International Amateur Radio Union

Region 1

# Monitoring System

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## The monthly newsletter for Region 1

# November 2015

## 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 ++ OEVSV: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: M0VRR - Vaughan ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – Ullmar ++ UBA: ON8IM – Ivan +++ URE: EB1TR - Fabian ++ USKA: HB9CET - Peter ++ VERON: PA2GRU - Dick ++ ZRS: S56ZDB – Darko ++ G3VZV – Graham (satellite) ++ TG9ADV – Jorge (Co-ordinator Region 2) ++ VK3MV – Peter (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 ++ SK6AW – DX-Cluster ++ YO9RIJ – Petrica

**Part 1: News and infos**
**Part 2: Detailed reports of the national co-ordinators**

# Part 1: News and Infos

1. **New national MS-Coordinator of SARL (South Africa)**
   ZS6NS (James) is the successor of ZS4GJA (Gideon). Welcome to our Monitoring System dear James!

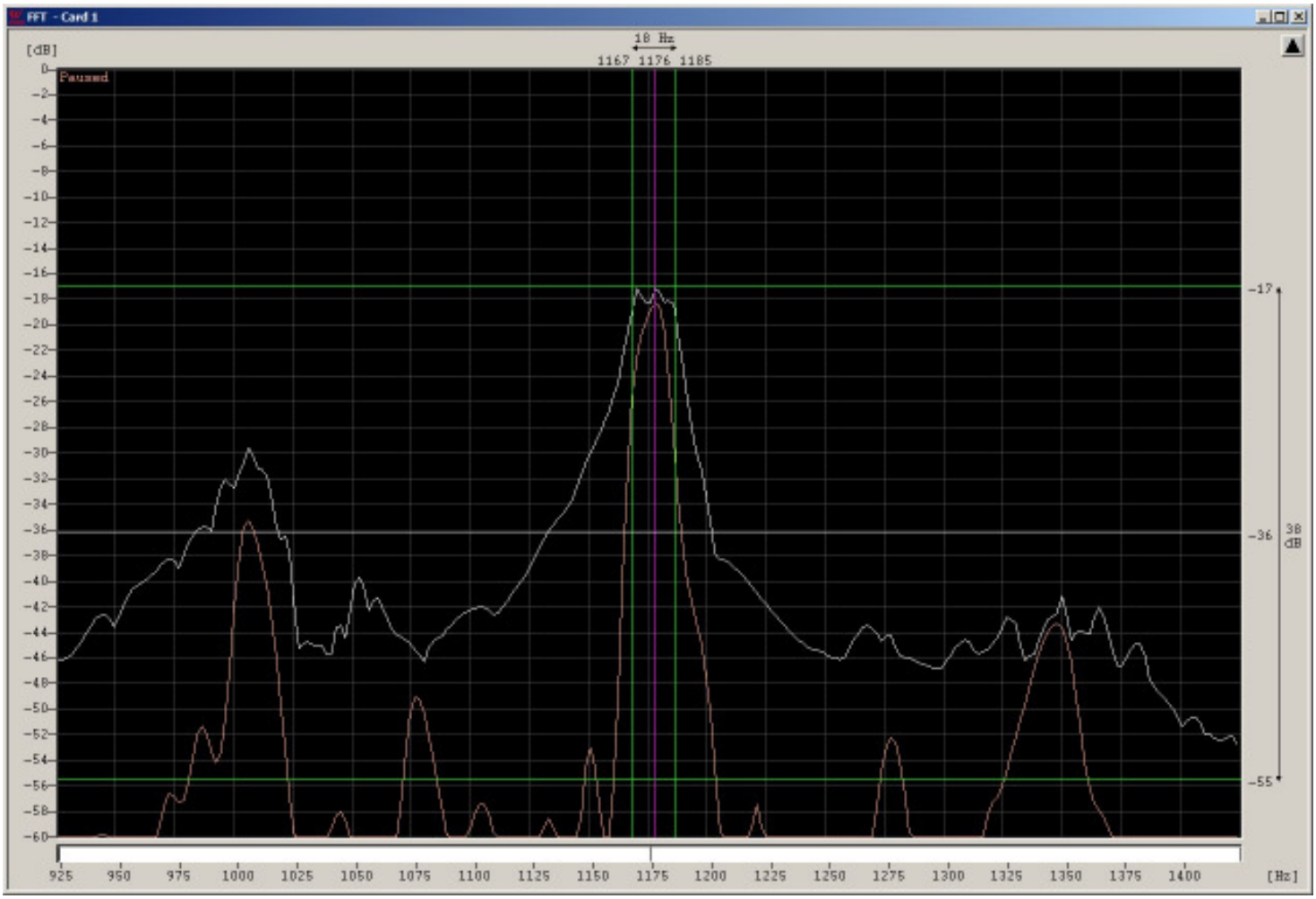
2. **New national MS-Coordinator of IRTS (Ireland)**
   The dedicated successor of EI9GSB (Lisa) is EI3GYB (Michael). Unconfirmed at the moment!
   Welcome to our Monitoring System dear Michael!

3. **New national MS-Coordinator of UBA (Belgium)**
   ON8IM (Ivan) is the successor of ON4PN (Patrick). Welcome to our Monitoring System dear Ivan!

4. **Israel Navy on 7050.029 kHz**
   The Israel Navy (ident 4XZ) was transmitting on 7050.029 kHz on A1A (CW) on several days. After many complaints the system disappeared on Nov. 15th.

5. **BC-problems**
   A spurious emission from IRIB Tehran on 7225.0 kHz disturbed 7158 kHz during several nights.
   The German BNetzA filed an official complaint.
   **Good news:** Radio France International (RFI) appeared with a repaired transmitter on 7205. The splatters were no longer audible. Many thanks to the German BNetzA for assistance and of course to RFI, too!
   **Bad news**: Radio Hargaysa did not leave 7120 kHz. So the German BNetzA sent another official complaint.
   The 3rd harmonic from Radio Tajikistan on 4765 kHz was still audible on 14295.174 kHz.
   The German BNetzA filed another complaint.
   **Many thanks for assistance in 2015 to BNetzA, BAKOM, BMVIT, Agentschap Telecom and OFCOM.**

   The 3rd harmonic of Radio Tajikistan on 14295.174 on the W-Code FFT-display. You can see the unstable carrier. Screenshot: DK2OM on Nov. 13th at 0946 UTC



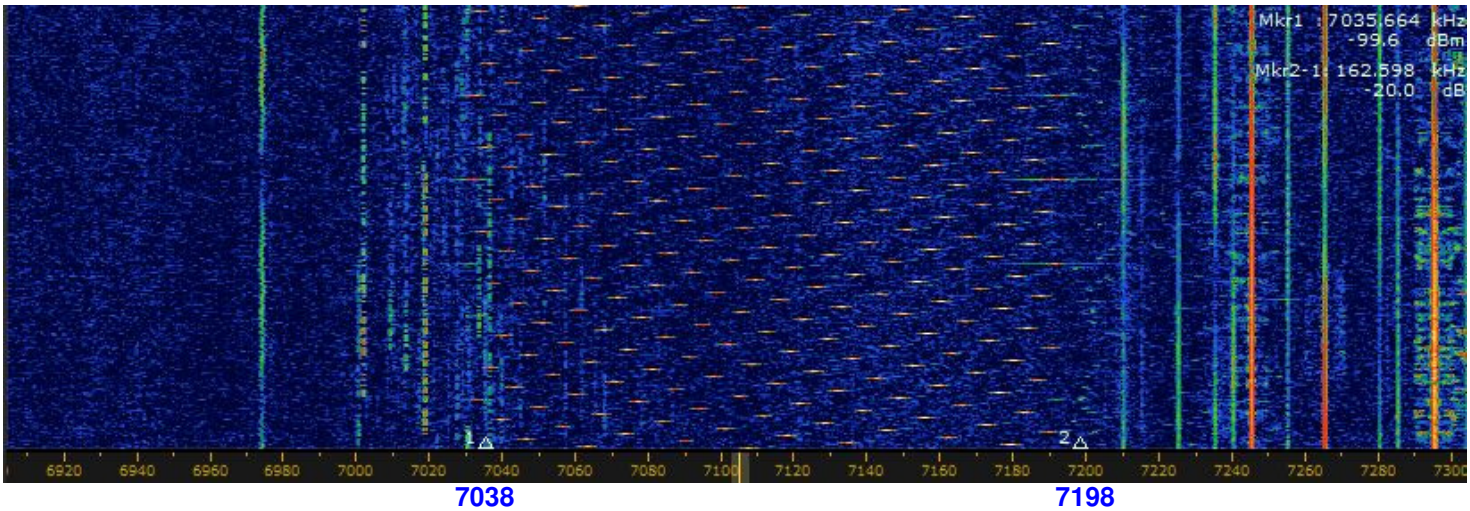

6. **Spanish fishery – the endless story**
   Spanish fishery was found on 1810.0 kHz on USB. Now they are abusing all our bands not respecting any Amateur traffic! We found them on 21440.0 on USB, too. After having been detected, they went up to 21460.0 kHz.

7. **Chinese brodband OTH radar on 18 MHz**
   A Chinese broadband OTH radar was active on 18152 – 18252 kHz with 25 sps, location Central China.
   The transmissions were observed by several European Hams and of course by HB9CET and DK2OM.

**8. Chinese broadband OTH radar on 7 MHz**

Chinese broadband OTH radar on 7038 – 7198 kHz – 10 sps - blocks of 100 sec duration – disturbing the CW-Contest and the phone part of the 40 m-band. Screenshot: DK2OM with Perseus on Nov. 28th at 2000 UTC

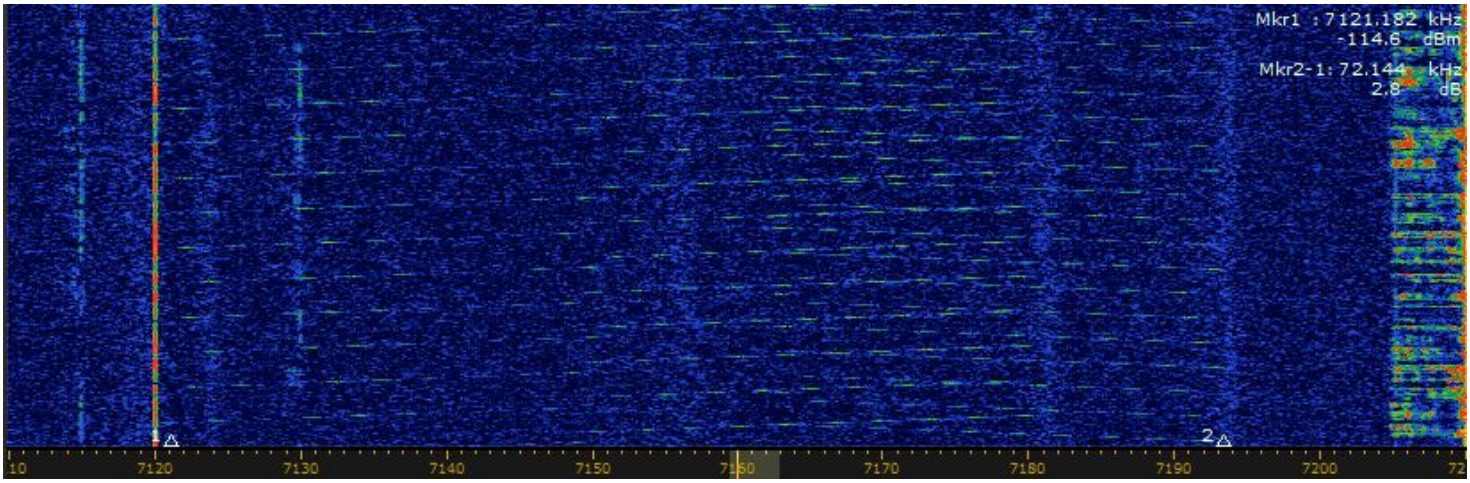
**soundfile: http://www.iarums-r1.org/iarums/sound/7mhz-chn-broad.wav**




**7038** **7198**

**9. What about the ocean wave radars on 7 MHz in Region 3 ?**

I found 3 such radars at the same time on Nov. 17th. (CODAR or CODAR-like systems)
Screenshot: DK2OM via remote Japan.
Is there someone, who can give us more infos about the locations?




**7120** **7194**

**10. MFA Sudan still on 21 MHz**

The MFA Sudan in Khartoum was still connecting its embassy in Yemen on Pactor 1 encrypted.
QRG: 21002.15 kHz – various times and days
Voice traffic was also observed on 21000.0 kHz on USB.

**11. CIS taxi traffic on our 10 m-band – no change**

I found about CIS taxi traffic on F3E (FM) on about 100 frequencies in November 2015, mostly transmitting from Russia. They were angry about the CW-Contest on Nov. 29th (observed on 28105 kHz).
Pleae observe my table!

**12. OTH radar Iran on 28 MHz**

An Iranian OTH radar was often disturbing the upper part of our band. The system was transmitting on 29750 kHz with 925 sps. But the splatters could be received down to 29400 kHz.
Another Iranian radar worked in burst mode and jumped over the band.

