

Federal State Unitary Enterprise
«STATE AIR TRAFFIC MANAGEMENT CORPORATION OF THE RUSSIAN FEDERATION»



Cross Polar Trans-East ATM Providers' Working Group/20 (CPWG/20)



26-29 OCTOBER 2015, ANCHORAGE, ALASKA

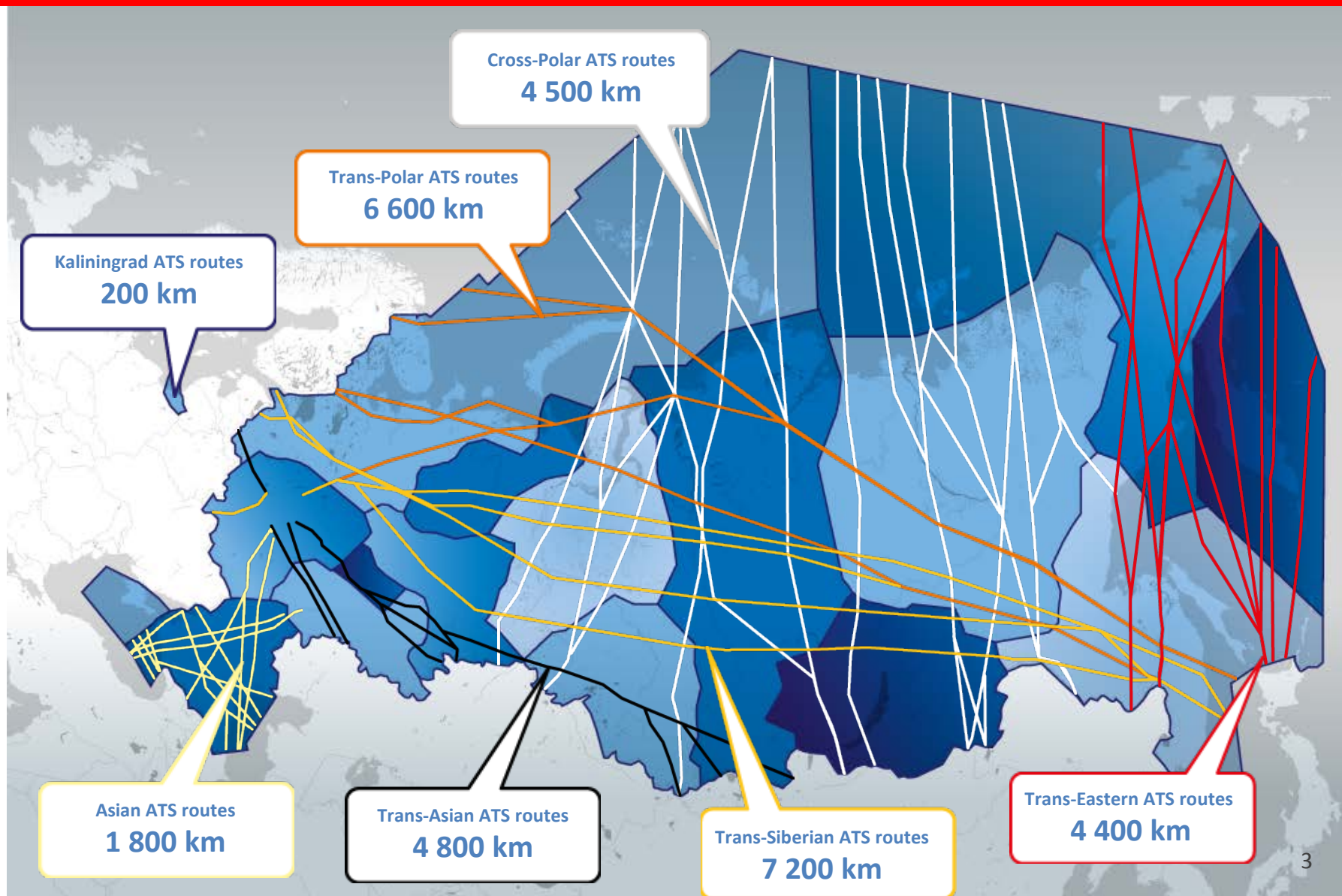


Company Overview

✓ Area of responsibility	26 million km ²
✓ Total route length	700 000 km
of which international	530 000 km
✓ Flights controlled at a time	over 1 000
✓ Number of employees	over 27 000
✓ Number of ATCOs	7 500
✓ Total ACCs	40
Main ATFM Centre	1
ACCs	39
✓ Towers	265

