International Amateur Radio Union

Region 1

# Monitoring System

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## The monthly newsletter for Region 1

# January 2019

## The 28 members of the IARUMS Region 1 Monitoring Team:


## Acknowledgements

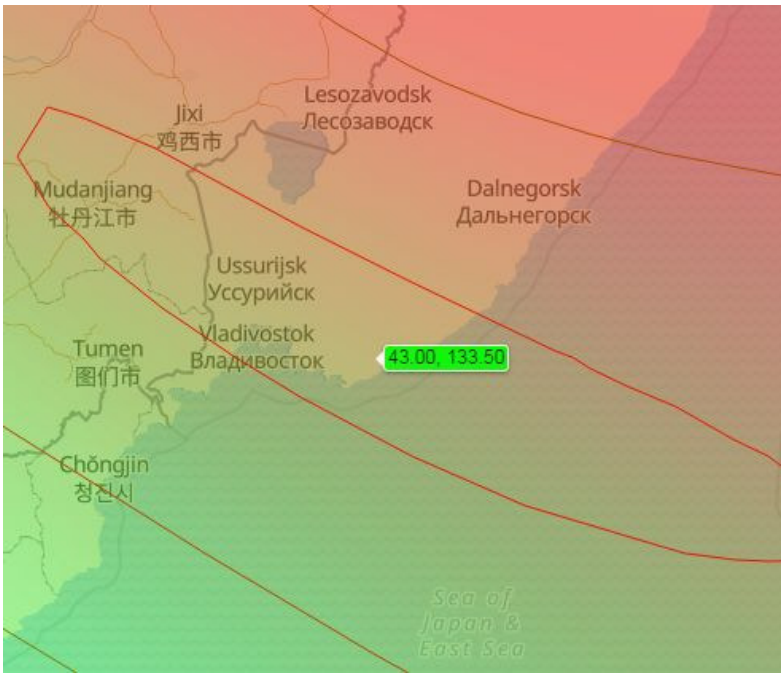
ARAT: 3V8CB – Ahmed ++ ARI: DH7SA – Salvatore ++ ARSK: 5Z4BV - Kamweti ++ DARC: DK2OM – Wolf ++ EARS: A61M – Obaid ++ ERASD: SU1SA – Sayed ++ HRS: 9A5DGZ – Gianluca ++ IARC: 4Z1AB – Amos ++ IRTS: EI3GYB - Michael KARS: 9K2RR – Faisal ++ MARL: 9H1M – Dominic ++ MRASZ: HA7PL - Laci ++ NARS: 5N9AYM – Yusuf ++ NRRL: LA4EU – Hans Arne ++ OEVSV: OE3GSA – Gerd ++ PZK: SP9BRP – Jan ++ RAL: OD5RI – Riri ++ REF: F5MIU – Francis ++ REP: CT4AN – Jose ++ ROARS: A41MA - Younis ++ RSGB: G4DYA - Richard ++ SARL: ZS6NS - James ++ SRAL: OH2BLU - Pekka ++ SSA – N.N. ++ UBA: ON8IM – Ivan +++ URE: EA6AMM - Gaspar ++ USKA: HB9CET - Peter ++ VERON: PG1R - Ruud ++ ZRS: S56ZDB – Darko ++ LU1BCE – Carlos (Co-ordinator Region 2) ++ YB3PET – Titon (Co-ordinator Region 3) ++ DF8FE – (Webmaster supp.) ++ DL8AAM (ALE) ++ DJ7KG (BUOYS) ++ DF5SX (BC) ++ DARC (server support) ++ OD5TE (Hani) ++ VE6SH – Tim (IARU President) ++ 9K2RR – Faisal (EC-IARU-R1) ++ PTTs: BAKOM (Swiss) ++ OFCOM (UK) ++ Dutch AT ++ Austrian PTT ++ German BNetzA Konstanz

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

# Part 1: News and Infos

## 1. Russian coastal radar "Sunflower" on 80 m

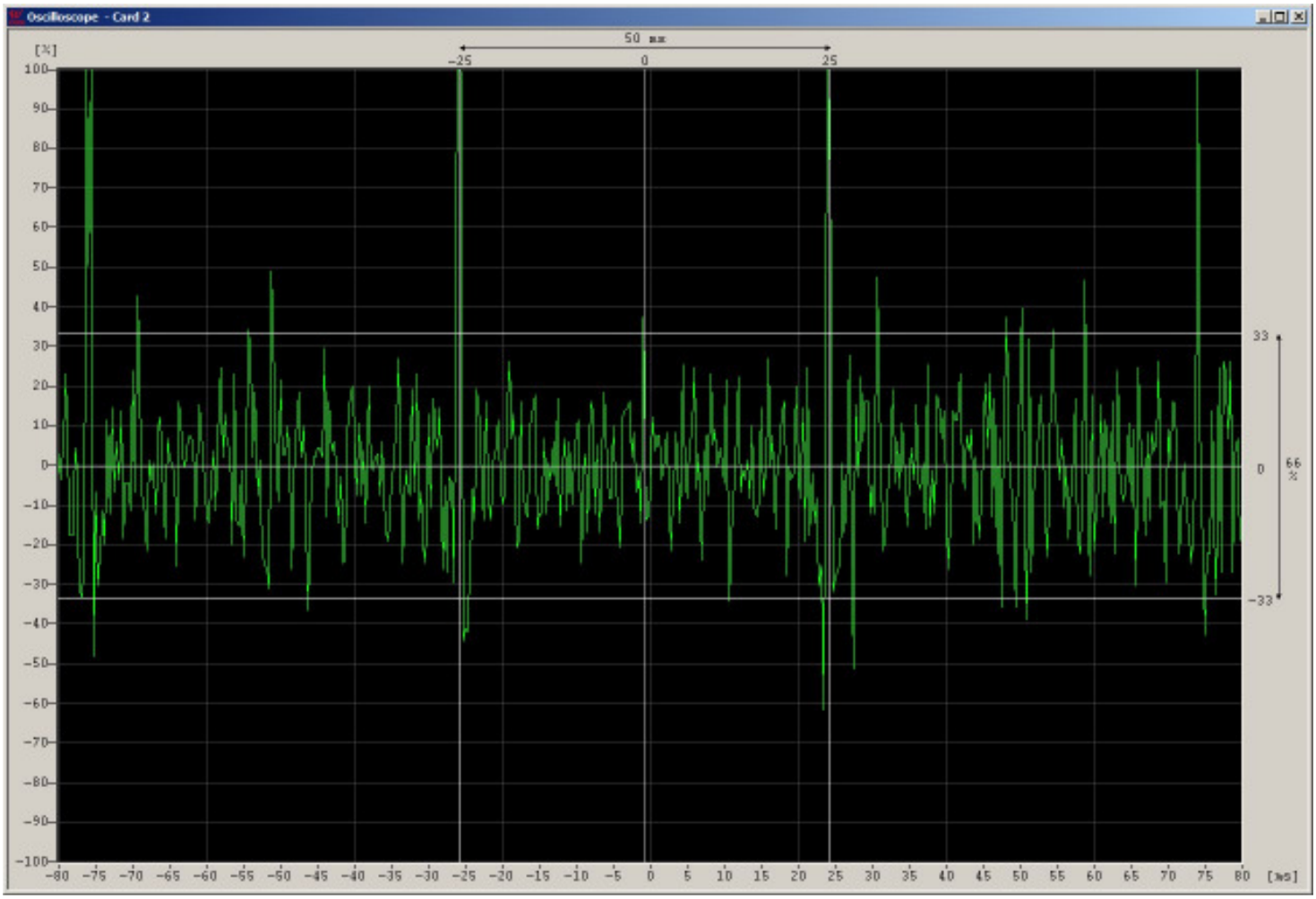
The Russian coastal radar Sunflower on 3716 kHz (center) was audible during the nights. Parameters: FMOP - 43 sps
Location: East of Vladivostok.




**TDoA bearing on 3716 kHz on January 12th.**

## 2. Chinese wideband OTH radar on 7000 kHz

A Chinese wideband OTH radar appeared on 7000 kHz on Jan. 3rd. Parameters: 160 kHz wide, 20 sweeps/sec.
Sweeprate measurement with Wavecom W-Code oscilloscope: 1000 msec : 50 msec = 20 sweeps/sec

