transmissions -> center frequency between mark and space**

**PSK transmissions -> center QRG - ALE (MIL188-141A) -> USB QRG**

**exclusive bands -> black – shared bands -> blue - voice traffic -> green - BC -> red**

**SH = shift - SP = spread (radar) – SPS = sweeps/sec (radar) -> (aka PRF)**

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	1810,5	1728	25	10	ROU		A1A			CW beacon – YR2TOP – 1810.518 kHz – just for info
DK2OM	1812,0	vt	dly	10	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1888,0	1730	25	10	I	IPD	USB			Civitavecchia Radio, weather reports - daily
DK2OM	1925,0	1730	25	10	I	IPL	USB			Livorno Radio, weather reports - daily
DK2OM	3503,5	vt	dly	10	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3525,0 RF	---	--	10	F		PSK8	2400	2400	Link11 – SLEW - area of Marseille
DK2OM	3527,0	2000	dly	10	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3531,0	---	--	10	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: full hour + 40 min - daily
DK2OM	3532,0	---	--	10	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3535,0	1720	09	10	E		USB			Spanish fishery
DK2OM	3548,0	2050	30	10	RUS	RDL	F1B	50	200	RUS navy Kaliningrad
DK2OM	3550,0	0630	dly	10	F		A3E			French amateurs not respecting bandplans – every morning
DK2OM	3550,0	0545	15	10	E		USB			Galician fishery
DK2OM	3550,0	2010	30	10	?		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – DF not possible – QRM – legal operation
DK2OM	3550,7	---	--	10	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial - legal operation!
DK2OM	3553,8	ady	dly	10	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long -TUR MIL – Ankara – daily, all day - legal operation
DK2OM	3581,8	1839	02	10	TUR		PSK8A	2400	2400	Stanag-4285 – 600 bps long - daily
DK2OM	3585,0	ady	dly	10	TWN	HLL	F1C		800	WX-fax Taiwan - 120 rpm, IOC

<b>DK2OM</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
										576 - daily, all day - legal!
<b>DK2OM</b>	<b>3585,0</b>	<b>1725</b>	<b>09</b>	<b>10</b>	<b>E</b>		<b>USB</b>			Spanish fishery - disturbing legal Taiwan WX-fax
<b>DK2OM</b>	3586,0	2027	22	10	HOL		PSK2A	40	40	Amsterdam - daily
<b>DK2OM</b>	3593,7	---	--	10	RUS	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
<b>DK2OM</b>	3593,8	---	--	10	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
<b>DK2OM</b>	3593,9	---	--	10	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
<b>DK2OM</b>	3594,0	---	--	10	RUS	C	A1A			Cluster beacon C - Moscow RUS Navy - “RIW”
<b>DK2OM</b>	3594,0 RF	---	--	10	ISR		PSK4A PSK8	75 2400	2600 2400	hybrid modem – 6 pre-carriers PSK4 parallel and MIL-188-110A modified – ISR Navy – shared band!
<b>DK2OM</b>	3594,2	---	--	10	RUS	F	A1A			Cluster beacon F - Vladivostok RUS Navy - “RJS”
<b>DK2OM</b>	3595,0	---	--	10	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
<b>DK2OM</b>	3596,0	vt	dly	10	J		FSK8	125	1750	ALE, “JH1ESB” – just for info!
<b>DK2OM</b>	3622,5	ady	dly	10	J	JMH	F1C		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!!!
<b>DK2OM</b>	3756,0	1800	dly	10	RUS		USB			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG – daily
<b>DK2OM</b>	3758,0	1623	09	10	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
<b>DK2OM</b>	3774,0	1920	08	10	RUS		PSK2A	120	2600	AT3004D - Sevastopol
<b>DK2OM</b>	<b>5350,0</b>	---	--	<b>10</b>	<b>E</b>		<b>USB</b>			Spanish fishery – splattering up
<b>DK2OM</b>	5361,8 RF	1945	05	10	DNK	OUA15	PSK8A	2400	2400	Stanag-4285 – 600 bps long – assigned to Danish Navy Aarhus - legal – primary user !
<b>DK2OM</b>	6998,0 RF	1405	23	10	RUS		PSK2A	120	2600	7000.0 center - AT3004D – Moscow
<b>DK2OM</b>	7000,0 RF	1300	11	10	POL		PSK8A	2400	2400	MIL-188-110B – POL MIL – daily – all day – German PTT informed
<b>DK2OM</b>	7000,0	1333	30	10	RUS		FMOP		12k	coastal radar Sunflower - 43 sps 7000 – 7012 kHz – NE of Vladivostok
<b>DK2OM</b>	7001,0 0930 0938	07	10				USB			male voice calling „Khalid“
<b>DK2OM</b>	7005,0	1303	12	10	PHL		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7005 – 7037 kHz
<b>DK2OM</b>	7010,0	vt	vd	10	ALB	no ITU	FSK8	125	1750	ALE, “RS0” - Tirana
<b>DK2OM</b>	7016,0	1001	29	10	RUS		F1B	75	250	Kaliningrad
<b>DK2OM</b>	7018,0	---	--	10	RUS	REA4	F1B	100	800	mostly idling – Russian airforce Moscow – ident at full hour + 41 min. on F1A
<b>DK2OM</b>	7020,0	vt	vd	10	ALB		FSK8	125	1750	ALE, “CS004A” “RS004D” “CS004” - daily
<b>DK2OM</b>	7031,0 RF	---	--	10	RUS		unid			pulsing carrier and spurious – 7032.170 - Sevastopol
<b>DK2OM</b>	7035,0	vt	07	10	RUS		FMOP		40k	coastal radar Sunflower - 43 sps 7035 – 7075 kHz – NE of Vladivostok
<b>DK2OM</b>	7038,8	---	--	10	RUS	P	A1A			Cluster beacon „P“– Kaliningrad RUS Navy – “RMP”
<b>DK2OM</b>	7039,0	---	--	10	RUS	C	A1A			Cluster beacon „C“ - Moscow RUS Navy - “RIW”
<b>DK2OM</b>	7039,2	---	--	10	RUS	F	A1A			Cluster beacon „F“ - Vladivostok RUS Navy - “RJS”
<b>DK2OM</b>	7039,3	---	--	10	RUS	K	A1A			Cluster beacon “K” Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet -

