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WAYS TO INCREASE RAILWAY COMPETITIVENESS

Nowadays, railway transport is the most developed in Ukraine. It is the heart of transport services for individuals and legal entities, without it is difficult to imagine the normal functioning of production facilities and logistics firms. Rail transport also occupies the main place among domestic traffic. Passenger transportation occupies a significant place in the work of transport, so suburban transportation occupies the second place in terms of mass transportation after intercity transportation by automobile transport. The demand for this type of transportation can be called elastic, since there is an impact of seasonality on transportation, for example, the beginning and ending of academic semesters, vacation time. Therefore, it is advisable to consider tourist trains that could run on sections of the Dnipro-Pivdennij station – Apostolovo station, Dnipro-Pivdennij station – Surskoye station, Dnipro-Pivdennij station – Zhovtokamenka station, Dnipro-Pivdennij station – Elizarovo station. The article provides graphs of the movement of these trains, allowing passengers to visit attractions along the entire route. Consequently, tourist routes can improve the development of tourism throughout Ukraine, and not popular destinations. This may result in increased demand for tourist trains, increased monetization of passenger transportation, thereby improving passenger comfort.

Keywords: railway transport, passenger transportation, tourist trains, tourist routes.

Introduction. In many countries of the world, tourism occupies an important place of influence on the country's economy. Tourism has always been very developed in Ukraine. During the period of the COVID19 quarantine, leaving the country was impossible, so domestic tourism was at its peak for decades, so thanks to our picturesque nature, tourist routes were built in other parts of the country. Also note that the profitability of rail tourism passenger transportation becomes a key and effective method of reducing the costs of subsidizing such transportation and bringing it to a profitable level.

Analysis of recent research and problem statement. Tourism is one of the most profitable sectors of the economy for the country. Studying the classification of tourism, it is possible to divide it, namely by: time, territorial affiliation, goals, seasonality, type of route construction, integration of modes of transport, degree of transport provision, completeness of tourist services and degree of concentration of passengers [1-5]. Studying already has a demand in Ukraine, it can be placed that seasonal tourism by rail transport, namely southern destinations in the summer and western

destinations in the winter, is profitable and has a great demand [6-8]. During such periods, additional trains are introduced in the directions where collection and collection are scheduled to be observed.

The peculiarities of tourism in Ukraine were studied by numerous scientists who described in their works, namely Malska M.P., Davidenko L.I., Orekhovska T.M., Poklonskyi F.E. and other. Considering their work, Matsepluk L.V. noted that in the works of previous scientists quite little attention was paid to domestic tourism. So, taking into account the results of the American company "Wagon Lee", the company "Great Europe" it was assumed that tourist trains are and remain relevant for railway passengers. [9]

Anisiewicz [10], Tkachenko, Melnichenko and Boyko [11] also made significant contributions to the study of this problem.

The purpose and main tasks of the article. Research on the development of rail tourism and increasing revenue for the railway through attracting tourists and additional services. This article offers tourist routes that can run on the territory of the Cisdnieper Railways. This will make it possible to organize excursions for domestic and foreign residents, which will ultimately bring material benefits for Ukrzaliznytsia PJSC. The task was to develop tourist routes taking into account interesting tourist areas of the selected region and all indicators that would determine the success and profitability of the railway.

Novelty and scientific significance. Studying the issue of tourist trains, it was determined that the opportunity of laying such trains in strict lines of the schedule is possible and relevant for the area under consideration.

Research materials and methods. Railway transport is the most developed in Ukraine [12]. The advantages of this type of transport are wide distribution and low tariffs. The carrying capacity of the railway network significantly exceeds the current volumes of traffic. The importance of railway transport in the system of transport communications of Ukraine is enhanced by the fact that the main trans-European transport corridors pass through the territory of the state: East - West, Baltic - Black Sea. 46% of total transportation is carried out by rail, but only 14% of international transportation is carried out. In particular, the trans-European railway line E-30, which originates in Berlin, crosses Ukraine on the route Mostyska — Lviv — Kyiv and continues to Moscow. On the territory of Poland, it intersects with high-speed highways E-59 and E-65 and creates the possibility of high-speed rail connections between almost all European countries.

Railway transport is one of the most important branches of the economy of Ukraine [13-15]. It provides production and non-production needs of material production, non-production sphere, as well as the population in all types of transportation.

By functional features, railway transport is divided into freight and passenger. This is due to the fact that transport is a necessary prerequisite for the functioning of both material production and the service sector, including passenger transportation [16-18].

Passenger railway transport is a branch of the non-production sphere and belongs to the infrastructure industries. Freight transport is a branch of production infrastructure. Without directly producing material products, freight transport is the fourth branch of material production after mining, processing industry and agriculture. None of the named three main branches of material production is able to function without transportation. The product is ready for consumption only when it is delivered to the consumer.