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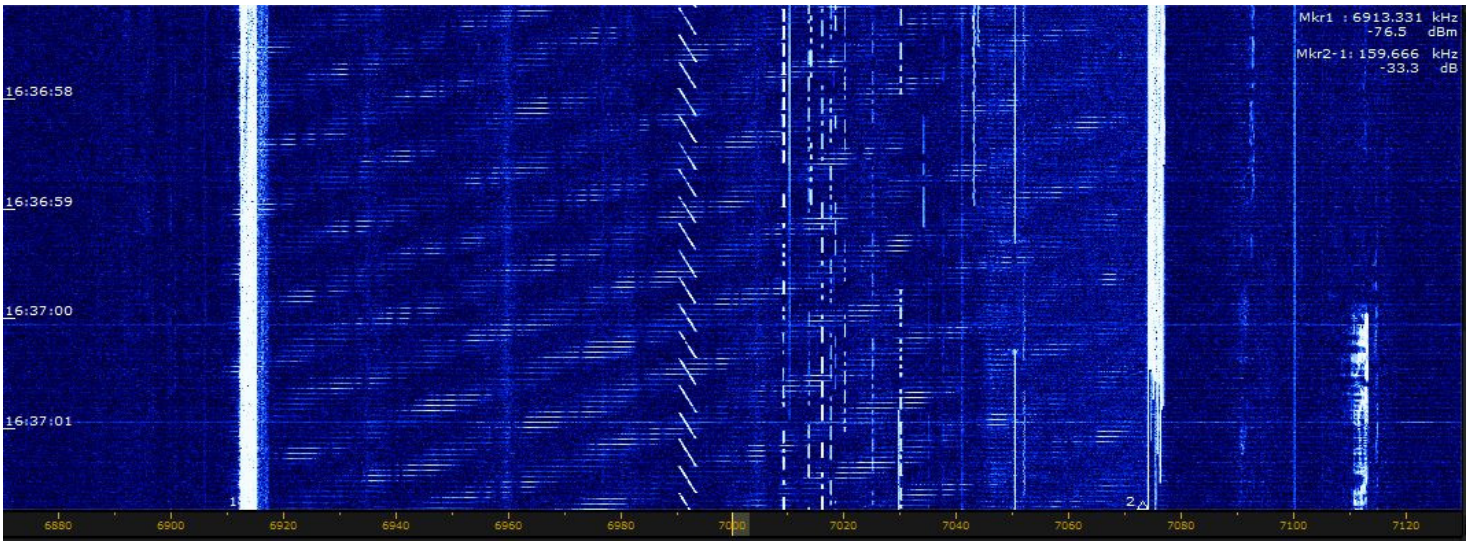
## 3. 7001.0 – LSB – Moroccan fishery – often

**Chinese wideband OTH radar on 7000 kHz on the Perseus screen (Jan. 3rd):**



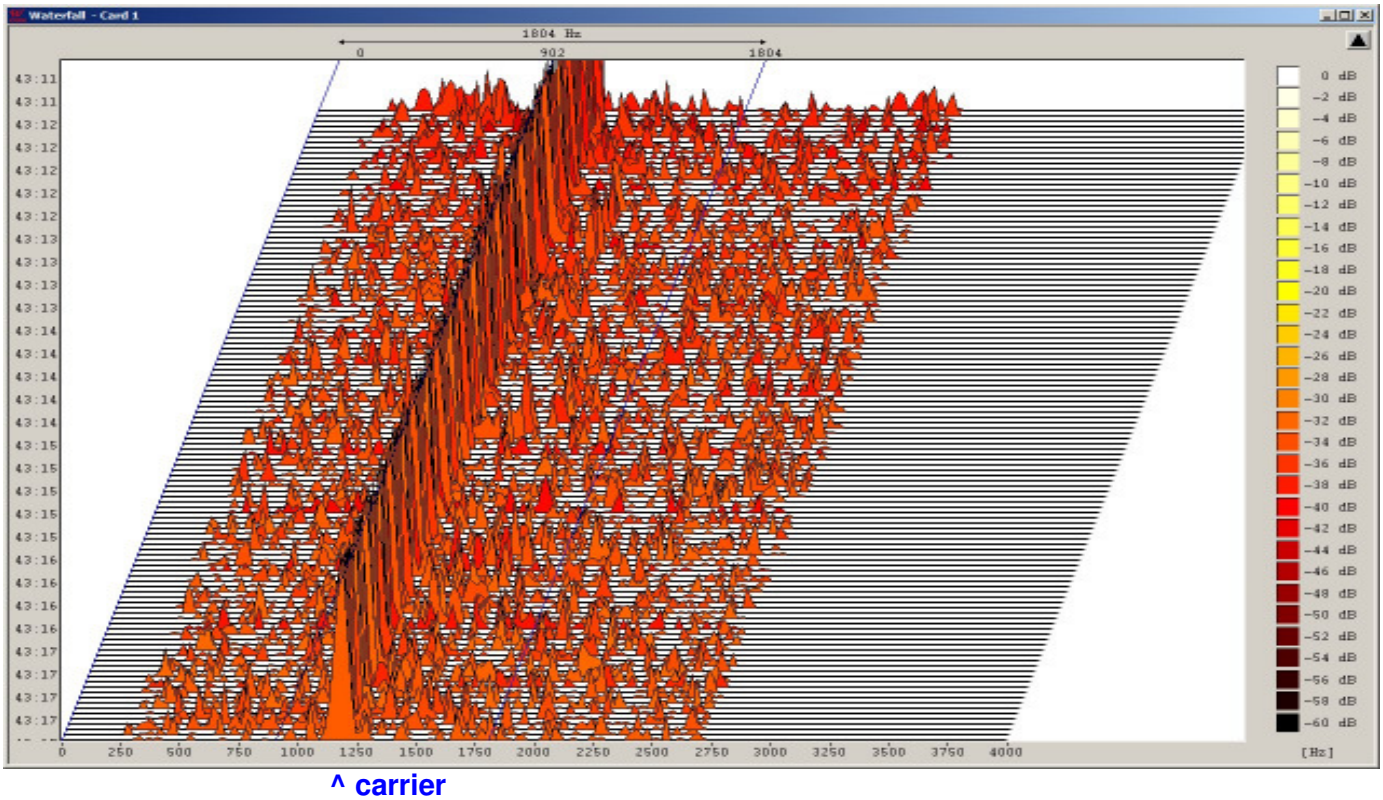

**6920** **7000** **7080**

**4. Russian OFDM 60 on 7000.9 kHz (center)**

We observed a Russian OFDM 60 signal on 7000.9 kHz center. Parameters: PSK8B – 35.55 Bd – 2760 Hz shift. Location: Area of Smolensk (see table below)

**5. 14295.0 kHz – harmonic from 4765 kHz – Radio Tajik – still active**

Screenshot: The signal on the W-Code Waterfall with carrier, weak modulation and some white noise.




**^ carrier**

**6. Miscellaneous news:**

5353.0 kHz – USB - fishermen – UK or Ireland
**7001.0 kHz – LSB- Moroccan fishery, often**
**7120.0 kHz – A3E – Radio Hargeisa off in January 2019**
7140 and 7180 kHz – A3E – Radio Eritrea without QRM (German PTT informed)
14295.0 kHz – harmonic from Radio Tajik on 4765 kHz (no change inspite several complaints)

**7.**

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

# 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** ••• **sps** = sweeps/sec (radar systems) ••• **FMCW** = frequency modulated continuous wave (OTH radars) **FMOP** = frequency modulation on pulse (OTH radars) ••• **5BL** = cyrillic 5 lettergroups ••• **DF** = direction finder

