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CONCERNING THE PROBLEM OF SEMANTIC CONTRADICTIONS ARISING WHEN USING THE TERMS “INTERMODAL” AND “MULTIMODAL” PASSENGER CARRIAGES

Bludyan N.O., Paramonova L.A.

This article examines Russian and foreign regulatory documents, concerning the issues of intermodal/multimodal passenger carriages, shows the essence of intermodal transportation in passenger transport, includes the analysis of various approaches to the concepts of “intermodal passenger transportations” and “multimodal passenger transportations” and contains proposals for legislative consolidation of the mentioned terms and for the implementation of intermodal technologies in passenger transport.

Keywords: *intermodal/multimodal carriages of passengers; construction of an effective transportation system; carriers' liability; a new ticket system; interchange points.*

Introduction

In the conditions of economic globalization, intensifies the value of the transportation industry. This is due to the increase in passenger demand for movements and to the necessity of construction of an effective transportation system. The priorities and the requirements of passengers to the quality of transport services have changed, there has formed a new factor in the field of preferences – comfort.

Thus, at present the main criteria when choosing a mode of transport are time and financial costs, comfort, the desire of pas-

sengers to organize their journey on their own through the Internet and security.

Intermodal and multimodal technologies are best suited to meet the demands of consumers of transport services. Maximum use of the advantages of each mode of transport, which is realized in the organization of intermodal / multimodal passenger carriages, allows to optimize time costs and provide a high level of service, to reduce financial costs in accordance with the pricing policy in the market of intermodal carriages – a single operation must be cheaper than the total cost of separate carriages by various modes of transport for a particular route.

The introduction of the technology of intermodal passenger transportation is a key direction of development of the transport network in many foreign countries.

Implementation of intermodal technology not only provides benefits to passengers and encompasses economic interest for carriers, but also modifies the form of competition: instead of the usual competition between different modes of transport competition develops between the transport companies within a particular mode of transport.

This kind of competition should be considered the most logical, since in view of the fact that each mode of transport has its advantages, in certain areas carriers are not competitive due to technical, organizational and other factors.

1. The essence of intermodal transportation in passenger transport

Currently, the Russian law as well as internationally, the concept of “intermodal” and “multimodal” in relation to passenger transport is not fixed.

There are several approaches to determining the meaning of the terms “intermodal” and “multimodal”.

In accordance with one of the approaches multimodal passenger transportation, also referred to as a mixed type of transportation by various modes of transport, suggests the use of two or more modes of transport for the trip.

Intermodal passenger transportation is considered as transportation, in which the transportation is carried out with registration of the contract wherein responsibility for transportation lies with the operator, which in turn has a contractual relationship with other participants, providing a particular service.

Thus, according to this source, the difference between these two types of transportation is only in the liability sharing between carriers that can be split in accordance with their respective segments of transportation, or assigned entirely to the specific operator.

It is also noted that the term “mixed passenger transportation” used in Russian Federation combines two concepts: “multimodal” and “intermodal”.

Another point of view on the differences between these terms belongs to A.S. Romanova, who believes that the term “multimodal transportation” is preferred to use at the international and national levels. [1] In her opinion, the term “intermodal” has more economic and sociological than legal affiliation”.

However, this condition is not indisputable, since in the case of passenger traffic, the term “intermodality” has a legal affiliation in the sphere of regulation of carriers’ responsibility.

In this regard, it can be concluded as applied to passenger transport systems that interpretation, revealing the meaning of the terms “intermodal”, “multimodal”, “mixed”, has approximately the same contents and doesn’t describe the differences.

Professor A.S. Skaridov [2] gives the following interpretation of intermodal transport: “Under the intermodal transportation it should be understood the carriage of goods or passengers by more than one mode of transport in a single transport operation, executed by a single relevant contract of carriage”.

Thus, A.S. Romanova and A.S. Skaridov are committed to a single point of view, which is diametrically opposed to the one described at the beginning of the study on the responsibility for transportation.

In foreign practice, both terms are used without any semantic difference.

In foreign sources, the terms “multimodal” and “intermodal” in relation to passenger carriages are not fixed in legal documents, but in all documents (projects, the European Commission reports and other documents) they mean:

- “Characteristics of transport network, which involves the use of at least two different modes of transport for one journey from origin to destination.”
- “Characteristics of transportation, in which at least two different types of transport for one journey from origin to destination are used.”
- “Characteristics of a nodal point, which allows you to transfer (transplant) between at least two different modes of transport.”

