



# Monitoring System

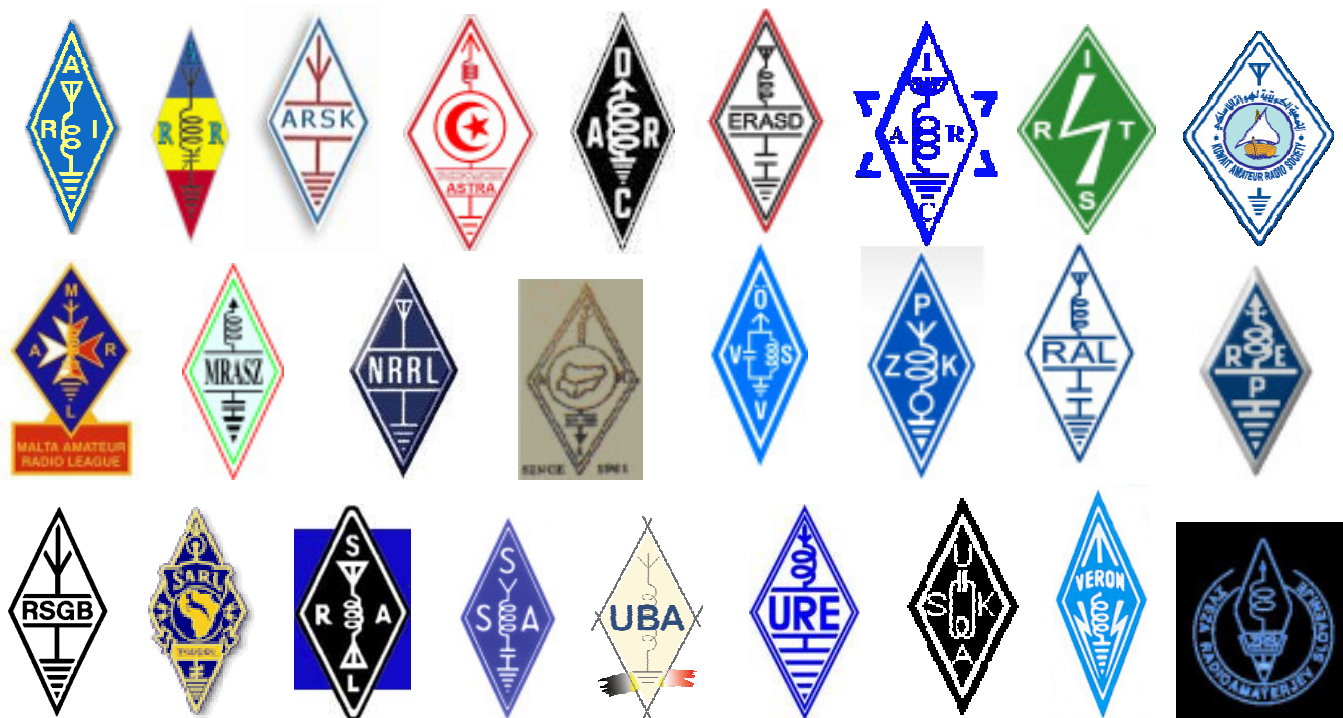
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Co-ordinator of IARUMS Region 1  
Editor of the Newsletter

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Vice Co-ordinator of IARUMS Region 1

The monthly newsletter for Region 1

## February 2014

### The 26 members of the IARUMS Region 1 Monitoring Team:



### Acknowledgements

++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++  
++ ERASD: SU1SA – Sayed ++ IARC: 4Z1AB – Amos ++ IRTS: EI5DD - Steve ++ KARS: 9K2RR – Faisal ++  
++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++  
++ OEVSU: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REP: CT4AN – Jose ++  
++ RSGB: G4BOH - Chris ++ SARL: ZS1FCS - Fred ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: ON4PN - Patrick  
++ URE: EB1TR - Fabian ++ USKA: HB9CET - Peter ++ VERON: PA2GRU - Dick ++ ZRS: S56ZDB – Darko ++  
++ G3VZV – Graham (satellite) ++ TG9ADV – Jorge (Co-ordinator Region 2) ++ VK3MV – Peter (Co-ordinator Region 3) ++  
++ DF8FE – (Webmaster assis.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++  
++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ PB2T – Hans (IARU R1 President) ++ 9A5W - Nikola (EC-IARU-R1  
++ PTTs: German (BNetzA), BAKOM (Switzerland), OFCOM (UK) ++ Dutch AT ++ SK6AW – DX-Cluster ++ YO9RIJ - Petrica

Part 1: News and infos

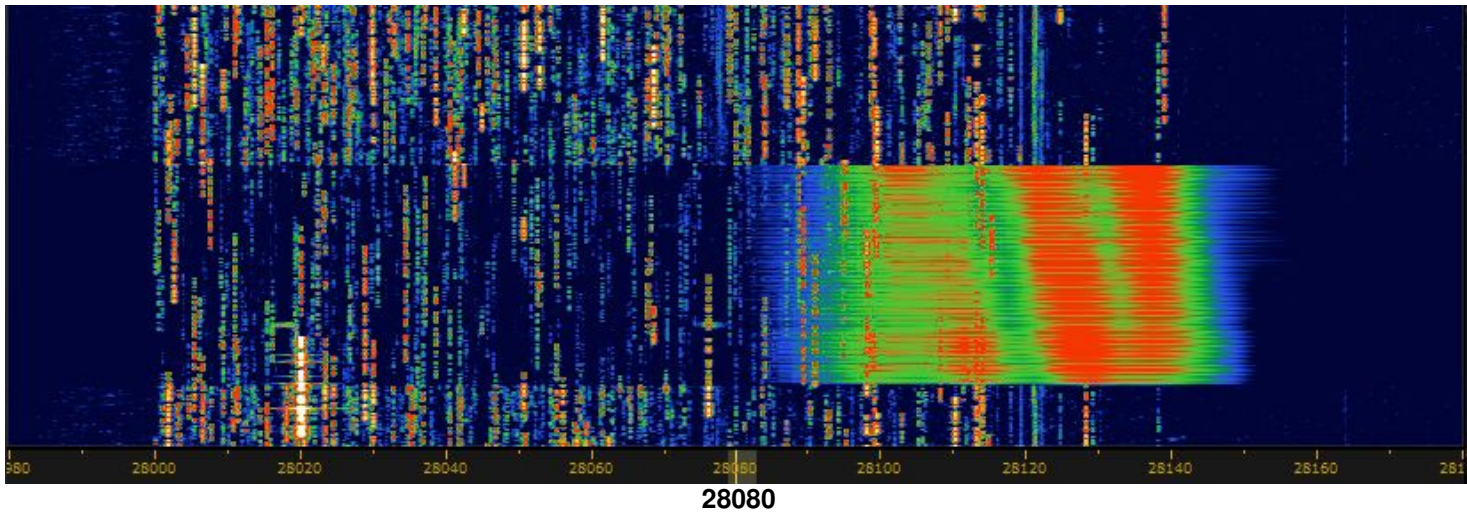
Part 2: Detailed reports of the national co-ordinators

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Part 1: News and Infos

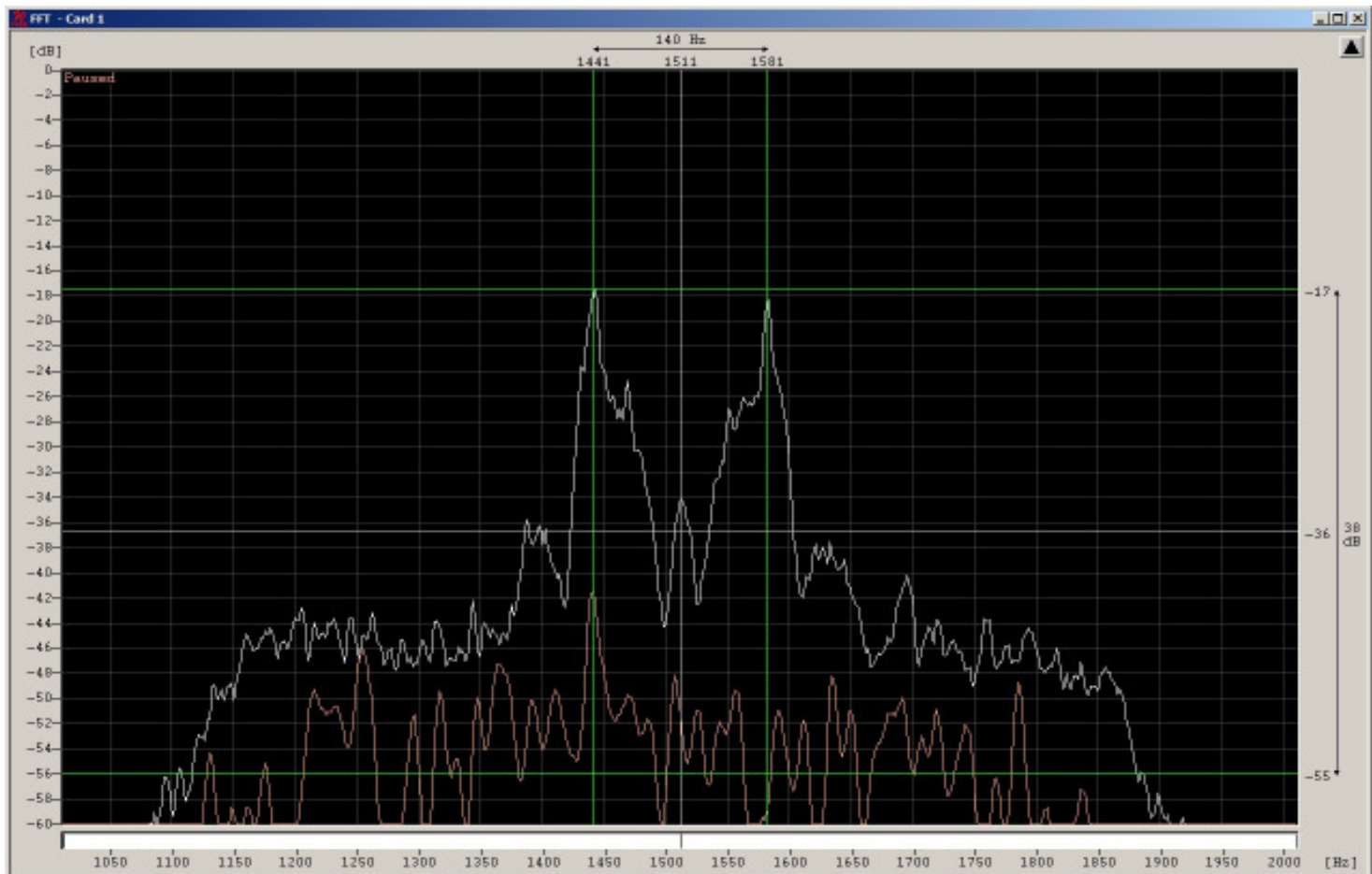
### 1. CW Contest on Jan. 15<sup>th</sup> 2014

CW Contest on 28 MHz “supported” by the Iran OTH radar. All OTH radar systems on our exclusive bands do never respect any amateur radio traffic! Screenshot: DK2OM with Perseus