<b>DK2OM</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
										“RCC” - daily
<b>DK2OM</b>	7039,4	ady	dly	10	RUS	M	A1A			Cluster beacon „M“ – Magadan RUS Navy – „RTS“ - <b>daily</b>
<b>DK2OM</b>	7040,5	vt	dly	10	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
<b>DK2OM</b>	<b>7045,0</b>	<b>2010</b>	<b>09</b>	<b>10</b>			<b>USB</b>			<b>unid male net – Codan beeps</b>
<b>DK2OM</b>	7049,5	vt	dly	10	HRV G F I	9A0ALE M1DFO F6BAZ IW3IPM	FSK8	125	1750	Amateur ALE, just for info! daily – various times
<b>DK2OM</b>	7050,0	vt	dly	10	KGZ		FSK8	125	1750	ALE, “X” “810” “820615” “810698” – Kyrgyzstan MIL
<b>DK2OM</b>	<b>7055,0</b>	<b>vt</b>	<b>dly</b>	<b>10</b>	<b>UKR</b>		<b>LSB</b>			<b>music and Russian voices</b>
<b>DK2OM</b>	7088,8	vt	vd	10	S	SL0FRO	A1A			7088.830 kHz - cw-trainee, Sweden - SL0FRO - just for info!
<b>DK2OM</b>	7089,8	---	--	10	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft ? west of Izmir
<b>DK2OM</b>	7095,0	1637	12	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	7099,5	vt	dly	10	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
<b>DK2OM</b>	7102,0	vt	vd	10	HRV SUI D	9A0MIL	FSK8	125	1750	ALE, “9A3MIL” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
<b>DK2OM</b>	7107,0 RF	2006	22	10	ISR		PSK4 PSK8	75 2400	6500	7107.0 – 7113.5 - hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial on DSB mode
<b>DK2OM</b>	7110,0	vt	dly	10	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
<b>DK2OM</b>	7110,0	2120	01	10	SYR		F1B	50	200	RUS ship – Latakia - daily
<b>DK2OM</b>	7110,4 RF	1900	25	10	ISR		PSK4 PSK8	75 2400	2200 2400	7110.4 – 7112.6 - hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – 4 pre carriers
<b>DK2OM</b>	7111,0	0902	11	10	RUS		F1B	75	250	Moscow – also 17.10.2018 at 0800 utc
<b>DK2OM</b>	7112,0 LSB	---	--	10	CHN		PSK4A	60	2350	burst system “PRC-30” – 30 tones – 450 Hz pilot tone
<b>DK2OM</b>	7114,0	0607	15	10	RUS		F1B	50	200	Kaliningrad
<b>DK2OM</b>	7117,0	---	--	10	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident on CW at 1640 utc on the mark-QRG
<b>DK2OM</b>	<b>7120,0</b>	<b>---</b>	<b>--</b>	<b>10</b>	<b>SOM</b>		<b>A3E</b>		<b>9k</b>	<b>Radio Hargeisa – Somaliland</b>
<b>DK2OM</b>	7122,0	1519	03	10	RUS		F1B	75	250	Ryazan
<b>DK2OM</b>	7137,0	vt	dly	10	TWN		FSK8 LSB	125	1750	ALE, “EDKLT” “EVSNNG” “ECCLT” “EFNGX” “EVNNM” “EVWRK” “EGFXA” “ECQUY” “EFYMO” “EWOPEN” “ECXKF” “EWRAJ” “ECHTD” “EUIQE” “EBPGH” Taiwanese navy
<b>DK2OM</b>	7137,0	2002	14	10	RUS		F1B	50	200	Kaliningrad
<b>DK2OM</b>	<b>7140,0</b>	<b>1800</b>	<b>21</b>	<b>10</b>	<b>ERI</b>		<b>A3E</b>		<b>9k</b>	<b>7140.022 kHz - Radio Eritrea</b>
<b>DK2OM</b>	7147,0	1636	12	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	7150,0 RF	1150	17	10	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial
<b>DK2OM</b>	7169,0	0714	09	10	RUS		F1B	75	200	Penza
<b>DK2OM</b>	7179,0	1550	09	10	RUS		PSK2A	120	2600	AT3004D – Sevastopol
<b>DK2OM</b>	7185,0	1600	09	10	HRV		FSK8	125	1750	ALE, „9A5EX“ – just for info
<b>DK2OM</b>	7185,5	vt	dly	10	J TWN		FSK8	125	1750	ALE, “BV4AS” “JH1ESB” - just for info - daily
<b>DK2OM</b>	<b>7190,0</b>	<b>1500</b>	<b>30</b>	<b>10</b>	<b>AUS</b>	<b>KNX</b>	<b>A3E/BC</b>		<b>9k</b>	<b>location Kununurra – NW AUS</b>
<b>DK2OM</b>	7197,0	vt	dly	10	TUR		FSK8	125	1750	ALE, „353013“ „334018“ -

<b>DK2OM</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
										Turkish Sivil Avunma – Turkish Civil Defense
<b>DK2OM</b>	7198,0	1334	25	10	RUS		PSK2A	120	2600	AT3004D – Moscow
<b>DK2OM</b>	<b>7200,0</b>	<b>---</b>	<b>--</b>	<b>10</b>	<b>MMR</b>		<b>A3E</b>		<b>9k</b>	<b>Myanmar Radio</b>
<b>DK2OM</b>	7200,0	1404	31	10	RUS		PSK2A	120	2600	ship west of Estonia
<b>DK2OM</b>	10100,8	ady	dly	10	D	DDK9	F1B	50	450	Baudot - German Weatherservice – legal!
<b>DK2OM</b>	10110,0	vt	dly	10	SNG		FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
<b>DK2OM</b>	10113,0	vt	vd	10	TUN		FSK8	125	1750	ALE, “TUD” “STAT5” “STAT154”
<b>DK2OM</b>	10114,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “BSF” “ZEN” “CM2OR2”
<b>DK2OM</b>	10114,8	0700	dly	10	RUS		F1B	100	1000	CIS14 – Moscow
<b>DK2OM</b>	10115,0	vt	dly	10	MRC		FSK8	125	1750	ALE, “100” “114” “203” “XXZ” – West Sahara
<b>DK2OM</b>	10120,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “CM6” “01012016”
<b>DK2OM</b>	10123,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “CM3” “COF” “BSF” “CM2” “ESA” – Algerian Airforce
<b>DK2OM</b>	10124,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “OEB” - ALG airforce
<b>DK2OM</b>	10129,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “CM1” “CTF” “772”
<b>DK2OM</b>	10130,0	1025	29	10	RUS		F1B	100	500	unclean - area of Chita – daily, all day
<b>DK2OM</b>	10130,0	vt	dly	10	MLI		FSK8	125	1750	ALE, „105002“ „105018“ - Mali
<b>DK2OM</b>	10132,0	vt	vd	10	F		USB			French amateurs not respecting bandplans and disturbing beacons
<b>DK2OM</b>	10136,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
<b>DK2OM</b>	<b>10144,0</b>	<b>ady</b>	<b>dly</b>	<b>10</b>	<b>D</b>	<b>DK0WCY</b>	<b>A1A</b>			<b>10144.000 kHz - DK0WCY – German aurora beacon – just for info!</b>
<b>DK2OM</b>	10145,5	vt	dly	10		JH1ESB	FSK8	125	1750	ALE, “JH1ESB” - just for info - daily
<b>DK2OM</b>	10145,5	vt	dly	10	TWN AUS	BV4AS	FSK8	125	1750	ALE, “BV4AS” “VK4SAA”– just for info!
<b>DK2OM</b>	14000,0	1600	27	10	FEa		USB			Far East pirates – east of Indonesia
<b>DK2OM</b>	14000,0	1445	23	10	RUS		PSK2A	120	5200	harmonic from 7000.0 center - AT3004D – here: 24 tones Moscow
<b>DK2OM</b>	14008,0	0950	29	10	RUS		F1B	50	500	Moscow
<b>DK2OM</b>	14048,0	0914	19	10	CHN		FMOP		160k	14048 – 14208 - Chinese wideband OTH radar – 10 sps – jumping
<b>DK2OM</b>	14092,0	0755	23	10	CHN		FMOP		160k	14092 – 14252 - Chinese wideband OTH radar – 10 sps
<b>DK2OM</b>	14100,0	vt	dly	10	ALG		FSK8	125	1750	ALE, “6206” “6204” “6212” “6202” “6203” “6207” “6217” “MTL” “IJI” – Mauritanian border – daily, all day
<b>DK2OM</b>	14108,0	---	--	10	RUS	6TY5	A1A			encrypted groups – RUS MIL – area of Moscow
<b>DK2OM</b>	14109,0	vt	dly	10	TWN	HAM	FSK8	125	1750	ALE, “BV4AS” – daily - just for info!
<b>DK2OM</b>	14109,0	vt	dly	10	S HRV D		FSK8	125	1750	ALE, “SM3FXL” “9A4OS” “9A3BRV” “DK0ESD” - just for info!
<b>DK2OM</b>	14109,0	vt	vd	10	J		FSK8	125	1750	ALE, “JH1ESB” – just for info
<b>DK2OM</b>	14141,0	0920	19	10	CHN		FMOP		160k	14141 – 14301 - Chinese wideband OTH radar – 10 sps – jumping
<b>DK2OM</b>	14143,5 RF	0810	05	10	CHN		PSK4A	75	2250	8 x 75 Bd – PRC4+4
<b>DK2OM</b>	14160,0	vt	dly	10	MRC		FSK8	125	1750	ALE, “9204” “9228” “9236”