**13. Season´s Greetings: Merry Christmas and a peaceful year 2016 from HB9CET and DK2OM!**

**14.**

| | |
|---|---|
| **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** = othogonal 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** = sweeps/sec (radar systems) ••• **FMCW** = frequency modulated continuous wave (OTH and coastal Radars) **5BL** = cyrillic 5 lettergroups

## ARSK MONITORING OVERVIEW FOR NOVEMBER 2015

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 38 OTH radars on 20 m, 98 OTH radars on 15 m and 29 OTH radars on 10 m in November 2015. Chinese OTH radars often appeared on the 20, 40 and 80 m-bands in Region 3.**

## DARC 2 – Germany - DK2OM (Wolf)

**FSK transmissions -> center frequency between mark and space**
**PSK transmissions -> center QRG - ALE (MIL188-141A) -> USB QRG**
**exclusive bands -> black – shared bands -> blue - voice traffic -> green - BC -> red**
**SH = shift - SP = spread (radar) – SPS = sweeps/sec (radar)-> (aka PRF)**

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DK2OM** | **1810,0** | **2200** | **11** | **11** | **E** | | **USB** | | | **Spanish fishery - daily** |
| **DK2OM** | **1810,5** | **1916** | **09** | **11** | **CIS** | | **A3E** | | | **CIS pirates – unstable carrier** |
| **DK2OM** | 1812,0 | 1540 | 08 | 11 | RUS | | USB LSB | | | 14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad – no carrier - daily, all day |
| **DK2OM** | 1852,0 | 1735 | 17 | 11 | I | IPP | USB | | | Palermo Radio, weather reports |
| **DK2OM** | 1855,0 | 1735 | 17 | 11 | I | IQP | USB | | | San Benedetto Radio, weather reports |
| **DK2OM** | 1876,0 | 1734 | 17 | 11 | I | IQN | USB | | | Lampedusa Radio, weather reports |
| **DK2OM** | 1888,0 | 1734 | 17 | 11 | I | IPD | USB | | | Civitavecchia Radio, weather reports |
| **DK2OM** | 1896,5 | 1629 | 01 | 11 | D | | PSK8 | 2400 | 2400 | Stanag4285 – 600 bps long – German Navy - daily |
| **DK2OM** | **1915,0** | **1804** | **16** | **11** | | | **serial** | | **20k** | **serial modem – 1915 – 1939 kHz – disturbing Livorno Radio IPL** |
| **DK2OM** | 1925,0 | 1733 | 17 | 11 | I | IPL | USB | | | Livorno Radio, weather reports – daily, vt |
| **DK2OM** | 1990,0 | 1715 | 07 | 11 | E | | USB | | | male persons – Arabic voice – Bay of Biscay |
| **DK2OM** | 3500,0 | vt | dly | 11 | TUR | | FSK8 | 120 | 1750 | ALE, "201" - Turkish Red Crescent – legal! |
| **DK2OM** | **3500,0** | **1706** | **02** | **11** | **E** | | **USB** | | | **Spanish fishery – daily, all day** |
| **DK2OM** | 3500,0 | 1635 | 10 | 11 | F | | FMCW | | 20k | French burst radar, 6 sps, similar Codar sounding, South |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | France |
| **DK2OM** | 3500,0 | 1646 | 27 | 11 | F | | USB | | | French fishery |
| **DK2OM** | **3500,5** | **2207** | **06** | **11** | **CIS** | | **A3E** | | | **CIS pirates – unstable carrier** |
| **DK2OM** | **3501,2** | **1800** | **12** | **11** | **CIS** | | **A3E** | | | **CIS pirates – unstable carrier** |
| **DK2OM** | **3501,5** | **1843** | **30** | **11** | **RUS** | | **A3E** | | | **CIS pirates – unstable carrier** |
| **DK2OM** | 3503,0 | 1545 | 01 | 11 | RUS | | PSK2 | 120 | 2600 | AT3004D – submode idle - Kaliningrad |
| **DK2OM** | 3503,5 | vt | vd | 11 | G | no ITU | FSK8 | 125 | 1750 | ALE – "XSS" "XPU" "XJR" – British MIL Tascomm – vt, daily - legal! |
| **DK2OM** | **3504,0** | **2124** | **23** | **11** | **HOL** | | **USB** | | | **Dutch fishery** |
| **DK2OM** | 3515,0 | 0954 | 15 | 11 | CHN | | FMCW | | 60k | Chinese OTH radar – 43 sps 3515 – 3575 kHz |
| **DK2OM** | 3515,0 | 2016 | 23 | 11 | E | | USB | | | Spanish fishery |
| **DK2OM** | 3523,0 | 1833 | 30 | 11 | CHN | | FMCW | | 56k | Chinese OTH radar – 43 sps 3523 – 3579 kHz |
| **DK2OM** | 3524,0 | 2025 | 23 | 11 | G | | USB | | | UK fishery |
| **DK2OM** | 3531,0 | --- | -- | 11 | RUS | REA4 | N0N | | | unclean carrier - RUS airforce Moscow, ident: 1940 utc - daily |
| **DK2OM** | 3532,0 | 2037 | 02 | 11 | F | | PSK4 | 75 | 5800 | LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal! |
| **DK2OM** | **3540,0** | **1924** | **08** | **11** | **E** | | **USB** | | | **Spanish fishery – sometimes with voice scrambler CRY 2001 – very often** |
| **DK2OM** | **3545,0** | **2020** | **26** | **11** | **HOL** | | **USB** | | | **Dutch fishery** |
| **DK2OM** | 3545,0 | 1616 | 23 | 11 | CHN | | FMCW | | 52k | Chinese OTH radar – 43 sps 3545 – 3597 kHz |
| **DK2OM** | 3548,0 | 1857 | 21 | 11 | RUS | | PSK2 | 120 | 2600 | AT3004D – submode idle - Ivanovo |
| **DK2OM** | 3550,0 | vt | vd | 11 | ALG | no ITU | FSK8 | 125 | 1750 | ALE, "IU50" "IU52" "FN50" |
| **DK2OM** | **3550,0** | **0700** | **dly** | **11** | **F** | | **A3E** | | | **French amateurs not respecting bandplans - daily** |
| **DK2OM** | 3553,8 | 1933 | 01 | 11 | TUR | | PSK8 | 2400 | 2400 | Stanag4285 – 600 bps long - TUR MIL - Ankara – daily, all day - legal operation |
| **DK2OM** | 3560,5 | 1850 | 21 | 11 | BLR | | PSK2A | 120 | 2600 | AT3004D – and RUS voice traffic - Minsk |
| **DK2OM** | 3561,0 | 2230 | 02 | 11 | RUS | | F1B | 75 | 250 | Moscow |
| **DK2OM** | 3567,0 | vt | dly | 11 | CHN ? | no ITU | FSK8 | 125 | 1750 | ALE, "103" "106" |
| **DK2OM** | 3570,5 | 1837 | 11 | 11 | RUS | | F1B | 73 | 125 | idling – unclean - Kaliningrad |
| **DK2OM** | 3576,4 | ady | dly | 11 | I | IZ3DVW | A1A | | | uncoordinated beacon |
| **DK2OM** | 3582,0 | 1856 | 19 | 11 | RUS | | PSK2 | 120 | 2600 | AT3004D – submode idle - Moscow |
| **DK2OM** | 3585,0 | vt | dly | 11 | TWN | HLL | F1C | | | 120 rpm, IOC 576, WX-fax - daily - legal! |
| **DK2OM** | 3586,0 | vt | dly | 11 | G | | PSK2A | 40 | 40 | encrypted – every evening Great Britain – purpose unknown |
| **DK2OM** | 3587,0 | vt | vd | 11 | E | no ITU | FSK8 | 125 | 1750 | ALE, "TVV" "TXX" - Spanish Guardia Civil |
| **DK2OM** | 3590,0 | vt | dly | 11 | PAK | no ITU | FSK8 | 125 | 1750 | ALE, "KW" "KHAIBAR" – Pakistan navy |
| **DK2OM** | **3590,0** | **0730** | **01** | **11** | **E** | | **USB** | | | **Spanish fishery – also with scrambler CRY 2001 - daily** |
| **DK2OM** | 3593,7 | 2219 | 02 | 11 | RUS | D | A1A | | | Cluster beacon – Sevastopol RUS Navy – "RCV" |
| **DK2OM** | 3593,8 | 2219 | 02 | 11 | RUS | P | A1A | | | Cluster beacon – Kaliningrad RUS Navy – "RMP" |
| **DK2OM** | 3593,9 | 2219 | 02 | 11 | RUS | S | A1A | | | Cluster beacon – Severomorsk RUS Navy – „RIT" |
| **DK2OM** | 3595,0 | vt | dly | 11 | D | | FSK8 | 125 | 1750 | ALE – German customs |
| **DK2OM** | 3595,0 | 2040 | 20 | 11 | RUS | | USB | | | man in Russian voice – spelling figures - St. Peterburg |
| **DK2OM** | 3596,0 | vt | dly | 11 | D, S, HRV | | FSK8 | 125 | 1750 | ALE, "DK3CW" "SA6CBK" "9A0PZ" – just for info! |
| **DK2OM** | 3597,0 | 1800 | 22 | 11 | CHN | | PSK4 | 60 | 2400 | PRC 30 tone modem – USB |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | mode – pilottone 450 Hz |
| **DK2OM** | 3606,0 | 1930 | 14 | 11 | RUS | | F1B | 50 | 200 | Moscow |
| **DK2OM** | 3617,0 | vt | dly | 11 | HRV | 9A5EX | FSK8 | 125 | 1750 | ALE, "9A5EX" – HAM-ALE - just for info |
| **DK2OM** | 3622,5 | 1925 | 01 | 11 | J | JMH | F1C | | | Tokyo Meteo – 120 rpm – IOC576 – daily, legal!!! |
| **DK2OM** | 3630,0 | 1754 | 22 | 11 | CHN | | FMCW | | 52k | Chinese OTH radar – 43 sps 3630 – 3682 kHz – also on 28.11.2015 at 1759 utc |
| **DK2OM** | 3632,0 | 1730 | 23 | 11 | CHN | | FMCW | | 84k | Chinese OTH radar – 43 sps - 3632 – 3716 kHz |
| **DK2OM** | 3637,0 | 0952 | 15 | 11 | CHN | | FMCW | | 60k | Chinese OTH radar – 43 sps 3637 – 3697 kHz |
| **DK2OM** | 3640,0 | vt | vd | 11 | G | | FSK8 | 125 | 1750 | ALE, "XSS" - British MIL Tascomm – just for info! |
| **DK2OM** | 3642,0 | ady | dly | 11 | CHN | | A1A | | | endless loop – DKG6 de 3A7D Chinese military – daily, all day |
| **DK2OM** | 3644,0 | 2004 | 17 | 11 | CHN | | FMCW | | 103k | 2 Chinese OTH radars – 43 sps 3644 – 3747 kHz – alternating sweeps |
| **DK2OM** | 3644,0 | 1954 | 26 | 11 | RUS | | PSK2A | 120 | 2600 | AT3004D – Far East Russia |
| **DK2OM** | 3648,0 | 1827 | 10 | 11 | ARS | | FSK8 LSB | 125 | 1750 | ALE, "AAI" "AAN" |
| **DK2OM** | 3649,0 | vt | vd | 11 | ALG | no ITU | FSK8 | 125 | 1750 | ALE, "BI20" PA20" |
| **DK2OM** | 3654,0 | 0932 | 11 | 11 | CHN | | FMCW | | 52k | Chinese OTH radar – 43 sps 3654 – 3706 kHz |
| **DK2OM** | 3664,0 | 1440 | 10 | 11 | RUS | | PSK2 | 120 | 2600 | AT3004D – submode idle – Far East Russia |
| **DK2OM** | 3696,0 | 1959 | 26 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 3697,0 | 0933 | 28 | 11 | FEa | | F1B | 200 | 850 | F1B – async. |
| **DK2OM** | 3710,0 | 1752 | 22 | 11 | CHN | | PSK4 | 60 | 2400 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 3715,0 | 1800 | 28 | 11 | CHN | | FMCW | | 54k | Chinese OTH radar – 43 sps 3715 – 3769 kHz |
| **DK2OM** | 3720,0 | vt | dly | 11 | S | | FSK8 | 125 | 1750 | ALE, "YU" "YT" "YV" "DZ" – Swedish MIL |
| **DK2OM** | 3725,0 | 2000 | 29 | 11 | RUS | | PSK2A | 120 | 2600 | AT3004D – Far East Russia |
| **DK2OM** | 3727,0 | 1956 | 26 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 3729,0 | 1614 | 23 | 11 | CHN | | PSK4 | 60 | 2400 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 3751,5 | vt | dly | 11 | POL | no ITU | FSK8 | 125 | 1750 | ALE, "IZ3" "MI3" |
| **DK2OM** | 3756,0 | vt | dly | 11 | RUS | | A3E | | | RUS MIL – channel marker – Tuapse – East Black Sea – night QRG |
| **DK2OM** | 3761,5 | vt | vd | 11 | POL | no ITU | FSK8 | 125 | 1750 | ALE, "NI9" "PL7" "AB2" – Polish MIL |
| **DK2OM** | 3771,0 | 1957 | 25 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 3772,0 | 1744 | 27 | 11 | FEa | A4JC | A1A | | | "A4JC" - loop |
| **DK2OM** | 3777,0 | 1954 | 25 | 11 | FEa | | A1A | | | "M8JF de RIS9" – endless loop – dly |
| **DK2OM** | 3779,0 | 2146 | 19 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 3791,0 | vt | vd | 11 | D | DK0ESD | FSK8 | 125 | 1750 | ALE, "DK0ESD" – daily just for info! |
| **DK2OM** | 3797,0 | ady | dly | 11 | FEa | | A1A | | | "M8JF de RIS9" – endless loop – rcvd via JA |
| **DK2OM** | 7000,0 | vt | dly | 11 | ? | no ITU | FSK8 | 125 | 1750 | ALE, "210" "20989" "2205" "203" |
| **DK2OM** | 7000,0 | vt | dly | 11 | INS | | USB LSB | | | Indonesian pirates – daily – all day - audible in Europe in the evenings |
| **DK2OM** | **7000,0** | **1519** | **01** | **11** | **RUS** | | **H3E** | | **3.4 k** | **buzzer – 1 sec bursts - 121 Hz AF rough sinus – carrier on 6998.0 + upper sideband - with splatters 10 kHz wide –** |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | **daily, all day - Moscow** |
| **DK2OM** | 7001,5 | --- | -- | 11 | ALG | | PSK4A | 62.5 | 1750 | Clover 2000 – 8 x 62.5 Bd – Algeria – daily, vt |
| **DK2OM** | 6998.5 | vt | vd | 11 | POL | | FSK8<br>PSK8 | 125<br>2400 | 1750<br>2400 | ALE, “ZI3” “OL1” “OD6” “SZ4” and MIL-188-110A - until 7001.000 kHz – Polish MIL |
| **DK2OM** | 7005,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian pirates |
| **DK2OM** | 7010,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian and Philippine pirates |
| **DK2OM** | 7014,0 | 1947 | 26 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 7015,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian pirates |
| **DK2OM** | 7015,5 | 0250 | 05 | 11 | AFG | | PSK4A<br>FSK | 62.5<br>100 | 1750<br>170 | Clover 2000 – 8 x 62.5 Bd Codan 8580 selcall |
| **DK2OM** | 7018,0 | 2041 | 05 | 11 | RUS | REA4 | F1B | 100 | 1000 | mostly idling – Russian airforce Moscow – ident at full hour + 40 min. |
| **DK2OM** | 7020,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian pirates |
| **DK2OM** | 7025,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian pirates |
| **DK2OM** | 7027,5 | --- | -- | 11 | KAZ | „V“ | A1A | | | beacon “V” - Almaty |
| **DK2OM** | 7030,0 | vt | dly | 11 | INS | | LSB | | | Indonesian pirates |
| **DK2OM** | 7030,0 | 2142 | 06 | 11 | CHN | | FMCW | | 160k | Chinese broadband OTH radar 7030 – 7190 kHz – 10 sps – long lasting |
| **DK2OM** | 7035,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian pirates |
| **DK2OM** | 7038,0 | 1955 | 28 | 11 | CHN | | FMCW | | 160 | Chinese OTH radar – 10 sps – 7038 – 7198 kHz – 100 sec blocks – long lasting |
| **DK2OM** | 7039,3 | 2134 | 19 | 11 | RUS | K | A1A | | | Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **“RCC”** - daily |
| **DK2OM** | 7039,4 | 2134 | 19 | 11 | RUS | M | A1A | | | Cluster beacon – Magadan RUS Navy – **„RTS“** |
| **DK2OM** | 7040,0 | vt | dly | 11 | F | F6BAZ | FSK8 | 125 | 1750 | ALE, “F6BAZ” – just for info |
| **DK2OM** | **7040,0** | **ady** | **dly** | **11** | **I** | | **A1A** | | | **IZ3DVW – uncoordinated and unwanted beacon** |
| **DK2OM** | 7040,0 | vt | dly | 11 | INS | | USB<br>LSB | | | Indonesian pirates |
| **DK2OM** | 7040,5 | vt | dly | 11 | HRV | | FSK8 | 125 | 1750 | ALE, “9A5EX” “9A0ALE” – just for info |
| **DK2OM** | 7047,37 | vt | vd | 11 | D | | FSK8 | 125 | 1750 | ALE, “DL0NOT” – just for info! |
| **DK2OM** | 7049,5 | vt | dly | 11 | HRV<br>G<br>F | 9A0ALE<br>M1DFO<br>F6BAZ | FSK8 | 1250 | 1750 | Amateur ALE, just for info! daily – various times |
| **DK2OM** | 7050,0 | vt | dly | 11 | INS | | USB | | | Indonesian pirates |
| **DK2OM** | 7050,0 | 1059 | 11 | 11 | ISR | 4XZ | A1A | | | “v v v de 4XZ” endless slip - Israel Navy Haifa – later encrypted QTCs – QRG 7050.029 kHz |
| **DK2OM** | 7050,0 | 1655 | 21 | 11 | RUS | | FMCW | | 13k | OTH radar Contayner - 50 sps Gorodezh |
| **DK2OM** | 7054,0 | 2130 | 06 | 11 | RUS | | F1B | 50 | 200 | Moscow |
| **DK2OM** | 7054,0 | 1736 | 12 | 11 | CHN | | FMCW | | 10k | Chinese OTH radar – 63 sps – 4 sec bursts – every 18th sec |
| **DK2OM** | 7055,5 | vt | vd | 11 | MEa | no ITU | FSK8 | 125 | 1750 | ALE, “111” “132” “133” - Kaukasus |
| **DK2OM** | 7063,0 | 1450 | 02 | 11 | RUS | | F1B | 75 | 250 | Ulan Ude |