## DARC – Germany - DK2OM (Wolf)

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

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DK2OM** | 1812,0 | 2050 | 23 | 01 | RUS | | USB LSB | | | 14 tones – hyperbolic radio navigation system – BRAS-3/RS-10 – Kaliningrad |
| **DK2OM** | 1855,0 | 1940 | 18 | 01 | I | IQP | USB | | | San Benedetto Radio, weather reports - daily |
| **DK2OM** | 1925,0 | 1940 | 18 | 01 | I | IPL | USB | | | Livorno Radio, weather reports - daily |
| **DK2OM** | 3520,0 | 1810 | 18 | 01 | F | | USB | | | French fishery |
| **DK2OM** | 3525,0 RF | --- | -- | 01 | F | | PSK8 | 2400 | 2400 | Link11–SLEW - area of Marseille |
| **DK2OM** | 3527,0 | 2000 | dly | 01 | RUS | | F1B | 50 | 200 | Severomorsk - daily |
| **DK2OM** | 3531,0 | --- | -- | 01 | RUS | REA4 | N0N | | | unclean carrier - RUS airforce Moscow, ident: full hour + 40 min - daily |
| **DK2OM** | 3532,0 | --- | -- | 01 | F | | PSK4 | 75 | 5800 | LINK11-CLEW on both sidebands (5800 Hz wide) – area of Brest – legal! |
| **DK2OM** | 3532,0 | 1952 | 24 | 01 | RUS | | PSK2A | 120 | 2600 | AT3004D - Kaliningrad |
| **DK2OM** | 3535,0 | 1814 | 18 | 01 | F | | USB | | | French fishery |
| **DK2OM** | 3535,8 | 1948 | 25 | 01 | UKR | | PSK2A | 1200 | 1200 | traffic and idle |
| **DK2OM** | 3548,0 | --- | -- | 01 | RUS | RDL | F1B | 50 | 200 | RUS navy Kaliningrad |
| **DK2OM** | **3550,0** | **0630** | **dly** | **01** | **F** | | **A3E** | | | **French amateurs not respecting bandplans – every morning** |
| **DK2OM** | 3550,0 | 1930 | 19 | 01 | RUS | | PSK2A | 120 | 2600 | AT3004D - Sevastopol |
| **DK2OM** | 3550,7 | 737 | 29 | 01 | ISR | | PSK4 PSK8 | 75 2400 | 2400 2400 | hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial – shared band! |
| **DK2OM** | 3553,8 | ady | dly | 01 | TUR | | PSK8A | 2400 | 2400 | Stanag4285 – 600 bps long -TUR MIL - Ankara – daily, all day - legal operation |
| **DK2OM** | 3585,0 | ady | dly | 01 | TWN | HLL | F1C | | 800 | WX-fax Taiwan - 120 rpm, IOC 576 - daily, all day - legal! |
| **DK2OM** | 3586,0 | vt | dly | 01 | HOL | | PSK2A | 40 | 40 | Amsterdam - daily |
| **DK2OM** | 3590,0 | 2010 | 31 | 01 | RUS | | PSK2A | 120 | 2600 | AT3004D – area of Smolensk |
| **DK2OM** | 3594,2 | --- | -- | 01 | RUS | F | A1A | | | Cluster beacon F - Vladivostok RUS Navy - **"RJS"** |
| **DK2OM** | 3595,0 | --- | -- | 01 | RUS | K | A1A | | | Cluster beacon - Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **"RCC"** |
| **DK2OM** | 3622,5 | ady | dly | 01 | J | JMH | F1C | | 800 | Tokyo Meteo – 120 rpm – IOC 576 – daily, all day - legal!!! |
| **DK2OM** | 3756,0 | 1800 | dly | 01 | RUS | | USB | | | RUS MIL – channel marker – Tuapse – East Black Sea – night QRG – daily |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DK2OM** | 5340,0 | 1555 | 04 | 01 | RUS | | FMOP | | 50k | Russian coastal radar "Sunflower" – 43 sps – 5340 – 5390 kHz - Makhachkala |
| **DK2OM** | **5350,0** | **---** | **--** | **01** | **E** | | **USB** | | | **Spanish fishery – splattering up** |
| **DK2OM** | 5350,0 | 1547 | 24 | 01 | RUS | | FMOP | | | Russian coastal radar "Sunflower" – 43 sps – 5310 – 5370 kHz - Makhachkala |
| **DK2OM** | 5350,0 | 1530 | 26 | 01 | | | FMOP | | 55k | Russian coastal radar "Sunflower" – 43 sps – 5310 – 5365 kHz - Makhachkala |
| **DK2OM** | 5352,0 | 1330 | 25 | 01 | RUS | | PSK2A | 120 | 2600 | AT3004D – modem idle – Kaliningrad – legal! |
| **DK2OM** | 5353,0 | 1746 | 29 | 01 | | | PSK2A | 120 | 2600 | AT3004D – submode idle |
| **DK2OM** | 5353,0 | 1010 | 30 | 01 | G? | | USB | | | fishermen – English dialect – UK or Ireland ? |
| **DK2OM** | 5356,0 | 1930 | 12 | 01 | RUS | | FMOP | | 44k | Russian coastal radar "Sunflower" – 43 sps – 5356 – 5400 kHz - Makhachkala |
| **DK2OM** | 5360,0 RF | --- | -- | 01 | DNK | OUA15 | PSK8A | 2400 | 2400 | Stanag-4285 – 600 bps long – assigned to Danish Navy Aarhus - legal – primary user ! |
| **DK2OM** | 5360,5 | 1430 | 18 | 01 | RUS | | F1B | 50 | 200 | Moscow - legal |
| **DK2OM** | 7000,0 | ady | dly | 01 | RUS | | FMOP | | 145k | coastal radar Sunflower - 43 sps 6860 – 7005 kHz – NE of Vladivostok |
| **DK2OM** | 7000,0 | 1630 | 03 | 01 | CHN | | FMOP | | 160k | Chinese OTH radar - 20 sps – 6920 – 7080 kHz |
| **DK2OM** | 7000,0 | 1541 | 10 | 01 | CHN | | FMCW | | 160k | Chinese wideband OTH radar - 20 sps – 6896 – 7056 kHz |
| **DK2OM** | 7000,0 | 1550 | 17 | 01 | CHN | | FMOP | | 160k | Chinese wideband OTH radar - 20 sps – 6883– 7043 kHz |
| **DK2OM** | 7000,0 | 1420 | 31 | 01 | INS | | LSB | | | Indonesian pirates - splattering up – singing and playing music - daily |
| **DK2OM** | 7000,9 | 0940 | 30 | 01 | RUS | | OFDM | 35.55 | 2760 | OFDM 60 – PSK 8B – area of Smolensk |
| **DK2OM** | **7001,0** | **ady** | **vd** | **01** | **MRC** | | **LSB** | | | **Moroccan fishery** |
| **DK2OM** | 7005,0 | vt | dly | 01 | INS | | LSB | | | Indonesian pirates |
| **DK2OM** | 7015,0 | vt | dly | 01 | INS | | LSB | | | Indonesian pirates – male and female voices |
| **DK2OM** | 7020,0 | vt | vd | 01 | ALB | | FSK8 | 125 | 1750 | ALE, "CS004A" "RS004D" "CS004" - daily |
| **DK2OM** | 7030,0 | 0815 | 10 | 01 | F | | USB | | | French fishery |
| **DK2OM** | 7031,0 RF | 0915 | 16 | 01 | RUS | | unid | | | pulsing carrier and spurious – 7032.170 - Sevastopol |
| **DK2OM** | 7039,3 | --- | -- | 01 | RUS | K | A1A | | | Cluster beacon "K" Petropavlovsk Kamchatskiy - RUS Navy - Pacific fleet - **"RCC"** - daily |
| **DK2OM** | 7039,4 | 2029 | 13 | 01 | RUS | M | A1A | | | Cluster beacon „M" – Magadan RUS Navy – **„RTS" - daily** |
| **DK2OM** | 7042,0 | vt | 07 | 01 | CHN | | FSK8 | 125 | 1750 | ALE, „183" |
| **DK2OM** | 7050,0 | vt | dly | 01 | KGZ | | FSK8 | 125 | 1750 | ALE, "X" "810" "820615" "810698" – Kyrgyzstan MIL |
| **DK2OM** | 7051,0 | 0920 | 16 | 01 | RUS | | F1B | 50 | 500 | Moscow |
| **DK2OM** | 7055,0 | vt | dly | 01 | UKR | | LSB | | | music and Russian voices |
| **DK2OM** | 7070,0 | --- | -- | 01 | GEO | | FSK8 | 125 | 1750 | ALE, „20001" „10003" „2201" „2203" „686" „288" „220" „571" |
| **DK2OM** | 7088,8 | vt | vd | 01 | S | SL0FRO | A1A | | | 7088.830 kHz - cw-trainee, Sweden - SL0FRO - just for info! |
| **DK2OM** | 7089,8 | --- | -- | 01 | TUR | | PSK8 | 2400 | 2400 | Link11 - SLEW – aircraft ? west of Izmir |
| **DK2OM** | 7099,0 | 1055 | 23 | 01 | CHN | | FMOP | | 10k | OTHR bursts – 66 sps |
| **DK2OM** | 7100,0 | 1516 | 10 | 01 | FEa | | FMCW | | 32k | Codar like ocean surface radar |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 2.6 sps – 7100 – 7132 kHz |
| **DK2OM** | 7111,0 LSB | vt | 23 | 01 | CHN | | PSK4A | 60 | 2350 | burst system "PRC-30" – 30 tones – 450 Hz pilot tone |
| **DK2OM** | 7112,0 LSB | vt | 03 | 01 | CHN | | PSK4A | 60 | 2350 | burst system "PRC-30" – 30 tones – 450 Hz pilot tone |
| **DK2OM** | **7120,0** | **---** | **--** | **01** | **SOM** | | **A3E** | | **9k** | **Radio Hargeisa – Somaliland** |
| **DK2OM** | 7137,0 | vt | dly | 01 | TWN | | FSK8 LSB | 125 | 1750 | ALE, MIL-188-141A, "FBABA" "FWKMB" "FXIBY" "FCPSL" "FHKHD" "FVIKE" "FHVWY" "FCUGP" "FDRRK" "FWIML" "FBQCY" Taiwanese navy |
| **DK2OM** | **7140,0** | **1827** | **dly** | **01** | **ERI** | | **A3E** | | **9k** | **7140.024 kHz - Radio Eritrea** |
| **DK2OM** | 7163,0 | vt | 08 | 01 | FEa | | FMOP | | 32 | Codar like ocean surface radar 2.6 sps – 7163 – 7195 kHz |
| **DK2OM** | 7165,0 | 1052 | 23 | 01 | CHN | | FMOP | | 10k | OTHR bursts – 83 sps |
| **DK2OM** | **7180,0** | **1526** | **dly** | **01** | **ERI** | | **A3E** | | **9k** | **7180.022 kHz - Radio Eritrea** |
| **DK2OM** | 7191,8 | 1100 | 13 | 01 | | | A1A | | | 7191.845 kHz - unid beacon, unclean, only transmitting number „4" |
| **DK2OM** | 7193,0 | 0830 | 04 | 01 | RUS | RDL | F1B | 50 | 200 | CIS36-50 - Kaliningrad |
| **DK2OM** | 7197,0 | vt | dly | 01 | TUR | | FSK8 | 125 | 1750 | ALE, „353013" „334018" „314013" - Turkish Sivil Avunma – Turkish Civil Defense |
| **DK2OM** | **7200,0** | **---** | **--** | **01** | **MMR** | | **A3E** | | **9k** | **Myanmar Radio** |
| **DK2OM** | 10100,8 | ady | dly | 01 | D | DDK9 | F1B | 50 | 450 | Baudot - German Weatherservice – legal! |
| **DK2OM** | 10121,0 | 0845 | 23 | 01 | RUS | | F1B | 75 | 125 | UfA |
| **DK2OM** | 10123,0 | 0936 | 05 | 01 | RUS | | PSK2A | 120 | 2600 | AT3004D - Sevastopol |
| **DK2OM** | 10130,0 | 1030 | 11 | 01 | RUS | | F1B | 50 | 500 | unclean - area of Chita – daily, all day |
| **DK2OM** | 10130,0 | 1030 | 14 | 01 | | | USB | | | French amateurs not respecting bandplans |
| **DK2OM** | 10141,5 | 0850 | 26 | 01 | | | F1B | 600 | 600 | DPRK-FSK 600 |
| **DK2OM** | **10144,0** | **ady** | **dly** | **01** | **D** | **DK0WCY** | **A1A** | | | **10144.000 kHz - DK0WCY – German aurora beacon – just for info!** |
| **DK2OM** | 13999,0 RF | 0940 | 22 | 01 | RUS | | OFDM | 33.4 | 2880 | OFDM 60 – 13999.0 – 14002.3 kHz - Moscow |
| **DK2OM** | **14000,0** | **vt** | **dly** | **01** | **FEa** | | **USB** | | | **Far East pirates – east of Indonesia** |
| **DK2OM** | 14000,0 | 1131 | 21 | 01 | | | FSK8 | 125 | 1750 | ALE, „1" „X´" |
| **DK2OM** | 14001,8 | 1050 | 15 | 01 | ISR | | PSK4 PSK8 | 75 2400 | 2400 2400 | hybrid modem – ISR Navy – PSK4 parallel and PSK8 serial |
| **DK2OM** | 14130,0 | 0927 | 19 | 01 | CHN | | FMOP | | 10k | Chinese OTH radar – 50 sps – 2.5 sec bursts |
| **DK2OM** | 14192,0 | vt | dly | 01 | RUS | | F1B | 50 75 50 100 100 | 500 500 200 500 200 | RUS navy Kaliningrad - daily |
| **DK2OM** | 14221,0 | 0520 | dly | 01 | KGZ | | F1B | 50 | 200 | Bishkek – mostly idling - daily various times |
| **DK2OM** | **14295,0** | **0925** | **01** | **01** | **TJK** | | **A3E/BC** | | **9k** | **3rd from Radio Tajik on 4765 kHz – daily, all day** |
| **DK2OM** | 14308,0 | 0856 | 09 | 01 | RUS | | F1B | 75 | 500 | Moscow |
| **DK2OM** | 14320,0 | 0944 | 25 | 01 | FEa | | FMOP | | 13k | Far East OTH radar – 40 sps – 7.2 sec bursts – intro tone |
| **DK2OM** | 14337,0 | 0921 | 06 | 01 | CHN | | FMCW | | 10k | Chinese OTH radar – 50 sps – bursts with 2.4 and 4.9 sec duration |
| **DK2OM** | 14347,0 | 0935 | 19 | 01 | CHN | | FMOP | | 10k | Chinese OTH radar – 50 sps – 5.0 sec bursts |
| **DK2OM** | 14348,5 | vt | dly | 01 | THA | HS0ZEA | A1A | | | HS0ZEA beacon – 14348.488 kHz - every 5 minutes – daily - just for info! |