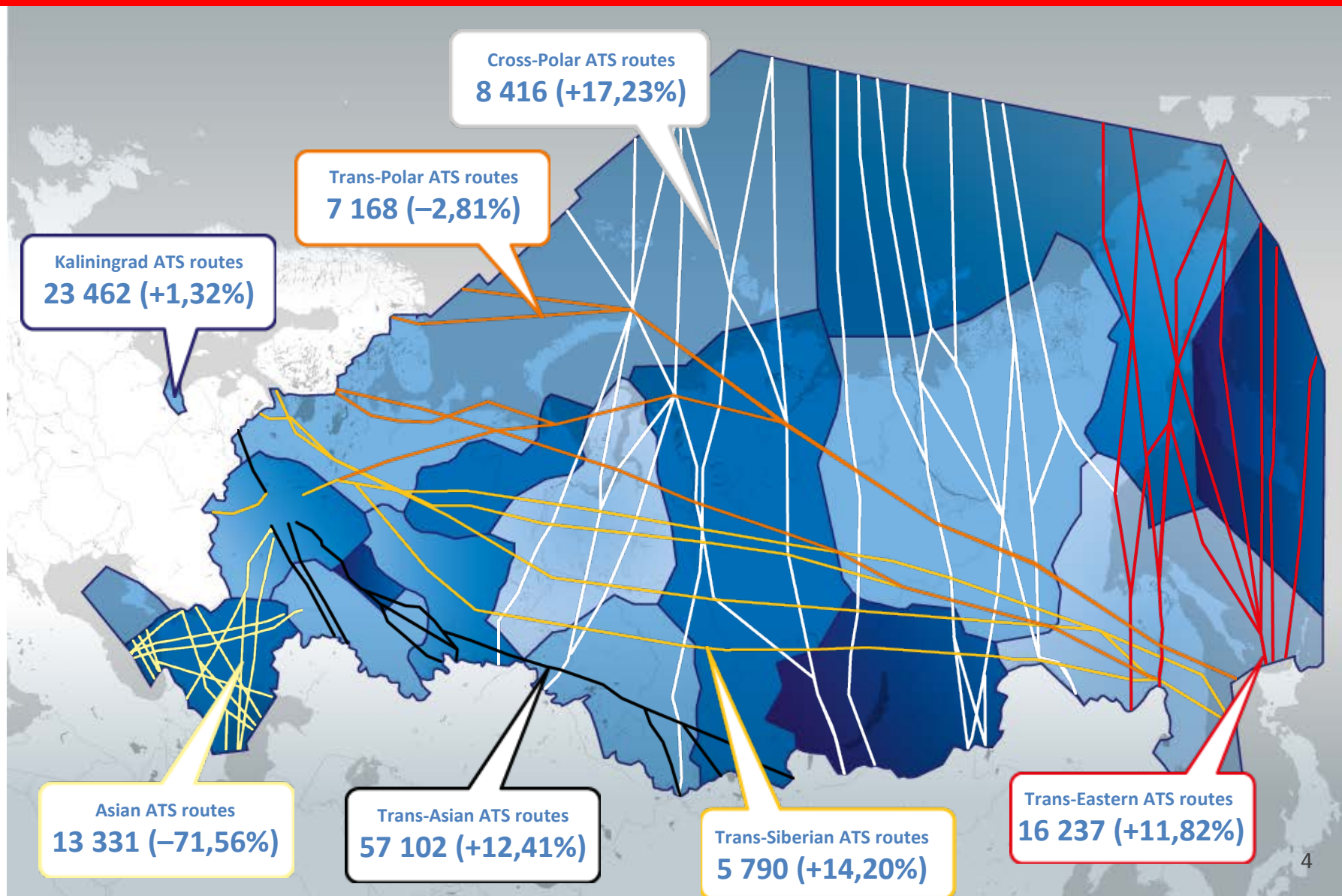


Major Transit Air Traffic Flows





Major Transit Air Traffic Flows (January – July 2015)





Entry/Exit Points with Neighbouring States (2007/2015)