| **DK2OM** | 7064,0 | 1829 | 30 | 11 | CHN | | FMCW | | 10k | Chinese OTH burst radar – 50 sps – 5 sec bursts |
| **DK2OM** | 7066,0 | 1327 | 06 | 11 | FEa | | FMCW | | 32k | Codan like ocean surface radar |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2.6 sps – 7066 – 7098 kHz |
| **DK2OM** | 7068,0 | 2048 | 05 | 11 | RUS | | FMCW | | 13k | OTH radar Contayner - 50 sps - Gorodezh |
| **DK2OM** | 7070,0 | vt | vd | 11 | GEO | no ITU | FSK8 | 125 | 1750 | ALE, “MV” “244” “686” “334” “204” “571” – daily active |
| **DK2OM** | 7070,0 | 1830 | 07 | 11 | FEa | | FMCW | | 32k | Codan like ocean surface radar 2.6 sps – 7070 – 7102 kHz |
| **DK2OM** | 7081,0 | 1400 | 15 | 11 | RUS | | PSK2 | 120 | 2600 | AT3004D – submode idle - Sevastopol |
| **DK2OM** | 7088,8 | vt | vd | 11 | S | SL0FRO | A1A | | | 7088.820 - cw-trainee, Sweden – kHz – SL0FRO - just for info! |
| **DK2OM** | 7089,8 | 1734 | 12 | 11 | TUR | | PSK8 | 2400 | 2400 | Link11 - SLEW – aircraft – west of Cyprus - often |
| **DK2OM** | 7091,5 | 1900 | 19 | 11 | KAZ | „V“ | A1A | | | endless loop – ident “V” – Almaty - Kazakhstan |
| **DK2OM** | 7092,0 | vt | vd | 11 | | | FSK8 | 125 | 1750 | ALE, “3014” |
| **DK2OM** | 7098,0 | 1830 | 17 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 7099,5 | vt | dly | 11 | HRV | 9A0ZG | FSK8 | 125 | 1750 | ALE, “9A0ZG” “9A5EX1P” “9A0OS” – daily - just for info! |
| **DK2OM** | 7102,0 | vt | dly | 11 | HRV SUI D | 9A0ALE | FSK8 | 125 | 1750 | ALE, “9A0ALE” “9A2KS” “HB9MHB” “9A0ZG” “9A4OS” “DK0ESD” – just for info! |
| **DK2OM** | 7108,0 | 2027 | 11 | 11 | FEa | | FMCW | | 32k | Codan like ocean surface radar 2.6 sps – 7108 – 7140 kHz |
| **DK2OM** | 7110,0 | vt | dly | 11 | HRV | 9A0ALE | FSK8 | 125 | 1750 | ALE, “9A0ALE” – just for info |
| **DK2OM** | 7110,0 | vt | dly | 11 | | | FSK8 | 125 | 1750 | ALE, “1101” “1112” |
| **DK2OM** | 7114,0 | 2305 | 03 | 11 | RUS | | F1B | 75 | 500 | Moscow |
| **DK2OM** | 7116,0 | 2052 | 13 | 11 | FEa | | FMCW | | 32k | Codan like ocean surface radar 2.6 sps – 7116 – 7148 kHz |
| **DK2OM** | 7118,0 | 1935 | 26 | 11 | CHN | | FMCW | | 10k | Chinese OTH burst radar – 83 sps – jumping 7096 – 7098 – 7105 – 7118 – 7134 – 7156 kHz |
| **DK2OM** | **7120,0** | **1700** | **dly** | **11** | **SOM** | | **A3E** | | | **Radio Hargaysa – Somalia – daily – even audible in Australia and Japan** |
| **DK2OM** | 7122,0 | --- | -- | 11 | FEa | V | A1A | | | endless loop “V” |
| **DK2OM** | 7134,0 | 1750 | 22 | 11 | RUS | | F1B | 50 | 200 | Far East Russia |
| **DK2OM** | 7135,0 | 1757 | 28 | 11 | RUS | | F1B | 50 | 200 | Far East Russia |
| **DK2OM** | 7137,0 | vt | dly | 11 | TWN | no ITU | FSK8 | 125 | 1750 | LSB – ALE , “BENVY” “BYGCY” “BTIEU” “BWFGG” “BBRDA” – Taiwanese navy – daily – various times - tnx for info: DL8AAM |
| **DK2OM** | 7138,0 | 1948 | 03 | 11 | FEa | | FMCW | | 32k | Codan like ocean surface radar 2.6 sps – 7138 – 7070 kHz |
| **DK2OM** | 7144,0 | 1823 | 30 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – pilottone 450 Hz |
| **DK2OM** | 7147,0 | 1419 | 15 | 11 | RUS | | PSK4B | 120 | 2600 | AT3104D - Kaluga |
| **DK2OM** | 7148,0 | 2052 | 13 | 11 | FEA | | FMCW | | 32k | Codan like ocean surface radar 2.6 sps – 7148 – 7180 kHz |
| **DK2OM** | 7150,0 | 1923 | 01 | 11 | CHN | | FMCW | | 30k | Chinese OTH radar – 43 sps 7150 – 7180 kHz - daily |
| **DK2OM** | 7158,0 | 0019 | 03 | 11 | IRN | | A3E | | 15k | spurious from IRIB Tehran on 7225 kHz |
| **DK2OM** | 7162,0 | 1959 | 17 | 11 | FEa | - 9 9 | A1A | | | unid A1A – no HAM traffic – idents “2257” “2259” |
| **DK2OM** | **7163,0** | **vt** | **vd** | **11** | **UKR** | | **A3E** | | | **encrypted MSGs - SZRU in Rivne** |
| **DK2OM** | 7179,0 | 1340 | 28 | 11 | RUS | | PSK2A | 120 | 2600 | AT3004D - Crimea |
| **DK2OM** | 7183,0 | vt | dly | 11 | SUI | | FSK8 | 125 | 1750 | ALE, “HB9MHB” – just for info! |
| **DK2OM** | 7185,5 | vt | dly | 11 | D HRV | | FSK8 | 125 | 1750 | ALE, “9A5EX” “DK0ESD” just for info - daily |
| **DK2OM** | 7197,0 | vt | dly | 11 | TUR | no ITU | FSK8 | 125 | 1750 | ALE, “8241” “206102” “8151” |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | "3021" "3761" "8021" "8141" "3061" "3241" "8411" – Turkish organisations and Turkish Civil Defense - source: DL8AAM – daily, various times |
| **DK2OM** | 7197,0 | 1136 | 16 | 11 | RUS | | PSK4B | 120 | 2600 | AT3104D – Kaliningrad - pilot tone disturbed by a HAM |
| **DK2OM** | **7205,0** | **2000** | **dly** | **11** | **F** | **RFI** | **A3E/BC** | | **38k** | **Radio France International splattering 7185 – 7225 kHz – now repaired!** |
| **DK2OM** | 10100,8 | ady | dly | 11 | D | | F1B | 50 | 450 | Baudot - German Weatherservice – legal! |
| **DK2OM** | 10101,0 | 1930 | 05 | 11 | MRC | | USB | | | Moroccan fishery |
| **DK2OM** | 10110,0 | vt | dly | 11 | SNG | no ITU | FSK8 | 125 | 1750 | ALE, "CN6" "68" – Singapore Navy - Changi Naval Base |
| **DK2OM** | 10113,0 | vt | vd | 11 | TUN | no ITU | FSK8 | 125 | 1750 | ALE, "TUD" "STAT5" "STAT154" |
| **DK2OM** | 10114,0 | vt | dly | 11 | | no ITU | FSK8 | 125 | 1750 | ALE, "BSF" "ZEN" "CM2OR2" |
| **DK2OM** | 10114,8 | 0730 | dly | 11 | RUS | | F1B | 100 | 1000 | CIS14 – Moscow - daily |
| **DK2OM** | 10115,0 | vt | vd | 11 | | no ITU | FSK8 | 125 | 1750 | ALE, "2001" "2002" |
| **DK2OM** | 10116,5 | vt | vd | 11 | AFS | | F7D | 54.3 | 2120 | MHF50 – 33 tones - South African navy |
| **DK2OM** | 10120,0 | vt | dly | 11 | | no ITU | FSK8 | 125 | 1750 | ALE, "9066" "9067" "8001" "2001" |
| **DK2OM** | 10123,0 | vt | dly | 11 | ALG | no ITU | FSK8 | 125 | 1750 | ALE, "CM3" "COF" "BSF" "CM2" "ESA" |
| **DK2OM** | 10129,0 | vt | dly | 11 | ALG | no ITU | FSK8 | 125 | 1750 | ALE, "CM1" "CTF" "772" |
| **DK2OM** | 10136,0 | vt | dly | 11 | ALG | no ITU | FSK8 | 125 | 1750 | ALE, "CM3" "BLD" "CNC" "TF2" |
| **DK2OM** | 10136,0 | ady | dly | 11 | RUS | | F1B | 50 | 200 | CIS-50-200 - Chita – daily, all day |
| **DK2OM** | 10140,0 | vt | vd | 11 | CHN ? | | FSK8 | 125 | 1750 | ALE, "205" "201" "LT" |
| **DK2OM** | 10144,0 | ady | dly | 11 | D | DK0WCY | A1A | | | 10143.986 kHz - DK0WCY – German aurora beacon – **just for info!** |
| **DK2OM** | 10145,5 | vt | dly | 11 | HRV S / D F / G | 9A5EX | FSK8 | 125 | 1750 | ALE, "9A5EX" "SM5VRH" "DK0ESD" "F6BAZ" "M1DFO"- just for info - daily |
| **DK2OM** | 10148,0 | 1656 | 02 | 11 | AUS | | FMCW | | 10k | Australian OTH burst radar JORN – 22 sps – intro tone – 10148 – 10158 kHz |
| **DK2OM** | 14000,0 | 1112 | 03 | 11 | INS | | USB | | | pirates from Java Sea - daily |
| **DK2OM** | 14026,0 | 1130 | 27 | 11 | RUS | | PSK2A | 120 | 2600 | AT3004D – Moscow |
| **DK2OM** | 14050,0 | 1120 | 26 | 11 | RUS | | F1B | 50 | 250 | Ulan Ude |
| **DK2OM** | 14100,0 | vt | dly | 11 | ALG | no ITU | FSK8 | 125 | 1750 | ALE, "6206" – "6204" - "6202" "6207" "6217" "MTL" "IJI" – Mauritanian border – daily, all day |
| **DK2OM** | 14105,0 | --- | -- | 11 | F | | FMCW | | 20k | French burst radar, 6 sps, similar Codar sounding, South France |
| **DK2OM** | 14109,0 | vt | vd | 11 | POR | HAM | FSK8 | 125 | 1750 | ALE, "CT2IXQ" "DK0ESD" "HB9MHB" – just for info! |
| **DK2OM** | 14109,0 | vt | dly | 11 | RUS | RV3APM | FSK8 | 120 | 1750 | ALE, "RV3APM" – just for info! |
| **DK2OM** | 14138,0 | 1006 | 24 | 11 | RUS | | FMCW | | 13k | OTH radar Contayner - 50 sps Gorodezh |
| **DK2OM** | 14139,0 | vt | dly | 11 | CHN | | FSK8 | 125 | 1750 | ALE, "809" |
| **DK2OM** | 14140,0 | 1347 | 20 | 11 | RUS | | FMCW | | 13k | OTH radar Contayner - 50 sps Gorodezh |
| **DK2OM** | 14160,0 | vt | dly | 11 | MRC | | FSK8 | 125 | 1750 | ALE, "9204" "9228" "9236" |
| **DK2OM** | 14160,0 | 0810 | 18 | 11 | CHN | | FMCW | | 10k | Chinese OTH radar – 83 sps |
| **DK2OM** | 14175,0 | vt | vd | 11 | CHN ? | | FSK8 | 125 | 1750 | ALE, "147" |
| **DK2OM** | 14178,0 | 1004 | 04 | 11 | RUS | | FMCW | | 13k | OTH Contayner - 50 sps - |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Gorodezh – also 25.11.2015 at 0920 utc |
| **DK2OM** | 14192,0 | 0955 | 06 | 11 | RUS | | F1B | 50<br>75 | 500<br>500 | RUS navy Kaliningrad - daily |
| **DK2OM** | 14205,0 | vt | dly | 11 | CHN ? | no ITU | FSK8 | 125 | 1750 | ALE, "505" "822" – 60 deg. from DL - CHN ? |
| **DK2OM** | 14208,0 | 1329 | 22 | 11 | RUS | | FMCW | | 13k | OTH Contayner - 50 sps - Gorodezh – splatters are covering the whole band |
| **DK2OM** | 14221,0 | 2030 | dly | 11 | KGZ | | F1B | 50 | 200 | CIS-50-50 - Bishkek – daily |
| **DK2OM** | 14239,0 | 1330 | 30 | 11 | CHN | | PSK4 | 60 | 2350 | PRC 30 tone modem – LSB mode – LSB QRG - pilottone 450 Hz |
| **DK2OM** | 14260,0 | vt | dly | 11 | SRB | YU1BI | FSK8 | 125 | 1750 | ALE, "YU1BI" – just for info! |
| **DK2OM** | 14265,0 | vt | vd | 11 | TUR | no ITU | FSK8 | 125 | 1750 | ALE, "526" |
| **DK2OM** | 14277,0 | 0745 | 23 | 11 | RUS | | FMCW | | 13k | OTH radar Contayner - 50 sps Gorodezh – many splatters |
| **DK2OM** | **14280,0** | **1005** | **Wed.** | **11** | **UKR** | | **A3E** | | | **female voice with encrypted msgs – figures – "SZRU" = Foreign Intelligence Service of Ukraine in Rivne – every Wednesday at 1005 utc** |
| **DK2OM** | 14295,0 | vt | dly | 11 | SRB | YU1BI | FSK8 | 125 | 1750 | ALE, "YU1BI" – just for info! |
| **DK2OM** | 14295,0 | vt | dly | 11 | CHN | | FSK8 | 125 | 1750 | ALE, "320" – "532" |
| **DK2OM** | **14295,2** | **1517** | **01** | **11** | **TJK** | | **A3E** | | **9k** | **3rd from Radio Tajik on 4765 kHz – daily, all day – exact (14295.174 kHz on Nov. 13th)** |
| **DK2OM** | 14301,8 | -- | --- | 11 | CHN | | PSK2 | 75 | 2200 | PRC 16 tone modem – USB mode – pilottone 450 Hz - China – Shanghai – daily – all day - audible worldwide |
| **DK2OM** | 14308,0 | 0953 | 05 | 11 | RUS | | F1B | 75 | 500 | Moscow |
| **DK2OM** | 14322,0 | vt | dly | 11 | CHN | no ITU | FSK8 | 125 | 1750 | ALE, "402" |
| **DK2OM** | 14328,0 | vt | dly | 11 | CHN | no ITU | FSK8 | 125 | 1750 | ALE, "139" "534" "772" – West China |
| **DK2OM** | 14330,0 | vt | dly | 11 | | | FSK8 | 125 | 1750 | ALE, "BV4" |
| **DK2OM** | 14334,0 | vt | vd | 11 | CHN | no ITU | FSK8 | 125 | 1750 | ALE, "249" "255" "763" |
| **DK2OM** | 14344,7 | -- | --- | 11 | CHN | | PSK8 | 2400 | 2400 | modified MIL-188-110A - 600 bps short – 14344.650 kHz – daily, all day |
| **DK2OM** | 14346,0 | vt | vd | 11 | HRV RUS D | | FSK8 | 125 | 1750 | ALE, "9A0ZG" "RX3ARZ" "DK0ESD" – just for info – various times, daily |
| **DK2OM** | 14346,0 | vt | dly | 11 | THA | HS0ZEA | A1A | | | HS0ZEA beacon – 14345.950 kHz - every 5 minutes – just for info! |
| **DK2OM** | **14351,7** | **0939** | **13** | **11** | **E** | | **OFDM** | **30** | **2700** | **OFDM 73 + intro tone – experimental transmissions – Las Palmas – just for info!** |
| **DK2OM** | **18080,0** | **--** | **---** | **11** | **TWN CHN** | | **A3E/BC** | | **9k** | **Sound of Hope / Taiwan and Chinese mainland BC jammer** |
| **DK2OM** | 18100,0 | vt | vd | 11 | MRC | no ITU | FSK8 | 125 | 1750 | ALE, "CD" "C3" "R3" "G3" "E4" "E5" "Z2" "FORD" – daily, various times |
| **DK2OM** | 18106,0 | vt | vd | 11 | POR | CT2GOY | FSK8 | 125 | 1750 | ALE, "CT2GOY" – just for info! |
| **DK2OM** | 18107,0 | vt | vd | 11 | 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 | 11 | POR | CT2IXQ | FSK8 | 125 | 1750 | ALE, "CT2IXQ" – just for info |
| **DK2OM** | 18140,0 | vt | dly | 11 | SRB | YU1BI | FSK8 | 125 | 2600 | ALE, "YU1BI" – just for info! |
| **DK2OM** | 18152,0 | 0839 | 05 | 11 | CHN | | FMCW | | 100k | Chinese OTHR - 25 sps - 18152 – 18252 kHz – Central China |
| **DK2OM** | **21000,0** | **0954** | **07** | **11** | **SDN** | | **USB** | | | **MFA Sudan – Khartoum with emba Yemen – voice traffic** |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DK2OM** | **21000,0** | **vt** | **vd** | **11** | **B** | | **USB** | | | **Brazilian pirates – Rio de Janeiro with North Brazil – also: 24.09.2015 at 1650 utc** |
| **DK2OM** | **21000,0** | **1355** | **14** | **11** | **E** | | **USB** | | | **Spanish fisherman and his wife – long lasting like telephone** |
| **DK2OM** | **21002,2** | **0948** | **07** | **11** | **SDN** | **!0000 !9999 !8888** | **F1B** | **100** | **170** | **21002.15 kHz - Pactor 1 encrypted – MFA Sudan – Khartoum with emba Yemen – daily, vt** |
| **DK2OM** | 21096,0 | vt | dly | 11 | INS | YD0OXH | FSK8 | 125 | 1750 | ALE, "YD0OXH3" – daily, various times - just for info! |
| **DK2OM** | 21131,0 | vt | vd | 11 | CHN | no ITU | FSK8 | 125 | 1750 | ALE, "A92" "L02" – Chinese diplo |
| **DK2OM** | 21141,0 | vt | vd | 11 | GEO | | PSK8A | 2400 | 2400 | Stanag4538 – GEO MIL with AFG - daily |
| **DK2OM** | 21145,0 | vt | dly | 11 | 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 | ady | dly | 11 | I | IZ3DVW | A1A | | | IZ3DVW beacon – 21145,75 kHz - not coordinated with IARU |
| **DK2OM** | 21160,0 | --- | -- | 11 | RUS | | F1B | 100 | 2000 | 4th from 5290 kHz (500 Hz shift) – St. Peterburg |
| **DK2OM** | 21190,0 | 0750 | 23 | 11 | RUS | | F1B | 100 | 1000 | harmonic from 10595 kHz - Moscow - daily |
| **DK2OM** | 21225,0 | 1120 | 19 | 11 | TUR | | FMCW | | 20k | OTH radar – 50 sps - West Turkey |
| **DK2OM** | 21227,0 | 0805 | 25 | 11 | AUS | | FMCW | | 10k | Australian OTH radar JORN – 1.6 sec bursts - 41 sps – intro tones |
| **DK2OM** | 21260,0 | 0910 | 28 | 11 | CYP | | FMCW | | 20k | OTH radar Cyprus – 25 sps |
| **DK2OM** | 21272,0 | 0855 | 24 | 11 | RUS | | PSK2A | 120 | 2600 | AT3004D – traffic and submode idle – Central Siberia |
| **DK2OM** | 21278,3 | 1012 | 10 | 11 | AUS | | FMCW | | 14k | Australian OTH radar JORN – 3.0 sec bursts – 41, 50, 45, 48 and 87 sps – intro tones |
| **DK2OM** | 21346,0 | ady | dly | 11 | THA | HS0ZEA | A1A | | | beacon "HS0ZEA" – just for info! |
| **DK2OM** | 21400,0 | --- | -- | 11 | RUS | | F1B | 50 | 2000 | harmonic from 5350 kHz – area of Moscow - daily |