### 2. Datawell buoy “Waverider” on 29450 kHz

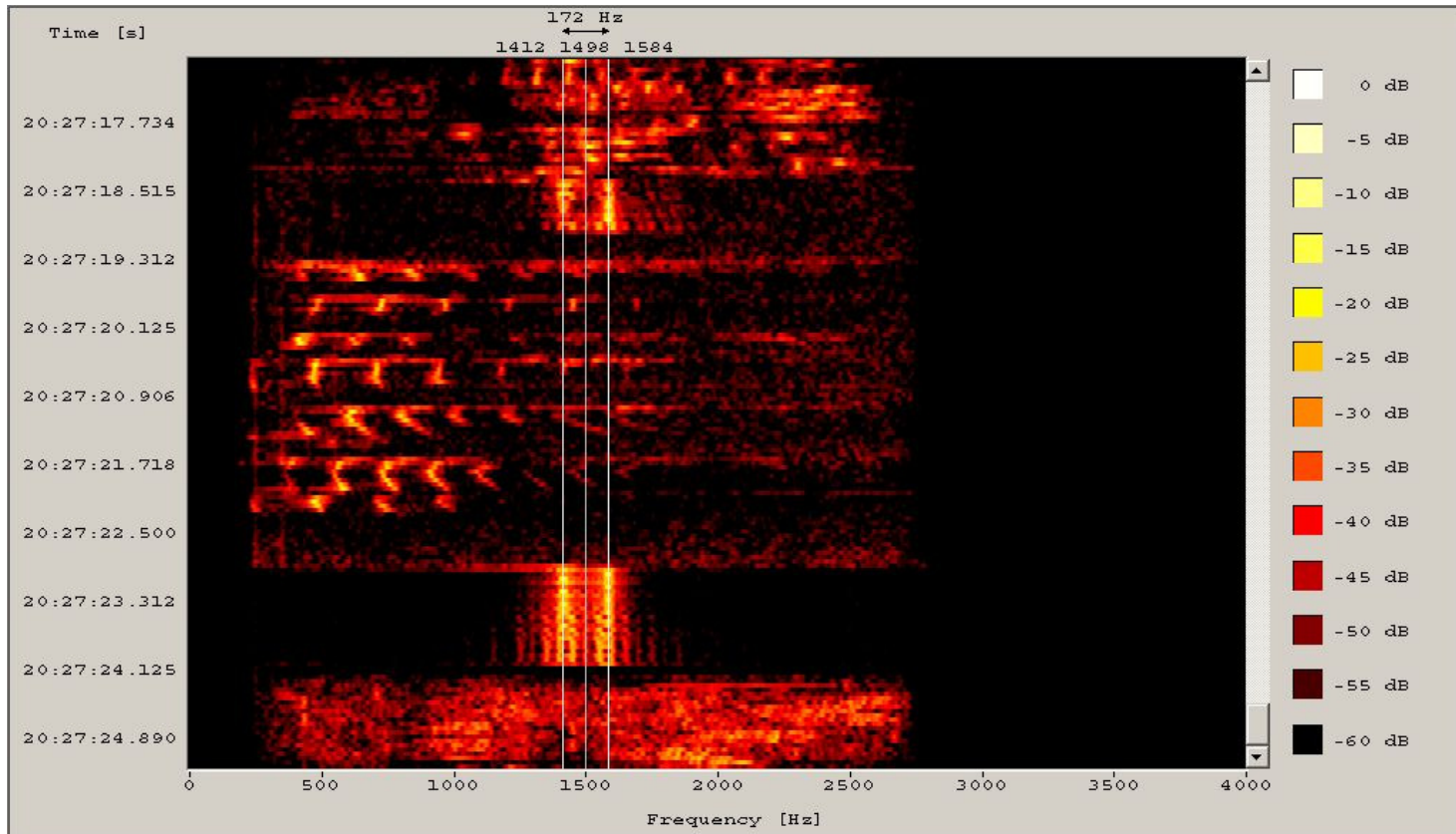
Datawell buoy on 29450 kHz (location El Aaiun – Morocco) was still active and daily audible. Mode: FSK2 - 81.9 Bd and 140 Hz shift – Screenshot: DK2OM with Wavecom W-Code – FFT display showing the shift of 140 Hz



### 3. Spanish fishery traffic on 7000.0 kHz

Spanish fishermen tried again to occupy 7000.0 kHz USB with their vocoder CRY2001 on several days. The lower DX edge of the band was disturbed in the evening hours. They had no success. Radio amateurs are no sleepers.

The sonagram below is showing the transmission on upper sideband. The change-over breaks are filled by the FSK synchro signal - 100 Bd and 170 Hz shift. Screenshot: DK2OM with Wavecom W61 PC



**4. 7018.0 REA4 – Moscow – still active in February**

REA4 (Russian Airforce Moscow) was still active with FSK 100 Bd and 1000 Hz shift. Harmonics could be measured on 14036.0, 21052.0 and 28072.0 kHz on Feb. 28<sup>th</sup> at about 1050 utc. Observe my table entries! The FSK system disappeared on March 1<sup>st</sup>.

**5. 18092.0 – SOH and Chinese jammer**

SOH (“Sound of Hope” broadcast) – Taiwan – and the Chinese jammer have been found on 18092.0 kHz in A3E on several days. They were audible via Japan and Australia. DK2OM informed IARUMS Region 3 and the IARU. Perhaps ACMA (Australian PTT) can help us.

**6. SP9BRP now PZK MS-Coordinator**

SP9BRP, Jan, is the successor or SP3SUZ, Władysław. Welcome to our Monitoring Team in Region 1 dear Jan! Pictures will follow later. Władysław Grabowiecki, SP3SUZ - remains active within the IARU Region MS.

**7. 7137.0 - Taiwanese Navy with ALE**

The Taiwanese Navy occupied 7137.0 kHz by MIL-188-141A (ALE) on LSB with many idents. All idents are beginning with the letter “A”. Parameters: FSK8 , 125 Bd, 1750 Hz shift. You can receive the net during the late afternoons and evenings in Europe.

**8. 7166.0 – A1A (CW) again**

We found the long lasting CW-Emissions again on Wednesdays. Details: 5 letter-groups, seemed to be trainee transmissions. Location:area of Paris, France. Please inform your national PTTs, if you find them again!

**9. 14280.0 – A3E – Ukraine SZRU**

The Ukraine Foreign Intelligence Service SZRU was active every Wednesday on 14280 kHz on A3E (AM) at 1010 utc. A female voice spelled numbers and encrypted messages. Location: Rivne, Ukraine.

**10. Hamradio 2014**

June 28<sup>th</sup> – Meeting of the DARC Monitoring System at room “Swiss” – 10.00 – 11.30 local time  
 Lectures: DK2OM – “Monitoring work 2013/2014” and HB9ZEM – “Passive (bistatic) radars”  
 Inofficial IARUMS Region 1 Meeting at 11.30 local time – DARC HF-Stand

**11. Homepage IARU Region 1**

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

**Homepage IARUMS Region 1**

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

**Homepage IARUMS Region 2**

<http://www.iaru-r2.org/>

**Homepage IARUMS Region 3**

<http://www.iaru-r3.org/ms/>

**Intruderlogger Region 1**

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

**ITU-Monitoring Reports:**

<http://www.itu.int/ITU-R/index.asp?category=terrestrial&mlink=terrestrial-monitoring&lang=en>

## 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 \*\*\* **pps** = pulses per second (earlier radar systems) \*\*\* **sps** = sweeps/sec (radar systems) \*\*\* **FMCW** = frequency modulated continuous wave (OTH and coastal Radars)  
**5BL** = cyrillic 5 lettergroups

### ARSK MONITORING OVERVIEW FOR FEBRUARY 2014

There was nothing of interest locally this month except the usual broadcasts from Radio Hargeisha on 7120 kHz, Khartoum on 7200 kHz, An unidentified net which seems to be somewhere in central Africa is frequently on 7075 kHz and what may be military on 7000 kHz

E.H.M. Alleyne, 5Z4NU

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#### ARSK – Kenya – 5Z4NU (Ted)

H'd by	kHz	UTC	dd	mm	ITU	Identity	MODE	Details
ARSK	7,000.00	vt	dly	2	E. Africa	NGO?	J3E	Vernacular, English. Messages in phonetics.
ARSK	7,075.00	vt	dly	2	E. Africa	?	J3E	Unknown African language
ARSK	7120.0	vt	dly	2	Rep.of Somaliland	Hargeisha	A3E	Daily broadcasts.
ARSK	7195.0	0650 to mid-afternoon	10 to 30	2	UGA	Uganda Radio	A3E	B'cast in KiSwahili, music, Luganda & English, to about 1200Z or later.
ARSK	28.195	1445	22	2	?	?	?	Strong, steady burring noise to 1510Z

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

DG0JBJ (Mario) observed 29 OTH radars on 20 m, 51 OTH radars on 15 m and 271 OTH radars on 10 m in February 2014. Russian OTH radars are active again on 20 m with 10 and 50 sps!

#### DARC 2 – Germany - DK2OM (Wolf)

FSK transmissions -> center frequency between mark and space

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

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

SH = shift --- SP = spread (radar) – SPS = sweeps/sec (radar)

