



# Monitoring System

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The monthly newsletter for Region 1

## August 2019

### The 27 members of the IARUMS Region 1 Monitoring Team:



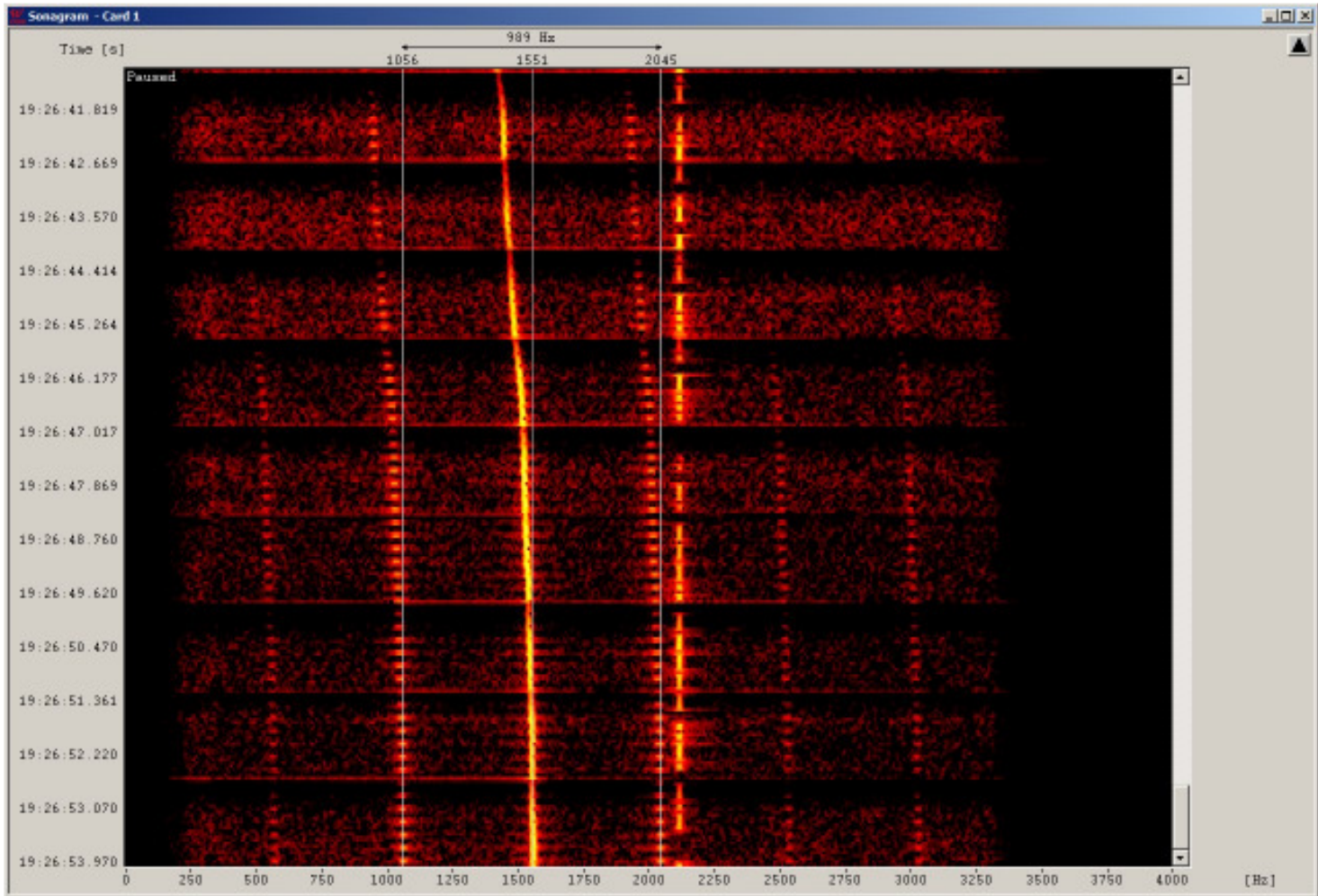
### Acknowledgements

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: SP5GNI - Miro ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: G4DYA - Richard ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – N.N. ++ UBA: ON5NQ – Frank +++ URE: EA6AMM - Gaspar ++ USKA: HB9CET - Peter ++ VERON: PG1R - Ruud ++ ZRS: S56ZDB – Darko ++ LU1BCE – Carlos (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster supp.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1) ++ PTTs: BAKOM (Swiss) ++ OFCOM (UK) ++ Dutch AT ++ Austrian PTT

# Part 1: News and Infos

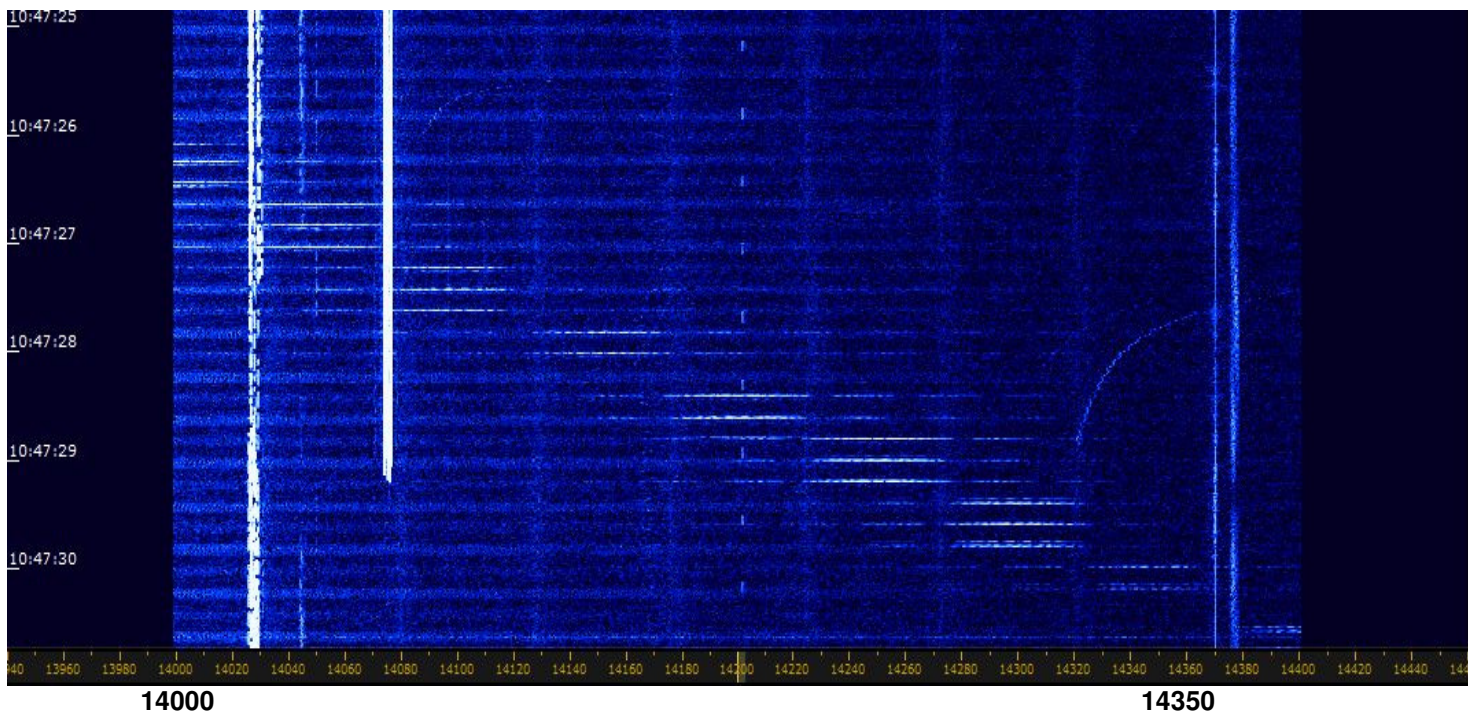
## 1. Again mysterious signals from Westafrica on 28 MHz

QRG: 28250.6 kHz – mode: A3E (AM) – rising carrier and dots every 76 sec – area of Gabon often observed in earlier years – purpose unknown  
W-Code screenshot on 16 August

