Operational Russian Weather Radars: state of affairs and plans

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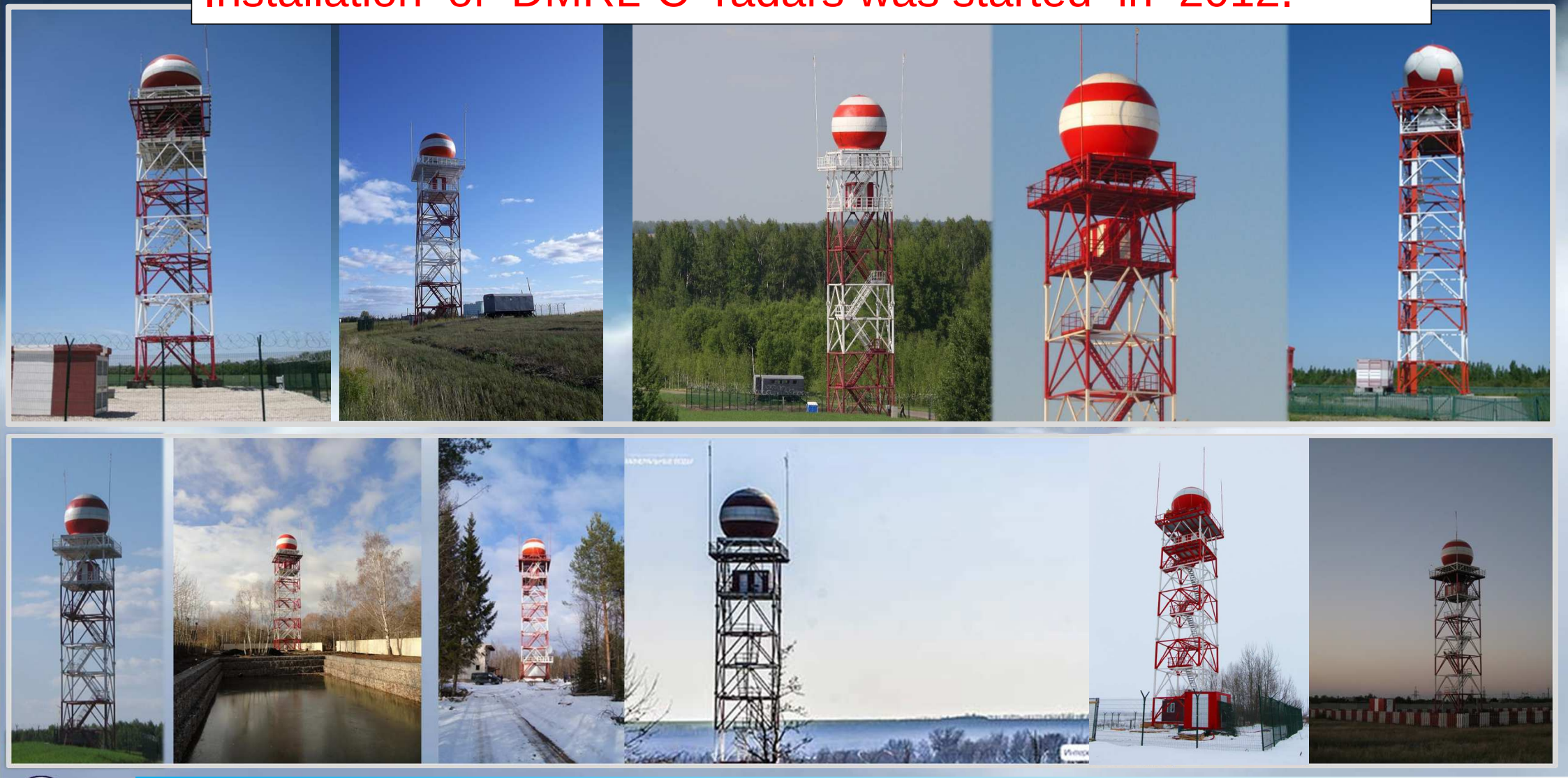
Operational Weather Radars in Russia:

DMRL-C (C-band, DP, Doppler)	–	29	
MRL-5 (S-band, SP, non-Dop)	–	12	
MRL-5 (X-band, SP, non-Dop)	–	9	
DMRL-10 (S-band, SP, Dop)	–	1	
WRM200 (C-band, DP, Dop)	–	1	
Meteor 500 (C-band, SP, Dop)	–	1	total 53

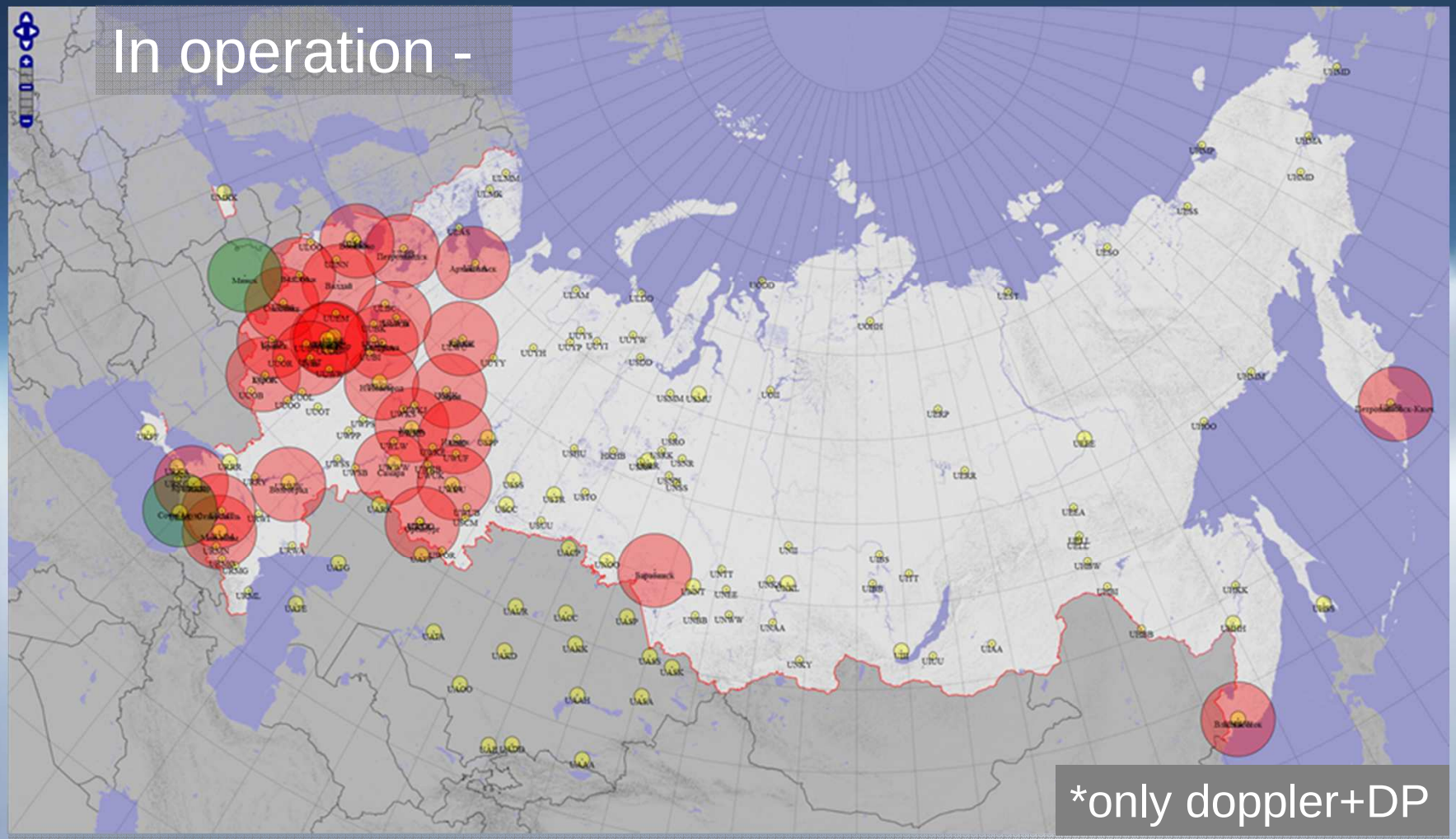
31 are C-band, 13 S-band, 9 X-band.

