



# Monitoring System

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

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

The monthly newsletter for Region 1

## June 2017

### The 30 members of the IARUMS Region 1 Monitoring Team:



### Acknowledgements

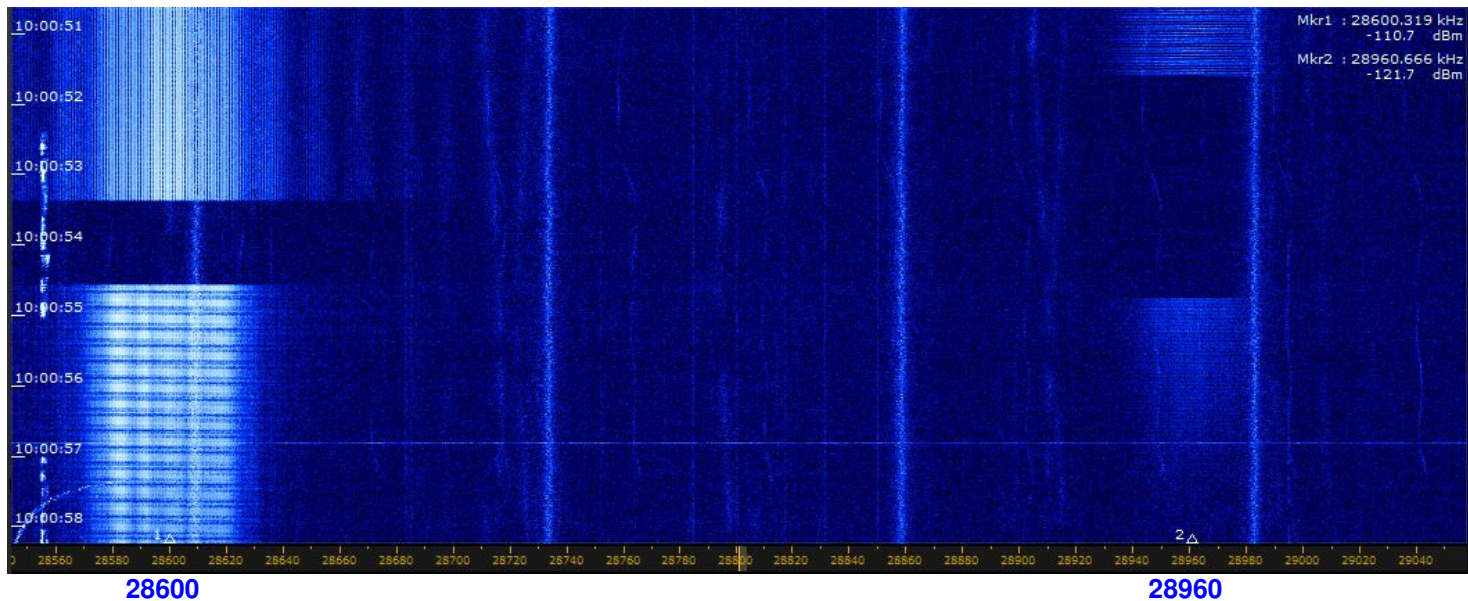
ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4BV - Kamweti ++ DARC: DK2OM – Wolf ++ EARS: A61M – Obaid ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVSV: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: M0VRR - Vaughan ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: ON8IM – Ivan +++ URE: EB1TR - Fabian ++ USKA: HB9CET - Peter ++ VERON: PA2GRU - Dick ++ ZRS: S56ZDB – Darko ++ G3VZV – Graham (satellite) ++ TG9ADV – Jorge (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster assis.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1 ++ inofficial members: YO9RIJ – Petrica ++ ASTRA - DL1BDF - Mustapha ++ PTTs: BAKOM (Swiss) ++ OFCOM (UK) ++ Dutch AT

# Part 1: News and Infos

## 1. Radar Iran on 28500 and 28960 kHz

The Iranian radars were transmitting on 28600 (307 – 870 sps) on 28960 kHz (150 – 313 sps) on FMOP and about 50 kHz wide at the same time.

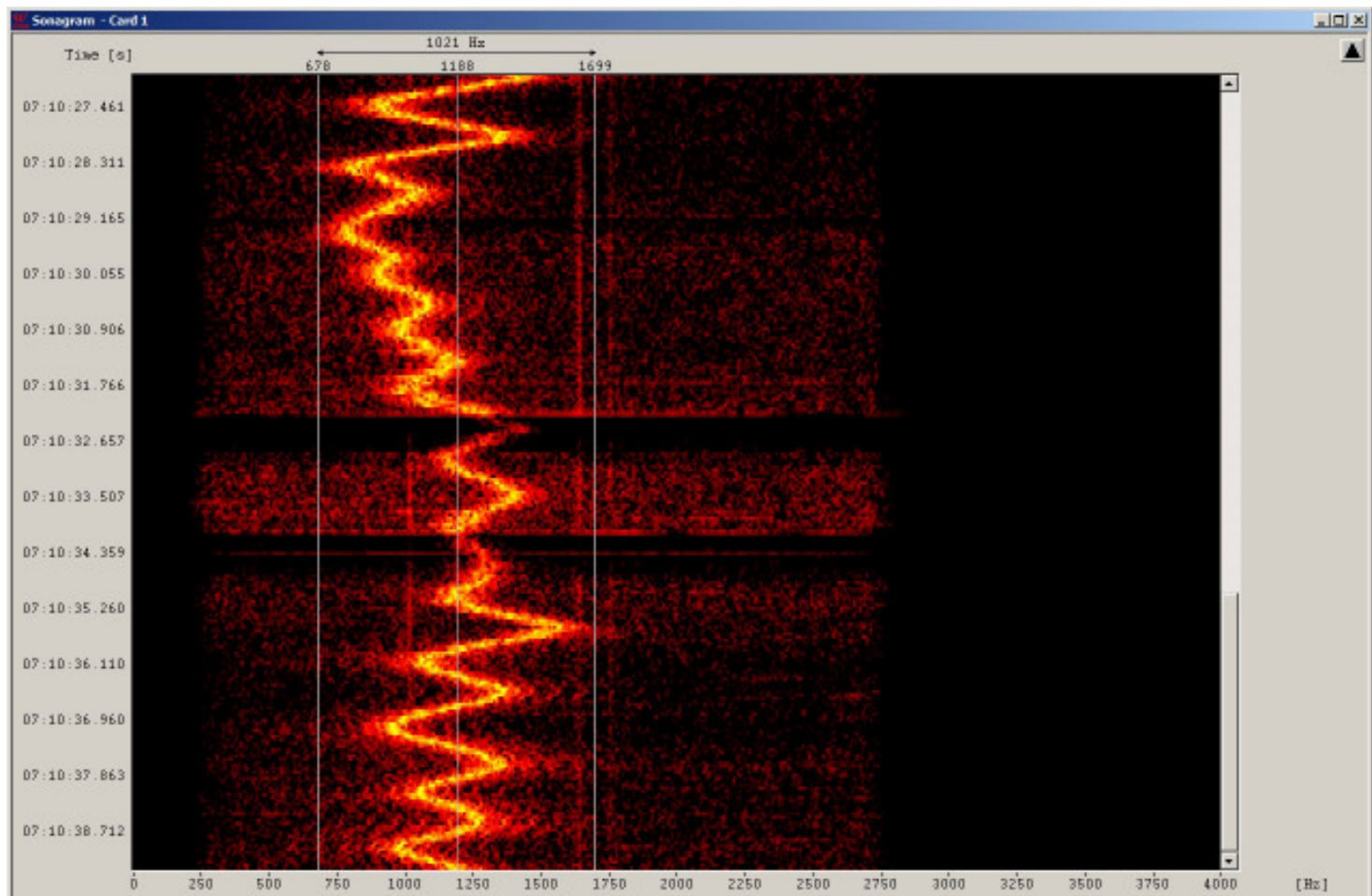
Screenshot: DK2OM on June 5<sup>th</sup> at 1000 utc – You can see the alternating blocks and the gaps between the blocks.



soundfile: <http://www.iarums-r1.org/iarums/sound/28960-irn1.wav>

## 2. Mysterious oscillations on 28000 kHz

I found mysterious and unstable oscillations on 28000 kHz on June 20<sup>th</sup> at 0711 utc. The direction was about 60 deg. from DL. Purpose unknown. Screenshot: DK2OM with W-Code



### 3. Sporadic E conditions on 28 and 50 MHz in June 2017 – Ionosonde Pruhonice



Station YYYY DAY DDD HHMMSS P1 FFS S AXN PPS IGA PS  
 Pruhonice 2017 Jun06 157 091500 RSF 005 2 713 100 03+ B1

foF2 N/A  
 foF1 N/A  
 foF1p 4.48  
 foE 2.90  
 foEp 3.25  
 fxI N/A  
 foEs 10.80  
 fmin 1.95

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MUF(D) N/A  
 M(D) N/A  
 D N/A

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h'F N/A  
 h'F2 N/A  
 h'E 97.7  
 h'Es 102.5

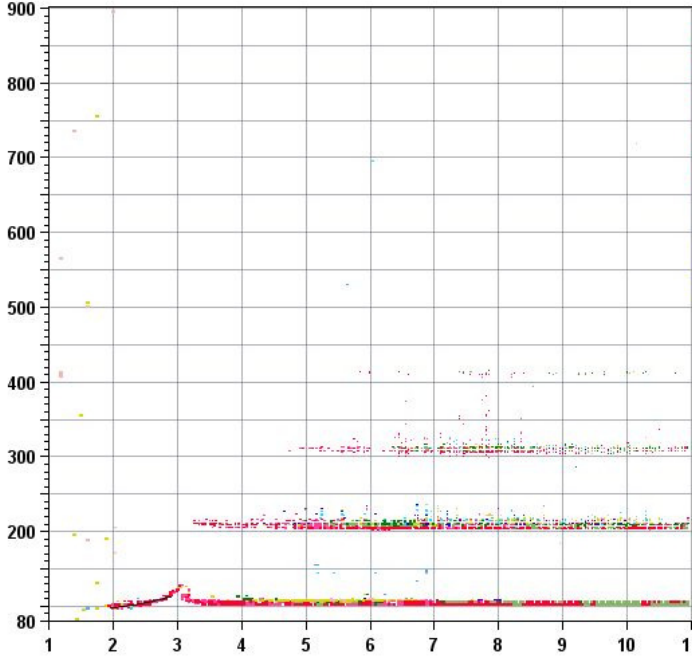
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hmF2 N/A  
 hmF1 N/A  
 hmE N/A  
 yF2 N/A  
 yF1 N/A  
 yE N/A  
 B0 N/A  
 B1 N/A

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C-level 55

Auto:  
 Artist5  
 500200



D 100 200 400 600 800 1000 1500 3000 [km]  
 MUF 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 [MHz]  
 P0052\_2017157091500.RSF / 200fx512k 50 kHz 2.5 km / DPS-4D P0052 050 / 50.0 N 14.6 E Ion2Png v. 1.9.11

Left:

Sporadic E on June 6<sup>th</sup> at 0915 utc visible on Ionosonde Pruhonice. You can see a strong Es layer at 102.6 km altitude. The F1 and F2 layers could not be reached on shortwave. Many European contacts on 50 MHz were possible. We found a lot of intruders on 28 MHz, too.