<b>DK2OM</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
<b>DK2OM</b>	14168,0	0958	07	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	14173,0	vt	vd	10			FSK8	125	1750	ALE, „ABC“ „AK0“ „DD2“ „XYZ“
<b>DK2OM</b>	14185,0	1013	18	10	CHN		FMOP		160k	14185 – 14345 - Chinese wideband OTH radar – 10 sps
<b>DK2OM</b>	14192,0	vt	dly	10	RUS		F1B	50 75 500 200 100 500 100	500 500 200 100 500 200	RUS navy Kaliningrad - daily
<b>DK2OM</b>	14211,0	0810	12	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	14221,0	vt	dly	10	KGZ		F1B	50	200	Bishkek – mostly idling - daily various times
<b>DK2OM</b>	14225,0	0930	20	10	CHN		FMOP		10k	unid radar bursts – 30 sps – NW of Wuhan - daily – various times
<b>DK2OM</b>	14227,0	0750	23	10	CHN		FMOP		160k	14227 – 14387 - Chinese wideband OTH radar – 10 sps
<b>DK2OM</b>	14245,0	1301	25	10	CHN		FMOP		160k	14245 – 14405 - Chinese wideband OTH radar – 10 sps
<b>DK2OM</b>	14260,0	vt	dly	10	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
<b>DK2OM</b>	<b>14260,0</b>	---	--	<b>10</b>	<b>UKR</b>		<b>A3E</b>			<b>female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne</b>
<b>DK2OM</b>	14295,0	vt	dly	10	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
<b>DK2OM</b>	14299,0	1238	12	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	14319,0	0800	12	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	14340,0	1243	12	10	CHN		FMOP		10k	Chinese OTH radar „Foghorn“ – 66.66 sps – 3.8 sec bursts
<b>DK2OM</b>	14345,9	vt	dly	10	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.934 kHz - every 5 minutes – daily - just for info!
<b>DK2OM</b>	14346,0	vt	dly	10	POR		FSK8	125	1750	ALE, “CT2IXQ” just for info – various times, daily
<b>DK2OM</b>	<b>18080,0</b>	<b>0630</b>	<b>dly</b>	<b>10</b>	<b>TWN</b>		<b>A3E/BC</b>			<b>Sound of Hope – Taiwan and Chinese BC jammer – daily at 06 utc and later</b>
<b>DK2OM</b>	<b>18100,0</b>	vt	dly	10	MRC		FSK8	125	1750	<b>ALE, “A2” “A4” “A5” “A7” “S6” – “C3” “R3” “G401” “CD” “09” “G2” “LG6” “G301” “ELJADIDNET4” - daily, various times</b>
<b>DK2OM</b>	<b>18106,0</b>	vt	vd	10	POR	CT2GOY	FSK8	125	1750	ALE, “CT2GOY” – just for info!
<b>DK2OM</b>	<b>18106,2</b>	vt	dly	10	TWN		FSK8	125	1750	ALE, “BV4AS” – just for info!
<b>DK2OM</b>	<b>18107,0</b>	vt	vd	10	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow – idle and traffic – daily - Russian navy – shared band!
<b>DK2OM</b>	<b>18150,0</b>	---	--	10	RUS		F1B	100	1000	harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad
<b>DK2OM</b>	<b>21000,0</b>	---	--	<b>10</b>	<b>B</b>		<b>USB</b>			<b>Brazilian pirates – Rio de Janeiro with North Brazil – very often</b>
<b>DK2OM</b>	21096,0	vt	dly	10	INS	YD0OXH	FSK8	125	1750	ALE, “YD0OXH3” – daily, various times - just for info!
<b>DK2OM</b>	21096,0	vt	vd	10	G		FSK8	125	1750	ALE, “M1DFO” – just for info!
<b>DK2OM</b>	21145,0	vt	dly	10	MRC		FSK8	125	1750	ALE, “A” “B301” “C3”, “IR4” “H4” “IR6” “T4” “E4” “A2” “CD” “K3” “KB2” “J5” “J52” “GR2” “GS4” “R3” “R301” “R33” “R8” “R5” “Y1” “S51” “S3” “S4” “S512” “S552” “G2” “G501” - various times, daily

<b>DK2OM</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
<b>DK2OM</b>	21190,0	---	--	10	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow
<b>DK2OM</b>	21400,0	---	--	10	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow
<b>DK2OM</b>	21438,0	0835	07	10	RUS	RCV	A1A			RKZ – RJV de RCV - RUS Navy Sevastopol - often
<b>DK2OM</b>	21446,0	---	--	10	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
<b>DK2OM</b>	25000,0	---	--	10	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day – just for info!
<b>DK2OM</b>	<b>28000,0</b>	---	--	<b>10</b>	<b>B</b>		<b>A3E</b>			<b>Brazilian CBers – 28000 – 28325 – daily, all day - no change</b>
<b>DK2OM</b>	<b>28000,0</b>	---	--	<b>10</b>	<b>CIS</b>		<b>F3E</b>			<b>28000 – 29700 numerous CIS taxi nets – no change</b>
<b>DK2OM</b>	28025,0	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	28035,0	---	--	<b>10</b>	<b>RUS</b>		<b>F3E</b>			<b>RUS taxi – Moscow - daily</b>
<b>DK2OM</b>	28051,5	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	28065,0	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	28075,0	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	28085,1	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	28212,0	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	28275,0	---	--	10	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
<b>DK2OM</b>	<b>28435,0</b>	----	--	<b>10</b>	<b>E</b>		<b>F1B</b>	<b>81.9</b>	<b>140</b>	<b>Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol – Malaga</b>
<b>DK2OM</b>	28459,8	---	--	10	GAB		A3E		1060	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon - daily
<b>DK2OM</b>	<b>28499,8</b>	---	--	<b>10</b>	<b>MEa</b>		<b>F1B</b>	<b>81.9</b>	<b>140</b>	<b>Datawell-buoy “Waverider” – 28499.875 kHz – Persian Gulf</b>
<b>DK2OM</b>	28746,5	---	--	10	GAB		A3E			carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon
<b>DK2OM</b>	28751,6	---	--	10	GAB		A3E		1080	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon
<b>DK2OM</b>	28860,0	---	--	10	IRN		AM-pulse		55k	Iranian radar bursts – 313 and 150 sps – long lasting
<b>DK2OM</b>	29114,0	---	--	10	RUS		F1B	100	2000	harmonic from 14557.0 kHz - Moscow
<b>DK2OM</b>	<b>29249,9</b>	---	--	<b>10</b>	<b>E</b>		<b>F1B</b>	<b>81.9</b>	<b>140</b>	<b>Datawell-buoy “Waverider” – 29249.880 kHz – Spain Fuerteventura – reported by CT2IWW</b>
<b>DK2OM</b>	<b>29375,0</b>	---	--	<b>10</b>	<b>I</b>		<b>F1B</b>	<b>81.9</b>	<b>140</b>	<b>Datawell-buoy “Waverider” – 29374.898 kHz – Gallipoli, South Italy - daily, all day</b>
<b>DK2OM</b>	<b>29387,5</b>	---	--	<b>10</b>	<b>IND</b>		<b>F1B</b>	<b>81.9</b>	<b>140</b>	<b>Datawell-buoy “Waverider” – 29387.460 kHz – Indian NW</b>

<b>DK2OM</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BD</b>	<b>SH/SP</b>	<b>DETAILS</b>
										coast, close to Pakistan - daily, all day
<b>DK2OM</b>	<b>29400,0</b>	---	--	<b>10</b>	USA		<b>F1B</b>	<b>81.9</b>	<b>140</b>	Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day
<b>DK2OM</b>	<b>29450,0</b>	---	--	<b>10</b>	MRC		<b>F1B</b>	<b>81.9</b>	<b>140</b>	Datawell-buoy "Waverider" – 29449.863 kHz - area of El Aaiun – Morocco - daily, all day
<b>DK2OM</b>	<b>29500,0</b>	---	--	<b>10</b>	G		<b>F1B</b>	<b>81.9</b>	<b>140</b>	Datawell-buoy "Waverider" – 29499.974 kHz- area of Gibraltar – daily, all day
<b>DK2OM</b>	<b>29525,0</b>	---	--	<b>10</b>	MRC		<b>F1B</b>	<b>81.9</b>	<b>140</b>	Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day
<b>DK2OM</b>	<b>29625,0</b>	---	--	<b>10</b>	USA		<b>F1B</b>	<b>81.9</b>	<b>140</b>	Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day
<b>DK2OM</b>	29685,0	---	--	10	I		VFT		2300	Italian MIL – Brescia - daily
<b>DK2OM</b>	29699,5	---	--	10	I		VFT		1600	Italian MIL – Brescia - daily
<b>DK2OM</b>	<b>50100,0</b>	vt	dly	<b>10</b>	D		<b>QRM</b>			1.8 - 50 MHz strong QRM by a neighbouring LED lamp - since 2 1/2 years - "many thanks" to German "PTT" Eschborn 