	2007/2015		2007/2015
 Azerbaijan	5/6	 Latvia	3/3
 Belarus	9/13	 Lithuania	6/10
 China	5/6	 Mongolia	6/9
 Estonia	4/4	 North Korea	4/4
 Finland	8/10	 Norway	3/10
 Georgia	5/6	 Poland	5/7
 Iceland	1/2	 Sweden	0/1
 Japan	5/7	 Turkey	3/6
 Kazakhstan	25/29	 Ukraine	21/22
		 USA	15/26

181 Entry/Exit Points with **19** Neighbouring States₅

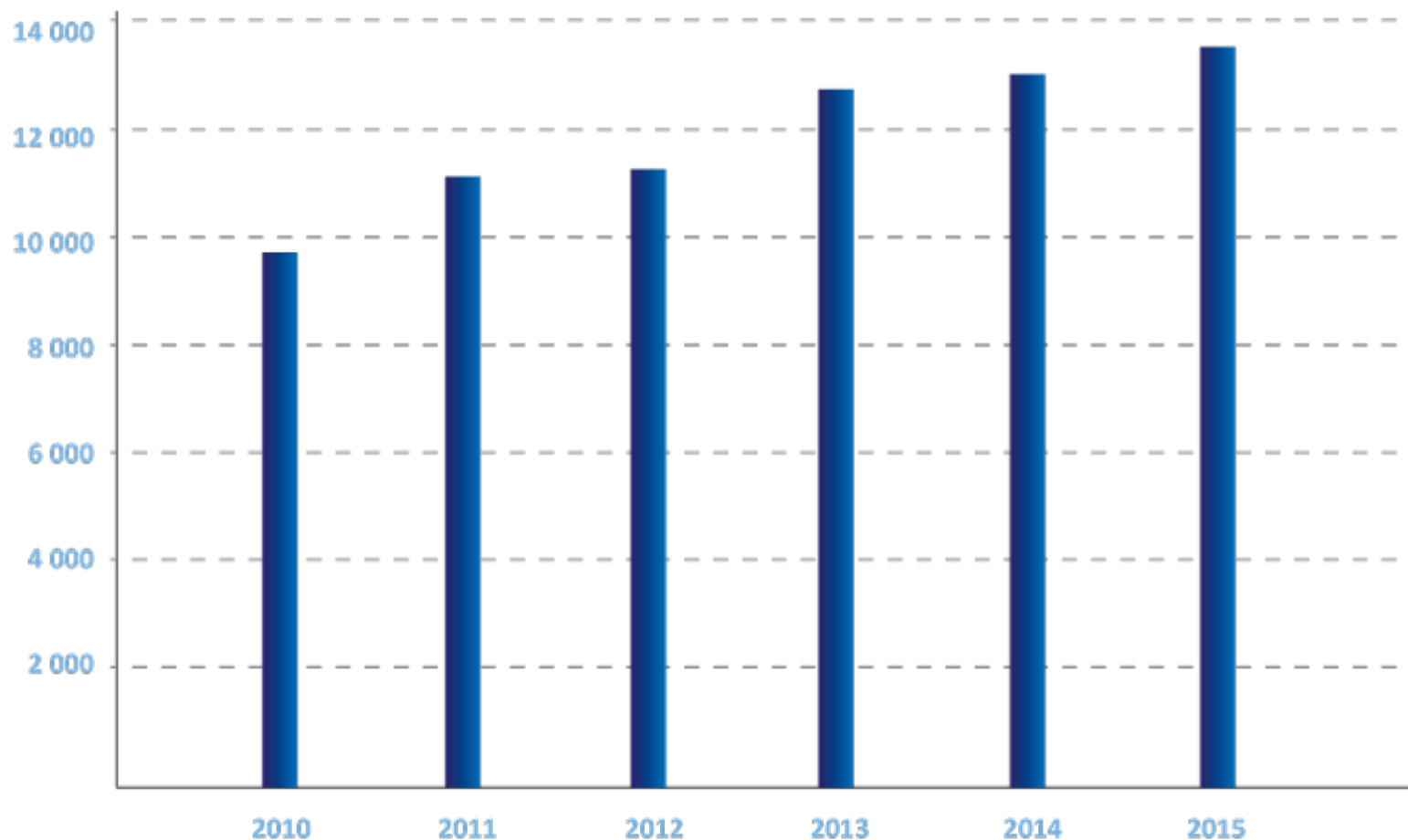


Air Traffic along Cross-Polar ATS Routes (2010 – 2015)

2001 – 4 routes

2014 – 14 routes

2015 – 16 routes





Federal Target Programme

"Joint ATM System Modernization (2009 – 2020)"

