

Russia



Name: Russian Tunnelling Association

Type of structure: Public Organization

Number of members: 417 members, 68 corporate members

ASSOCIATION ACTIVITIES DURING 2017 AND TO DATE

In 2017 the Russian Tunnelling Association continued working to show society the benefits of the underground environment, both through the implementation of technical events, and the dissemination of materials via technical and social media.

In February 2017 a report and election Conference of the Russian Tunnelling Association was held, in which Ivanchikov Vladimir Ivanovich was elected as the First Deputy Administrator of the RTA — the Head of Executive Directorate. In August 2017 the replacement of the chairman of the Board of Directors of the Association took place — Matveyev Konstantin Nikolayevich was elected to this position.

In the second half of the year the Board of the Association elaborated a program, intended to improve the activity of the organisation, which is being implemented now.

CURRENT TUNNELLING ACTIVITIES

In October 2017 Saint-Petersburg hosted the Scientific and Technical Forum “Trends, issues and perspectives of underground development in Russia” and in November 2017 a technical panel on the topic “Modern mechanical rubber goods from EPDM for production of high quality unitized lining of transport tunnels”.

Young professionals from member organizations (RAT) and students from higher education institutes together with experienced professionals participated in these events. The participants of the events had an opportunity to attend real production and construction facilities.

The bulk of underground space development in Russia is performed now within the long-term Moscow Metro Development Program. Within this Program 21 subway stations were constructed and put into operation during 2011-2016. 27 motorised tunnel-boring machines, including raise climbers for two-lane and inclined tunnels, were involved in the construction of main line tunnels. 20km of subway lines and 9 subway stations, 4 of which have already been put into operation, were constructed in Moscow in 2017.

In Saint-Petersburg over 6.5km of main line tunnels were constructed in 2017. Works on the building of the “Novokrestovskaya” subway station, located near Zenit Arena Stadium, which will host the World Football Championship 2018, were performed. It is anticipated that in the days of public events terminal capacity may reach 30,000 passengers an hour on entry and up to 25,000 passengers an hour on exit.

At the “Novokrestovskaya” subway station a new entry and exit system is being introduced using rolling and hinged doors. The rolling doors are intended for normal operation of the subway and will operate automatically, whilst the hinged doors are intended for use during passenger evacuation from the tunnel to the platform in emergency situations.

The construction of the second Baikal tunnel — a high-priority facility on the program for the Baikal-Amur Mainline (BAM) and the Trans-Siberian Railway (Transsib) modernization — is coming to completion. The drilling process is performed with use of a tunnel-boring machine. According to recent records 6,372m (of the total length of 6,682m) have already been passed. The tunnel linkage is to be done at the end of Q1 2018. The length of

drainage galleries, passed by rock tunnelling, is 3,247m.

According to plans, the facility commissioning deadline is 2019.

The new Baikal tunnel will considerably increase the carrying capacity of the Severobaikalsk – Lena section of Baikal-Amur trunk.

In 2017 a project for a highway tunnel to be constructed under the Sevastopol Bay in the Crimea was approved. The tunnel, with a length of about one kilometer will join the North and South sides of the city under the Black Sea in Sevastopol.

FUTURE TUNNELLING ACTIVITIES

In the years to come the bulk of underground construction work will still be associated with implementation of the Moscow Metro Development Program. Construction of about 90km of main line tunnels and commissioning of 41 subway stations, including 28 stations of the Third interchange circuit, is on the cards. Construction of subway lines will also start in the territory of New Moscow.

In 2019 the second Baikal tunnel in Baikal-Amur trunk will be put into operation.

In 2018 the construction of tunnel under the Sevastopol Bay in the Crimea will start.

STATISTICS

1. Length or volume excavated - % mechanized / % conventional during 2017:
74% / 26%
2. Amount (USD or EUR) of tunnelling / underground space facilities awarded in 2017:
NA
3. List of tunnels completed:
NA