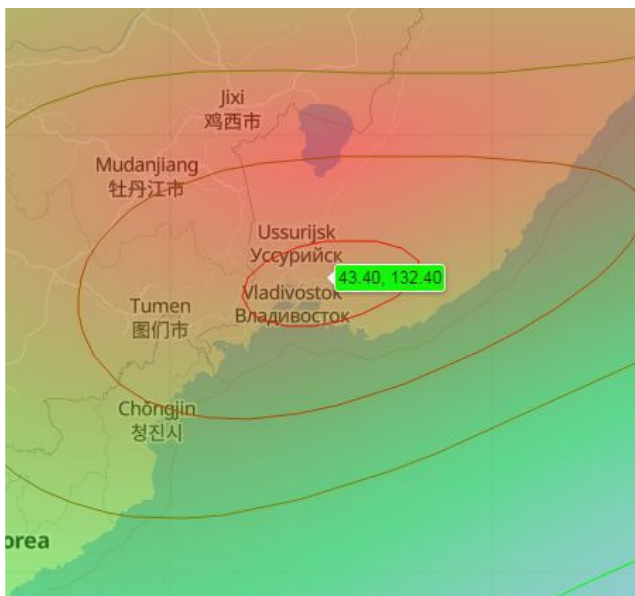


## 2. Digital Ionosonde 4D on 14 MHz

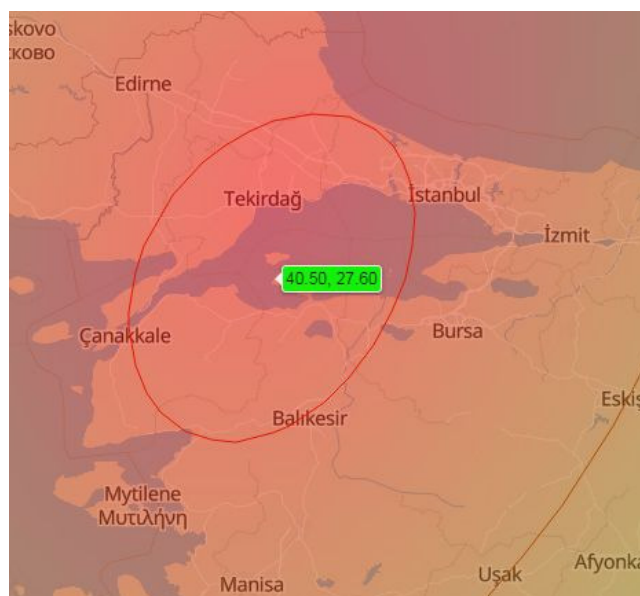
Visible as stairway



### 3. TDoA bearings



7030.0 – AT3004D (CIS12) – 12 August



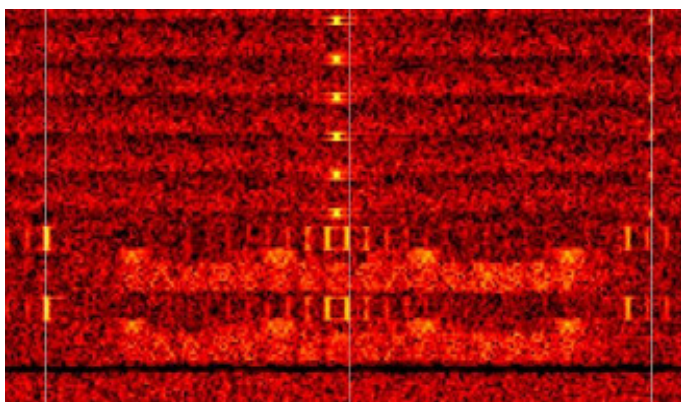
7179.0 – AT3004D (CIS12) – ship - 22 August



#### Far east fishermen on 14000 kHz USB

Better bearings on 14000 kHz on USB showed the location of these intruders. They are active daily and all day. We can hear them in Europe with strong signals every afternoon. Locations: Area of Papua New Guinea and northeast of Australia

### 4. Chinese PRC 16 on 14200.0 kHz RF (USB)



PRC 16 tone modem – China – area of Shanghai – marker tones on 14201.7 kHz - parameters: PSK2A – 75 Bd 2000 Hz wide – daily on air W-Code screenshot

### 5 Miscellaneous news:

- 7140 and 7180 kHz – A3E/BC – VOB Eritrea
- 14295.0 kHz – harmonic from Radio Tajik on 4765 kHz (no change)
- 28000 – 28500 kHz – many fishery driftnet buoys and few GPS buoys
- 28000 – 29700 CIS taxi services – FM (F3E)

- 6 Homepage IARU Region 1 <http://www.iaru-r1.org/>
- Homepage IARUMS Region 1 <http://www.iarums-r1.org>
- Homepage IARUMS Region 2 <http://www.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>

## Prt 2: Detailed reports of the national Coordinators

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** \*\*\* **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  
**AMOP** = amplitude modulation on pulse

### DARC – 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	1,8 – 50 MHz	vt	dly	08	D		QRM			1.8 - 50 MHz strong QRM by a neighbouring LED lamp - since April 2016 - "many thanks" to German "BNetzA" Eschborn
DK2OM	1812,0	2048	03	08	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad
DK2OM	1855,0	2049	03	08	I	IQP	USB			San Benedetto Radio, weather reports - daily
DK2OM	1925,0	2049	03	08	I	IPL	USB			Livorno Radio, weather reports - daily
DK2OM	3503,5	vt	dly	08	G	no ITU	FSK8	125	1750	ALE – British MIL Tascomm – shared band - legal!
DK2OM	3525,0 RF	---	--	08	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Marseille – legal!
DK2OM	3527,0	2000	12	08	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3531,0	1900	17	08	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: full hour + 40 min - daily
DK2OM	3532,0	---	--	08	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3550,0	0630	dly	08	F		A3E			French amateurs not respecting bandplans – every morning
DK2OM	3550,7	---	--	08	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – shared band!
DK2OM	3553,8	ady	dly	08	TUR		PSK8A	2400	2400	Stanag4285 – 600 bps long -TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3580,0 RF	ady	dly	08	TUR		PSK8A	2400	2400	Stanag-4285 – 600 bps long – Ankara – shared band!
DK2OM	3585,0	ady	dly	08	TWN	HLL	F1C		800	WX-fax Taiwan - 120 rpm, IOC 576 - daily, all day - legal!
DK2OM	3586,0	vt	dly	08	HOL		PSK2A	40	40	Amsterdam - daily
DK2OM	3586,0	1835	14	08	RUS		F1B	75	200	Moscow – shared band!
DK2OM	3592,0	vt	vd	08	G		PSK8A	2400	2400	Stanag-4285 – 600 bps long - area of Falmouth – shared band
DK2OM	3622,5	ady	dly	08	J	JMH	F1C		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!
DK2OM	3713,2 RF	2036	14	08	G		PSK8A	2400	2400	Stanag-4285 – 600 bps long – UK area of Birmingham – shared band!
DK2OM	3756,0	1800	dly	08	RUS		USB			RUS MIL – channel marker –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Tuapse – East Black Sea – night QRG
DK2OM	5350,0	---	--	08	RUS		FMOP		50k	Russian coastal radar “Sunflower” – 43 sps – 5350 – 5400 kHz - Makhachkala
DK2OM	5350,0	---	--	08	E		USB		2400	5350.0 – 5352.4 kHz - Spanish fishery splattering up – often in the evenings
DK2OM	5360,5	---	--	08	RUS		F1B	50	200	Moscow - legal
DK2OM	5361,8 RF	---	--	08	DNK	OUA15	PSK8A	2400	2400	Stanag-4285 – 600 bps long – assigned to Danish Navy Aarhus - legal – primary user !
DK2OM	7000,0	vt	dly	08	INS		LSB USB			Indonesian pirates - singing and playing music - daily
DK2OM	7000,0	1426	01	08	UKR		PSK2A	120	2600	AT3004D – 6998.7 – 7001.3 kHz – Kaliningrad – also 05.08. at 1800 utc
DK2OM	7000,0	1750	05	08	E		USB			Spanish fishery
DK2OM	7000,0	2024	27	08	MRC		USB			Moroccan fishery
DK2OM	7000,4	1830	05	08	RUS		PSK2A	120	2600	AT3004D - 6997.8 – 7000.4 – Nizhny Novgorod
DK2OM	7002,0	2000	05	08	I		USB			Italian pirates talking about Malta – long lasting – sometimes very obscene
DK2OM	7005,0	vt	dly	08	INS		LSB			Indonesian pirates
DK2OM	7008,0	1556	11	08	RUS		F1B	75	250	Moscow
DK2OM	7010,0	vt	dly	08	INS		LSB			Indonesian pirates
DK2OM	7010,0	1920	01	08	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	7015,0	vt	vd	08	RUS		FMOP		103k	coastal radar „Sunflower“ – 43 sps – 6905 – 7015 kHz with spurious – east of Vladivostok
DK2OM	7015,0	vt	dly	08	INS		LSB			Indonesian pirates – male and female voices
DK2OM	7020,0	vt	vd	08	ALB		FSK8	125	1750	ALE, “CS004A” “RS004D” “CS004” - daily
DK2OM	7020,0	2009	08	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 7020 – 1180 kHz
DK2OM	7025,0	vt	dly	08	INS		LSB			Indonesian pirates singing
DK2OM	7030,0	1947	12	08	RUS		PSK2A	120	2600	AT3004D - Vladivostok
DK2OM	7035,0	vt	dly	08	INS		LSB			Indonesian pirates singing
DK2OM	7039,2	---	--	08	RUS	„F“	A1A			Cluster beacon „F“ - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	---	--	08	RUS	„K“	A1A			Cluster beacon “K” Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	7039,4	1932	04	08	RUS	„M“	A1A			Cluster beacon „M“ – Magadan RUS Navy – „RTS“ - daily
DK2OM	7040,2	1940	29	08	I	14IN001	PSK			Italian pirate calling CQ on PSK31
DK2OM	7054,0	vt	dly	08	UKR		USB		2400	picture propaganda transmissions
DK2OM	7055,0	vt	dly	08	UKR		LSB			music and Russian voices
DK2OM	7060,0	2005	29	08	RUS		PSK2A	120	2600	AT3004D - Nizhny Novgorod
DK2OM	7088,8	vt	vd	08	S	SL0FRO	A1A			7088.820 kHz - cw-trainee, Sweden - SL0FRO – often - just for info!
DK2OM	7089,8	---	--	08	TUR		PSK8	2400	2400	Link11 - SLEW – aircraft ? west of Izmir
DK2OM	7096,0	vt	02	08	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7096 – 7128 kHz
DK2OM	7097,0	1917	19	08	UKR		LSB			no call - overdriven and distorted transmissions – permanent repetitions – area of Lviv
DK2OM	7111,0	2024	07	08	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7112,0	vt	14	08	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7137,0	vt	dly	08	TWN		FSK8 LSB	125	1750	ALE, MIL-188-141A, "FBABA" "FWKMB" "FXIBY" "FCPSL" "FHKHD" "FVIKE" "FHVWY" "FCUGP" "FDRRK" "FWIML" "FBQCY" "FCEAX" Taiwanese navy
DK2OM	7140,0	vt	vd	08	ERI		A3E		9k	7140.024 kHz - Radio Eritrea
DK2OM	7140,0	2326	03	08	E		USB			Spanish fishery
DK2OM	7144,0	2025	07	08	CHN		PSK4A	60	2350	PRC 30 tone modem - LSB mode - pilot tone 450 Hz
DK2OM	7156,0	1945	10	08	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7156 – 7188 kHz
DK2OM	7179,0	2005	22	08	Med. Sea		PSK2A	120	2600	AT3004D – RUS ship south-west of Antalya / Turkey
DK2OM	7180,0	vt	vd	08	ERI		A3E		9k	7180.022 kHz - Radio Eritrea
DK2OM	7186,0	1936	08	08	RUS		PSK2A	120	2600	AT3004D – north-east of Murmansk
DK2OM	7193,0	---	--	08	RUS	RDL	F1B	50	200	CIS36-50 - Kaliningrad
DK2OM	7196,0	0810	29	08	RUS		F1B	75	200	Moscow
DK2OM	7197,0	vt	dly	08	TUR		FSK8	125	1750	ALE, „353013“ „334018“ „314013“ - Turkish Sivil Avunma – Turkish Civil Defense
DK2OM	7200,0	1940	01	08	RUS		PSK2A	120	2600	AT3004D – 7198.7 – 7201.3 kHz – Kaliningrad
DK2OM	10100,8	ady	dly	08	D	DDK9	F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10108,0	0816	11	08	RUS		F1B	50	200	Moscow
DK2OM	10110,0	1900	28	08	MRC		USB			Moroccan fishery
DK2OM	10114,8	0640	dly	08	RUS		F1B	100	1000	CIS14 – Moscow
DK2OM	10120,0	0915	08	08	RUS		PSK2A	120	2600	AT3003D – broken signal
DK2OM	10131,0	1326	02	08	RUS		F1B	75	200	
DK2OM	10132,0	0935	28	08			USB			French amateurs not respecting bandplans
DK2OM	10144,0	ady	dly	08	D	DK0WCY	A1A			10144.000 kHz - DK0WCY – German aurora beacon – just for info!
DK2OM	10150,0	1230	25	08	CYP		FMCW		20k	UK OTH radar Cyprus - 50 sps – 10140 – 10160 kHz
DK2OM	14000,0	ady	dly	08	PNG		USB			fishermen - south east of Papua New Guinea (Coral Sea) - daily
DK2OM	14000,0	vt	vd	08	B		USB			Brazilian pirates – Rio with North Brazil
DK2OM	14000,5	1400	23	08			OFDM	200 600	420	Robust Packet – OFDM 8
DK2OM	14001,8	---	--	08	ISR		PSK4 PSK8	75 2400	2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial
DK2OM	14006,0	0908	30	08	RUS		FMOP		12k	OTH radar Contayner – 14000 - 14012 - 40 sps – west of Saransk – long lasting
DK2OM	14008,0	0750	04	08	RUS		F1B	50	250	Moscow
DK2OM	14027,0	0956	18	08	CHN		FMOP		10k	Chinese OTH radar – 14022 – 14032 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14062,0	1015	14	08	RUS		F1B	75	250	east of Moscow
DK2OM	14064,0	0920	14	08	RUS		PSK2A	120	2600	area of St. Peterburg
DK2OM	14100,0	---	--	08	F		A1A			„051“ loop – daily 1658 – 1710 utc – area of Ternant
DK2OM	14101,9	0920	15	08	RUS		OFDM	30.0	2700	OFDM 60 – PSK4B - Moscow
DK2OM	14108,0	1245	02	08	RUS		A1A			encrypted – area of Moscow
DK2OM	14112,0	0828	30	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14112 – 14272 kHz
DK2OM	14116,0	0750	20	08	RUS		F1B	50	250	Moscow
DK2OM	14131,0	0925	08	08	CHN		FMOP		10k	Chinese OTH radar – 14126 – 14136 kHz - 66.66 sps – 3.8 sec

