The operation of Moscow Transport during and after the pandemic

Moscow Research and Development Institute for Urban Transportation MosTransProekt
Urban transportation did not reduce the volume of work during the pandemic

March 1, 2020
First COVID-19 case recorded in Moscow

28 March 2020
A non-working period was introduced by the decree of the President of the Russian Federation

15 April 2020
To prevent the spread of the disease, an access control has been introduced in Moscow; car sharing has been suspended

22 April 2020
A system of automated surveillance over access control has been introduced in Moscow

June 9, 2020
First stage of lifting restrictions - the abolition of access control and travel restrictions; resumption of car sharing

June 16, 2020
Second stage of lifting restrictions

23 June 2020
Third stage of lifting restrictions - river transport companies are back at work

Today
- Increased requirements to sanitary measures
- Using public transport is possible only while wearing a mask and gloves
- Transport infrastructure and rolling stock are regularly disinfected. All employees are provided with safe working conditions;
- most of the employees were transferred to work from home;
- regular medical monitoring and testing
The major technological solutions to prevent the spread of COVID-19

We actually saved thousands of lives, ensuring safety in transport, observing sanitary security measures, multiplying the disinfection of cars and transport hubs. This is a great contribution to the safety of citizens, a huge contribution to the development of the economy, as we have preserved the transport infrastructure, which is a vital sphere for the city.

The Mayor of Moscow Sergei Sobyanin

The Transport Complex provided safe access to urban mobility

Integration
- The automated permit control system on all types of urban transport
- The Troika card provides access to public transport services
- The online access to a permit registration

Complexity
- The automated permit control at all infrastructure facilities
- The Moscow Assistant mobile app entered the Top-12 of the best innovative solutions in the world for fighting against COVID-19
- The access to a permit check via the Moscow Assistant mobile application and the Unified Transport Portal
- The automatic violating cars’ detection system – 5000 cameras
Ensuring safe urban mobility
Every day we disinfect

- **900 000** square meters cleaned daily and disinfected in the subway
- **100%** trains are disinfected by quartzing
- **> 1 600** ticket machines are washed every hour
- **Up to 2 times more**
  - **1,5-2** hours, frequent disinfection of handrails, turnstiles, door handles, checkout areas in lobbies and on platforms is carried out
- **100%** of the interior surfaces are treated with special disinfectants
- **> 8 000** trains are disinfected by quartzing
- **The volume of daily disinfection has increased x15**
- **30%** more air exchange in the underground
- **The “new norm” of urban transport operation**
  - Mandatory use of masks and gloves
  - Regular communication on safety rules. Social distancing
  - Hand sanitizers at metro, the MCC and the MCD stations - 2 800 units
  - Hand sanitizers at major surface transport stops - 125 units
  - Contactless payment
- **> 8 000** buses, electric buses and trams are disinfected every time they return to the vehicle fleet or depot, as well as during the day at the final stops of the route

The regular disinfection of vehicles

Contactless payment
Informing passengers

- Moscow Transport publishes only verified information in its official channels:
  - The Unified Transport Portal (in Russian and English)
  - The official Telegram channel has more than 57,000 subscribers
  - Our official social media accounts have over 200,000 followers – Twitter, Facebook, Instagram, VK, OK

Communication channels:

- **110,000 posters** inform about the prevention of Coronavirus
- **36,000 information materials** remind metro passengers about linking electronic passes to transport cards
- **40,000 warning stickers** remind passengers of social distancing in public transport
- **3,800 media screens** inform ground transport passengers about travel rules during the pandemic
- **177 traffic signs and 10,000 leaflets** remind drivers to issue digital passes

- **99% of passengers wear masks**
- **76% use gloves**
Despite the restrictions being lifted, Moscow transport continues to care about muscovites

**Passengers**
- Safe use of all types of urban transport is ensured
- Cleaning regulations are permanently changed
- Passengers will be able to renew their tickets at ticket offices, ticket machines and online

**Employees**
- Some of the employees were transferred to work from home
- The necessary protection system has been created in the working areas - regular testing, temperature measurement, disinfection and use of PPE and antiseptics