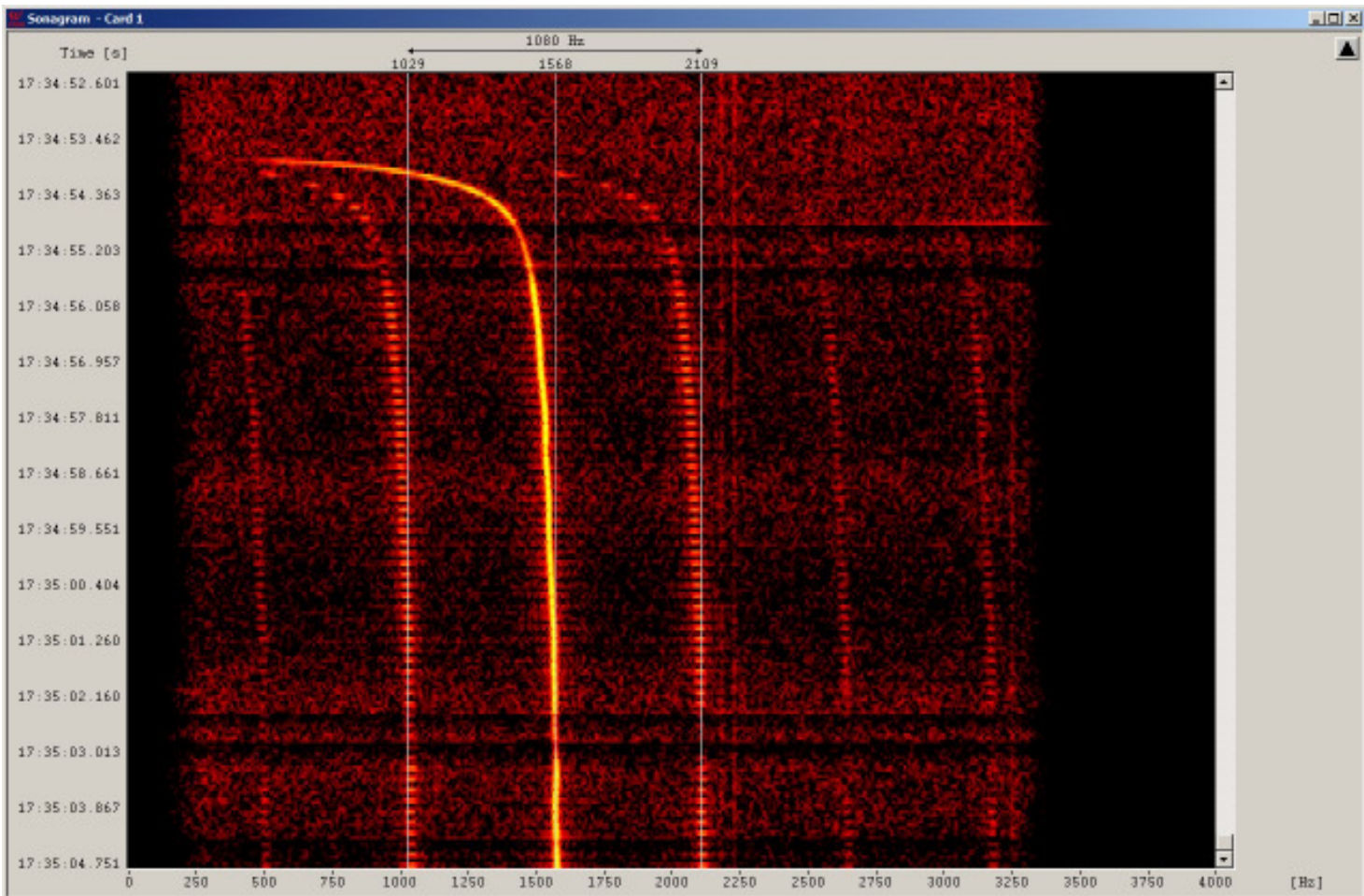
Source: Inosonde Pruhonice

<http://147.231.47.3/latestFrames.htm>

<- Es layer

### 4. Strange signals from Central Africa on 28 MHz

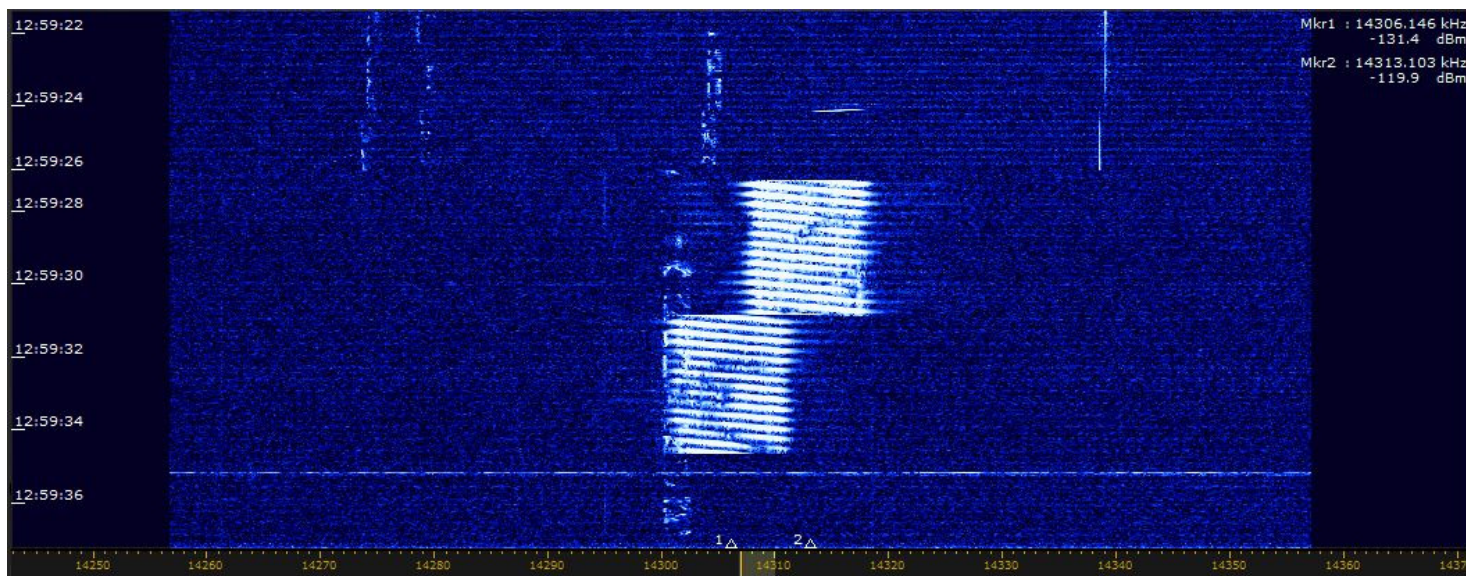
The signals on the W-Code sonagram appeared on 28751 kHz on June 14<sup>th</sup> at 1735 utc. You can see a rising carrier with dots on both sidebands and spurious emissions, too. Each transmission had a duration of 60 sec followed by a short break. The location was Central Africa, possibly Gabon as in earlier years. Purpose unknown. The same signals could be found 28459.8 and 28476.5 kHz.



carrier

## 5. Chinese OTH burst radars as usual

We observed Chinese OTH burst radars daily on 14 and 21 MHz and sometimes on 7 MHz in the evening hours. Parameters: Mostly 66.66 sps and 10 kHz wide (foghorn sound). Durations: 3.8 and 7.6 sec. The sonagram shows a double-burst on 14306 kHz on June 15<sup>th</sup> at 1259 utc.



14306

## 6. Codan selcals on 7 MHz

HB9CET (Peter) checked the March 2017-Newsletter and found many more Codan-selcals on 7 MHz, even in the CW-range! The Selcals contain groups of 4 figures, but no other ident. The systems are located in Australia and operated by Australian Hams. The selcals can be heard in Europe every evening with S2 – S3 signal strength. Parameters: After a preamble a F1B signal with 100 Bd and 170 Hz shift.

## 7. F1B on 14221 kHz from Kyrgyzstan (Bishkek)

The F1B signal on 14221 kHz (50 Bd – 200 Hz shift) is still active every evening and mostly idling. We observe the system since several years. Please inform your national PTTs!

## 8. Radio Eritrea again on 7 MHz

Radio Eritrea abused again 7150 and 7180 kHz on A3E together with the hostile emissions by Radio Ethiopia.

