

## Metro building in Moscow – a chronology

1901. Russian engineers R Balinsky, G. Guirshson, and V. Pechkovsky presented projects of metro building in St. Petersburg. Engineers A. Antonovich, N. Galinevich, and N. Dmitriev made a project of the construction of an out-street railway in Moscow.

1902. Moscow authorities accepted for consideration a project of metro proposed by P. Balinsky and architect E. Knorre, including the building of four diametric and one circle lines totalling 105 km long.

1902, August. Decision of the Moscow City Duma - Mr. Balinsky was turned down.

1912. Moscow City Duma published the terms of competition for metro building in Moscow.

1914-1918. World War I.

1918-1922. Civil War in Russia.

1925-1930. Experts K. Myshenkov and S. Rozanov of the Department of Moscow Urban Roads and Tram Network developed a draft project of metro. The project included the building of four diametric and one circle lines along Sadovoye Koltso (Garden Ring) totalling 50 km long.

1931, June. Decision of the Plenum of the Central Committee of the All-Union Communist Party (Bolsheviks) concerning metro building. L. Kaganovich, a member of the Politburo of the Central Committee of the Communist Party, who headed the People's Commissariat (Ministry) of Communications at that time, was appointed a party curator of the building.

1931. Herbert Wells came to Moscow 10 years later his first visit. The English novelist was informed of the plans to build underground in Moscow and advised hospitable hosts to abandon their idea of Utopia and buy 1000 buses in England to organize normal passenger transportation in the city.

1931, November. The first section of the metro was laid in the yard of an unremarkable small house on Rusakovskoye Shosse (13a) not far from the Mitkovo railway overpass.

1933, December 31. Several vertical shafts and tunnels of 443 m long were built.

1934, October 15. The first trial train ran from Kalanchevskaya Ploshchad to Sokolniki.

1934, December 28. The tunnel works were completed for more than 96%. The tunnel of 10.9 km long was built.

1935, May 14. The grand meeting devoted to the completion of the construction of the first phase of the Moscow Metro. The participants of the meeting said 'We want the structure, which is larger than any palace, theatre serves millions, raises the spirit of human being... Bourgeois try to depict us, Bolsheviks, proletarians, as barbarians, culture destroyers. This lie of our enemies is unmasked once and for all. Quite the contrary, we are striving for new culture... The new station, the originality. Mr. Bourgeois, where are barracks, destruction of personality, creation, art?'

1935, May 15. In 5.35 a.m. doors of 11 stations of the 1<sup>st</sup> phase of the L.M. Kaganovich Moscow Metro were opened, totalling 11.6 km long and 13 stations.

1937. Three stations of the 1<sup>st</sup> phase - Sokolniki, Krasny Vorota, and Dvoretz Sovetov (Kropotkinskaya since 1957) - were awarded with Grand Prix of the World Exhibition in Paris.

1937, March. The section of the 1<sup>st</sup> phase was extended from Imeni Kominterny (now Alexandrovsky Sad) to Kievskaya. The 2nd phase of the Moscow Metro was completed. The tunnels totalled 16.8 km long. The stage between the deep station of Ploshchad Revolyutsii (2nd phase) and the shallow station of Ulitsa Kominterny (1st phase, now Alexandrovsky Sad) appeared to be inadmissibly steep. Hence, the new deep line was built from Ploshchad Revolyutsii to the Kievsky Railway Station with stations Arbatskaya, Smolenskaya, and Kievskaya.

1938, summer. The construction of the 3rd phase was begun - northeast to the Izmaylovo region.

1940's. The daily passenger flow in the metro reached 1 million passengers. The volume of traffic is 30 train pairs per hour. Till the beginning of the Great Patriotic War, all the tunnels from Ploshchad Sverdlova to Zavod imeni Stalina (now Teatralnaya - Avtozavodskaya) of 6.3 km long were completed as well as 70 per cent of the underground structures from Kurskaya to Izmaylovskaya (later Izmaylovsky Park, since 6th May 2005 – Partizanskaya) of 7.1 km long. Till the end of the war the metro lines totaling 13.3 km long and seven stations-palaces were built. The metro operated in a war regime. During daytime - public conveyance, at night - bombproof shelter. In 1941, 217 children were born in the metro between the beginning and the end of air-raid warning. The Headquarters of Moscow air defense and several departments of the Red Army General Headquarters were located at station Kirovskaya (now Chisty Prudy) during nearly the whole war. The usual passenger service was not interrupted. The section from Ploshchad Sverdlova to Zavod imeni Stalina (now Teatralnaya - Avtozavodskaya) of 6.3 km long was opened. The Gorkovskaya Line became the Gorkovsko-Zamoskvoretskaya Line. The section from Kurskaya to Izmaylovskaya (later Izmaylovsky Park, now Partizanskaya) of 7.1 km long was opened. The construction of the Circle Line from Kurskaya to Park Kultury began.

1950s. All the stations of the Circle Line of the Moscow Metro were opened. The section from new Arbatskaya via Smolenskaya to the Kievsky Railway Station was built. So, an unplanned shallow line, called the Arbatsky Radius (from Kalininskaya to Kievskaya), appeared, which later was renamed to the Arbatsko-Filevskaya Line. The Kirovsko-Frunzenskaya Line was extended from Park Kultury to Universitet. Both the banks of the Moskva River were linked with a two-layer bridge. The lower layer was occupied by station Leninskiye Gory (now Vorobievye Gory). The new line, called Rizhskaya, from Botanichesky Sad (now Prospekt Mira) to VSKhV (now VDNKh) was opened. The section of the future Filevskaya Line (11.4 km) was built from Kievskaya to new residential area Fili-Mazilovo.

1960s. The new technology of shield driving with immediate 'lining' of tunnels was first used at the construction of the new Kaluzhsky Radius. If properly used, this 'Moscow' technology saved up to 50% of time and money compared with the 'Berlin' one. The section (8.1 km) from Kaluzhskaya (now Oktyabrskaya) to Novye Chermushki was opened. The new Zhdanovskaya Line from Taganskaya to Zhdanovskaya (now Vykino) was built.

1970's. The section from Belyayevy to Medvedkovo was opened. The Tagansko-Krasnopresnenskaya Line began operating from Barrikadnaya to Planernaya. A new station, called Gorkovskaya (now Tverskaya), was built in the existing Gorkovsko-Zamoskvoretskaya Line. The station and transit to station Pushkinskaya were constructed without breaking train operation. The Head of the Moscow Metro Building Enterprise of that time P. Vasyukov said that it was the same as to add one more bead to a necklace without breaking a string. The new Kalininskaya Line (11.4 km) from Marxistskaya to Novogireyevy was built.

1980s. The Kaluzhsko-Rizhskaya Line was completed. Sections of the new Serpukhovskaya Line was opened. The section from Kashirskaya to Krasnogvardeyskaya was put into operation. The Filevskaya Line was extended to Krylatskoye.

1990's. Several Line were extended - Sokolnicheskaya Line to Ulitsa Podbelskogo, Kaluzhsko-Rizhskaya Line to Bittsevsky Park, Serpukhovskaya Line to Altufievo. The Serpukhovsko-Timiryazevskaya Line appeared. The new Lyublinskaya Line from Chkalovskaya to Volzhskaya was opened.

2001-2003. The Serpukhovsko-Timiryazevskaya Line was extended to Bulvar Dmitriya Donskogo. The metro overstepped the limits of the Moscow Circle Road. From Bulvar Dmitriya Donskogo trains ran far south to South Butovo by light metro. The Arbatsko-Pokrovskaya Line was extended from Kievskaya to Park Pobedy.