### IRTS – Ireland – EI3GYB (Michael)

<b>SOC</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>MODE</b>	<b>DETAILS</b>
<b>IRTS</b>	1812	0200	05	10	RUS	SSB	RUS navy Kaliningrad. Daily all night.
<b>IRTS</b>	1980	2120	27	10	POR	USB	2 Portuguese fishermen with very strong signals just ending their QSO.
<b>IRTS</b>	3516	0635	22	10	MM	USB	2 Japanese voices, same as heard many times during the month.
<b>IRTS</b>	3525	1115	29	10	MM	USB	2 Japanese male voices, same as heard many times during the month.
<b>IRTS</b>	3540	0845	05	10	MM	USB	2 Japanese male persons chatting. VY loud. Same as above. Also heard 07/10 at 0655z. Again 12/10 at 1000z. Again 15/10 at 0255z.
<b>IRTS</b>	3540	1420	16	10	POR	USB	2 Portuguese fishermen. Great signals.
<b>IRTS</b>	3550	0600	02	10	F	AM	Second group of French Hams violating the band plan. Almost daily.
<b>IRTS</b>	3550	0935	04	10	F or MM	USB	Group of French fishermen. Strong.
<b>IRTS</b>	3560	1106	05	10	E or MM	USB	Group of Spanish fishermen. VY loud signals. Motor noise from one of the ships.
<b>IRTS</b>	3560	0705	07	10	E or MM	USB	2 Spanish fishermen. Monster signals.
<b>IRTS</b>	3570	0640	22	10	F	USB	2 French fishermen. Huge signals.
<b>IRTS</b>	3590	0555	02	10	F	AM	French Hams violating the band plan. Daily.
<b>IRTS</b>	3591.8	1345	25	10	POR	USB	2 Portuguese fishermen. One is very strong, the other one weak. Still on an hour later.
<b>IRTS</b>	3640	0640	05	10	MM	USB	2 Japanese male persons chatting. Loud. Also heard 12/10 and 13/10 at 0900z forward with big signals.
<b>IRTS</b>	3639.8	0900	18	10	F	USB	2 French fishermen with loud motor noise in the background.
<b>IRTS</b>	3650	1125 to 1140	07	10	IRL/UK	USB	Somebody is imitating animal sounds between the overs of the IRTS past news net.
<b>IRTS</b>	3651	1110	05	10	E or MM	USB	2 Spanish fishermen. Weak signals.
<b>IRTS</b>	3737	1235	18	10	POR	USB	2 Portuguese fishermen. Mobile phone ringing in the background of one of the ships.
<b>IRTS</b>	3770	0815	11	10	MM	USB	2 Japanese male voices, same as above.
<b>IRTS</b>	3800	1138	21	10	IRL	USB	2 Irish fishermen. One has a Cork accent, the other one is too weak to be heard properly.
<b>IRTS</b>	3935	1245	20	10	POR	USB	2 Portuguese fishermen.

SOC	kHz	UTC	DD	MM	ITU	MODE	DETAILS
IRTS	5361.8	0945	07	10	DNK	PSK	NATO from Arhus. SSB section of the 5 MHz band completely closed. LEGAL PRIMARY USER.
IRTS	5400	0650	10	10	F or MM	USB	Group of French fishermen. Very loud with motor noise in the background. Irish spot frequency. Also heard 12/10 at 0945z and 13/10 at 1415z.
IRTS	5400	1605	18	10	E	USB	2 Spanish fishermen. Also heard 30/10 at 1930z. Irish spot frequency- but very popular among fishermen as well.
IRTS	5925	1020	05	10	F or MM	USB	Group of French fishermen operating in the 49 meter broadcasting band.
IRTS	5943	1330	07	10	UK	USB	Northern Ireland fishermen complaining about bad catch:" It is a fucking nightmare!" Very strong signals in the 49 metre broadcasting band.
IRTS	7001.8	0845	13	10	POL	PSK	Polish military. Medium signal strength.
IRTS	7055	1630	09	10	RUS/ UKR	LSB	RUS/UKR radio war with slogans, MX, NX, propaganda. Activity is down to a few days per week.
IRTS	7110.1	1930	22	10	ISR	PSK	Israeli navy.
IRTS	7151.8	1130	17	10	ISR	PSK	Israeli navy.
IRTS	14192	1030	15	10	RUS	F1B	RUS navy. Strong. Every day all daylight hours.
IRTS	18080	0715	30	10	TWN	AM	Voice of Hope, Taipei. Heard several times during the month with a very weak signal.
IRTS	18156	1035	06	10		FMCW	Radar from 18156 to 18182 KHz. Huge signal, making any use of the band impossible.

### KARS – Kuwait – 9K2RR (Faisal)

### MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3523,0	1639	3	10			F1B	250	
MRASZ	3524,0	1730	1	10			F1B	250	
MRASZ	3527,0	1910	31	10			F1B	200	
MRASZ	3529,0	1915	17	10			LSB		russian language, numbers
MRASZ	3532,0	1914	18	10			A3E		serbian language, numbers
MRASZ	3547,9	1545	14	10			N0N		
MRASZ	3548,0	1711	2	10			F1B	200	
MRASZ	3548,0	1721	2	10			F1A	200	"45010 83238 45010 K"
MRASZ	3548,0	1641	3	10			F1B	200	
MRASZ	3548,0	1614	4	10			F1B	200	
MRASZ	3548,0	1751	8	10			F1B	200	
MRASZ	3548,0	1614	10	10			F1B	200	
MRASZ	3623,0	1653	25	10			LSB		music, russian song
MRASZ	3624,0	1715	10	10			F1B	200	
MRASZ	3695,0	1829	15	10			LSB		chaos
MRASZ	3698,0	1643	3	10			A1A		dashes, disturbance
MRASZ	3702,0	1733	1	10			F1B	200	
MRASZ	3705,0	1734	1	10			PSK2		AT3004D
MRASZ	3725,0	1547	14	10			LSB		music
MRASZ	3757,0	1748	8	10			F1B	250	
MRASZ	3774,0	1750	8	10			PSK2		AT3004D
MRASZ	7013,0	1635	2	10			OTHR		7008-7018 kHz, quick dotter,
MRASZ	7016,0	1822	18	10			F1B	250	
MRASZ	7020,0	1219	20	10			F1B	250	
MRASZ	7047,0	1841	3	10			OTHR		7040-7054 kHz
MRASZ	7050,0	1628	1	10			LSB		russian language
MRASZ	7050,0	1418	22	10			LSB		abnormal russian
MRASZ	7051,0	1517	24	10			F1B	200	
MRASZ	7055,0	1647	3	10			LSB		chaos
MRASZ	7055,0	1418	22	10			LSB		music + russian song
MRASZ	7055,0	1515	24	10			USB		"ZXP 4 prijom"; russian language
MRASZ	7055,0	1446	25	10			LSB		music + russian song
MRASZ	7059,0	1650	25	10			F1B	250	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	7110,0	1627	1	10			F1B	200	
MRASZ	7110,0	1636	2	10			F1B	200	
MRASZ	7110,0	1648	3	10			F1B	200	
MRASZ	7110,0	1825	4	10			F1B	200	
MRASZ	7110,0	1745	8	10			F1B	200	
MRASZ	7110,0	1752	11	10			F1B	200	
MRASZ	7140,0	1542	14	10	ERI		A3E		R. Eritrea
MRASZ	7140,0	1831	15	10	ERI		A3E		R. Eritrea
MRASZ	7140,0	1825	17	10	ERI		A3E		R. Eritrea
MRASZ	7140,0	1818	18	10	ERI		A3E		R. Eritrea
MRASZ	7180,0	1824	17	10	ERI		A3E		R. Eritrea
MRASZ	7180,0	1817	18	10	ERI		A3E		R. Eritrea
MRASZ	7180,0	1802	24	10	ERI		A3E		R. Eritrea
MRASZ	10120,0	1644	15	10			OTHR		10100-10140 kHz; 25 Hz?
MRASZ	14021,4	1614	25	10			A1A		quick dotter, deliberate disturbance
MRASZ	14025,0	1443	20	10			A1A		continuously dashes
MRASZ	14044,0	1716	14	10			A1A		"AAAAAAAAAAAAAAA" continuously
MRASZ	14074,0	1619	14	10			USB		unidentified
MRASZ	14165,0	0813	18	10			OTHR		14100-14260 kHz
MRASZ	14195,0	0810	18	10			OTHR		14100-14290 kHz
MRASZ	14280,0	0815	18	10			OTHR		14200-14360 kHz
MRASZ	14294,0	0811	18	10			PSK2		AT3004D