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										bursts – „foghorn“
DK2OM	14154,0	1317	14	08	RUS		FMOP		12k	OTH radar Contayner - 40 sps – west of Saransk – 14148 - 14160
DK2OM	14157,0	1402	08	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14157 – 14317 kHz
DK2OM	14186,0	0956	05	08	RUS		F1B	50	500	QTF not possible
DK2OM	14192,0	vt	vd	08	RUS		F1B	50 75 50 100 100	500 500 200 500 200	RUS navy Kaliningrad – often with 50 Bd and 200 Hz shift
DK2OM	14200,0 RF	0950	01	08	CHN		PSK2A	75	2000	PRC 16 tone modem – China – Shanghai – marker tones on 14201.7 kHz
DK2OM	14210,0	1202	22	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14210 – 14370 kHz
DK2OM	14219,0	0951	18	08	CHN		FMOP		10k	Chinese OTH radar – 14214 – 14224 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14221,0	2030	12	08	KAZ		F1B	50	200	Kazakhstan – west of Almaty - mostly idling - every evening
DK2OM	14221,0	1317	14	08	RUS		FMOP		12k	OTH radar Contayner - 40 sps – west of Saransk – 14215 - 14227
DK2OM	14222,0	0942	20	08	CHN		FMOP		10k	Chinese OTH radar – 14217 – 14227 kHz - 84 sps – 3.8 sec bursts
DK2OM	14225,0	1009	22	08	CHN		FMOP		10k	Chinese OTH radar – 30 sps – 14220 – 14230 kHz – every 11 minutes – 50 - 70 sec blocks – area of Zaoyang
DK2OM	14225,0	1356	08	08	CHN		FMOP		10k	Chinese OTH radar – 10 sps – 14220 – 14230 kHz – 50 - 70 sec blocks – area of Zaoyang
DK2OM	14225,0	0951	18	08	CHN		FMOP		10k	Chinese OTH radar – 14221 – 14231 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14230,0	1229	22	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14230 – 14390 kHz
DK2OM	14236,0	0837	30	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14236 – 14395 kHz
DK2OM	14238,0	0944	20	08	CHN		FMOP		10k	Chinese OTH radar – 14233 – 14243 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14240,0	0755	20	08	RUS		F1B	50	250	Yekaterinburg
DK2OM	14247,0	1014	13	08	CHN		FMOP		10k	Chinese OTH radar – 14242 – 14252 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14251,0	0958	17	08	CHN		FMOP		160k	Chinese wideband OTH radar – 10 sps – 14251 – 14411 kHz
DK2OM	14256,0	0843	31	08	CHN		FMOP		10k	Chinese OTH radar – 14251 – 14261 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14257,0	0748	27	08	CHN		FMOP		10k	Chinese OTH radar – 14252 – 14262 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14258,0	0916	05	08	RUS		F1B	50	500	overdriven - Kaliningrad
DK2OM	14261,5	1205	01	08	RUS		F1B	75	200	St. Peterburg
DK2OM	14272,0	0841	31	08	CHN		FMOP		10k	Chinese OTH radar – 14267 – 14277 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14288,0	0829	24	08	RUS		FMOP		12k	OTH radar Contayner - 40 sps – north of Penza
DK2OM	<b>14295,2</b>	<b>ady</b>	<b>dly</b>	<b>08</b>	<b>TJK</b>		<b>A3E/BC</b>		<b>9k</b>	<b>14295.128 kHz -3x from Radio Tajik on 4765 kHz – daily, all day</b>
DK2OM	14295,6	1245	05	08			unid			unid signal

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14296,0	0952	08	08	CHN		FMOP		10k	Chinese OTH radar – 14291 – 14301 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14301,0	0840	18	08	CHN		FMOP		10k	Chinese OTH radar – 14296 – 14306 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14301,9	0742	06	08	RUS		OFDM	29.6	2700	OFDM 60 – PSK4B - Moscow
DK2OM	14305,0	0815	21	08	CHN		FMOP		10k	Chinese OTH radar – 14300 – 14310 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14306,0	0951	08	08	CHN		FMOP		10k	Chinese OTH radar – 14301 – 14311 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14319,0	0816	21	08	CHN		FMOP		10k	Chinese OTH radar – 14314 – 14324 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14323,0	0813	21	08	CHN		FMOP		10k	Chinese OTH radar – 14318 – 14328 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14323,0	0846	31	08	CHN		FMOP		10k	Chinese OTH radar – 14318 – 14328 kHz - 50 sps – 5 sec bursts
DK2OM	14324,0	0749	27	08	CHN		FMOP		10k	Chinese OTH radar – 14319 – 14329 kHz - 66.66 sps – 7.6 sec bursts – „foghorn“
DK2OM	14326,0	0838	18	08	CHN		FMOP		10k	Chinese OTH radar – 14321 – 14331 kHz - 66.66 sps – 3.8 sec bursts – „foghorn“
DK2OM	14339,0	1836	06	08	RUS		F1B	75	200	very unclear – St. Peterburg
DK2OM	14348,5	vt	dly	08	THA	HSOZEA	A1A			HSOZEA beacon – 14348.488 kHz - every 5 minutes – daily - just for info!
DK2OM	<b>18080,0</b>	<b>0625</b>	<b>dly</b>	<b>08</b>	<b>TWN</b>		<b>A3E/BC</b>			<b>Sound of Hope – Taiwan and Chinese BC jammer – daily at 06 utc and later</b>
DK2OM	18107,0	---	--	08	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow – idle and traffic – daily - Russian navy – shared band!
DK2OM	18150,0	---	--	08	RUS		F1B	100	1000	harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad
DK2OM	18150,0	---	--	08	RUS		F1B	100	1000	harmonic from 9075 kHz (100 Bd – 500 Hz) - Kaliningrad
DK2OM	<b>21000,0</b>	---	--	<b>08</b>	<b>B</b>		<b>USB</b>			<b>Brazilian pirates – Rio de Janeiro with North Brazil – very often</b>
DK2OM	21145,0	vt	dly	08	MRC		FSK8	125	1750	ALE, “A” “B301” “C3”, “IR4” “H4” “IR6” “T4” “E4” “A2” “CD” “K3” “KB2” “J5” “J52” “GR2” “GS4” “R3” “R301” “R33” “R8” “R5” “Y1” “S51” “S3” “S4” “S512” “S552” “G2” “G501” - various times, daily
DK2OM	21438,0	0908	05	08	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - often
DK2OM	21446,0	---	--	08	THA	HSOZEA	A1A			HSOZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	---	--	08	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – under Es conditions audible in DL
DK2OM	<b>28000,0</b>	---	--	<b>08</b>	<b>B</b>		<b>A3E</b>			<b>Brazilian CBers – 28000 – 28325 – daily, all day - no change</b>
DK2OM	<b>28000,0</b>	vt	vd	<b>08</b>	<b>CIS</b>		<b>F3E</b>			<b>28000 – 29700 numerous CIS taxi nets – no change</b>
DK2OM	28000,0	0932	28	08	POR		A3E			pirate in Portuguese voice – echo