32 are Doppler, 30 Dual-pol.

Installation of DMRL-C radars was started in 2012.



In operation -

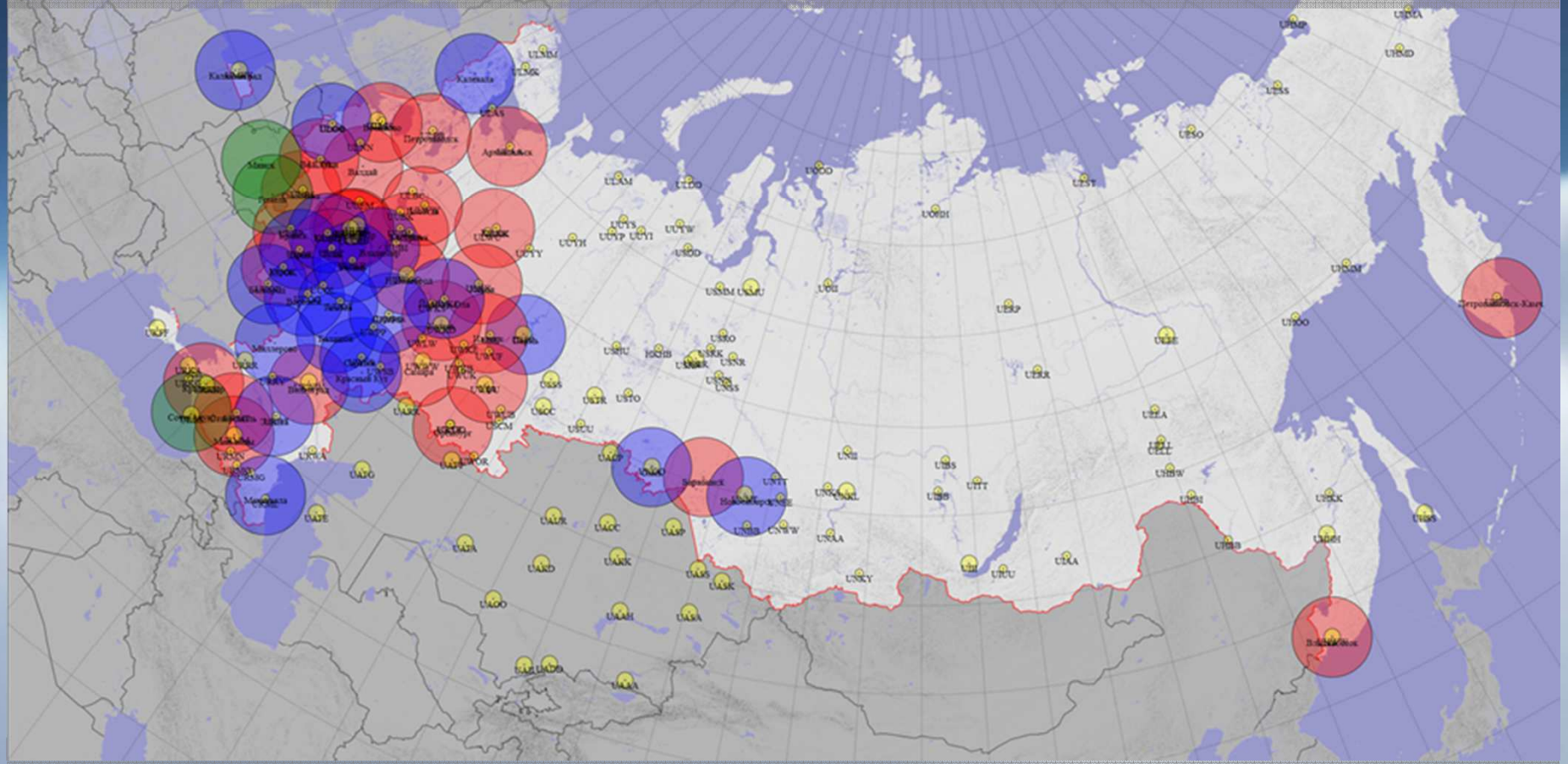


*only doppler+DP

Red – operating, green – Sochi (WRM200) + Belarus (Minsk)