### OEVSV – Austria – OE3GSA (Gerd)

### PZK – Poland – SP9BRP (Jan)

### REF – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Sh /Bw	DETAILS
R.E.F.									Sept – October 2018
	14040	1642	28	10			cw		1Hz pulsing also shifting to 14090, 14045,14065kHz...
	14067	0740	05	9			USB		Undit. Language non Ham
	14160	0755	10	10			fmcw	200kHz	OTH Radar pulsed 100ms,S7 (Wood Picker ?)
	14160	0816	23	10			fmcw	200kHz	OTH Radar pulsed 100ms,S5 (Wood Picker ?)
	14225	0920	30	10			fmcw	10kHz	OTH Radar pulsed 24ms,S8
	14280	0748	08	10			fmcw	200kHz	OTH Radar pulsed 100ms,S7
	14295	0804	18	10			Data	10kHz	Data pulsed 25ms,S9
	18060	0759	09	10			fmcw	20kHz	OTH Radar pulsed 20ms,S7
	18060	0750	10	10			fmcw	20kHz	OTH Radar pulsed 20ms,S7
	21130	0751	25	10			fmcw	20kHz	OTH Radar pulsed 20ms,S9
	21230	0745	12	10			fmcw	20kHz	OTH Radar pulsed 20ms,S6
	21320	0805	23	10			fmcw	20kHz	OTH Radar pulsed 20ms,S9
	21330	0753	25	10			fmcw	20kHz	OTH Radar pulsed 20ms,S8

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

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3520	08.01	08	10	F		J3E-U			French fishery
REP	3525	21.58	29	10	RUS		H2A	10		Enigma M01B, two tone CW msg
REP	3540	07.02	21	10	J		J3E-U			Japanese ops, prob fishery in Atlantic
REP	3550	06.51	21	10	F		A3E			French amateurs not observing IARU Bandplan
REP	3550	19.47	30	10	POR		J3E-U			Portuguese fishery
REP	3568	07.11	04	10	G		FSK	75	850	NATO Stanag 4481 encrypted just FYI

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3590	06.42	24	10	F		A3E			French amateurs not observing IARU Bandplan
REP	3595	07.22	20	10	J		J3E-U			Japanese fishery in the Atlantic, strong signals
REP	3640	17.06	04	10	G	XSS	MFSK8	125	3k	UKDHFS Defense ALE sounding, legal FYI
REP	3770	08.09	08	10	POR		J3E-U			Portuguese fishery
REP	7000	08.08	12	10	POL		QPSK8	2400		Mil Std 188 110b bursts, presumably Polish mil
REP	7010	08.24	16	10			MFSK8	125	3k	Mil Std 188-141A Ale net 92xxx calls, sounding and exchanging AMD packets, daily, all day
REP	7011	07.09	13	10	RUS		PSK2	120	3k	AT3004D Modem, encrypted comms Russia
REP	7040	17.19	04	10			FMOP		100k	Wideband OTH, presumably China
REP	7055	16.53	04	10	RUS		J3E-L			Russia/Ukraine propaganda wars, daily
REP	7070	20.01	02	10			J3E-U			Unid language ops, ALE
REP	7070	08.16	04	10		10003	MFSK8	125	3k	Mil Std 188-141A Ale 10xxx net sounding
REP	7070	14.34	31	10		2001	FSK8	125	3k	Mil Std 188-141A Ale 2xxx series net sounding
REP	7080	11.34	06	10	RUS		F1B	75	250	CIS50
REP	7102	19.47	25	10	B		J3E-U			Unid Brazilian intruders
REP	7160	22.05	28	10			PSK			Nato
REP	7197	16.01	19	10	TUR	30713	MFSK8	125	3k	Mil Std 188-141A Ale net 3xxxxs series calls, Turkish Civil Defence
REP	10125	19.00	20	10	E		J3E-U			Fishery
REP	10125	12.05	19	10			F1B	50	200	Encrypted
REP	10130	20.12	20	10	E		J3E-U			Fishery
REP	10145	08.22	21	10			J3E-U			French speaking ops, Mil Ale, prob Moroccan Gendarmerie
REP	14025	08.57	30	10	CHN		FMOP	20	10	OTH radar burst, presumably China
REP	14035	17.10	09	10	RUS		PSK2	120	3k	AT3004D
REP	14095	08.58	30	10	CHN		FMOP	20	10	OTH radar burst, presumably China
REP	14125	16.00	02	10			FMCW			OTH radar
REP	14125	08.56	30	10	CHN		FMOP	20	10	OTH radar burst, presumably China
REP	14192	07.55	04	10	RUS		FSK	50	200	CIS 36-50 Russian Federation mil encrypted
REP	14200	13.22	04	10	RUS		FSK	50	200	Navy
REP	14220	08.17	10	10	CHN		FMOP	10	150	OTH radar, presumably China
REP	14225	08.59	30	10	CHN		FMOP	20	10	OTH radar burst, presumably China
REP	14280	07.56	08	10	CHN		FMOP	20	10k	OTH radar burst, presumably China
REP	14330	09.05	14	10	CHN		FMOP	20	10	OTH radar burst, presumably China
REP	21005	14.00	01	10	MRC		J3E-U			Fishery
REP	21215	14.35	01	10	E		J3E-U			Fishery
REP	28100	17.55	01	10	E		J3E-U			Spanish CB
REP	28335	17.41	05	10	E		A3E			Spanish CB
REP	28730	11.08	10	10	RUS		F3E			Taxis dispatchers

### RSGB - Great Britain – G4DYA (Richard)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	1811.0	vt	vd	10	RUS		P0X		10K7-E	BRAS/RS-10 hyperbolic navigation. Approx 14 sidebands spaced 821 Hz
RSGB	3680.0	1834	07	10			P0X		40K0-E	Sunflower OTHR. (43 Hz prf)
RSGB	3733.0	2026	03	10			A3E			Music - ceased during monitoring
RSGB	3750.0	1900	07	10			P0X		40K0-E	Sunflower OTHR. (43 Hz prf)
RSGB	5398.0	1817	03	10			F1B		200	Assumed to be primary user
RSGB	7001.8	vt	11-29	10						Data bursts
RSGB	7016.0	1339	29	10			F1B		250	
RSGB	7020.08	0951	09	10			A1A			Morse dots - possibly stuck keyer

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	7038.5	ady	dly	10	CZE	OK0EU	A1A			For info: QRP propagation beacon
RSGB	7049.0	1457	11	10			F1B		200	
RSGB	7055.0	vt	vd	10			J3E			LSB Ukrainian operators squabbling
RSGB	7080.0	1957	29	10			F1B		200	
RSGB	7100.54	1503	09	10			N0N			
RSGB	7110.0	vt	01-03,07,09	10			F1B		200	
RSGB	7116.875	1400 2032	07 30	10			N0N			
RSGB	7122.0	1444	03	10			F1B		200	
RSGB	7140.02	vt	05-12	10			N0N			
RSGB	7179.0	1512	09	10			J7D		2K70-E	USB 7177.0 / CIS-12
RSGB	7190.0	1500-1532	29,30	10	AUS	Reach Beyond Australia	A3E		9K50-E	BC. Korean/English. Kununurra TX site. Listed in HFCC B18 schedule. Ceased following direct approach to broadcaster.
RSGB	10100.8	ady	dly	10	D	DDK9	F1B	50	450	For info: Primary user: WX broadcast
RSGB	10155.0	1606	10	10					20K0-E	OTHR
RSGB	14014.1	1143	03	10			A1A			Russian Morse - not amateur
RSGB	14212.0	1215	04	10			J3E			USB female voice , possibly Korean, repeating message.