On the one hand, railway transport is an indispensable condition for the functioning of the production itself, where it delivers raw materials, fuel and energy resources, components, equipment, etc., and on the other hand, it delivers finished products to the consumer. Thus, in the process of production of finished products, transport has a significant impact on its cost, and hence on efficiency and price. The reduction of the transport component in the cost of manufactured products contributes to the increase in production efficiency. It is possible to reduce transport costs both by improving the functioning of transport, by replacing one type with another, more efficient for the transportation of these products, and by improving the territorial organization of production, which will reduce

transport costs for the delivery of raw materials, fuel and energy resources, equipment, and finished products [19-21].

Railway transport, as transport in general, is a necessary condition for the specialization and comprehensive development of the national economic complexes of the regions, the formation of TECs of both local and district-forming importance. It contributes to the social territorial division of labor, the formation of connections between settlements and within them. Without transport, the integration of Ukraine into the global economic system is impossible. This requires the modernization of old and the construction of new transport highways of interstate importance.

Individual modes of transport do not function in isolation. Performing a joint function of providing the national economic complex with freight and passenger transportation, various types of transport form close relationships among themselves. As a result, a transport system is formed, which develops in cooperation with the entire national economic complex of the country. The transport system is a territorial combination of communication routes, technical means of transport and transport services, which unite all types of transport and all links of the transport process in their interaction and ensure the successful functioning of the national economic complex of the country as a whole.

The operation of the transport system is ensured by the transport infrastructure, which includes communication routes, rolling stock, loading and unloading management of transport and other enterprises and organizations that carry out loading, unloading and transshipment of goods (transported by all types of transport), as well as control and communication means, various technical equipment.

Ukraine has extremely favorable prerequisites for the formation and placement of a transport network.

Railway transport of Ukraine plays a leading role in the implementation of domestic and significant economic relations of Ukraine with foreign countries. It accounts for the bulk of cargo turnover and passenger transportation. This type of transport combines important technical and economic indicators: regularity of movement and high speed of transportation, large throughput and carrying capacity.

At the same time, the economic and geographical situation significantly influenced the passage of transit highways, pipelines, and the formation of mixed-type transport hubs. The flat topography contributes to the widespread placement of communication routes [22-24].

Passenger transportation occupies a special place in the work of transport. This is due to their high socio-economic importance in the life of society and the fulfillment of one of the most important guarantees of the state - freedom of movement. The population's need for transportation is related both to production activities (trips to the workplace and on business trips), and to cultural and household needs (trips for recreation, tourism, and excursions).

The market of transport services is represented by intercity, suburban, inter-city and international types of passenger transportation. Each of them is characterized by a different market capacity, the type and level of competition, the motivation of the trip and the elasticity of demand.

Intercity transportation is the most significant in terms of the number of transported passengers. In large cities, the transport market is quite competitive and is represented by bus, trolleybus and tram connections, the metro, railway transport, private cars, and shuttle taxis. In small cities and towns, it is more monopolized and represented mainly by bus transport and personal cars of citizens. Among the motivations for trips, moving to the place of work or study, to shops and for other personal needs prevails. The demand for these transports is price and income inelastic, but has a high cross-elasticity.

Suburban transportation ranks second in terms of volume after interurban transportation and is represented by railway, bus, and personal vehicles [25-27]. The demand for these transportations is more elastic in terms of price and income. Such an invaluable competitive factor as the reliability and convenience of the schedule has a great impact on the population's final choice of a certain type of transport. For the population making daily commuter trips to work and study, the main mode of transport is the railway due to its high carrying capacity, reliability and regularity of traffic.

It has a great social role in the transportation of the urban population to country plots, to places of mass recreation. In addition, a significant share of intercity transportation is carried out by suburban trains. According to sociological surveys, more than 41% of suburban train passengers travel to work and study, and about 29% travel to the country. More than 45% of passengers use rail transport almost every day [28].

Transportation of tourists, depending on the duration of the trip, is carried out on scheduled and specially organized trains (according to a specific order and route, when the train is both a means of transportation and a place of accommodation for tourists).

In the system of passenger transportation, train routes (according to a strictly established route, the time period and the traffic schedule are observed accordingly). Passenger railway routes, in turn, are divided into: suburban, local and long-distance.

Commuter trains follow a fixed schedule within a region or region. The warehouse usually accommodates 1,500 passengers, with seating for up to 1,000. Trains make frequent stops at local stations, their car numbers are not numbered [29, 30].

Local trains follow between the stations of the same railway, for example, South-Western in Ukraine or in Europe within the borders of the state. They usually cover a distance of 700 km and carry out transportation within a large district, region or small country - between villages and small cities. It happens that the difference between suburban and local trains is quite arbitrary and depends significantly on the geographical characteristics of the area and the country as a whole. Except for high-speed routes, local trains make frequent stops at all destination stations.

Long-distance trains cover a distance of more than 700 km and are divided by speed into: year-round high-speed trains, seasonal (summer) high-speed trains, year-round and seasonal long-distance passenger trains.