## 9. [HAMRADIO 2017 – Monitoring Meeting DARC and IARUMS Region 1](#)

Invitation to all national coordinators and interested friends of our Monitoring System Region 1 and the DARC Monitoring System! (German version: <http://www.iarums-r1.org/bandwacht/bw-2017.pdf>)

Saturday, July 15<sup>th</sup> 2017 – Time: 10.00 – 11.30 MESZ - Room Swiss (180) – Hall A2

Programme:

1. Opening by DK2OM and HB9CET

2. Main lecture "Wireless navigation systems on 9 kHz - 30 MHz" Prof.Dr. Wolfgang Skupin

## 10. Miscellaneous or bad news:

- 7120.0 kHz – Radio Hargaysa Somalia – as usual
- 7150.0 kHz and 7180 kHz – Radio Eritrea and white noise QRM by Radio Ethiopia
- 7200.0 kHz – Radio Taiwan and Chinese jammer
- 14180.0 kHz – Russian Navy Sevastopol on F1B still active
- 14295.0 kHz - Radio Tajik (harmonic from 4765 kHz)
- 18080.0 kHz – Sound of Hope - Taiwan
- 21438.0 kHz – Russian Navy Sevastopol on A1A - as usual

## 11. Update: History of IARUMS R1 <http://www.iarums-r1.org/iarums/history.pdf>

- 12. Homepage IARU Region 1 <http://www.iau-r1.org/>
- Homepage IARUMS Region 1 <http://www.iarums-r1.org>
- Homepage IARUMS Region 2 <http://www.iau-r2.org/>
- Homepage IARUMS Region 3 <http://iau-r3.org/iau-region-3-monitoring-system-newsletter/>
- Intruderlogger Region 1 <http://peditio.net/intruder/bluechat.cgi>
- ITU-Monitoring Reports <http://www.itu.int/en/ITU-R/terrestrial/monitoring/Pages/Regular.aspx>

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

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

### ARSK – Kenya – 5Z4BV (Kamweti)

H'd by	kHz	UTC	dd	mm	ITU	Identity	MODE	Details
ARSK	6.999,00	a.m.	16, 20th	6	E. Africa	?	J3E-u	Swahili message net
ARSK	7.010,00	1010	15th	6	Tanzania	?	J3E-l	Swahili/English/explitve lang. commercial tented camp operation
ARSK	7.075,00	0600	occasional		E. Africa	?	J3E-l /J3E-u	Unidentified language, possibly Amharic
ARSK	7.080,00	vt	near dly	6	?	?	"OTHR"	OTHR
ARSK	7.120,00	vt	dly		Rep.of Somalia	Hargeisha	A3E	Broadcast
ARSK	7.150,00	vt	near dly	6	Eritrea	?	A3E	Broadcast
ARSK	7.160,00	vt	near dly	6	?	?	"OTHR"	OTHR
ARSK	7.164,00	business hours	dly		E. Africa	?	J3E-u	Information net, Kiswahili/English
ARSK	7.180,00	vt	near dly	6	Eritrea	?	A3E	Broadcast

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

DG0JBJ (Mario) observed **1** OTH radars on 40 m, **15** OTH radars on 20 m, **28** OTH radars on 17m, **31** OTH radars on 15 m and **22** OTH radars on 10 m in April 2017.

### 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	3,5 – 30 MHz	1201	03	06	D		QRM			3.5 - 30 MHz disturbed by a neighbouring LED lamp – daily - various times
DK2OM	1812,0	2100	04	06	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS3-/RS-10 – Kaliningrad – no carrier - daily, all day
DK2OM	1852,0	vt	dly	06	I	IPP	USB			Palermo Radio, weather reports
DK2OM	1855,0	vt	dly	06	I	IQP	USB			San Benedetto Radio, weather reports
DK2OM	1876,0	vt	dly	06	I	IQN	USB			Lampedusa Radio, weather reports
DK2OM	1888,0	vt	dly	06	I	IPD	USB			Civitavecchia Radio, weather reports
DK2OM	1896,5	ady	dly	06	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy – daily, all day
DK2OM	1925,0	vt	dly	06	I	IPL	USB			Livorno Radio, weather reports
DK2OM	3500,0	1201	03	06	D		QRM			disturbed by a neighbouring LED lamp with S9
DK2OM	3503,5	vt	dly	06	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt,

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										daily - legal!
DK2OM	3525,0	---	--	06	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Marseille – legal!
DK2OM	3527,0	2048	04	06	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3531,0	2048	04	06	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily
DK2OM	3532,0	---	--	06	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3550,0	0730	dly	06	F		A3E			French amateurs not respecting bandplans - daily
DK2OM	3550,0	vt	vd	06	ALG	no ITU	FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	3550,7	vt	vd	06	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial - legal operation!
DK2OM	3553,8	ady	dly	06	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long - TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3576,6	ady	dly	06	I	IZ3DVW	A1A			3576.550 - uncoordinated beacon – disturbing JT65
DK2OM	3585,0	ady	dly	06	TWN	HLL	F1C		800	WX-fax Taiwan - 120 rpm, IOC 576, - daily, all day - legal!
DK2OM	3586,0	1800	dly	06	G		PSK2A	40	40	encrypted – every evening Great Britain – purpose unknown
DK2OM	3587,0	vt	vd	06	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3593,7	---	--	06	RUS	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	3593,8	---	--	06	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
DK2OM	3593,9	---	--	06	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	3594,0	---	--	06	RUS	C	A1A			Cluster beacon C - Moscow RUS Navy - “RIW”
DK2OM	3594,2	---	--	06	RUS	F	A1A			Cluster beacon F - Vladivostok RUS Navy - “RJS”
DK2OM	3595,0	---	--	06	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	3596,0	vt	dly	06	SUI		FSK8	125	1750	ALE, “HB9MHB just for info!
DK2OM	3596,0	vt	dly	06	J		FSK8	125	1750	ALE, “JH1ESB” – just for info!
DK2OM	3617,0	vt	dly	06	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	ady	dly	06	J	JMH	F1C		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!!!
DK2OM	3627,0	1943	21	06	FEa		FMOP		77k	Far East OTH radar – 43 sps – possibly “Sunflower” – 3627 – 3704 kHz
DK2OM	3642,0	ady	dly	06	CHN		A1A			loop – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3649,0	vt	vd	06	ALG	no ITU	FSK8	125	1750	ALE, “BI20” PA20”
DK2OM	3718,0	vt	vd	06	FEa	7CJK	A1A			loop “7CJK”
DK2OM	3720,0	vt	dly	06	S		FSK8	125	1750	ALE, “YU” “YT” “YV” “DZ” – Swedish MIL
DK2OM	3756,0	2000	dly	06	RUS		A3E			RUS MIL – channel marker – Tuapse – East Black Sea – night QRG – daily – even audible in Japan
DK2OM	3757,0	ady	dly	06	FEa	RIS9	A1A			“M8JF de RIS9” - loop
DK2OM	3772,0	ady	dly	06	FEa	A4JC	A1A			“A4JC” - loop
DK2OM	3777,0	vt	dly	06	FEa		A1A			“M8JF de RIS9” – loop – dly
DK2OM	3791,0	vt	vd	06	D	DK0ESD	FSK8	125	1750	ALE, “DK0ESD” – daily - just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3797,0	ady	dly	06	FEa		A1A			“M8JF de RIS9” – loop
DK2OM	5329,0	1950	21	06	FEA		FMOP		103k	Far East OTH radar 5329 – 5432 kHz – 43 sps – covering weak CW-signals on 5351.5 – 5366.5 kHz
DK2OM	5351,5	1201	03	06	D		QRM			disturbed by a neighbouring LED lamp with S9
DK2OM	6998,5	vt	dly	06	POL		FSK8 USB	125	1750	MIL-188-141A – “BU2” “OD6” “OL1” “SZ4” “ZE2” “MA3” until 7001.0 kHz – also voice traffic male and female - Polish MIL
DK2OM	7000,0	vt	dly	06	INS		USB LSB			Indonesian pirates – daily – all day – singing - audible in Europe in the evenings
DK2OM	7000,0	1201	03	06	D		QRM			disturbed by a neighbouring LED lamp – every evening
DK2OM	7000,0	1520	28	06	MRC		USB			Moroccan fishery
DK2OM	7000,0	1950	30	06	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7000 – 7032 kHz
DK2OM	7001,5	ady	dly	06	POL		PSK8	2400	2400	RF QRG 6998.5 kHz – 7000.3 kHz center - MIL-188-110A – 600 / 300 bps short – Polish MIL
DK2OM	7005,0	ady	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7010,0	ady	dly	06	INS		USB LSB			Indonesian and Philippine pirates
DK2OM	7010,0	vt	vd	06	ALB	no ITU	FSK8	125	1750	ALE, “RS0” - Tirana
DK2OM	7015,0	1847	14	06	INS		USB LSB			Indonesian pirates
DK2OM	7018,0	---	--	06	RUS	REA4	F1B	100	800	mostly idling – Russian airforce Moscow – ident at full hour + 41 min. on F1A
DK2OM	7018,6	1630	01	06			N0N			7018.625 carrier – Baltic region
DK2OM	7020,0	vt	vd	06	ALB		FSK8	125	1750	ALE, “CS004A” “RS004D” “CS004” - daily
DK2OM	7025,0	1812	16	06	INS		USB LSB			Indonesian pirates
DK2OM	7027,5	---	--	06	UKR	„V“	A1A			beacon “V” – Kyiv
DK2OM	7030,0	1813	16	06	INS		LSB USB			Indonesian pirates
DK2OM	7039,0	---	--	06	RUS	C	A1A			Cluster beacon C - Moscow RUS Navy - “RIW”
DK2OM	7039,1	---	--	06		A	A1A			beacon “A” - loop
DK2OM	7039,2	1728	20	06	RUS	F	A1A			Cluster beacon F - Vladivostok RUS Navy - “RJS”
DK2OM	7039,3	1728	20	06	RUS	D	A1A			Cluster beacon D Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC” - daily
DK2OM	7039,4	ady	dly	06	RUS	M	A1A			Cluster beacon M – Magadan RUS Navy – „RTS“
DK2OM	7040,0	1814	16	06	INS		USB LSB			Indonesian pirates
DK2OM	7040,0	ady	dly	06	I		A1A			IZ3DVW – uncoordinated and unwanted beacon
DK2OM	7040,5	vt	dly	06	HRV		FSK8	125	1750	ALE, “9A5EX” “9A0ALE” – just for info
DK2OM	7047,37	vt	vd	06	D		FSK8	125	1750	ALE, “DL0NOT” – just for info!
DK2OM	7049,5	vt	dly	06	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	125	1750	Amateur ALE, just for info! daily – various times
DK2OM	7050,0	vt	dly	06	RUS UKR		LSB			music transmissions – private war ?
DK2OM	7050,0	vt	dly	06	KGZ		FSK8	125	1750	ALE, “X” “810” “820615”