The study of all points of view leads to the conclusion that the most logical distinction between “multimodal” and “intermodal” is the based on the extent of carrier’s liability. At the same time, when coordinating and unifying the concepts it should be noted that the transportation document must be single. The degree of responsibility will be registered in the contracts between carriers. The following situations are possible:

- a) one of the carriers will be responsible for the entire carriage;
- b) there must be a responsible carrier for each segment of the carriage, which he operates, at the time of connection the responsibility will be shared according to the terms of the agreement;
- c) companies will appoint a third-party operator – an organizer of transportation; this option can be selected if the value of the probable losses from breach of transportation (with high probability) is significantly higher than the cost of services of a third-party operator and of insurance services.

2. Background to the introduction of intermodal and multimodal technologies in Russia

2.1. The term “Direct mixed transportation”

The Russian Civil Code [3] provides the concept of “direct mixed transportation”, enshrined in Art. 788 of Chapter 40, which establishes that in case of direct mixed transportation the carriage of passengers and baggage is operated by different modes of transport under a single transport document; the order of the organization of such carriages is determined by agreements between the organizations of the relevant modes of transport, concluded in accordance with the law on direct mixed (combined) traffic, but to date this law has the status of a bill.

The Ministry of Transport of the Russian Federation has prepared a bill of the Federal Law “On direct mixed (combined) traffic”, but at the moment it is not yet included in State Duma of the Federal Assembly of Russian Federation. [4] His analysis (Article 2) shows that the two key points, allowing to classify the transportation of passengers and baggage as a direct mixed, should be highlighted:

- different modes of transport should be used in the carriage;
- the transportation is implemented by a single transportation document issued for the whole journey.

A single transportation document is defined as a document of carriage (travel document) (such as a ticket, baggage check of direct mixed transportation), which confirms the conclusion of a contract of direct mixed transportation of passengers and luggage.

The issue of liability of carriers is very important in the construction of the intermodal transport chain.

Article 23 of the Bill contains a list of circumstances exempting carriers from liability and the conditions under which the carrier is relieved from liability. But in this article the question of determining the person responsible for the elimination of the consequences of these circumstances and for the implementation of the conditions of the con-

tract (transportation of passengers and luggage to the destination), if there has been a breakdown in the transportation process for reasons not dependent on the carrier, is overlooked.

As a result of the study of the Bill it can be concluded that the term “direct mixed transportation” in its meaning fully (completely) corresponds to the term “multimodal passenger transport.”

In foreign practice, there are transportations from the point of origin to the point of destination involving such modes of transport as air, rail, and water, which imply transplantsations, in which the need to provide a passenger with a seat for each type of transport and the docking. This means that the carrier himself suggested this route or that a passenger has built it with the consent of the carrier; advance payment of the entire cost of the whole passenger transportation ensures following this route (in case of changes in conditions or of a passenger’s refusal of transportation service charges may be levied). In this connection, the carrier shall be liable, including, for the moment of docking, in contrast to the urban traffic, when a passenger at any time can change the route: it is not known in advance to the carrier, and seat and docking are not provided by carriers. Two types of transportation should be divided. Accordingly, service technology will be different. State regulation will also differ from the point of view of responsibility.

It is proposed to distinguish intermodal transportation, under which the question of responsibility for the docking will be regulated by the government, from multimodal (direct mixed transportation), in which the carriers are not responsible for it.

The legal acts should reflect the provision that in case of intervention of circumstances beyond the control of carriers, the person responsible for the elimination of the effects of those circumstances as soon as possible and for fulfilling the obligations on carriage is determined by agreement between the carriers. As mentioned above, at the discretion of carriers liability may be carried by one carrier, it can be distributed between them in any ratio, or an additional agreement may

be entered with a third party organization responsible for organizing the whole transportation.

The table shows the identification characteristics of multimodal and intermodal passenger transport.

Table 1.

