



### Monitoring System

Observe the screenshots and comments below!

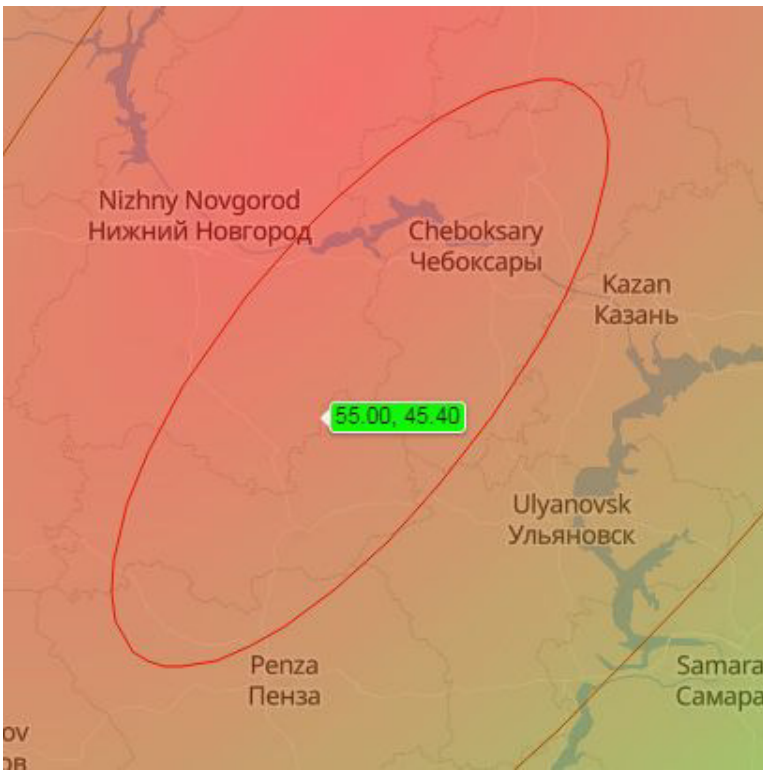
Intruders from: **March 15<sup>th</sup> 2019** - persistent or earlier: black – recent: blue - new: red