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										mike
DK2OM	28035,0	1822	27	08	CIS		USB			pirates in Russian voice
DK2OM	28250,6	1929	16	08	GAB		A3E		980	carrier and dots +/- 490 Hz - bursts every 76 sec – area of Gabon
DK2OM	28720,0	0820	13	08	IRN		AMOP		45k	Iranian radar - 28700 – 28740 kHz – 225 sps – 334 sps alternating
DK2OM	28860,0	0659	01	08	IRN		AMOP		45k	Iranian radar - 28837 – 28883 kHz – 150 sps – 313 sps alternating – North Iran - daily
DK2OM	29351,0	2025	25	08	IRN		AMOP		45k	Iranian radar - 306 sps -870 sps alternating - jumping
DK2OM	29685,0	1930	11	08	I		VFT		2300	Italian MIL – Brescia - daily
DK2OM	29699,5	1930	11	08	I		VFT		1600	Italian MIL – Brescia - daily

### IRTS – Ireland – EI3GYB (Michael)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
IRTS	1812	0250	16	08	RUS		USB/LSB	Russian navy Kaliningrad. Big signals.
IRTS	3550	0525	05	08	F		AM	French Hams violating the band plan. Daily.
IRTS	3555	2315	26	08			FMOP	Radar from 3555 to 3635 kHz.
IRTS	3580	0615	09	08	F		AM	Group of French Hams violating the band plan. Daily.
IRTS	3640	0555	08	08	HOL or MM		USB	Group of Dutch fishermen.
IRTS	3652.5	1410	17	08	F or MM		USB	Group of French fishermen.
IRTS	3756	0300	16	08	RUS		USB	The Pip- monster signal as always.
IRTS	3765.7	1305	13	08	POR or MM		USB	2 Portuguese fishermen with big signals.
IRTS	5302	2200	09	08			FMOP	Radar from 5302 to 5370 kHz covering several EI spot frequencies and the new 5MHz band.
IRTS	5345	1310	21	08	F or MM		USB	Group of French fishermen. Monster signals. Splattering all over the Irish spot frequency of 5346.5 kHz.
IRTS	5347	0037	24	08	MRC or MM		USB	Group of Moroccan fishermen. Splattering all over the Irish spot frequency of 5346.5 kHz.
IRTS	5350	0620	12	08	POR or MM		USB	2 Portuguese fishermen. Very strong signals. Splattering onto new 5 MHz allocation. Again on 22 <sup>nd</sup> at 0735z. Again 27 <sup>th</sup> at 0530z.
IRTS	5367.5	2303	16	08	E or MM		USB	Group of Spanish fishermen. Big signals. Also 19th at 0640z and 2135z. Splattering onto the new 5 MHz allocation.
IRTS	5400	0730	04	08	G		AM	KBS via relay Woofferton. Mixing product signal. Daily until s/off at 0800z. UK/EI spot frequency.
IRTS	5400	0645	17	08	E or MM		USB	2 Spanish fishermen. Monster signals with loud motor noise from both ships. Again on 22 <sup>nd</sup> at 0738z
IRTS	5398.5	1359	17	08			USB	Someone rebroadcasts RAF Volmet from 5450 kHz. On and off until 1410z. Again on 22 <sup>nd</sup> from 1230 to 1305z. UK/EI spot frequency.
IRTS	5398.5	1345	25	08	UK/EI		USB	2 Hams start talking about a sensitive political issue. It develops into a sort of party political broadcast. One or more unknown operators start to make funny noises in the background to voice their opposition and the frequency quickly descends into chaos. As this is the main UK/EI calling/activity channel there is no escape for anyone interested in real Ham activities. <b>Please no political discussions about sensitive stuff on important channels- you are only</b>

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
								asking for trouble! Use Skype or CB for such stuff.
IRTS	7008	1550	11	08	RUS		F1B	Russian military St. Petersburg. Very strong. Still on 12 <sup>th</sup> at 1000z.
IRTS	7055	1835	03	08	RUS/U KR		LSB	Russian-Ukrainian radio war. Strong. Nearly daily at various times.
IRTS	7136	1725	31	08			Digital	Huge digital signal.
IRTS	7160	1515	28	08			LSB	Someone keeps playing "God Save The Queen" to disturb the WAB net. Operators have to switch frequency to 7155 kHz- but the culprit follows them. Total chaos until 1545z.
IRTS	7180	0537	23	08			Digital signal	Big digital signal.
IRTS	7180	1730	30	08	ERI		AM	Radio Eritrea. Weak signal. Heard several times during the month.
IRTS	7193	1630	06	08			Digital	Link-11 Clew. Strong.
IRTS	7200	0930	02	08			Digital	Huge digital signal
IRTS	10101	1015	29	08	UK or MM		USB	Scottish fishermen. Very strong. On and off between 1015 and 1230z.
IRTS	10138	1555	25	08			FMOP	Radar from 10138 to 10153 kHz.
IRTS	14118	1050	25	08			PSK2A	AT3004-D signals-in and out.
IRTS	14135	1350	14	08			FMCW	Radar from 14135 to 14165 kHz. Huge signals.
IRTS	14191	0950	03	08	RUS		F1B	Russian navy. All hours of daylight. Every day with a strong signal.
IRTS	14201	1345	14	08			FMCW	Radar from 14201 to 14233 kHz. Very strong signals.
IRTS	14221	0600	09	08	KGZ		F1B	Bishkek. Medium strength signal Heard a few times.
IRTS	14302	0730	08	08			Digital	Strong digital signal.
IRTS	18080	0620	02	08	TWN		AM	Sound of Hope, Taipei. Heard often but with a weak signal
IRTS	21003	0945	13	08			FMCW	21003 to 21023 kHz Radar. Huge signal.
IRTS	28450	1455	11	08			USB	Music is being played. Loud.
IRTS	28830	1110	29	08	IRN		FMOP	28880 to 28890 kHz Radar moving up and down the band. Good signals.

### KARS – Kuwait – 9K2RR (Faisal)

### MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3568,0	1729	16	8			F1B	250	
MRASZ	3641,0	1631	16	8			A1A		"KMOWH KUVNX KXFUW"
MRASZ	3765,0	1708	15	8			F1B	200	
MRASZ	3765,0	1633	16	8			F1B	200	
MRASZ	7008,0	0533	12	8			F1B	250	
MRASZ	7008,0	1649	12	8			F1B	250	
MRASZ	7008,0	1351	14	8			F1B	250	
MRASZ	7008,0	0831	15	8			F1B	250	
MRASZ	7050,0	1252	20	8			LSB		music, song, chaos
MRASZ	7055,0	0643	11	8			LSB		chaos as usually
MRASZ	7055,0	1646	15	8			LSB		chaos as usually
MRASZ	7055,0	1243	20	8			LSB		music, song, chaos
MRASZ	7055,0	1413	24	8			LSB		chaos, russian cursing
MRASZ	7060,0	1647	15	8			LSB		propaganda + disturbance
MRASZ	7102,0	1656	12	8			F1B	200	
MRASZ	7112,0	1354	9	8			PSK2		AT3004D
MRASZ	7179,0	1707	15	8			PSK2		AT3004D
MRASZ	7179,0	1416	24	8			PSK2		AT3004D
MRASZ	7182,0	1206	15	8			F1B	500	
MRASZ	10107,9	1347	9	8			N0N		
MRASZ	10108,0	1348	9	8			F1B	200	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	10108,0	0640	11	8			F1B	200	
MRASZ	10108,0	1218	20	8			F1B	200	
MRASZ	10108,0	1226	20	8			F1A		"47009 40977 47009 40977"
MRASZ	10108,0	1244	21	8			F1B	200	
MRASZ	10114,7	0738	8	8			F1B	1000	
MRASZ	10118,0	0530	12	8			F1B	250	
MRASZ	10132,5	1636	16	8			OTHR		10131,5-10133,5 kHz
MRASZ	14008,0	0804	8	8			F1B	250	
MRASZ	14008,0	1240	9	8			PSK2		AT3004D
MRASZ	14008,0	1359	14	8			F1B	250	
MRASZ	14179,0	0852	20	8			OTHR		14170-14188 kHz
MRASZ	14192,0	0831	4	8	RUS		F1B	200	Rus. Navy, Kaliningrad
MRASZ	14220,0	1353	14	8			OTHR		14210-14230 kHz
MRASZ	14261,0	0830	4	8			F1B	200	
MRASZ	14302,0	0739	8	8			PSK2		AT3004D