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										“810698” – Kyrgyzstan MIL
DK2OM	7060,0	1613	20	06	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7060 – 7092 kHz
DK2OM	7070,0	vt	vd	06	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7077,0	1311	13	06	CHN		FMOP		70k	OTH radar – 86 sps – 7077 – 7147 kHz
DK2OM	7081,0	0920	28	06	RUS		PSK2A	120	2600	AT3004D - Penza
DK2OM	7088,8	---	--	06	S	SL0FRO	A1A			7088.830 kHz - cw-trainee, Sweden - SL0FRO - just for info!
DK2OM	7089,8	---	--	06	TUR CYP		PSK8	2400	2400	Link11 - SLEW – aircraft – west of Cyprus
DK2OM	7091,5	---	--	06	KAZ	„V“	A1A			7091.543 kHz - loop with spurious – ident “V” – Almaty - Kazakhstan
DK2OM	7099,5	vt	dly	06	HRV	9A0ZG	FSK8	125	1750	ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info!
DK2OM	7102,0	vt	dly	06	TWN		FSK8	125	1750	ALE, “BV4AS” – just for info!
DK2OM	7102,0	vt	vd	06	HRV SUI D	9A0MIL	FSK8	125	1750	ALE, “9A3MIL” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
DK2OM	7107,0	1638	07	06	CHN		FMOP		32k	Chinese radar “Sunflower” – 7090 – 7122 kHz – 43 sps
DK2OM	7110,0	vt	dly	06	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	7112,0	0850	29	06	BLR		PSK2A	120	2600	AT3004D
DK2OM	7117,0	---	--	06	RUS	REA4	F1B	100	1000	mostly idling – Russian airforce Moscow – ident on CW at 1640 utc on the mark-QRG
DK2OM	<b>7120,0</b>	<b>1640</b>	<b>25</b>	<b>06</b>	<b>SOM</b>		<b>A3E</b>		<b>9k</b>	<b>Radio Hargaysa – Somalia – daily – even audible in Australia and Japan</b>
DK2OM	7122,0	1838	07	06	RUS		F1B	75	250	Smolensk
DK2OM	7137,0	1920	28	06	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7137 – 7169 kHz
DK2OM	7137,0	vt	dly	06	TWN		FSK8 LSB	125	1750	ALE, “DEGDG” “DRYHD” “DCOY” “DSQLK” “DEIQW” “DETWY” Taiwanese navy – daily
DK2OM	7150,0	2016	04	06	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7150 – 7182 kHz
DK2OM	7155,0	1912	17	06	FEa		FMOP		32k	Codar like ocean surface radar 2.6 sps – 7155 – 7187 kHz
DK2OM	7162,0	1836	07	06	RUS		F1B	75	250	Omsk
DK2OM	7179,0	1914	06	06	RUS		PSK2A	120	2600	AT3004D – Russian ship - Cyprus
DK2OM	<b>7180,0</b>	<b>1639</b>	<b>25</b>	<b>06</b>	<b>ERI ETH</b>		<b>A3E</b>		<b>9k</b>	<b>carrier on 7180.021 kHz Radio Eritrea disturbed by Radio Ethiopia by white noise emissions - daily</b>
DK2OM	7183,0	vt	dly	06	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	vt	dly	06	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7198,0	1835	07	06	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	<b>7200,0</b>	<b>vz</b>	<b>dly</b>	<b>06</b>	<b>CHN TWN</b>		<b>A3E/BC</b>		<b>9k</b>	<b>Chinese jammer disturbing Taiwan BC</b>
DK2OM	<b>10100,0</b>	<b>1201</b>	<b>03</b>	<b>06</b>	<b>D</b>		<b>QRM</b>			<b>disturbed by a neighbouring LED lamp with S9</b>
DK2OM	10100,8	ady	dly	06	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10110,0	vt	dly	06	SNG	no ITU	FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
DK2OM	10112,0	1935	02	06	I		PSK8A	2400	2400	Stanag-4285 – 600 bps long – area of Rome - daily
DK2OM	10113,0	vt	vd	06	TUN	no ITU	FSK8	125	1750	ALE, “TUD” “STAT5”



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										“STAT154”
DK2OM	10114,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “BSF” “ZEN” “CM2OR2”
DK2OM	10114,8	0640	dly	06	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	vt	dly	06	MRC	no ITU	FSK8	125	1750	ALE, “100” “114” “203” “XXZ” – Western Sahara
DK2OM	10116,5	---	--	06	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10120,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “CM6” “01012016”
DK2OM	10123,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “COF” “BSF” ”CM2” “ESA” – Algerian Airforce
DK2OM	10129,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “CM1” “CTF” “772”
DK2OM	10136,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	<b>10144,0</b>	<b>ady</b>	<b>dly</b>	<b>06</b>	<b>D</b>	<b>DK0WCY</b>	<b>A1A</b>			<b>10144.000 kHz - DK0WCY – German aurora beacon – just for info!</b>
DK2OM	10145,5	vt	dly	06		JH1ESB	FSK8	125	1750	ALE, “JH1ESB” - just for info - daily
DK2OM	10145,5	vt	dly	06	TWN AUS	BV4AS	FSK8	125	1750	ALE, “BV4AS” “VK4SAA” – just for info!
DK2OM	<b>14000,0</b>	<b>1201</b>	<b>03</b>	<b>06</b>	<b>D</b>		<b>QRM</b>			<b>disturbed by a neighbouring LED lamp with S9 – daily various times</b>
DK2OM	14026,0	1724	08	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14026,0	0846	30	06	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14100,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “6206” “6204” “6212” “6202” “6203” “6207” “6217” “MTL” “IJ” – Mauritanian border – daily, all day
DK2OM	<b>14100,0</b>	<b>1201</b>	<b>03</b>	<b>06</b>	<b>D</b>		<b>QRM</b>			<b>disturbed by a neighbouring LED lamp with S9 – daily various times</b>
DK2OM	14103,0	0848	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14104,0	1839	07	06	CHN		OFDM	44.44	2200	OFDM 39 – PSK4B – Central China
DK2OM	14108,0	0745	27	06	RUS		A1A			RUS MIL - area of Moscow – many spurious emissions
DK2OM	14109,0	vt	dly	06	TWN	HAM	FSK8	125	1750	ALE, “BV4AS” – daily - just for info!
DK2OM	14109,0	vt	dly	06	INS	HAM	FSK8	120	1750	ALE, “YD00XH” – just for info!
DK2OM	14109,0	vt	dly	06	S HRV D		FSK8	125	1750	ALE, “SM3FXL” “9A4OS” “9A3BRV” “DK0ESD” - just for info!
DK2OM	14109,0	1617	08	06	J		FSK8	125	1750	ALE, “JH1ESB” – just for info
DK2OM	14113,5	1401	28	06			F1B	600	600	DPRK-FSK 600 -
DK2OM	14117,0	1342	29	06	CHN		FMOP		10k	Chinese OTH radar – 50 sps – 5 sec bursts
DK2OM	14118,0	1009	26	06	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14131,0	0856	23	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14133,0	1550	08	06			FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 7.6 sec double bursts
DK2OM	14140,0	0850	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14160,0	vt	dly	06	MRC		FSK8	125	1750	ALE, “9204” “9228” “9236”
DK2OM	14167,0	1717	08	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14178,0	0842	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14182,0	1714	08	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14184,0	0900	23	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14192,0	0920	02	06	RUS		F1B	50 75 50 100 100	500 500 200 500 200	RUS navy Kaliningrad - daily
DK2OM	14200,0	0918	08	06	CHN		FMOP		90k	wideband OTH radar – 50 sps – 14150 – 14240 kHz
DK2OM	14201,8	0800	dly	06	CHN		PSK2	75	2200	PRC 16 tone modem – RF 14200.0 kHz - China – Shanghai - daily
DK2OM	14207,0	0845	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14212,0	---	--	06	UKR		A3E			female voice with encrypted msgs – figures – “SZRU” = Foreign Intelligence Service of Ukraine in Rivne – heard by MOODV
DK2OM	14220,5	0849	18	06	RUS		F1B	1200	600	DPRK-FSK 1200 – North Korean embassy Moscow
DK2OM	14221,0	2000	28	06	KGZ		F1B	50	200	CIS-50-50 - Bishkek – daily – still active – mostly idling
DK2OM	14224,0	0937	23	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14225,0	1017	26	06	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Gorodezh
DK2OM	14232,0	1253	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14242,0	1244	18	06	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	14260,0	vt	dly	06	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14272,0	---	--	06	RUS	RCV	A1A			RUS Navy Sevastopol
DK2OM	14275,0	0839	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14295,0	vt	dly	06	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	<b>14295,0</b>	<b>ady</b>	<b>dly</b>	<b>06</b>	<b>TJK</b>		<b>A3E</b>		<b>9k</b>	<b>3<sup>rd</sup> from Radio Tajik on 4765 kHz – daily, all day</b>
DK2OM	14309,0 RF	0759	20	06	CHN		OFDM	44.44	2200	OFDM 39 – PSK4B – China and Chinese female voice
DK2OM	14313,0	1255	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts and 14306.0 – double burst 7.8 sec
DK2OM	14325,0	1621	08	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14326,0	1420	15	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14330,0	vt	dly	06	TWN		FSK8	125	1750	ALE, “BV4”
DK2OM	14340,0	---	--	06	RUS		PSK2A	120	2600	AT3004D – Vladivostok with spurious emissions +/- 35 kHz and +/- 70 kHz - daily
DK2OM	14344,0	1722	08	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	14346,0	vt	dly	06	POR		FSK8	125	1750	ALE, “CT2IXQ” just for info – various times, daily
DK2OM	14348,0	vt	dly	06	THA	HS0ZEA	A1A			HS0ZEA beacon – 14347.950 kHz - every 5 minutes – daily - just for info!
DK2OM	14351,7	---	--	06	E		OFDM PSK4A	30	2700	OFDM 73 + intro tone – HFD+VL - experimental transmissions – Las Palmas – just for info!
DK2OM	<b>18080,0</b>	<b>0730</b>	<b>09</b>	<b>06</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	18100,0	vt	dly	06	MRC	no ITU	FSK8	125	1750	ALE, “A2” “A4” “A5” “A7” “S6” – “C3” “R3” “G401” “CD” “09” “G2” “LG6”