The strategy for the development of tourism and resorts of Ukraine for the period until 2022 is aimed at solving the problems of comprehensive development of tourism, hotel industry, resorts, sanatorium-resort service, supporting the creation and modernization of tourist infrastructure, ensuring the proper quality of tourist and resort services, effective use existing tourist potential. In Ukraine, the sphere of tourism and resorts does not play a proper role in the formation of favorable macroeconomic dynamics and budget revenues. On the international tourist market, the national tourist product and natural healing resources of Ukraine are evaluated as less attractive and competitive than in other countries. About twenty million inbound (foreign) tourists visit Ukraine every year, including only about a million people with an organized purpose. In recent years, there has been a 10% decrease in the inbound organized flow. This indicates the dominance of destructive tendencies in the market of tourist services of Ukraine, the predominance of unorganized trips in the general structure of visits.

Taking into account that railway transport is not only the most suitable for providing comfortable movement of large groups of people, but also the most affordable in terms of fare, it is necessary to consider the prospect of its use for the movement of domestic and foreign tourists. The advantages of the railway in serving domestic and foreign tourists are obvious. Among the main ones are the ability to travel in any weather, accessibility to high mountain areas. Therefore, the development of conditions for the development of railway tourism in Ukraine is a rather urgent scientific and practical task.

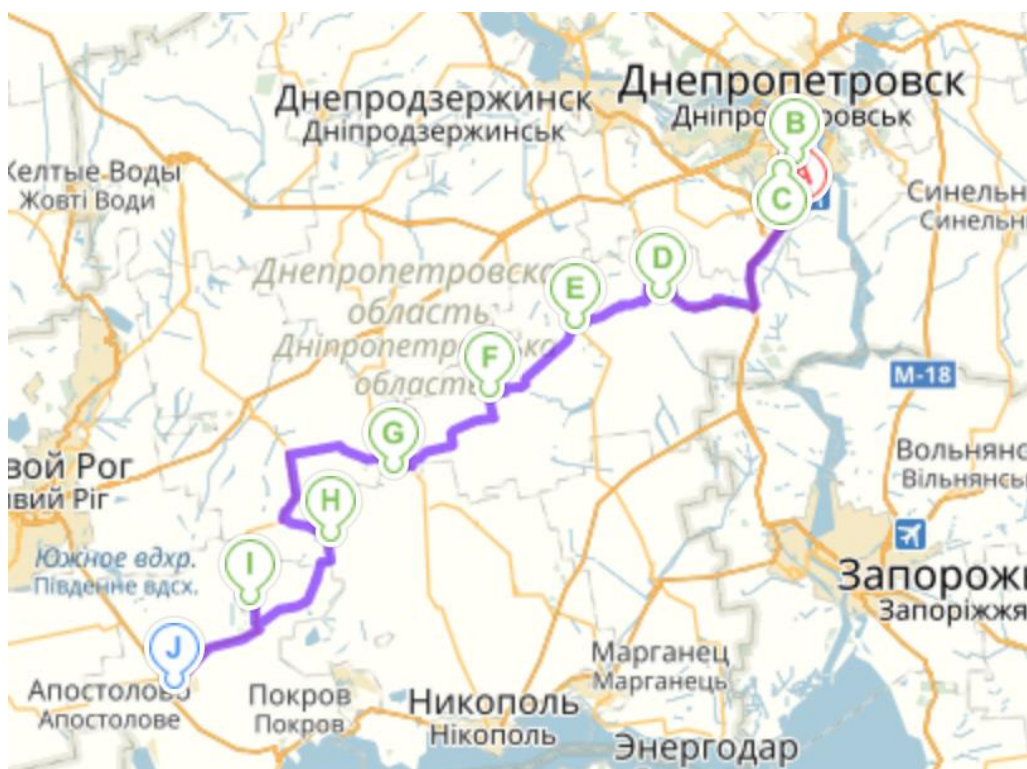


Fig. 1. Route of suburban train Dnipro-Pivdenny – Apostolovo with stops.

Two pairs of suburban trains run daily from Dnipro-Pivdennyi station, connecting Dnipro with the city of Apostolovo (the line between Zustrichni and Apostolovo stations is not electrified).

All stops and points of interest are detailed in the table below. Everyone can choose a route according to their preferences.

