



# Monitoring System

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The monthly newsletter for Region 1

## June 2016

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



### Acknowledgements

ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4NU - Ted ++ ASTRA: DL1BDF – Mustapha ++ DARC: DK2OM – Wolf ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVS: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: M0VRR - Vaughan ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: 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 ++ PTTs: BAKOM (Swiss), BNetzA Konstanz (Germany) ++ OFCOM (UK) ++ Dutch AT ++ YO9RIJ – Petrica

# Part 1: News and Infos

## 1. Hamradio 2016 Friedrichshafen



Wolfgang Hadel, DK2OM, was awarded the Region 1 Medal by IARU Region 1 President Don Beattie, G3BJ, to recognise his ongoing exceptional leadership of the successful IARU monitoring system.  
(original text from the IARU Region 1 Homepage)

### Wolfgang's comment:

**“Being the leader of an excellent team is a great honour.”**

Many thanks to the IARU, DARC, German BNetzA, European PTTs, Coordinator Team, magazine Funkamateure, SWLs and all contributors and friends for the assistance during more than ten years. Grateful words to DJ9KR - the earlier leader of the DARC Monitoring System and earlier Vice-Coordinator of IARUMS Region 1. Many thanks to HB9CET, leader of the USKA Monitoring System and Vice-Coordinator of the of IARUMS Region 1, for his great ideas and assistance.

Photo: G4JKS, Hilary



DL7TZ, Dr. Ing. Christof Rohner (Rohde&Schwarz Company), gave us an excellent lecture about **“Monitoring and bearing today”**.

**We had more than 180 listeners!**

**Many thanks dear Christof, great job!**

## 2. Russian Navy on 14192 kHz on FSK disturbed by a Ham

The Russian Navy is transmitting on 14192.0 on FSK (= F1B) since more than 10 years. Parameters. 50 and 75 Bd – 200 and 500 Hz shift, sometimes only idling. A German HAM (location area of Wittenberge) sometimes tried to disturb the emissions by transmitting dashes on the space QRG. Absolutely not helpful!

## 3. 6998.5 Polish MIL – no change

Polish Military was still transmitting on 6998.5 kHz on MIL-188-141A (ALE), MIL-188-110A and USB voice traffic. The 7 MHz-band was affected up to 7001.5 kHz every morning at about 07 utc. The German PTT (BNetzA) sent an official complaint to the Polish PTT in February 2016.

## 4. “Sound of Hope” - BC from Taiwan and Chinese jammer on 18080 kHz still active

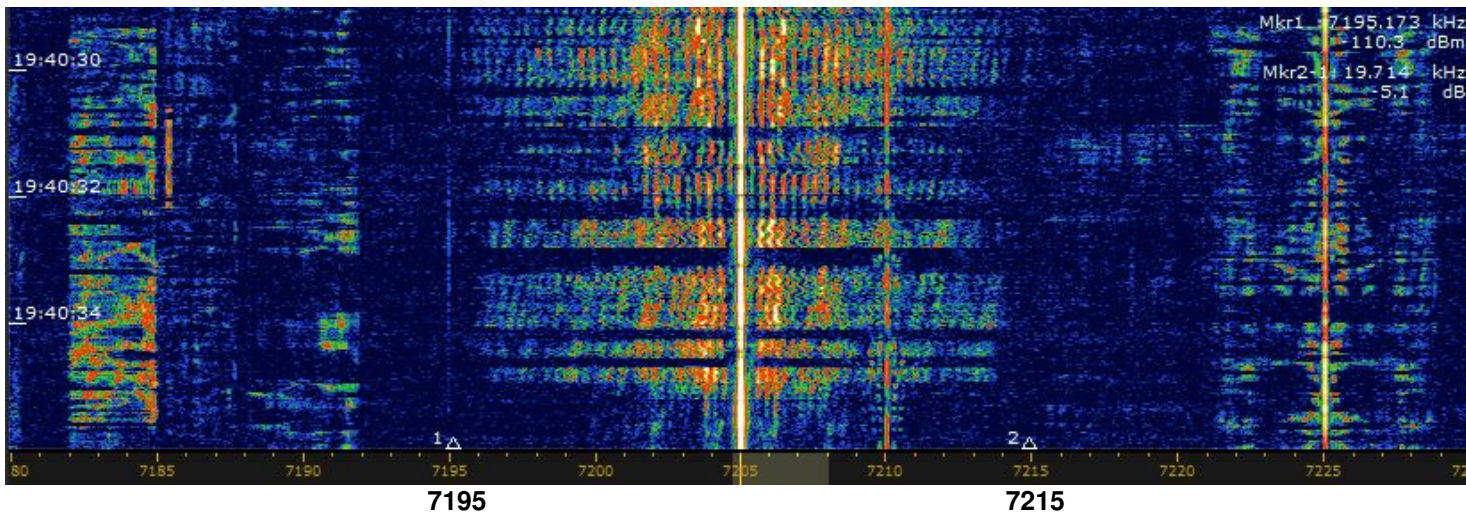
Sound of Hope was audible with BC transmissions on 18080 kHz together with the Chinese mainland jammer every morning at about 6 utc and later under daylight conditions. The Chinese jammer was much stronger than SOH. The BC transmissions on this band are illegal. The German PTT sent an official complaint.

## 5. Illegal fishery traffic on all bands

Illegal fishery traffic was observed on all bands as usual, mostly coming from Spain, Portugal, UK and Morocco. They often abused the CW-ranges of our bands.

## 6. BC problems from 7205 kHz

IRIB Tehran on 7205 produced again strong spurious emissions down to 7195 kHz daily from 1920 – 1950 utc, The German PTT (BNetzA) sent an official complaint in May 2016. Screenshot: DK2OM with Perseus on June 30<sup>th</sup>.



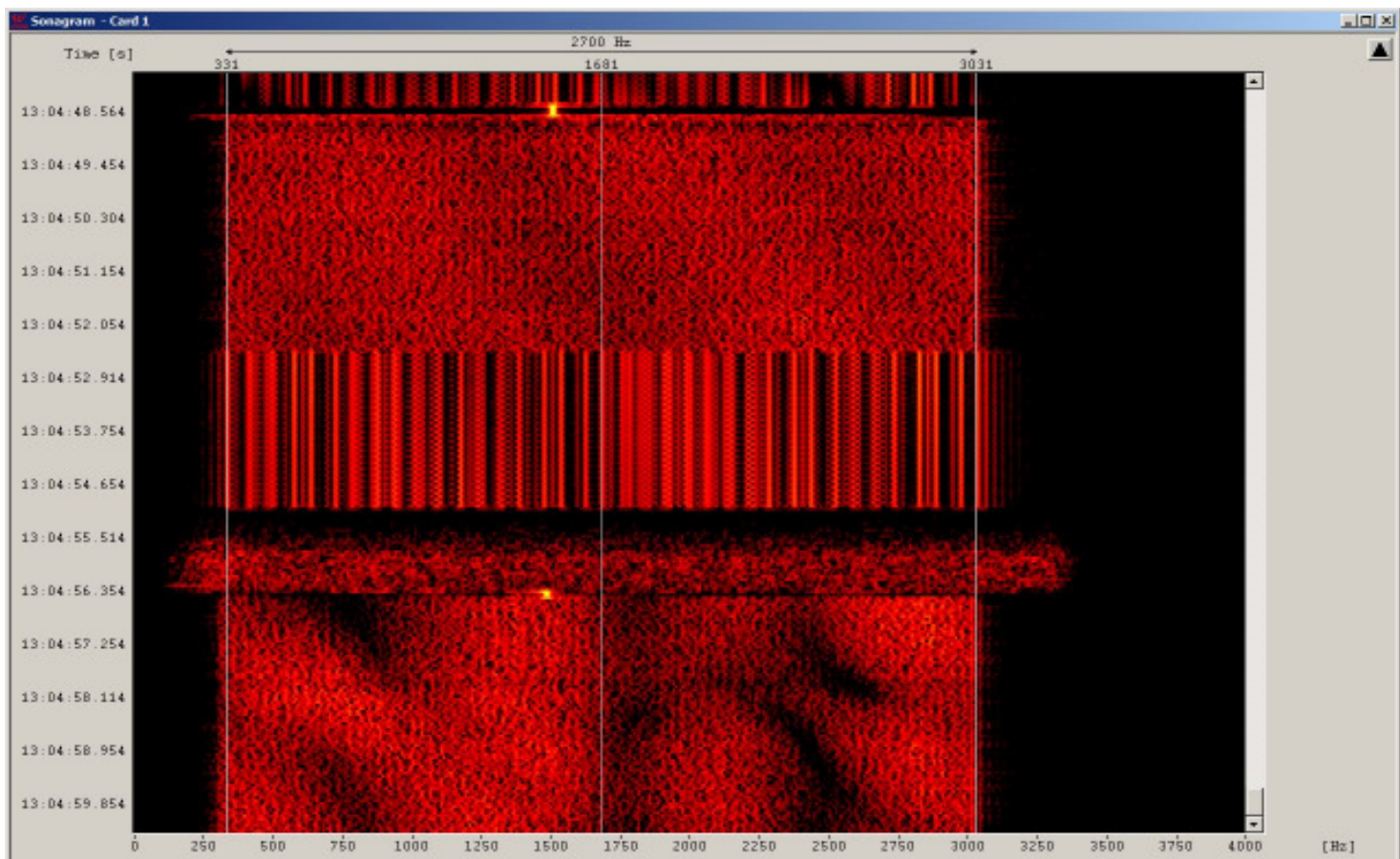
## 7. Radar Iran on 28960 kHz daily – OTHR ?

The Iranian radar was daily transmitting 28960 kHz on FMOP with 150 and 313 sps covering about 50 kHz. The sweep rates are much too high for a long range OTH radar. It could be that the radar is used for short and medium distances (unconfirmed).

## 8. HFD+VL on 18080 kHz

HB9CET, Peter, found a HFD+VL system on 18080.0 RF QRG on June 30<sup>th</sup>. Parameters: OFDM 73 burst mode, covering 2700 Hz, intro tone at 1500 Hz, each carrier with PSK4 and 30 Bd,. Experimental transmissions operated by the University of Las Palmas – Spain. Screenshot: DK2OM - Sonagram with Wavecom W-Code

Soundfile: <http://www.iarums-r1.org/iarums/sound/ofdm73-burst.wav>



## 9. Homepage IARU Region 1

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

Homepage IARUMS Region 1

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

Homepage IARUMS Region 2

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

Homepage IARUMS Region 3

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

Intruderlogger Region 1

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

ITU-Monitoring Reports

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

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

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

### ARSK MONITORING OVERVIEW FOR JUNE 2016

Radio Hargeisha remained on 7,120 kHz with broadcasts. As usual there were some local or Central African intruders observed on 7,000, 7,074 and 7,075 kHz.

E.H.M. Alleyne, 5Z4NU - ARSK National IARUMS Co-ordinator

#### ARSK – Kenya – 5Z4NU (Ted)

N.A.