## RSK – Kenya – 5Z4BV (Kamweti)

Soc	kHz	UTC	dd	mm	ITU	identity	MODE	Shift	Details
RSK	7000	v.t.	nr. dly.	10	Kenya?	?	PSK	2750	STANAG 4285
RSK	7008	1240	11	10	Africa?	?	J3E-I		Vernacular msg net
RSK	7057	1036	5	10	Kenya?	?	J3E-I/u		Kiswahili
RSK	7070	v.t.	occasional	10	E. Africa?	?	J3E-I		Kiswahili QSO
RSK	7075	1040	5	10	E. Africa?	?	J3E-u		Kiswahili QSO
RSK	7080	0340	25	10	Asia/Europe?	?	USB	2700	digital mode
RSK	7089,1	a.m.	nr. dly.	10	Central Africa?	?	J3E-u		Mil French/vernacular msg. net
RSK	7100	v.t.	occasional	10	Central Africa?	?	J3E-I		Vernacular QSO
RSK	7100	v.t.	nr. dly.	10	Kenya?	?	PSK		STANAG 4285
RSK	7105	1320	21	10	Central Africa?	?	J3E-u		Vernacular msg net
RSK	7127	0425	2	10	Western Indian Ocean	?	J3E-u		Sino-vernacular QSO
RSK	7140	v.t.	occasional	10	Central Africa?	?	J3E-I/u		Vernacular QSO
RSK	7140	v.t.	dly	10	Eritrea	Voice of the Broad Masses of Eritrea	A3E		Commeclial broadcast
RSK	7170	1005	29	10	E./ Central Africa?	?	J3E-I		Kiswahili QSO
RSK	7170	v.t.	occasional	10	E. Africa?	?	J3E-I		Kiswahili QSO
RSK	7172	v.t.	occasional	10	E. Africa?	?	J3E-I		Kiswahili QSO
RSK	7185	v.t.	occasional	10	E. Africa?	?	J3E-u		Kiswahili/vernacular QSO
RSK	7190	1330	21	10	E./ Central Africa?	?	J3E-u		Kiswahili QSO
RSK	14250	1023	24	10	E./ Central Africa?	?	J3E-u		Vernacular msg net
RSK	21045	1045	2	10	Asia?	?	A3E	15.000	Sino/vernacular commercial broadcast
RSK	21260	1338	24	10	?	?	FM	20.000	OTHR

## SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
<b>SRAL</b>	6999.0	0650-1200	25	10	RUS	UiVOX	J3E-u / N0N			Fem vox, (calls R02?)
<b>SRAL</b>	7000.0	1400	23	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7001.8	0530-1900	*	10	POL	UiMUX	PSK			Bursts every 3 – 10 s. days: 10. - 30.
<b>SRAL</b>	7013.0	0650-1350/	19	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7016.0	0430-1800	*	10	RUS	UiPTR	F1B		250	Days: 18. 21. 27. 29. 30.
<b>SRAL</b>	7018.0	0820-0905/	19	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7020.0	0740-1750	18 20	10	RUS	UiPTR	F1B		250	
<b>SRAL</b>	7022.0	0655-0930	19	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7026.0	1000-1050	26	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	7028.0	0915-0920	28	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7030.0	0615-0745	20	10	RUS	UiPTR	F1B		250	
<b>SRAL</b>	7032.0	0815-0915	28	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7035.0	1330-1530/	5	10	RUS	UiPTR	F1B		250	
<b>SRAL</b>	7035.0	1450	12	10		UiOTHR	FMCW			10kHz/ 6.6Hz bursts
<b>SRAL</b>	7037.0	1350-1445/	26	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	7044.0	/1210-1245	29	10		UiPTR	F1B		250	
<b>SRAL</b>	7049.0	0930-1233/	18 19	10	RUS	UiPTR	F1B		200	
<b>SRAL</b>	7055.0	0920-0935	8	10		UiPTR	F1B		200	
<b>SRAL</b>	7057.0	1435-1440/	18	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7058.0	1240-1415	9	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	7072.0	0800-0815	17	10		UiMUX	PSK2	120	2600	ship
<b>SRAL</b>	7076.0	0815-1245	8 20	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7088.0	0530-1450/	2 12	10	RUS	UiPTR	F1B/ N0N		200	
<b>SRAL</b>	7090.5	0920-1130	4	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	7099.0	0615-1300	*	10		YMDS	A1A			Days: 6. 8. 23. 5BL
<b>SRAL</b>	7110.0	0345-1845	*	10	RUS	UiPTR	F1B/ N0N		200	Days: 1. - 11. 16. 17. ship
<b>SRAL</b>	7111.0	0800-0933/	11 17	10	RUS	UiPTR	F1B		250	
<b>SRAL</b>	7111.8	1705	24	10	ISR	UiMUX	PSK4/8			
<b>SRAL</b>	7117.0	0800-1900	*	10		UiPTR	F1A/ N0N		250	Days: 5. - 8. 11. 24. 30. 5BL
<b>SRAL</b>	7122.0	1815-1900/	5	10		UiPTR	F1B		250	
<b>SRAL</b>	7127.0	0615-1330	*	10		3YW1 etc	A1A			Days: 6. 7. 16. 18. 20. 21. 5F, 5BL
<b>SRAL</b>	7137.0	0630-1730	15 31	10	RUS	UiPTR	F1A/B		200	
<b>SRAL</b>	7140.0	0830-1450/	17 31	10	RUS	UiMUX	PSK2	120	2600	