| DK2OM | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/SP | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **DK2OM** | **18080,0** | **---** | **--** | **01** | **TWN** | | **A3E/BC** | | | **Sound of Hope – Taiwan and Chinese BC jammer – daily at 06 utc and later** |
| **DK2OM** | 18107,0 | --- | -- | 01 | RUS | RDL | F1B | 50 | 200 | CIS-50-200 - Moscow – idle and traffic – daily - Russian navy – shared band! |
| **DK2OM** | 18150,0 | --- | -- | 01 | RUS | | F1B | 100 | 1000 | harmonic from 9075 (100 Bd, 500 Hz) - Kaliningrad |
| **DK2OM** | **21000,0** | **---** | **--** | **01** | **B** | | **USB** | | | **Brazilian pirates – Rio de Janeiro with North Brazil – very often** |
| **DK2OM** | 21145,0 | vt | dly | 01 | MRC | | FSK8 | 125 | 1750 | ALE, "A" "B301" "C3", "IR4" "H4" "IR6" "T4" "E4" "A2" "CD" "K3" "KB2" "J5" "J52" "GR2" "GS4" "R3" "R301" "R33" "R8" "R5" "Y1" "S51" "S3" "S4" "S512" "S552" "G2" "G501" - various times, daily |
| **DK2OM** | 21438,0 | vt | vd | 01 | RUS | RCV | A1A | | | RKZ – RJV de RCV - RUS Navy Sevastopol - often |
| **DK2OM** | 21446,0 | --- | -- | 01 | THA | HS0ZEA | A1A | | | HS0ZEA beacon – every 5 minutes - just for info! |
| **DK2OM** | 25000,0 | --- | -- | 01 | FIN | | A3E | | | time signal Helsinki – just for info – carrier on 25000 – dots on 25001 and 24999 – daily, all day – just for info! |
| **DK2OM** | **28000,0** | **---** | **--** | **01** | **B** | | **A3E** | | | **Brazilian CBers – 28000 – 28325 – daily, all day - no change** |
| **DK2OM** | **28000,0** | **---** | **--** | **01** | **CIS** | | **F3E** | | | **28000 – 29700 numerous CIS taxi nets – no change** |

## IRTS – Ireland – EI3GYB (Michael)

| SOC | kHz | UTC | DD | MM | ITU | MODE | DETAILS |
|---|---|---|---|---|---|---|---|
| **IRTS** | 3550 | 0715 | 21 | 01 | F | AM | Group of French HAMs ignoring the band plan. Daily. |
| **IRTS** | 3590 | 0710 | 21 | 01 | F | AM | Group of French HAMs ignoring the band plan. Daily. |
| **IRTS** | 3731 | 1230 | 02 | 01 | E or MM | USB | 2 Spanish fishermen. Bad audio from both stations. |
| **IRTS** | 5335 | 1920 | 02 | 01 | | | Radar from 5335 to 5387 KHz. Heard many days of the month during the evening, night and early morning. The 5 MHz WARC band cannot be used under these conditions. |
| **IRTS** | 5368 | 1735 | 07 | 01 | F or MM | USB | 2 French fishermen. Very loud signals. Strong motor noise from both ships. One of the sailors keeps whistling. Signal splatters down into the 5 MHz WARC allocation. This frequency is also a UK allocation. Also heard on the 16th from 1531z onwards. Also on 24th at 0900z. 25th at 1745z. 28th at 1200z.Also 30th at 1020z. |
| **IRTS** | 5363.5 | 0405 | 09 | 01 | MRC or MM | LSB (!) | 2 Moroccan fishermen chatting. Big signals. Also heard 13th at 1915 and 14th at 1805z. 25th at 1815z.Also 30th at 1830z and 31st at 1705z. Audio always not great. Frequency is always unstable…up and down a few Hertz is the norm. |
| **IRTS** | 5393 | 0015 | 21 | 01 | | | Radar from 5393 to 5497 KHz on and off until early morning. Heard many times during the month. |
| **IRTS** | 5400 | 1600 | 06 | 01 | F or MM | USB | Group of French fishermen. Huge signals. Loud motor noise from all ships. Heard also on the 7th at 1200z. 9th at1315z.11th at 1115z. 12th at 1355z.15th at 1230z. 16th at 1100z.23rd at1245z.Frequency is like a telephone exchange for fishermen from F, E, MRC or POR.<br>This frequency is an Irish/UK spot frequency in the 5 MHz band. |
| **IRTS** | 5400 | 2000 | 17 | 01 | POR or MM | USB | 2 Portuguese fishermen. Strong signals. Chat is still on at 2115z. |
| **IRTS** | 5400 | 0215 | 24 | 01 | E or MM | USB | 2 Spanish fishermen chatting. |

| SOC | kHz | UTC | DD | MM | ITU | MODE | DETAILS |
|---|---|---|---|---|---|---|---|
| **IRTS** | 5398.5 | 1520 | 20 | 01 | F or MM | USB | Group of French fishermen. One is called Raymond. Lots of laughter. Music being played. A continuous carrier is audible all the time. One of the TX might have been in VOX mode. The RSGB news and the after news net on from 1500z onwards became inaudible. This frequency is the main 5 MHz SSB spot frequency in the UK and EI. |
| **IRTS** | 5405 | 1745 | 11 | 01 | E or MM | USB | 2 Spanish fishermen. Big signals. Ends at 1805z. |
| **IRTS** | 5403.8 | 2100 | 18 | 01 | MRC or MM | USB | Group of Moroccan fishermen. Loud. |
| **IRTS** | 7050 | 1245 | 03 | 01 | RUS/ UKR | LSB | Russian-Ukrainian radio war. Heard irregularly during the month. Shouting of slogans against Putin or Poroshenko. Always big signals. Often overdriven. |
| **IRTS** | 7055 | 1045 | 02 | 01 | RUS/ UKR | LSB | Russia- Ukrainian radio war. Several stations seem to be active. Strong signals. Agitprop programmes with heroic music, rebroadcasting of Russian radio programmes. Irregular transmissions. Sometimes English programmes as well. An English announcement by Ukrainians blaming the Russian Radio Amateur Society as a supporter of pirate radios was broadcast nonstop on the 8th as of 1355z. |
| **IRTS** | 7069.9 | 1920 | 13 | 01 | MRC or MM | USB | 2 Moroccan fishermen chatting |
| **IRTS** | 7089.8 | 0815 | 24 | 01 | MRC or MM | USB | Group of Moroccan fishermen. Strong signals. |
| **IRTS** | 7102 | 1805 | 25 | 01 | MRC or MM | USB | Group of Moroccan fishermen. Big signals. |
| **IRTS** | 7109.5 | 0915 | 22 | 01 | | | Huge digital signal. Gone by 1030z.Probably military. |
| **IRTS** | 7140 | 1510 | 01 | 01 | ERI | AM | Radio Eritrea. Weak signal. Heard on some days of the month. Seems to transmit irregular. Huge signal in the early hours of the morning when transmitting. |
| **IRTS** | 7180 | 1515 | 01 | 01 | ERI | AM | Radio Eritrea. Weak signal. Heard irregularly during the month. Very strong in the early hours of the mornings and late afternoon depending on the position of the greyline. |
| **IRTS** | 7195 | 1220 | 18 | 01 | | F1B | Big signal. Probably RUS military. |
| **IRTS** | 7195 | 1825 | 22 | 01 | ERI | AM | Radio Eritrea in Arabic not transmitting on its usual frequency. |
| **IRTS** | 7196 | 1102 | 22 | 01 | | | Huge digital signal. Still around at 1135z.Probably military. |
| **IRTS** | 10124 | 1525 | 15 | 01 | | | Radar from 10124 to 10150 KHz. |
| **IRTS** | 10121.7 | 1257 | 11 | 01 | MRC or MM | USB | 2 Moroccan fishermen. |
| **IRTS** | 10150 | 0935 | 05 | 01 | MRC or MM | USB | 2 Moroccan fishermen |
| **IRTS** | 10150 | 1215 | 18 | 01 | MRC or MM | USB | Group of Moroccan fishermen. Very strong signals. |
| **IRTS** | 14100 | 1145 | 19 | 01 | RUS or MM | LSB | Russian- Ukrainian radio war.2nd harmonic of 7050 KHz. Weak distorted signal. Programme about Stephan Bandera. |
| **IRTS** | 14175 | 1220 | 18 | 01 | | | Radar from 14175 to 14190 KHz. Huge signals. |
| **IRTS** | 14295 | 1130 | 18 | 01 | TJK | AM | Radio Tajikistan 3rd harmonic. Heard on some days with a weak signal. |
| **IRTS** | 14338 | 1200 | 31 | 01 | | | Radar from 14338 to 14356 KHz. |
| **IRTS** | 18088 | 1210 | 28 | 01 | | | Radar from 18088 to 18109. Huge signal. |
| **IRTS** | 18162 | 1205 | 28 | 01 | | | Radar from 18162 to 18164 KHz. Medium strength signal. |