Table 1. Stations on the way Zustrichna - Apostolovo

Direction	№ train	Departure time - arrival time	Stations	Notes*
Dnipro-Pivdenny – Apostolovo	6405	dep.: 08:21 ar.: 12:38 daily	Tonnelna	Avalanche Amusement Park
			Zustrichna	Cinema "Sich"
	6409	dep.: 20:25 ar.: 00:42 daily	Surske	Church of Saint Prince Igor
			Prywolne	A drying stream flows through the village with the "Mokra Sura"
			Yelizarovo	Common grave of Soviet soldiers

Continuation of the table 1

Apostolovo - Dnipro- Pivdenny	6402	dep.: 03:24 ar.: 07:46 daily	Nezabudine	The village of Nezabudine is located on one of the sources of the Lyubimivka River, at a distance of 1 km from the village of Khizhine and 2 km from the village of Nezabudine and the railway station of Nezabudine. There is a stream with a brook running through the village that is drying up.
	6408	dep.: 14:34 ar.: 19:01 daily	Loshkarivka	The village of Loshkarivka is located on the bank of the Bazavluk River, the village of Mezhuivka is located upstream at a distance of 0.5 km, and the village of Shevchenko is located downstream at a distance of 3 km. A dry stream with a large brook flows through the village. The railway passes nearby, the Loshkarivka station is 3 km away.
			Pavlopyllia	In Pavlopyllia, there is a grain warehouse of the State Material Reserve of Ukraine — "Bread Base No. 73", several small agricultural enterprises and a communal enterprise are also operating.
			Zhovtokamyanka	Zhovtokamyanka (another name is Drana Kohta) is a Scythian mound near the village of Zhovtokamyanka, Apostoliv District, Dnipro Region, and is one of the largest mounds in terms of size. The mound dates back to the 30s of the IV century BC. It is the grave of a relative of the Scythian king.
			Apostolivo	The church of the Holy Intercession has been preserved in the city. Churches of the Holy Assumption, the Twelve Apostles, Christians of the Evangelical Faith, the Christian Presbyterian Church, the Church of the Intercession of the Most Holy Theotokos, All Reverends of Kyiv-Pechorsky are active. There is a community of Seventh-day Adventists. Near the city, several mounds of the Bronze Age (III-I millennia BC), two Scythian mounds - Baba and Rozkopana Mohyla (IV-III centuries BC) with burials of leaders, in which gold jewelry, weapons, dishes, etc. were discovered, were investigated. Separate burials of nomads of the 13th and 14th centuries were also studied. The People's Museum of the History of the Apostoliv District has been established in the city.

For example, of the suburban train route from Dnipro to Apostolovo, several excursions can be offered:

Two types of excursions are offered on this route of the suburban train Dnipro-Pivdenny - Apostolovo: Historical and Religious. Historical excursions are offered to the villages of Yelizarovo and Zhovtokamyanka. Religious events are held in the village of Surske. There is an extended excursion to Apostolovo through churches, temples, barrows and museums.

Dnipro-Pivdenny is a passenger railway station of the Cisdnieper Railways. Located in the center of Dnipro, it is the second most important station in Dnipro.

The station is located on an auxiliary railway line that connects Sukhachivka station with the large Nizhnyodniprovsk-Vuzol railway hub.

Excursion №1:

Dnipro-Pivdenny - Yelizarovo is listed on figure 2.

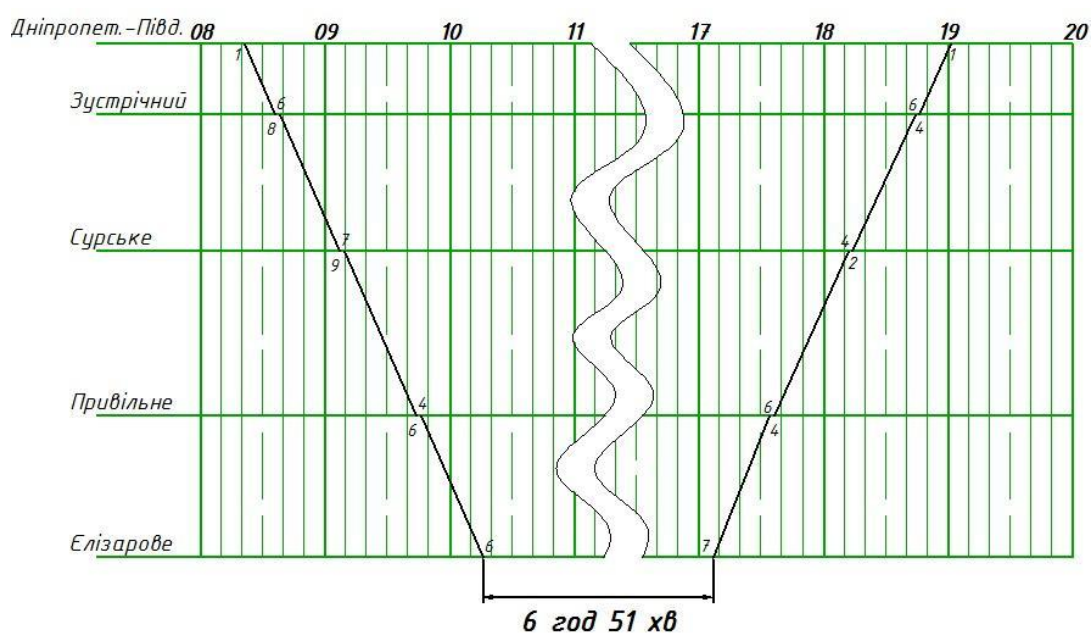


Fig. 2. Train schedule for excursion 1

Excursion №2:

Dnipro-Pivdenny – Zhovtokamyanka is shown in figure 3.