| kHz       | UTC  | DATE     | ITU | IDENT | MODE    | BD   | SH   | DETAILS                                      |
|-----------|------|----------|-----|-------|---------|------|------|--|
| 5350.000  | 1530 | 14.03.19 | RUS |       | FMOP    |      | 50k  | coastal radar – 43 sps - Makhachkala         |
| 5355.000  | 1830 | 05.03.19 | RUS |       | PSK2A   | 120  | 2600 | AT3004D – St. Pterburg – primary user        |
| 5361.800  | 2020 | 11.03.19 | DNK | OUA15 | PSK8A   | 2400 | 2400 | Stanag-4285 – DNK navy - primary user        |
| 7000.000  | 1010 | 14.03.19 | E   |       | USB     |      |      | Spanish fishery                              |
| 7003.000  | 1453 | 21.02.19 | CHN |       | FMOP    |      | 160k | Chinese OTH radar – 20 sps - jumping         |
| 7020.000  | 1635 | 07.03.19 | CHN |       | FMOP    |      | 160k | Chinese OTH radar – 10 sps - jumping         |
| 7022.000  | 1343 | 14.02.19 | RUS |       | PSK4B   | 120  | 2600 | AT3104D – Moscow                             |
| 7039.200  | ady  | dly      | RUS | “F”   | A1A     |      |      | beacon „F“ - „RJS“ - Vladivostok             |
| 7039.300  | ady  | dly      | RUS | “K”   | A1A     |      |      | beacon “K” – “RCC” – Petropav. Kam.          |
| 7039.400  | ady  | dly      | RUS | “M”   | A1A     |      |      | beacon “M” – “RTS” - Magadan                 |
| 7050.500  | 0850 | 05.02.19 | RUS |       | PSK2A   | 120  | 2600 | AT3004D – area of St. Peterburg              |
| 7127.000  | 1510 | 13.03.19 | RUS |       | unid    |      | 2800 | broken signal – n. of Rostov na Donu         |
| 7140.024  | 1630 | dly      | ERI |       | A3E/BC  |      | 9k   | Radio Eritrea                                |
| 7180.022  | 1630 | dly      | ERI |       | A3E/BC  |      | 9k   | Radio Eritrea                                |
| 7193.000  | 0806 | 09.02.19 | RUS | RDL   | F1B     | 50   | 200  | Kaliningrad                                  |
| 7200.000  | 1350 | 07.03.19 | RUS |       | PSK2A   | 120  | 2600 | AT3004D - Kaliningrad                        |
| 10127.000 | 0900 | 09.03.19 | MRC |       | USB     |      |      | Moroccan pirates                             |
| 14050.000 | 0905 | 13.03.19 | CHN |       | FMOP    |      | 10k  | CHN OTHR – 50 sps bursts - jumping           |
| 14085.000 | 1435 | 23.02.19 | RUS |       | FMOP    |      | 14k  | OTH radar Contayner – 40 sps – N. Penza      |
| 14108.000 | 1028 | 13.03.19 | CHN |       | FMOP    |      | 10k  | CHN OTHR – 42 sps bursts - jumping           |
| 14143.000 | 0800 | 15.03.19 | RUS |       | FMOP    |      | 14k  | OTH radar Contayner – screenshot !           |
| 14192.000 | 1620 | 08.02.19 | RUS |       | F1B     | 50   | 200  | RUS navy Kaliningrad - often                 |
| 14220.000 | 0900 | 08.03.19 | CHN |       | FMOP    |      | 40k  | CHN OTH radar – 10 sps - Xinxiang            |
| 14221.000 | vt   | dly      | KGZ |       | F1B     | 50   | 200  | Kyrgyzstan – Bishkek – mostly idling         |
| 14295.194 | ady  | dly      | TJK |       | A3E     |      | 9k   | 3 <sup>rd</sup> from Radio Tajik on 4765 kHz |
| 14300.000 | 0910 | 12.03.19 | CHN |       | FMOP    |      | 40k  | Chinese OTH radar - 10 sps                   |
| 14308.000 | 0900 | 21.02.19 | RUS |       | F1B     | 75   | 500  | Moscow                                       |
| 14332.000 | 0900 | 05.03.19 | RUS |       | FMOP    |      | 14k  | OTH radar Contayner – 40 sps – N. Penza      |
| 18069.000 | 0850 | 09.03.19 | CYP |       | FMOP    |      | 20k  | UK OTH radar – 25 sps                        |
| 18080.000 | 0750 | 18.09.18 | TWN |       | A3E     |      | 9k   | Sound of Hope TWN + CHN BC jammer            |
| 18107.000 | vt   | vd       | RUS | RDL   | F1B     | 50   | 200  | Moscow – RUS navy – shared band!             |
| 21438.000 | 0836 | 07.10.18 | RUS | RCV   | A1A     |      |      | navy Sevastopol – RCV – RKZ - RJV            |
| 28860.000 | 0700 | 24.08.18 | IRN |       | AM-puls |      |      | Iran radar – 150 and 313 sps                 |

UTC = universal time coordinated (= GMT) /// ady = all day /// vt = various times /// dly = daily /// vd = various days  
date (dd.mm.yy) /// IDENT = call, selcall /// MODE -> USB , LSB, A3E = AM, F3E = FM, F1B = FSK / RTTY, PSK  
ALE = MIL-188-141A /// NWAf = North West Africa /// con = continuous /// ITU = ITU-abbreviation /// BD = Baud  
/// SH = shift (Hz) or signal spread /// DETAILS = observed details /// unid (ui) = unidentified /// AF = Airforce /// MOI = Ministry of Interior /// MOD = Ministry of Defense /// MFA = Ministry of Foreign Affairs /// MEa = Middle East /// FEa = Far East  
/// EAf = East Africa /// CAf = Central Africa /// CIS = Commonwealth of Independent States (earlier UDSSR) /// NAf = North Africa  
/// NEu = Northern Europe /// PRC = People’s Republic of China /// emba = embassy /// DPRK = Democratic People Republic of North Korea  
/// NGO = Non Governmental Organization /// MOPO = Ministry of Public Order /// FSK = frequency shift keying  
/// PSK = phase shift keying /// EU = Europe /// SPS = sweeps/sec = PRF -> OTH radar /// OTHR = OTH radar -> FMCW = frequency modulated continuous wave -> FMOP = freq. mod. on pulse