## OEVSV – Austria – OE3GSA (Gerd)

### PZK – Polish group

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
PZK										<b>August 2019</b>
SP3AMO	3521,8	0915	4	8			PSK		1k	Multi-tone emission [7 lines]
SP3AMO	3521,8	0915	4	8			PSK		1k	Multi-tone emission [7 lines]
SP3AMO	3530	0806	7	8			J3A/US B			On the verge of audibility
SP3AMO	3530	0806	7	8			J3A/US B			On the verge of audibility
SP5GNI	3580	2100	19	8			FMCW		3k	With correlated emission on 3610,5 (S9 +6 dB)
SP5GNI	3580	2100	19	8			FMCW		3k	With correlated emission on 3610,5 (S9 +6 dB)
SP3AMO	3593,6	0801	21	8			NON			
SP3AMO	3593,6	0801	21	8			NON			
SP3AMO	3596,6	1638	11	8						OTH
SP3AMO	3596,6	1638	11	8						OTH
SP3AMO	3673,4	0837	6	8			PSK			NOARS
SP3AMO	3673,4	0837	6	8			PSK			NOARS
SP5GNI	3682,5	2017	25	8			FMCW		3k	With correlated emission on 3713,5 (S9 +15 dB)
SP5GNI	3682,5	2017	25	8			FMCW		3k	With correlated emission on 3713,5 (S9 +15 dB)
SP3AMO	3691,4	0920	21	8			J3A/LS B			Like blowing into a microphone
SP3AMO	3691,4	0920	21	8			J3A/LS B			Like blowing into a microphone
SP5GNI	3713,5	vt	vd	8			FMCW		3k	With correlated emission on 3766,1 (S9 +15 dB)
SP5GNI	3713,5	2148	31	8					3k	(S9 +15 dB)
SP5GNI	3713,5	vt	vd	8			FMCW		3k	With correlated emission on 3766,1 (S9 +15 dB)
SP5GNI	3713,5	2148	31	8					3k	(S9 +15 dB)
SP3AMO	3714,5	vt	vd	8			PSK	200	3k	OTH
SP3AMO	3714,5	vt	vd	8			PSK	200	3k	OTH
SP3AMO	3720	vt	vd	8			NON			Carrier all the day
SP3AMO	3720	vt	vd	8			NON			Carrier all the day
SP3AMO	3755	0811	7	8	RUS		F1B	50	200	NOARS – Kaliningrad?
SP3AMO	3755	0811	7	8			F1B	50	200	NOARS
SP3AMO	3758,3	0742	30	8			PSK			
SP5GNI	3759	1625	19	8			FMSW		3,3k	
SP3AMO	3760	0814	21	8			PSK			NOARS
SP3AMO	3764,3	0925	21	8			F1B	50	200	
SP3AMO	3768	0749	30	8			PSK			
SP5GNI	5360,5	1258	14	8			MFSK			12 tones + pilot 5363,3
SP3AMO	7007	1627	11	8			F1B	75	250	NOARS
SP5GNI	7008	vt	14	8			FSK		250	

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
SP5GNI	7010	1257	28	8			MFSK		200	12 tones 200 Hz shift (LSB) Plus pilot 7011,3. From time to time short burts on freq. 4 kHz below
SP3AMO	7038,1	0819	21	8			NON			
SP3AMO	7059,8	0925	4	8			PSK		1k	Multi-tone emission [4 lines]
SP5GNI	7123,7	1155	30	8			MFSK		40	Many tones (50...) every 40 Hz, visible from 7121,2 up to 7126,2 kHz
SP3AMO	7182	0751	30	8			PSK			
SP3AMO	10101,6	0821	21	8	D	DDH2 DDK7 DDK9	F1B	50	500	[USB - 10100,8 kHz]
SP3AMO	10107,2	0820	7	8			F1B	50	200	NOARS
SP3AMO	10107,8	0833	21	8			NON			
SP3AMO	10108	0739	11	8			F1B/A1 A	50	200	NOARS
SP3AMO	10108	0754	30	8			A2A/N ON			
SP3AMO	10114	0800	30	8			PSK			
SP3AMO	10132,5	0845	6	8			A1A			Beacon SA6RR [RST - 559]
SP3AMO	14029,7	0804	30	8			PSK			
SP3AMO	14093	0932	4	8			RTTY/ PSK	50	200	NOARS
SP3AMO	14097	0849	6	8			PSK			NOARS
SP3AMO	14110	0845	1	8			FSK		2k	INTRUDER - NO ARS
SP3AMO	14110	0809	11	8			PSK			NOARS
SP5GNI	14110	vt	vd	8			FSK		800	2-tone transmision in 4 sec. sequences, from time to time 6-tones transmission
SP3AMO	14110,2	0936	4	8			FSK/A 1A	50	200	NOARS
SP5GNI	14147	1313	14	8			FMCW			Up to 14158 kHz, and the second wide BW signal from 14213 to 14227 kHz, changeable signal strenght
SP3AMO	14153	0853	6	8			NON			
SP3AMO	14233	0854	6	8						OTH
SP3AMO	14260,2	0939	4	8	RUS		F1B	50	200	NOARS – Mil. St. Petersburg?
SP3AMO	14294	0154	11	8			NON			
SP3AMO	14335,2	0815	30	8			PSK			
SP3AMO	14340	0956	4	8			NON			
SP3AMO	21021,6	0817	30	8			PSK			
SP3AMO	21051	1709	11	8			NON			
SP3AMO	21053	1712	11	8			NON			
SP3AMO	21112,6	0818	30	8			PSK			
SP3AMO	21112,7	0848	21	8			NON		-60 kHz	6 linii
SP3AMO	21113	0907	6	8					60k+	NOARS
SP3AMO	21114,5	1707	11	8			NON			
SP3AMO	21173	0907	6	8					60k-	NOARS
SP3AMO	21173,4	1000	4	8			PSK			NOARS
SP3AMO	21173,7	0820	30	8			PSK			
SP3AMO	21173,9	0850	21	8			NON		+60 kHz	6 lines
SP3AMO	21418	0822	30	8			NON			
SP3AMO	24944,4	0854	21	8			NON			
SP3AMO	28134,7	0856	21	8			PSK			OTH
SP3AMO	28195,4	1005	4	8			PSK			NOARS
SP3AMO	28201	1010	4	8			A1A			Beacon SV2HNE/B KN10LL
SP3AMO	28226,5	1720	11	8			A1A			Beacon IW3FZQ/B JN55VF [459 QSB]
SP3AMO	28268,7	0828	7	8			A1A			Beacon SV6DBG [KN09KQ]
SP3AMO	28425,5	0902	21	8			NON			
SP3AMO	28432	0851	30	8			PSK			
SP3AMO	28434	0904	21	8			PSK			OTH
SP3AMO	28684,8	0906	21	8			PSK			OTH
SP3AMO	28757,7	0854	30	8			NON			
SP3AMO	29005,5	0910	21	8			NON			
SP3AMO	29006,5	0856	30	8			NON			
SP3AMO	29032,6	0911	21	8			PSK			OTH
SP3AMO	29112,4	0912	21	8			PSK			OTH
SP3AMO	29234	1735	11	8			NON			NOARS
SP3AMO	29235	0913	21	8			PSK			OTH
SP3AMO	29295,2	09.5	21	8			NON			
SP3AMO	29332,1	0916	21	8			PSK			OTH
SP3AMO	29585,5	0917	21	8			NON			
SP3AMO	29631,4	0919	21	8			PSK			OTH

## REF – France – F5MIU (Francis)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	Baud	Sh /Bw	DETAILS
R.E.F.										August 2019
	10150	1644	3	8			fmcw	OTHR	20kHz	OTH Radar pulsed 20ms,S7
	14182	0745	23	8			fmcw	OTHR	10kHz	OTH Radar pulsed 25 ms,S7
	21000	0744	22	8			usb			Lang Italien or spanish fish ?

## REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3505	07.44	02	08	E		J3E-U			Fishery
REP	3550	07.05	04	08	G		PSK8			NATO Stanag 4285, <i>shared Band</i>
REP	3585	08.15	12	08	G		PSK8A			STANAG 4285 NATO
REP	5365	07:00	02	08	DNK	OUA14	PSK8A	2.4k	2.4k	STANAG 4285
REP	7000	07.55	20	08			J3E-U			Unid fishery
REP	7015	22.48	13	08	B		J3E-U			Fishery
REP	7025	Dly	Dly	08		2010	MFSK8			MilStd 188-141
REP	7039	dly	dly	08	RUS	F	A1A			VLADIVISTOK
REP	7039	dly	dly	08	RUS	M	A1A			MAGADAN
REP	7115	09.05	08	08	RUS		FSK	300	500	FSK encrypted
REP	7140	16.15	11	08	ETH		8k00 A3EGN			Radio Eritrea, daily
REP	7177	19.34	21	08	RUS		A1A			Dots sequence
REP	7180	18.26	10	08	RUS		MFSK	120	3k	AT3004D
REP	7180	dly	dly	08	ERI		9k00 A3EGN			Radio Eritrea
REP	10130	08.58	14	08	MRC		J3E U			Moroccan fishery
REP	14141	09.00	14	08	CHN		FMOP		12k	OTH
REP	14145	16.44	08	08	E		J3E-L			Fishery
REP	14154	09.10	04	08	CHN		FMOP		10k	OTH
REP	14195	07.15	04	08	RUS		F1B	50	200	CIS50, Navy, daily
REP	14261	13.00	29	08	RUS		OFDM			OFDM-60
REP	14273	09.40	18	08	RUS		F1B	75	200	T206 modem
REP	14275	09.30	20	08			FMOP		10k	OTH
REP	18070	09.14	05	08	CYP		FMCW	50	20k	OTH
REP	18080	07.10	12	08	TWN		9k00 A3EGN			Radio Sounds of Hope
REP	18105	15.18	04	08			FMCW	50	20k	OTH
REP	21175	15.20	16	08	MRC		J3E-U			Fishery
REP	28745	09.28	15	08	RUS		F3E			Taxis dispatchers