- ✓ 13 Consolidated ACCs
- ✓ 100 short-range navigation systems
- ✓ Upgrade of over 100 terminal, en-route and secondary radars
- ✓ Upgrade of 79 message switching centres
- ✓ Upgrade of 770 HF and VHF voice communication stations and ATIS
- ✓ Upgrade of 57 satellite communication stations
- ✓ Installation of over 100 local augmentation stations
- ✓ Implementation of 100 full-scale and visual simulators



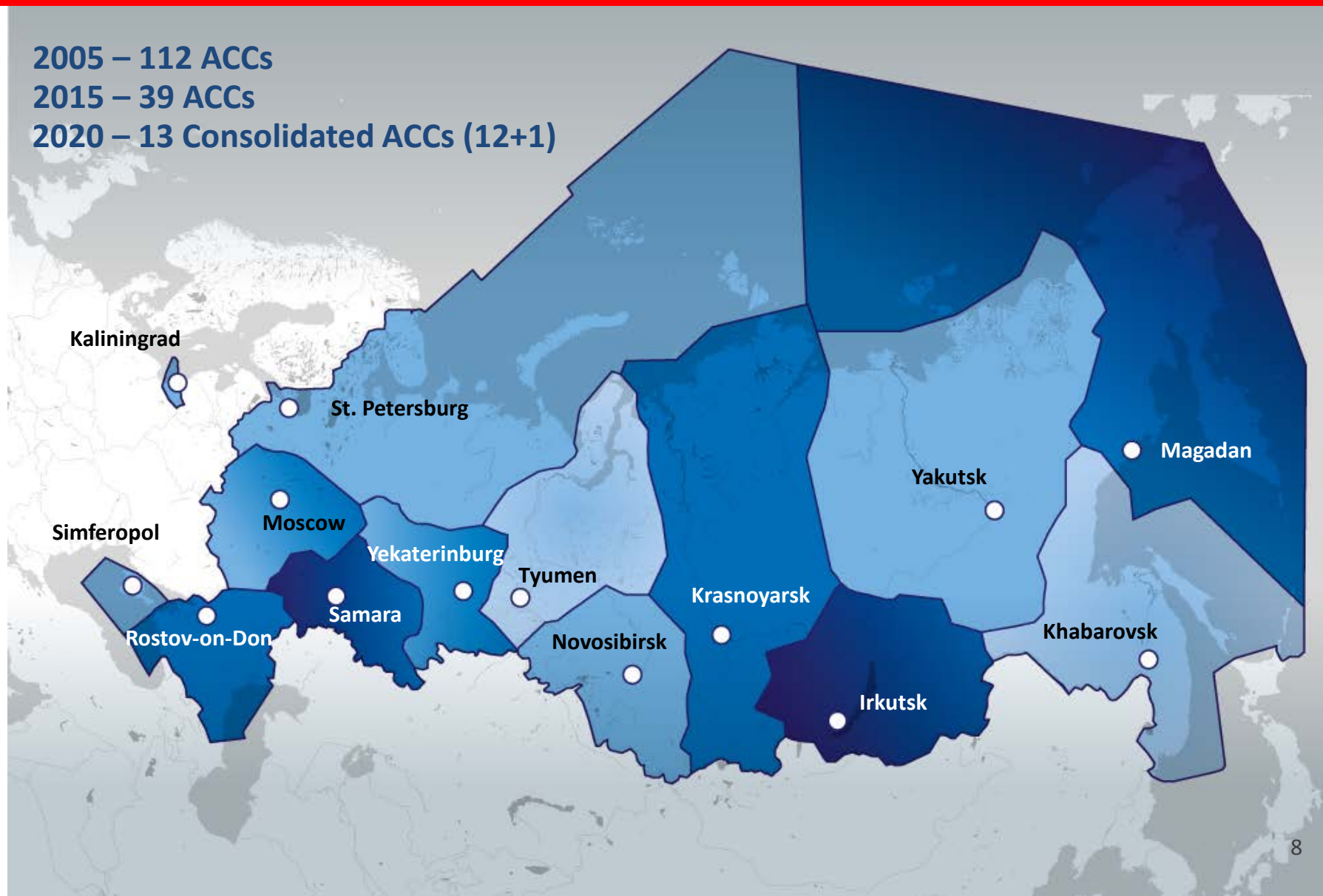


ACC Consolidation Programme

2005 – 112 ACCs

2015 – 39 ACCs

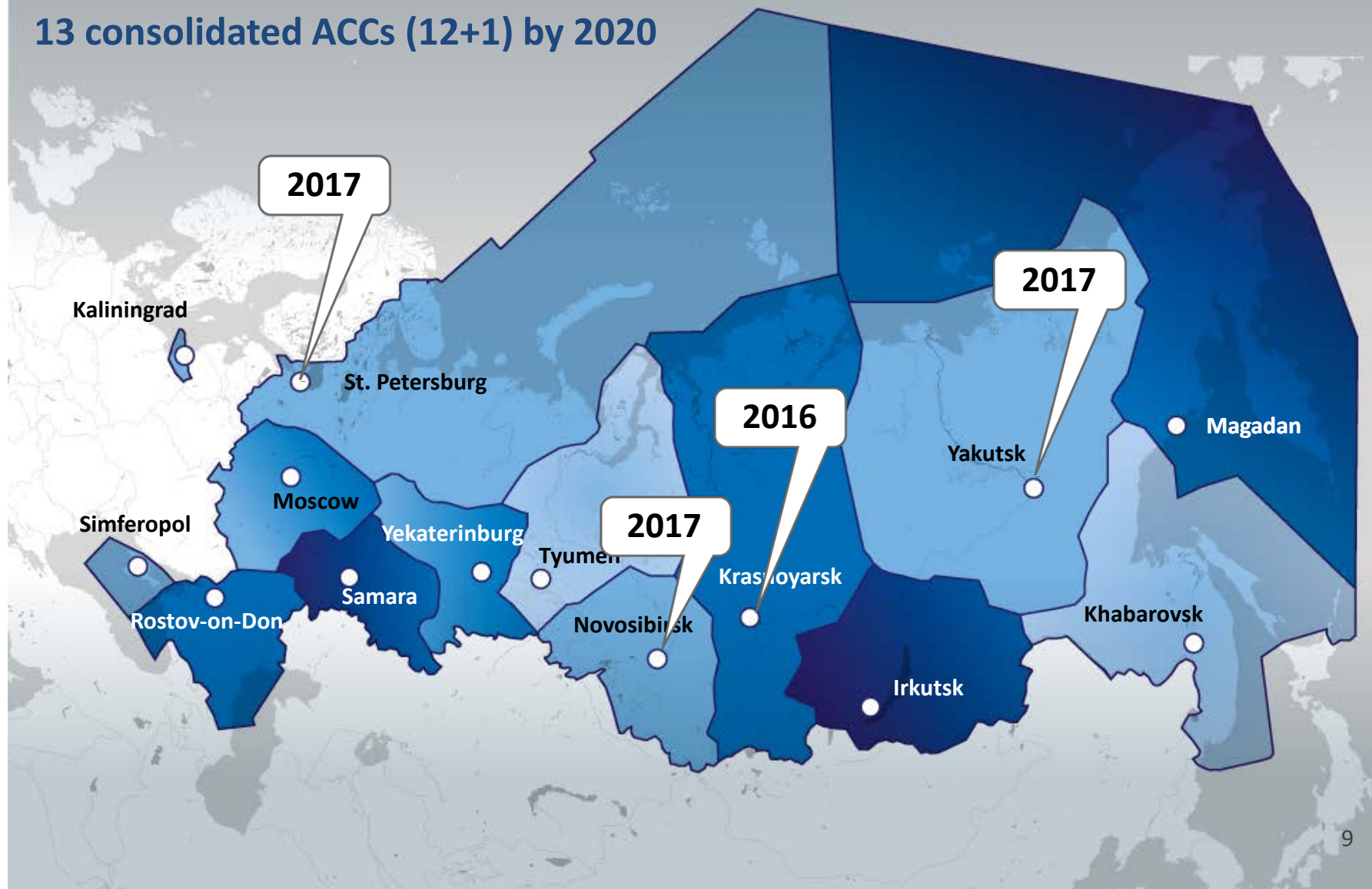
2020 – 13 Consolidated ACCs (12+1)





Future Consolidated Centres (2016-2017)

13 consolidated ACCs (12+1) by 2020





Advanced Surveillance and Digital Communication Systems Implementation

ADS facilities implementation programme of the Russian Federation (2012–2020):