| **DK2OM** | 21409,5 | 0758 | 25 | 11 | RUS | | F1B | 100 | 2000 | F1B 100 / 2000 - CIS14 – harmonic from 10704.75 - Jekaterinburg, RUS - daily |
| **DK2OM** | 21414,0 | 0748 | 23 | 11 | CHN | | FMCW | | 10k | Chinese OTH burst radar – 66 and 83 sps |
| **DK2OM** | 21435,0 | 0854 | 29 | 11 | CYP | | FMCW | | 20k | OTH radar Cyprus – 25 sps |
| **DK2OM** | 21436,0 | --- | -- | 11 | RUS | | PSK2A | 120 | 5200 | AT3004D – harmonic from 10718.0 kHz - Sevastopol |
| **DK2OM** | 21438,0 | vt | vd | 11 | RUS | RCV | A1A | | | RIP90 de RCV - RUS Navy Sevastopol - daily |
| **DK2OM** | 21440,0 | 1625 | 10 | 11 | E | names | USB | | | Spanish pirates – later on 21460 |
| **DK2OM** | 21446,0 | ady | dly | 11 | THA | HS0ZEA | A1A | | | HS0ZEA beacon – every 5 minutes - just for info! |
| **DK2OM** | 25000,0 | vt | vd | 11 | FIN | | A3E | | | time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day |
| **DK2OM** | **28000,0** | **0930** | **dly** | **11** | **CIS** | | **F3E** | | | **28000 – 29700 crowded of CIS taxi nets** |
| **DK2OM** | **28000,0** | **vt** | **vd** | **11** | **B** | | **A3E** | | | **Brazilian CBers – 28000 – 28315 – daily, all day - no change** |
| **DK2OM** | 28001,5 | 0951 | 21 | 11 | RUS | | F1B | 100 | 150 | voice scrambler Yakhta – inband synchro – Ulan Ude |
| **DK2OM** | 28005,0 | 1025 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28025,0 | 1012 | 06 | 11 | POR | | F1B | 51 | 300 | F1B bursts – 28025.050 kHz - |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28030,0 | vt | vd | 11 | POR | | F1B | 51 | 340 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28040,0 | 1353 | 21 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 307 sps |
| **DK2OM** | 28045,0 | --- | -- | 11 | POR | | F1B | 51 | 280 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28050,0 | --- | -- | 11 | POR | | F1B | 51 | 300 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28051,5 | vt | dly | 11 | POR | | F1B | 51 | 300 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28055,0 | 1114 | 20 | 11 | FEa | | F3E | | | Far East pirates |
| **DK2OM** | 28055,0 | 1402 | 03 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28060,0 | vt | vd | 11 | POR | | F1B | 51 | 320 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28065,0 | 1419 | 03 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28065,0 | 1354 | 21 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 307 sps |
| **DK2OM** | 28065,2 | 1011 | 06 | 11 | POR | | F1B | 51 | 320 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28065,6 | --- | -- | 11 | GAB | | A3E | | 980 | carrier and dots in USB and LSB, bursts every 60 sec – carrier – Gabon – daily and all day |
| **DK2OM** | 28075,0 | --- | -- | 11 | POR | | F1B | 51 | 300 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28085,0 | vt | vd | 11 | POR | | F1B | 51 | 300 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28085,0 | 0912 | 21 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28085,0 | 1030 | 26 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28100,2 | 0949 | 22 | 11 | POR | | F1B | 51 | 300 | F1B bursts - 28100.780 kHz - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28102,1 | --- | -- | 11 | POR | | F1B | 51 | 320 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28105,0 | 1325 | 01 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28115,0 | 1141 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28125,0 | --- | -- | 11 | POR | | F1B | 51 | 320 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28125,0 | 0836 | 25 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28125,0 | 1021 | 18 | 11 | RUS | | F3E | | | RUS taxi – disturbing PSK31 |
| **DK2OM** | 28135,0 | 1052 | 13 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28140,0 | 1102 | 01 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28145,0 | 1027 | 24 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28146,0 | vt | vd | 11 | ARG B | | FSK8 | 125 | 1750 | ALE, “LU8EX” “PY2TI” “DL1” – just for info! |
| **DK2OM** | 28150,0 | 1010 | 29 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28155,0 | 1442 | 03 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28165,0 | 1050 | 11 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28175,0 | 0948 | 03 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28180,0 | 0822 | 25 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28195,0 | 0915 | 01 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28200,0 | vt | vd | 11 | POR | | F1B | 51 | 300 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28215,0 | 1128 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28224,4 | --- | -- | 11 | GAB | | A3E | | | carrier and dots +/- 770 Hz - |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28225,0 | 1040 | 13 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28235,0 | 0925 | 21 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28245,0 | 1248 | 06 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28249,6 | --- | -- | 11 | GAB | | A3E | | 1060 | carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28250,5 | --- | -- | 11 | GAB | | A3E | | 1060 | carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28255,0 | 1040 | 16 | 11 | E | | A3E | | | Spanish CBers |
| **DK2OM** | 28255,0 | 1015 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28265,0 | 0939 | 29 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28275,0 | 1030 | 01 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28275,1 | --- | -- | 11 | AF | | F1B | 51 | 300 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28285,0 | 0944 | 21 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28295,0 | 1014 | 06 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28305,0 | 0949 | 03 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28312,5 | vt | vd | 11 | POR | CT2IXQ | FSK8 | 125 | 1750 | ALE. "CT2IXQ" – just for info |
| **DK2OM** | 28315,0 | vt | dly | 11 | POR | | F1B | 51 | 320 | F1B bursts - west of Lisbon – Atlantic Ocean - Enagal GPS buoys - daily |
| **DK2OM** | 28345,1 | --- | -- | 11 | GAB | | A3E | | 1060 | carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28365,0 | 1132 | 17 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28365,0 | 1229 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28365,0 | 0900 | 01 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28385,0 | 1220 | 16 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28405,0 | 0937 | 29 | 11 | FEa | | F3E | | | Far East pirates |
| **DK2OM** | **28435,0** | **----** | **--** | **11** | **E** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 28435.040 kHz – Costa del Sol – Malaga** |
| **DK2OM** | 28459,8 | ---- | -- | 11 | GAB | | A3E | | 1060 | carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28459,9 | --- | -- | 11 | GAB | | A3E | | 1060 | carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | **28499,8** | **---** | **--** | **11** | **MEa** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 28499.875 kHz – Persian Gulf** |
| **DK2OM** | 28595,0 | 1208 | 19 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 307 and 870 sps |
| **DK2OM** | 28645,0 | 0924 | 24 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28665,0 | 1015 | 23 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 307 and 870 sps |
| **DK2OM** | 28675,0 | 1013 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28701,1 | --- | -- | 11 | GAB | | A3E | | 1056 | carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28720,0 | 0953 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28735,0 | 1018 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28751,2 | --- | -- | 11 | GAB | | A3E | | 1080 | carrier and dots +/- 540 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28765,0 | 0952 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28785,0 | 0926 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28795,0 | 1016 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28825,0 | 0847 | 21 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28845,5 | --- | -- | 11 | GAB | | A3E | | 1060 | carrier and dots +/- 530 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28850,0 | 0925 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28865,0 | 1350 | 21 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 307 and 870 |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | sps |
| **DK2OM** | 28870,0 | 0856 | 26 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28875,0 | 1017 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28880,0 | 0815 | 18 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 307 sps - jumping |
| **DK2OM** | 28890,0 | 1002 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28895,0 | 0823 | 14 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28901,1 | --- | -- | 11 | GAB | | A3E | | 1056 | carrier and dots +/- 528 Hz - bursts every 60 sec – Gabon – daily and all day |
| **DK2OM** | 28915,0 | 0927 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28935,0 | 0809 | 20 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 28945,0 | 1000 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28955,0 | 0845 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 28995,0 | 0856 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29005,0 | 1019 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29015,0 | 1110 | 14 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29025,0 | 0840 | 25 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29035,0 | 0857 | 04 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29040,0 | 0935 | 29 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29045,0 | 0928 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29055,0 | 0857 | 04 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29065,0 | 0853 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29100,0 | 0905 | 22 | 11 | FEa | | F3E | | | Far East pirates |
| **DK2OM** | 29114,0 | 1113 | 14 | 11 | RUS | | F1B | 100 | 2000 | harmonic from14557.0 kHz - Moscow |
| **DK2OM** | 29120,0 | 1110 | 23 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29125,0 | 0917 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29145,0 | 0853 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29145,0 | 0916 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29155,0 | 1322 | 09 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29160,0 | 0932 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29175,0 | 1004 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29180,0 | 0931 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29185,0 | 1024 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29195,0 | 0931 | 24 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29205,0 | 0956 | 21 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29230,0 | 0912 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29240,0 | 1022 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29249,9** | **1631** | **01** | **11** | **E** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29249.890 kHz – Fuerteventura - daily, all day** |
| **DK2OM** | 29255,0 | 1008 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29280,0 | 0858 | 04 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29325,0 | 0946 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29335,0 | 0919 | 04 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29350,0 | 1021 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29365,0 | 0918 | 04 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29375,0** | **----** | **--** | **11** | **I** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29374.898 kHz – Gallipoli, South Italy - daily, all day** |
| **DK2OM** | 29385,0 | 0919 | 04 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | **29387,5** | **---** | **--** | **11** | **IND** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29387.460 kHz – Indian NW coast, close to Pakistan - daily, all day** |
| **DK2OM** | 29395,0 | 0934 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29395,0 | 0945 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29400,0** | **---** | **--** | **11** | **USA** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29400.070 kHz - USA north-east coast – NY daily, all day** |
| **DK2OM** | 29400,0 | 1332 | 03 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 925 sps splatters from 29750 |
| **DK2OM** | 29420,0 | 1330 | 03 | 11 | IRN | | FMCW | | 50k | OTH radar Iran – 925 sps splatters from 29750 – also 22.11.2015 at 0935 utc |
| **DK2OM** | 29435,0 | 1009 | 22 | 11 | RUS | | F3E | | | RUS taxi - daily |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DK2OM** | 29440,0 | 1023 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29450,0** | **1631** | **01** | **11** | **MRC** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29449.880 kHz - area of El Aaiun – Morocco - daily, all day** |
| **DK2OM** | 29455,0 | 0942 | 24 | 11 | RUS | | F3E | | | RUS taxi - daily |
| **DK2OM** | 29485,0 | 0948 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29500,0** | **---** | **--** | **11** | **G** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – area of Gibraltar – daily, all day** |
| **DK2OM** | 29505,0 | 1010 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29525,0** | **---** | **--** | **11** | **MRC** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29524.990 kHz - Agadir - Morocco – daily, all day** |
| **DK2OM** | 29555,0 | 1025 | 22 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29560,0 | 0947 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29575,0 | 0943 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | 29595,0 | 0941 | 24 | 11 | RUS | | F3E | | | RUS taxi |
| **DK2OM** | **29625,0** | **---** | **--** | **11** | **USA** | | **F1B** | **81.9** | **140** | **Datawell-buoy "Waverider" – 29625.024 kHz - USA north-east coast – daily, all day** |
| **DK2OM** | 29670,0 | 1026 | 22 | 11 | RUS | | F3E | | | RUS taxi |

