Sovereign and delegated airspace – more than 26 m. sq. km
Including over High Seas – 9 m. sq. km.

Total route length:
- International routes – 421,768 km;
- Domestic routes – 143,289 km;
- Conditional routes – 33,480 km.
Air Traffic Management in Russian Federation

Air Traffic Management is carried out by 69 centers of unified ATM system of RF:
- MATFMC – 1
- Zonal Centers – 7
- ACC – 61
- Auxiliary ATC sectors – 13;
- ATC sectors – 159.

Civil aviation aerodromes (heliports) – 1 041,
- Federal – 52;
- International – 67.
Total – 1 592.
MATMC is an integral part of State ATM Corporation of Russia.

MATMC performs the following principal tasks:

4. Ensures compliance with the federal rules for airspace utilization by the users within the limits of the Russian Federation’s airspace.

MATMC reports directly to Deputy Director General of State ATM Corporation, and to the Head of ATM Regulation Department of the Federal Air Transport Agency of the Russian Federation (FATA) on the regulatory issues.
Objectives:

1. Review, process, adjust as necessary RPLs and R-forms submitted by Russian and foreign airlines to meet available en-route/approach ATC sector capacity at strategic phase of planning.
2. Issue permits for single changes to the approved schedules, additional scheduled flights, head of state flights.
3. Analyze and adjust accomplished H24 plans of operations;
4. Prepare short-term & medium-term traffic forecasts;
5. Develop and apply ATFM measures in case of traffic congestion at pre-tactical and tactical phases (these may include assigned delays and re-routes)
6. Coordinate closures of impact areas during launches of space rockets by the Russian Space Agency “Roskosmos”.

ATFM & Strategic Planning Division
Objectives:

1. Pre-tactical and tactical planning and coordination of airspace utilization;
2. Ensure approval and advisory processes of airspace utilization;
3. Air Traffic Management;
4. Airspace Reservations;
5. Ensure users compliance with federal rules for airspace utilization within the limits of the Russian Federation’s airspace.
Objectives:

1. Participate in drafting of regulatory, legal and organizational documents covering MATMC functions;
2. Methodological and regulatory support for MATMC operations;
3. Organizational and documentary support for MATMC operations.
Russian Joint ATM System Diagram

Existing

Main ATM Center

Zonal ATM Center

Area Control Center

Existing vs. Future

Future

Main ATM Center

Regional ATC Center

ATM Unit

ATFM Position

ASU Planning Unit

Airdrome Planning Unit

Centralized FPL Processing Unit

Central Control Unit

Data & Statistics Unit

ATFM Unit

Situational Unit

12+1

Moscow
St. Petersburg
Rostov
Samara
Yekaterinburg
Tyumen
Novosibirsk
Irkutsk
Krasnoyarsk
Yakutsk
Khabarovsk
Magadan
Kalinigrad

Existing

1

7

55

1
Future Automated ATFM & Airspace Utilization System

Air Navigation System
Communication & Data Network

Radar, Flight Plan, AIS, MET and other data

Centralized Flight Planning Processing Unit
Central Control Unit

Situational Unit

Servers to process Radar, Flight Plan, AIS, MET and other data

Statistics Server

Remote Workstations

Zonal ATFM

ATM units of other States (Eurocontrol)

Civil Aviation Network

Airdromes & Airspace Users

Remote Workstations

Centralized ATFM Unit

-Air Force
-Air Defense
Air Traffic Flow Management

Definition
Air Traffic Flow Management is a type of activity in the field of air traffic management which is aimed to support safe, orderly and unrestricted flow of air traffic by means of providing the maximum level of ATC capacity possible and ensuring the adequacy of ATC capacity declared by a respective ATC unit to the volume of air traffic.

Legal basis
1. Air Code of the Russian Federation
2. Federal rules of airspace utilization
3. Associated articles on Joint ATC system of the Russian Federation

Objectives
1. Meet airspace user requirements to the maximum extent possible
2. Prevent capacity congestion at ATC units and sectors
ATFM Phases

ATFM is a continuous process

Strategic airspace utilization planning

Pre-tactical airspace utilization planning

Tactical airspace utilization planning

Strategic ATFM (day+2 and further)

Pre-tactical ATFM (day+1)

Tactical ATFM (day)

Post-tactical ATFM (day-1 and before)
Capacity Balancing & Flow Regulation

Step 1
Calculate Traffic Load and Detect Capacity Congestion

Step 2
Increase Capacity

Step 3
Regulate Flow of Traffic
Main ATFM Functions in Russian ATM System

1. Implement strategic, pre-tactical, tactical and post-tactical phases of ATFM along ATS routes, in terminal areas (traffic management areas) and at major airports in the real-time mode;
2. Simulate “what if” ATFM scenarios (capacity increase / traffic regulation), selection of most efficient solution;
3. Coordinate ATFM measures with ATFM positions, traffic planning teams at airports and airspace users on the collaborative decision-making basis;
4. Oversee compliance with ATFM measures and assess their efficiency;
5. Provide data support for ATFM positions;
6. Prepare and analyze traffic statistics.
Number of Movements (IFR Flights) in January – December 2011 vs. 2010

- January: +17,0%
- February: +14,3%
- March: +11,8%
- April: +14,6%
- May: +13,7%
- June: +11,7%
- July: +12,1%
- August: +9,3%
- September: +4,1%
- October: +6,5%
- November: +5,0%
- December: +13,8%

Number of Movements

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Forecast (2012):
- Total: 1344700
- International: 506100
- Domestic: 538600

Growth:
- 2007-2011: +7.7%
- 2011-2012: +5.4%
Number of Scheduled & Non-scheduled IFR Flights in January-December 2011

- Domestic Scheduled: 29% (360,676)
- International Scheduled: 44% (559,664)
- Domestic Non-scheduled: 10% (119,459)
- International Non-scheduled: 17% (208,307)
Traffic Breakdown in January-December 2011

Total number of airlines flying in Russian airspace - 1363,
- foreign - 1121;
- national - 242.

National airlines 59% (739 416)
Foreign airlines 41% (508 690)
Main ATS Routes Networks in January-December 2011

- Trans-Asian: 35% (82,811)
- Trans-East: 9% (21,535)
- Asian: 43% (99,382)
- Trans-Siberian: 3% (6,207)
- Trans-polar: 5% (12,993)
- Cross-polar: 5% (10,993)
Number of Aircraft Flights along ATS Routes

Over 20 aircraft / hour
Under 20 aircraft / hour
Our Short & Medium Term Plans

1. Implement **Amendment 1 to the PANS-ATM** (Doc 4444) on November 15, 2012
2. Participate in implementation of the Federal ATM Modernization Program covering 2009 - 2015 as concerns implementation of the new automated ATFM & airspace utilization system for MATMC. Phase 1 of the above program covers delivery and installation of hardware & software for
   - Centralized Flight Plan Processing Unit;
   - Consolidated Air Traffic Flow Management Unit;
3. Participate in updating regulatory, legal, methodological and procedural aspects of the airspace utilization and air traffic management including participation in drafting of federal aviation rules:
   - Air Traffic Management;
   - Airspace Utilization Planning;
4. Participate in creation of Level 3 Air Traffic Flow Management System in the Russian Federation which will cover the Main, Zonal and Area Control Centers;
5. Develop operational coordination procedures with national ATM units of neighboring States
Duty Team Ops Room
Thank you