3 Pilot projects:

- «Yamal-ADS», ADS-B 1090ES network and VDL-4 deployment on Yamal Peninsula (Far North);
- «Moscow-MA», deployment of ADS-B 1090ES network and VDL-4 in Moscow area;
- «Baltic ADS», establishment of a seamless ADS-B 1090ES and VDL-4 route:

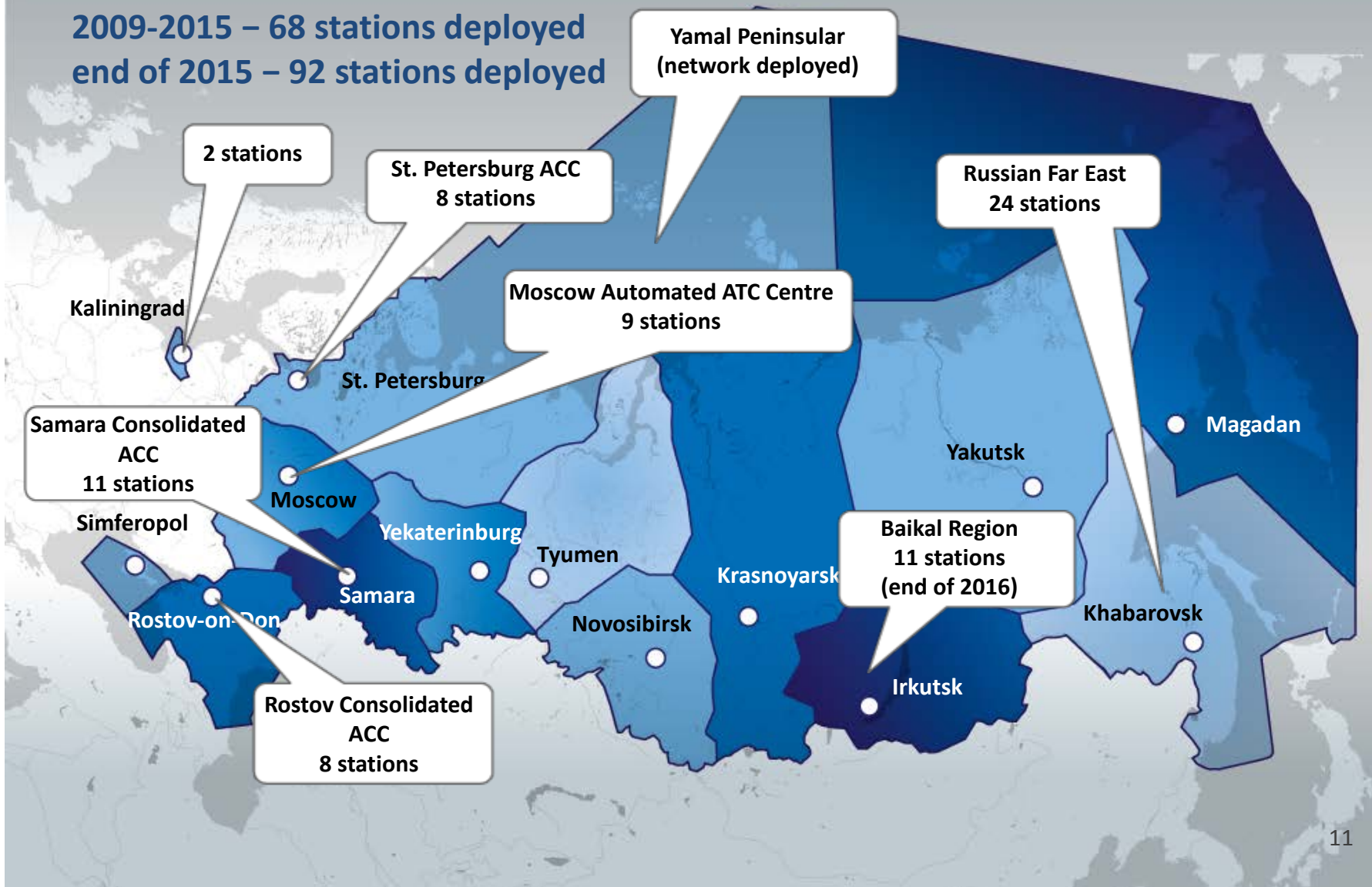
Moscow – St. Petersburg – Stockholm





ADS-B Implementation Programme (2009-2015)