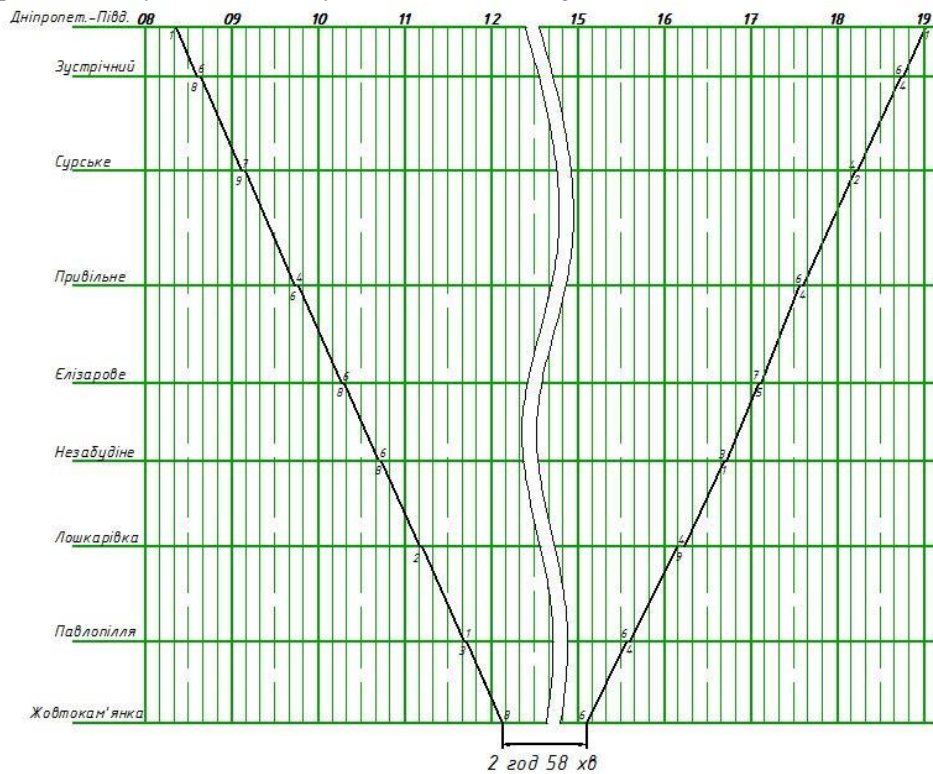


Fig. 3. Train schedule for excursion 2

Excursion №3:

Dnipro-Southern - Surske is shown in figure 4.

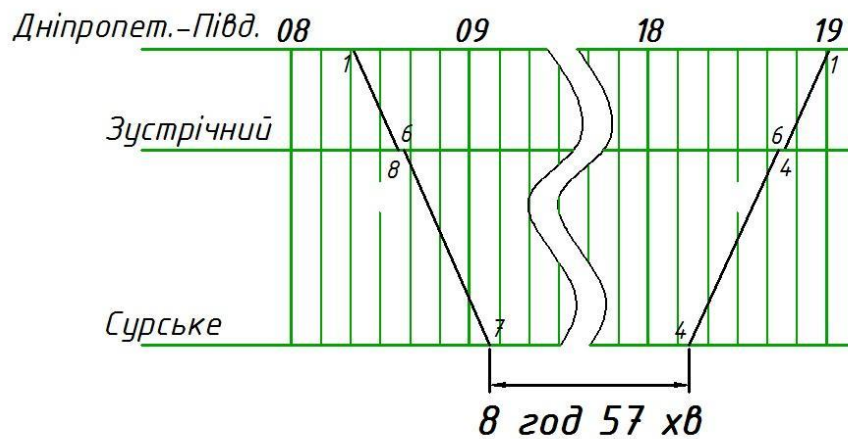


Fig. 4. Train schedule for excursion 3

Excursion № 4:

Dnipro-Southern - Apostolovo is shown in figure 5

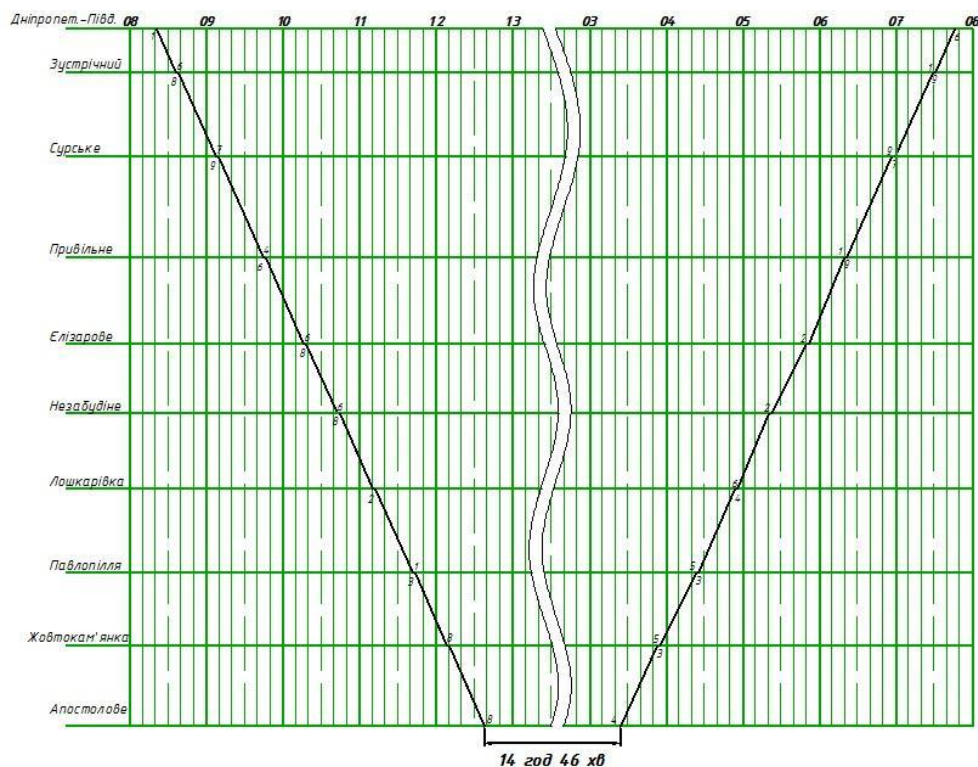


Fig. 5. Train schedule for excursion 4

Conclusions. To sum up, having considered the issue of organizing railway tours, the following conclusions can be drawn.

Rail tours are trips organized by tourists using rail transport.

Railway journeys by duration can be one-day, short-term (up to 3 days), long-term (medium, long and extra-long). According to the duration, they can be carried out on local or long-distance trains; on regular trains (according to the established route and schedule) and on specialized tourist trains.

Ukraine has a developed network of railways and railway tourism is popular among tourists.

The main disadvantages that inhibit the development of railway tourism in our country are:

- instability of internal politics in the state;
- imperfection of the legislation regulating the organization of railway tourism;
- unreasonably inflated prices for renting specialized carriages and the ever-increasing price of travel tickets.

The correct organization of railway trips will not only satisfy the tourist, improve the image of Ukrainian tourism, but also bring a good profit to the organizers and, ultimately, to the state.

REFERENCES

1. Nesterenko, G. I., Muzykina, S. I. & Muzykin, M. I. (2016) Analiz sushchestvuyushchej sistemy organizacii perevozk passazhirov s ogranichenymi vozmozhnostyami zheleznodorozhnym transportom Ukrainy [Analysis of the Existing System of Organization of Transportation Passengers with Disabilities by Railway Transport in Ukraine]. *Bulletin of the Volodymyr Dahl East Ukrainian National University*, 1(225), 139-146. [in Russian]
2. Strelko, O., Berdnychenko, Yu., Soloviova, O., Kyrychenko, H., Soloviova, L., Hurinchuk, S., & Isaienko, S. (2022). Development of scheduled urban passenger transportation by road in Ukraine. In: *Proceedings of the 26 International Conference Transport Means 2022*, Pt. I., 447-452. Kaunas University of Technology, Kaunas. <https://doi.org/10.5755/e01.2351-7034.2022.P1>.
3. Nesterenko, G. I., Avramenko, S. I., Muzykin M. I. & Hanenya O. I. (2017) Zaluchennia dodatkovykh obsiahiv pasazhyriv [Attracting additional volumes of passengers]. *Car Fleet*, 5-6(122-123), 48-50. [in Ukrainian].