<b>Society</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BAUD</b>	<b>SHIFT</b>	<b>REMARKS</b>
<b>SRAL</b>	7140,0	0345-0600	*	10	ERI	VoBME	A3E			Days: 1. 2. 4. - 21. 23. - 28. 31.
<b>SRAL</b>	7140,0	1400-1835/	*	10	ERI	VoBME	A3E			Days: 1. 2. 4. - 21. 23. - 28. 31.
<b>SRAL</b>	7151.0	0520-0730	23	10		UiPTR	F1B		500	
<b>SRAL</b>	7151.8	0520-1430	*	10	ISR	UiMUX	PSK4/8			Days: 17. - 19. 26.
<b>SRAL</b>	7160.0	0720-0735	17	10	RUS	RBL88	A1A			Calls RFN74
<b>SRAL</b>	7164.0	0920-0930/	28	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7169.0	0710-1015	9	10	RUS	UiPTR	F1B		200	
<b>SRAL</b>	7169.0	1330	1	10	RUS	G6BS	A1A			
<b>SRAL</b>	7172.0	1315-1745/	22	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	7176.0	0940-1055/	26	10		UiPTR	F1B		250	
<b>SRAL</b>	7176.5	0800-0843/	12	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7178.5	0700-0705	18	10		UiCW	A1A			5F, 5BL, chirpy
<b>SRAL</b>	7179.0	0500-1700	4 9	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7179.5	0810-0930	8	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	7180.0	0415-0545	*	10	ERI	VoBME	A3E			Days: 17. 18. 23. - 26.
<b>SRAL</b>	7180.0	1400-0835/	*	10	ERI	VoBME	A3E			Days: 17. 18. 23. - 26.
<b>SRAL</b>	7190.0	1500-1532/	29	10	AUS	RBA	A3E			Korean px
<b>SRAL</b>	7194.0	1315-1430	12	10	RUS	UiMUX	PSK2	120	2600	
<b>SRAL</b>	7198.0	1015-1630	*	10	RUS	UiMUX	PSK2	120	2600	Days: 5. 20. 24. 25.
<b>SRAL</b>	7200.0	0800-1000	27	10		UiOTHR	FMCW			20kHz/50Hz
<b>SRAL</b>	10 MHz			10		UiOTHR	FMCW			25/50Hz, 20 kHz (WebSDR 10d)
<b>SRAL</b>	14 MHz	0735-0845	19 22	10	CHN	UiOTHR	FMCW			60 kHz
<b>SRAL</b>	14127.0	1415-1440	25	10	RUS	UiBC	J3E-u			
<b>SRAL</b>	14192.0	0745-1330	*	10	RUS	UiPTR	F1B		200	Days: 6. 20. 21.
<b>SRAL</b>	14193.0	0740-1030	13	10		UiMUX	PSK2	120	2600	
<b>SRAL</b>	14204.0	0540-0545	22	10		UiCW	A1A			5BL
<b>SRAL</b>	14221.0	0400-0600/	dly	10	KGZ	UiPTR	F1B		200	
<b>SRAL</b>	14240.0	0830-1250	20	10		UiPTR	F1B		200	
<b>SRAL</b>	14295A	0530-1000	11	10	TJK	R Tojikiston	A3E			3f, untable fq
<b>SRAL</b>	18 MHz	0630-1300	*	10	CYP	UiOTHR	FMCW			25/50Hz / 20 kHz, Days: 6. 9. 11. 17. 27. 28. (WebSDR 18d)
<b>SRAL</b>	18080.0	0740-0757/	*	10	TWN	RFA	A3E			Days: 13. 14. 17. 20. 21. jammed by CHN
<b>SRAL</b>	21 MHz	0750-1230	*	10	CYP	UiOTHR	FMCW			25/50Hz / 20 kHz, Days: 13. 14. 21. 27. (WebSDR 18d)
<b>SRAL</b>	21438.0	0850-	20	10	RUS	RCV	A1A			

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
		0930	21							
<b>SRAL</b>	24 MHz			10		UiOTHR	FMCW			(WebSDR 1d)
<b>SRAL</b>	28 MHz			10	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz.
<b>SRAL</b>	28860.0			10	IRN	UiOTHR	FMCW			150 & 313 Hz / 60 kHz.
<b>SRAL</b>	28 MHz			10		UiOTHR	FMCW			25/50Hz / 20 kHz (WebSDR 0d)
<b>SRAL</b>	28 MHz			10	RUS	Taxi disp.	F3E			No reports

### **URE – Spain – EA6AMM (Gaspar)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
<b>URE</b>	3660.5	22:27	22	10						LINK-11 CLEW DSB img
<b>URE</b>	7020	14:49	22	10			LSB			Unid persons talking and singing.
<b>URE</b>	7097	23:18	25	10			F1B		200	
<b>URE</b>	7110	06:18	23	10			F1B		200	
<b>URE</b>	7110.1	19:05	22	10	ISR		PSK4/8	75	6500	Israeli Navy Hybrid Modem (188-110 MOD) DSB. VídeoCapt son img y Archiv.org***
<b>URE</b>	7111.5	18:45	23	10	ISR		PSK8A	2400		MIL188-110A Hybrid with preamble 4x PSK4 75Bd
<b>URE</b>	7151	06:05	23	10			F1B		250	
<b>URE</b>	7151.3	06:00	17	10			PSK8	2400	2400	MIL 188-110A(D2) Hybrid with preamble 4 tones PSK 75 Bd
<b>URE</b>	7180	18:15	23	10	ERI		A3E			BC, Eritrea, “Voice of the Broad Masses”.
<b>URE</b>	10100.1	15:10	22	10			LSB			Unid person repeating the same sentence. Unknown language. <a href="https://bit.ly/2S9gXZ1">https://bit.ly/2S9gXZ1</a>
<b>URE</b>	10102.8	06:09	18	10			N0N			
<b>URE</b>	10102.9	06:56	14	10			N1N			Carrier
<b>URE</b>	10109.1	06:09	18	10			N0N			
<b>URE</b>	10110	19:15	7	10	TUR K		A3E			Broadcasting, Voice of Turkey
<b>URE</b>	10114.8	20:56	26	10			F1B	100	1000	CIS14, Moscow
<b>URE</b>	101212.5	20:25	25	10			J3E-U			Unid persons talking. Arabic language
<b>URE</b>	10125	20:29	25	10					10K	OTH Radar from 10,125 to 10,135 kHz. QSY to 10,121→ 10,131 kHz
<b>URE</b>	10130	06:15	18	10			F1B		500	
<b>URE</b>	10130	06:35	VD	10			F1B		250	
<b>URE</b>	14168	06:35	22	10						OTH Radar from 14168 to 14320 kHz
<b>URE</b>	14192	06:42	18	10			F1B		200	
<b>URE</b>	14192	VT	VD		RUS		F1B		200	Kaliningrad
<b>URE</b>	14250	07:46	22	10						OTH Radar from 14250 to 14350 (14412)
<b>URE</b>	14324	07:21	13	10			F1B		200	
<b>URE</b>	18160	09:18	23	10					20k	OTH Radar from 18,160 to 18,168 kHz (to 18,180 kHz)

# USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
80m band informational only! - Amateur co-primary										
USKA	3520.0	2018	23	10			J7D	12x120	2k7	BPSK; CIS12
USKA	3527.0	2145	22	10			F1B	50	200	almost daily
USKA	3538.0	2120	23	10			F1B	75	200	
USKA	3549.0 VFO USB	2126	23	10			G1D PSK8	2400	2k7	MIL 188-110A mod (Hybrid), preamble 4 tones, PSK4 75Bd 450Hz spacing often
USKA	3550.0	2226	29	10			B7D DQPSK	14x75	~ 6k	LINK 11 CLEW; DSB Mode often
USKA	3553.8	2246	09	10			G1D PSK8	2400	2k4	STANAG 4285 daily
USKA	3581.8	2243	09	10			G1D PSK8	2400	2k4	STANAG 4285 often
USKA	3588.0	2027	23	10			J7D	12x120	2k7	BPSK; CIS12
USKA	3590.0	2139	31	10			B7D DQPSK	14x75	~ 6k	LINK 11 CLEW; DSB Mode
USKA	3646.5	1334	30	10			J7D	12x120	2k7	BPSK; CIS12
USKA	3660.5	2133	22	10			B7D DQPSK	14x75	~ 6k	LINK 11 CLEW; DSB Mode often
USKA	3704.0	1331	30	10			J7D	12x120	2k7	QPSK; CIS12
USKA	3734.5	1659	21	10			OFDM6 0	37.5	~ 3k1	PSK4 mod; tone spacing 46.92Hz
USKA	3744.8	2201	13	10			G1D PSK8	2400	2k7	MIL 188-110A D2 mod (Hybrid), preamble 4 tones, PSK4 75Bd 450Hz spacing often
USKA	3759.0	1329	30	10			J7D	12x120	2k7	BPSK; CIS12
USKA	3797.0	2023	23	10			B7D DQPSK	14x75	~ 6k	LINK 11 CLEW; DSB Mode often
USKA	6999.0	1352	30	10			J7D	12x120	2k7	BPSK; CIS12; partially in 40m band
USKA	7000.0	1448	23	10			J7D	12x120	2k7	BPSK; CIS12 system
USKA	7000.0	1504	23	10			J3E-U		~2k1	French
USKA	7001.0	1001	25	10			OFDM6 0	35.56	~2k9	PSK4 mod. Tone spacing 44.46Hz; pilot tone @ ~3k3Hz
USKA	7001.8	1136	11	10			G1D PSK8	2400	2k4	MIL 188-110B; Format 3200bps / ultrashort almost daily
USKA	7010.0	2152	22	10			MFSK8	125	1750	ALE, MIL 188-141A often
USKA	7013.0	1233	19	10			J7D	12x120	2k7	BPSK; CIS12 (idling)
USKA	7013.0	2031	23	10			MFSK8	125	1750	ALE, MIL 188-141A
USKA	7016.0	1132	29	10			F1B	75	250	jammed
USKA	7015.875	1331	29	10			A1A			dots only. stupid jammer; illegal!
USKA	7017.0	1408	31	10			J7D	12x120	2k7	BPSK; CIS12
USKA	7020.8	1002	09	10			A1A			DF TDoA: Southwest UK
USKA	7024.0	1403	31	10	RUS		F1B	75	250	DF TDoA: Greater Moscow Area
USKA	7049.0	1228	19	10			F1B	75	200	often
USKA	7055.0	0948	22	10			J3E-L			Music and Voice allmost daily
USKA	7061.0	0814	25	10			J7D	12x120	2k7	BPSK; CIS12
USKA	7103.0	2201	22	10			FMOP	10 sps	160k	OTHR
USKA	7110.0	1714	05	10			F1B	50	200	often
USKA	7110.0	2034	22	10			B7D PSK8A	2400	~ 6k	MIL 188-110A (D2) mod (Hybrid), preamble 4 tones with PSK4 75Bd 450Hz spacing: <b>DSB Mode</b>
USKA	7111.8	2039	23	10			G1D PSK8A	2400	2k7	MIL 188-110A (D2) mod (Hybrid), preamble 4 tones with PSK4 75Bd 450Hz spacing
USKA	7114.0	2127	22	10			A1A			no ham content
USKA	7122.0	1724	05	10	RUS		F1B	100	250	often
USKA	7137.0	2255	25	10			F1B	50	200	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7140.0	2146	22	10			FMCW	66.66 sps	10k	OTHR; Bursts, BD 3.8s
USKA	7140.0	1456	23	10	ERI		A3E		~ 9k	BC often
USKA	7151.0	0757	23	10			F1B	75	500	
USKA	7151.8	1129	17	10			G1D PSK8	2400	2k7	MIL 188-110A (D2) mod (Hybrid) preamble 4 tones, PSK4 75Bd 450Hz spacing
USKA	7179.0	1531	09	10			J7D	12x120	2k7	BPSK; CIS12
USKA	7180.0	1452	23	10	ERI		A3E		~ 9k	BC often
USKA	7186.0	2121	25	10			MFSK8	125	1750	ALE, MIL 188-141A
USKA	7190.0	1511	30	10	AUS		A3E			Reach Beyond Australia Kununurra site
USKA	7197.0	1710	22	10	TUR	337013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1606	31	10	TUR	316013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1655	31	10	TUR	301013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1805	31	10	TUR	340013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1811	31	10	TUR	347013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1826	31	10	TUR	324013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1833	31	10	TUR	315018	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1833	31	10	TUR	364013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1851	31	10	TUR	348013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1855	31	10	TUR	360013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1913	31	10	TUR	332013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	1920	31	10	TUR	353013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	2101	31	10	TUR	320013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	2107	31	10	TUR	355013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	2117	31	10	TUR	354013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	2129	31	10	TUR	370013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7198.0	1622	25	10			J7D	12x120	2k7	BPSK; CIS12
USKA	7200.0	1432	31	10			J7D	12x120	2k7	BPSK; CIS12; partially in 40m band
USKA	10110.0	1839	05	10	TUR	VOT	A3E			Intermodulation 9785 /9460 kHz Voice of Turkey: Emirler site
USKA	14008.0	0807	25	10			F1B	50	500	
USKA	14118.0	0839	22	10			FMOP	10 sps	160k	OTHR
USKA	14150.0	0736	23	10			FMOP	10 sps	160k	OTHR
USKA	14171.0	0801	23	10			FMOP	10 sps	160k	OTHR
USKA	14191.9	0815	30	10			F1B	50	400	CIS 50-50: 400Hz!
USKA	14192.0	0945	24	10			F1B	50	200	
USKA	14220.0	1314	30	10			F1B	50	400	CIS 50-50: 400Hz!
USKA	14224.0	0824	18	10			FMOP	10 sps	160k	OTHR often
USKA	14261.0	0721	23	10			OFDM60	30	~2k8	spacing 44.45Hz; pilotone @ 3300Hz
USKA	14325.0	0804	23	10			FMOP	10 sps	160k	OTHR
USKA	18079.0	0926	22	10			DQPSK	8x75	2k25	CHN4+4; 2x4 tones. PSK4; spacing 300 Hz, 450 Hz between the two tones in the middle
USKA	18080.0	0753	25	10	TWN		A3E		~15k	BC; Chinese Sound of Hope often
USKA	18107.0	1121 1128	11	10		RDL	F1B F1A	50	200	
USKA	18129.0	0801	25	10			FMCW	50 sps	20k	OTHR

### Veron – Netherlands – PG1R (Ruud)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	DETAILS
VERON	3548,0	1728	05	10	CIS	UiPTR	F1B			Revs/Ptr
VERON	3548,0	1936	09	10	RUS	RDL	F1A			RDL 59200 87058 K
VERON	3549,0	1955	09	10	RUS	RDL	F1A			RDL 57680 23416 K
VERON	3576,0	1731	05	10		UiPTR	F1B			Revs
VERON	3733,0	1716	23	10		UiPTR	F1B			Ptr
VERON	3741,5	1717	23	10		UiPTR	F1B			Revs

<b>SOC</b>	<b>kHz</b>	<b>UTC</b>	<b>DD</b>	<b>MM</b>	<b>ITU</b>	<b>IDENT</b>	<b>MODE</b>	<b>BAUD</b>	<b>SHIFT</b>	<b>DETAILS</b>
<b>VERON</b>	7018,0	1807	15	10	RUS	UiPtr	F1B		250	Ptr
<b>VERON</b>	7050,0	1342	12	10			J3E-I			Private war; 2TX, S5
<b>VERON</b>	7055,0	1341	12	10			J3E-I			Private war; 2TX, S9 & S8
<b>VERON</b>	7055,0	1815	13	10			J3E-I			Music; S6
<b>VERON</b>	7055,0	1421	20	10			J3E-I			Speech & music; 2TX S9 & S7
<b>VERON</b>	7057,5	1340	12	10		UiMux	MPSK		2k8	
<b>VERON</b>	7110,0	1337	12	10	RUS	UiPtr	F1B		200	
<b>VERON</b>	7122,0	1725	05	10		UiPTR	F1B			Fast Revs
<b>VERON</b>	7137,0	1807	15	10	RUS	UiPtr	F1B		200	Ptr
<b>VERON</b>	7176,0	1927	09	10		UiPTR	F1B			Revs
<b>VERON</b>	7190,0	1530	30	10		UiBC	A3E			speech and music
<b>VERON</b>	7197,0	1334	12	10	TUR		FSK8		1k8	S5, QSB
<b>VERON</b>	10130,0	1053	30	10		UiPTR	F1B			Ptr
<b>VERON</b>	14029,5	0916	12	10		UiPTR	F1B			Revs
<b>VERON</b>	14240,0	1035	09	10		UiPTR	F1B			Ptr
<b>VERON</b>	18107,0	1322	12	10	RUS	RDL	F1B		200	Idling; S4
<b>VERON</b>	18107,0	0925	27	10	CIS	UiPTR	F1B			Revs/Ptr
<b>VERON</b>	18107,0	0927	27	10	RUS	RDL	F1A			UUU RDL 00064 97674 K
<b>VERON</b>	18107,0	1006	27	10	RUS	RDL	F1A			UUU RDL 79461 99045 K
<b>VERON</b>	18141,0	1110	06	10		Uill	J3E-u			Arabic speech; Moroccan fishery?

# The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

All our friends and contributors worldwide!

Many thanks for your interest!

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