## IRTS – Ireland – EI3GYB (Michael)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **EI3GYB** | 14116-14155 | 1400 | 20 | 11 | ? | | FMCW | | | Radar 59plus |
| **EI3GYB** | 21173-21208 | 1410 | 18 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 14163-14195 | 0935 | 04 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 21214-21246 | 0920 | 17 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 14264-14291 | 1355 | 02 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 21210-21237 | 1105 | 19 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 18155-18180 | 0720 | 19 | 11 | ? | | FMCW | | | RADAR, very strong |
| **EI3GYB** | 14236-14260 | 1045 | 25 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 18146-18168 and beyond | 0910 | 02 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 28426-28448 | 1250 | 15 | 11 | ? | | FMCW | | | RADAR, very strong |
| **EI3GYB** | 14175-14185 | 1105 | 25 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 3664-3673 | 1820 | 07 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 7088-7097 | 2220 | 25 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 7081-7087 | 1440 | 15 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 14348-14353 | 1420 | 20 | 11 | ? | | Digital | | | 2 stations communicating with each other, simplex. One very strong(RS59plus), the other quite weak(RS52) |
| **EI3GYB** | 14348-14352 | 1315 | 24 | 11 | ? | | Digital | | | 2 stations communicating , simplex. One very strong, the other weakish. |
| **EI3GYB** | 14348-14352 | 1100 | 25 | 11 | ? | | Digital | | | 1 station in cont. Digi mode |
| **EI3GYB** | 14348-14352 | 1300 | 26 | 11 | ? | | Digital | | | Very strong, cont. digi mode |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **EI3GYB** | 14348-14352 | 1445 | 29 | 11 | ? | | Digital | | | Cont. mode |
| **EI3GYB** | 1986 | 1945-2045 | 23 | 11 | HOL or MM | | USB | | | Dutch fishermen |
| **EI3GYB** | 3654 | 1415 | 23 | 11 | MM | | USB | | | French fishermen |
| **EI3GYB** | 3664 | 1340 | 07 | 11 | MM | | USB | | | Spanish Fishermen |
| **EI3GYB** | 3664 | 1120 | 10 | 11 | MM | | USB | | | Spanish fishermen |
| **EI3GYB** | 3664 | 1425 | 15 | 11 | MM | | USB | | | Spanish fishermen |
| **EI3GYB** | 3664 | 1940 | 23 | 11 | E or MM | | USB | | | Spanish fishermen |
| **EI3GYB** | 3664 | 1400 | 24 | 11 | MM | | USB | | | Japanese fishermen |
| **EI3GYB** | 3677 | 1450-1500 | 23 | 11 | IRL or MM | | USB | | | Irish fishermen |
| **EI3GYB** | 3745 | 1925 | 11 | 11 | E | | USB | | | Group of Spanish fishermen in La Coruna area |
| **EI3GYB** | 3760 | 2005 | 16 | 11 | POR or MM | | USB | | | Portuguese fishermen |
| **EI3GYB** | 7000 | 1350 | 03 | 11 | RUS | | H3E | | | Buzzer from 6998 kHz, RS 57 |
| **EI3GYB** | 7000 | 1930 | 06 | 11 | RUS | | H3E | | | Buzzer from 6998 kHz,RS57 |
| **EI3GYB** | 7000 | 1316 | 07 | 11 | RUS | | H3E | | | Buzzer from 6998 kHZ,RS59plus |
| **EI3GYB** | 7000 | 0055 | 08 | 11 | RUS | | H3E | | | Buzzer from 6998 kHz,very weak |
| **EI3GYB** | 7000 | 1930 | 11 | 11 | RUS | | H3E | | | Buzzer from 6998 kHz- only weakish. |
| **EI3GYB** | 7000 | 2345 | 30 | 11 | RUS | | H3E | | | Buzzer from 6998 kHz,very weak |
| **EI3GYB** | 7050 | 0005 | 13 | 11 | ISR | | CW | | | 4XZ |
| **EI3GYB** | 7100 | 1800 | 10 | 11 | CHN | | H3E | | | CRI BC in Russian |
| **EI3GYB** | 14250 and above | 1200 | 12 | 11 | ? | | FMCW | | | RADAR RS 59 plus plus |
| **EI3GYB** | 21205 | 0926 | 02 | 11 | ? | | FMCW | | | RADAR |
| **EI3GYB** | 21334 | 0900 | 17 | 11 | W.Africa | | Digital | | | DPRK embassy |