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

DG0JBJ (Mario) observed **2** OTH radars on 40 m, **27** OTH radars on 20 m, **23** OTH radars on 17m, **11** OTH radars on 15 m and **0** OTH radars on 10 m in June 2016.

The Iranian radar on 28960 kHz has not been registered. (DK2OM)

#### 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	1812,0	1954	29	06	RUS		USB LSB			14 tones – hyperbolic radio navigation system – BRAS-3/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	---	--	06	F		FMCW		20k	French burst radar, 6 sps, similar Codar sounding, South France
DK2OM	3500,0	vt	dly	06	TUR		FSK8	125	1750	ALE, “2016” “4017” – Turkish Red Crescent – just for info!
DK2OM	3501,0	vt	dly	06	UKR		FSK8	125	1750	ALE, “H10” “B10” “I10” “D10” “G10”
DK2OM	3503,5	1945	02	06	G	no ITU	FSK8	125	1750	ALE – “XSS” “XPU” “XJR” – British MIL Tascomm – vt, daily - legal!
DK2OM	3512,0	2002	02	06	E		USB			Spanish fishery
DK2OM	3524,0	1929	02	06	RUS		F1B	75	250	Kaliningrad
DK2OM	3525,0	2108	01	06	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Marseille – legal!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3531,0	2005	01	06	RUS	REA4	N0N			unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily
DK2OM	3532,0	2034	10	06	F		PSK4	75	5800	LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal!
DK2OM	3535,0	1920	10	06	HOL		USB			Dutch fishery
DK2OM	3544,8	ady	dly	06	TUR		PSK8	2400	2400	Stanag-4285 – 600 bps long - Ankara
DK2OM	3545,5	2005	03	06	E		USB			Spanish fishery
DK2OM	3550,0	0530	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	3553,8	1928	04	05	TUR		PSK8	2400	2400	Stanag4285 – 600 bps long -TUR MIL - Ankara – daily, all day - legal operation
DK2OM	3560,0	1713	01	06	E		USB			Spanish fishery – also 06.06.2016 at 1940 utc
DK2OM	3560,0	1835	07	06	HOL		USB			Dutch fishery
DK2OM	3576,6	ady	dly	06	I	IZ3DVW	A1A			3576.550 - uncoordinated beacon – disturbing JT65
DK2OM	3585,0	1919	01	06	TWN	HLL	FIC		800	WX-fax Taiwan - 120 rpm, IOC 576, - daily, all day - legal!
DK2OM	3586,0	vt	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	3590,0	vt	dly	06	PAK	no ITU	FSK8	125	1750	ALE, “KW” “KHAIBAR” – Pakistan navy
DK2OM	3590,0	0901	28	06	E		USB			Spanish fishery
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	3595,0	---	--	06	RUS	K	A1A			Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - “RCC”
DK2OM	3596,0	vt	dly	06	D		FSK8	125	1750	ALE, “DK0ESD” – just for info!
DK2OM	3617,0	vt	dly	06	HRV	9A5EX	FSK8	125	1750	ALE, “9A5EX” – HAM-ALE - just for info
DK2OM	3622,5	1918	01	06	J	JMH	FIC		800	Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!!!
DK2OM	3640,0	vt	dly	06	G		FSK8	125	1750	ALE, “XSS” - British MIL Tascomm – just for info!
DK2OM	3642,0	ady	dly	06	CHN		A1A			loop – DKG6 de 3A7D Chinese military – daily, all day
DK2OM	3648,0	---	--	06	ARS		FSK8 LSB	125	1750	ALE, “AAF” “AAN”
DK2OM	3649,0	vt	vd	06	ALG	no ITU	FSK8	125	1750	ALE, “BI20” PA20”
DK2OM	3656,0	1441	30	06	CHN		FSK8	125	1750	ALE, “256”
DK2OM	3658,0	---	--	06	UZB		A1A			beacon “V” - Tashkent
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	3751,0	ady	dly	06	FEa		A1A			“99 ?? 2T48 ??” - loop
DK2OM	3751,5	vt	dly	06	POL	no ITU	FSK8	125	1750	ALE, “IZ3” “MI3”
DK2OM	3756,0	2020	14	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	3761,5	vt	vd	06	POL	no ITU	FSK8	125	1750	ALE, “NI9” “PL7” “AB2” – Polish MIL
DK2OM	3772,0	ady	dly	06	FEa	A4JC	A1A			“A4JC” - loop
DK2OM	3777,0	ady	dly	06	FEa		A1A			“M8JF de RIS9” – loop – dly

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	3791,0	vt	vd	06	D	DK0ESD	FSK8	125	1750	ALE, "DK0ESD" – daily just for info!
DK2OM	3797,0	ady	dly	06	FEa		A1A			"M8JF de RIS9" – loop
DK2OM	6998,5	vt	dly	06	POL		FSK8 PSK8 USB	125 2400	1750 2400	ALE, "ZE2" "OL1" "GO7" "BU2" "MA3" "SZ4" and MIL-188-110A – until 7001.500 kHz – Polish MIL
DK2OM	7000,0	vt	dly	06	INS		USB LSB			Indonesian pirates – daily – all day - audible in Europe in the evenings
DK2OM	7000,0	ady	dly	06	RUS		H3E		3.4 k	buzzer – 1 sec bursts - 118 Hz AF rough sinus – carrier on 6998.0 + upper sideband - with splatters 10 kHz wide – daily, all day - Moscow
DK2OM	7000,0	vt	dly	06	?	no ITU	FSK8	125	1750	ALE, "210" "20989" "2205" "203"
DK2OM	7000,0	vt	dly	06	CHN		FSK8	125	1750	ALE, "157" "162"
DK2OM	7001,5	0700	vd	06	POL		PSK8	2400	2400	RF QRG 6998.5 kHz – 7000.3 kHz center - MIL-188-110A – 600 / 300 bps short – Polish MIL
DK2OM	7001,6	1930	05	06			LSB			pirates, unid language
DK2OM	7005,0	vt	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7008,0	1740	22	06	RUS		F1B	75	250	Omsk
DK2OM	7010,0	vt	dly	06	INS		USB LSB			Indonesian and Philippine pirates
DK2OM	7010,0	0657	15	06	RUS		PSK2A	120	2600	AT3004D – submode idle and traffic - Kaliningrad
DK2OM	7015,0	vt	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7016,0	0728	01	06	RUS		F1B	75	250	Kazan
DK2OM	7018,0	---	--	06	RUS	REA4	F1B	100	800	mostly idling – Russian airforce Moscow – ident at full hour + 41 min. on F1A
DK2OM	7020,0	vt	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7020,0	---	--	06	ALB		FSK8	125	1750	ALE, "CS004A" "RS008D" "RS0" – Albanian coast - daily
DK2OM	7022,0	0715	23	06	RUS		PSK2A	120	2600	AT3004D - Kaliningrad
DK2OM	7025,0	vt	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7027,5	1642	08	06	KAZ	„V“	A1A			beacon "V" – Almaty – daily, all day
DK2OM	7030,0	vt	dly	06	INS		LSB			Indonesian pirates
DK2OM	7030,0	2000	22	06	RUS		PSK2A	120	2600	AT3004D – Far East Russia
DK2OM	7035,0	vt	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7038,0	1640	25	06	CHN		FSK8	125	1750	ALE, "651"
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	2022	27	06	RUS	F	A1A			Cluster beacon F - Vladivostok RUS Navy - "RJS"
DK2OM	7039,3	2020	27	06	RUS	K	A1A			Cluster beacon K Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - "RCC" - daily
DK2OM	7039,4	ady	dly	06	RUS	M	A1A			Cluster beacon M – Magadan RUS Navy – „RTS“ – distorted with spurious emissions
DK2OM	7040,0	vt	dly	06	INS		USB LSB			Indonesian pirates
DK2OM	7040,0	vt	dly	06	F	F6BAZ	FSK8	125	1750	ALE, "F6BAZ" – just for info
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	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	7048,0	1912	01	06	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7048 – 7080 kHz
DK2OM	7049,5	vt	vd	06	HRV G F	9A0ALE M1DFO F6BAZ	FSK8	125	1750	Amateur ALE, just for info! daily – various times
DK2OM	7055,5	vt	vd	06	MEa	no ITU	FSK8	125	1750	ALE, “111” “132” “133” - Kaukasus
DK2OM	7070,0	vt	vd	06	GEO	no ITU	FSK8	125	1750	ALE, “MV” “244” “686” “334” “204” “571” – daily active
DK2OM	7088,8	0725	10	06	S	SL0FRO	A1A			7088.830 kHz - cw-trainee, Sweden - SL0FRO - just for info!
DK2OM	7089,8	1855	01	06	TUR CYP		PSK8	2400	2400	Link11 - SLEW – aircraft – west of Cyprus
DK2OM	7091,5	---	--	06	KAZ	„V“	A1A			loop – ident “V” – Almaty - Kazakhstan
DK2OM	7092,0	vt	vd	06			FSK8	125	1750	ALE, “3014”
DK2OM	7099,0	vt	vd	06	CHN		FSK8	125	1750	ALE, “126” “151” “161”
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, “9A0MIL” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info!
DK2OM	7110,0	vt	dly	06	HRV	9A0ALE	FSK8	125	1750	ALE, “9A0ALE” – just for info
DK2OM	<b>7120,0</b>	<b>vt</b>	<b>dly</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	---	--	06	FEa	V	A1A			loop “V”
DK2OM	7124,0	0735	21	06	RUS		PSK2A	120	2600	AT3004D – Moscow – pilot tone disturbed by a German HAM – area of Wittenberge
DK2OM	7125,0	1427	27	06	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7125 – 7157 kHz
DK2OM	7134,0	vt	vd	06	CHN		FSK8	125	1750	ALE, “101” “109”
DK2OM	7137,0	vt	dly	06	TWN		FSK8 LSB	125	1750	ALE, “CBIUN” “CBWPC” “CQYTX” “CAPLJ” “CTFOJ” “CEGTO” “CSNYI” “CEIPN” “CRXWT” - Taiwanese navy – daily
DK2OM	7138,0	1502	21	06	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7138 – 7170 kHz
DK2OM	7140,0	vt	vd	06	FEa		FSK8	125	1750	ALE. “1111”
DK2OM	7156,0	1819	15	06	FEa		FMCW		32k	Codar like ocean surface radar 2.6 sps – 7156 – 7188 kHz
DK2OM	<b>7163,0</b>	<b>---</b>	<b>--</b>	<b>06</b>	<b>UKR</b>		<b>A3E</b>			<b>encrypted MSGs - SZRU in Rivne</b>
DK2OM	7170,0	vt	vd	06	CHN	no ITU	FSK8	125	1750	ALE, “103” “103”
DK2OM	7183,0	vt	dly	06	SUI		FSK8	125	1750	ALE, “HB9MHB” – just for info!
DK2OM	7185,5	0747	16	06	D HRV		FSK8	125	1750	ALE, “9A5EX” “DK0ESD” just for info - daily
DK2OM	7186,0	1942	27	06	RUS		PSK2A	120	2600	AT3004D – submode idle - Severomorsk
DK2OM	7197,0	1921	29	06	TUR	no ITU	FSK8	125	1750	ALE, “206102” “318013” “328013” “355013” “365013” “329018” – Turkish organisations and Turkish Civil Defense - source: DL8AAM – daily, various times
DK2OM	<b>7200,0</b>	<b>---</b>	<b>--</b>	<b>06</b>	<b>MMR</b>		<b>A3E</b>			<b>Myanmar Radio – 0930 – 1500 utc</b>
DK2OM	<b>7200,0</b>	<b>---</b>	<b>--</b>	<b>06</b>	<b>TWN</b>		<b>A3E</b>			<b>Radio Taiwan Int. – 1000 – 1300 utc</b>
DK2OM	<b>7205,0</b>	<b>1930</b>	<b>13</b>	<b>06</b>	<b>IRN</b>		<b>A3E</b>		<b>20k</b>	<b>Voice of Iran with splatters down to 7195 kHz and up to 7215 kHz – 1920 – 1950 utc daily</b>