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	1812,0	2047	14	02	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – daily, all day
DK2OM	1880,0	2049	14	02	BEL		PSK8	2400	2400	Stanag4285 – 600 bps long – area of Brugge – Belgium - daily
DK2OM	1881,4	ady	dly	02	F		QPSK	100	100	BC-PSK – radio navigation – Nantes – daily, all day
DK2OM	1896,5	ady	dly	02	D		PSK8	2400	2400	Stanag4285 – 600 bps long – German Navy – daily, all day
DK2OM	1925,0	vt	dly	02	I	IPL	USB			Livorno Radio, weather reports – daily, vt
DK2OM	3500,0	vt	vd	02	E		USB			Spanish fishery – every evening La Coruna and Bay of Biscay
DK2OM	3500,0	vt	dly	02	TUR		FSK8	120	1750	ALE, “201” - Turkish Red Crescent – legal!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3500,0	0902	01	02	HOL		USB			Dutch fishery
DK2OM	<b>3501,2</b>	<b>1916</b>	<b>16</b>	<b>02</b>	<b>CIS</b>		<b>A3E</b>			<b>CIS pirates, unstable carrier</b>
DK2OM	3501,8	2029	15	02			OFDM	44,8	2200	OFDM39 – and voice traffic
DK2OM	<b>3502,4</b>	<b>2033</b>	<b>05</b>	<b>02</b>	<b>CIS</b>		<b>A3E</b>			<b>CIS pirates, unstable carrier</b>
DK2OM	3503,5	vt	dly	02	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	<b>3503,7</b>	<b>1918</b>	<b>16</b>	<b>02</b>	<b>CIS</b>		<b>A3E</b>			<b>CIS pirates, unstable carrier</b>
DK2OM	<b>3504,7</b>	<b>2018</b>	<b>18</b>	<b>02</b>	<b>CIS</b>		<b>A3E</b>			<b>CIS pirates, unstable carrier</b>
DK2OM	3515,5	1946	20	02	UKR		F1B	40.5	500	system Frost 1 – area of Kiev
DK2OM	3517,4	2037	14	02	E		LSB			Spanish fishery
DK2OM	3527,0	2035	05	02	RUS		F1B	50	200	Severomorsk - daily
DK2OM	3530,0	vt	dly	02			FSK8	125	1750	ALE, “11141”
DK2OM	3531,0	1934	08	02			PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3532,0	2025	03	02	F		PSK4	75	2400	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3535,0	2100	17	02	HOL		USB			Dutch fishery
DK2OM	3536,8	2213	18	02	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3540,0	2053	21	02	RUS		USB			male persons in Russian voice
DK2OM	<b>3545,9</b>	<b>1723</b>	<b>05</b>	<b>02</b>	<b>CIS</b>		<b>A3E</b>			<b>CIS pirates, unstable carrier</b>
DK2OM	3550,0	vt	vd	02	ALG		FSK8	125	1750	ALE, “IU50” “IU52” “FN50”
DK2OM	<b>3550,0</b>	<b>vt</b>	<b>dly</b>	<b>02</b>	<b>F</b>		<b>A3E</b>			<b>French amateurs not respecting the bandplans (unstable carriers) – every morning</b>
DK2OM	3553,8	ady	dly	02	TUR		PSK8	2400	2400	Stanag4285 – TUR MIL - Ankara – legal operation
DK2OM	3556,0	1927	17	02	UKR		PSK2	120	2600	AT3004D – submode idle – area of Lvov
DK2OM	3563,0	1703	28	02	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic - Moscow
DK2OM	3565,0	1830	28	02	I		USB			Italian pirates
DK2OM	3567,0	vt	dly	02	CHN ?		FSK8	125	1750	ALE, “103” “106”
DK2OM	3568,0	2233	06	02	RUS		F1B	75	250	Kaliningrad
DK2OM	3572,5	2230	23	02			F1B	75	200	Black Sea
DK2OM	3574,5	2133	16	02	UKR		PSK2A	120	2600	AT3004D – Sevastopol
DK2OM	3575,0	1832	25	02			USB			Scandinavians
DK2OM	3576,4	ady	dly	02	I	IZ3DVW	A1A			uncoordinated beacon
DK2OM	3577,0	2047	28	02	RUS		PSK2A	120	2600	AT3004D – traffic and submode idle – Far East Russia
DK2OM	3585,0	2000	dly	02	TWN	HLL	F1C			120 rpm, IOC 576, Wxfax - daily - legal!
DK2OM	3587,0	vt	vd	02	E	no ITU	FSK8	125	1750	ALE, “TVV” “TXX” - Spanish Guardia Civil
DK2OM	3590,0	vt	dly	02	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy
DK2OM	3595,0	vt	dly	02	D		FSK8	125	1750	ALE – German customs
DK2OM	3595,0	1945	26	02			USB			woman in Russian voice
DK2OM	3596,0	vt	dly	02	D, S, HRV		FSK8	125	1750	ALE, “DK3CW” “SA6CBK” “9A0PZ” – just for info!
DK2OM	3608,0	2037	05	02	RUS		F1B	50	200	Kaliningrad
DK2OM	3617,0	vt	dly	02	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	1934	29	02	J	JMH	F1C			Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!!
DK2OM	3625,0	1950	27	02	CHN		FMCW		110k	Chinese OTH radar – 3625 – 3680 kHz and 3690 – 3745 kHz 43.5 sps
DK2OM	3633,0	1550	11	02	CHN		FMCW		55k 67k	Chinese OTH radar – 43.5 sps – 3633 – 3688 kHz 3705 – 3772 kHz disturbing Region 3
DK2OM	3642,0	ady	dly	02	CHN ?		A1A			endless slip – DKG6 de 3A7D – Chinese military?
DK2OM	3685,0	2050	03	02	CHN		FMCW		60k	Chinese OTH radar – 3685 –

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										3745 kHz – 43.5 sps
DK2OM	3720,0	1425	23	02	CHN		FMCW		50k	Chinese OTH radar – 3720 – 3770 kHz – 43.5 sps
DK2OM	3730,0	1640	08	02	RUS		PSK4	120	2600	AT3104D - Kaliningrad
DK2OM	3743,5	2008	20	02	CIS		PSK2A	120	2600	AT3004D – submode idle and traffic
DK2OM	3744,4	2130	06	02	ISR		PSK4 PSK8	75 2400	2400 2400	hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – legal operation
DK2OM	3745,0	2250	15	02	RUS		FMCW		45k	<b>OTHR – 43.5 sps – 3745 – 3790 kHz - Makhachkala – Caspian Sea</b>
DK2OM	3750,0	1700	07	02	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3750,0	1921	12	02	RUS		FMCW		54k	<b>OTHR – 43.5 sps – 3750 – 3785 kHz – Makhachkala – Caspian Sea</b>
DK2OM	3751,0	2058	23	02	UKR		PSK2A	120	2600	AT3004D - Sevastopol
DK2OM	3751,5	vt	dly	02	POL	no ITU	FSK8	125	1750	ALE, “IZ3” “MI3”
DK2OM	3756,0	ady	dly	02	UKR		A3E			UKR – pip – 14 tones – hyperbolic navigation system – BRAS-2/RS-10
DK2OM	3761,5	vt	vd	02	POL		FSK8	125	1750	ALE, “NI9” “PL7” “AB2” – Polish MIL
DK2OM	3767,0	1707	07	02	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	3782,0	ady	dly	02	POR	CTP	F1B	75	850	POR Navy headquarter Lisbon – disturbed by Russian OTH radar on 18.08.2013 at 1945 utc
DK2OM	3790,0	2017	20	02	RUS		FMCW		70k	<b>OTHR – 43.5 sps – 3790 – 3860 kHz – Makhachkala – Caspian Sea</b>
DK2OM	3791,0	vt	vd	02	D	DK0ESD	FSK8	125	1750	ALE, “DK0ESD” – just for info!
DK2OM	6993,0	2017	06	02	CHN		FMCW		10k	Chinese OTH radar – 6993 – 7003 kHz - 66.66 sps – 11.4 sec bursts
DK2OM	7000,0	2028	03	02	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV” - <b>daily</b>
DK2OM	7000,0	1812	01	02	E		USB			<b>Spanish fishery, with vocoder CRY 2001 – several days</b>
DK2OM	7000,0	1054	07	02	INS		LSB USB			<b>Indonesian pirates singing, chatting and playing music – audible in Europe every afternoon and evening</b>
DK2OM	7000,0	1815	vd	02	E		USB			<b>Spanish fishery with vocoder CRY 2001</b>
DK2OM	7000,0	1742	02	02	?		FSK8	125	1750	ALE, “210” “20989” “2205”
DK2OM	7000,0	1941	07	02			FMCW		38k	short burst radar with 337 sps
DK2OM	7000,0	2100	21	02	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	7000,0	1655	24	02	I		LSB			<b>Italian pirates</b>
DK2OM	7007,0	1937	19	02	FEa		FMCW		30k	CODAR like ocean radar with 2.5 sps – 7007 – 7037 kHz – audible in Australia and Japan
DK2OM	7012,0	1425	12	02	UKR		F1B	75	250	Sevastopol
DK2OM	7012,9	1506	13	02	RUS		OFDM	29.6	2670	OFDM60 - Tula
DK2OM	7016,0	1659	28	02	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	7018,0	1806	03	02	RUS		F1B	50 100	1000 800	most of the time idle – Russian airforce Moscow - ident at full hour + 41 min – daily, all day
DK2OM	7020,0	vt	vd	02			FSK8	125	1750	ALE, “CS5004A” “RS0013D” – NC3A network? – area of Kosovo
DK2OM	7038,7	1822	01	02	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – “RCV”
DK2OM	7038,8	1726	05	02	RUS	P	A1A			Cluster beacon – Kaliningrad RUS Navy – “RMP”
DK2OM	7038,9	2100	02	02	RUS	S	A1A			Cluster beacon – Severomorsk RUS Navy – „RIT“
DK2OM	7039,0	2100	02	02	RUS	C	A1A			Cluster beacon - Moscow

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										RUS Navy - <b>“RIW”</b>
DK2OM	7039,1	---	---	02	KGZ	A	A1A			Cluster beacon – Bishkek RUS Navy – <b>“RJH25”</b>
DK2OM	7039,2	1820	01	02	RUS	F	A1A			Cluster beacon - Vladivostok RUS Navy - <b>“RJS”</b>
DK2OM	7039,3	---	---	02	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - <b>“RCC”</b>
DK2OM	7039,4	1820	01	02	RUS	M	A1A			Cluster beacon – Magadan RUS Navy – <b>„RTS“</b>
DK2OM	7039,95	ady	dly	02	I	IZ3DVW	A1A			IZ3DVW – uncoordinated beacon, daily, all day
DK2OM	7040,0	vt	dly	02	F	F6BAZ	FSK8	125	1750	ALE, <b>“F6BAZ”</b> – just for info
DK2OM	7040,5	vt	dly	02	HRV		FSK8	125	1750	ALE, <b>“9A5EX”</b> <b>“9A0ALE”</b> – just for info
DK2OM	7047,0	2000	02	02	UKR		PSK2A	120	2600	AT3004D – submode idle - Sevastopol
DK2OM	7047,37	1620	15	02	D		FSK8	125	1750	ALE, <b>“DL0NOT”</b> – just for info!
DK2OM	7049,5	vt	dly	02	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	1250	1750	Amateur ALE, just for info!
DK2OM	7054,0	---	---	02	RUS		F1B	50	200	CIS50-50 - RUS Navy Moscow – <b>not active</b>
DK2OM	7055,5	vt	vd	02	GEO		FSK8	125	1750	ALE, <b>“111”</b> <b>“132”</b> <b>“133”</b> - Georgia
DK2OM	7057,0	2250	13	02	MEa		PSK8	2400	2400	MIL-188-110A – ship, East Black Sea
DK2OM	7057,0	2300	13	02	MEa		FSK8	125	1750	ALE, <b>“145”</b> <b>“168”</b> – ship, East Black Sea
DK2OM	7059,5	2020	26	02	RUS		PSK2A	120	2600	AT3004D – modem idle and traffic – north of Jekaterinburg
DK2OM	7060,0	1655	16	02	FEa		FMCW		32k	CODAR like ocean radar with 2.5 sps – 7060 – 7092 kHz - daily
DK2OM	7070,0	vt	dly	02	GEO	no ITU	FSK8	125	1750	ALE, <b>“MV”</b> <b>“244”</b> <b>“686”</b> <b>“334”</b> <b>“204”</b> <b>“571”</b> – daily active
DK2OM	7072,0	1414	21	02	RUS		PSK2	120	2600	AT3004D – modem idle - Kaliningrad
DK2OM	7077,4	2223	22	02	UKR	D	A1A			Cluster beacon – Sevastopol RUS Navy – <b>“RCV”</b> – spurious from 7038.7 kHz
DK2OM	7088,8	vd	vt	02	S	SL0FRO	A1A			7088.830 - cw-trainee, Sweden – kHz – SL0FRO - just for info!
DK2OM	7089,0	1440	05	02	RUS		PSK2A	120	2600	AT3004D – Voronezh
DK2OM	7096,0	1950	13	02	MEa		PSK4	75	5800	Link11 CLEW – DSB – Gulf of Oman – also: 08.01.2014
DK2OM	7098,4	2122	21	02			R3E			carrier and LSB -7098.425, distorted
DK2OM	7099,5	vt	dly	02	HRV	9A0ZG	FSK8	125	1750	ALE, <b>“9A0ZG”</b> <b>“9A5EX”</b> <b>“9A0OS”</b> – daily - just for info!
DK2OM	7102,0	vt	dly	02	HRV SUI D	9A0ALE	FSK8	125	1750	ALE, <b>“9A0ALE”</b> <b>“HB9MHB”</b> <b>“9A0ZG”</b> <b>“DK0ESD”</b> – just for info!
DK2OM	7104,0	1946	27	02	CHN		FMCW		10k	Chinese OTH radar 66.7 sps – 3.8 sec bursts
DK2OM	7105,0	2200	17	02	CHN		unid		7.5k	broadband digital signal – 7105 kHz center – daily at 2200 - 2300 utc – jammer? – West-China
DK2OM	7110,0	vt	dly	02	HRV	9A0ALE	FSK8	125	1750	ALE, <b>“9A0ALE”</b> – just for info
DK2OM	7110,0	vt	dly	02			FSK8	125	1750	ALE, <b>“1101”</b> <b>“1112”</b>
DK2OM	7120,0	2128	06	02	FEa		FMCW		30k	CODAR like ocean radar with 2.5 sps – 7120 – 7150 kHz
DK2OM	7120,0	1700	dly	02	SOM		A3E		9k	Radio Hargaysa Somalia, daily
DK2OM	7137,0	vt	dly	02	TWN	no ITU	FSK8	125	1750	LSB – ALE , <b>“ACCENT”</b> <b>“ABLAZE”</b> <b>“ABOUND”</b> <b>“AGHAST”</b> <b>“ARTIST”</b> <b>“ANYWAY”</b> <b>“ABJECT”</b> <b>“ADROIT”</b> – Taiwanese navy – daily – various times - tnx for