## KARS – Kuwait – 9K2RR (Faisal)

## MRASZ – Hungary - HA7PL (Laci)

| SOC | kHz | UTC | DD | MM | ITU | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|
| **MRASZ** | 3507,0 | 1339 | 3 | 1 | | F1B | | 250 | |
| **MRASZ** | 3508,0 | 1907 | 21 | 1 | | USB | | | russian male |
| **MRASZ** | 3534,0 | 1506 | 6 | 1 | | USB | | | numbers, russian languages, female |
| **MRASZ** | 3534,0 | 1505 | 20 | 1 | | USB | | | female/male conversation, russian lang. |
| **MRASZ** | 3539,0 | 1455 | 21 | 1 | | F1B | | 200 | |
| **MRASZ** | 3550,0 | 0655 | 12 | 1 | | A3E | | | unidentified |
| **MRASZ** | 3550,0 | 0646 | 21 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 3559,0 | 1542 | 6 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 3563,0 | 1556 | 6 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 3569,5 | 1603 | 2 | 1 | | LSB | | | numbers, russian languages, female |
| **MRASZ** | 3572,0 | 1620 | 2 | 1 | | LSB | | | "AGCPOWERALCTENTEC" italian ham |
| **MRASZ** | 3588,0 | 1814 | 8 | 1 | | F1A | | 500 | 5 letters |
| **MRASZ** | 3600,0 | 1655 | 2 | 1 | | A3E | | | instable carrier, unidentified |
| **MRASZ** | 3600,0 | 1444 | 12 | 1 | | LSB | | | russian language, no ham, "prijom" |
| **MRASZ** | 3604,0 | 1846 | 6 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 3609,0 | 1338 | 3 | 1 | | F1B | | 250 | |
| **MRASZ** | 3642,0 | 1718 | 6 | 1 | CHN | A1A | | | "V DKG6 (3x) de 3A7D (2x)" |
| **MRASZ** | 3657,0 | 1849 | 6 | 1 | UZB | A1A | | | beacon "V", Thaskent |
| **MRASZ** | 3657,0 | 1821 | 8 | 1 | UZB | A1A | | | beacon "V", Thaskent |
| **MRASZ** | 3674,0 | 1520 | 12 | 1 | | A1A | | | 5 letters, CFCh FB ÜKTCD EChRLM" |
| **MRASZ** | 3709,0 | 1706 | 30 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 3732,0 | 1336 | 3 | 1 | | F1B | | 250 | |
| **MRASZ** | 3792,0 | 1815 | 4 | 1 | RUS | F1B | | 200 | Kaliningrad |
| **MRASZ** | 3792,0 | 1709 | 11 | 1 | RUS | F1B | | 200 | Kaliningrad |
| **MRASZ** | 3797,0 | 1336 | 3 | 1 | | F1B | | 250 | |
| **MRASZ** | 7000,0 | 1413 | 23 | 1 | | LSB | | | strong blaster |
| **MRASZ** | 7014,0 | 1419 | 10 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 7014,0 | 1652 | 11 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 7038,0 | 1515 | 3 | 1 | | OTHR | | | 6910-7075 kHz |
| **MRASZ** | 7050,0 | 1200 | 1 | 1 | | LSB | | | russian, chaos |
| **MRASZ** | 7050,0 | 0903 | 5 | 1 | | LSB | | | ukrainian chaos |
| **MRASZ** | 7050,0 | 0940 | 17 | 1 | | LSB | | | chaos, scolding russians |
| **MRASZ** | 7050,0 | 0944 | 19 | 1 | | LSB | | | chaos |
| **MRASZ** | 7050,0 | 1437 | 19 | 1 | | LSB | | | overloaded, hum, music, chaos |
| **MRASZ** | 7055,0 | 1202 | 1 | 1 | | LSB | | | russian, chaos |
| **MRASZ** | 7055,0 | 0904 | 5 | 1 | | LSB | | | music |
| **MRASZ** | 7055,0 | 0940 | 17 | 1 | | LSB | | | chaos |
| **MRASZ** | 7055,0 | 0945 | 19 | 1 | | LSB | | | chaos |
| **MRASZ** | 7055,0 | 1509 | 22 | 1 | | LSB | | | chaos |
| **MRASZ** | 7055,0 | 1331 | 25 | 1 | | LSB | | | music, chaos |
| **MRASZ** | 7140,0 | 1550 | 2 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7140,0 | 1817 | 4 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7140,0 | 1422 | 10 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7140,0 | 1828 | 14 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7140,0 | 1402 | 23 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7179,0 | 1333 | 25 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 7180,0 | 1550 | 2 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7180,0 | 1422 | 10 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7180,0 | 1828 | 14 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7180,0 | 1403 | 23 | 1 | ERI | A3E | | | R. Eritrea |
| **MRASZ** | 7193,0 | 1325 | 19 | 1 | | F1B | | 200 | |
| **MRASZ** | 7193,0 | 1207 | 20 | 1 | | F1B | | 200 | |
| **MRASZ** | 10103,0 | 1408 | 23 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 10123,0 | 0907 | 5 | 1 | | PSK2 | | | AT3004D |
| **MRASZ** | 10130,0 | 0938 | 17 | 1 | | F1B | | 500 | |

## OEVSV – Austria – OE3GSA (Gerd)

## PZK – Poland – SP9BRP (Jan)

## REF – France – F5MIU (Francis)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | Sh /Bw | DETAILS |
|---|---|---|---|---|---|---|---|---|---|
| **R.E.F.** | | | | | | | | | **January 2019** |
| **F5MIU** | 3755 | 1750 | 21 | 01 | | | usb | 5kHz | 8 subcarrier pulsing every second |
| **F5MIU** | 3755 | 1740 | 22 | 01 | | | usb | 5kHz | 8 subcarrier pulsing every second |
| **F5MIU** | 10127 | 1744 | 21 | 01 | | | usb | | Arabic language S3 |
| **F5MIU** | 14230 | 900 | 28 | 01 | | | fmcw | 10kHz | OTH Radar pulsed 20ms,S8 jumping over +/-50kHz on band |
| **F5MIU** | 14250 | 0840 | 29 | 01 | | | fmcw | 10kHz | OTH Radar pulsed 20ms,S5-8 jumping over +/-50kHz on band |