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	10100,8	ady	dly	06	D		F1B	50	450	Baudot - German Weatherservice – legal!
DK2OM	10110,0	1711	05	06	SNG	no ITU	FSK8	125	1750	ALE, “CN6” “68” – Singapore Navy - Changi Naval Base
DK2OM	<b>10110,0</b>	<b>1835</b>	<b>03</b>	<b>06</b>	<b>TUR</b>		<b>A3E</b>			<b>intermodulation from 9460 and 9785 kHz(2 x 9785 – 9460 = 10110 kHz)</b>
DK2OM	10110,0	1714	05	06	GRC		FSK8	125	1750	ALE, “GEF” – Greek Airforce
DK2OM	10113,0	vt	vd	06	TUN	no ITU	FSK8	125	1750	ALE, “TUD” “STAT5” “STAT154”
DK2OM	10114,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “BSF” “ZEN” “CM2OR2”
DK2OM	10114,8	0730	01	06	RUS		F1B	100	1000	CIS14 – Moscow - daily
DK2OM	10115,0	1723	15	06	MRC	no ITU	FSK8	125	1750	ALE, “100” “114” “201” “XXZ” – Western Sahara
DK2OM	10116,5	---	--	06	AFS		F7D	54.3	2120	MHF50 – 33 tones - South African navy
DK2OM	10116,8	1721	15	06			PSK8A	2400	2400	Stanag-4285 – 600 bps long -
DK2OM	10120,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “CM6” “01012016”
DK2OM	<b>10120,0</b>	<b>1657</b>	<b>06</b>	<b>06</b>	<b>IRN</b>		<b>A3E/BC</b>		<b>9k</b>	<b>Voice of Iran - intermod. from 9580 and 9850 kHz – location Zahedan</b>
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	10130,0	0729	11	06	E		USB			Spanish fishery
DK2OM	10130,0	vt	dly	06			FSK8	125	1750	ALE, “1144” “1608”
DK2OM	10131,0	1514	01	06	RUS		F1B	75	250	St. Peterburg – also 30.06.2016 at 0928 utc
DK2OM	10134,0	1533	29	06	RUS		FMCW		20k	OTH radar – area of Nishny Novgorod
DK2OM	10136,0	vt	dly	06	ALG	no ITU	FSK8	125	1750	ALE, “CM3” “BLD” “CNC” “TF2”
DK2OM	10140,0	vt	dly	06	CHN	no ITU	FSK8	125	1750	ALE, “664” “205” “201” “LT”
DK2OM	10144,0	ady	dly	06	D	DK0WCY	A1A			DK0WCY – German aurora beacon – <b>just for info!</b>
DK2OM	10145,5	vt	dly	06	SUI	HB9MHB	FSK8	125	1750	ALE, “HBMHB” - just for info - daily
DK2OM	10145,5	vt	dly	06	TWN AUS	BV4AS	FSK8	125	1750	ALE, “BV4AS” “VK4SAA” – just for info!
DK2OM	14000,0	1551	15	06	FEa		USB			pirates from Java Sea - daily
DK2OM	14000,0	0950	06	06	E		USB			male persons in African language - Barcelona
DK2OM	14000,0	0810	14	06	ISR		NON			carrier – 14000.004 kHz
DK2OM	14001,5	2112	02	06	FEa		USB			Far East intruders
DK2OM	14001,5	1618	08	06			USB			
DK2OM	14004,8	1337	02	06	FEa		USB		2000	voice and defective vocoder
DK2OM	14006,0	1452	16	06	RUS		PSK2	120	2600	AT3004D – submode idle - Moscow
DK2OM	14008,0	0640	01	06	RUS		F1B	50	250	Moscow – also 12.06.2016 at 0748 utc
DK2OM	14019,0	1325	02	06			USB			unid voice traffic
DK2OM	14026,6	0804	06	06	CHN		OFDM	44.44	2425	RF QRG 14025! - OFDM 39 – PSK4B and USB voice traffic
DK2OM	14050,0	0853	02	06	RUS		F1B	50	250	Irkutsk
DK2OM	14052,0	0900	10	06			unid		2500	broken signal -
DK2OM	14081,8	1009	17	06			F1B	50	250	
DK2OM	14083,0	0944	07	06	RUS		PSK2	120	2600	AT3004D – modem idle – area of Jekaterinburg
DK2OM	14085,0	0642	07	06	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	14091,0	0930	14	06			PSK2	120	2600	AT3004D – submode idle -
DK2OM	14095,9	0430	02	06	IRN		A1A			beacon “EP4HR” – just for info
DK2OM	14100,0	1735	16	06	ALG	no ITU	FSK8	125	1750	ALE, “6206” “6204” “6212” “6202” “6203” “6207” “6217” “MTL” “IJ” – Mauritanian border – daily, all day



DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14100,0	1728	16	06	E		USB			Spanish fishery with family traffic – male and female persons
DK2OM	14100,0	1834	16	06	F		FMCW		20k	French OTH burst radar, 6 sps, similar Codar sounding, South France
DK2OM	14103,9	0846	09	06			F1B	63	500	
DK2OM	14108,0	0953	03	06	RUS		A1A			CW encrypted – RUS MIL Moscow
DK2OM	14109,0	vt	dly	06	S	HAM	FSK8	125	1750	ALE, “SM3FXL” – just for info!
DK2OM	14109,0	vt	dly	06	RUS	RV3APM	FSK8	120	1750	ALE, “RV3APM” – just for info!
DK2OM	14116,0	0816	12	06	RUS		F1B	75	250	Moscow
DK2OM	14116,0	1011	17	06	RUS		F1B	50	250	Moscow
DK2OM	14132,0	0721	04	06	RUS		FMCW		13k	OTH radar Contayner - 50 sps – Gorodezh – splattering +/- 40 kHz – also 06.06.2016 at 0958 utc
DK2OM	14160,0	vt	dly	06	MRC		FSK8	125	1750	ALE, “9204” “9228” “9236”
DK2OM	14160,0	1012	17	06	RUS		F1B	50	200	Moscow
DK2OM	14192,0	vt	dly	06	RUS		F1B	50 75 50 200		RUS navy Kaliningrad - daily
DK2OM	14192,0	0825	12	06	RUS		F1B	50	200	broken signal - RUS navy Kaliningrad
DK2OM	14201,8	2130	04	06	CHN		PSK2	75	2200	PRC 16 tone modem – USB mode – pilot tone 450 Hz - RF 14300.0 kHz - China – Shanghai
DK2OM	14205,0	vt	dly	06	CHN	no ITU	FSK8	125	1750	ALE, “505” “822”
DK2OM	14220,0	0819	08	06	RUS		F1B	50	500	Kaliningrad
DK2OM	14221,0	vt	dly	06	KGZ		F1B	50	200	CIS-50-50 - Bishkek – daily
DK2OM	14223,5	---	--	06	RUS		F1B	600	600	DPRK-FSK 600 - DPRK emba Moscow
DK2OM	14232,0	0855	13	06	RUS		FMCW		13k	OTH radar Contayner - 50 sps Gorodezh
DK2OM	14233,4	0335	02	06	CBG		F1B	600	600	DPRK-FSK 600 – Phnom Penh North Korean diplo
DK2OM	14239,0	---	--	06	CHN		PSK4	60	2350	PRC 30 tone modem – LSB mode – LSB QRG – pilot tone 450 Hz
DK2OM	14242,0	0846	15	06	RUS		PSK2A	120	2600	AT3004D – Moscow – also 29.06.2016 at 0840 utc
DK2OM	14257,9	0920	20	06	RUS		F1B FSK4	50	500 850	Moscow
DK2OM	14260,0	vt	dly	06	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14260,9	1005	21	06	RUS		OFDM PSK4B	33.33	2750	OFDM 60 – PSK4B + RUS voice traffic USB on 14259,0 - Moscow
DK2OM	14265,0	vt	vd	06	TUR	no ITU	FSK8	125	1750	ALE, “526”
DK2OM	14272,0	---	--	06	RUS	RCV	A1A			RUS Navy Sevastopol
DK2OM	14292,0	---	--	06	RUS		A1A			idents: KONL – QPRR – QPRJ – QPNR - Moscow
DK2OM	14295,0	vt	dly	06	SRB	YU1BI	FSK8	125	1750	ALE, “YU1BI” – just for info!
DK2OM	14295,0	ady	dly	06	TJK		A3E		9k	3 <sup>rd</sup> from Radio Tajik on 4765 kHz – daily, all day
DK2OM	14301,8	---	--	06	CHN		PSK2	75	2200	PRC 16 tone modem – USB mode – pilot tone 450 Hz - RF 14300.0 kHz - China – Shanghai – daily – all day
DK2OM	14310,0	0858	18	06	CHN		FMCW		40k	OTH radar China – 42 sps
DK2OM	14330,0	vt	dly	06			FSK8	125	1750	ALE, “BV4”
DK2OM	14334,0	vt	vd	06	CHN	no ITU	FSK8	125	1750	ALE, “249” “255” “763”
DK2OM	14340,0	1320	06	06	RUS		PSK2A	120	2600	AT3004D – Vladivostok – also 23.06.2016 at 1410 utc
DK2OM	14344,7	--	---	06	CHN		PSK8	2400	2400	modified MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day
DK2OM	14346,0	vt	dly	06	THA	HSOZEA	A1A			HSOZEA beacon – 14345.950 kHz - every 5 minutes – daily - just for info!