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										info: DL8AAM
DK2OM	7155,0	1659	19	02	UKR		PSK2	120	2600	AT3004D – submode idle – Sevastopol
DK2OM	7164,0	1825	25	02	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	7166,0	2030	26	02	F		A1A			5 letter groups – area of Paris
DK2OM	7171,0	1750	19	02			PSK2A	120	2600	AT3004D – submode idle and traffic
DK2OM	7185,5	vt	dly	02	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	<b>7190,0</b>	<b>1825</b>	<b>15</b>	<b>02</b>	<b>TUR</b>		<b>A3E</b>		<b>30k</b>	<b>spurious from Voice of Turkey on 7205 kHz +/- 15 kHz – daily from 1825 – 1930 utc – transmission in German</b>
DK2OM	7193,0	1054	15	02	RUS		F1B	50	200	Kaliningrad
DK2OM	7197,0	vt	dly	02	TUR		FSK8	125	1750	ALE, “8241” “206102” “8151” “3021” “3761” “8021” “8141” “3061” “3241” “8411” – Turkish Sivil Avunma = Turkish Civil Defense - source: DL8AAM
DK2OM	7198,0	0756	01	02	RUS		PSK2A	120	2600	AT3004D - Moscow
DK2OM	<b>7200,0</b>	<b>2200</b>	<b>dly</b>	<b>02</b>	<b>CHN TWN</b>		<b>A3E</b>			<b>Sound of Hope TWN and Chinese jammer – 2 carriers 4 Hz difference - daily</b>
DK2OM	10100,8	ady	dly	02	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10113,0	vt	dly	02	TUN	no ITU	FSK8	125	1750	ALE, “TUD”
DK2OM	10114,8	0750	04	02	RUS		F1B	100	1000	CIS14 – Penza - daily
DK2OM	10115,0	vt	vd	02			FSK8	125	1750	ALE, “2001” “2002”
DK2OM	10120,0	1948	17	02	E		USB			Spanish fishery
DK2OM	10123,0	vt	dly	02	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “COF” “BSF”
DK2OM	<b>10125,0</b>	<b>2022</b>	<b>27</b>	<b>02</b>	<b>MRC</b>		<b>USB</b>			<b>Moroccan fishery</b>
DK2OM	10130,0	vt	dly	02	MRC		FSK8	125	1750	Thales 3000 – West Sahara – daily - vt
DK2OM	10130,0	1653	10	02	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	10133,0	0925	14	02	RUS		F1B	50	500	
DK2OM	10134,6	vt	dly	02	F		FSK8	125	1750	Thales 3000 bursts – South France
DK2OM	10135,0	2032	03	02			FMCW		5k	Superdarn ionospheric radar
DK2OM	10135,0	1945	17	02	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	<b>10135,0</b>	<b>1041</b>	<b>28</b>	<b>02</b>	<b>POR</b>		<b>USB</b>			<b>man in Portuguese voice</b>
DK2OM	10136,0	vt	dly	02	ALG		FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	10136,0	2032	03	02	RUS		F1B	50	200	Chita - Far East Russia - daily
DK2OM	10137,0	1706	19	02	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic - Jekaterinburg
DK2OM	10144,0	ady	dly	02	D	DK0WCY	A1A			10143.986 kHz - DK0WCY – German aurora beacon – <b>just for info!</b>
DK2OM	10145,0	vt	dly	02			FMCW		5k	Superdarn ionospheric radar
DK2OM	10145,5	vt	dly	02	HRV S / D F	9A5EX	FSK8	125	1750	ALE, “9A5EX” “SM5VRH” “DK0ESD” “F6BAZ” - just for info - daily
DK2OM	<b>10149,5</b>	<b>1149</b>	<b>04</b>	<b>02</b>	<b>I</b>		<b>USB</b>			<b>male people in Italian voice</b>
DK2OM	10150,0	2029	03	02			FMCW			Superdarn ionospheric radar
DK2OM	14000,0	1524	01	02	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14001,0	vt	dly	02	CHN		FSK8	125	1750	ALE, “397”
DK2OM	<b>14001,2</b>	<b>1525</b>	<b>09</b>	<b>01</b>	<b>INS</b>		<b>USB</b>			<b>Indonesian pirates – also: 25.01.2014 – at 1630 utc</b>
DK2OM	<b>14001,4</b>	<b>1656</b>	<b>03</b>	<b>02</b>	<b>MRC</b>		<b>USB</b>			<b>Moroccan fishery</b>
DK2OM	14024,0	1440	25	02	RUS		F1B	75	500	Kaliningrad
DK2OM	14036,0	ady	dly	02	RUS		F1B	100	2000	harmonic from7018 – REA4 - Moscow
DK2OM	14040,0	1657	27	02	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14048,0	1150	18	02	CHN		MFSK	44.5	2300	PRC-39 tones – South-China
DK2OM	14060,0	vt	vd	02	ISR		FSK8	125	1750	ALE, “AAA” - Israel



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14109,0	vt	dly	02	ISR	4X1	FSK8	125	1750	ALE, "4X1" "CT2IXQ" – just for info!
DK2OM	14109,0	1652	28	02	CAN		FSK8	125	1750	ALE, "VE3GDZ" – just for info!
DK2OM	14141,0	1510	22	02	RUS		F1B	75	500	Moscow
DK2OM	14191,9	0911	18	02	RUS		F1B	50	400	RUS Navy Kaliningrad
DK2OM	14205,0	vt	dly	02		no ITU	FSK8	125	1750	ALE, "505" "822" – 60 deg. from DL - CHN ?
DK2OM	14210,0	0906	01	02	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	14229,5	1037	10	02	G		F1B	600	600	DPRK-FSK 600 – North Korean emba London
DK2OM	14240,0	0910	01	02	RUS		F1B	75	250	Kaliningrad
DK2OM	14260,0	vt	dly	02	SRB		FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	14260,8	0914	18	02	RUS		J7D	35.6	2780	CIS60 - Bryansk
DK2OM	14265,0	vt	vd	02	TUR		FSK8	125	1750	ALE, "526"
DK2OM	14270,0	1345	19	02	CHN		MFSK	44.5	2300	PRC-39 tones – East-China
DK2OM	14278,0	1510	20	02	RUS		FMCW		10k	OTH radar 50 sps – Nizhny Novgorod – many splatters
DK2OM	<b>14280,0</b>	<b>1010</b>	<b>Wed</b>	<b>02</b>	<b>UKR</b>		<b>A3E</b>			<b>female voice with encrypted msgs – figures – "SZRU" = Foreign Intelligence Service of Ukraine at Rivne – every Wednesday</b>
DK2OM	14295,0	vt	dly	02	SRB	YU1BI	FSK8	125	1750	ALE, "YU1BI" – just for info!
DK2OM	14295,1	ady	dly	02	TJK		A3E			3 <sup>rd</sup> from Radio Tajik on 4765 kHz
DK2OM	14308,0	0756	05	02	RUS		F1B	75	500	Kaliningrad
DK2OM	14317,0	vt	vd	02	UKR	RCV	A1A			RUS naval base Sevastopol - encrypted, cyrillic letters
DK2OM	14322,0	vt	dly	02	CHN		FSK8	125	1750	ALE, "402"
DK2OM	14328,0	vt	dly	02	CHN		FSK8	125	1750	ALE, "139" "534" "772" – West China
DK2OM	14330,0	vt	dly	02			FSK8	125	1750	ALE, "BV4"
DK2OM	14344,7	1740	26	02	CHN		PSK8	2400	2400	preamble similar MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	vt	dly	02	HRV RUS D		FSK8	125	1750	ALE, "9A0ZG" "RX3ARZ" "DK0ESD" – just for info – various times, daily
DK2OM	14346,0	vt	dly	02	THA	HS0ZEA	A1A			HS0ZEA beacon – 14345.950 kHz - every 5 minutes – just for info!
DK2OM	18092,0	2250	19	02	TWN CHN		A3E			<b>Sound of Hope Taiwan and Radio China (via Australia) – carrier diff. 4 Hz</b>
DK2OM	18092,0	0755	20	02	TWN CHN		A3E			<b>Sound of Hope Taiwan and Radio China (via Japan) – carrier diff. 4 Hz</b>
DK2OM	18100,0	vt	dly	02	MRC	no ITU	FSK8	125	1750	ALE, "C3" "R3"
DK2OM	18107,0	0733	28	02	RUS	RDL	F1B	50	200	Moscow – idle and traffic – Russian navy – various days and times – legal operation
DK2OM	18126,0	0950	20	02	TWN CHN		A3E			<b>2 Chinese BCs – carrier diff. 4 Hz (via Japan)</b>
DK2OM	18140,0	vt	dly	02	SRB	YU1BI	FSK8	125	2600	ALE, "YU1BI" – just for info!
DK2OM	21000,0	1800	03	02	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil
DK2OM	<b>21000,0</b>	<b>vt</b>	<b>vd</b>	<b>02</b>	<b>E</b>		<b>USB</b>			<b>Spanish fishery, Galician voice, daily, various times</b>
DK2OM	21000,0	not heard		02	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	1032	dly	02	F		FMCW		20k	OTH radar – 2.5 sps - South France – sounding similar to CODAR – also: 1602, 1632 utc – 3 minutes duration – also: 24.01.2014 at 1549 utc
DK2OM	21000,0	1117	03	02	CLN		USB			Sinhala fishery – also: 11.02.2014 at 1035 utc