**Transport operators**
- The implementation of infrastructure megaprojects and the purchase of new rolling stock to ensure the availability of high-quality and safe public transport
- Private carriers get paid in full - transport service for people works full time
Timely restrictions have helped to dramatically reduce the number of contacts and cases of COVID-19.
The number of vehicles and road congestion

The increase in the number of cars is:
• Increased road congestion
• Growth in the number of road accidents
• Increased emissions of CO2, NO2 and particulate matter
→ poor quality of life

The use of public transport must be supported

Private vehicle ≠ Personal safety
New working conditions for urban transport

Monitoring the load of rolling stock
- The automated passenger traffic monitoring system works in real time
- In the Moscow Transport mobile app the function of determining urban transport congestion has been implemented for passengers
- Optimal distribution of passenger traffic - transport from the least loaded routes is redirected to more in-demand routes
- The most popular routes operate with the maximum amount of rolling stock on the line

Alternative mobility
- Residents began to walk and ride bicycles more often
- Bicycle rentals have a 30% discount
- City bike rental is free for couriers and volunteers
- More than 2 000 applications were received in the course of the implementation of a crowdsourcing project for the development of pedestrian and bicycle infrastructure

Citizens’ safety
- Most of the client services are being converted to online format
- Access to PPE and disinfection is provided throughout the infrastructure
- Floor stickers remind on the observance of the distance and indicate more free cars
- Seat stickers help choose the safest seat

The experiment on the Line 7 of the Moscow Metro
- The launch - September 2020
- By 30% or 50% reduced fee off peak hours
- Employers and educational institutions are encouraged to switch to remote work or change the start time of a working day

MosTransProekt
# Moscow continues to invest in rolling stock renewal (2010-2023)*

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>2010-2020 (June)</th>
<th>Renewal, %</th>
<th>2020</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
<th>Total</th>
<th>Renewal, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bus (Mosgortrans including tourist routes) Carriers under government contracts</td>
<td>10 454</td>
<td>100</td>
<td>1345</td>
<td>888**</td>
<td></td>
<td></td>
<td>2 233</td>
<td>100</td>
</tr>
<tr>
<td>Tram</td>
<td>495</td>
<td>70</td>
<td>70</td>
<td>60</td>
<td>144</td>
<td>50</td>
<td>324</td>
<td>100</td>
</tr>
<tr>
<td>E-bus</td>
<td>400</td>
<td><strong>New mode of transport</strong></td>
<td>300</td>
<td>600</td>
<td>650</td>
<td>800</td>
<td>2 350</td>
<td>100</td>
</tr>
<tr>
<td>Metro cars</td>
<td>3 189</td>
<td>62</td>
<td>551</td>
<td>337</td>
<td>336</td>
<td>328</td>
<td>1 552</td>
<td>80</td>
</tr>
<tr>
<td>Suburban trains’ cars</td>
<td>3 202</td>
<td>60</td>
<td>441</td>
<td>184</td>
<td>352</td>
<td>605</td>
<td>1 582</td>
<td>80</td>
</tr>
<tr>
<td>Taxi (in Moscow)</td>
<td>~70 000*</td>
<td></td>
<td>5 000</td>
<td>12 000</td>
<td>12 000</td>
<td>12 000</td>
<td>41 000</td>
<td></td>
</tr>
<tr>
<td>Car sharing</td>
<td>32 000</td>
<td></td>
<td>2 000</td>
<td>4 000</td>
<td>5 000</td>
<td>5 000</td>
<td>16 000</td>
<td></td>
</tr>
<tr>
<td>Bike sharing</td>
<td>6 100</td>
<td></td>
<td>1 000</td>
<td>1 000</td>
<td>1 000</td>
<td>1 000</td>
<td>4 000</td>
<td></td>
</tr>
</tbody>
</table>

* As of June 15, 2020
** Current permits for taxi operation as of 15.06.2020: in Moscow – 52 333, in Moscow Region – 85 892.
*** Buses of large and extra-large capacity for the transition period from 2020, as well as transport within the framework of the mobilization task.