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										“G301” “ELJADIDNET4” - daily, various times
DK2OM	18106,0	vt	vd	06	POR	CT2GOY	FSK8	125	1750	ALE, “CT2GOY” – just for info!
DK2OM	18106,2	vt	dly	06	TWN		FSK8	125	1750	ALE, “BV4AS” – just for info!
DK2OM	18107,0	vd	vt	06	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow – idle and traffic – daily - Russian navy – shared band!
DK2OM	18117,5	vt	vd	06	POR	CT2IXQ	FSK8	125	1750	ALE, “CT2IXQ” – just for info
DK2OM	18140,0	vt	dly	06	SRB	YU1BI	FSK8	125	2600	ALE, “YU1BI” – just for info!
DK2OM	18150,0	---	--	06	RUS		F1B	100	1000	harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad
DK2OM	21000,0	vt	vd	06	B		USB			<b>Brazilian pirates – Rio de Janeiro with North Brazil – very often</b>
DK2OM	21000,0	---	--	06	SDN		USB			<b>MFA Sudan – Khartoum with emba Yemen – voice traffic</b>
DK2OM	21000,0	1201	03	06	D		QRM			<b>disturbed by a neighbouring LED lamp with S9</b>
DK2OM	21002,2	---	--	06	SDN	!0000 !9999 !8888	F1B	100	170	<b>21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen</b>
DK2OM	21044,0	0942	16	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	21085,0	0943	16	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	21096,0	vt	dly	06	INS	YD00XH	FSK8	125	1750	ALE, “YD00XH3” – daily, various times - just for info!
DK2OM	21096,0	vt	vd	06	G		FSK8	125	1750	ALE, “M1DFO” – just for info!
DK2OM	21097,0	1227	11	06	CHN		FMCW		160k	Chinese - wideband OTH radar – 10 sps – 21097 – 21257 kHz
DK2OM	21145,0	vt	dly	06	MRC	no ITU	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	21145,8	ady	dly	06	I	IZ3DVW	A1A			IZ3DVW beacon – 21145,790 kHz – daily, all day - not coordinated with IARU
DK2OM	21202,0	0717	21	06	CHN		FMOP			Chinese OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21232,0	0712	21	06	CHN		FMOP		10k	Chinese OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21254,0	0655	21	06	CHN		FMOP		10k	OTH radar – 66 sps – 3.8 sec bursts – foghorn – also 26.06.2017 at 0907 utc
DK2OM	21268,0	0650	01	06	CHN		FMOP		10k	OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21307,0	0922	13	06	CHN		FMOP		10k	OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21319,0	0752	16	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 83 sps – 3.0 sec bursts
DK2OM	21321,0	0837	17	06	CHN		FMOP		10k	Chinese OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21328,0	0650	01	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	21332,0	0817	27	06	CHN		FMOP		10k	OTH radar – 66 sps – 7.6 sec bursts - foghorn
DK2OM	21335,0	0943	20	06	CHN		FMOP		10k	OTH radar – 43 sps – 6 sec bursts
DK2OM	21344,0	0710	01	06	CHN		FMOP		10k	OTH radar – 50 sps – 5 sec bursts
DK2OM	21354,0	0908	26	06	CHN		FMOP		10k	OTH radar – 66 sps – 7.7 sec bursts - foghorn
DK2OM	21355,0	0844	28	06	CHN		FMOP		10k	OTH radar – 66 sps – 7.6 sec

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										bursts - foghorn
DK2OM	21356,0	0749	16	06	CHN		FMOP		10k	Chinese OTH radar (foghorn) – 66.66 sps – 3.8 sec bursts
DK2OM	21379,0	0742	03	06	CHN		FMOP		10k	Chinese OTH radar – 83 sps – 3.0 sec bursts
DK2OM	21400,0	---	--	06	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow
DK2OM	21413,0	0818	27	06	CHN		FMOP		10k	OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21417,0	0657	01	06	CHN		FMOP		10k	OTH radar – 50 sps – 5 sec bursts
DK2OM	21418,0	0949	13	06	CHN		FMOP		10k	OTH radar – 50 and 66 sps – 9 sec double bursts - foghorn
DK2OM	21426,0	0847	28	06	CHN		FMOP		10k	OTH radar – 66 sps – 7.6 sec bursts - foghorn
DK2OM	21438,0	0858	02	06	RUS	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21444,0	0920	13	06	CHN		FMOP		10k	OTH radar – 66 sps – 3.8 sec bursts - foghorn
DK2OM	21446,0	ady	dly	06	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	ady	dly	06	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day – just for info!
DK2OM	28000,0	1712	14	06	B		A3E			<b>Brazilian CBers – 28000 – 28325 – daily, all day - no change</b>
DK2OM	28000,0	ady	dly	06	CIS		F3E			<b>28000 – 29700 numerous CIS taxi nets – no change</b>
DK2OM	28000,0	1201	03	06	D		QRM			<b>disturbed by a neighbouring LED lamp with S9</b>
DK2OM	28000,0	1548	05	06	F		USB			French CBers – roger beep
DK2OM	28000,0	2250	14	06	B		USB			Brazilian pirates
DK2OM	28025,0	1739	18	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28055,0	1738	02	06	RUS		F3E			RUS taxi
DK2OM	28075,0	1845	01	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28085,1	0836	04	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28115,0	0922	22	06	RUS		F3E			RUS taxi
DK2OM	28115,0	2019	18	06	RUS		F3E			RUS taxi
DK2OM	28145,0	1927	18	06	RUS		F3E			RUS taxi - daily
DK2OM	28146,0	vt	vd	06	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TT” “DL1” – just for info!
DK2OM	28155,0	0819	22	06	RUS		F3E			RUS taxi - daily
DK2OM	28165,0	1824	11	06	RUS		F3E			RUS taxi
DK2OM	28175,0	1720	02	06	RUS		F3E			RUS taxi - daily
DK2OM	28185,0	1853	16	06	RUS		F3E			RUS taxi
DK2OM	28195,0	1817	18	06	RUS		F3E			RUS taxi
DK2OM	28215,0	1721	02	06	RUS		F3E			RUS taxi- daily
DK2OM	28235,0	0749	15	06	RUS		F3E			RUS taxi
DK2OM	28255,0	0912	18	06	RUS		F3E			RUS taxi
DK2OM	28275,0	---	--	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoy
DK2OM	28275,0	1820	18	06	RUS		F3E			RUS taxi
DK2OM	28435,0	----	--	06	E		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol – Malaga</b>
DK2OM	28459,8	1727	14	06	GAB		A3E		1060	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon - daily

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28499,8	---	--	06	MEa		F1B	81.9	140	Datawell-buoy "Waverider" – 28499.875 kHz – Persian Gulf
DK2OM	28600,0	0937	05	06	IRN		FMOP		50k	Iranian radar bursts – 307 and 870 sps – long lasting
DK2OM	28746,5	0837	20	06	GAB		A3E			carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon
DK2OM	28751,6	1731	14	06	GAB		A3E		1080	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon
DK2OM	28960,0	0700	10	06	IRN		FMOP		50k	Iranian radar bursts – 150 and 313 sps – long lasting
DK2OM	29114,0	---	--	06	RUS		F1B	100	2000	harmonic from 14557.0 kHz - Moscow
DK2OM	29249,9	0935	05	06	E		F1B	81.9	140	Datawell-buoy "Waverider" – 29249.880 kHz – Spain Fuerteventura - daily, all day
DK2OM	29375,0	---	--	06	I		F1B	81.9	140	Datawell-buoy "Waverider" – 29374.898 kHz – Gallipoli, South Italy - daily, all day
DK2OM	29387,5	---	--	06	IND		F1B	81.9	140	Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29400,0	---	--	06	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day
DK2OM	29450,0	---	--	06	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29449.863 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	06	G		F1B	81.9	140	Datawell-buoy "Waverider" – 29499.974 kHz- area of Gibraltar – daily, all day
DK2OM	29525,0	---	--	06	MRC		F1B	81.9	140	Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29625,0	---	--	06	USA		F1B	81.9	140	Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day
DK2OM	29685,0	1736	14	06	I		VFT		2300	Italian MIL – Brescia - daily
DK2OM	29699,5	1736	14	06	I		VFT		1600	Italian MIL – Brescia - daily
DK2OM	50100,0	1202	03	06	D		QRM			disturbed by a neighbouring LED lamp with S7 – "many thanks" to German PTT Eschborn

### **IRTS – Ireland – EI3GYB (Michael)**

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
IRTS	1896.5	0241	25	06	D		PSK8	German navy 59+++ all night every day. Gone during daylight.
IRTS	1956	0232	15	06	E or MM		USB	2 Spanish fishermen chatting happily.
IRTS	3520	0655	24	06	E or MM		USB	2 Spanish fishermen. Monster signals.
IRTS	3535	1547	02	06	POR or MM		USB	2 Portuguese fishermen. Very strong signals.
IRTS	3535	1504	15	06	POR or MM		USB	2 Portuguese fishermen. Loud motor noise in the background from one of the ships. Strong signals with clear audio.
IRTS	3535	3535	19	06	UK or MM		USB	2 Scottish fishermen. Loud and clear signals.