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	21000,0	1006	10	02	RUS		FMCW		20k	OTH radar with 10 sps – Nizhny Novgorod
DK2OM	21002,1	not heard		02	SDN	!0000	F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen
DK2OM	21033,3	0950	01	02	CHN		PSK4	75	2250	PRC 4+4 – “SLDR de PUDM”
DK2OM	21054,0	1045	28	02	RUS		F1B	100	3000	harmonic from7018 – REA4 - Moscow
DK2OM	21090,5	1055	18	02	AFG		PSK8	2400	2400	serial modem
DK2OM	21096,0	vt	dly	02	INS	YD00XH	FSK8	125	1750	ALE, “YD00XH3” – daily, various times - just for info!
DK2OM	21101,0	0818	22	02	MRC		USB			Moroccan fishery
DK2OM	21140,8	vt	vd	02	MEa		PSK8	2400	2400	MIL-188-141B – App.C – daily, various times
DK2OM	21145,0	vt	dly	02	MRC		FSK8	125	1750	ALE, “B301”, “C3”, “IR4” “T4” “E4” “A2” “CD” “K3” “KB2” “J5” “GS4” – various times, daily
DK2OM	21273,0	1055	19	02	CHN		PSK4	75	2250	PRC 4+4
DK2OM	21308,0	0745	10	02	CHN		FMCW		10k	Chinese OTH radar - 48 sps – 5.4 sec bursts
DK2OM	21344,0	1701	27	02	RUS		PSK2A	120	2600	AT3004D – area of Sevastopol – ship?
DK2OM	21378,0	0747	10	02	CHN		FMCW		10k	Chinese OTH radar - 48 sps – 5.4 sec bursts
DK2OM	21400,0	0802	04	02	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21433,3	1020	23	02	CHN		PSK4	75	2250	PRC 4+4
DK2OM	21438,0	vt	dly	02	UKR	RCV	A1A			RIP90 de RCV - RUS Navy Sevastopol - daily
DK2OM	21446,0	ady	dly	02	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	25000,0	ady	dly	02	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	vt	dly	02	CIS		F3E			28000 – 29700 numerous CIS taxi nets – mostly Russia
DK2OM	28000,0	ady	dly	02	B		A3E			Brazilian CBers – 28000 - 28315
DK2OM	28000,0	1015	13	02	POR		USB			Portuguese pirates
DK2OM	28001,3	0921	23	02	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28001,8	0911	05	02	RUS		PSK2B	1200	1200	Samara – also: 17.02.2014 at 1045 utc
DK2OM	28005,0	ady	dly	02	RUS		F3E			taxi net St. Peterburg, daily, all day
DK2OM	28025,0	0904	08	02	POR		F1B	51	320	F1B bursts - west of Lisbon – daily
DK2OM	28030,0	vt	dly	02	POR		F1B	51	320	F1B bursts - west of Lisbon
DK2OM	28035,0	vt	dly	02	RUS		F3E			taxi Moscow - daily
DK2OM	28040,1	1058	19	02	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28049,6	1106	19	02	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28055,0	1750	05	02	RUS		F3E			taxi Moscow - daily
DK2OM	28065,0	vt	dly	02	RUS		F3E			taxi Moscow - daily
DK2OM	28065,0	0824	09	02	E		A3E			Spanish CBers
DK2OM	28065,0	1355	19	02	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28072,0	1050	28	02	RUS		F1B	100	4000	harmonic from7018 – REA4 - Moscow
DK2OM	28085,0	vt	dly	02	POR		F1B	51	320	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28100,2	vt	dly	02	POR		F1B	51	320	F1B bursts - 28100.160 kHz - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28102,0	1950	12	02	USA		F1B	51	320	F1B bursts - west of San Francisco – Enagal GPS buoy
DK2OM	28105,0	1052	19	02	E		A3E			Spanish truckdrivers
DK2OM	28105,0	vt	dly	02	RUS		F3E			taxi Moscow

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28115,0	vt	dly	02	RUS		F3E			taxi - Moscow - daily
DK2OM	28135,0	vt	dly	02	RUS		F3E			taxi – Barnaul - daily
DK2OM	28140,0	1448	15	02	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps - jumping
DK2OM	28146,0	vt	vd	02	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28150,0	1015	02	02	RUS		USB			vocoder Yakhta - encrypted voice traffic – Nizhny Tagil
DK2OM	28151,5	1015	02	02	RUS		F1B	100	150	vocoder Yakhta - inband synchro - Nizhniy Tagil
DK2OM	28175,0	1018	19	02	E		A3E			Spanish CBers
DK2OM	28200,0	0923	09	02	E		A3E			Spanish CBers
DK2OM	28200,0	0926	09	02	POR		F1B	51	300	F1B bursts - west of Lisbon – Enagal GPS buoys - daily
DK2OM	28205,0	vt	dly	02	RUS		F3E			taxi Moscow
DK2OM	28210,0	0940	09	02	TUR		FMCW		20k	OTH radar – 50 sps – NW Turkey
DK2OM	28215,0	vt	dly	02	RUS		F3E			taxi Moscow
DK2OM	28255,0	vt	dly	02	RUS		F3E			taxi Moscow
DK2OM	28265,0	vt	dly	02	RUS		F3E			taxi Moscow
DK2OM	28305,0	vt	dly	02	RUS		F3E			taxi - Arkhangelsk
DK2OM	28315,0	1109	19	02	E		A3E			Spanish CBers
DK2OM	28600,0	0954	23	02	IRN		FMCW		50k	OTH radar Iran – 307 and 870 sps
DK2OM	29001,3	1050	17	02			NON		600	2 tones – 600 Hz shift – 29001.020 and 29001.620 kHz – area of Cyprus
DK2OM	29250,0	---	--	02	E		F1B	81.9	140	Datawell-buoy “Waverider” – 29249.905 kHz – Fuerteventura - daily, all day
DK2OM	29252,0	0925	18	02	RUS		F1B	75	1000	harmonic from 14626.0 kHz
DK2OM	29300,0	0955	23	02	CYP		FMCW		20k	OTH radar Cyprus – 50 sps
DK2OM	29375,0	---	--	02	I		F1B	81.9	140	Datawell-buoy “Waverider” – 29374.898 kHz – Galatone, South Italy - daily, all day
DK2OM	29387,5	---	--	02	IND		F1B	81.9	140	Datawell-buoy “Waverider” – 29387,460 kHz – Indian NW coast, close to Pakistan - daily, all day
DK2OM	29450,0	1007	01	02	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29449.870 kHz - area of El Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	02	G		F1B	81.9	140	Datawell-buoy “Waverider” – area of Gibraltar – daily, all day
DK2OM	29525,0	---	---	02	MRC		F1B	81.9	140	Datawell-buoy “Waverider” – 29524.990 kHz - Agadir - Morocco – daily, all day
DK2OM	29640,0	1029	18	02	RUS		F1B	75	1000	harmonic from 7410.0 kHz
DK2OM	29640,0	1353	22	02	TUR		FMCW		20k	OTH radar NW Turkey – 50 sps
DK2OM	29680,0	1930	23	02	USA		F1B	140	81.9	Datawell-buoy “Waverider” – received via Los Angeles – daily, all day

IRTS – Ireland – EI5DD (Steve)

KARS – Kuwait – 9K2RR (Faisal)

MRASZ 1 – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3530,1	1742	5	9			A1A			"vvv test de yu1cf" BEACON
MRASZ	3555,0	1734	22	9		Ui	A3E			

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3725,0	1820	25	9		Ui	LSB			Music
MRASZ	3742,0	2005	27	9			OTHR			
MRASZ	3792,0	0622	25	9			USB			Ui male, seems anti-aircraft mess.
MRASZ	7000,0	1805	1	9	UKR	D	A1A			"D" beacon, also on days: 3, 27
MRASZ	7000,0	1708	17	9		Ui	LSB			Unidentified language
MRASZ	7000,1	1806	1	9		Ui	A1A			"VVVV GIUSEPPE (2X) K"
MRASZ	7002,0	1607	12	9			BPSK			AT3004D
MRASZ	7006,5	1644	25	9			F1A			5 figs, "64T73 5154T 7764T"
MRASZ	7006,5	1935	25	9		Ui	F1B		500	
MRASZ	7007,0	1759	25	9			BPSK			AT3004D
MRASZ	7016,0	ady	5	9			F1B			
MRASZ	7017,0	1758	25	9			A1A			Quick dotter
MRASZ	7018,0	1610	12	9			BPSK			AT3004D
MRASZ	7023,0	1755	25	9			BPSK			AT3004D, also on day 27, 30
MRASZ	7027,5	1645	10	9			A1A			" V V V" (3sec)
MRASZ	7028,0	1659	3	9			BPSK			AT3004D
MRASZ	7032,0	1704	4	9						Wobbling
MRASZ	7032,0	1611	12	9			BPSK			AT3004D
MRASZ	7038,7	ady	dly	9	UKR	D	A1A			"D" beacon
MRASZ	7038,8	1700	mdy	9	RUS	P	A1A			"P" beacon
MRASZ	7038,9	1721	22	9	RUS	S	A1A			"S" beacon, also on days: 24, 30
MRASZ	7049,0	1447	15	9		Ui	F1B		200	
MRASZ	7077,5	2021	27	9	UKR	D	A1A			"D" beacon
MRASZ	7092,0	0642	20	9			FAX			Weefax?
MRASZ	7100,0	1721	30	9			N0N			
MRASZ	7102,5	1936	24	9		Ui	A3E			Ui male
MRASZ	7114,0	1646	10	9			N0N			
MRASZ	7117,0	ady	dly	9		REA4	F1B		1000	
MRASZ	7120,0	ady	dly	9	SOM		A3E			"Radio Hargaysa", daily
MRASZ	7132,0	ady	dly	9			BPSK			AT3004D
MRASZ	7143,0	1719	22	9			BPSK			AT3004D
MRASZ	7143,0	1836	23	9			BPSK			AT3004D
MRASZ	7156,0	0643	20	9			BPSK			AT3004D
MRASZ	7159,0	1715	17	9			BPSK			AT3004D
MRASZ	7177,0	1718	22	9			BPSK			AT3004D
MRASZ	7187,0	1718	17	9			BPSK			AT3004D
MRASZ	7187,0	1932	24	9			BPSK			AT3004D
MRASZ	7198,0	0629	19	9			BPSK			AT3004D
MRASZ	7198,0	1837	23	9			BPSK			AT3004D
MRASZ	7199,0	1710	25	9			BPSK			AT3004D
MRASZ	7199,8	1035	20	9		Ui	F1B			
MRASZ	10135,0	0744	22	9		Ui	A3E			
MRASZ	14027,0	1725	22	9			BPSK			AT3004D
MRASZ	14027,0	1733	30	9			BPSK			AT3004D
MRASZ	14054,0	1727	22	9			BPSK			AT3004D
MRASZ	14076,6	0741	22	9			N0N			
MRASZ	14221,0	0814	5	9		Ui	F1B		200	
MRASZ	14260,0	0801	5	9			USB			"674" Spy radio
MRASZ	14295,0	1654	mdy	9	TJK		A3E			3rd. harmonic fm 4765 kHz
MRASZ	14340,0	1729	22	9			OTHR			Till 14395
MRASZ	21001,5	1305	12	9			F1B		150	Also on days: 13,14,15,17,19,20
MRASZ	21105,0	0732	1	9			OTHR			Till 21130
MRASZ	21206,5	0954	13	9			F1B		300	VOCODER?
MRASZ	28005,0	0818	5	9			NBFM			female russian
MRASZ	28135,0	0823	5	9			NBFM			female russian
MRASZ	28195,0	0820	5	9			NBFM			female russian
MRASZ	28365,0	1040	20	9			OTHR			Iranian OTHR, till:

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
										28430

## MRASZ 2 – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	3500,0	2100	12	2			LSB			italian, "uno due, uno due due"
MRASZ	3500,0	1953	21	2			A3E			music
MRASZ	3501,6	1822	11	2			A3E			unidentified
MRASZ	3502,0	1905	28	2			A3E			unidentified
MRASZ	3510,0	1944	28	2			A3E			unidentified
MRASZ	3515,0	1938	25	2			A3E			russian? "odin odin, odin dva, odin odin odin"
MRASZ	3534,0	1918	21	2			A3E			serbian?
MRASZ	3538,0	1952	21	2			A3E			instabil carrier
MRASZ	3593,7	2106	6	2	UKR	D	A1A			"D" beacon, hrd on 10,12,24,
MRASZ	3593,9	2116	12	2	RUS	S	A1A			"S" beacon, hrd on 24
MRASZ	3595,0	1853	21	2			USB			russian female "numbers"
MRASZ	3595,0	1909	28	2			LSB			russian? "odin odin, odin dva odin odin odin"
MRASZ	3595,0	2008	24	2			USB			not entirely russian, may be ukrainian language?
MRASZ	3595,0	1940	25	2			LSB			some slav language
MRASZ	3658,0	2308	6	2	UZB	V	A1A			„V” beacon, hrd on 10,11,12,13,21,25,28
MRASZ	7000,0	1817	12	2			LSB			italians," mentioned Angelo, Rosario" hrd 23 also
MRASZ	7000,0	2025	25	2	UKR	D	A1A			"D" beacon
MRASZ	7000,1	1844	10	2	UKR	D	A1A			"D" beacon hrd on 24, 25,
MRASZ	7000,1	1901	21	2			LSB			italians
MRASZ	7000,1	1928	28	2			LSB			italian, "prova radio 1 2 3"
MRASZ	7000,5	1817	12	2	ITA		A1A			"v v IK1HGI/B IK1HGI/B K" beacon
MRASZ	7001,5	2109	4	2			USB			unidentified
MRASZ	7018,0	1916	12	2	RUS	REA4	F1B		1000	hrd: 12, 23, 24, 28
MRASZ	7018,5	1842	4	2	RUS	REA4	F1A			"18T 999TT T 3140 23746 7496T"
MRASZ	7018,5	1842	10	2	RUS	REA4	F1A			"18T 999TT 27627 82449"
MRASZ	7038,7	vt	dly	2	UKR	D	A1A			"D" beacon hrd more days
MRASZ	7038,8	vt	dly	2	RUS	P	A1A			„P” beacon hrd more days
MRASZ	7038,9	1938	11	2	RUS	S	A1A			"S" beacon, hrd on 12,24,25,28
MRASZ	7039,0	1954	24	2	RUS	C	A1A			"C" beacon, hrd on 28
MRASZ	7039,2	1938	11	2	RUS	F	A1A			"F" beacon
MRASZ	7039,4	1938	11	2	RUS	M	A1A			"M" beacon
MRASZ	7050,0	2004	21	2			A3E			music motifs, hrd till 7100
MRASZ	7075,0	1855	18	2			A3E			wide band: music motifs
MRASZ	7077,4	1954	24	2	UKR	D	A1A			"D" beacon, hrd on 25

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
MRASZ	7087,5	1903	21	2			A3E			wide band, music motifs, exact freq?
MRASZ	7092,0	1941	18	2			LSB			some arabian
MRASZ	7102,8	1924	28	2			F1B		200	
MRASZ	7120,0	1858	6	2	SOM		A3E			"Radio Hargaysa" hrd on 10, 18,
MRASZ	7156,0	1943	18	2			A1A			"VVV de SM6AAL/Beacon QTH loc JQ67GQ
MRASZ	7200,0	2224	13	2			A3E			chinese
MRASZ	10117,7	1930	28	2			A1A			disturb transmission "dit-dah dit-dah dit dah"
MRASZ	10120,9	1736	4	2			USB			unidentified
MRASZ	14024,0	1623	23	2			F1B		500	
MRASZ	14068,0	1917	18	2			USB			music motifs
MRASZ	28025,0	1302	2	2			OTHR			
MRASZ	28055,0	1053	7	2	RUS		F3E			russian taxi centrum
MRASZ	28055,0	1228	7	2			USB			spanish?
MRASZ	28075,0	0938	7	2	RUS		F3E			russian taxi centrum
MRASZ	28105,0	0844	7	2	RUS		F3E			russian taxi centrum
MRASZ	28135,0	1014	7	2	RUS		F3E			russian taxi centrum
MRASZ	28145,0	0954	7	2	RUS		F3E			russian taxi centrum
MRASZ	28150,0	1303	2	2			OTHR			
MRASZ	28155,0	1020	7	2	RUS		F3E			russian taxi centrum
MRASZ	28165,0	1025	7	2	RUS		F3E			russian taxi centrum
MRASZ	28175,0	1309	2	2			F3E			russian taxi centrum
MRASZ	28175,0	0848	7	2	RUS		F3E			russian taxi centrum
MRASZ	28185,0	1355	2	2			F3E			russian taxi centrum
MRASZ	28185,0	1026	7	2	RUS		F3E			russian taxi centrum
MRASZ	28195,0	1032	7	2	RUS		F3E			russian taxi centrum
MRASZ	28240,0	0949	7	2	RUS		F3E			russian taxi centrum

### OEVSV – Austria – OE3GSA (Gerd)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
oevsv	3504.5	2052	12	02	unid	unid	A3A			males in serbo croatian
oevsv	7099.0	0720	18	02	unid	unid	F1B	100	250	RTTY
oevsv	7099.0	0600	21	02	unid	unid	A3A			trumpets&drums (loop)
oevsv	7110.0	2050	18	02	unid	unid	A3A			same loop
oevsv	7192.0	0720	10	02	unid	unid	N0N			
oevsv	18091.2	0628	17	02	unid	unid	A3A			chinese BC in deep QSB

### PZK – Poland – SP9BRP (Jan)

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

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3500	08.10	02	02	F		J3E-L			Fishermen
REP	3505	22.07	22	02			J3E-L			Fishermen, unid language
REP	<b>3550</b>	<b>07.34</b>	<b>03</b>	<b>02</b>	<b>F</b>		<b>A3E</b>			<b>INFRINGE IARU Band Plan persisting on the use of AM mode on this Freqs</b>
REP	3715	07.40	17	02	RUS		J3E-U			Navy
REP	3795	20.09	16	02	I		J3E-L			Music, jamming, insults, etc
REP	7000	22.50	10	02	E		J3E-L			Spanish pirates
REP	7000	17.00	23	02	I		J3E-L			Several OM talking in italian
REP	7005	08.22	29	02	E		J3E-U			Fishermen
REP	7020	21.10	20	02	B		J3E-L			Brazilian pirates
REP	7025	21.19	16	02	B		F1B	75	240	Unid FSK
REP	7039,0	22.00	19	02	RUS	C	A1A			MOSCOW, ADY, DLY
REP	7039,3	23.07	19	02	RUS	K	A1A			VOLGOGRAD, ADY, DLY
REP	7039,5	22.03	19	02	RUS	M	A1A			MAGADAN, ADY, DLY
REP	7062	21.51	01	02			FMCW			OTH radar, also on 7116 and 7187kHz

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	7110	19.05	18	02	E		J3E-U			Fishermen with phone patch
REP	<b>7120</b>	<b>22.50</b>	<b>06</b>	<b>02</b>	<b>SOM</b>		<b>8k00 A3EGN</b>			<b>Broadcasting</b>
REP	7142	21.39	12	02			FMCW			OTH radar 10kHz
REP	7170	21.20	07	02			J3E-L			Arabic lang fishermen
REP	10100	20.30	07	02			J3E-U			Unids Arabic
REP	10113	01.42	25	02			J3E			Unid language ops
REP	10115	20.21	07	02			J3E-U			Unid language
REP	10125	18.33	10	02	E		J3E-U			Spanish fishery
REP	10125	20.00	12	02			J3E-U			Arabic talks
REP	10130	20.11	10	02	MRC		J3E-U			Moroccan fishermen
REP	10132	00.02	15	02	E		J3E-U			Spanish fishery
REP	10140	21.23	14	02			J3E-U			Unid Arabic lang. ops
REP	10145	20.15	28	02	MRC		J3E-U			Moroccan fishermen, daily
REP	10145	22.34	28	02	POR		J3E-U			Male op talking to wife
REP	10150	00.09	15	02			FMCW			Oth radar 20kHz, down to 10140kHz
REP	18090	15.03	27	02			FMCW			OTH radar 20kHz
REP	<b>18140</b>	<b>18.45</b>	<b>12</b>	<b>02</b>			<b>OFDM</b>			<b>PLT / PLC Wideband signal covering all 18MHz and 24MHz Bands</b>
REP	21110	09.50	17	02	E		J3E-U			Fishermen talking about politics
REP	21115	14.22	23	02			J3E-U			Arab talking
REP	21150	14.28	23	02			FMCW			OTH radar 20kHz
REP	21345	20.09	24	02			FMCW			OTH radar
REP	28020	18.35	12	02	B		J3E-U			USB brazilian ops, daily
REP	28065	09.17	03	02	RUS		F3E			Taxis
REP	28075	12.08	21	02			A3E			Taxis
REP	28105	18.49	20	02	B		A3E			Brazilian ops, daily
REP	28135	10.02	02	02	RUS		F3E			Russian taxi dispatchers
REP	28155	09.48	05	02	RUS		F3E			Taxis central, YL op
REP	28175	01.16	21	02	F		A3E			CB's inside the Ham Band
REP	28175	21.33	21	02	F		A3E			CB's
REP	28220	10.22	02	02	IRN		FMCW			Iran OTH radar
REP	28245	17.00	21	02	RUS		F3E			Taxis
REP	28330	11.25	22	02	CYP		FMCW			OTH radar 20kHz, 50 cps
REP	<b>28405</b>	<b>12.22</b>	<b>08</b>	<b>02</b>			<b>F3E</b>			<b>INFRINGE IARU Band plan</b>
REP	28547	12.58	12	02	IRN		FMCW			Iran OTH radar
REP	28580	10.35	20	02			FMCW			OTH radar
REP	29075	14.00	09	02			FMCW			OTH radar
REP	29175	12.06	03	02	RUS		F3E			Russian taxi dispatcher
REP	29205	12.06	19	02			F3E			Unid language pirates
REP	29245	13.00	08	02			F1B	82	160	Datawell buoy, idling
REP	29365	10.40	17	02			J3E-U			Unid language male
REP	29385	10.08	02	02	RUS		F3E			Russian taxi dispatchers
REP	29400	13.01	12	02			F1B	82	140	Waverider sea buoy
REP	29480	13.02	12	02			F1B	82	140	Waverider sea buoy
REP	29600	09.13	17	02			FMCW			OTH radar
REP	29640	13.10	22	02	CYP		FMCW			OTH radar 20kHz, 50 cps