## RSGB – United Kingdom – G4DYA (Richard)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	7000.0	2124	22	08			J3E			USB voice
RSGB	7008.0	vt	11-15	08			F1B		250	
RSGB	7016.0	1152	27	08			F1B		250	
RSGB	7020.0	1750	01	08			F1B		250	
RSGB	7038.5	ady	dly	08	CZE	OK0EU	A1A			For info: QRP propagation beacon
RSGB	7045.5	0856	08	08			J3E		2K50E	USB voice
RSGB	7060.0	0843 1820	04 29	08			J7D			USB 7058.0 / CIS-12
RSGB	7140.0	2155	08	08			J7D			USB 7138.0 / CIS-12
RSGB	7175.9	1649	29	08			J7D		2K80E	USB 7174.0 / CIS-60
RSGB	7179.0	2121 1913	22 24	08			J7D		2K70E	USB 7177.0 / CIS-12
RSGB	7180.02	vt	vd	08	ERI	VoBM2	A3E			BC
RSGB	7185.65	2151	08	08			H7D		3K30E	USB 7184.0 / CIS-12

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/BW	DETAILS
RSGB	7196.0	1635 0645	29 30	08			F1B		200	
RSGB	7200.0	1756 0903 2059 2155	01 02 18 23	08			J7D		2K70E	USB 7198.0 / CIS-12
RSGB	10100.8	ady	dly	08	D	DDK9	F1B	50	450	For info: Primary user: WX broadcast
RSGB	10150.0	1425	25	08	G		F3N		20K0E	Pluto II FMCW radar, RAF Akrotiri, Cyprus. 50 sps
RSGB	14005.0	1132	30	08			P0N		14K0E	Container OTH radar. 40 sps
RSGB	14008.0	0757 0643 0834 0816	04 14 18 31	08			F1B		250	
RSGB	14116.0	0728	20	08			F1B		250	
RSGB	14169.0	0701	07	08			F1B		200	
RSGB	14179.0	0848	20	08			P0N		12K0E	Container OTH radar. 40 sps
RSGB	14192.0	vt	01-08	08			F1B		200	
RSGB	14240.0	0731	20	08			F1B		250	
RSGB	14258.0	0920	05	08			F1B		500	
RSGB	14261.0	vt	02-04	08	RUS		F1B		200	RR 5.152
RSGB	14261.5	1357	01	08			F1B		200	
RSGB	14295.13	1750	27	08	TJK	R. Tajik	A3E			3rd harmonic of 4765 kHz
RSGB	14301.9	0711 0840	06 07	08			J7D		2K80E	USB 14300.0 / CIS-60
RSGB	14339.0	0741	09	08			F1B		200	

### RSK – Kenya – 5Z4BV (Kamweti)

Soc	kHz	UTC	dd	mm	ITU	Identity	MODE	Shift	Details
RSK	7050	v.t.	21	8	Kenya	?	MFSK	2000	2G ALE
RSK	7089,1	v.t.	nr.dly	8	Central Africa?	?	J3E-u		French/vernacular msg net
RSK	7130	v.t.	nr.dly	8	Kenya	"1128"	MFSK	1750	2G ALE
RSK	7180	v.t.	dly	8	Eritrea	Voice of the Broad Masses of Eritrea 2	A3E		Commecial broadcast

### SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7000.0	0530-1540/	*	8	RUS	UiMUX	PSK2	120	2600	Days: 1. 2. 7.
SRAL	7008.0	0830-0955	16 23	8		UiMUX	PSK2	120	2600	
SRAL	7008.0	h24	*	8	RUS	UiPTR	F1B		250	Days: 11. - 15. 17. 18. 20. 21. 28. 31.
SRAL	7008.5	1225	29	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7010.0	1015-1340/	28 30	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7016.0	0745-1157/	*	8	RUS	UiPTR	F1B		250	Days: 27. 28. 31.
SRAL	7018.0	1215-1500	5 12	8		UiMUX	PSK2	120	2600	
SRAL	7018A	0725-0820	*	8		UiPTR	F1B		500	Days: 16. 20.21. 28. 30. unstable fq
SRAL	7020.0	0640-1800	1 21	8	RUS	UiPTR	F1B/ NON		250	
SRAL	7025.0	0530-0900	*	8	RUS	RDL	F1B/A		200	Days: 1. 2. 3. 18. 22., 5F

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7034.0	1300-1400	3	8		UiPTR	F1B		500	
SRAL	7034.0	0725-1030	18	8		UiPTR	F1B		250	
SRAL	7042.0	0900-1345	16	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7058.0	100-1100	2 4	8	RUS	UiPTR	F1A		250	
SRAL	7060.0	0845-1800	*	8	RUS	UiMUX	PSK2	120	2600	Days: 2. 4. 29.
SRAL	7062.0	1415-1440/	22	8		UiMUX	PSK2	120	2600	
SRAL	7076.0	0910-0945/	16	8	RUS	UiPTR	F1B		250	
SRAL	7099.0	1230-1305/	19	8	RUS	UiPTR	F1B		200	
SRAL	7099.0	1150-1450	19 23	8	RUS	IPFJ	A1A			5BL, 5F
SRAL	7101.0	'0900	21	8		UicW	A1A			5BL
SRAL	7110.0	1015-1230	4 7	8	RUS	UiPTR	F1B			
SRAL	7111.0	0915-1415	26 29	8	RUS	UiPTR	F1B		200	
SRAL	7112.0	1015-1400	9 27	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7118.0	1215-1230	7	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7122.0	1700-1735/	23	8	RUS	UiMUX	PSK2	120	2600	Ends with usb on 7120 kHz
SRAL	7122.0	0540-0600	24	8		UiPTR	F1B/A		250	XXX msg
SRAL	7124.0	1125-1246/	30	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7130.5	1400-1430	15	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7140,0	0300-0600		8	ERI	VoBME	A3E			Not heard
SRAL	7140,0	1445-1935/		8	ERI	VoBME	A3E			Not heard
SRAL	7145.0	1130-1315	10	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7160.0	0700-0800	21	8	RUS	RBL77	A1A			
SRAL	7161.0	0900-0916/	16	8	RUS	238	R3E-u			Synth vox 5F
SRAL	7162.0	0520-0630	18	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7164.0	1200-1224/	8	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7169.0	1400-1434/	5	8		UiPTR	F1B		250	
SRAL	7176.0	0730-0745	17	8	RUS	UiPTR	F1B			
SRAL	7176.0	1615-1800	29	8		UiMUX	PSK2	120	2600	
SRAL	7178.5	1240	19	8		8S1Q	A1A			XXX msg
SRAL	7180.0	1530-1532/	15	8	CHN	UiBC	A3E			
SRAL	7180.0	1430-1945/	*	8	ERI	VoBME	A3E			Days: 27. 28. - 31.
SRAL	7182.0	1245-1315/	19	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7187.5	0950-1102/	23	8		UiPTR	F1B/ NON		250	
SRAL	7188.0	1715-1815	8	8	RUS	UiMUX	PSK2	120	2600	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7196.0	h24	29 30	8	RUS	UiPTR	F1B		200	
SRAL	7198.0	0845-1615	22 29	8	RUS	UiMUX	PSK2	120	2600	
SRAL	7200.0	0530-1845	*	8	RUS	UiMUX	PSK2	120	2600	Days: 1. 2. 18. 24.
SRAL	7 MHz			8	RUS	Kontainer	FMCW			50Hz/9kHz
SRAL	7 MHz			8	CHN	UiOTHR	FMCW			10kHz
SRAL	10 MHz	0500-1650/	*	8	CYP	UiOTHR	FMCW			25/50Hz, 20kHz, (WebSDR 18d) days: 3. 14. 19. 25.
SRAL	10 MHz	'0605	15	8	CHN	UiOTHR	FMCW			10Hz/ 10kHz
SRAL	14 MHz	0530-1545	22 28	8	CHN	UiOTHR	FMCW			10Hz/ 10kHz
SRAL	14 MHz	0800-1410/	*	8	RUS	Kontainer	FMCW			40Hz/ 15kHz, days: 14. 15. 16. 19. 29. 30. (WebSDR 6d)
SRAL	14008.0	0800-1305	*	8	RUS	UiPTR	F1B		250	Days: 4. 8. 25.
SRAL	14108.0	0600-1230	*	8	RUS	NOG5 etc	A1A			Days: 1. 2. 6. 7. 8. 17. 18. 29. 30. 5BL
SRAL	14116.0	'0715	20	8	RUS	UiPTR	F1B/ NON		250	
SRAL	14118.0	0700-1000	*	8	RUS	1HV5 etc	A1A			Days: 2. 9. 18. 5BL
SRAL	14118.0	0945-1030	25	8	RUS	UiMUX	PSK2	120	2600	
SRAL	14141.0	1000-1015/	9	8	RUS	UiPTR	F1B		200	
SRAL	14160.0	0805-0815/	5	8		UiPTR	F1B/ NON		250	
SRAL	14169.0	0705-0720/	7	8	RUS	UiPTR	F1B		200	
SRAL	14171.0	1540	6	8		UiMUX	PSK2	120	2600	
SRAL	14177.0	1005	9	8		UiPTR	F1B		500	
SRAL	14192.0	0545-1815	*	8	RUS	UiPTR	F1B		200	Days: 1. - 7.
SRAL	14193.0	'0740	25	8		UiPTR	F1B/ NON			
SRAL	14221.0	0330-0600/	dly	8	KAZ	UiPTR	F1B		200	
SRAL	14240.0	1010-1020	15	8	RUS	UiPTR	F1B/ NON		250	
SRAL	14258.0	'0920	5	8	RUS	UiPTR	F1B		500	
SRAL	14261.0	1020-1400	2 4	8	RUS	UiPTR	F1B		250	
SRAL	14292.0	'0805	8	8	RUS	GBOG	A1A			5BL
SRAL	14295.2	0330-1830	dly	8	TJK	R Tojikiston	A3E			3f
SRAL	14302.0	'0820	7	8	RUS	UiMUX	PSK2	120	2600	
SRAL	14339.0	0725-1800	6 9	8	RUS	UiPTR	F1B		250	5BL
SRAL	18 MHz	1000-1110/	30 31	8	CYP	UiOTHR	FMCW			25/50Hz/20kHz, (WebSDR 7d)
SRAL	18 MHz	1120	15	8	RUS	Kontainer	FMCW			40Hz/15kHz (WebSDR 0d)
SRAL	18080.0	0700-0800	*	8	TWN	Sound of Hope	A3E			CHN jam by BC, days: 2. 6. 13. 14. 20. 24. 28.
SRAL	18150.0	'0735	3	8	RUS	UiPTR	F1B		500	
SRAL	21 MHz			8	CYP	UiOTHR	FMCW			25/50Hz/20kHz, (WebSDR 1d)
SRAL	21438.0	/0830-1615	dly	8	RUS	RCV	A1A			
SRAL	24 MHz			8		UiOTHR	FMCW			(WebSDR 1d)
SRAL	28 MHz	'0920	6	8	IRN	UiOTHR	FMCW			307 & 870Hz / 60 kHz.
SRAL	28860.0	0520-	*	8	IRN	UiOTHR	FMCW			150 & 313Hz / 60 kHz.



Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
		1500								Days: 2. 4. 6. 7. 9. 12. 14. 15. 16. 21.23. 24. 25. 26. 27. 29. 30.
SRAL	28 MHz			8	CYP	UiOTHR	FMCW			50Hz/ 20kHz
SRAL	28 MHz	0545-1815	*	8	RUS	Taxi disp.	F3E			160 reports, days: 2. 9. 10. 15. 16. 21. - 25. 27. - 31.

### URE – Spain – EA6AMM (Gaspar)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
URE	7008	16:55	11	8			F1B	75	250	Link to video: <a href="https://www.youtube.com/watch?v=g8p3gE4sJWk">https://www.youtube.com/watch?v=g8p3gE4sJWk</a>
URE	7140	22:39	9	8			PSK2A	120	2600	AT3004D
URE	7140	21:50	27	8			FMOP		10k	OTH Radar
URE	7163	09:42	24	8			J3E-L			Alarm siren sound transmitted. Link to video: <a href="https://bit.ly/2Zoz3Ne">https://bit.ly/2Zoz3Ne</a>
URE	7178	05:59	23	8			PSK2A	120	2600	AT3004D
URE	7185.5	22:43	9	8			PSK2A	120	2600	AT3004D
URE	7196	09:20	29	8	RUS		F1B	75	200	Moscow
URE	7200	19:57	18	8			PSK2A	120	2600	AT3004D
URE	10101	10:00	29	8	GBR/MM		J3E-U			Scottish fishermen. Link to audio: <a href="https://bit.ly/30Ip3vL">https://bit.ly/30Ip3vL</a>
URE	10108	VT	VD	8			F1B			
URE	10110	05:44	19	8			FMOP		20k	OTHRadar from 10100 to 10120 kHz
URE	10110.15	06:17	21	8			PSK8	62.5	2k	CLOVER -2000 Bursts
URE	10118	06:15	12	8			F1B		250	
URE	14008	09:36	29	8			F1B		250	
URE	14115	07:59	30	8			FMOP		10k	OTH Radar bursts from 14110 to 14120 kHz
URE	14114.5	06:43	12	8			F1B	600	600	DPRK600
URE	14118	10:40	25	8	RUS		PSK2A	120	2600	AT3004-D. Moscow. Link to video: <a href="https://www.youtube.com/watch?v=0pnt8ou5j1g">https://www.youtube.com/watch?v=0pnt8ou5j1g</a>
URE	14261	18:28	4	8	RUS		F1B	75	200	St. Petersburg
URE	14330	09:47	29	8			FMOP		10k	OTH Radar burst from 14325 to 14335 kHz
URE	18090	06:50	21	8			FMOP		20k	OTH Radar
URE	21000	14:40	3	8	E/MM		J3E-U			Spanish fishermen

### USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
<b>80m band informational only! - Amateur co-primary, shared with other also primary allocated services!</b>										
USKA	3527.0	2221	07	08			F1B	50	200	daily
USKA	3532.0	2153	28	08			DQPSK	14x75	~6k1	LINK 11 DSB often
USKA	3549.0 VFO USB	2230 2219	07 22	08			G1D PSK8	2400	2k7	MIL 188-110A (D2) mod (Hybrid) preamble 4 tones, PSK4 75Bd 450Hz spacing often
USKA	3563.0 VFO USB	2227	07	08			G1D PSK8	2400	2k7	MIL 188-110A
USKA	3569.0	2224	22	08			F1B	50	200	
USKA	3580.0 VFO USB	2234	07	08			G1D PSK8	2400	2k7	Stanag 4285 almost daily
USKA	3715.0	2238	07	08			G1D	2400	2k7	Stanag 4285 often
USKA	3765.0	2104	20	08			F1B	50	200	often
USKA	3772.0	2107	20	08			F1B	50	200	often
USKA	7000.0	2028	23	08			J3E-U		appx 2k5	unid language; probably fishery
USKA	7008.0	1506	11	08			F1B	75	250	TDoA Area of Moscow
USKA	7008.0	0727	23	08			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D often
USKA	7018.0	1303	05	08			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
USKA	7030.0	2021	12	08			J7D	12x120	2k7	CIS12; idling

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7064.0	2157	26	08			FMOP	10 sps	160k	OTHR
USKA	7112.0 VFO LSB	2231	27	08			BPSK	30x60Bd	~2k5	Burst system; tone spacing 75 Hz Preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone at 450Hz
USKA	7119.0	2018	23	08			J7D	12x120	2k7	PSK-2; CIS12; aka AT3004D
USKA	7140.8	2240	27	08		various	F1B	100	170	CODAN Selcall
USKA	7146.8	2238	27	08		various	F1B	100	170	CODAN Selcall
USKA	7152.5	1626	22	08		YDZK	A1A	15 wpm		Letters and figures (5ENY de YDZK)
USKA	7179.0	1623	22	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7188.0 VFO LSB	0821	27	08			BPSK	30x60Bd	~2k5	Burst system; tone spacing 75 Hz Preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone at 450Hz (weak)
USKA	7196.0	0903	29	08			F1B	75	200	often
USKA	7197.0	2101	14	08	TUR	309013	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	2121	14	08	TUR	334018	MFSK8	125	1750	ALE, MIL 188-141A
USKA	7197.0	0900	29	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7198.0	1619	22	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D
USKA	7200.0	0716	02	08			J7D	12x120	2k7	PSK-2; CIS12 aka AT3004D often
USKA	14000.5	1712	24	08			OFDM8	50	500Hz	Carrier spacing 60Hz; Data rate 200 or 600bps. unid <b>Robust Packet</b>
USKA	14008.0	0829	31	08			F1B	50	250	often
USKA	14091.0	0830	20	08			OFDM6 0	30	~ 2.75k	PSK4; spacing 44.45Hz; pilot tone
USKA	14152.0	1139	14	08			FMOP	40 sps	appx 12k	OTHR; (long lasting)
USKA	14169.0	1112	12	08			F1B	50	200	
USKA	14179.0	0823	20	08			FMOP	40 sps	appx 12k	
USKA	14192.0	0719	02	08			F1B	50	200	daily
USKA	14221.0	2124	09	08			F1B	50	200	often
USKA	14221.0	1118	14	08			FMOP	40 sps	appx 12k	OTHR; (long lasting)
USKA	14234.0 VFO USB	1114	28	08			OFDM11 2	22.22	3k05k	PSK2; spacing 25.6Hz; pilot tone
USKA	14240.0	0816	20	08			F1B	50	250	
USKA	14258.0	0724	19	08			F1B	50	500	
USKA	14336.0	0711	19	08			FMOP	40 sps	appx 12k	OTHR
USKA	14339.0	1224	06	08			F1B	75	200	
USKA	18071.0	1020	31	08			FMCW	50 sps	20k	OTHR
USKA	18080.0	0631	12	08			A3E		appx 10k	BC: Chinese often
USKA	18090.0	0628	22	08			FMCW	50 sps	20k	OTHR UK base Cyprus
USKA	21438.0	0855	15	08	RUS	RCV	A1A			letters + figures almost daily
USKA	28720.0	0814	13	08			XXX	225 + 334 sps	appx 45k	OTHR, Bursts; various sweep rates and durations
USKA	28860.0	0721	02	08			XXX	150 + 313 sps	appx 45k	OTHR, Bursts; various sweep rates and durations daily