Plans:

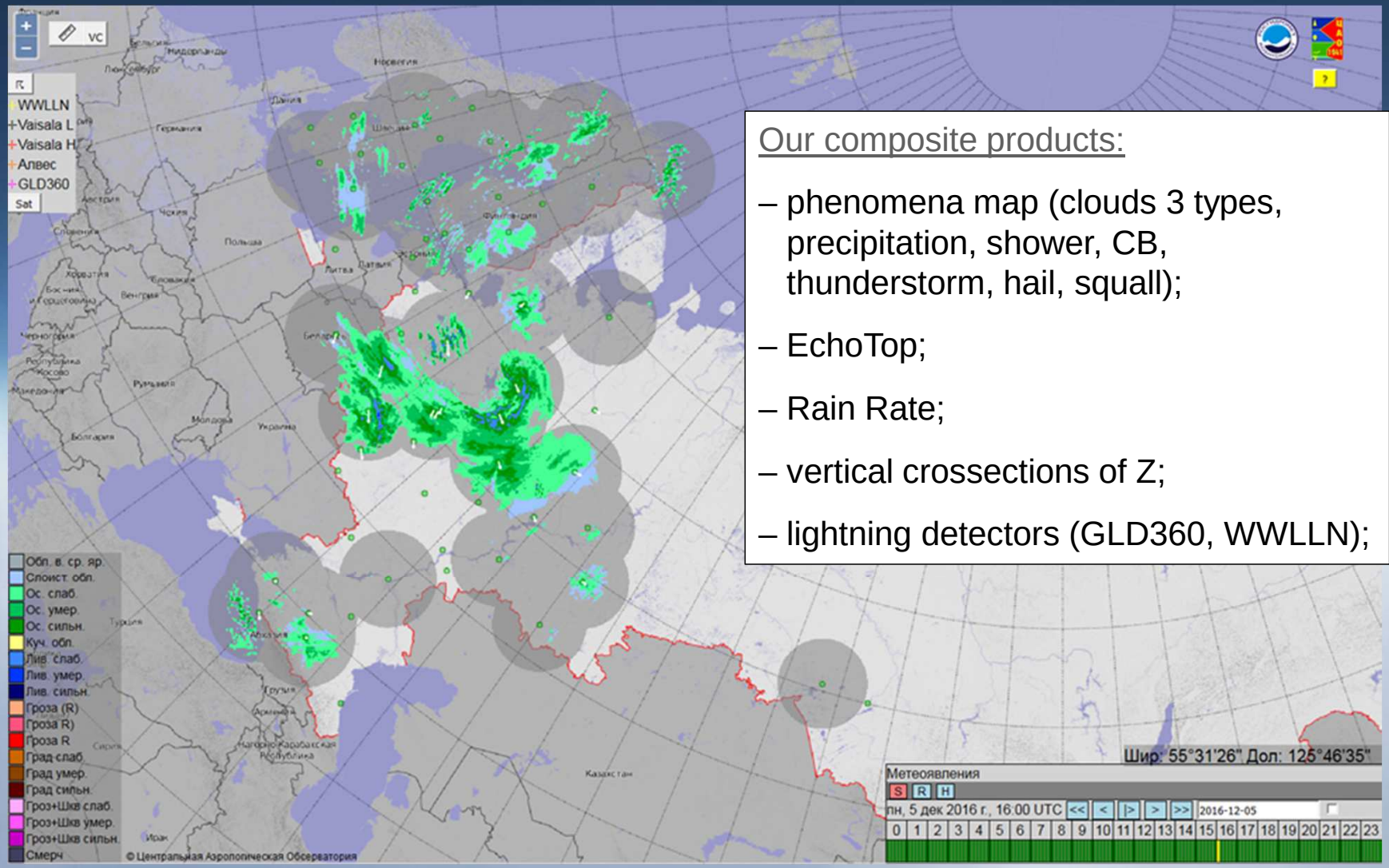
In 2017-18: + 21 radars (design and building started)



Red – operating, blue – under construction, green – Sochi (WRM200) and Belarus (2)

International data exchange:

BALTRAD+ (volume files)	– 25 radars (Belarus-1, Finlandia-8, Lithuania-1, Norway-1, Estonia-2 (2016-?), Sweden-12),
BUFR FM-94 (CAPPI)	– Belarus-2, Ukraine-2 radars,
R. Korea (volume files)	– 1 radar (planned-2017)



Our composite products:

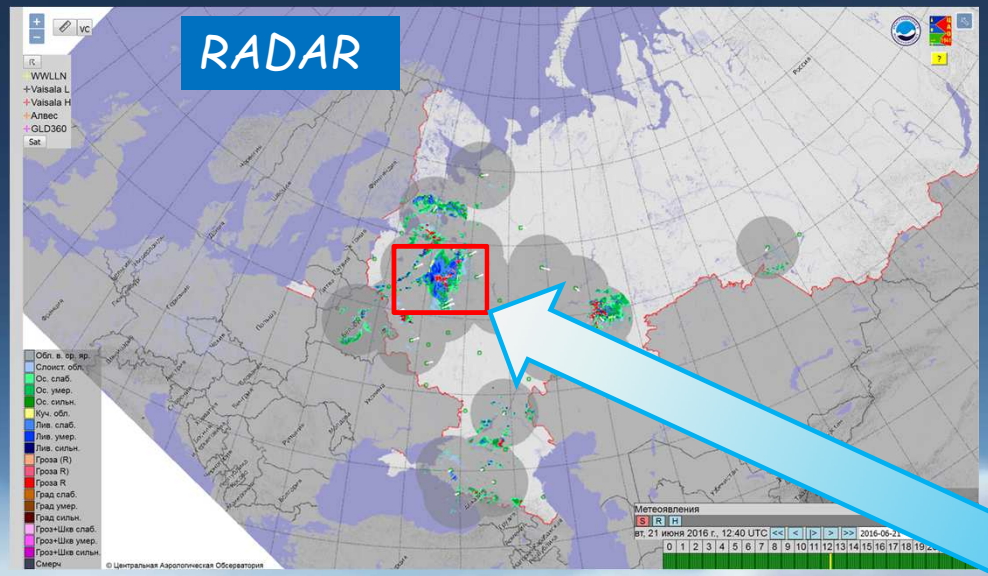
– phenomena map (clouds 3 types, precipitation, shower, CB, thunderstorm, hail, squall);

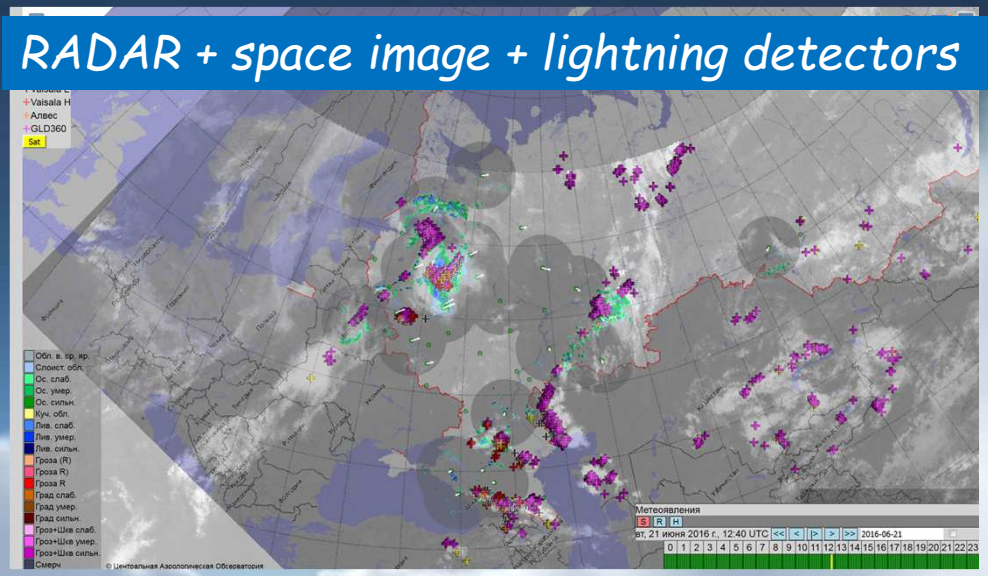
– EchoTop;