4. Martsenyuk, L.V. (2013) Osnovni zasady rozvytku transportnoho turyzmu v Ukraini [Basic principles of transport tourism development in Ukraine]. *Bulletin of Dnipropetrovsk National University of Railway Transport named after Academician V. Lazaryan*, 47, 24-32. [in Ukrainian]
5. Muzykin, M. I., Nesterenko, G. I. & Avramenko, S. I. (2019). Analiz dostupnosti vokzaliv AT Ukrainiska zaliznytsia dlia liudei z obmezhenymy mozhlyvostiamy [Analysis of the Availability of the Station of JSC «Ukrainian Railway» for People with Disabilities]. *Bulletin of the Volodymyr Dahl East Ukrainian National University*, 2(250), 59-64. [in Ukrainian]
6. Alohynskiy, Y., Remzina, N., Tregubov, O., Shevchenko, V., & Britchenko, I. (2022). Logistics approaches to stabilization and development of tourism activities during the pandemic. *International Journal of Agricultural Extension*, 10(2), 129-146. <https://doi.org/10.33687/ijae.010.00.3890>.
7. Rutynskiy, M., & Kushniruk, H. (2020). The impact of quarantine due to COVID-19 pandemic on the tourism industry in Lviv (Ukraine). *Problems and Perspectives in Management*, 18(2), 194-205. [https://doi.org/10.21511/ppm.18\(2\).2020.17](https://doi.org/10.21511/ppm.18(2).2020.17).
8. Hren, L. M., Naden, E. V., Aliieva, P. I., Husarov, K. A., Stankevych, S. V., Koroleva, E. N., & Matsyura, M. V. (2021). The public administration and environmental tourism. *Ukrainian Journal of Ecology*, 11(2), 191-194. https://doi.org/10.15421/2021_98.doi:
9. Martsenyuk, L.V. (2015) Vazhlyvist rozvytku zaliznychnoho turyzmu v Ukraini v suchasnykh sotsialno-ekonomichnykh umovakh [The importance of the development of railway tourism in Ukraine in modern socio-economic conditions]. *Problems of transport economy*, 9, 84-90. [in Ukrainian].
10. Anisiewicz, R. (2021). Conditions for development of the entrepreneurial ecosystem in tourism in the border area of the European Union: The example of the tri-border area of Poland–Belarus–Ukraine. *Sustainability*, 13(24), 13595. <https://doi.org/10.3390/su132413595>.
11. Tkachenko, T. I., Melnichenko, S.V. & Boyko, S. V. (2010) Stratehichniy rozvytok turystychnoho biznesu [Strategic development of tourist business]: monograph. 596 p. [in Ukrainian]
12. Semenov, V. F. (2014). Terytorialni umovy i stratehii rozvytku turyzmu v rehionakh [Territorial conditions and strategies of tourism development in the regions]. *Bulletin of the Odessa National University*, 1(2). [in Ukrainian].
13. Soloviova, L., Strelko, O., Isaienko, S., Soloviova, O., & Berdnichenko, Yu. (2020). Container transport system as a means of saving resources. *IOP Conference Series: Earth and Environmental Science* 459(5), 052070. <https://doi.org/10.1088/1755-1315/459/5/052070>.
14. Nesterenko, H. I. & Muzykin, M. I. (2014) Vplyv «vikon» na propusknu spromozhnist zaliznychnogho naprjamku [Influence of maintenance windows on the working capacity of railway route]. *Science and Transport Progress*, 3 (51), 24–33. [in Ukrainian]
15. Fesovets, O., Strelko, O., Berdnichenko, Yu., Isaienko, S., & Pylypchuk, O. (2019). Container transportation by rail transport within the context of Ukraine's European integration. In *Proceedings of 23rd International Scientific Conference. Transport Means.–2019.–Part I* (pp. 381-386). Kaunas University of Technology, Kaunas. Retrieved from <https://transportmeans.ktu.edu/wp-content/uploads/sites/307/2018/02/Transport-means-2019-Part-1.pdf>
16. Butko, T., Prokhorchenko, A. & Muzykin, M. (2016) An improved method of determining the schemes of locomotive circulation with regard to the technological peculiarities of railcar traffic. *Eastern-European Journal of Enterprise Technologies*, 5(3(83)), 47–55. <https://doi.org/10.15587/1729-4061.2016.80471>.
17. Riashchenko, V., Zivitere, M., & Kutryieva, L. (2015). The problems of development of the Ukrainian tourist market and ways of their solutions. *Information Technologies, Management and Society*, 8(1), 21-26. Retrieved from https://www.ismaitm.lv/images/Files/Proceedings/2015/05_ITMS_2015_Riashchenko_Zhivitere_Kutryieva.pdf.
18. Strelko, O. H., Kyrychenko, H. I., Berdnichenko, Yu. A., Sorochynska, O. L., & Pylypchuk, O. Ya. (2019). Application of information technologies for automation of railway and cargo owner interaction. *IOP Conference Series: Materials Science and Engineering*, 582(1), 012029. <https://doi.org/10.1088/1757-899X/582/1/012029>.
19. Butko, T., Muzykin, M., Prokhorchenko, A., Nesterenko, H. & Prokhorchenko, H. (2019) Determining the rational motion intensity of train traffic flows on the railway corridors with account for balance of expenses on traction resources and cargo owners. *Transport and Telecommunication Journal*, 20(3), 215–228. <https://doi.org/10.2478/tjt-2019-0018>.
20. Rossolov, A., Naumov, V., Popova, N., Vakulenko, E., & Levchenko, O. (2021). Estimation of transport accessibility in case of rational transport hub location. *Transport* 36(1), 1-12. <https://doi.org/10.3846/transport.2021.14299>.
21. Nesterenko, H., Muzykin, M. & Avramenko, S. (2019) Practical aspects of improving the operation interaction of the station and sidings. *Transport Problems: VIII International Symposium of Young Researchers* (pp. 927–934). Katowice, Poland.
22. Kravchenko, O. (2020). Scenario analysis of the assessment of the rail transport impact on the economic growth (on the example of Ukraine). *Economic Studies journal*, 29(1), 114-135. Retrieved from https://www.iki.bas.bg/Journals/EconomicStudies/2020/2020-1/5_O.Kravchenko_f-f.pdf
23. Butko, T. & Prokhorchenko, A. (2013). Investigation into train flow system on Ukraine's Railways with methods of complex network analysis. *American Journal of Industrial Engineering*, 1(3), 41–45.
24. Storonyanska, I., Dub, A., Graftska, O., Hrynchyshyn, I., Bilanyuk, O., & Piersceniak, A. (2021). The tourist infrastructure of local communities in Ukraine: current state and impact on local economic development. *Agricultural and Resource Economics: International Scientific E-Journal*, 7(2), 102-118. <https://doi.org/10.51599/are.2021.07.02.06>.
25. Ivannikova, V., & Nesterov, O. (2021). Model of Transport System Optimization in Kyiv (Ukraine). In: Prentkovskis, O., Yatskiv (Jackiva), I., Skačkauskas, P., Junevičius, R., Maruschak, P. (eds), *TRANSBALTICA XII*:

Transportation Science and Technology. TRANSBALTICA 2019. Lecture Notes in Intelligent Transportation and Infrastructure (pp. 456-467). Springer, Cham. https://doi.org/10.1007/978-3-030-94774-3_45.

26. Pivtorak, H., Zhuk, M., & Gits, I. (2022). Shifting the population mobility of the Ukraine western region on the strength of the COVID-19 pandemic. *Archives of Transport*, 62(2), 7-23. <https://doi.org/10.5604/01.3001.0015.9173>.

27. Vakulenko, K., Kuhtin, K., Afanasieva, I. & Galkin, A. (2019). Designing optimal public bus route networks in a suburban area. *Transportation Research Procedia*, 39, 554-564. <https://doi.org/10.1016/j.trpro.2019.06.057>.

28. Nesterenko, H., Muzykin, M., Bibik, S., & Horobchenko, D. (2020). Analiz tekhnolohii orhanizatsii korotkoprobizhnykh perevezen u transportnomu vuzli [Analysis of the technology of short-distance transportation in the transport hub]. *Transport Systems and Technologies*, 35, 182-193. [in Ukrainian] <https://doi.org/10.32703/2617-9040-2020-35-18>.

29. Nesterenko, H. I., Bech, P. V., Muzykin, M. I. & Avramenko, S. I. (2018). Improvement of supervisory control of train movement by means of introduction of operational zones. *Science and Transport Progress*, 6(78), 59-70. <https://doi.org/10.15802/stp2018/154060>.

30. Nesterenko, G. I. & Chibisov, Yu. V. (2012). Optimal route selection when distributing the freight trainflow in the railway junction with the consideration of the level of the traffic capacity saturation. *Visnyk Skhidnoukrainskoho natsionalnoho universytetu imeni Volodymyra Dalia*, 3(174), 138-143.

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ШЛЯХИ ПІДВИЩЕННЯ КОНКУРЕНТОЗДАТНОСТІ ЗАЛІЗНИЦІ

На сьогодні залізничний транспорт є найрозвинутішим в Україні. Він є серцем транспортних послуг для фізичних та юридичних осіб, без нього важко уявити нормальне функціонування виробництв та логістичних фірм. Залізничний транспорт також займає головне місце серед перевезень внутрішніх сполучень. Пасажирські перевезення займають вагоме місце в роботі транспорту, тож приміські перевезення займають друге місце за масовістю після внутрішньоміських перевезень автотранспортом. Попит на такий вид перевезень можна назвати еластичним, оскільки є вплив сезонності на перевезення, наприклад початок і закінчення навчальних семестрів, канікулярний час та час відпусток. Тож доцільно розглянути туристичні поїзди, що мали б змогу курсувати на ділянках ст. Дніпро-Південний – ст. Апостолово, ст. Дніпро-Південний – ст. Сурське, ст. Дніпро-Південний – ст. Жовтокам'янка, ст. Дніпро-Південний – ст. Елизарово. В статті наведені графіки руху даних поїздів, що дозволяють пасажирам відвідати пам'ятки на всьому шляху прямування. Отже, туристичні маршрути можуть покращити розвиток туризму по всій Україні, а не тільки на популярних напрямках. Результатом чого можуть стати збільшений попит на туристичні поїзди, збільшена монетизація пасажирських перевезень, за рахунок чого можливість покращення комфорту пасажирів.

Ключові слова: залізничний транспорт, пасажирські перевезення, туристичні поїзди, туристичні маршрути.