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	14346,0	vt	dly	06	POR		FSK8	125	1750	ALE, "CT2IXQ" just for info – various times, daily
DK2OM	14351,7	0843	29	06	E		OFDM	30	2700	OFDM 73 + intro tone – experimental transmissions – Las Palmas – just for info!
DK2OM	18080,0	0600	dly	06	TWN		A3E/BC			Sound of Hope – Taiwan and Chinese BC jammer – daily at 06 utc and later
DK2OM	18081,7	1619	30	06	E		OFDM PSK4	30	2700	RF 18080.0 - OFDM 73 with intro tone – system HFD+VL – Las Palmas
DK2OM	18100,0	vt	dly	06	MRC	no ITU	FSK8	125	1750	ALE, "A2" "A4" "A5" "A7" "S6" – "C3" "G401" "CD" "09" "G2" "LG6" "G301" "ELJADIDNET4" - daily, various times
DK2OM	18106,0	vt	vd	06	POR	CT2GOY	FSK8	125	1750	ALE, "CT2GOY" – just for info!
DK2OM	18107,0	vt	vd	06	RUS	RDL	F1B	50	200	CIS-50-200 - Moscow – idle and traffic – Russian navy – various days and times – shared band!
DK2OM	18117,5	vt	vd	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	0820	14	06	RUS		F1B	100	1000	harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad
DK2OM	21000,0	1208	04	06	FEa		USB			Far East pirates - daily
DK2OM	21000,0	2015	06	06	B		USB			Brazilian pirates – Rio de Janeiro with North Brazil – very often
DK2OM	21000,0	---	--	06	SDN		USB			MFA Sudan – Khartoum with emba Yemen – voice traffic
DK2OM	21000,0	1932	09	06	F		FMCW			French OTH burst radar – every 15 minutes – South France
DK2OM	21000,0	1235	30	06	UKR		USB			UKR-MIL voice traffic – West-UKR
DK2OM	21000,5	1700	28	06	E		USB			Spanish fishery
DK2OM	21002,2	---	--	06	SDN	!0000 !9999 !8888	F1B	100	170	21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen
DK2OM	21096,0	vt	dly	06	INS	YD00XH	FSK8	125	1750	ALE, "YD00XH3" – daily, various times - just for info!
DK2OM	21111,0	1540	13	06	FEa		LSB			Far East pirates
DK2OM	21120,0	1413	19	06	TUR		FMCW		20k	OTH radar – 50 sps
DK2OM	21131,0	vt	vd	06	CHN	no ITU	FSK8	125	1750	ALE, "A92" "L02" – Chinese diplo
DK2OM	21141,0	---	--	06	GEO		PSK8A	2400	2400	Stanag4538 – GEO MIL with AFG - daily
DK2OM	21145,0	vt	dly	06	MRC	no ITU	FSK8	125	1750	ALE, "B301", "C3", "IR4" "T4" "E4" "A2" "CD" "K3" "KB2" "J5" "GS4" "R3" – various times, daily
DK2OM	21145,8	1937	06	06	I	IZ3DVW	A1A			IZ3DVW beacon – 21145,770 kHz – daily, all day - not coordinated with IARU
DK2OM	21160,0	---	--	06	RUS		F1B	100	2000	4th from 5290 kHz (500 Hz shift) – St. Peterburg
DK2OM	21190,0	---	--	06	RUS		F1B	100	1000	harmonic from 10595 kHz - Moscow - daily
DK2OM	21318,5	0926	09	06			F1B	600	600	DPRK-FSK 600 -
DK2OM	21353,5	1609	08	06	GAB		F1B	1200	600	DPRK-FSK 1200
DK2OM	21378,0	0938	09	06				1750	4800	intro tone
DK2OM	21400,0	---	--	06	RUS		F1B	50	2000	harmonic from 5350 kHz – area of Moscow - daily
DK2OM	21409,5	---	--	06	RUS		F1B	100	2000	F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily
DK2OM	21436,0	---	--	06	RUS		PSK2A	120	5200	AT3004D – harmonic from 10718.0 kHz - Sevastopol
DK2OM	21438,0	vt	dly	06	RUS	RCV	A1A			RIP90, RCV, RGX94 - RUS

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Navy Sevastopol - daily
DK2OM	21446,0	ady	dly	06	THA	HS0ZEA	A1A			HS0ZEA beacon – every 5 minutes - just for info!
DK2OM	21448,5	1614	08	06			F1B	1200	600	DPRK-FSK 1200 -
DK2OM	25000,0	0843	15	06	FIN		A3E			time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day
DK2OM	28000,0	vt	vd	06	B		A3E			<b>Brazilian CBers – 28000 – 28325 – daily, all day - no change</b>
DK2OM	28000,0	vt	dly	06	CIS		F3E			<b>28000 – 29700 numerous CIS taxi nets – no change</b>
DK2OM	28000,0	1735	08	06	E		USB			Spanish pirate with echo microphone
DK2OM	28005,0	0858	28	06	RUS		F3E			RUS taxi
DK2OM	28010,0	---	--	06	POR		F1B	51	300	F1B bursts –west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28025,0	---	--	06	POR		F1B	51	300	F1B bursts – 28025.050 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28025,0	1407	09	06	POL		F3E			intruders – same as 28065
DK2OM	28030,0	---	--	06	POR		F1B	51	340	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28045,0	---	--	06	POR		F1B	51	280	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28050,0	---	--	06	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28051,5	---	--	06	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28055,0	1354	09	06	POL		F3E			intruders – same as 28065
DK2OM	28055,0	0749	18	06	RUS		F3E			RUS taxi - daily
DK2OM	28060,0	---	--	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,0	1335	09	06	POL		F3E			Polish intruders
DK2OM	28065,1	---	--	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28065,6	1640	29	06	GAB		A3E		980	carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day
DK2OM	28075,0	---	--	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	---	--	06	POR		F1B	51	300	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28085,0	1544	12	06	RUS		F3E			RUS taxi
DK2OM	28100,2	---	--	06	POR		F1B	51	300	F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28102,1	1953	07	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28115,0	0830	25	06	RUS		F3E			RUS taxi - daily
DK2OM	28125,0	---	--	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28125,0	1030	01	06	E		A3E			Spanish CBers
DK2OM	28146,0	vt	vd	06	ARG B		FSK8	125	1750	ALE, “LU8EX” “PY2TI” “DL1” – just for info!
DK2OM	28155,0	1423	16	06	RUS		F3E			RUS taxi
DK2OM	28175,0	1351	26	06	RUS		F3E			RUS taxi - daily

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
DK2OM	28200,0	---	--	06	POR		F1B	51	330	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28215,0	0935	01	06	RUS		F3E			RUS taxi - daily
DK2OM	28224,4	---	--	06	GAB		A3E			carrier and dots +/- 770 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28235,0	1005	17	06	RUS		F3E			RUS taxi - daily
DK2OM	28249,5	1916	26	06	GAB		A3E		1380	carrier and dots +/- 690 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28250,5	---	--	06	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28265,0	0826	18	06	RUS		F3E			RUS taxi
DK2OM	28275,0	0828	15	06	RUS		F3E			RUS taxi
DK2OM	28275,1	1830	08	06	AF		F1B	51	300	F1B bursts -Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28285,0	0737	18	06	RUS		F3E			RUS taxi
DK2OM	28312,5	vt	vd	06	POR	CT2IXQ	FSK8	125	1750	ALE. “CT2IXQ” – just for info
DK2OM	28315,0	---	--	06	POR		F1B	51	320	F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily
DK2OM	28345,1	---	--	06	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28435,0	----	--	06	E		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 28435.040 kHz – Costa del Sol – Malaga</b>
DK2OM	28459,8	----	--	06	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28459,9	---	--	06	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28499,8	---	--	06	MEa		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 28499.875 kHz – Persian Gulf</b>
DK2OM	28701,1	---	--	06	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28751,2	---	--	06	GAB		A3E		1080	carrier and dots +/- 540 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28845,5	---	--	06	GAB		A3E		1060	carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28901,1	---	--	06	GAB		A3E		1056	carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day
DK2OM	28960,0	0830	01	06	IRN		FMOP		55k	radar Iran – burst mode – 150 and 313 sps - daily
DK2OM	29114,0	---	--	06	RUS		F1B	100	2000	harmonic from 14557.0 kHz - Moscow
DK2OM	29249,9	1859	12	06	E		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29249.880 kHz – Spain Fuerteventura - daily, all day</b>
DK2OM	29375,0	---	--	06	I		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29374.898 kHz – Gallipoli, South Italy - daily, all day</b>
DK2OM	29387,5	---	--	06	IND		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day</b>
DK2OM	29400,0	---	--	06	USA		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29400.070 kHz - USA north-east coast – NY daily, all day</b>
DK2OM	29450,0	1859	12	06	MRC		F1B	81.9	140	<b>Datawell-buoy “Waverider” – 29449.895 kHz - area of El</b>

DK2OM	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH/SP	DETAILS
										Aaiun – Morocco - daily, all day
DK2OM	29500,0	---	--	06	G		F1B	81.9	140	Datawell-buoy “Waverider” – 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	1702	29	06	I		VFT		2300	Italian MIL - Brescia
DK2OM	29699,5	1702	29	06	I		VFT		1600	Italian MIL - Brescia

### IRTS – Ireland – EI3GYB (Michael)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS		
IRTS	3525.5	1915 to 1930	15	06	IRL or MM		USB	Group of Irish fishermen. Cork accent. Names: Dessie, Mick and Arthur		
IRTS	3525.5	2030	17	06	IRL or MM		USB	Irish fishermen. 2 male persons. One has a bad audio. Waterford accent. One is called Eric. “I’ll give you a shout in the morning!”		
IRTS	3535	0730 and again 0930 to 0940	15	06	HOL or MM		USB	Dutch fishermen, 2 male voices.		
IRTS	3535	1845 to 1855	22	06	F or MM		USB	2 drunken male French fishermen. Very strong signals.		
IRTS	3535	2220 to 2230	27	06	UK or MM		USB	Scottish fishermen, 2 male voices. Very loud.		
IRTS	3535	2010	28	06	UK or MM		USB	Scottish fishermen. 2 male voices. Discussing amount of fish caught. Big signal.		
IRTS	3545.5	1845	15	06	E or MM		USB	Spanish fishermen, 2 male voices, loud motor noise. Very bad audio on one side.		
IRTS	3560	1930	06	06	POR or MM		USB	Portuguese fishermen, 2 male voices. Very strong signals		
IRTS	3560	2000	24	06	POR or MM		USB	Portuguese fishermen, 2 male voices. Loud motor noise.		
IRTS	3566	0845	08	06	HOL or MM		USB	Dutch fishermen, several male voices. Net.		
IRTS	3559.8	1530	21	06	E or MM		USB	2 male Spanish fishermen. Both bad audio. One of them called again at 1640z, but got no reply.		
IRTS	3587	0630	07	06	HOL or MM		USB	Dutch fishermen, 2 male voices		
IRTS	3588,5	0415	07	06	E or MM		USB	Spanish fishermen, 2 male voices		
IRTS	3590	1845	07	06	E or MM		USB	Spanish fishermen, 2 male voices		
IRTS	3630	0845 to 0930	23	06	F or MM		USB	French fishermen. 3 male voices.		
IRTS	7000	1630	23	06	RUS		AM	Buzzer		
IRTS	7055	1920	24	06			LSB	Loud music Balkan style		
IRTS	7125	1335 to 2345	21	06			DIGI	Strong digital signal. Frequency unusable.		
IRTS	10131.3	2045	13	06			USB	Arab voices, two males		
IRTS	10150	2350	21	06			USB	2 male persons in Arabic. On and off until 0200z.		
IRTS	14083	0615	03	06				Strong radar signals from 14083 to 14113 kHz.		
IRTS	14100	1650 to 1745	16	06	E or MM		USB	Spanish fishermen, 2 male voices. Very strong signals. One station has bad audio. Talking about		