2009-2015 – 68 stations deployed
end of 2015 – 92 stations deployed





Federal Target Programme “GLONASS System Maintenance, Development and Usage 2012-2020”

- ✓ GBAS stations installed at 78 aerodromes (5 aerodromes in 2014)
- ✓ 4 Regional Monitoring Centres established (Yekaterinburg, Tyumen, Rostov-on-Don, Samara)
- ✓ 2015 - GBAS stations to be installed at 20 aerodromes; 5 Regional Monitoring Centres to be established

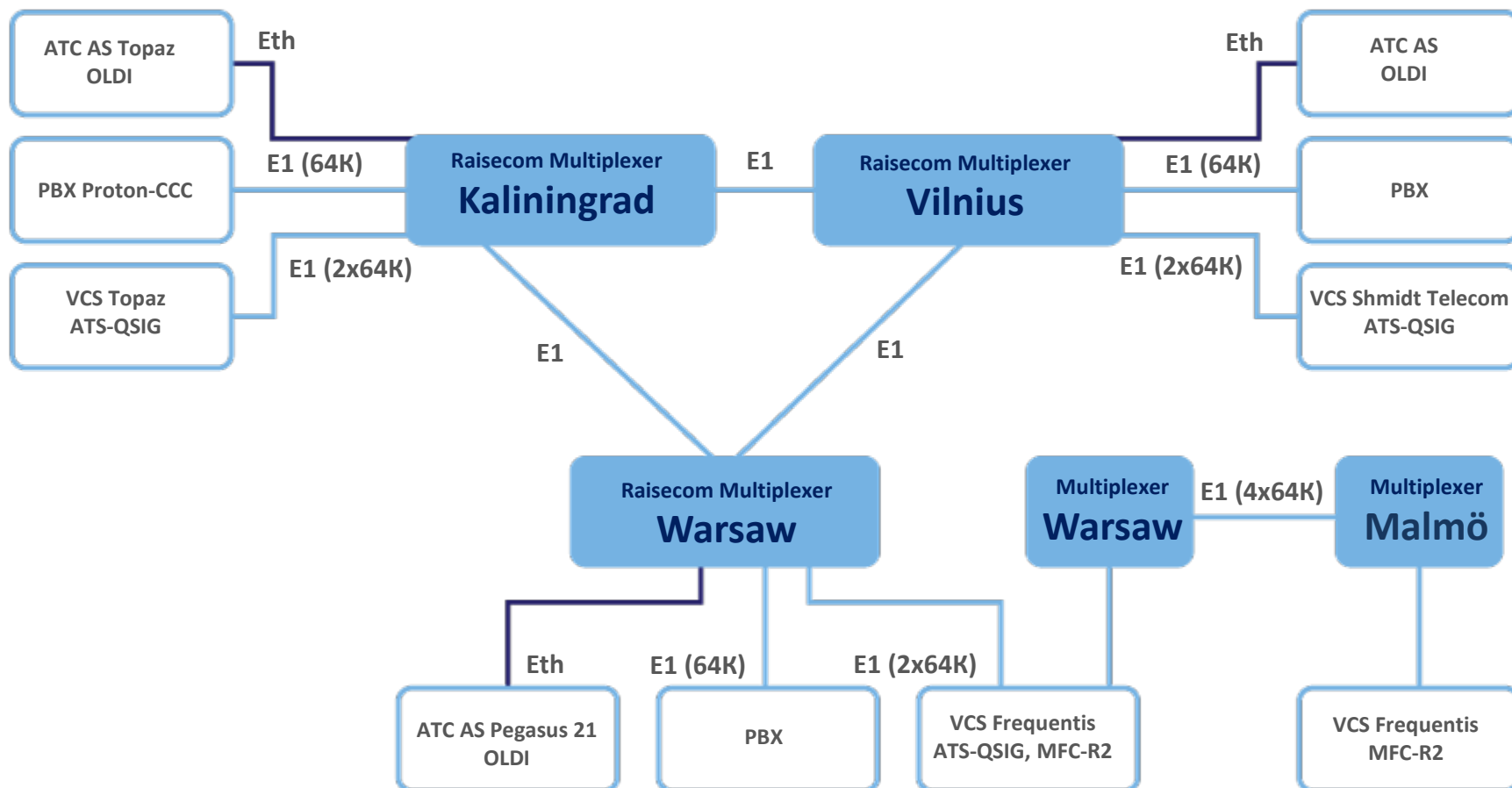


GBAS Antenna



OLDI and MFC-R2/ATS-QSIG Implementation in Kaliningrad for Communication with Baltic States