## KARS – Kuwait – 9K2RR (Faisal)

## MRASZ – Hungary - HA7PL (Laci)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **MRASZ** | 3500,0 | 2010 | 19 | 11 | | | A3E | | | ui. |
| **MRASZ** | 3502,0 | 1955 | 18 | 11 | | | A3E | | | music |
| **MRASZ** | 3502,0 | 1803 | 22 | 11 | | | A3E | | | ui. instable carrier |
| **MRASZ** | 3504,0 | 1935 | 18 | 11 | | | USB | | | ui. |
| **MRASZ** | 3504,0 | 1811 | 22 | 11 | | | A3E | | | ui. |
| **MRASZ** | 3507,0 | 2024 | 19 | 11 | | | A3E | | | ui. |
| **MRASZ** | 3507,0 | 1713 | 23 | 11 | | | A1A | | | deliberate disturbance |
| **MRASZ** | 3509,5 | 1754 | 10 | 11 | | | A1A | | | quick V string |
| **MRASZ** | 3512,0 | 1828 | 25 | 11 | | | A3E | | | ui. hum on the carries |
| **MRASZ** | 3517,0 | 2032 | 19 | 11 | | | A3E | | | ui. instable carrier |
| **MRASZ** | 3518,0 | 1948 | 23 | 11 | | | A1A | | | "QSA 1 QRS" |
| **MRASZ** | 3520,0 | 1930 | 25 | 11 | | | USB | | | russian male, count from 1-till 0 |
| **MRASZ** | 3522,0 | 1924 | 23 | 11 | | | A2E | | | "5F…. = = 97 1 97 1 31 31 TTT" |
| **MRASZ** | 3522,0 | 1912 | 30 | 11 | | | A1A | | | "853 853 853" very slow |
| **MRASZ** | 3525,0 | 1711 | 23 | 11 | | | A3E | | | ui. |
| **MRASZ** | 3535,0 | 1801 | 19 | 11 | | | A3E | | | ui. |
| **MRASZ** | 3545,0 | 1936 | 19 | 11 | | | A2E | | | "97 2 97 1 97 1 31 31" |
| **MRASZ** | 3550,0 | 1926 | 18 | 11 | | | A3E | | | ui. |
| **MRASZ** | 3552,0 | 2127 | 11 | 11 | | | A1A | | | "UYSPA YEHMD BUÖTS" |
| **MRASZ** | 3582,0 | 1840 | 19 | 11 | | | PSK2 | | | AT3004D |
| **MRASZ** | 3593,0 | 1747 | 22 | 11 | | | A3E | | | ui. weak |
| **MRASZ** | 3593,6 | 2126 | 11 | 11 | RUS | "D" | A1A | | | Cluster beacon |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **MRASZ** | 3593,6 | 2103 | 18 | 11 | RUS | "D" | A1A | | | Cluster beacon |
| **MRASZ** | 3593,8 | vt | ady | 11 | RUS | "P" | A1A | | | Cluster beacon |
| **MRASZ** | 3595,0 | 2012 | 20 | 11 | | | USB | | | russian female, numbers |
| **MRASZ** | 3595,0 | 0636 | 21 | 11 | | | USB | | | russian male, numbers, hrd: 26 |
| **MRASZ** | 3599,4 | 1749 | 22 | 11 | | | LSB | | | "hallo, hallo" |
| **MRASZ** | 3658,0 | vt | ady | 11 | | | A1A | | | slow V string |
| **MRASZ** | 3700,0 | 1834 | 24 | 11 | | | LSB | | | music |
| **MRASZ** | 3705,0 | 2123 | 11 | 11 | | | A1A | | | "ZGN ZZT" "VLVMK LVLKK LMKVK" |
| **MRASZ** | 7000,0 | vt | ady | 11 | RUS | | H3E | | | buzzer |
| **MRASZ** | 7018,0 | vt | ady | 11 | RUS | REA4 | F1B | 100 | 1000 | |
| **MRASZ** | 7035,2 | 0828 | 15 | 11 | | | LSB | | | ui. |
| **MRASZ** | 7050,0 | 1954 | 11 | 11 | ISR | 4XZ | A1A | | | "VVV de 4XZ(2x)= =" lot of messages |
| **MRASZ** | 7050,0 | 1440 | 13 | 11 | ISR | 4XZ | A1A | | | "VVV de 4XZ(2x)= =" lot of messages |
| **MRASZ** | 7050,0 | 1450 | 13 | 11 | | | LSB | | | russian language, hrd:16,23 |
| **MRASZ** | 7055,0 | 1508 | 13 | 11 | | | LSB | | | russian language, music, chaos, talk politics |
| **MRASZ** | 7055,0 | 1620 | 16 | 11 | | | LSB | | | russian/ukrainian, music, chaos, hrd: 23 |
| **MRASZ** | 7075,0 | 2115 | 11 | 11 | | | OTHR | | | 7065-7085 kHz |
| **MRASZ** | 7120,0 | vt | ady | 11 | SOM | | A3E | | | Rad.Hargaysa |
| **MRASZ** | 7147,0 | 0832 | 15 | 11 | | | PSK2 | | | AT3004D |
| **MRASZ** | 7205,0 | 1746 | 10 | 11 | CHN | | A3E | | | splatter 5 kHz down |
| **MRASZ** | 7205,0 | 1916 | 23 | 11 | | | A3E | | | splatter down 10 kHz |
| **MRASZ** | 10117,0 | 1624 | 16 | 11 | | | OTHR | | | 10115-10140 kHz |
| **MRASZ** | 18068,0 | 0943 | 15 | 11 | | | OTHR | | | 18068-08080 kHz |
| **MRASZ** | 21125,0 | 0649 | 21 | 11 | | | OTHR | | | 21100-21150 kHz |
| **MRASZ** | 28085,0 | 0841 | 15 | 11 | | | OTHR | | | 28060-28110 kHz |

## OEVSV – Austria – OE3GSA (Gerd)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **oevsv** | 7050.0 | 0755 | 12 | 11 | unid | 4XZ | A1A | | | QTCs |
| **oevsv** | 7050.0 | 0743 | 13 | 11 | unid | 4XZ | A1A | | | QTCs |
| **oevsv** | 7050.0 | 0648 | 14 | 11 | unid | 4XZ | A1A | | | QTCs |
| **oevsv** | 7050.0 | 0638 | 15 | 11 | unid | 4XZ | A1A | | | QTCs |
| **oevsv** | 10119.0 | 0804 | 21 | 11 | unid | unid | J3E | | | reading groups |

## PZK – Poland – SP9BRP (Jan)

## REF 1 – France – F5MIU (Francis)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | Baud | Sh /Bw | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **R.E.F.** | | | | | | | | | | **November 2015** |
| **F5MIU** | 7050 | 1830 | 13 | 11 | | 4XZ | A1 | | | S9 Coded CW |
| **F4FRO** | 7120 | 1815 | 5 | 11 | | | fmcw | | **130kHz** | **New type of OTHR?** 7060-7190kHz |
| **F5MIU** | 7195 | 1640 | 8 | 11 | | | fmcw | | 10kHz | Data carrier every 150Hz S8 |
| **F5MIU** | 7205 | 1715 | 02 | 11 | | | AM | | 15kHz | BCL station in Esperanto 2kHz on 40m band (from Taïwan ?) |
| **F5MIU** | 7205 | 1750 | 04 | 11 | | | AM | | 15kHz | BCL station in Chinese ? 2kHz on 40m band (from Taïwan ?) |
| **F5MIU** | 10130 | 1648 | 16 | 11 | | | fmcw | | 25kHz | OTHR S9+10, 20pps + splatters |
| **F5MIU** | 10140 | 1806 | 10 | 11 | | | fmcw | | 20kHz | OTHR S9, 40pps |
| **F5MIU** | 14105 | 0925 | 16 | 11 | | | fmcw | | 10kHz | OTHR S9, 5pps + splatters |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | Baud | Sh /Bw | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **F5MIU** | 14135 | 0813 | 6 | 11 | | | fmcw | | 25kHz | OTHR S9+10, 20pps + splatters |
| **F5MIU** | 14180 | 0842 | 02 | 11 | | | fmcw | | 25kHz | OTHR S9, 20pps + splatters |
| **F5MIU** | 14180 | 0851 | 25 | 11 | | | fmcw | | 25kHz | OTHR S9+10, 20pps + splatters |
| **F5MIU** | 14180 | 0855 | 26 | 11 | | | fmcw | | 10kHz | OTHR S7, 12pps |
| **F5MIU** | 18200 | 0840 | 5 | 11 | | | fmcw | | **120kHz** | **New type of OTHR?** S3, 40pps |
| **F5MIU** | 21190 | 0910 | 16 | 11 | | | fmcw | | 25kHz | OTHR S9, 20pps + splatters |
| **F5MIU** | 21350 | 0830 | 5 | 11 | | | fmcw | | 20kHz | OTHR S7, 20pps |
| **F5MIU** | 21410 | 0845 | 26 | 11 | | | fmcw | | 20kHz | OTHR S6, 20pps |

## REF 2 – France – F5JBR (Andre)

## REP – Portugal – CT4AN (Jose Francisco)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **REP** | 3651,5 | 10.49 | 27 | 11 | E | | J3E-U | | | Spanish fishery |
| **REP** | **3700** | **19.01** | **06** | **11** | **RUS** | | **J3E-U** | | | **Navy operations** |
| **REP** | 3739 | 09.48 | 28 | 11 | E | | J3E-U | | | Spanish fishery |
| **REP** | 7020 | 20.35 | 06 | 11 | | | J3E-U | | | Unid lang YL calling, no answer |
| **REP** | 7037 | 08.20 | 07 | 11 | | | FMCW | 50 | 17k | OTH radar |
| **REP** | **7038** | **23.51** | **02** | **11** | **RUS** | **S** | **A1A** | | | **KALININGRAD, ADY, DLY** |
| **REP** | **7038** | **22.05** | **02** | **11** | **UKR** | **D** | **A1A** | | | **SEVASTOPOL, ADY, DLY** |
| **REP** | **7050** | **20.37** | **08** | **11** | **RUS** | | **F1B** | **50** | **200** | **CIS36-50 encrypted, Russia** |
| **REP** | **7050** | **21.33** | **11** | **11** | **ISR** | **4XZ** | **A1A** | | | **4XZ IDF Navy, Haifa - Israel** |
| **REP** | 7068 | 21.26 | 05 | 11 | | | FMCW | 50 | 15k | OTH radar |
| **REP** | 10110 | 10.07 | 28 | 11 | | | J3E-U | | | Arabic+french lang fishery, singing |
| **REP** | 10121 | 10.47 | 12 | 11 | | | F1B | 75 | 250 | Encrypted F1B |
| **REP** | 10122 | 12.32 | 24 | 11 | | | J3E-U | | | Arabic language fishery |
| **REP** | 10125 | 10.18 | 11 | 11 | | | J3E-U | | | Arabic language fishery |
| **REP** | 10125 | 17.21 | 12 | 11 | | | FMCW | 50 | 20k | OTH radar |
| **REP** | 10130 | 21.11 | 10 | 11 | MRC | | J3E-U | | | Fishermen on sea |
| **REP** | 10130 | 16.48 | 16 | 11 | | | FMCW | 50 | 20k | OTH radar |
| **REP** | **14141** | **08.12** | **11** | **11** | **RUS** | | **F1B** | **75** | **500** | **CIS 36-50, mil** |
| **REP** | 14142 | 13.03 | 09 | 11 | | | FMCW | 50 | 17k | OTH radar |
| **REP** | **14160** | **11.28** | **18** | **11** | | **9226** | **MFSK** | | | **MILSTD188 ALE "9226" clg "9204"** |
| **REP** | 14161 | 10.33 | 18 | 11 | | | FMCW | 100 | 20k | OTH radar, "foghorn" like sound |
| **REP** | 14180 | 09.19 | 06 | 11 | | | FMCW | | 100k | OTH radar, burst mode |
| **REP** | 14183 | 10.03 | 06 | 11 | | | FMCW | | 15k | OTH radar, burst mode |
| **REP** | **14192** | **10.55** | **05** | **11** | **RUS** | | **F1B** | **50** | **200** | **CIS50 encrypted, Russia** |
| **REP** | 14207 | 21.00 | 16 | 11 | | | FMCW | | | OTH radar 50sps/20kHz |
| **REP** | **14242** | **10.57** | **23** | **11** | | | **BPSK** | **120** | **3k** | **AT3004D 12xBPSK channels pilot tone 3k** |
| **REP** | 14265 | 10.20 | 11 | 11 | | | FMCW | 50 | 17 | OTH radar |
| **REP** | 14268 | 10.07 | 06 | 11 | | | FMCW | | 15k | OTH radar, burst mode, moving |
| **REP** | 14280 | 10.20 | 11 | 11 | | | FMCW | | 160k | Very wide OTH radar 160kHz |
| **REP** | 14308 | 10.57 | 05 | 11 | | | F1B | 75 | 500 | Encrypted, unid |
| **REP** | **14350** | **17.12** | **21** | **11** | **G** | **DHFCS** | **J3E-U** | **1200** | | **STANAG 4285** |
| **REP** | 14352 | 11.04 | 18 | 11 | | | OFDM | | | |
| **REP** | 18080 | 12.50 | 20 | 11 | | | FMCW | 50 | 20k | OTH radar |
| **REP** | 18144 | 12.53 | 20 | 11 | | | FMCW | 50 | 10k | OTH radar, burst mode |
| **REP** | 21215 | 09.00 | 07 | 11 | E | | J3E-U | | | Fishermen |
| **REP** | 21270 | 11.07 | 17 | 11 | | | FMCW | 50 | 20k | OTH radar |
| **REP** | 21320 | 10.22 | 03 | 11 | | | FMCW | | | OTH radar |
| **REP** | 21370 | 09.24 | 15 | 11 | | | FMCW | 50 | 20k | OTH radar |
| **REP** | 28150 | 11.02 | 14 | 11 | RUS | | F3E | | | Taxis |
| **REP** | 29175 | 11.54 | 09 | 11 | RUS | | F3E | | | Taxi female dispatcher |
| **REP** | 29250 | 12.02 | 18 | 11 | | | F1B | 82 | 160 | Datawell buoy, idling |
| **REP** | 29250 | 12.21 | 18 | 11 | | | F1B | 82 | 140 | Datawell GPS buoy |
| **REP** | 29620 | 11..38 | 06 | 11 | | | FMCW | | | OTH radar |
| **REP** | 29650 | 11.49 | 12 | 11 | | | F1B | 82,2 | 135 | Datawell GPS buoy |