## REP – Portugal – CT4AN (Jose Francisco)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **REP** | 3500 | 18.30 | 10 | 01 | E | | J3E-U | | | Spanish fishery |
| **REP** | 3520 | 18.55 | 17 | 01 | F | | J3E-U | | | French fishery |
| **REP** | 3550 | 10.17 | 21 | 01 | POR | | J3E-U | | | Portuguese fishery |
| **REP** | 3552 | 18.50 | 06 | 01 | | | PSK-4 | | | Stanag 4285 NATO 600/Long, FYI shared band |
| **REP** | 3731 | 22.00 | 05 | 01 | UKR | | J3E-L | | | War Propaganda, recorded message in English lang. |
| **REP** | 3731,5 | 21.49 | 05 | 01 | E | | J3E-U | | | Spanish fishery, Galicia province |
| **REP** | 3752 | 18.31 | 06 | 01 | | | PSK-2 | | | Link-11 CLEW, NATO, FYI shared band |
| **REP** | 3770 | 07.13 | 07 | 01 | POR | | J3E-U | | | Fishery |
| **REP** | 5353 | 09.45 | 29 | 01 | IRL | | J3E-U | | | Irish fishery |
| **REP** | 5363,75 | 18.08 | 26 | 01 | | | J3E-L | | | Unid language fishery, engine noise |
| **REP** | ***6999*** **...** | 19.50 | 16 | 01 | B | | J3E-U | | | Brazilian intruders, phone patches, daily |
| **REP** | 7000 | 19.50 | 18 | 01 | B | | J3E-U | | | Brazilian fishery, daily |
| **REP** | 7004 | 10.02 | 31 | 01 | MRC | | J3E-U | | | Arabic/French language fishery, Morocco |
| **REP** | 7010 | 09.33 | 08 | 01 | RUS | | PSK2 | 120 | 3k | AT3004D Modem, encrypted comms |
| **REP** | 7010 | 08.08 | 18 | 01 | | 920001, 920009 | J3E-U MFSK | | | Arabic language voice comms and ALE/Clover 2000 links, daily, all day. |
| **REP** | 7011 | 11.35 | 09 | 01 | MRC | | J3E-U | | | Arabic/French language fishery, Morocco |
| **REP** | 7012 | 18.25 | 10 | 01 | RUS | | PSK-2 | | | CIS-12 12x120bd 3,3k tone, idling |
| **REP** | 7020 | 16.56 | 20 | 01 | B | | J3E-U | | | Brazilian fishery, daily |
| **REP** | 7040 | 18.22 | 22 | 01 | CHN | | FMOP | | 100k | Wideband OTH, China |
| **REP** | 7043 | 19.07 | 07 | 01 | MLI | 105008, 105007, 105001 | MFSK-8 | | | Mil Std 188-141A Ale United nations MINUSMA mission in Mali |
| **REP** | 7045 | 10.30 | 16 | 01 | | 2001 | MFSK-8 | | | Mil Std188-141A 2xxx net, unid location and user, daily, all day |
| **REP** | 7070 | 19.33 | 16 | 01 | GEO | 524, 244 | MFSK-8 | | | Mil Std 188-141A Ale net purportedly Georgian Border Guards |
| **REP** | 7090 | 09.27 | 20 | 01 | | | J3E-U | | | North african fishery, arabic language |
| **REP** | 7100 | 18.11 | 29 | 01 | B | | J3E-U | | | Unid Brazilian intruders |
| **REP** | 7140 | 18.33 | 11 | 01 | ETH | | A3EBC | | | Radio of the Broad Masses of Eritreia, Ethiopia, illegal broadcasting |
| **REP** | 7160 | 20.00 | 28 | 01 | | | PSK | | | Nato vessel operations |
| **REP** | 7195 | 13.44 | 29 | 01 | TUR | 30713 | MFSK8 | 125 | 3k | Mil Turkish Civil Defence |
| **REP** | 10101 | 16.24 | 11 | 01 | | | J3E-U | | | Arabic language north African |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | fishry |
| REP | 10120 | 12.46 | 26 | 01 | MRC | | J3E-U | | | Moroccan fishery |
| REP | 10121 | 16.28 | 11 | 01 | | | J3E-U | | | Arabic language north African fishry |
| REP | 10125 | 18.05 | 04 | 01 | E | | J3E-U | | | Fishery |
| REP | 10127 | 11.00 | 20 | 01 | MRC | | J3E-U | | | Moroccan fishery |
| REP | 10127,8 | 16.31 | 11 | 01 | | | J3E-U | | | Asian dialect fishery |
| REP | **10130** | 10.20 | 14 | 01 | **F** | | **J3E-U** | | | **French amateurs ignoring IARU Bandplan** |
| REP | 14025 | 08.00 | 04 | 01 | CHN | | FMOP | 20 | 10 | OTH radar burst |
| REP | 14195 | 09.05 | 04 | 01 | RUS | | FSK | 50 | 200 | CIS 36-50 Russian Federation mil encrypted |
| REP | 14200 | 17.02 | 04 | 01 | RUS | | FSK | 50 | 200 | Navy |
| REP | 21005 | 13.20 | 04 | 01 | MRC | | J3E-U | | | Fishery |
| REP | 21210 | 13.30 | 04 | 01 | E | | J3E-U | | | Fishery |
| REP | 28100 | 17.55 | 01 | 01 | E | | J3E-U | | | Spanish CB |
| REP | 28725 | 11.08 | 10 | 01 | RUS | | F3E | | | Taxis dispatchers |

## RSGB – United Kingdom – G4DYA (Richard)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH/BW | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **RSGB** | 3744.0 | 1018 | 13 | 01 | | | A3E | | | BC audio clips |
| **RSGB** | 7038.5 | ady | dly | 01 | CZE | OK0EU | A1A | | | For info: QRP propagation beacon |
| **RSGB** | 7140.02 | vt | vd | 01 | ERI | VoBM1 | A3E | | | BC |
| **RSGB** | 7179.0 | 1505 | 27 | 01 | | | J7D | | 2K70E | USB 7177.0 / CIS-12 |
| **RSGB** | 7180.02 | vt | vd | 01 | ERI | VoBM2 | A3E | | | BC |
| **RSGB** | 7193.0 | vt | vd | 01 | RUS | RDL | F1B | | | Kaliningrad |
| **RSGB** | 10100.8 | ady | dly | 01 | D | DDK9 | F1B | 50 | 450 | For info: Primary user: WX broadcast |
| **RSGB** | 14001.8 | 1525 | 30 | 01 | | | G1D | | 2K40E | USB 14000.0 / Stanag 4285 |
| **RSGB** | 14308.0 | 1111 | 25 | 01 | RUS | | F1B | 75 | 500 | RR 5.152 |

## RSK – Kenya – 5Z4BV (Kamweti)

| Soc | kHz | UTC | dd | mm | ITU | Identity | MODE | Details |
|---|---|---|---|---|---|---|---|---|
| **RSK** | 7004 | 1040 | 26 | 1 | Kenya/ E. Africa? | ? | J3E-u | Kiswahili/vernacular msg net |
| **RSK** | 7040 | 1220 | 31 | 1 | E. Africa? | ? | J3E-u | Kiswahili QSO |
| **RSK** | 7045 | 1315 | 28 | 1 | E. Africa? | ? | J3E-u | Kiswahili/vernacular msg net |
| **RSK** | 7089,1 | v.t. | nr.dly. | 1 | Central Africa? | ? | J3E-u | French/vernacular msg net |
| **RSK** | 7100 | v.t. | 26 | 1 | Central/E. Africa? | ? | J3E-l | vernacular msg net |
| **RSK** | 7120 | 1253 | 26 | 1 | S. Sudan/E. Africa? | ? | J3E-u | Kiswahili/vernacular msg net |
| **RSK** | 7140 | v.t. | dly | 1 | Eritrea | VOB | A3E | Commecial broadcast - Voice of the Broad Masses of Eritrea 1 |
| **RSK** | 7180 | v.t. | dly | 1 | Eritrea | VOB | A3E | Commecial broadcast - Voice of the Broad Masses of Eritrea 2 |

## SRAL – Finland – OH2BLU (Pekka)

| Society | kHz | UTC | DD | MM | ITU | IDENT | MODE | BAUD | SHIFT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| **SRAL** | 6999.0 | 1410 | 16 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7000.0 | 1000-1000/ | 10 | 1 | | UiCarr | N0N | | | 50 Hz brum |
| **SRAL** | 7008.0 | 0630-1030 | 9 28 | 1 | RUS | UiPTR | F1B/ N0N | | 250 | |
| **SRAL** | 7010.0 | 0730- | 9 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |

| Society | kHz | UTC | DD | MM | ITU | IDENT | MODE | BAUD | SHIFT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 0825/ | | | | | | | | |
| **SRAL** | 7012.0 | 1330-1340/ | 16 | 1 | RUS | UiPTR | F1B | | 250 | |
| **SRAL** | 7013.0 | -0800/ | 22 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | Off with usb Russ. Vox 7011.0 |
| **SRAL** | 7014.0 | 1335-1945 | 10 11 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7025.0 | /1140-1200 | 21 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7030.0 | 0630-1100 | * | 1 | RUS | UiPTR | F1B | | 250 | Days: 4. 9. 28. |
| **SRAL** | 7044.0 | 1030-1200 | 10 | 1 | | UiPTR | F1B | | 500 | |
| **SRAL** | 7066.0 | 0830-0853/ | 21 | 1 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7066.0 | 1020-1030/ | 30 | 1 | | UiCarr | N0N | | | |
| **SRAL** | 7081.0 | 1010-1023/ | 23 | 1 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7083.0 | 0845-0900 | 23 | 1 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7112.0 | 1600-1735/ | 18 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7113.0 | 1200-1215 | 9 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7120.0 | | | 1 | SOM | R Hargeisa | A3A | | | Not heard |
| **SRAL** | 7122.0 | 0700-0815/ | 9 | 1 | RUS | UiPTR | F1B | | 250 | |
| **SRAL** | 7127.0 | 0850-1100 | 9 30 | 1 | RUS | UiPTR | F1B/ N0N | | 250 | |
| **SRAL** | 7129.0 | 0850-1100 | 23 | 1 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7133.88 | 1205 | 6 | 1 | | UiCarr | N0N | | | |
| **SRAL** | 7135.0 | 1200 | 17 | 1 | | UiOTHR | FMCW | | | 67Hz/12kHz, 10s on 50s off |
| **SRAL** | 7140,0 | 0600-0710 | dly | 1 | ERI | VoBME | A3E | | | |
| **SRAL** | 7140,0 | 1400-1835/ | dly | 1 | ERI | VoBME | A3E | | | |
| **SRAL** | 7142.0 | 1200-1330 | 16 17 | 1 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7144.0 | 1000-1200/ | 9 | 1 | | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7158.0 | 0720-1210 | 6 | 1 | | ZH7F | A1A | | | 5BL |
| **SRAL** | 7160.0 | 0630-0845 | 22 23 | 1 | RUS | RBL88 | A1A | | | 5BL |
| **SRAL** | 7164.0 | 1345-1405/ | 24 | 1 | RUS | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7167.0 | 0900-0945 | 28 | 1 | RUS | UiPTR | F1B | | 250 | |
| **SRAL** | 7168.0 | 1045-1055/ | 31 | 1 | | UiCarr | N0N | | | |
| **SRAL** | 7176.0 | 0900-0930 | 1 | 1 | | UiPTR | F1B | | 500 | |
| **SRAL** | 7176.0 | 1345-1415 | 10 | 1 | | UiPTR | F1B | | 250 | |
| **SRAL** | 7178.5 | 1325 | 16 | 1 | | OECK | A1A | | | |
| **SRAL** | 7179.0 | 1400-1515 | 25 | 1 | UKR | UiMUX | PSK2 | 120 | 2600 | |
| **SRAL** | 7180.0 | 0600-0715 | dly | 1 | ERI | VoBME | A3E | | | |
| **SRAL** | 7180.0 | 1400-1835/ | dly | 1 | ERI | VoBME | A3E | | | |
| **SRAL** | 7181.9 | 1000- | 4 | 1 | | UiCarr | N0N | | | |