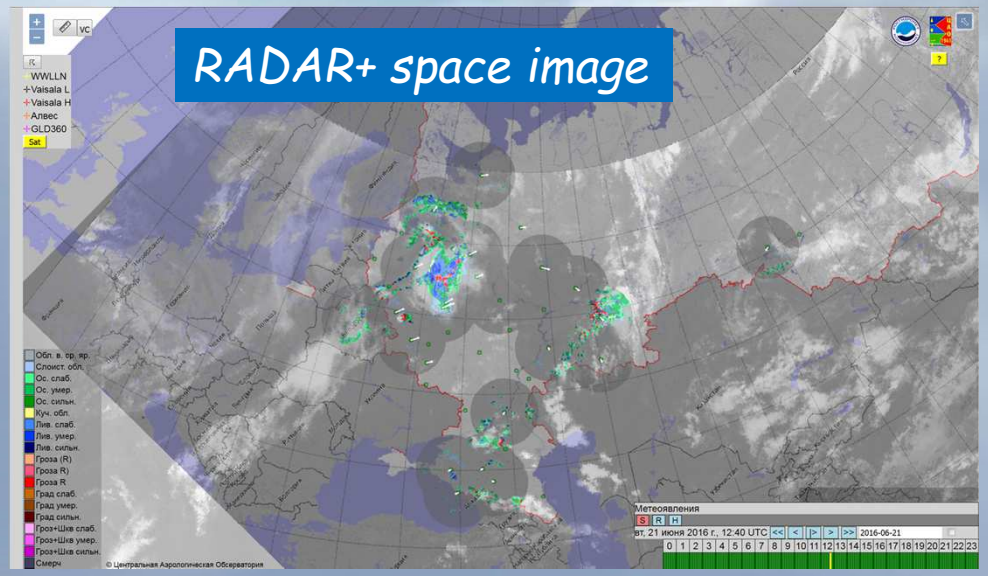
– Rain Rate;

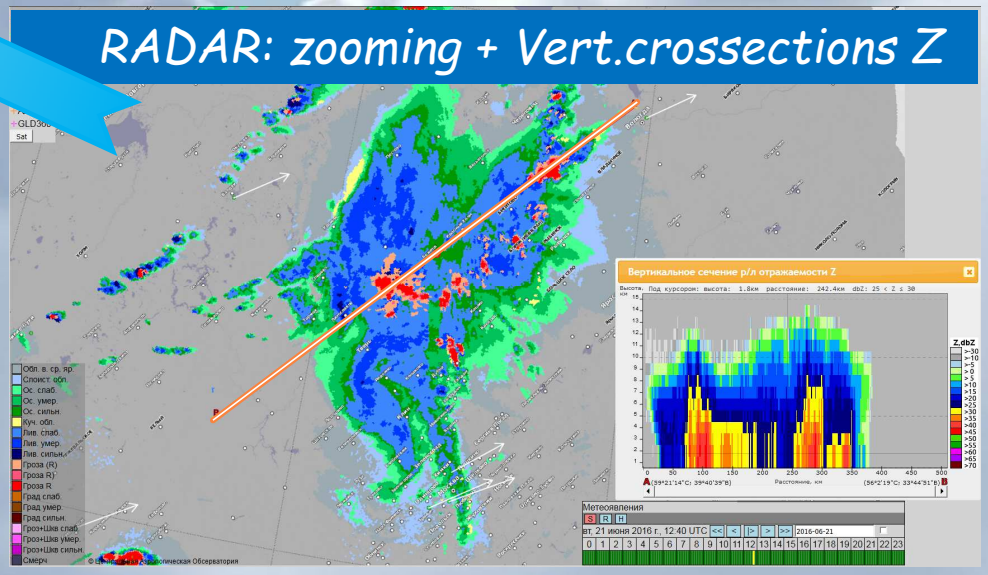
– vertical crossections of Z;

– lightning detectors (GLD360, WWLLN);









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Main applications:

operational -

- Aviation (severe phenomena monitoring+nowcasting), ROSHYDROMET,
- Regional meteo- offices ROSHYDROMET,
- Municipal administration

experimental –

- NPW assimilation,
- QPE for hydrology

Any Questions?

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