## RSGB - Great Britain – G4BOH (Chris)

## SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	6999,0	1410	5.	2		UiMUX	PSK2	120	2600	Subcarrier on 7000,3 kHz
SRAL	7000,0	0810	6.	2		UiPTR	F1B			24 Hz dotter
SRAL	7000,0	0400- 2030	14. 15.	2		UiCarr	N0N			
SRAL	7008,0	0725- 1145	*	2		UiPTR	F1B		250	Days: 13. 19. 21.
SRAL	7012,0	0630- 0800	11.	2		UiCarr	N0N			
SRAL	7012,0	1400- 1509/	12.	2		UiPTR	F1B		250	
SRAL	7012,0	0840-	26.	2		UiPTR	F1B		200	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		0930								
SRAL	7013,0	0515-1400/	*	2		UiMUX	PSK2	120	2600	Days: 8. 10. 13. 17.
SRAL	7015,5	1300-1707/	28.	2		UiMUX	PSK2	120	2600	
SRAL	7018,0	0725-1055	10. 14.	2		UiPTR	F1B		200/ 500	
SRAL	7018,0	1050-0115	*	2	RUS	REA4	F1B		1000	Days: 1. – 13. & 18. – 28.
SRAL	7018,0	1050-2030	14.-17.	2	RUS	REA4	F1B		800	
SRAL	7025,0	1240-1640/	28.	2		UiPTR	F1B		250	
SRAL	7032,0	0825	21.	2		UiMUX	PSK2	120	2600	
SRAL	7036,0	1505-1607/	26.	2		UiPTR	F1B		250	
SRAL	7038,7	h24	dly	2	UKR	D	A1A			Sevastopol, spur. +/- 38,7 kHz
SRAL	7038,8	0530-1900	dly	2	RUS	P	A1A			Kaliningrad, spur. +/- 38,8 kHz
SRAL	7038,9	0140-1730	dly	2	RUS	S	A1A			Severomorsk
SRAL	7039,0	0550-1700	dly	2	RUS	C	A1A			Moscow
SRAL	7043,94	1240-1526/	28.	2		UiCarr	N0N			
SRAL	7047,0	1730-2400	*	2		UiMUX	PSK2	120	2600	Days: 2. 18. 28.
SRAL	7051,0	0640	11.	2		UiMUX	PSK2	120	2600	
SRAL	7072,0	0520-1600	*	2		UiMUX	PSK2	120	2600	Days: 7. 17. 21.
SRAL	7081,0	1720	2.	2		UiPTR	F1B			
SRAL	7087,0	0515-1930	*	2		UiMUX	PSK2	120	2600	Days: 7. 8. 20.
SRAL	7089,0	0700-1700	*	2	RUS	UiMUX	PSK2	120	2600	Days: 3. 5. 17.
SRAL	7098,0	0650-1200	*	2		UiPTR	F1B		250	Days: 1. 3. 18.
SRAL	7100,75	1600-1920/	21.	2		UiCarr	N0N			
SRAL	7120,0	0400-0530	dly	2	SOM	R. Hargeisa	A3E			
SRAL	7120,0	1500-1900	dly	2	SOM	R. Hargeisa	A3E			
SRAL	7131,0	1410	5.	2		UiPTR	F1B			
SRAL	7142,0	0950-1045/	13.	2		UiMUX	PSK2	120	2600	
SRAL	7147,5	0950-1045/	13.	2		UiCarr	N0N			
SRAL	7150,0	0650-0810	*	2		186	R3E-u			Days: 7. 14. 28. Synth. vox
SRAL	7151,0	0710-0730/	20.	2		UiMUX	PSK2	120	2600	
SRAL	7155,0	2015	19.	2		UiMUX	PSK2	120	2600	
SRAL	7158,0	1250	11.	2		UiPTR	F1B			
SRAL	7160,0	0600-0708/	6.	2		UiCarr	N0N			
SRAL	7160,0	0645-0820	*	2	RUS	RMV32	A1A			Days: 13. 14. 18. 28. MR 5BL, 5F
SRAL	7162,0	1100-1200	3. 25.	2		UiPTR	F1B		200/ 250	
SRAL	7164,0	1240-1420	15. 22.	2		UiMUX	PSK2	120	2600	
SRAL	7166,0	1755	26.	2	F	UiCW	A1A			MR 5L
SRAL	7167,0	0540-0935/	24.	2		UiPTR	F1B		250	
SRAL	7169,0	0815-1510/	13. 17.	2		UiPTR	F1B		200	



Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	7169,0	0650-0805	17. 18.	2		UiMUX	PSK2	120	2600	
SRAL	7172,0	1100-1500	6. 9.	2		UiMUX	PSK2	120	2600	
SRAL	7176,0	0845-0925/	19.	2		UiPTR	F1B		250	
SRAL	7181,0	1510-1755	26.	2		UiCarr	N0N			
SRAL	7193,0	0650-1400	*	2	RUS	UiPTR	F1B/N0N		200	Days: 1. 4. 5. 6. 9. 10. 11. 14.- 17. 20. 28.
SRAL	7190,5	0840	26.	2		UiPTR	F1B		250	
SRAL	7198,0	0730-2400	*	2		UiMUX	PSK2	120	2600	Days: 1. 18. 28.
SRAL	7200,0	0700-2030	2. 3. 9.	2		UiCarr	N0N /A3N			
SRAL	14024,0	0920-1650	25.	2	RUS	UiPTR	F1B			
SRAL	14026,0	1030	27.	2		UiMUX	PSK2	120	2600	
SRAL	14030,0	1400	4.	2		UiCW	A1B			Dotter 8,6 Hz
SRAL	14118,0	0725-0855/	25	2		UiMUX	PSK2	120	2600	
SRAL	14141,0	1040-1645	*	2	RUS	UiPTR	F1B		500	Days: 4. 16. 22. 23.
SRAL	14162,0	0805	6.	2		UiMUX	PSK2	120	2600	
SRAL	14192,0	1105-1200	16. 25.	2	RUS	UiPTR	F1B		200/ 400	
SRAL	14240,0	0745-1340	1.	2		UiPTR	F1B			
SRAL	14259,8	0920-1005/	25.	2		UiCarr	N0N			
SRAL	14268,0	0730-0745/	21.	2		UiPTR	F1B		250	
SRAL	14270,0	0855-0940/	7.	2		UiMUX	PSK2	120	2600	
SRAL	14292,0	0705	12.	2		UiPTR	F1B		500	
SRAL	14295,2	0445-1630	dly	2	TJK	R Tojikiston	A3E			3f 4765,07 kHz, Yangiyul TX
SRAL	14344,0	0725-0750	25.	2		UiPTR	F1B		250	
SRAL	14 MHz	0650-1700	*	2	RUS	29B6	FMCW			50Hz & 10 Hz/ 10 kHz, days: 2. 5. 14. 16. 18. 22. 26.
SRAL	18 MHz	1030-1223/	21. 26.	2	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz
SRAL	21 MHz	0750-1420/	*	2	CYP / TUR	UiOTHR	FMCW			50Hz / 20 kHz, 6. 7. 17.
SRAL	28 MHz	0700-1515	*	2	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz, days: 5.-7. 9. 10. 12. 17. 18. 20.-28.
SRAL	28 MHz	0615-1500	*	2	CYP / TUR	UiOTHR	FMCW			25 & 50Hz / 20 kHz, days: 1. 2. 5.-7. 10. 12.-18. 20.-23. 25.-28.
SRAL	28 MHz	0640-1420	*	2	RUS	Taxi disp.	F3E			Days: 1.-7. 9.-12. 14.-18. 20.- 28. 163 reports

### USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3554.0	0326	10	02			F1B	75	225	with harmonic at 7114
USKA	7049-7110	2203	18	02			R3E-L			curious drums and trumpets approx every 6kHz; often
USKA	7000.0	1758	03	02						Voice scrambler Sailor CRY2001 with F1B intro 100Bd 170Hz
USKA	7000.0	2321	03	02		D	A1A			Beacon D spurious of 7038.7 daily