| Society | kHz | UTC | DD | MM | ITU | IDENT | MODE | BAUD | SHIFT | REMARKS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 1330/ | | | | | | | | |
| **SRAL** | 7186.0 | 0900-1000 | 14 | 1 | | UiPTR | F1B | | 500 | |
| **SRAL** | 7193.0 | 0750-1500/ | * | 1 | RUS | RDL | F1B/ N0N | | 200 | Days: 3. 4. 8. 9. 13. 14. 18. 19. 20. |
| **SRAL** | 7195.25 | '0925 | 28 | 1 | | UiPTR | F1B | | 250 | |
| **SRAL** | 10 MHz | 0530-0725/ | 3 4 | 1 | CYP | UiOTHR | FMCW | | | 25/50Hz, 20 kHz (WebSDR 20d) |
| **SRAL** | 10 MHz | | | 1 | CHN | UiOTHR | FMCW | | | 40kHz (WebSDR 0d) |
| **SRAL** | 14 MHz | | | 1 | CHN | UiOTHR | FMCW | | | 40kHz/12.5Hz |
| **SRAL** | 14 MHz | 1210-1245 | 9 31 | 1 | RUS | Kontainer | FMCW | | | 20kHz/50Hz (WebSDR 2d) |
| **SRAL** | 14221.0 | | | 1 | KGZ | UiPTR | F1B | | 200 | |
| **SRAL** | 14295.0 | 0600-1230 | dly | 1 | TJK | R Tojikiston | A3E | | | 3f, chirpy carrier |
| **SRAL** | 18 MHz | 0600-1215 | * | 1 | CYP | UiOTHR | FMCW | | | 25/50Hz / 20 kHz, days: 7. 9. 23. 28. (WebSDR 13d) |
| **SRAL** | 18 MHz | | | 1 | RUS | Kontainer | FMCW | | | 20kHz/50Hz (WebSDR 0d) |
| **SRAL** | 21 MHz | | | 1 | CYP | UiOTHR | FMCW | | | 25/50Hz / 20 kHz, (WebSDR 3d) |
| **SRAL** | 21438.0 | 1045 | 8 | | RUS | RCV | A1A | | | |
| **SRAL** | 24 MHz | | | 1 | | UiOTHR | FMCW | | | (WebSDR 0d) |
| **SRAL** | 28 MHz | | | 1 | IRN | UiOTHR | FMCW | | | 307 & 870 Hz / 60 kHz. |
| **SRAL** | 28860.0 | | | 1 | IRN | UiOTHR | FMCW | | | 150 & 313 Hz / 60 kHz. |
| **SRAL** | 28 MHz | | | 1 | | UiOTHR | FMCW | | | 25/50Hz / 20 kHz (WebSDR 0d) |
| **SRAL** | 28 MHz | | | 1 | RUS | Taxi disp. | F3E | | | 0 reports |

## URE – Spain – EA6AMM (Gaspar)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **URE** | 5350 | 16:40 | 5 | 1 | RUS | | FMOP | | 50K | Coastal Radar 43 sps Makhachkala |
| **URE** | 5352.91 | 16:40 | 5 | | | | | | | Continuous carrier |
| **URE** | 7000 | 16:14 | 3 | 1 | CHN | | FMOP | | 160k | Chinese wideband OTH Radar from 7000 (6920) to 7080 kHz. 20 sweeps/s |
| **URE** | 7008.8 | 08:22 | 9 | 1 | | | PSK2A | 120 | 2600 | AT3004-D |
| **URE** | 7086 | 08:35 | 11 | 1 | | | FMOP | | 10K | OTH Radar from 7081 to 7091 |
| **URE** | 7014 | 18:41 | 10 | 1 | | | PSK2A | 120 | 2600 | AT3004-D |
| **URE** | 7053.7 | 08:15 | 7 | 1 | | | PSK2A | 120 | 2600 | AT3004-D |
| **URE** | 7055 | VT | VD | 1 | RUS/UKR | | | | | Music, speech, agitprop |
| **URE** | 7140 | VT | VD | 1 | ERI | | A3E | | | Eritrea's Voice of the Broad Masses 1 |
| **URE** | 7180 | VT | VD | 1 | ERI | | A3E | | | Eritrea's Voice of the Broad Masses 2 |
| **URE** | 10114.8 | VT | VD | 1 | RUS | | F1B | 100 | 1000 | CIS14. Moscow |
| **URE** | 10121 | 09:10 | 23 | 1 | | | F1B | | 125 | |
| **URE** | 10122 | 09:37 | 23 | 1 | | | J3E-U | | | Unid people talking. Spanish language. |
| **URE** | 10122.8 | 09:20 | 24 | 1 | | | PSK2A | 120 | 2600 | AT3004-D |
| **URE** | 10124.8 | 09:50 | 31 | 1 | RUS | | PSK2A | 120 | 2600 | AT3004-D. TDoA: Penza, RUS. |
| **URE** | 10125 | 10:23 | 1 | 1 | | | | | 20k | OTH Radar from 10115 to 10135 kHz |
| **URE** | 10130 | VT | VD | 1 | RUS | | F1B | 50 | 500 | Unclean - area of Chita |
| **URE** | 10130 | 08:38 | 9 | 1 | | | FMOP | | 20k | OTH Radar from 10120 to 10140 kHz |
| **URE** | 14000.5 | 12:22 | 5 | 1 | | | J3E-U | | | Unid people talking. Spanish language |
| **URE** | 14045 | 09:20 | 1 | 1 | | | | | 10k | OTH Radar from 14040 to 14050 kHz |
| **URE** | 14057 | 08:57 | 22 | 1 | | | FMOP | | 10k | OTH Radar from 14052 to 14062 kHz |
| **URE** | 14116 | 09:45 | 24 | 1 | | | FMOP | | 10k | OTH Radar from 14111 to 14121 kHz |
| **URE** | 14137 | 09:45 | 24 | 1 | | | FMOP | | 10k | OTH Radar from 14132 to 14142 kHz |
| **URE** | 14231 | 08:40 | 28 | 1 | | | FMOP | | 10k | OTH Radar from 14226 to 14236 kHz "Associated" burst (?): 14200 center QRG (10k) and 14248 center QRG, 10 kHz |
| **URE** | 14231 | 09:13 | 29 | 1 | | | FMOP | | 10k | OTH Radar from 14226 to 14236 kHz, "associated bursts" (?): 14225 center QRG |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | (10 kHz) and 14244 center QRG, 10 kHz |
| **URE** | 14250 | 09:41 | 21 | 1 | | | FMOP | | 10k | OTH Radar from 14245 to 14255 kHz. Also copied on 22 Jan 09:00 UTC |
| **URE** | 14257 | 08:50 | 25 | 1 | | | FMOP | | 10k | OTH Radar from 14252 to 14262 kHz |
| **URE** | 14308 | 08:38 | 25 | 1 | RUS | | F1B | 75 | 500 | Moscow |
| **URE** | 14325 | 08:37 | 25 | 1 | | | FMOP | | 10k | OTH Radar from 14320 to 14330 kHz |
| **URE** | 14327 | 08:53 | 27 | 1 | | | FMOP | | 10k | OTH Radar from 14322 to 14332 kHz |
| **URE** | 14256 | 08:55 | 31 | 1 | | | FMOP | | 10k | OTH Radar from 14251 to 14261 kHz |
| **URE** | 14338 | 09:08 | 25 | 1 | | | FMOP | | 10k | OTH Radar from 14333 to 14343 kHz. QSY to 14345 center at 09:15 |
| **URE** | 14292 | 08:23 | 15 | 1 | | | FMOP | | 10k | OTH Radar from 14287 to 14297 kHz |
| **URE** | 18068 | 09:34 | 4 | 1 | | | | | 20k | OTH Radar from 18068 ( 18050) to 18070 kHz |
| **URE** | 18080 | 10:59 | 4 | 1 | | | | | 20k | OTH Radar from 18068 (18060) to 18080 kHz |