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
IRTS	3535	0657 to 0729	28	06	IRL or MM		USB	2 Irish fishermen. Ulster accent from both of them. Strong signals. One is called Gerald. Plenty of foul language.
IRTS	3535	1230 - 1250	29	06	IRL or MM		USB	2 Irish fishermen. Ulster accent. One is called Martin. Lively discussion about price of fish.
IRTS	3535.5	1158	02	06	F or MM		USB	2 French fishermen. Strong signals. QSO still on 30 minutes later. Again heard at 2013. Plenty of "merde".
IRTS	3535.5	0840	05	06	F or MM		USB	2 French fishermen, very strong. Again at 1605z.
IRTS	3550	0525	19	06	F		AM	Group of French HAMs chatting in violation of the band plan. Mentioned here as well in this source: <a href="https://fr.wikipedia.org/wiki/Bande_des_80_m%C3%A8tres#R.C3.A9partition_des_fr.C3.A9quences_de_la_bande_de_3.2C5_MHz_.C3.A0_3.2C8_MHz">https://fr.wikipedia.org/wiki/Bande_des_80_m%C3%A8tres#R.C3.A9partition_des_fr.C3.A9quences_de_la_bande_de_3.2C5_MHz_.C3.A0_3.2C8_MHz</a>
IRTS	3560	1543	17	06	E or MM		USB	2 Spanish fishermen. Booming.
IRTS	3567	0818 to 0838	28	06	IRL or MM		USB	2 Irish fishermen, both have a Cork accent.
IRTS	3570	0925	03	06	IRL or MM		USB	2 Irish fishermen. One is called Ger. Galway accent. Just saying "See you later on this one!" Back at 1125. "Fuck all fish in the net!" Ends 1246z.
IRTS	3570	0839	04	06	F or MM		USB	2 French fishermen
IRTS	3570	0543	13	06	F or MM		USB	2 French fishermen
IRTS	3570	0545	15	06	F or MM		USB	2 French fishermen talking.
IRTS	3570	0545	15	06	IRL or MM		USB	2 Irish fishermen using the same channel at the same time as the French fishermen. Cork accent.
IRTS	3570	0647 to 0656	28	06	IRL or MM		USB	2 Irish fishermen. One is named Richard and has a SE accent. Strong signals and clear audio. Motor noise coming from both of the ships. One of the fishermen asks the other on what channel he would be on for the next chat. "Would it be 7000?" The other fisherman replies that he will send him a text message.
IRTS	3715	1506	23	06	POR or MM		USB	2 Portuguese fishermen. Loud.
IRTS	5311	0746	02	06	UK		USB	2 English fishermen. One is called Roy. Both have bad audio.
IRTS	5360	2134	22	06	UK		USB	A UK HAM uses this frequency outside the UK allocation and makes contact to a SUI station. "Just a quick one to get into the log!" he says.
IRTS	5360	0201 to 0207	24	06	B		USB	Two Brazilian female voices having a lively chat.
IRTS	5360	2014	26	06	UK		USB	A UK HAM station makes contact with a Dutch MM station outside of the UK allocation. Happens very often now- UK stations using the complete new international 5 MHz allocation with full UK power and don't care about their own spot frequencies.
IRTS	5405	0152	19	06			USB	2 Arab voices chatting.
IRTS	7050	1309	07	06	UKR or RUS		LSB	Radio war. Shouting of slogans.MX. Still nearly daily all day.
IRTS	7055	1707	09	06	UKR or RUS		LSB	2nd channel of the UKR-RUS radio war. Also nearly daily all day.
IRTS	7060	1436	15	06	RUS		LSB	Rebroadcasting of a Russian radio service.

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS	
					or UKR				Female and male presenter. NX,MX and reports from around the globe. Transmission ends at 1615z.
IRTS	7120	1720	09	06	SOM		AM		Radio Hargaysa. Daily in late afternoon.
IRTS	7139	1835	09	06	RUS		Digital		Digital signal. Persistent. 59+++ Probably RUS military.
IRTS	7180	1654	26	06	ERI		AM		Radio Eritrea plus white noise from Ethiopia. 59 plus. Frequency not usable. Every day in the late afternoon.
IIRTS	10117	1414	11	06			Radar		Strong radar signals from 10117 to 10138 KHz.
IRTS	10121	1026	18	06			USB		2 Arab voices with Maghreb accent chatting. Big clear signals.
IRTS	14192	1147	15	06	RUS		Digital		RUS navy Kaliningrad. Daily all day long in daylight. Strong.
IRTS	14271	1701	23	06			Radar		Radar from 14271 to 14283 KHz.
IRTS	14271	1632	27	06			Radar		Radar from 14271 to 14281 KHz.
IRTS	14346	1606	19	06			USB		D-QRM: Somebody rebroadcasts a mixture of many voices. Goes on for about 30 minutes.
IRTS	18152	1025	14	06			Radar		Radar from 18152 to 18175 KHz.
IRTS	21053	1147	15	06			Radar		Radar from 21053 to 21101 KHz. Strong signals.
IRTS	21253	1037	23	06			Radar		Strong radar from 21253 to 21283 KHz.
IRTS	28215	1421	15	06	RUS		FM		Russian taxi services coming in via strong sporadic e opening. Female voices.

### KARS – Kuwait – 9K2RR (Faisal)

### MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3524,0	1745	7	6			F1B	200	
MRASZ	3592,0	1934	8	6			A1A		"LDBO QTC 4T3 268221T4T3=T99=WTÜCS..."
MRASZ	3592,0	1855	29	6			F1B	250	
MRASZ	7000,0	0902	30	6			PSK2		AT3004D
MRASZ	7050,0	1927	8	6			LSB		music, chaos
MRASZ	7055,0	1627	21	6			LSB		russian, cursing
MRASZ	7055,0	1901	29	6			LSB		translation of a russian language BC
MRASZ	7120,0	1928	8	6	SOM		A3E		R. Hargaysa
MRASZ	7120,0	1621	21	6	SOM		A3E		R. Hargaysa
MRASZ	7120,0	1548	27	6	SOM		A3E		R. Hargaysa
MRASZ	7120,0	1902	29	6	SOM		A3E		R. Hargaysa
MRASZ	7122,0	1751	7	6			F1B	250	
MRASZ	7150,0	1549	27	6			A3E		
MRASZ	7162,0	1751	7	6			F1B	250	
MRASZ	7175,0	1622	21	6			A3E		
MRASZ	7179,0	1904	29	6			PSK2		AT3004D
MRASZ	10108,0	631	5	6			F1B	200	
MRASZ	10112,0	1755	7	6			PSK2		Stanag 4285
MRASZ	10112,0	1913	8	6			PSK2		Stanag 4285
MRASZ	10112,0	0727	12	6			PSK2		Stanag 4285
MRASZ	10118,0	1753	7	6			F1B	250	
MRASZ	10118,0	1917	8	6			F1B	250	
MRASZ	10118,0	0903	30	6			F1B	250	
MRASZ	14092,0	0904	30	6			F1B	200	
MRASZ	14108,0	0621	5	6			A1A		"CÖINV HWÜCW LKVÖW"
MRASZ	14108,0	0733	12	6			A1A		"SV6C de XZPK K"
MRASZ	14192,0	1757	7	6			F1B	200	
MRASZ	14192,0	1911	8	6			F1B	200	
MRASZ	14192,0	0728	12	6			F1B	200	
MRASZ	14295,0	1757	7	6	TJK		A3E		Radio Tajik, 3rd. harm.
MRASZ	14295,0	1623	21	6	TJK		A3E		Radio Tajik, 3rd. harm.
MRASZ	14295,0	1906	29	6	TJK		A3E		Radio Tajik, 3rd. harm.

