УДК 656

## ANALYSIS OF MOGILEV TRANSPORT SYSTEM

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The main goal of the state transport policy is the development of highly efficient national transport system designed to meet the demand of goods and passengers transportation, improve its safety and quality and create conditions for the financial provision of transport enterprises through investment activity [1].

The operation of the state transport policy provides implementation of citizens' rights for free movement, provision of a single economic space and goods circulation in accordance with the Constitution of the Republic of Belarus. Transport has always been and will remain the most important component of the economy, a factor ensuring its unity and integrity [2]. The development of transport and communications largely determines the national security of the country, its defense capability and solution of social problems. The stable and efficient operation of transport allows other sectors of economy to reduce the cost of goods and services, which stimulates the growth of production and consumption, and contributes to the expansion of international relations, integration of national economy into the world economic system.

Transport complex represents a combination of road, rail, ground and underground, electric, air, water and other types of transport. The structure of transport complex includes vehicles and transport communications (roads, railways, airways, waterways, information and navigation systems, etc), transport enterprises and other organizations and services that ensure transport functioning [3].

In addition, it involves transport infrastructure, which comprises transport communications (airways, railways and waterways, pipeline routes, translines, trolleybus lines, metro lines, transport and air navigation systems) and engineering structures that support transport [4].

The purpose of the research is to identify the essence and features of transport complex in Mogilev.

The subject of the research is a set of processes and phenomena arising during the development of transport complex of the city of Mogilev.

The object of the research is transport complex of the city of Mogilev.

As a result of the study, it has been determined that the transport complex is represented by a wide network of roads, railways, and airways [5]. There is an airport located 17 km away from Mogilev. The river port on the Dnieper River is used for transportation of goods and tourist activities. One of the main railway junctions at the

section of the road is Mogilev railway station. Mogilev-1 and Mogilev-2 railway stations are located on the territory of Mogilev. At these railway stations goods are received for transportation and issued to recipients.

Mogilev region. All city buses, trolleybuses and route taxis are equipped with the satellite monitoring system GPS/GLONASS. It allows to collect and process information from vehicle monitoring equipment, control it and plan the vehicles operation. In addition, any passenger on their phone can observe the current location of the certain bus or trolleybus, as well as the location of nine routes of fixed-route taxis ( $N_2$  1, 3, 4, 7, 7K, 10, 26, 35, 36).

In total, according to the website mycity.by, the transport system covers 100 passenger routes in the city. Of these, 41 are buses, 25 are suburban buses, 27 are route taxis and 7 are trolleybuses.

In 2020, organizations and individual entrepreneurs transported 22,4 million tons of cargo, or 107,4 % compared to 2019. Freight turnover amounted to 2351,6 million ton kilometers, or 102,9 % compared to the level of 2019.

In 2020, 151,7 million people used passenger transport services, or 84,3 % compared to the previous year. Passenger turnover amounted to 992,9 million passenger kilometers, or 78,8 % to the level of 2019.

In addition, SWOT analysis shows the current state of the transport system in Mogilev [5]. This analysis comprises strengths, weaknesses, opportunities and threats of Mogilev transport system.

Strengths of Mogilev transport system are:

- highly qualified driving staff;
- public transport tickets;
- functioning of the developed production and technical base;
- opportunities of services provided;
- availability of demand among the population.

Weaknesses are the following:

- wage arrears;
- high staff turnover due to low salaries;
- ineffective management;
- deterioration of rolling stock;
- monopolization of railway transport.

Opportunities comprise:

- acquisition of new rolling stock through leasing;
- introduction of an automated control system based on the use of electronic resources;
- changing needs of users of transport services (growing demands for higher quality services);

- change in lifestyle (the need to increase transport mobility);
- development of the system of information services for transport users (information boards and signs at stopping points, information centers of transport companies).

Threats are the following:

- high level of motorization of the urban population;
- increase of fuel and lubricants prices, as well as of electricity and spare parts;
- underdeveloped legal framework in the field of passenger traffic regulation;
- unfair competition of private passenger carriers;
- lack of control of local authorities over the operation of private shuttle buses and their departure on the line.

The transport system of the city of Mogilev is extensive. Therefore, based on the analysis, the research provides several proposals for improving the transport complex:

- improvement of the transport system;
- ensuring the safety of passenger traffic;
- development and improvement of economic relations and the market for passenger transport services;
  - organization of management of the transport complex;
  - development of more frequent intercity and suburban routes;
  - formation of personnel and social policy in passenger transport;
  - improvement of the ecological situation in the city.

Thus, the theoretical and practical aspects of the transport system of Mogilev have been studied. The set goal of the research has been achieved. By solving analytical problems, these recommendations can be used in strategic planning of the integrated development of transport.

## СПИСОК ИСПОЛЬЗОВАННОЙ ЛИТЕРАТУРЫ

- 1. **Будрин, А. Г.** Экономика автомобильного транспорта: учебное пособие / А. Г. Будрин, Е. В. Будрина, М. Г. Григорян; под науч. ред. д-ра экон. наук. проф. И. А. Минакова. Тамбов: Академия, 2005. 320 с.
- 2. **Гавриленко, Н. Г.** Теоретические аспекты цикличности развития транспортного комплекса / Н. Г. Гавриленко // Омский науч. вестн. − 2013. − № 1 (115). С. 48-51.
- 3. **Васильев, И. Л.** Комбинированный транспорт / И. Л. Васильев. Москва: Недра, 1975. 360 с.
- 4. **Галушко, В. Г.** Вероятностно-статистические методы на автотранспорте / В. Г. Галушко. Киев: Вища школа, 1976. 232 с.
- 5. Экономика пассажирского транспорта: учебное пособие / Под общ. ред. проф. В. А. Персианова. 2-е изд. Москва: КНОРУС, 2017. 390 с.