### Notice board:

Please note: All digital mode frequencies are center frequencies. Exceptions are mentioned!  
**USB: 3500 - 3516 – 7000 – 7035 - 7070 - 10125 - Spanish fishery – USB: 10127.0 Moroccan fishery daily**  
**Illegal BCs: 7140 and 7180 -> Radio Eritrea ++ 18080 -> Sound of Hope (Taiwan) + CHN jammer**  
**Many fishnet buoys between 28000 and 28500 kHz from southwest (carrier + CW-ident) or GPS**



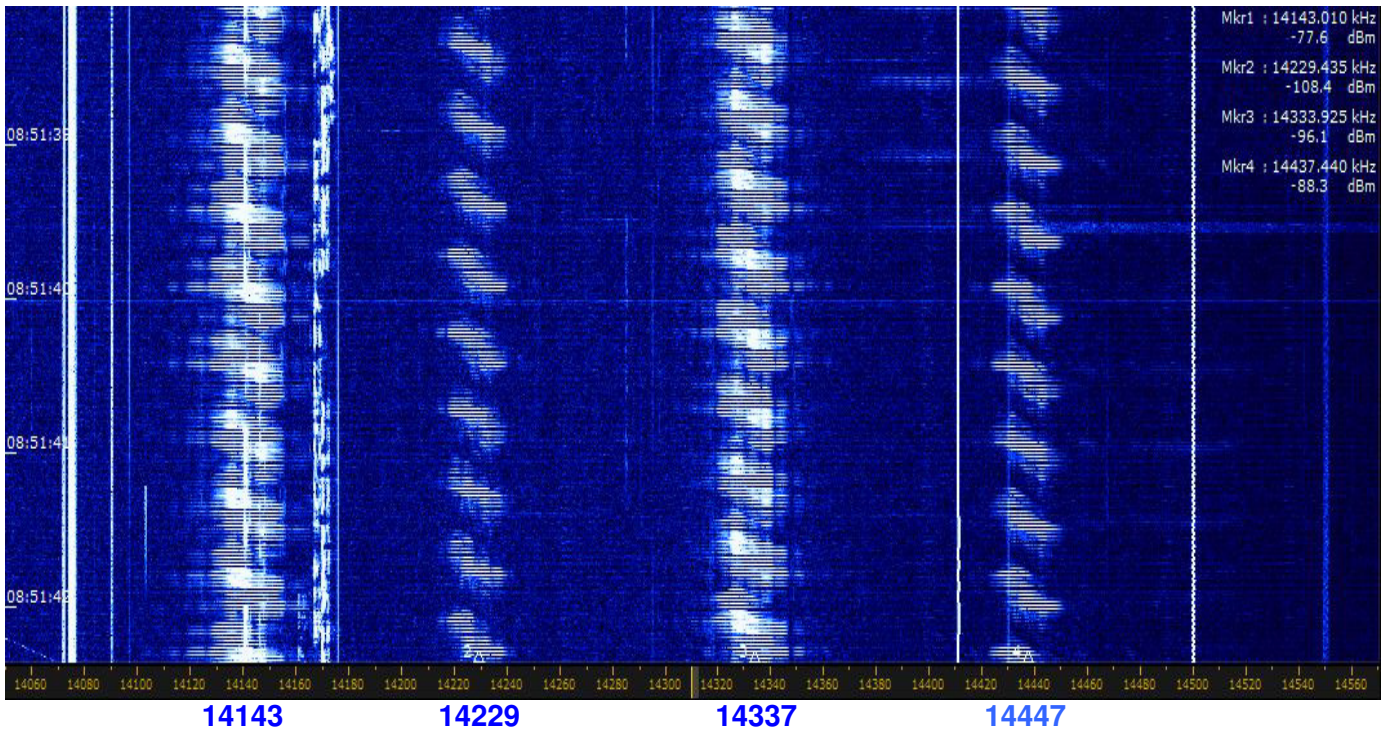
**Russian OTH radar Contayner**

**14186 kHz - FMOP - 40 sps – 14 kHz wide  
north of Penza  
Feb. 22<sup>nd</sup> - 2019 utc at 0915 utc  
long lasting**

**DF: DK2OM with TDoA**

**Russian OTH radar “Contayner” – FMOP - 40 sps – on 14143, 14229 and 14337 kHz at the same time (14447 kHz out of band!)**

**06.03. 2019 at 0851 utc and now daily**



**Measurements and screenshots: DK2OM with W-Code (Wavecom), TDoA or Perseus**

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