## OEVSV – Austria – OE3GSA (Gerd)

## PZK – Poland – SP9BRP (Jan)

## REF – France – F5MIU (Francis) - F5JBR (Andre)

SOC	kH	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
REF	7120	1724	23				AM	10kHz	BC station S7 Oriental music
REF	14050	0725	22				fmcw	20kHz	OTH radar pulsed 50Hz S9+20
REF	14108.0	0500	14	06	RUS	XZPK	CW		XZPK (The NCS use 2 callsigns : probably network for Russian Army and Russian Navy) Wkg 6 outstations (comms checks and QTCs : MMMMM - uses a new set of callsigns sur 1, 11 et 21 of every month) in Duplex – For information : outstations on 13096 kHz and Same transmission for Net station on 13868 kHz
REF	14118	0510	14	06	RUS	ZTWM	CW		ZTWM Wkg NUFY (Calling and send Z codes – probably for QSY : ZOB ZEP ZPU)
REF	14166	1720	8	6			fmcw	10kHz	OTH radar S5 pulsed 15Hz stay 5sec and move 30kHz
REF	14250	0744	26				fmcw	20kHz	OTH radar pulsed 20ms S9+20
REF	21085	0745	20				fmcw	50kHz	OTH radar pulsed 50Hz S8
REF	21390	1448	20				fmcw	20kHz	OTH radar pulsed 50Hz S7
REF	24930	800	19				fmcw	50kHz	Swiping carrier every sec S8
REF	29065	735	20				fmcw	+3kHz	Random swiping carrier every second S2-8

## REP – Portugal – CT4AN (Jose Francisco)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3510	05.01	01	06	E		J3E-U			Fishery
REP	3520	20.41	24	06	E		J3E-U			Spanish fishery
REP	3660	06.22	15	06	F		J3E-U			French fishery
REP	7000	22.39	10	06	B		J3E-U			Fishery, everyday
REP	7000	21.41	13	06			J3E-U			Accented english fishery
REP	7002	21.37	16	06	B		J3E-U			Brazilian fishery, phone patch to family
REP	7005	16.13	21	06			F1B	75	250	Crypt
REP	7005	21.39	16	06			J3E-U			Unid language intruders
REP	7010	08.05	22	06	E		J3E-U			Unknown comms
REP	7039	21.15	05	06	RUS	D	A1A			Russian BEACON
REP	7050	16.38	26	06	RUS		J3E-L			Russia / Ukraine, war of words
REP	7060	19.00	02	06			FMCW	50	18k	OTH radar
REP	7120	19.15	17	06	SOM		8k00 A3EGN			Radio Hargaysa
REP	7120	19.57	09	06	SOM		8k00 A3EGN			Radio Hargaysa, Somalia
REP	7122	19.46	07	06			F1B	75	250	Unid encrypted F1B prob. CIS-50
REP	7180	06.16	26	06	MRC		J3E-U			Fishery, Arabic/French language
REP	7180	16.37	26	06	ETH					Ethiopia jammer Radio Eritreia
REP	7198	19.49	07	06	RUS		PSK-4	120	3k	AT3004 modem
REP	10105	22.38	06	06			J3E-U			Arabic language fishery, North Africa
REP	10107	19.50	09	06	I		J3E-U			Unid italian OM/YL chatting
REP	10112	18.57	07	06			PSK-2			NATO Stanag 4285
REP	10118	19.52	09	06			F1B	75	250	Unid encrypted F1B prob. CIS-50
REP	10120	10.05	08	06			J3E-U			Arabic language fishery, North Africa
REP	10130	17.00	14	06			MFSK			Mil-ALE 304003



SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	10135	10.07	21	06			F1B	50	200	Encrypted
REP	10150	21.51	08	06			FMCW	50	20k	OTH radar, spread to 10140kHz
REP	14000	13.28	11	06	B		J3E-U			Fishery, everyday
REP	14121	19.29	07	06			FMCW			OTH radar, short bursts
REP	14195	09.20	09	06	RUS		F1B	50	200	CIS36 – Russia mil
REP	14251	05.15	17	06	RUS		PSK4			CIS12 mode, 12x120 BPSK channels tone 3k
REP	18060	14.33	19	06	CYP		FMCW	50	20k	Cyprus OTH, spread to 18075kHz
REP	21000	13.10	26	06	E		J3E-U			Intruders
REP	21000	11.06	26	06	B		J3E-U			Brazilian fishery
REP	28075	12.39	14	06	B		A3E			Intruders, everyday
REP	28140	10.07	14	06	RUS		F3E			Taxis female dispatchers
REP	28275	10.53	14	06	RUS		F3E			YL taxis dispatcher
REP	28305	19.05	12	06	B		A3E			Brazilian intruders, everyday
REP	28960	Alldy	EvdY	06	IRN		FMOP			Iranian OTH radar, everyday
REP	29250	12.08	05	06			F1B	82	134	Datawell GPS buoy
REP	28-29	Alldy	EvdY	06						Russian taxis FM, Brazilian CB'rs AM/SSB

## RSGB - Great Britain – M0VRR (Vaughan)

## SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7000,0	1920	1.	6		UiMUX	PSK2	120	2600	
SRAL	7006,5	1130-1315	5. 26.	6		UiPTR	F1B		200/250	
SRAL	7008,0	0650-1025/	*	6		UiPTR	F1B/A		250	Days: 8. 24. 28.
SRAL	7008,5	0755-1520	26. 28.	6		UiMUX	PSK2	120	2600	
SRAL	7009,5	1300	20.	6		UiMUX	PSK2	120	2600	
SRAL	7010,0	0620	30.	6		UiMUX	PSK2	120	2600	
SRAL	7016,0	0650-1645/	*	6		UiPTR	F1B		250	Days: 3. 13. 24.
SRAL	7018,0	1220-1300	25.	6		UiMUX	PSK2	120	2600	
SRAL	7018,62	0300-1900	*	6		UiCarr	N0N			Also: F1A/B, 250 Hz reported. Days: 1. 2. 3. 5. 23. 24. 29.
SRAL	7020,0	0830-1642/	16.	6		UiPTR	F1B		250	
SRAL	7022,0	0820-1400	18. 20.	6		UiMUX	PSK2	120	2600	
SRAL	7025,0	0530-1630	*	6		UiPTR	F1B/A		200	Days: 1. 3. 8. 23. 28. 29. 30.
SRAL	7026,5	0950	1.	6		UiMUX	PSK2	120	2600	
SRAL	7034,0	1015-1045	17.	6		UiPTR	F1B			
SRAL	7052,0	0830-1350	25.	6		UiPTR	F1B/ N0N			
SRAL	7054,0	1040	23.	6		UiMUX	PSK2	120	2600	
SRAL	7057,0	0820	17.	6		UiMUX	PSK2	120	2600	
SRAL	7058,0	0850	23.	6		UiPTR	F1B		200	
SRAL	7072,0	0845-0915	8.	6		UiMUX	PSK2	120	2600	
SRAL	7090,5	1000-1020	15.	6		UiMUX	PSK2	120	2600	
SRAL	7112,0	1130-1400	8. 25.	6		UiMUX	PSK2	120	2600	
SRAL	7116,0	0600-1415	1. – 9.	6		UiPTR	F1B/ A1A		200	A1A vvv: h0 – h10, F1B h10 – h20
SRAL	7120,0	/1400-2000/	dly	6	SOM	R.Hargeis a	A3E			
SRAL	7120,0	/2000-2100/	25. – 31.	6	SOM	R.Hargeis a	A3E			

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
SRAL	7122,0	1145-1930	7. 25.	6		UiPTR	F1B			
SRAL	7137,0	1625-1650	23.	6		UiMUX	PSK2	120	2600	
SRAL	7140,5	1100-1300	11.	6		UiMUX	PSK2	120	2600	
SRAL	7142,0	1315	23.	6		UiPTR	F1B			idling
SRAL	7150,0	1530-1835/	28. 30.	6	ERI	VoBME	A3E			
SRAL	7160,0	0630-0745	20.	6	RUS	RMW32	A1A			MR 5F
SRAL	7162,0	1345-1930	7. 19.	6		UiPTR	F1B/A		250	QRJ ?
SRAL	7164,0	1455-1515/	20.	6		UiMUX	PSK2	120	2600	
SRAL	7167,0	1600-0700	1. 2. 19.	6		UiPTR	F1B		250	
SRAL	7169,0	0735-1620	*	6		2NZT	A1A			Days: 20. 22. 23.
SRAL	7171,0	1600-1645	14.	6		UiMUX	PSK2	120	2600	
SRAL	7179,0	0100-1930	*	6		UiMUX	PSK2	120	2600	Days: 5. 6. 7. 29.
SRAL	7172,0	1420	19.	6		UiCW	A1A			MR 5L
SRAL	7180,0	0300-0500	*	6	ERI	VoBME	A3E			Days: 24. 25. 26. 30. Jammed by ETH
SRAL	7180,0	1500-1835/	*	6	ERI	VoBME	A3E			Days: 24. 25. 26. 30. Jammed by ETH
SRAL	7187,5	1340-1420	23.	6		UiPTR	F1B/A		250	QRJ ?
SRAL	7198,0	0315-1930	7. 8.	6		UiMUX	PSK2	120	2600	
SRAL	7 MHz			6	RUS	29B6	FMCW			50Hz / 15 kHz
SRAL	7 MHz	-0630	1. 7. 11.	6	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec, with 16 min cycle. (WebSDR 8d)
SRAL	10 MHz	0200-0345	19.	6	RUS	29B6	FMCW			50Hz / 15 kHz (WebSDR 12d)
SRAL	14008,0	0540-0835	*	6		UiPTR	F1B/NON			Days: 1. 18. 25. 30.
SRAL	14026,0	0825	5.	6		UiMUX	PSK2	120	2600	
SRAL	14100,0	0340	16.	6		UiCW	A1A			dotter
SRAL	14108,0	0155-1230	*	6	RUS	I1YG etc.	A1A			Days: 2. 3. 4. 14. 20. 23. 25.
SRAL	14118,0	0540	4.	6		UiCW	A1A			5F
SRAL	14177,0	0900	4.	6		UiPTR	F1B			
SRAL	14192,0	0400-2030	3. – 28.	6	RUS	UiPTR	F1B		200	
SRAL	14221,0	0330-0600/	dly	6	KGZ	UiPTR	F1B		200	
SRAL	14233,0	1150	2.	6		UiPTR	F1B			
SRAL	14236,0	1100-1645	10.	6		UiMUX	PSK2	120	2600	
SRAL	14242,0	0650	30.	6		UiMUX	PSK2	120	2600	
SRAL	14292,0	0655-1145	21.	6		1DIH	A1A			
SRAL	14295,0	0130-1930	dly	6	TJK	R Tojikiston	A3E			3f 4765,00 kHz, Yangiyul TX
SRAL	14 MHz	0530-1230	*	6	RUS	29B6	FMCW			50Hz / 15 kHz, (WebSDR 12d) Days: 3. 5. 7. 9. 18. 22. 24. 26.
SRAL	14 MHz	h24	dly	6	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec, with 16 min cycle.
SRAL	18080,0	0600-0750	9. 17.	6	TWN	VoAsia	A3E			
SRAL	18 MHz	0530-1230	*	6	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, (WebSDR 14d) Days: 3.