## USKA – Switzerland – HB9CET (Peter)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH (BW) | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **80m band informational only! - Amateur co-primary, shared with other also primary allocated services!** | | | | | | | | | | |
| **USKA** | 3527.0 | 2345<br>2211 | 10<br>28 | 01 | | | F1B | 50 | 200 | almost daily |
| **USKA** | 3532.0<br>VFO LSB | 2347 | 10 | 01 | | | DQPSK | 14x75 | 2k7 | LINK 11 ESB Mode |
| **USKA** | 3532.0 | 2239 | 24 | 01 | | | DQPSK | 14x75 | ~6k1 | LINK 11 ISB Mode |
| **USKA** | 3549.0<br>VFO USB | 2351<br>2340 | 10<br>29 | 01 | | | G1D<br>PSK8 | 2400 | 2k7 | MIL 188-110A (D2) mod (Hybrid)<br>preamble 4 tones, PSK4 75Bd<br>450Hz spacing often |
| **USKA** | 3550.0 | 1638<br>2208 | 18<br>28 | 01 | | | J7D | 12x120 | 2k7 | BPSK; CIS12 often |
| **USKA** | 3553.8 | 2350<br>2245 | 10<br>24 | 01 | | | G1D<br>PSK8 | 2400 | 2k4 | STANAG 4285 almost daily |
| **USKA** | 3610.0 | 1641 | 18 | 01 | | | B7D<br>DQPSK | 14x75 | ~6k1 | LINK 11 CLEW; DSB Mode |
| **USKA** | 3741.5 | 1720 | 28 | 01 | | | OFDM5<br>1 | 37.5 | ~ 2k5 | **QAM16** mod; tone spacing 46.92Hz; Pilot tone |
| **USKA** | 3784.0 | 2325 | 29 | 01 | | | J7D | 12x120 | 2k7 | BPSK; CIS12 |
| **USKA** | 6999.8 | 1812 | 13 | 01 | | | G1D<br>PSK8 | 2400 | 2k7 | MIL 188-141B often<br>partially in 40m band |
| **USKA** | 7000.0 | 1803 | 13 | 01 | | | J3E-U | | 2k1 | English patois |
| **USKA** | 7003.5 | 1610 | 29 | 01 | ALG | | 304HF1<br>B | 200 | 100 | Pactor 1; encrypted connect often |
| **USKA** | 7014.0 | 2343 | 10 | 01 | | | J7D | 12x120 | 2k7 | BPSK; CIS12 |
| **USKA** | 7032.0 | 22 | 28 | 01 | | | FMCW | 41 sps | 10k | OTHR; Bursts, BD 6s, BRI 60s |
| **USKA** | 7055.0 | 1438 | 30 | 01 | | | J3E-L | | | Music and Voice often |
| **USKA** | 7070.0 | 1657 | 29 | 01 | | 220 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A often |
| **USKA** | 7081.0 | 0949 | 23 | 01 | | | F1B | 75 | 250 | |
| **USKA** | 7108.0 | 0954 | 23 | 01 | | | OFDM | 30 | appx<br>2k9 | tone spacing appx 44.4 Hz<br>pilottone at appx 3300Hz |
| **USKA** | 7112.0 | 1624 | 18 | 01 | | | J7D | 12x120 | 2k7 | BPSK; CIS12 often |
| **USKA** | 7127.0 | 0907 | 30 | 01 | | | F1B | 75 | 250 | |
| **USKA** | 7129.0 | 1013 | 23 | 01 | | | J7D | 12x120 | 2k7 | BPSK; CIS12 |
| **USKA** | 7134.0 | 2250 | 29 | 01 | | | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7140.0 | 1610 | | 01 | ERI | VOBM | A3E | | ~ 9k | BC almost daily |
| **USKA** | 7141.0 | 2254 | 29 | 01 | | | FMCW | 50 sps | 10k | OTHR; Bursts, BD 3s; BRI appx 45s |
| **USKA** | 7164.0 | 1416 | 24 | 01 | | | J7D | 12x120 | 2k7 | idling, 13 carriers only |
| **USKA** | 7193.0 | 1015<br>1017 | 14<br>14 | 01<br>01 | RUS | RDL | F1B<br>F1B | 36<br>50 | 200 | CIS 36-50 almost daily |

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | BD | SH (BW) | DETAILS |
|---|---|---|---|---|---|---|---|---|---|---|
| **USKA** | 7197.0 | 1929 | 14 | 01 | TUR | 334013 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 1944 | 14 | 01 | TUR | 378013 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 2041 | 14 | 01 | TUR | 306018 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 2049 | 14 | 01 | TUR | 368018 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 2058 | 14 | 01 | TUR | 316013 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 2059 | 14 | 01 | TUR | 345013 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 2107 | 14 | 01 | TUR | 337013 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 7197.0 | 2144 | 14 | 01 | TUR | 354013 | MFSK8 | 125 | 1750 | ALE, MIL 188-141A |
| **USKA** | 10130.0 | 1001 | 23 | 01 | | | F1B | 50 | 500 | heavy! often |
| **USKA** | 14001.8 | 1441 | 30 | 01 | | | G1D PSK8 | 2400 | 2k4 | STANAG 4285 |
| **USKA** | 14153.0 | 0938 | 26 | 01 | RUS | | FMOP | 50 sps | 10k | OTHR; Bursts; BD 10s; BRI 35s |
| **USKA** | 14171.0 | 0853 | 30 | 01 | | | J7D | 12x120 | 2k7 | BPSK; CIS12 |
| **USKA** | 14241.0 | 0943 | 26 | 01 | RUS | | FMOP | 50 sps | 10k | OTHR; Bursts; BD 10s; BRI 35s |
| **USKA** | 14260.0 | 0849 | 30 | 01 | | | FMOP | 50 sps | 10k | OTHR long lasting |
| **USKA** | 14265.0 | 0932 | 26 | 01 | | | FMOP | 10 sps | 160k | OTHR |
| **USKA** | 14280.0 | 1010 | 02 | 01 | | | AM | | | Number station (reported by HB9CNY) |
| **USKA** | 14292.0 | 0922 | 25 | 01 | | | F1B | 75 | 500 | |
| **USKA** | 14293.0 | 0900 | 30 | 01 | | | FMOP | 66.66 | 10k | |
| **USKA** | 14295.0 | 1301 | 30 | 01 | TJK | | A3E | | ~9k | Radio Tajik often ($3^{rd}$ of 4765 kHz) |
| **USKA** | 14308.0 | 0917 | 25 | 01 | | | F1B | 75 | 500 | |
| **USKA** | 14322.0 | 0946 | 25 | 01 | | | FMCW | 41 sps | ~10k | OTHR; Bursts BD appx 6s |
| **USKA** | 14339.0 | 0954 | 25 | 01 | | | FMCW | 41 sps | ~10k | OTHR; Bursts BD appx 6s |

## Veron – Netherlands – PG1R (Ruud)

| SOC | kHz | UTC | DD | MM | ITU | IDENT | MODE | SHIFT | DETAILS |
|---|---|---|---|---|---|---|---|---|---|
| VERON | 3501,0 | 1620 | 23 | 01 | | UiPTR | FiB | | Idling |
| VERON | 3527,0 | 2059 | 10 | 01 | | UiPTR | F1B | | Revs also 15/1 21.10 UTC |
| VERON | 3548,0 | 1900 | 05 | 01 | CIS | UiPTR | F1B | | Revs/Ptr |
| VERON | 3562,0 | 1904 | 21 | 01 | CIS | EGZM | A1A | | Calls to IBMV OI9Z ZH1B |
| VERON | 3568,0 | 1638 | 10 | 01 | | UiPTR | F1B | | Fast Revs/Ptr also 31/1 18.42 UTC |
| VERON | 3588,0 | 1810 | 16 | 01 | | UiPTR | F1B | | Ptr |
| VERON | 3606,0 | 1910 | 27 | 01 | | UiPTR | F1B | | Revs |
| VERON | 3608,0 | 1638 | 08 | 01 | | UiPTR | F1B | | Revs/Ptr also 17/1 29/1 18.17 UTC |
| VERON | 3617,0 | 1811 | 16 | 01 | CIS | UiCW | A1A | | 5BL |
| VERON | 3624,0 | 1551 | 23 | 01 | CIS | WNMV | A1A | | XXX WNMV 62362 DUchEWNOSTX 6849 7310 |
| VERON | 3631,0 | 2050 | 12 | 01 | | UiPTR | F1B | | Idling |
| VERON | 3656,8 | 1912 | 27 | 01 | RUS | V | A1A | | V-beacon |
| VERON | 3759,0 | 1915 | 19 | 01 | | UiMux | PSK8 | 2k4 | Stanaglike modem |
| VERON | 3784,0 | 1819 | 24 | 01 | CIS | UiCW | A1A | | 5BL |
| VERON | 3784,0 | 1822 | 24 | 01 | CIS | 4ROI | A1A | | 4ROI 568 25 24 2118 568 = ZWJ 205 = 37997 5F |
| VERON | 3792,0 | 2116 | 15 | 01 | | UiPTR | F1B | | Ptr |
| VERON | 3797,0 | 1828 | 16 | 01 | | UiPTR | F1B | | Ptr |
| VERON | 3798,0 | 2111 | 22 | 01 | CIS | O9P1 | A1A | | O9P1 R 344 QRV K |
| VERON | 7055,0 | 1335 | 26 | 01 | RUS/ UKR | | J3E-L | | Chaos; 2 TX; music&speech; S5 |
| VERON | 7140,0 | 1817 | 19 | 01 | ERI | R.Eritrea | A3E | | E.Afr. Music; S5 |
| VERON | 7180,0 | 1815 | 19 | 01 | ERI | R.Eritrea | A3E | | E.Afr. Music; S6 |
| VERON | 7193,0 | 1025 | 14 | 01 | CIS | UiPTR | F1B | | Revs/Ptr |
| VERON | 7193,0 | 1018 | 20 | 01 | RUS | UiPtr | F1B | 200 | Printer; S5 |
| VERON | 10119,0 | 1352 | 13 | 01 | | UiRadar | FMCW | 20k | OTHR; 50sps; Cyprus ? Sri no DF |
| VERON | 10130,0 | 1020 | 23 | 01 | | UiPTR | F1B | | Revs also 29/1 10.31 UTC |
| VERON | 14308,0 | 1111 | 25 | 01 | RUS | UiPtr | F1B | | |

# The monitoring team of IARU Region 1

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## Many thanks for your interest!

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