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	DETAILS
								good areas to catch fish.
IRTS	14192	1100	06	06	RUS		F1B	RUS Navy Kaliningrad
IRTS	14220	0840	23	06			DIGI	Very strong digital signals. Most likely a North Korean embassy in West Africa.
IRTS	14232	1325 to 1520 and beyond	29	06			DIGI	Huge wideband digital signal, 59+...+. Covering everything. Frequencies not usable anymore
IRTS	14268	1335	28	06				Radar, 14268 to 14285 kHz. Very strong, smothering everything.
IRTS	18147	0845 to 0915	22	06			DIGI	Very strong digital signals. Probably from a North Korean embassy in W. Africa.
IRTS	18147.5	0835 to 0915	28	06			DIGI	Strong digital signals, probably a North Korean embassy, West Africa
IRTS	18222	2115	11	06	E or MM		USB	Spanish fishermen, 2 male voices. Typical motor noise in the background. Very strong signals. Note: NOT HAM frequency, just for info to document Spanish fishermen's behaviour.
IRTS	28035	1355	14	06	F/Western EU		AM	French Cbers. Several male voices. Loud motor noise. Probably lorry drivers mobile.
IRTS	28115	1350	14	06	HOL		AM	Dutch Cbers, 2 male persons. Talking about soccer. Roger beep audible all the time.
IRTS	28215	1400	14	06	HOL/BEL		AM	Group of mobile Cbers, about 6 males. Very strong signals.
IRTS	28315	1405	14	06	F		AM	2 French Cbers, male voices. Seem to be mobile.
IRTS	28424.50	1245	01	06	F		USB	French Cbers with roger beeps. 2 male persons.

### KARS – Kuwait – 9K2RR (Faisal)

### MRASZ – Hungary - HA7PL (Laci)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	3514,5	1845	13	6			A1A		"Voici le coetrs cw nr 1195"
MRASZ	3524,0	1901	2	6			F1B	250	
MRASZ	3547,5	1824	6	6			A1A		"9913998366824"
MRASZ	3548,0	1815	6	6			A1A		"ZZT" "VMVMM LKVM VVMMVVV"
MRASZ	3572,0	1901	2	6			F1B	250	
MRASZ	3595,0	1747	24	6			USB		russian women, hrd: 26
MRASZ	3599,0	1725	26	6			A1A		"OLAA de NKA5 QTC K"
MRASZ	3600,0	1714	21	6			???		sharp cracks, also on 5393 kHz
MRASZ	3692,4	1911	2	6			A1A		5 letters, mixed with Cyrillic characters
MRASZ	3738,0	1904	2	6			F1B	250	
MRASZ	3756,0	1904	2	6			USB		russian women, 4 sign mixed message
MRASZ	3798,0	1909	2	6			F1B	200	
MRASZ	7000,0	1853	2	6			H3E	3,4k	buzzer, hrd on: 6, 12, 21, 24, 26
MRASZ	7020,0	1858	3	6			F1B		
MRASZ	7021,0	1308	24	6			PSK2		first rusian women in USB, then AT3004D
MRASZ	7027,5	1900	2	6	KAZ	"V"	A1A		"V" string, hrd: 3, 6, 12, 19, 21, 26, 28, 30
MRASZ	7036,0	1823	28	6			PSK2		AT3004D
MRASZ	7050,0	1853	2	6			LSB		russian chaos as usually, hrd most of days
MRASZ	7050,0	1829	21	6			LSB		russian chaos: "Achtung Achtung Achtung"
MRASZ	7055,0	1923	2	6			LSB		russian chaos as usually, hed most of days
MRASZ	7120,0	1859	2	6	SOM		A3E		Radio Harg. hrd: 6, 12, 13, 19, 21, 24
MRASZ	7124,0	1807	21	6			PSK2		AT3004D
MRASZ	7181,6	1749	24	6			N0N		
MRASZ	7205,0	1923	2	6			A3E		splatters dwn 5 kHz

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	SH	DETAILS
MRASZ	10102,5	1319	26	6			N0N		
MRASZ	10107,0	1157	17	6			F1B	200	
MRASZ	10107,8	1318	26	6			N0N		
MRASZ	10118,0	1858	2	6			F1B	250	
MRASZ	10127,0	1858	2	6			OTHR		
MRASZ	10130,0	1142	17	6			F1B	200	
MRASZ	14000,5	1755	24	6			N0N		
MRASZ	14192,0	1931	2	6			F1B	500	hrd: 26, 28
MRASZ	14192,0	1120	9	6			F1B	500	together 500 Hz and 200 Hz transmitters
MRASZ	14192,0	1120	9	6			F1B	200	together 500 Hz and 200 Hz transmitters
MRASZ	14192,0	1710	10	6			F1B	500	together 500 Hz and 200 Hz transmitters
MRASZ	14265,0	1512	9	6			OTHR		
MRASZ	14285,0	1646	12	6			OTHR		
MRASZ	14295,0	1542	9	6			OTHR		14240-14350 kHz
MRASZ	14295,0	1323	26	6	TJK		A3E		Radio Tajik, 3rd. harmonic
MRASZ	14349,9	1927	2	6			A1A		dotter, hrd: 6
MRASZ	18069,0	1635	12	6			A1A		dotter, deliberate disturbance
MRASZ	21010,0	1804	6	6			A3E		ui. BC
MRASZ	21060,0	1804	6	6			A3E		ui. BC
MRASZ	21100,0	1804	6	6			A3E		ui. BC
MRASZ	21140,0	1804	6	6			A3E		ui. BC

### OEVSV – Austria – OE3GSA (Gerd)

### PZK – Poland – SP9BRP (Jan)

### REF 1 – France – F5MIU (Francis) F5JBR (Andre)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	3509,5	0319	09	06	RUS	RMCW	CW			RMCW working RCV (comms checks and messages) in Duplex
REF	3519,5	1830	01	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3524,0	0234	01	06	RUS	Russian Military	F1B	75	250	Encrypted messages – Frequency enabled for traffic in QYT9 Mode : also exchanges informations in telegraphy mode
REF	3531,0	0309	21	06	RUS	Russian Diplomatic	CW			Network 'peer to peer' : Calling and comms check in telegraphy mode.
REF	3531,0	0309	21	06	RUS	Russian Diplomatic	F1B	50	500	Preamble type : 198 156 21 1750 Text : groups 5 letters and/or 5 figures (no cyrillics letters) Note the separators after 50 groups : = 50 = 100 = 150 ...
REF	3537,0	0325	09	06	RUS	Russian Navy	CIS-12/AT3004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode – and in USB Mode : ATICVA (is the USB callsign from RAL36)
REF	3547,5	0340	09	06	Rus	Russian Air Defense	CW			Tracking : 9958998368340 9959993368640 9958998345344 9959993343844
REF	3562,0	0418	28	06	RUS	OENZ	CW			OENZ Working 3 outstations (only calling) in simplex

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	3568,0	1824	01	06	RUS	Russian Navy	F1B	75	200	Encrypted messages – traffic in QYT9 Mode
REF	3572,0	1815	01	06	RUS	Russian Military	F1B	75	250	Encrypted messages – Frequency enabled for traffic in QYT9 Mode
REF	3578,0	1815	01	06	RUS	Russian Navy	F1B	75	200	Encrypted messages – traffic in QYT9 Mode
REF	3584,0	0801	01	06	RUS	Russian Military	CW			Response 8 outstations : For information the frequencies NET station are 3844 and 5892 kHz
REF	3586,0	1717	13	06	RUS	Russian Military	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode
REF	3595,0	0525	22	06	RUS	Russian Air Defense	USB			Tracking in Russian Voice
REF	3608,0	0245	01	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3608,0	0341	08	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3608,0	0345	09	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3608,0	0448	14	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3608,0	0534	22	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3642,0	2020	13	06	CHN	3A7D	CW			loop – DKG6 de 3A7D Chinese military
REF	3649,0	1838	12	06	RUS	APH7	CW			APH7 working outstations (comms checks :use QSA and QRK) in Duplex
REF	3683,0	1712	10	06	RUS	RJD99	CW			RJD99 working X1SU (comms checks and QTC) in Sx
REF	3683,0	0611	11	06	RUS	RJD99	CW			RJD99 working FQAN RIP93 X1SU (comms checks and QTC) in Sx
REF	3683,0	0500	12	06	RUS	RJD99	CW			RJD99 working FQAN RIP93 X1SU (comms checks and QTC) in Sx
REF	3687,0	1801	11	06	RUS	7JA3	CW			7JA3 working outstations (comms checks and Z codes) in Simplex
REF	3690,0	1401	11	06	RUS	26F8	CW			26F8 send QTCs in Broadcast
REF	3692,5	1708	14	06	RUS	Russian Military	CW			Responses 3 outstations : in comms checks with the NCW DYS2
REF	3703,0	1622	19	06	RUS	KNEB	CW			KNEB worked 11 outstations ni Duplex : comms checks, messages and Z codes for trafic in numeric mode – For information : outstations on 4638 kHz and same transmission for NET on 4213.5 kHz
REF	3709,0	1749	23	06	RUS	A2N7	CW			A2N7 working 5 outstations in Simplex (comms checks) : This network also uses the Cyrillic letters (Â Ô Û É Ch) in callsigns and daily callsigns



SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	3712,5	0523	30	06	FRA	FAV22	CW			Send Training messages with GROUPS 5 LETTERS, GROUPS 5 FIGURES and PUNCTUATION
REF	3714,0	1824	09	06	RUS	RMP	CW			RMP send QTCs (SML) for REO and outstations
REF	3714,0	1753	23	06	RUS	RMP	CW			RMP send QTCs (SML) for REO and outstations
REF	3714,0	1703	29	06	RUS	RMP	CW			RMP send QTCs (SML) for REO and outstations
REF	3740,0	0521	10	06	RUS	Russian Military	F1B	100	500	Encrypted messages
REF	3740,0	0532	14	06	RUS	Russian Military	F1B	100	500	Encrypted messages
REF	3740,0	0537	22	06	RUS	Russian Military	F1B	100	500	Encrypted messages
REF	3741,5	0230	13	06	RUS	GM TL	CW			GM TL working 7 outstations in Duplex : This network also uses the Cyrillic letters (Â Ô Û É Ch) in callsigns
REF	3765,0	0535	22	06	RUS	Russian Military	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode
REF	3765,0	0525	29	06	RUS	RHN66	CW			RFN66 worked RJC66 in Simplex : Frequency activated for Traffic in QRR3 mode : QRR3 mode is automatic telegraphy – RFN66 and RJC66 sens „SK“ at 0530UTC
REF	3771,5	1731	23	06	RUS	RJD99	CW			RJD99 worked RJE75 in duplex (Send trafic in QRR3 Mode : QRR3 is automatic telegraphy)
REF	3772,0	0435	16	06	RUS	Russian Navy	F1B	50	200	Encrypted messages – traffic to nuclear forces
REF	3775,0	1722	13	06	RUS	BKRV	CW			BKRV Wkg 4 outstations (comms checks and QTCs:A AAAA - This network also uses the Cyrillic letters (Â Ô Û É Ch) in callsigns ) in Duplex – For information : same transmission on 3242 kHz
REF	7008,0	0238	23	06	RUS	Russian Military	F1B	75	250	Encrypted messages – Frequency enabled for traffic in QYT9 Mode
REF	7016,0	0527	01	06	RUS	Russian Military	F1B	75	250	Encrypted messages – Frequency enabled for traffic in QYT9 Mode
REF	7020,0	1757	04	06	RUS	Russian Military	F1B	75	250	Encrypted messages – Frequency enabled for traffic in QYT9 Mode
REF	7117,0	1719	04	06	RUS	Russian Military	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode
REF	7125,0	0233	21	06	RUS	Russian Military	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode
REF	7162,0	0540	22	06	RUS	Russian Military	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REF	7177,0	2156	13	06	RUS	RCV	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode : For information - Frequency activated RLD69 : RCV de RLD69 QYT4 QSX 7177 and RCV send OK QWH 7177
REF	10118,0	0530	02	06	RUS	Russian Military	F1B	75	250	Encrypted messages – Frequency enabled for traffic in QYT9 Mode
REF	14108,0	0644	20	06	RUS	JHDH	CW			JHSH worked 6 outstations ni Duplex : comms checks, messages and Z codes for traffic in numeric mode – For information : outstations on 13096 and same transmission for NET on 13868 kHz
REF	14108,0	0544	22	06	RUS	8EOM	CW			8EOM worked 6 outstations ni Duplex : comms checks, messages and Z codes for traffic in numeric mode – For information : outstations on 13096 and same transmission for NET on 16868 kHz - callsigns used from June 21 to 30 - new series of callsigns from 1 July
REF	14116,0	0941	17	06	RUS	Russian Navy	F1B	50	250	Encrypted messages – naval traffic; HQ to fleet units
REF	14192,0	0825	04	06	RUS	Russian Navy	F1B	50	500	Encrypted messages
REF	14240,0	1214	10	06	RUS	Russian Military	CIS-12/AT3 004D/USB	120 per channel	2700	Encrypted messages – Traffic in QYT4 Mode
REF	14292,0	0706	21	06	RUS	GW7S	CW			GW7S working 2 outstations (Y2N3 and LW1L) in Duplex : comms checks – For information the QSX is on 14682 kHz
REF	14292,0	1212	24	06	RUS	GW7S	CW			GW7S working 2 outstations (Y2N3 and LW1L) in Duplex : comms checks – For information the QSX is on 14682 kHz
REF	21438,0	0916	17	06	RUS	RCV	CW			RCV send messages service for RIP90 in Broadcast

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

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	1855	21.33	05	06	I	IQP	J3E-U			San Benedetto Radio, wx reports dly
REP	1888	21.30	05	06	I	IPD	J3E-U			Civitavecchia Radio, wx reports YL dly
REP	1896	21.29	05	06	D		PSK8	2400		Stanag 4285 600/Ion German Navy dly
REP	1925	21.37	05	06	I	IPL	J3E-U			Livorno Radio, wx reports YLdly
REP	1951	20.15	08	06			J3E-U			Unid language fishery
REP	3505	08.20	28	06	F		J3E-U			French fishery
REP	3510	21.10	01	06			J3E-U			Fishermen
REP	3520	21.29	06	06	E		J3E-U			Spanish fishery
REP	3550	23.38	19	06	G		J3E-U			Fishermen
REP	3553	21.02	05	06	TUR		PSK8	2400		Stanag 4285, Turkey
REP	3580	07.12	02	06	RUS		J3E-U			Russian Navy (MIL)
REP	3590	08.23	28	06	E		J3E-U			Spanish fishery, CRY2000 encryption
REP	3608	21.11	05	06	RUS		F1B	50	200	CIS36, Russia
REP	3625	08.19	28	06	POR		J3E-U			Portuguese fishery
REP	3630	21.16	05	06			A1A	23		23 WPM dither jammer

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
REP	3664	21.30	06	06	E		J3E-U			Spanish fishery, Galicia province
REP	6999	21.26	23	06	B		J3E-U			Brazilian pirates, phone patch 46284
REP	7010	07.16	20	06	MRC		J3E-U			Fishermen
REP	7015	07.23	21	06	E		J3E-U			Fishermen to harbour
REP	7015	08.19	21	06	E		J3E-U			Fishermen talking about fish and Wx
REP	7020	20.52	05	06	RUS		F1B	75	250	CIS36 Russia
REP	7027	20.41	05	06	RUS	V	A1A	9		Beacon, Russia
REP	7035	20.00	17	06			FMCW			OTH radar
REP	7038	23.16	17	06	UKR	D	A1A			SEVASTOPOL, ADY, DLY
REP	7039	23.20	15	06	RUS	C	A1A			MOSCOW, ADY, DLY
REP	7039	21.03	20	06	RUS	F	A1A			KAMCHATSKY
REP	7041	22.00	15	06	RUS	L	A1A			St PETERSBURG
REP	7060	23.10	05	06			F1B	50	200	Unid FSK
REP	7110	22.44	05	06	RUS	S99H	A1A			MIL with 4NAZ
REP	7120	19.35	10	06	SOM		8k00 A3EGN			Radio Hargaysa
REP	7165	08.49	04	06	UKR		A1A			5 letter groups messages at 23WPM CW (location is UTC + 2 Hours) Ukraine MIL
REP	10115	20.00	20	06			A3E			Letters Station - 5 letters transmission
REP	14000	18.16	17	06	RUS		FMCW	50	13k	OTH radar Contayner
REP	14006	14.32	16	06	RUS		PSK2A	120		AT3004D, Russia
REP	14046	20.09	20	06	E		J3E-U			Spanish fishery
REP	14055	11.08	02	06	RUS		F1B	50	250	CIS36, Russia
REP	14086	10.23	17	06	RUS		F1B	50	250	CIS35, Russia
REP	14100	17.07	16	06	E		J3E-U			Spanish fishery
REP	14108	14.38	16	06	RUS		FMCW	50	13k	OTH radar Contayner
REP	14110	09.10	03	06			FMCW			OTH Radar
REP	14116	11.32	02	06	RUS		F1B	50	250	CIS36, Russia
REP	14116	10.19	17	06	RUS		F1B	50	250	CIS36, Russia
REP	14121	15.11	16	06	RUS		FMCW	50	13k	OTH radar Contayner
REP	14150	10.26	17	06	RUS		F1B	50	200	CIS36, Russia
REP	14160	10.25	17	06	RUS		F1B	50	200	CIS36, Russia
REP	14192	11.37	02	06	RUS		F1B	75	500	CIS50, Russia
REP	14200	2120	19	06			J3E-U			Music jamming DX QSO's
REP	14201	21.22	19	06	CHN		PSK2			PRC modem, 10 tones
REP	14214	16.06	21	06	E		J3E-L			Spanish fishery, Galician dialect LSB
REP	14280	11.30	26	06	RUS		FMCW	50	15k	OTH Radar, Russia
REP	14285	11.07	18	06	CYP		FMCW	50	20k	OTH Radar, Cyprus
REP	14295	17.20	03	06			A3E			Football Broadcast - Carrier not very stable
REP	21100	16.11	04	06	MRC		J3E-U			Fishermen
REP	21430	13.00	06	06			A1A			CW to RKZ
REP	24970	11.11	26	06	B		J3E-L			Brazilian pirates
REP	28155	10.33	25	06	RUS		F3E			Russian taxis female dispatchers
REP	28180	18.46	08	06	IRN		FMCW			OTH radar
REP	28205	18.03	25	06	B		A3E			Brazilian intruders AM
REP	28250	17.49	25	06			F1B	82,2	140	Datawell Waverider GPS buoy
REP	28275	12.00	27	06	RUS		F3E			YL taxi dispatcher DLY
REP	28280	12.13	27	06	RUS		F3E			YL taxi dispatcher DLY
REP	28305	17.57	25	06	B		A3E			Brazilian intruders AM
REP	28450	17.46	25	06			F1B	82,2	140	Datawell Waverider GPS buoy
REP	29140	11.21	11	06	RUS		F3E			Russian taxis