## RSGB - Great Britain – M0VRR (Vaughan)

| SOC | KHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SHIFT | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **RSGB** | 7011 | 0833 | 26 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 7022 - 7050 | 0825 | 07 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 7088 | 0839 | 26 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 7145 | 0834 | 15 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 7187 | 0842 | 03 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 7195 | 0830 | 16 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 7196 | 0845 | 12 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 7196 | 0834 | 19 | 11 | | | J2X | | | 12xPSK chnls 3300 Hz pilot |
| **RSGB** | 14050 | 0831 | 04 | 11 | | | F1B | 50 | 250 | sync cipher tfc & revs |
| **RSGB** | 14050 | 0835 | 16 | 11 | | | F1B | 75 | 250 | sync cipher tfc & revs |
| **RSGB** | 14125 – 14148 | 1017 | 24 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 14131 – 14136 | 1033 | 23 | 11 | | | FMCW | | | OTHR 10 Hz PRF |
| **RSGB** | 14148.6 | 0837 | 15 | 11 | | | F1B ? | | | 2 tones spaced at 600 Hz...sounds like Pactor |
| **RSGB** | 14152 – 14169 | 0837 | 18 | 11 | | | FMCW ? | | | Continual wide band signal PRF 83 Hz – several transmitters involved |
| **RSGB** | 14154 – 14167 | 0925 | 18 | 11 | | | FMCW | | | OTHR 83 Hz PRF |
| **RSGB** | 14160 - 14191 | 0833 | 04 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 14170 – 14186 | 0836 | 25 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 14175 – 14187 | 0829 | 26 | 11 | | | FMCW | | | OTHR 85 Hz PRF |
| **RSGB** | 14192 | ady | dly | 11 | | | F1B | 50 | 500 | sync cipher tfc |
| **RSGB** | 14236 - 14253 | 0846 | 09 | 11 | | | FMCW | | | OTHR 10 Hz PRF |
| **RSGB** | 14261 – 14294 | 0835 | 20 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 14289 – 14302 | 0836 | 28 | 11 | | | FMCW | | | OTHR 10 Hz |
| **RSGB** | 14300 - 14315 | 0837 | 05 | 11 | | | FMCW | | | OTHR 10 Hz PRF |
| **RSGB** | 14348.6 | 0847 | 15 | 11 | | | F1B ? | | | 2 tones spaced at 600 Hz |
| **RSGB** | 18059 – 18076 | 0842 | 11 | 11 | | | FMCW | | | OTHR 10 Hz PRF |
| **RSGB** | 18059 – 18081 | 0904 | 18 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 18090 – 18110 | 1022 | 19 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 18130 | 0839 | 11 | 11 | | | F1B | 100 | 1000 | 2nd harmonic of 9065 KHz 100bd/500 hz |
| **RSGB** | 18130 | 0839 | 16 | 11 | | | F1B | 100 | 1000 | 2nd harmonic of 9065 KHz 100bd/500 hz |
| **RSGB** | 18130 | 0846 | 17 | 11 | | | F1B | 100 | 1000 | 2nd harmonic of 9065 KHz 100bd/500 hz |
| **RSGB** | 18130 | 0841 | 18 | 11 | | | F1B | 100 | 1000 | 2nd harmonic of 9065 KHz 100bd/500 hz |
| **RSGB** | 18130 | 0835 | 24 | 11 | | | F1B | 100 | 1000 | 2nd harmonic of 9065 KHz 100bd/500 hz |
| **RSGB** | 18146 - 18175 | 0835 | 01 | 11 | | | FMCW | | | OTHR 50Hz PRF |
| **RSGB** | 18146 - 18251 | 0834 | 02 | 11 | | | FMCW | | | OTHR - very wide PRF 25 Hz |
| **RSGB** | 18150 | 0831 | 19 | 11 | | | F1B | 100 | 1000 | 2nd harmonic of 9075 KHz 100bd/500 hz |
| **RSGB** | 18153 - 18254 | 0839 | 05 | 11 | | | FMCW | | | very wideband pulse transmission @ 25 Hz PRF |
| **RSGB** | 18154 – 18189 | 0925 | 19 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 21099 – 21122 | 0838 | 27 | 11 | | | FMCW | | | OTHR 25 Hz PRF |
| **RSGB** | 21178 – 21202 | 0841 | 16 | 11 | | | FMCW | | | OTHR 50 Hz PRF |

| SOC | KHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SHIFT | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **RSGB** | 21262 – 21274 | 0846 | 22 | 11 | | | FMCW | | | Short data bursts at various freqs in band – 50 Hz PRF |
| **RSGB** | 21338 - 21362 | 0835 | 05 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 21345 - 21359 | 0838 | 01 | 11 | | | FMCW | | | OTHR ? - 50 Hz PRF....4 secs burst every 15 secs |
| **RSGB** | 21359 – 21381 | 0842 | 26 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 21397 – 21422 | 0845 | 26 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 21398 – 21422 | 0836 | 26 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 21410 – 21511 | 1212 | 30 | 11 | | | FMCW | | | OTHR 25 Hz PRF |
| **RSGB** | 28000 - 29700 | 0846 | 03 | 11 | | | FM | | | many short duration fm transmissions - russian taxis, CB etc |
| **RSGB** | 28000 - 29700 | 0846 | 15 | 11 | | | FM | | | many short duration fm transmissions - russian taxis, CB etc |
| **RSGB** | 28068 – 28112 | 0845 | 15 | 11 | | | FMCW | | | OTHR 50 Hz PRF |
| **RSGB** | 28689 - 28771 | 0845 | 01 | 11 | | | FMCW | | | wideband short bursts of 300 Hz or 800 Hz PRF |

## SRAL – Finland – OH2BLU (Pekka)

| Society | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| **SRAL** | 6998,0 | h24 | dly | 11 | RUS | UiTone | R3E | | | 125 Hz tones |
| **SRAL** | 7000,0 | 1100-1500 | * | 11 | | UiCarr | N0N | | | Days: 3. 7. 9. 20. 25. |
| **SRAL** | 7000,0 | 0905 | 12. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7008,0 | 1100-1425/ | 12. | 11 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7009,0 | 0700-1400 | 30. | 11 | | Ui2tone | J3E-u | | | Tones 1200 & 2300 Hz |
| **SRAL** | 7012,0 | 1255-1415/ | 19. | 11 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7013,0 | 0830-1220 | 6. 26. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7014,0 | 1100-1200 | 3. | 11 | RUS | RMW32 | A1A | | | 5F, 5BL |
| **SRAL** | 7018,0 | 0615-2000 | * | 11 | RUS | REA4 | F1B/A | | 1000 | Days: 1. - 20. 24. 30. |
| **SRAL** | 7018,0 | 1320/ | 1. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7018,62 | 0800-1603/ | 13. 18. | 11 | | UiCarr | N0N | | | |
| **SRAL** | 7030,0 | 0725-1250 | 12. 21. | 11 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7030,8 | 1330-1415 | 5. | 11 | | UiCarr | N0N | | | unstable |
| **SRAL** | 7036,5 | 1145-1400 | 17. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7050,0 | 0300-2130 | 11. - 15. | 11 | ISR | 4XZ | A1A | | | vvv, 5L |
| **SRAL** | 7054,0 | 1830-0800 | 1. – 11. | 11 | | UiPTR | F1B | | 200 | |
| **SRAL** | 7073,0 | 1145 | 16. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7081,0 | 0915-1500 | 15. | 11 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7087,0 | 0850-0905/ | 3. | 11 | | UiCarr | N0N | | | |
| **SRAL** | 7089,0 | 0845-1300 | 3. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7090,0 | 0725 | 26. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7098,0 | 1350-1420/ | 30. | 11 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7113,0 | 1245- | 2. | 11 | | UiMUX | PSK2 | 120 | 2600 | |

| Society | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1415 | | | | | | | | |
| **SRAL** | 7116,62 | 1250-1410 | 27. | 11 | | UiCarr | N0N | | | |
| **SRAL** | 7120,0 | /0330-0500/ | dly | 11 | SOM | R.Hargeisa | A3E | | | |
| **SRAL** | 7120,0 | /1500-1900/ | dly | 11 | SOM | R.Hargeisa | A3E | | | |
| **SRAL** | 7140,0 | 1630-1812/ | 16. | 11 | | UiCarr | N0N | | | |
| **SRAL** | 7140,0 | 0640-1120 | 26. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7147,0 | 0630-2030 | 14. 15. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7149,0 | 0755 | 18. | 11 | | UiCW | A1A | | | |
| **SRAL** | 7168,0 | 0940-1000 | 12. | 11 | | UiPTR | F1B | | 200 | |
| **SRAL** | 7179,0 | 1300 | 28. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7181,75 | 0640-1605/ | * | 11 | | UiPTR | F1B/ N0N | | 250 | Days: 1. 2. 9. 15. MR 5BL |
| **SRAL** | 7184,0 | 1140-1655 | 1. | 11 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7193,0 | 0820-1500 | * | 11 | | UiPTR | F1B | | 200 | Days: 3. - 8. 19. |
| **SRAL** | 7194,0 | 1230 | 5. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7197,0 | 0650-1425/ | 6. | 11 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7198,0 | 0800-1030 | 12. 29. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7200,0 | /0950-1300/ | dly | 11 | CHN | CNR1 | A3E | | | Used as jammer on TWN |
| **SRAL** | 7 MHz | 1830-0800 | * | 11 | RUS | 29B6 | FMCW | | | 50Hz / 15 kHz , days: 5. 6. 7. 21. 22. |
| **SRAL** | 14000,0 | 0545-1040 | * | 11 | | UiCarr | N0N | | | Days: 16. 18. 22. |
| **SRAL** | 14006,0 | 0910-1030/ | 2. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 14036,0 | 1250 | 3. | 11 | RUS | REA4 | F1B | | 2000 | 2f |
| **SRAL** | 14050,0 | 0650-0810 | 4. | 11 | | UiPTR | F1B | | 250 | |
| **SRAL** | 14052,0 | 0640 | 19. | 11 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 14141,0 | 1135 | 2. | 11 | | UiPTR | F1B | | | |
| **SRAL** | 14181,0 | 0645-0900 | 26. | 11 | | UiOTHR | FMCW | | | 100 Hz / 10 kHz |
| **SRAL** | 14192,0 | 1250 | 3. | 11 | RUS | UiPTR | F1B | | 200/500 | |
| **SRAL** | 14221,0 | 0400-0600 | * | 11 | KGZ | UiPTR | F1B | | 250 | Days: 1. - 5. 12. 21. 23. |
| **SRAL** | 14295,0 | 0400-1420 | dly | 11 | TJK | R Tojikiston | A3E | | | 3f 4765,00 kHz, Yangiyul TX |
| **SRAL** | 14 MHz | 0600-1430 | * | 11 | RUS | 29B6 | FMCW | | | 50Hz / 15 kHz, days 3. 4. 6. 13. 14. 18. 20. 23. 30. |
| **SRAL** | 14 MHz | 0630-1340 | * | 11 | RUS | UiOTHR | FMCW | | | 10Hz / 15 kHz, 30 sec bursts, days:1. 2. 9. 13. 15. 20. 21. 22. 23. 30. |
| **SRAL** | 18 MHz | 0600-1000 | * | 11 | CYP / TUR | UiOTHR | FMCW | | | 25/50Hz / 20 kHz , days: 15. 18. 19. 28. 30. |
| **SRAL** | 21 MHz | 0600-1300 | * | 11 | CYP / TUR | UiOTHR | FMCW | | | 25/50Hz / 20 kHz, days: 3. 5. 12. 16. 17. 20. 21. 24. 27. 29. 30. |
| **SRAL** | 21438,0 | 0800-1115 | * | 11 | RUS | RCV | A1A | | | Days: 1. 2. 3. 15. 17. 26. 28. 29. 30. |
| **SRAL** | 28 MHz | 0600-1300 | * | 11 | IRN | UiOTHR | FMCW | | | (307 &) 870 Hz / 60 kHz – 300 kHz, days: 15. – 30. |
| **SRAL** | 28 MHz | 0645-1215 | 19. 22. | 11 | | UiOTHR | FMCW | | | 25/50Hz / 20 kHz |
| **SRAL** | 28 MHz | 0725-1010 | * | 11 | RUS | Taxi disp. | F3E | | | 8 reports, days: 15. 16. 21. |