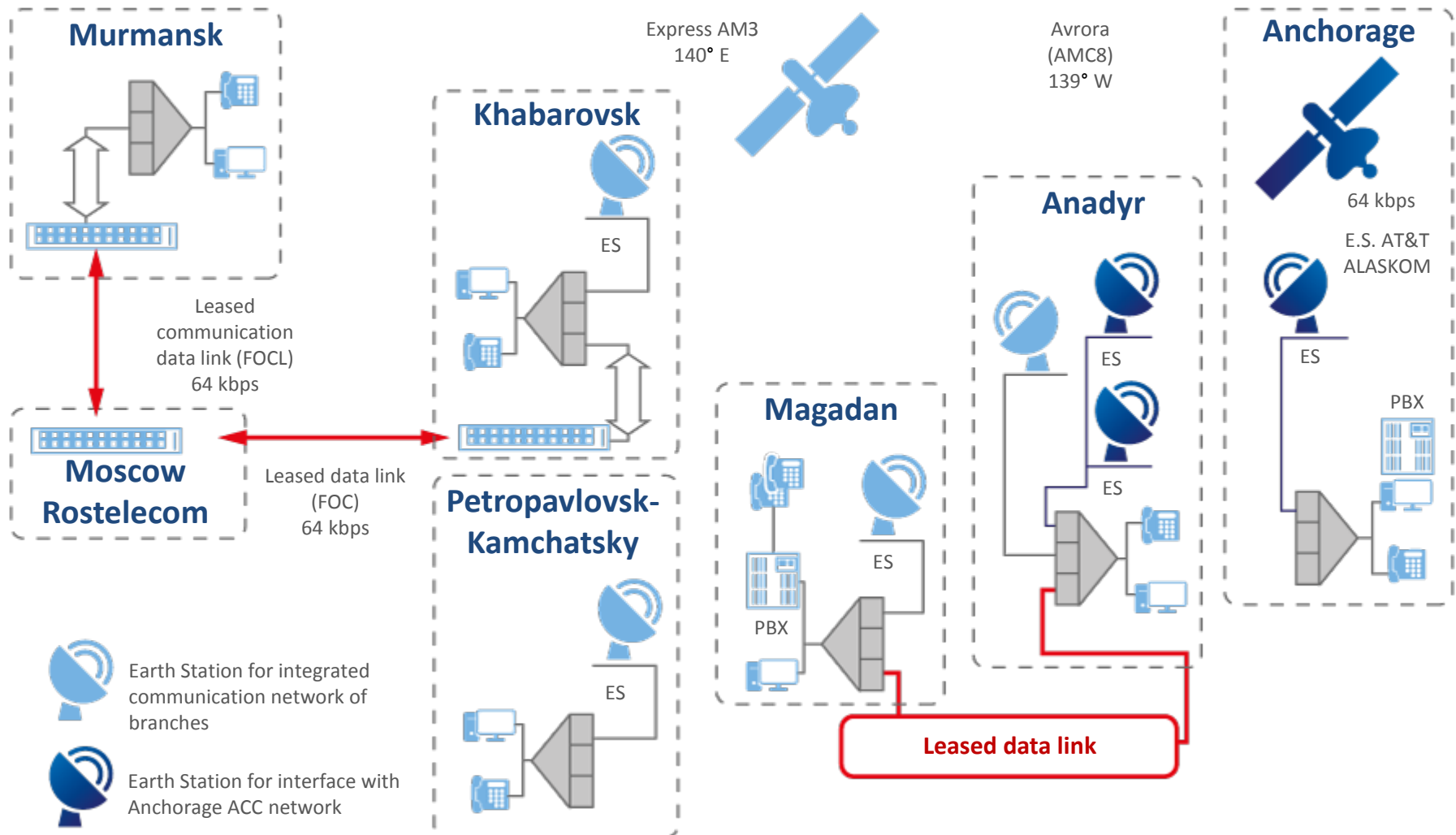
Kaliningrad (Western Russia) – Vilnius (Lithuania) – Warsaw (Poland)





Implementation of Digital Technology for Adjacent ACCs Communication

Communication channels between Russian ACCs and Anchorage ACC (US)





Federal State Unitary Enterprise «State Air Traffic Management Corporation of the Russian Federation»



Thank you!