## RSGB - Great Britain – M0VRR (Vaughan)

## SRAL – Finland – OH2BLU (Pekka)

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
SRAL	6998,0	h24	dly	6	RUS	UiTone	R3E			125 Hz tones
SRAL	7006,75	1340	26.	6		UiPTR	F1B			
SRAL	7008,0	h24	*	6	RUS	UiPTR	F1B		250	Days: 20. 22.-26. 28.
SRAL	7010,0	0700-1858/	15. 26.	6		UiMUX	PSK2	120	2600	
SRAL	7014,0	0805	11.	6		UiPTR	F1B			
SRAL	7016,0	0345-	1. 2.	6	RUS	UiPTR	F1B		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		0100	20.							
SRAL	7018,6	1020-1700/	14.	6		UiCarr	N0N			Also F1A 250 Hz MR at 1053
SRAL	7020,0	h24	3.-6.15.	6		UiPTR	F1B/N0N		250	
SRAL	7021,0	1230-1705/	5. 26.	6		UiMUX	PSK2	120	2600	
SRAL	7022,0	0810-1752/	23.	6	RUS	UiMUX	PSK2	120	2600	
SRAL	7027,5	1400-2400	dly	6	UZB	V	A1A			
SRAL	7030,0	0845-1000	29.	6		UiPTR	F1B			
SRAL	7034,0	1640-1720/	10.15.	6		UiPTR	F1B			
SRAL	7036,0	1750-1850/	10.28.	6		UiMUX	PSK2	120	2600	
SRAL	7039,0	0530-1530	*	6	RUS	C	A1A			Moscow, days: 4. 11. 12. 19. 24. 26. 29.
SRAL	7039,5	0550-1920	*	6		UiCW	A1A			Hand keying "T T..." days: 4. 5. 12. 20. 24.
SRAL	7076,0	h24	*	6	RUS	UiPTR	F1B		250	Days: 8. 22. 23. 28.
SRAL	7079,0	-1213/	27.	6		UiPTR	F1B/A			
SRAL	7099,0	1920	16.	6		UiPTR	F1B			
SRAL	7111,0	0840-0945	4.	6		UiPTR	F1B		250	
SRAL	7120,0	1415	4.	6		UiPTR	F1B			
SRAL	7120,0	/0400-0430/	dly	6	SOM	R.Hargeis a	A3E			
SRAL	7120,0	/1430-1900/	dly	6	SOM	R.Hargeis a	A3E			
SRAL	7120,0	/1900-2100/	12.-30.	6	SOM	R.Hargeis a	A3E			To 2335 on 29.
SRAL	7122,0	1300-2300	*	6	UZB	V	A1A			Days: 9. 11. 12. 23. 26.-30. Poor keying on 9.
SRAL	7124,0	h24	20.-24.	6	RUS	UiMUX	PSK2	120	2600	
SRAL	7127,0	1235	11.	6		UiMUX	PSK2	120	2600	
SRAL	7149,0	0425	29.	6		UiMUX	PSK2	120	2600	
SRAL	7154,0	0845-1230	15.	6		UiPTR	F1B		200	
SRAL	7158,0	1310	29.	6		UiCW	A1A			MR 5BL
SRAL	7160,0	0700-1015	22.	6	RUS	RMW32	A1A			5F 5BL
SRAL	7160,0	1350-1435	29.	6		UiMUX	PSK2	120	2600	
SRAL	7161,0	0910	16.	6		624	R3E-u			Synthetic voice
SRAL	7164,0	0400-1500	*	6		UiMUX	PSK2	120	2600	Days: 22. 25. 29.
SRAL	7176,0	0800-1000	11.	6		UiPTR	F1B		250	
SRAL	7176,0	0000-0523/	29.	6		UiPTR	F1B		250	
SRAL	7184,0	1410	12.	6		UiPTR	F1B			
SRAL	7181,6	0245-1920	*	6		UiCarr	N0N			Days: 1. 24. 25. 26.
SRAL	7198,0	1920	1.	6		UiMUX	PSK2	120	2600	
SRAL	7200,0	1000-1300/	dly	6	CHN	CNR1	A3E			Used as jammer on TWN
SRAL	7200,0	1300-1500/	dly	6	MMR	R Myanmar	A3E			
SRAL	7 MHz		*	6	RUS	29B6	FMCW			50Hz / 15 kHz, no reports
SRAL	10 MHz			6	RUS	29B6	FMCW			50Hz / 15 kHz (WebSDR 11 days)
SRAL	14000,0	1950-0600	13.14.	6	ISR	UiCarr	N0N			
SRAL	14006,0	1855	16.	6	RUS	UiMUX	PSK2	120	2600	
SRAL	14008,0	0740-	1. 17.	6	RUS	UiPTR	F1B/		250	

Society	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	REMARKS
		1055					N0N			
SRAL	14050,0	0650-0840	12.	6		UiPTR	F1B		250	
SRAL	14064,0	0805-0940	12.	6		UiPTR	F1B			
SRAL	14087,0	1305-1435	29.	6		UiMUX	PSK2	120	2600	
SRAL	14091,0	0835-1013/	14.	6		UiMUX	PSK2	120	2600	
SRAL	14108,0	0605-1300	*	6		UiCW	A1A			MR 5BL, days: 4. 8. 9. 12.-19. 26.
SRAL	14116,0	0605-1415/	*	6	RUS	UiPTR	F1B		250	Days: 2. 12. 17.
SRAL	14192,0	0430-1930	*	6	RUS	UiPTR	F1B		500	Days: 7. 8. 9. 11.-19. 26.
SRAL	14220,0	0750-0851/	8.	6	RUS	UiPTR	F1B		500	
SRAL	14221,0	0230-0600/	dly	6	KGZ	UiPTR	F1B		200	
SRAL	14242,0	1130-1235	29.	6	RUS	UiMUX	PSK2	120	2600	
SRAL	14258,0	0920	17.	6		UiPTR	F1B		500	
SRAL	14292,0	0650-0805	11. 13.	6		NRMU	A1A			
SRAL	14295,0	0530-1930	dly	6	TJK	R Tojikiston	A3E			3f 4765,00 kHz, Yangiyul TX
SRAL	14317,0	1100	8.	6		L3SM	A1A			5BL
SRAL	14 MHz	0530-1200	*	6	RUS	29B6	FMCW			50Hz / 15 kHz, days: 6. 7. 13. 18. 23. 26. 29.
SRAL	14 MHz	h24	*	6	RUS	UiOTHR	FMCW			10Hz / 15 kHz, 30 sec transmit with 16 min cycle, days: 4. 9. 13. 16. 20. 22.(WebSDR daily)
SRAL	18 MHz	0645-1245	*	6	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz, days: 2. 19. 26.
SRAL	21 MHz	1235	11.	6	CYP / TUR	UiOTHR	FMCW			25/50Hz / 20 kHz
SRAL	21438,0	0800-1400	*	6	RUS	RCV	A1A			Days: 2. 4. 8. 9. 11.-13. 15. 17.-19. 22. 26. 29.
SRAL	24 MHz			6		UiOTHR	FMCW			No reports
SRAL	28 MHz			6	IRN	UiOTHR	FMCW			307 & 870 Hz / 60 kHz – 300 kHz, no reports
SRAL	28960,0	0530-1900	*	6	IRN	UiOTHR	FMCW			150 & 313 Hz / 60 kHz , days: 1.-5. 7.-20. 24. 26. 28.-30.
SRAL	28 MHz			6		UiOTHR	FMCW			25/50Hz / 20 kHz, no reports
SRAL	28 MHz	0540-1850	*	6	RUS	Taxi disp.	F3E			Days: 1.-4. 7.-11. 13.-20. 28.-30. 203 reports

## USKA – Switzerland – HB9CET (Peter)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
<b>80m band informational only! - Primary allocation but shared with other also primary allocated services !</b>										
USKA	3519.5	2048	01	06			F1B	50	200	often
USKA	3524.0	2051	01	06			F1B	75	250	
USKA	3525.0	2054	01	06			DQPSK	14x75	5k9	LINK 11 CLEW; almost daily (STANAG 5511) DSB mode
USKA	3527.0	2158	28	06			F1B	50	200	
USKA	3532.0	2139	05	06			DQPSK	14x75	5k9	LINK 11 CLEW; often (STANAG 5511) DSB mode
USKA	3543.0	2155	29	06			J7D	12x120	2k7	BPSK; CIS12
USKA	3552.0 VFO USB	2059	01	06			G1D	2400	~2k4	Stanag 4285; PSK8 - daily
USKA	3568.0	2154	09	06			F1B	75	250	often
USKA	3569.0	2122	14	06			F1B	50	200	often
USKA	3572.0	2156	09	06			F1B	75	250	
USKA	3572.5	2145	05	06			J7D	12x120	2k7	BPSK; CIS12

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	3578.0	2108	01	06			F1B	75	200	often
USKA	3580.0	2149	05	06			J7D	12x120	2k7	BPSK; CIS12
USKA	3582.5	2126	14	06			F1B	50	200	often
USKA	3584.5	2158	29	06			J7D	12x120	2k7	BPSK; CIS12
USKA	3595.0	2256	10	06			DQPSK	14x75	5k9k	LINK 11 CLEW often (STANAG 5511) DSB mode
USKA	3608.0	2106	01	06			F1B	50	200	often
USKA	3631.0 VFO USB	2101	01	06			PSK8	2400	~2k7	MIL188-110A (Hybrid), often preamble 4 tone PSK4
USKA	3635.0	2206	27	06			PSK8	2400	~2k7	STANAG 4285; frame format 600bps long
USKA	3638.0	2130	14	06			J7D	12x120	2k7	BPSK; CIS12
USKA	3772.0	2138	21	06			F1B	50	200	often
USKA	3774.0	2133	14	06			J7D	12x120	2k7	BPSK; CIS12
USKA	6998.0	1436	01	06			H3E-U Bursts		~3k6	"Buzzer" up to ≥7001.5kHz daily
USKA	7010.0	0714	15	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7016.0	1402	01	06			F1B	75	250	
USKA	7020.0	1633	03	06			F1B	75	250	
USKA	7027.5	2304	17	06		V	A1A			Beacon V often
USKA	7030.0	2244	21	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7032.0	0602	17	06			J7D	12x120	2k7	CIS12
USKA	7039.2	2239	17	06	RUS	F	A1A			Beacon F Vladivostok
USKA	7050.0	2213	28	06			J3E-L			Music and Voice (no ham) daily
USKA	7062.0	1641	03	06			F1B	75	200	
USKA	7068.0	2145	14	06			F1B	75	200	often
USKA	7089.8	1836	01	06			G1D	2400	~3k	LINK 11 SLEW often
USKA	7111.0 VFO LSB	2234	28	06			BPSK	30x70	~2k5	Burst system; tone spacing 75Hz. Preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone at 450Hz
USKA	7119.0	2207	05	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7120.0	1615	01	06	SOM		A3E		10k	Radio Hargaysa almost daily
USKA	7122.0	2036	09	06		V	A1A			Beacon V
USKA	7174.0	0841	02	06			F1B	75	200	weak
USKA	7176.0	2157	11	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7176.0	2056	28	06			F1B	75	250	
USKA	7179.0	0845	14	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7186.0	2148	27	06			J7D	12x120	2k7	BPSK; CIS12
USKA	7187.0	1833	13	06			A1A			encrypted; letters and figures
USKA	7197.0	1956	04	06	TUR	334123	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	1957	04	06	TUR	324013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2216	27	06	TUR	318018	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2217	27	06	TUR	8411	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2220	27	06	TUR	329013	MFSK8	125	1750	MIL 188-141A
USKA	7197.0	2225	27	06	TUR	381013	MFSK8	125	1750	MIL 188-141A
USKA	7200.0	1417	01	06			A3E		~10k	Lower sideband down to 7195 asian style music and voice
USKA	7205.0	2153	27	06	F	RFI	A3E		~10k	BC, Radio France International, splattering down to ~7186 kHz!
USKA	14000.000	1825	13	06			NON			long lasting carrier often
USKA	14005.8	2252	16	06			OFDM ?		~3k	unident digital signal (strong fading)
USKA	14008.0	0807	06	06			F1B	50	250	often
USKA	14021.0	1000	02	06			DQPSK	8x75	2k4	CHN4+4; 2x4 tones, 300 Hz between each tone, 450 Hz between the two middle tones
USKA	14041.7	1651	05	06			OFDM	30	~2k7	weak and strong fading short intro tone
USKA	14050.0	0954	02	06			F1B	50	250	
USKA	14056.0	1445	02	06			OTHR	50 sps	~13k	OTHR; occup. BW approx 30k
USKA	14056.0	0844	21	06			A1A			letters and figures; no ham
USKA	14081.6	0957	02	06			F1B	50	250	
USKA	14091.0	0854	14	06			J7D	12x120 QPSK	2k7	CIS12; short voice sequences in USB; with 2 <sup>nd</sup> carrier at 14089.0