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7000.0	1740	07	02			J3E-U			Italian
USKA	7000.0	1803	09	02						Voice scrambler Sailor CRY2001 with F1B intro 100Bd 170Hz
USKA	7000.0	0037	10	02		102	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	0051	10	02		203	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	0042	10	02		205	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	1908	09	02		209	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	1937	09	02		210	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	1916	09	02		510	MFSK8	125	1750	MIL 188-141A
USKA	7000.0	1809	15	02			N0N			long lasting carrier
USKA	7000.0	1624	27	02			J3E-U			unid language, like Grecian
USKA	7012.0	1424	12	02			F1B	75	250	
USKA	7018.0	1755	03	02	RUS	REA4	F1B	100	1k	daily
USKA	7018.0	1542	06	02	RUS	REA4	F1A		1k	letters and figures, ID REA4
USKA	7018.0	2249	17	02	RUS	REA4	F1B	100	800	smaller shift as usual
USKA	7020.0	2042	13	02			J3E-U			unid language
USKA	7038.7	2039	02	02	UKR	D	A1A			Beacon D Sevastopol daily
USKA	7038.8	0929	01	02	RUS	P	A1A			Beacon P Kaliningrad daily
USKA	7038.9	0927	01	02	RUS	S	A1A			Beacon S Murmansk daily
USKA	7039.2	0820	02	02	RUS	F	A1A			Beacon F Vladivostok
USKA	7039.4	0920	01	02	RUS	M	A1A			Beacon M Magadan daily
USKA	7047.0	2032	02	02			J7D		2k7	CIS12 idling, often
USKA	7070.0	1925	05	02		244	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	0232	18	02		810202	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	1939	05	02		810204	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2150	17	02		810210	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	0317	18	02		811104	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	0312	18	02		811199	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2154	17	02		820201	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	1933	05	02		820202	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	1950	05	02		820210	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2211	17	02		821104	MFSK8	125	1750	MIL 188-141A
USKA	7070.0	2213	17	02		821199	MFSK8	125	1750	MIL 188-141A
USKA	7082.0	1639	02	02			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7087.0	1327	07	02			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7089.0	1524	05	02			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D often
USKA	7096.0	2019	03	02			B7D	75	5k83	LINK 11 CLEW 75Bd DQPSK DSB mode; DNCS IM
USKA	7096.0	2229	20	02			B7D	75	5k83	LINK 11 CLEW 75Bd DQPSK DSB mode; DNCS IWM
USKA	7097.875	0913	01	02			A1A			Jammer, dots only, interfering ham band >2kHz
USKA	7098.0	0908	01	02			F1B	75	250	
USKA	7102.0	2149	23	02			FMCW	66.66	10k	OTHR Burst system BD 3.9s BRI approx 37s
USKA	7103.0	1946	20	02			FMCW	66.66	10k	OTHR Burst system often BD 3.9s BRI 37s
USKA	7105.0	2201	02	02			?		~6k6	unid signal; 2200-2300z daily maybe jammer ?
USKA	7110.0	2151	23	02			FMCW	66.66	10k	OTHR Burst system BD 3.9s BRI approx 37s
USKA	7114.0	0326	10	02			F1B	75	450	harmonic of 3557
USKA	7120.0	1550	02	02	SOM		A3E			Radio Hargaysa daily
USKA	7137.0	2335	28	02			F1B	50	200	
USKA	7137.0	2245	16	02		ABJECT	MFSK8	125	1750	LSB! MIL 188-141A: to ASTYRE
USKA	7137.0	2108	13	02		ABLAZE	MFSK8	125	1750	LSB! MIL 188-141A: to ASTYRE
USKA	7137.0	2203	15	02		ACACIA	MFSK8	125	1750	LSB! MIL 188-141A: to ASTYRE
USKA	7137.0	1847	15	02		ANTENN	MFSK8	125	1750	LSB! MIL 188-141A
USKA	7137.0	2300	16	02		ARTIST	MFSK8	125	1750	LSB! MIL 188-141A: to ASTYRE
USKA	7137.0	2305	14	02		T 5	MFSK8	125	1750	LSB! MIL 188-141A: to ASTYRE
USKA	7141.0	2106	19	02			J7D		2k7	CIS12 system idling
USKA	7145.0	2203	27	02			FMCW	66.66	10k	OTHR Burst system BD 3.9s BRI approx 37s
USKA	7146.0	1747	07	02			J7D		2k7	CIS12 system idling
USKA	7147.0	2338	28	02			J7D	120	2600	AT3004D
USKA	7155.0	2004	19	02			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D
USKA	7166.0	1512	06	02			J7D	12x120	2k7	PSK-2: CIS12 = AT3004D

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	7166.04	2324	03	02			A1A			letters and figures. groups of five speed 24wpm
USKA	7175.0	2012	02	02			A3E			BC, unid; music and voice
USKA	7193.0	0724	10	02		RDL	F1A		200	letters and figures
USKA	7193.0	0731	10	02			F1B	50	200	CIS 36-50
USKA	7193.0	0817	14	02			F1B	36	200	CIS 36-50
USKA	7193.1	0732	10	02			A1A	50		Jammer
USKA	7197.0	1047	02	02			J7D		2k7	CIS12 sytem, idling
USKA	7197.0	1521	06	02		3181	MFSK8	125	1750	MIL 188-141A 4 letter IDs daily
USKA	7200.0	2217	11	02			A3E		±10k	BC, interfering 40m band daily sounds like Chinese language
USKA	14191.9	1704	20	02			F1B	50	400	
USKA	14192.0	1307	17	02			F1B	50	200	almost daily
USKA	14224.0	0846	14	02		4P8F	A1A			letters and figures
USKA	14240.0	0942	01	02			F1B	75	250	
USKA	14260.8	0857	18	02			OFDM			spacing: 44.4Hz 35.5 Bd pilotton
USKA	14277.0	1637	20	02			FMCW	50 sps	10k	OTHR
USKA	14287.0	1537	14	02			FMCW	50	10k	OTHR
USKA	14323.0	1130	20	02			FMCW	66.66	10k	OTHR BD ~3.9 s
USKA	14333.0	1132	20	02			FMCW	66.66	10k	OTHR BD ~3.9 s
USKA	14340.0	1052	07	02			FMCW	66.66	10k	
USKA	14343.0	1133	20	02			FMCW	66.66	10k	OTHR BD ~3.9 s
USKA	14344.65	1405	13	02			PSK-8	2400	2k4	like MIL 188-110, modified Hybrid burst system daily
USKA	14344.65	1803	28	02			PSK-8	2400	2k4	like MIL 188-110A Hybrid; burst system; Frame format 600bps short
USKA	18090.0	1537	07	02			FMCW	50	10k	OTHR BD ~3.5 s, BRI ~34s
USKA	18107.0	0839	27	02			F1B	50	200	
USKA	18107.0	1648	28	02			F1B	36	200	later 50Bd: CIS 36-50 system
USKA	21033.2	1009	01	02			DQPSK	75	2k25	CHN 4+4
USKA	21139.0	1244	06	02			FMCW	25 sps	20k	OTHR
USKA	21145.0	0853	18	02		05	MFSK8	125	1750	MIL 188-141A To: C3
USKA	21145.0	1428	14	02		C3	MFSK8	125	1750	MIL 188-141A often
USKA	21145.0	0835	18	02		C4	MFSK8	125	1750	MIL 188-141A To:
USKA	21145.0	1256	18	02		GS4	MFSK8	125	1750	MIL 188-141A To:C3
USKA	21145.0	1248	18	02		GS5	MFSK8	125	1750	MIL 188-141A To:C3
USKA	21145.0	1251	18	02		GS50	MFSK8	125	1750	MIL 188-141A To:C3
USKA	21145.0	1222	18	02		J5	MFSK8	125	1750	MIL 188-141A To:GS401
USKA	21145.0	0921	18	02		Q201	MFSK8	125	1750	MIL 188-141A To: J5
USKA	21145.0	0903	18	02		X32	MFSK8	125	1750	MIL 188-141A To:GS401
USKA	21170.0	1549	10	02			FMCW	50 sps	20k	OTHR
USKA	21400.0	0757	14	02			FMCW	47 sps	10k	OTHR BD ~5.5s BRI ~ 34.5s
USKA	21409.5	0651	14	02			F1B	100	2k	harmonic of 10704.8
USKA	21438.0	0832	03	02		RCV	A1A			letters and figures; almost daily
USKA	21450.0	1312	17	02			FMCW	50 sps	20k	OTHR
USKA	28025.0	0841	18	02			F1B	51	300	GPS fishery buoy often
USKA	28190.0	1002	01	02			FMCW	25 sps	20k	OTHR
USKA	28190.0	1002	01	02			FMCW	25 sps	20k	OTHR
USKA	28213.0	1401	01	02			FMCW	50 sps	12k	OTHR
USKA	28315.0	1422	14	02			FMCW	50 sps	20k	OTHR
USKA	28600.0	1427	09	02			FMCW	307 870	~50k	OTHR Burst system often
USKA	28700.0	0908	13	02			FMCW	50 sps	20k	OTHR often
USKA	28760.0	0933	01	02			FMCW	307 870	~50k	OTHR Burst system often
USKA	28865.0	1312	12	02			FMCW	50 sps	20k	OTHR
USKA	28970.0	0945	01	02			FMCW	50 sps	20k	OTHR
USKA	29001.370	1137	16	02			N0N		600	2-ton signal
USKA	29300.0	1003	23	02			FMCW	50 sps	20k	OTHR
USKA	29345.0	1011	16	02			FMCW	various	~50k	OTHR Burst system often
USKA	29450.0	1007	01	02			F1B	81.92	140	Datawell buoy almost daily
USKA	29500.0	0806	10	02			FMCW	25 sps	20k	OTHR
USKA	29560.0	1300	06	02			FMCW	50 sps	20k	OTHR

## Veron 1 – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SHIFT	DETAILS
VERON	3554,0	22.43	1	2	TUR	UiMux	PSK8	2k4	
VERON	3689,5	22.40	1	2		UiBC	A3E		Music; bad modulation; s9
VERON	3717,0	18.19	1	2					Frequency hopper
VERON	7018,0	18.32	8	2	RUS	REA4	F1B		Revs, bad signal Airforce Moscow
VERON	7018,0	19.30	19	2	RUS	REA4	F1B	1K	Revs, bad signal Airforce Moscow
VERON	7018,0	15.39	3	2		UiPTR	F1B		Revs/Dotter (followed by: 5F)
VERON	7018,0	15.41	3	2	RUS	REA4	F1A		03150 99900 5F
VERON	7018,0	16.39	20	2		UiPTR	F1B		Revs/Dotter (followed by: 5F)
VERON	7018,0	16.41	20	2	RUS	REA4	F1A		20160 99900 5F (ending: rpt al QLN k)
VERON	7018,0	15.29	1	2	RUS	UiPtr	F1B	1k	Printer;idle
VERON	7018,0	13.22	23	2	RUS	UiPtr	F1B	1k	Printer;idle; bad modulation
VERON	7018,0	15.41	23	2	RUS	REA4	F1A		23150 99900 5F
VERON	7038,7	vt	vd		UKR	D	A1A		beacon
VERON	7038,7	18.46	22	2	UKR	D	A1A		Beacon Sevastopol
VERON	7038,8	vt	vd	2	RUS	P	A1A		beacon
VERON	7038,8	vt	vd	2	RUS	P	A1A		Beacon Kaliningrad
VERON	7038,9	15.25	1	2	RUS	S	A1A		Beacon Severomorsk
VERON	7074,0	11.26	22	2					Frequency hopper
VERON	7120,0	19.00	10	2	SOM	R.Har	A3E		speech and music
VERON	7120,0	19.36	19	2	SOM	R.Har	A3E		speech and jamming on QRG
VERON	7120,0	18.08	1	2	SOM	R.Harga ysa	A3E		s5-7; Arab speech
VERON	7149,0	20.03	3	2		UiCAR	NON		carrier, S9
VERON	7166,0	19.30	26	2		UiCW	A1A		5F
VERON	14023,0	15.45	23	2		UiPTR	F1B		Ptr
VERON	14024,0	09.24	25	2		UiPTR	F1B		Ptr
VERON	14140,0	17.55	23	2		UiPtr	F1B	500	Printer
VERON	14141,0	10.37	4	2		UiPTR	F1B		Ptr
VERON	14192,0	13.21	17	2		UiPTR	F1B		Revs/Ptr (also at: 20/2 09.23)
VERON	14192,0	11.10	23	2	RUS	UiPtr	F1B	400	Printer
VERON	14225,0	10.22	22	2		UiRadar	FMCW	20k	50sps
VERON	21397,0	14.15	13	2		OTHR	FMCW		radar, 20 KHZ wide
VERON	21438,0	15.40	19	2	RUS	RCV	A1A		RKZ de RCV QTC 253 Prognoz Pogody
VERON	28040,0	10.18	13	2		OTHR	FMCW		radar
VERON	28130,0	10.49	27	2		OTHR	FMCW		radar, 20 KHZ wide
VERON	28472,0	13.36	23	2					Frequency hopper
VERON	28498,0	12.00	1	2					Frequency hopper
VERON	28595,0	13.39	1	2	CIS		F3E		Taxi traffic
VERON	28655,0	12.41	1	2	CIS		F3E		Taxi traffic

# The monitoring team of IARU Region 1

## Many thanks for your interest!

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