### Veron – Netherlands – PG1R (Ruud)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
VERON	3527,0	1958	16	08		UiPTR	F1B		Revs
VERON	3723,0	1859	17	08		UiPtr	F1B	200	Printer; S7
VERON	3765,0	1952	16	08		UiPTR	F1B		Revs
VERON	3765,0	1857	17	08		UiPtr	F1B	200	Printer; S4
VERON	7000,0	1431	16	08		UiCAR	NON		TDoA TA-5B4-land
VERON	7008,0	1526	11	08	RUS	UiPtr	F1B	250	Rus. Airforce Moscow
VERON	7008,0	0928	12	08		UiPTR	F1B		Ptr
VERON	7008,0	0930	14	08	RUS	7008	F1B		Ptr, very long period
VERON	7008,0	1656	12	08	RUS	UiPtr	F1B		S8-9; splatter up to 7011kHz

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
VERON	7008,0	vt	vd	08	RUS	UiPtr	F1B	250	Printer; S5-7; TDoA bearing nr Moscow
VERON	7038,0	1918	27	08	E	Uill	J3E-u		Male voices; Spanish
VERON	7054,5	1442	17	08	UKR	JAM		3k	Multitone jammer; S9; TDoA bearing SW Ukraine
VERON	7055,0	1455	17	08	UKR	UiBC	A3E		music.
VERON	7055,0	1730	18	08	UKR	UiBC	A3E		male Russian language
VERON	7055,0	1545	19	08	UKR	UiBC	A3E		music.
VERON	7055,0	1530	22	08		UiBC	A3E		BC male Russian language
VERON	7055,0	1200	02	08	UKR	UiBC	A3E		male Russian language
VERON	7055,0	vt	vd	08	RUS/ UKR		J3E-1		S5-7; comments & music; no calls
VERON	7060,0	1313	31	08	RUS/ UKR		J3E-1		Comments; bad modulated; S7
VERON	7064,0	1921	31	08	RUS/ UKR		J3E-1		Comments & music
VERON	7088,0	1438	17	08		UiPtr	F1B	200	Printer; S9; see next line
VERON	7088,0	1438	17	08		JAM	A1A		Jammer; continuous dots; by radioamateur ?
VERON	7098,0	0905	25	08	PA	DL/PA 1CLM	LSB		not in qrz.com pirate
VERON	7110,0	1100	26	08		UiPtr	F1B	200	Ptr
VERON	7134,5	1720	31	08		UiMux	PSK2A	2k6	
VERON	7150,0	1456	26	08		UiCAR	NON		carrier nr. London UK
VERON	7150,0	1907	27	08	F	Uill	J3E-u		French lang; 3 male voices; Fishery?
VERON	7196,0	1905	29	08		UiPTR	F1B		Ptr
VERON	7198,0	0820	02	08	RUS		PSK		AT3004D
VERON	10108,0	1332	13	08		UiPtr	F1B	200	Printer; S4
VERON	10118,0	0855	03	08		UiPTR	F1B		Ptr also 12/8 09.20 UTC
VERON	14000,0	0953	05	08		UiCAR	NON		carrier
VERON	14008,0	1022	22	08	RUS	UiPtr	F1B		Ptr
VERON	14008,0	0953	01	08	CIS	UiPTR	F1B		Carrier Revs Ptr also 26/8 09.29 UTC 27/8 09.10 UTC
VERON	14011,0	0918	02	08	CIS	UiCW	A1A		5BL ending 436 RPT AL K
VERON	14011,0	0928	02	08	CIS	YFN7	A1A		O8TB de YFN7 QRV K
VERON	14011,0	0933	02	08	CIS	YFN7	A1A		YFN7 341 20 2 1215 341 = 528 = NGJZE 5BL
VERON	14011,0	0940	02	08	CIS	YFN7	A1A		C1FL de YFN7 QTC 260 25 2 1205 260 = 591 =ZDHueN 5BL
VERON	14089,0	0700	30	08	RUS	UiILL	USB		male Russian language
VERON	14096,0	0930	26	08		UiCAR			call sgin in A1A DLIK
VERON	14096,0	1530	26	08	VE	UiCAR	NON		long period TDoA nr Halifax
VERON	14108,0	1001	11	08	CIS	UiCW	A1A		5F
VERON	14108,0	0827	12	08	RUS	9T6O	A1A		OELK DE 9TKO proc
VERON	14108,0	0830	12	08	RUS	9T6O	A1A		4CG2 DE 9TKO call
VERON	14108,0	0831	12	08	RUS	9T6O	A1A		PHZE DE 9TKO call
VERON	14108,0	0832	12	08	RUS	9T6O	A1A		GBBB DE 9TKO call
VERON	14108,0	0833	12	08	RUS	9T6O	A1A		TOCC DE 9TKO proc
VERON	14108,0	0834	12	08	RUS	9T6O	A1A		PMO3 DE 9TKO proc
VERON	14108,0	0959	12	08	CIS	UiCW	A1A		PMO3 de 6DEC QTC ZAE K
VERON	14108,0	1002	12	08	CIS	UiCW	A1A		6DEC 903 54 12 1250 903 = ZAE 083 = MMMMM 5BL
VERON	14108,0	0917	13	08	CIS	UiCW	A1A		QRJ3 QJG QYT9 K
VERON	14108,0	0937	13	08	CIS	6BGN	A1A		A77Y de 6BGN ZDX ZMZ ZGN QYT9 K
VERON	14108,0	1036	13	08	CIS	3XMS	A1A		3XMS ZKA ZPI ZUF QYT9 K
VERON	14108,0	0909	15	08	CIS	WEGI	A1A		XXX WEGI 30399 SRYWORIM 6191 7737 UDELOKULX 3683 2338 K
VERON	14108,0	0934	26	08	CIS	N1DX	A1A		XXX N1DX F2ET 81939 75425 MASSIWNJY 4939 22800 YS..NIK 5367 1561 K
VERON	14108,0	1200	26	08	CIS	UiCW	A1A		5F
VERON	14108,0	1026	27	08	CIS	UiCW	A1A		tfc
VERON	14108,0	0727	28	08	CIS	WEGI	A1A		33496 UWLAV (loc.UKR)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
VERON	14108,0	1212	30	08	CIS	UiCW	A1A		5F tfc
VERON	14108,0	1012	01	08	CIS	UiCW	A1A		5F 296 k (qrt)
VERON	14108,0	1022	01	08	CIS	UiCW	A1A		5BL ending 296 K
VERON	14108,0	1041	01	08	CIS	1SAT	A1A		1SAT calls to CTMR HZTD WBCB VVYH PS2A
VERON	14108,0	0739	02	08	CIS	M3KB	A1A		5F 296 k (qrt)
VERON	14108,0	0747	02	08	CIS	7KCS	A1A		calling I8LU qtc K
VERON	14108,0	1003	06	08	CIS	MNM8	A1A		XCWG de MNM8 QTC 833 37 6 1248 833 = 839 = MMMMM 5BL
VERON	14108,0	0801	07	08	CIS	G1GZ	A1A		258 qtc k 5F
VERON	14116,0	0710	20	08	RUS	UiPtr	F1B	250	Belarus
VERON	14118,0	0922	13	08	CIS	UiCW	A1A		5BL ending 696 K
VERON	14118,0	0925	13	08	CIS	1HV5	A1A		1HV5 086 34 13 1222 086 = ZRU 018 = 5BL
VERON	14118,0	0930	13	08	CIS	1HV5	A1A		1HV5 067 34 13 1225 069 = ZXK 018 RSOMH 5BL
VERON	14118,0	0931	13	08	CIS	UiCW	A1A		06734 13125 018 qtc K
VERON	14118,0	0909	16	08	CIS	1HV5	A1A		1HV5 108 34 16 1204 108 = ZBL 821 = 5BL
VERON	14118,0	0817	09	08	CIS	DEJW	A1A		XMVS DE DEJW 498 34 9 1003 498 BT ZDI 672 BT RAZPA (etc 5BL). Ends: RPT AL K
VERON	14160,0	0907	15	08		UiPTR	F1B		Fast Revs/Ptr
VERON	14169,0	0916	12	08		UiPTR	F1B		Ptr
VERON	14192,0	0930	01	08	CIS	UiPTR	F1B		Revs/Ptr also 3/8 08.47 UTC
VERON	14233,0	0907	13	08		UiPTR	F1B		Ptr
VERON	14233,0	0945	13	08	RUS	UiPtr	F1B		Ptr
VERON	14240,0	0952	15	08	RUS	UiPtr	F1B	250	Belarus
VERON	14261,0	0819	02	08	RUS	UiPtr	F1B		200 Hz MIL
VERON	14261,0	0900	02	08		UiPTR	F1B		Ptr also 3/8 08.48 UTC
VERON	14262,0	1039	01	08		UiPTR	F1B		Ptr
VERON	14317,0	0945	21	08	CIS	UiCW	A1A		5BL ending 145 QLN K
VERON	14317,0	0947	21	08	CIS	MR2S	A1A		DFVG de MR2S K
VERON	14317,0	0950	21	08	CIS	MKW4	A1A		MKW4 QTC AR
VERON	14317,0	0952	21	08	CIS	MKW4	A1A		MKW4 615 34 21 1245 615 = ZEK 233 = 5BL
VERON	14339,0	0946	06	08		UiPTR	F1B		Ptr also 9/8 08.37 UTC
VERON	14350,0	0915	13	08		UiCQR	A1A		Strong Carrier
VERON	21438,0	0924	12	08	RUS	RCV	A1A		XXX ONG4 80656 45873 (etc 5F)

# The monitoring team of IARU Region 1

credits:

**Wavecom Elektronik – Buelach – Switzerland**

**All our friends and contributors worldwide!**

**Many thanks for your interest!**

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