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BAUD	SHIFT	REMARKS
										16. 23. 25.
SRAL	21 MHz	0645-1130	*	6	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, (WebSDR 12d), days: 11. 20. 22. 23.
SRAL	21438,0	0830-0945	*	6	RUS	RCV	A1A			Days: 4. 10. 11. 25.
SRAL	24 MHz			6		UiOTHR	FMCW			(WebSDR 0d)
SRAL	28600,0	0515-1830	4. 5. 6.	6	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz – 300 kHz
SRAL	28960,0	0500-2030	*	6	IRN	UiOTHR	FMCW			150 & 313 Hz / 60 kHz , days: 5. 6. 8. 9. 11. 12. 13. 22. 24. 27. 28. 29.
SRAL	28 MHz	1015-1125/	16.	6		UiOTHR	FMCW			25/50Hz / 20 kHz (WebSDR 2d)
SRAL	28 MHz	0500-1900	*	6	RUS	Taxi disp.	F3E			99 reports, 18 days.

### USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3527.0	2255	07	06			F1B	50	200	daily
USKA	3532.0	2135	20	06			DQPSK	14x75	5k9	LINK 11 CLEW; often (Stanag5511): ISP or DSP Mode
USKA	3549.0 VFO USB	2200	20	06			PSK8	2400	~2k7	MIL188-110A (Hybrid), often preamble 4 tones, 450Hz spacing
USKA	3553.8	2258	07	06			G1D	2400	~2k7	Stanag 4285; PSK8 almost daily
USKA	3565.0	2141	20	06			G1D	2400	~2k7	Stanag 4285; PSK8
USKA	3582.0	2218	27	06			J7D	12x120	2k7	BPSK; CIS12
USKA	3582.5	2203	20	06			F1B	50	200	often
USKA	3608.0	2206	20	06			F1B	50	200	
USKA	3716.0	2221	12	06			F1B	50	200	
USKA	3767.0	2214	27	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7000.0	0705	14	06			J7D	12x120	2k7	QPSK; CIS12
USKA	7000.0	0818	30	06			J7D	12x120	2k7	BPSK; CIS12 often
USKA	7005.0 VFO USB	0826	28	06			PSK-8	2400	2k7	MIL188-141B; BW2
USKA	7008.0	0816	28	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7018.625	2215	01	06			NON			long lasting carrier
USKA	7020.0	0907	15	06			F1B	50	250	
USKA	7033.0	1601	16	06			PSK8	2400	~2k4	MIL188-110B
USKA	7039.4	2121	27	06	RUS	M	A1A			Cluster beacon; from Magadan
USKA	7054.0	0703	23	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7119.9	1634	26	06	SOM		A3E			BC; Radio Hargaysa
USKA	7150.0	1649	26	06	ERI		A3E			BC
USKA	7167.0	1610	01	06			F1B	75	250	
USKA	7179.0	2136	06	06			J7D	12x120	2k7	BPSK; CIS12 often
USKA	7180.0	1642	26	06	ERI		A3E		~8k	BC, massively jammed
USKA	7180.0	1643	26	06					20k	Jammer, white noise
USKA	7197.0	2135	27	06		365013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2202	27	06		123456	MFSK8	125	1750	MIL 188-141A often
USKA	7197.0	2206	27	06		305013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2207	27	06		323013	MFSK8	125	1750	MIL 188-141A
USKA	7198.0	2248	07	06			J7D	12x120	2k7	BPSK CIS12
USKA	14008.0	0653	01	06			F1B	50	250	often
USKA	14026.0	0822 1631	30	06			J7D	12x120	2k7	BPSK; CIS12; long lasting
USKA	14083.0	0827	30	06			J7D	12x120	2k7	BPSK; CIS12
USKA	14095.0	1611	02	06			FMCW	50 sps	~13k	OTHR (occupied BW ≥ 30k) Contayner 29B6
USKA	14108.0	0656	14	06			A1A			encrypted, no ham
USKA	14113.0	1216	24	06			FMCW	50 sps	~13k	OTHR (occupied BW ≥ 30k) Contayner 29B6

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	14192.0	1605	01	06			F1B	50	200	almost daily
USKA	14221.0	2044	08	06			F1B	50	200	often
USKA	14317.0	0901	16	06			F1B	75	500	
USKA	14348.5	0710	23	06			F1B	600	600	ARQ often
USKA	18155.0	0934	22				FMCW	50	20k	OTHR
USKA	21300.0	0950	07				FMCW	50	20k	OTHR
USKA	21390.0	1249	20				FMCW	50	20k	OTHR; strong fading
USKA	28960.0	0850	27	06			FMOP	150+313 sps		OTHR almost daily

### Veron – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
VERON	7008,0	09.35	8	6		UiPTR	F1B			Ptr
VERON	7018,0	05.47	1	6	RUS	UiCAR	NON			carrier
VERON	7050,0	12.50	11	6	RUS/ UKR ?		J3E-1			Russian speech;no calls; s5
VERON	7054,0	18.47	5	6		UiMux	FSK8		1k8	
VERON	7056,0	15.27	5	6	RUS	UiILL	A3E			female voice reading announcement
VERON	7060,0	15.30	15	6	RUS	UiBC	A3E			female voice with Russian news
VERON	7116,0	10.05	5	6		V	A1A			V's continuously
VERON	7116,0	10.11	5	6	CIS	UiPTR	F1B			Revs/Ptr
VERON	7120,0	18.44	5	6	SOM	R. Hargaysa	A3E			Strong carrier; weak modulation
VERON	7120,0	18.31	29	6	SOM	R.Har	A3E			speech, male voice
VERON	7167,0	17.52	1	6		UiPTR	F1B			Ptr
VERON	7169,0	05.00	20	6		GMMS	A1A			NAY1 DE GMMS QTC AR
VERON	7169,0	05.05	20	6		GMMS	A1A			GMMS 500 32 29 0745 500 BT 838 BT
VERON	7169,0	05.05	20	6		GMMS	A1A			(5BL) ends 442 K
VERON	7169,0	05.06	20	6		GMMS	A1A			OM4P, 1DAF DE GMMS R 500 IMI
VERON	7169,0	06.55	26	6		MTHG	A1A			proc, z-codes, q-codes
VERON	7178,0	18.48	29	6		UiMUX	PSK			12 MPSK
VERON	10108,0	10.17	12	6		UiPTR	F1B			Ptr
VERON	14002,0	13.50	7	6		UiRadar	FMCW		20k	OTHR; 50sps
VERON	14008,0	07.24	18	6	RU	UiPtr	F1B			Ptr
VERON	14093,8	09.48	18	6		UiPtr	F1B		1k	
VERON	14108,0	07.30	2	6	RUS	WKWD	A1A			Y5IL DE WKWD QBE QYT9 K, proc
VERON	14108,0	08.06	5	6	RUS	8E6T	A1A			LVSH DE 8E6T QJG QYT6 6 / proc
VERON	14108,0	06.30	12	6	RUS	NYXC	A1A			SV6C DE NYXC QBE QSW1 K
VERON	14108,0	06.46	12	6	RUS	NYXC	A1A			DOBP DE NYXC ZQS ZIZ ZIZ QBM
VERON	14108,00	08.08	16	6	RUS	Y1CQ	A1A			Y1CQ QTC ZKL AR
VERON	14108,0	08.10	16	6	RUS	XZPK	A1A			XZPK 370 23 16 1106 370 BT ZKL 864
VERON	14108,0	08.18	16	6	RUS	XZPK	A1A			P8YS, J3LQ, SV6C, ZHPO, DOBP, K7NZ
VERON	14108,0	06.10	26	6		VSMI	A1A			(5BL)
VERON	14108,0	06.17	26	6		Y1CQ	A1A			QTC AR
VERON	14108,0	06.28	26	6		VSMI	A1A			YP3Z, 4YDR, OSAG, GP3I, OEST DE
VERON	14108,0	09.30	15	6		UiPTR	F1B			Ptr
VERON	14108,0	10.10	20	6	CIS	UiCW	A1A			Y1CQ QTC ar
VERON	14108,0	10.11	20	6	CIS	XZPK	A1A			XZPK 289 40 20 1306 289 MMMMM 5BL
VERON	14108,0	10.16	20	6	CIS	XZPK	A1A			R 289 ? To: P8YS SV6C

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
										J3LQ ZHPO
VERON	14108,0	10.19	20	6	CIS	XZPK	A1A			R 289 ? To: DOBP K7NZ
VERON	14108,0	10.34	27	6	CIS	OEPR	A1A			OEST de OEPR QBE QYT6 QYT9 k
VERON	14113,0	12:07	24	6	RUS	UiRadar	FMCW		13k	OTHR Contayner; 50sps
VERON	14141,0	09.12	4	6		UiPTR	F1B			Ptr also at: 15/6 09.25 UTC
VERON	14192,0	18.35	5	6	RUS	UiPtr	F1B		200	Idling
VERON	14192,0	06.43	12	6	RUS	?	F1B	50	200	revs, ptr
VERON	14300,3	09.18	15	6		UiPTR	F1B			Idling
VERON	18090,0	13.43	7	6		UiRadar	FMCW		20k	OTHR; 50sps
VERON	21438,0	15.36	6	6	RUS	RCV	A1A			RBE86 DE RCV QTC 549 31 6 1226 549
VERON	21438,0	15.42	6	6	RUS	RCV	A1A			RIP90 DE RCV QTC 228 78 6 1228 278

# The monitoring team of IARU Region 1

credits:

**Wavecom Elektronik – Buelach – Switzerland**

**All HAMs, friends and contributors worldwide!**

**Many thanks for your interest!**

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