## USKA – Switzerland – HB9CET (Peter)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH (BW) | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **USKA** | 3527.0 | 2344 | 01 | 11 | | | F1B | 50 | 200 | daily |
| **USKA** | 3548.0 | 2309 | 01 | 11 | | | F1B | 50 | 200 | daily |
| **USKA** | 3550.0 | 2251 | 26 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 – AT3004D |
| **USKA** | 3551.0 | 2301 | 01 | 11 | | | PSK8 | 2400 | ~2k6 | 1800Hz single tone 2400Bd MIL188-110A Hybrid; short intro with 4 unmodulated tones |
| **USKA** | 3552.0 | 2240 | 22 | 11 | | | DQPSK | 14x75 | 5k9 | LINK 11 CLEW DSB; PRM mode |
| **USKA** | 3554.0 | 2343 | 01 | 11 | | | PSK8 | 2400 | ~2k4 | Stanag 4285 often |
| **USKA** | 3563.0 | 2232 | 22 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 – AT3004D |
| **USKA** | 3604.0 | 2229 | 22 | 11 | | | J7D | 12x120 | 2k7 | CIS12 |
| **USKA** | 3606.0 | 2246 | 23 | 11 | | PY40 | MFSK8 | 125 | 1750 | MIL 188-141A, LQA; To: FQ4 |
| **USKA** | 3608.0 | 2253 | 22 | 11 | | | F1B | 50 | 200 | often |
| **USKA** | 3714.0 | 2314 | 26 | 11 | | | G1D | 2400 | 2k4 | PSK-8: Link 11- SLEW |
| **USKA** | 3716.5 | 2306 | 26 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 – AT3004D |
| **USKA** | 6998.0 | 1411 | 01 | 11 | | | H3E-U Bursts | | ~3k6 | "Buzzer" up to ≥7001.5kHz daily BD 1.2", BRI 3" Pause ~1.8s |
| **USKA** | 6999.0 | 1639 | 30 | 11 | | | FMOP | 50 | ~13k | OTHR, up to > 7006 kHz |
| **USKA** | 7001.8 | 2122 | 20 | 11 | | | PSK8 | 2400 | ~2k4 | |
| **USKA** | 7012.0 | 2213 | 20 | 11 | | | F1B | 75 | 250 | |
| **USKA** | 7018.0 | 2214 | 20 | 11 | | REA4 | F1B | 100 | 1000 | ID in F1A daily |
| **USKA** | 7039.3 | 2221 | 22 | 11 | RUS | K | A1A | | | Beacon K Petropavlovsk |
| **USKA** | 7039.4 | 2223 | 22 | 11 | RUS | M | A1A | | | Beacon M Magadan |
| **USKA** | 7041.8 | 2128 | 12 | 11 | | | F1B | 50 | 250 | |
| **USKA** | 7041.8 | 2132 | 12 | 11 | | | F1A | | | |
| **USKA** | 7049.0 | 1647 | 21 | 11 | | | FMOP | 50 | ~13k | OTHR; affected BW > 30k! |
| **USKA** | 7050.028 | 12 | 2216 | 11 | ISR | 4XZ | A1A | | | encrypted; letters and figures |
| **USKA** | 7070.0 | 2315 | 16 | 11 | | 244 | MFSK8 | 125 | 1750 | MIL 188-141A; To: 571 |
| **USKA** | 7070.0 | 2315 | 20 | 11 | | 244 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7070.0 | 2159 | 22 | 11 | | 288 | MFSK8 | 125 | 1750 | MIL 188-141A; LQA To: 514 |
| **USKA** | 7089.0 | 0831 | 03 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 = AT3004D |
| **USKA** | 7115.5 | 1028 | 23 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 = AT3004D |
| **USKA** | 7120.0 | 1742 | 22 | 11 | SOM | | A3E | | | Radio Hargaysa almost daily |
| **USKA** | 7134.0 | 1703 | 30 | 11 | | | F1B | 50 | 200 | |
| **USKA** | 7140.0 | 2313 | 29 | 11 | | 1101 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7140.0 | 2333 | 29 | 11 | | 1111 | MFSK8 | 125 | 1750 | MIL 188-141A; To: 1101 |
| **USKA** | 7140.0 | 1825 | 30 | 11 | | 1102 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7144.0 VFO LSB | 1652 | 30 | 11 | | | BPSK | 30x60 | ~2k4 | Burst system; spacing 75 Hz preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone at 450Hz |
| **USKA** | 7147.0 | 1556 | 30 | 11 | | | J7D | 12x120 | 2k7 | CIS12 idling |
| **USKA** | 7177.0 | 0931 | 06 | 11 | | | F1B | 50 | 250 | CIS50-50 often |
| **USKA** | 7179.5 | 1527 | 21 | 11 | | | PSK8 | 2400 | ~2k4 | Stanag 4285 |
| **USKA** | 7185.0 | 1654 | 29 | 11 | | | FMOP | 50 | ~13k | OTHR |
| **USKA** | 7197.0 | 1925 | 22 | 11 | | 341018 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7197.0 | 1926 | 22 | 11 | | 123456 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7197.0 | 1935 | 22 | 11 | | 340018 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7197.0 | 1936 | 22 | 11 | | 351013 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 7197.0 | 1937 | 22 | 11 | | 359013 | MFSK8 | 125 | 1750 | MIL 188-141A |
| **USKA** | 14137.0 | 1004 | 24 | 11 | | | FMCW | 50 | ~13k | OTHR, affectted BW > 30k! |
| **USKA** | 14192.0 | 1415 | 01 | 11 | | | F1B | 50 | 500 | CIS 50-50 daily |
| **USKA** | 14239.0 VFO LSB | 1228 | 30 | 11 | | | BPSK | 30x60 | ~2k4 | Burst system; spacing 75 Hz preamble 4x PSK4 60Bd, spacing 600Hz; Pilottone at 450Hz |
| **USKA** | 14297.0 | 1624 | 04 | 11 | | | FMCW | 10 sps | 10k | OTHR; short sequence only |
| **USKA** | 14344.3 | 0745 | 25 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 = AT3004D |
| **USKA** | 18070.0 | 1654 | 20 | 11 | | | FMCW | 50 | 20k | OTHR |
| **USKA** | 21200.0 | 0955 | 24 | 11 | | | FMCW | | 10k | OTHR |
| **USKA** | 21272.0 | 0917 | 24 | 11 | | | J7D | 12x120 | 2k7 | PSK-2: CIS12 = AT3004D |
| **USKA** | 21318.55 | 1101 | 22 | 11 | | | F1B | 600 | 600 | ARQ system often |
| **USKA** | 21390.0 | 1141 | 17 | 11 | | | FMCW | 50 | 20k | OTHR |
| **USKA** | 28155.0 | 0949 | 24 | 11 | | | F3E | | | Taxi often |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH (BW) | DETAILS | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **USKA** | 28175.0 | 0952 | 24 | 11 | | | F3E | | | Taxi | often |
| **USKA** | 28665.0 | 1013 | 23 | 11 | | | ? | 307 sps 870 sps | app 60k | OTHR Burst system | often |
| **USKA** | 29249.9 | 1429 | 01 | 11 | E | | F1B | 81.92 | 140 | Datawell buoy Canary Isl. | daily |
| **USKA** | 29449.9 | 1443 | 01 | 11 | MRC | | F1B | 81.92 | 140 | Datawell buoy El Aajún | daily |

**Comment**

**Be aware that 80m is shared with Fixed and Mobile (also as primary services), as well as some maritime communications applications (For details search at CEPT in www.efis.dk)**

## Veron 1 – Netherlands – PA2GRU (Dick)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BAUD | SHIFT | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **VERON** | 3548,0 | 20.45 | 25 | 11 | CIS | UiPTR | F1B | | | Revs/Ptr |
| **VERON** | 3561,0 | 20.00 | 10 | 11 | | UiPTR | F1B | | | Ptr |
| **VERON** | 3608,0 | 21.08 | 21 | 11 | | | F1B | | 200 | bad modulated |
| **VERON** | 3608,0 | 20.47 | 25 | 11 | | UiPTR | F1B | | | Revs |
| **VERON** | 7000,0 | vt | vd | 11 | RUS | | H3E | | 4k | buzzer, 125Hz ; bursts |
| **VERON** | 7001,0 | 16.41 | 30 | 11 | | OTHR | FMCW | | | radar |
| **VERON** | 7018,0 | 15.53 | 19 | 11 | RUS | | F1B | | 1k | idling; bad modulation |
| **VERON** | 7038,5 | 15.49 | 5 | 11 | | UiCar | NON | | | wobbling carrier; S6 |
| **VERON** | 7038,5 | 15.05 | 17 | 11 | | UiCar | NON | | | wobbling carrier; S5 |
| **VERON** | 7050,0 | 16.45 | 21 | 11 | | OTHR | FMCW | | | radar |
| **VERON** | 7050,0 | 15.36 | 12 | 11 | ISR | 4XZ | A1A | | | 5L, followed by roundslip VVV DE 4XZ BT |
| **VERON** | 7054,0 | 06.14 | 4 | 11 | ? | ? | F1B | | 200 | ptr, revs |
| **VERON** | 7120,0 | 18.27 | 7 | 11 | SOM | R.Hargaysa | A3E | | | Arab speech; S5 |
| **VERON** | 7160,0 | 07.30 | 17 | 11 | RUS | RMW32 | A1A | | | RFH47 DE RMW32 32 02 32 17 1020 BT |
| **VERON** | 7160,0 | 07.30 | 17 | 11 | RUS | RMW32 | A1A | | | 999 BT (5F) ends:RPT AL K |
| **VERON** | 7160,0 | 07.37 | 17 | 11 | RUS | RFH47 | A1A | | | (repeats tfc) |
| **VERON** | 7160,0 | 07.45 | 17 | 11 | RUS | RFH49 | A1A | | | (5BL) |
| **VERON** | 7179,0 | 14.10 | 28 | 11 | RUS | | PSK2A | 120 | 2k6 | |
| **VERON** | 10110,0 | 11.18 | 24 | 11 | CIS | UiPTR | F1B | | | Revs/Ptr |
| **VERON** | 10117,0 | 15:39 | 5 | 11 | | UiRadar | FMCW | | 20k | OTHR; 50sps |
| **VERON** | 10119,0 | 14.45 | 17 | 11 | | UiRadar | FMCW | | 20k | OTHR; 50sps |
| **VERON** | 10123,0 | 11.33 | 2 | 11 | | UiPTR | F1B | | | Ptr |
| **VERON** | 14118,0 | 11.50 | 26 | 11 | RUS | Buzzer | HE | | | AM bursts |
| **VERON** | 14118,0 | 11.54 | 26 | 11 | | OTHR | FMCW | | | short period |
| **VERON** | 14130,0 | 11.00 | 2 | 11 | | OTHR | FMCW | | | radar |
| **VERON** | 14141,0 | 11.30 | 2 | 11 | | UiPTR | F1B | | | Ptr |
| **VERON** | 14178,0 | 11.07 | 4 | 11 | RUS | OTHR | FMCW | | | radar, 50 spc Contayner |
| **VERON** | 14192,0 | 10.26 | 3 | 11 | RUS | UiPtr | F1B | | 500 | Ptr |
| **VERON** | 14192,0 | vt | vd | 11 | RUS | | F1B | | 500 | |
| **VERON** | 14192,0 | 11.32 | 2 | 11 | CIS | UiPTR | F1B | | | Revs/Ptr (also 6/11 14.08 utc) |
| **VERON** | 14242,0 | 10.49 | 23 | 11 | RUS | UiMUX | PSK2 | | | 12 MPSK AT3004D |
| **VERON** | 14276,0 | 15.33 | 19 | 11 | RUS | | FMCW | | 10k | OTHR Contayner; 10sps |
| **VERON** | 14277,0 | 15.29 | 19 | 11 | | UiPtr | F1B | | 200 | |
| **VERON** | 14342,0 | 10.45 | 30 | 11 | Italy | IW0RGJ | A1A | | | beacon: EL=IW0RGJ out of IBP bandplan |
| **VERON** | 21150,0 | 14.00 | 15 | 11 | E | UiILL | J3e-U | | | male/female voices, Spanish |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BAUD | SHIFT | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **VERON** | 21222,0 | 13.36 | 14 | 11 | Maroc | UiILL | J3e-U | | | fishery |
| **VERON** | 21438,0 | 14.33 | 16 | 11 | RUS | RCV | A1A | | | RKZ DE RCV QTC 756 31 16 1522 BT |
| **VERON** | 21438,0 | 14.33 | 16 | 11 | RUS | RCV | A1A | | | PROGNOZ (etc) |
| **VERON** | 21438,0 | 14.46 | 16 | 11 | RUS | RCV | A1A | | | RHM81 DE RCV QYT4 QSX 5083 NO K |

# The monitoring team of IARU Region 1

## credits:

**Wavecom Elektronik – Buelach – Switzerland**

**German BNetzA Konstanz**

## Many thanks for your interest!

Season´s Greetings and a peaceful year 2016 without PLC, Plasma TV and switching power supplies!

**compiled and published by DK2OM**

**December 2015**