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH (BW)	DETAILS
USKA	14104.0	0836	09	06			F1B	63	500	idling
USKA	14112.0	1506	07	06			OTHR	25 sps	~13k	OTHR; occup. BW approx 30k
USKA	14116.0	0845	02	06			F1B	50	250	
USKA	14116.0	0918	12	06			F1B	75	250	
USKA	14119.0	1141	13	06			OTHR	50 sps	~13k	OTHR; occup. BW approx 30k
USKA	14150.5	0939	17	06			F1B	50	250	often
USKA	14160.0	0935	17	06			F1B	50	200	often
USKA	14192.0	1409	01	06			F1B	50	500	often
USKA	14200.0 VFO USB	2044	04	06			BPSK	16x75	2k2	Burst system; 16 tones, 2 Pilottones
USKA	14220.0	0757	08	06			F1B	50	500	
USKA	14221.0	2017	04	06			F1B	50	200	
USKA	14233.0	0749	02	06			J7D	12x120	2k7	BPSK; CIS12
USKA	14242.0	1553	29	06			J7D	12x120	2k7	BPSK; CIS12
USKA	14257.875	0919	17	06			F1B	50	500	
USKA	14295.1	1629	03	06	TDJ		A3E		~9k	3 <sup>rd</sup> from 4765 – Radio Tajikistan
USKA	18081.7	1624	30	06			73 tone OFDM	30	2K7	QPSK modulated subcarriers, 1500Hz intro tone; tone spacing 37.48Hz,
USKA	18100.0	0857	02	06		E401	MFSK8	125	1750	MIL 188-141A; To: C3
USKA	18100.0	0901	02	06		L601	MFSK8	125	1750	MIL 188-141A; To: C3
USKA	18100.0	0905	02	06		B301	MFSK8	125	1750	MIL 188-141A; LQA; To: C3
USKA	18150.0	0826	09	06			F1B	100	1000	2 <sup>nd</sup> harmonic
USKA	21145.0	0922	02	06		E401	MFSK8	125	1750	MIL 188-141A
USKA	21145.0	1556	12	06		C3	MFSK8	125	1750	MIL 188-141A
USKA	21145.0	1637	12	06		C4	MFSK8	125	1750	MIL 188-141A
USKA	21145.0	1626	28	06		GR2	MFSK8	125	1750	MIL 188-141A
USKA	21212.0	0920	12	06			FMCW		10	OTHR
USKA	21298.6	1556	13	06			F1B	600	600	ARQ system
USKA	21438.0	0853	02	06		RCV	A1A			letters and figures almost daily
USKA	28005.0	0706	17	06			F3E			Taxi
USKA	28165.0	0705	17	06			F3E			Taxi
USKA	28175.0	0705	17	06			F3E			Taxi
USKA	28185.0	0704	17	06			F3E			Taxi
USKA	28195.0	0703	17	06			F3E			Taxi
USKA	28200.0	0733	17	06			F3E			Taxi
USKA	28265.0	0707	17	06			F3E			Taxi
USKA	28870.0	0727	17	06			F3E			Taxi
USKA	28960.0	0818	14	06			OTHR	150 + 315 sps	~ 30-40k	Burst system often

### Veron – Netherlands – PA2GRU (Dick)

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
VERON	7016,0	19.00	1	6	RUS	UiPtr	F1B			Ptr
VERON	7050,0	19.30	4	6		Pirate	J3E-1			Music & Russian speech; no calls
VERON	7055,0	21.04	4	6		Pirate	J3E-1			Music & Russian speech; no calls
VERON	10108,0	08.10	2	6	CIS	UiPTR	F1B			Carrier/Revs/Ptr (also 08/06 08.28 UTC)
VERON	10108,0	08.15	2	6	RUS	RDL	F1A			RDL 5BL
VERON	10108,0	08.17	2	6	CIS	WEGI	F1A			XXX WEGI 63918 87753 PRO..ZNIK 4903
VERON	10108,0	13.55	3	6	RUS	RDL	F1A			XXX RDL 11111 5F
VERON	10108,0	14.23	3	6	RUS	RDL	F1A			RDL 98060 20727 k
VERON	10108,0	08.49	16	6	RUS	RDL	F1A			RDL 72584 87909 k
VERON	10115,0	07.22	29	6		UiPTR	F1B			Ptr
VERON	10118,0	08.50	2	6		UiPTR	F1B			Ptr (also 03/06 08.15 UTC)
VERON	14008,0	08.45	5	6	CIS	UiPTR	F1B			Carrier/Revs/Ptr
VERON	14038,0	09.17	3	6		OTHR	FMCW			radar
VERON	14081,0	09.12	17	6		UiPTR	F1B			Ptr
VERON	14102,0	06.37	5	5	Maroc	UiILL	j3e-U			Maroc fishery, male voices

SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
VERON	14108,0	09.40	14	6	RUS	2VTA	A1A			HK5L DE 2VTA ZIB ZWD ZNM QYT9 K
VERON	14108,0	07.38	18	6	RUS	JHDH	A1A			HK5L DE JHDH proc
VERON	14108,00	07.40	18	6	RUS	JHDH	A1A			LFKW DE JHDH proc
VERON	14108,0	07.42	18	6	RUS	JHDH	A1A			L1KI DE JHDH proc
VERON	14108,0	07.44	18	6	RUS	JHDH	A1A			AH5K DE JHDH proc
VERON	14108,0	07.45	18	6	RUS	JHDH	A1A			E5FV DE JHDH proc
VERON	14108,0	08.11	27	6	RUS	B1F2	A1A			B1F2 DE 8EOM proc
VERON	14108,0	08.36	2	6	CIS	WEGI	A1A			XXX WEGI 97426 SOKOWYJ 4963 2782 k
VERON	14108,0	08.25	3	6	CIS	G5CX	A1A			XXX G5CX 54559 LITOLOG1a 7585 6290 k
VERON	14108,0	08.28	3	6	CIS	WY6Z	A1A			Cals to: ZA7L LW3U ITSL TP8P QTJH
VERON	14108,0	08.40	3	6	CIS	G5CX	A1A			XXX G5CX 88524 GIPSOBAL 4274 3868 k
VERON	14108,0	08.52	3	6	CIS	KH8N	A1A			XXX KH8N 1152 8062 DDDDD 5BL
VERON	14108,0	09.25	3	6	CIS	N1DX	A1A			XXX N1DX 35726 ROSS 8085 6233 k
VERON	14108,0	09.12	7	6	CIS	AR5N	A1A			ITSL de AR5N ZUM ZLU ZQS QYT6 k
VERON	14108,0	10.00	8	6	CIS	WY6Z	A1A			ITSL de WY6Z QTC 548 MMMMM 5BL
VERON	14108,0	09.43	13	6	CIS	WEGI	A1A			XXX WEGI 72251 PULOPUK 7207 0216 k
VERON	14108,0	09.53	13	6	CIS	WEGI	A1A			XXX WEGI 20289 71866 MORGOBOBR
VERON	14108,0	09.37	14	6	CIS	2VTA	A1A			HK5L de 2VTA ZIB ZWD ZNM QYT9 k
VERON	14108,0	09.57	14	6	CIS	2VTA	A1A			HK5L de 2VTA ZIS ZIC ZEW QYT9 k
VERON	14108,0	09.33	16	6	CIS	C1OB	A1A			XXX C1OB 1007 5094 DDDDD 5BL
VERON	14108,0	09.31	17	6	CIS	N1DX	A1A			XXX N1DX 54791 PLODOZOLX 3721 4811
VERON	14108,0	09.36	17	6	CIS	G25O	A1A			XXX G25O 23421 PONGOLOG 8957 4265
VERON	14108,0	08.30	21	6	CIS	8EOM	A1A			FPAL de 8EOM QTC 489 MMMMM 5BL
VERON	14108,0	08.42	27	6	CIS	8EOM	A1A			B1F2 de 8EOM QBE QYT6 k
VERON	14108,0	09.45	12	6	RUS	2VTA	A1A			qtc 104 23 12 1450 5F etc
VERON	14116,0	08.05	2	6		UiPTR	F1B			Ptr (also 17/06 09.10 UTC)
VERON	14122,0	08.00	8	6		OTHR	FMCW			radar
VERON	14135,0	14.06	5	6	RUS	UiRadar	FMCW		10k	OTHR; 10sps; probably Contayner
VERON	14136,0	16.55	4	6	RUS	UiRadar	FMCW		10k	OTHR; 10sps; probably Contayner
VERON	14151,0	09.10	17	6		UiPTR	F1B			Ptr
VERON	14160,0	09.08	17	6		UiPTR	F1B			Ptr (also 29/06 07.21 UTC)
VERON	14192,0	18.08	4	6	RUS	UiPtr	F1B		500	Rus navy
VERON	14192,0	12.00	21	6	RUS	UiPtr	F1B		500	Rus navy
VERON	14192,0	vt	vd	6	CIS	UiPTR	F1B			Revs/Ptr
VERON	14192,0	08.00	8	6	RUS	UiPtr	F1B		500	Ptr
VERON	14211,0	07.30	18	6	?	?	F1B	50	300	ptr, revs
VERON	14221,0	20.27	4	6	KGZ	UiPtr	F1B		200	
VERON	14258,0	09.15	17	6		UiPTR	F1B			Ptr
VERON	14268,0	17.29	4	6	RUS	UiRadar	FMCW		10k	OTHR; 10sps; probably Contayner
VERON	14278,0	11.59	18	6		UiRadar	FMCW		30k	OTHR; 50sps
VERON	21288,0	11.05	5	6	CYP	UiRadar	FMCW		20k	OTHR; 50sps
VERON	21438,0	15.24	8	6	RUS	RCV	A1A			RHV42 DE RCV QYT4 QSX 8402 K
VERON	21438,0	15.33	8	6	RUS	RCV	A1A			RBI86 DE RCV QTC 614 39 8 1215 614 BT



SOC	kHz	UTC	DD	MM	ITU	IDENT	MODE	BD	SH	DETAILS
VERON	21438,0	15.33	8	6	RUS	RCV	A1A			NAWIP (etc)
VERON	21438,0	15.39	8	6	RUS	RCV	A1A			RGX94 DE RCV QTC 786 35 8 1216 786 BT
VERON	21438,0	15.39	8	6	RUS	RCV	A1A			NAWIP (etc)
VERON	21438,0	15.43	8	6	RUS	RCV	A1A			RIP90 DE RCV QTC 485 9 8 1217 485 BT
VERON	21438,0	15.43	8	6	RUS	RCV	A1A			NAWIP (etc)

# The monitoring team of IARU Region 1

credits:

Wavecom Elektronik – Buelach – Switzerland

German BNetzA Konstanz

Many thanks for your interest!

compiled and published by DK2OM

July 2016