The identification characteristics of multimodal and intermodal passenger transport

Title of feature	Multimodal transportation	Intermodal transportation
The presence of a single transportation document	+	+
Schedule		
Coordination for the carriage of passengers to a point of destination	–	+
Coherence in whole	+	+
Payment for carriage		
Prepayment	–	+
Payment or debit of funds in a vehicle	+	–
The one-time write-off of funds for transportation as a whole in all modes	–	+
Sphere of application		
Urban and suburban transportation	+	–
Transportation over long distances	–	+
System of mutual settlements		
The presence of passengers' responsibility to the carrier in case of refusal to follow on any of the following transportation segments	–	+
Liability of the carrier		
The presence of responsibility for transportation on a particular route segment	+	+
At the moment of docking (for docking)	–	+
Sales channels		
Internet – the main sales channel	–	+
Representations of carriers (agencies, offices, etc.)	+	+
Fare rules		
The presence of passengers' obligation to inform the carrier in case of refusal to follow on any segment	–	+

End of the Table 1/

The presence of single published fares	–	+
The technology of route construction		
Passenger self-construction of route (route selection, search of stops, the calculation of transit time)	+	–
The presence of an opportunity to build the required route in a special program (all routes are docked)	–	+

Analysis of the table leads to the conclusion that it is appropriate to use the term “intermodal transport” for the organization of passenger transportation on long distances by air, rail, automobile and water transport modes. Multimodal transport is appropriate to urban and suburban transportation of passengers, for example, as part of the transport system of Moscow agglomeration.

In connection with the above it is offered to formulate the concept as follows:

Intermodal passenger transportation is a transportation of passengers, baggage and hand luggage from origin to destination by more than one mode of transport under a single transport document, in which the responsibility for the entire transportation process, including docking in interchange nodes, lies on a specific carrier / s or on a third-party operator.

Multimodal passenger transport is a transportation of passengers, baggage and hand luggage from origin to destination by more than one mode of transport under a single transport document, in which the carriers are liable only for particular segment/-s of route, operated by them.

2.2. Organization of multimodal / intermodal passenger transportation in Moscow

Transportation system in Moscow includes the following types of transport: ground urban public passenger transport, the Moscow Metro (hereinafter – the “Metro”), The Moscow Central Circle (MCC), a commuter railway transport, taxi, private transport, cycling infrastructure, car sharing [6] and others.

The goals, objectives and actions for the development of the transport system of Moscow are contained in the “State programme of the City of Moscow” Development of Transport System “for the period 2012–2016 and up to 2020” [5].

Among the basic conceptual directions of development of the Moscow transport hub can be distinguished:

- Providing the benefits of public transport in the implementation of passenger transportation;
- Enhancing the role of railways in the implementation of the suburban and urban transportations;
- Improving of the quality of services provided by the transport system, based on effective interaction between urban systems, suburban and inter-regional transport;
- Introduction of a new ticket menu and development of tariff policy, and others.

These directions and the idea of introduction of multimodal technology in passenger transport are interdependent.

The Program provides for the implementation of a number of activities that are aimed to reduce the average overall travel time during peak hours by increasing the carrying capacity of public transport by 40%. Organization of multimodal passenger transportation will be an additional factor affecting the attractiveness of the Moscow transport system, and will help to reduce the share of private cars.

In the list of results of the State Programme realization there are envisaged the introduction of intermodal tickets (tickets, valid on various types of public transport) – as they are named in the programme – and the reduction of the time passengers spend on a change between types of transport in major transport interchange nodes from 15 to 8–10 minutes.

Currently, ticket agglomeration system is represented by cards “Troika”, “Strelka” and the combined card “Troika” and “Strelka” [7]. “Troika” enables passengers to pay for travelling by metro, by the MCC, by Moscow ground passenger transport, by suburban trains, in

Aeroexpress [8] etc. “Strelka” [9] is valid in Moscow Oblast and the combined card – in Moscow and in Moscow Oblast [10], [11].

Thus, a single transport document as one of the components of multimodal passenger transportation has already been implemented.

Organization of multimodal passenger transportation will facilitate to build an effective system of transport services, to combine different modes of transport in order to use the advantages of each type and to optimize time and financial costs, as well as to implement other tasks. For example, the implementation of measures aimed at improving the work of the suburban railway transport provides an opportunity to reduce the load on metro and on ground urban passenger transport.

Construction of a single TPU system (system of transport interchange hubs) and of new modern bus stations in Moscow and in the Moscow Region, improvement of the work of TPU (reducing time to transfer, ease of use by passengers and so on) increases the comfort and attractiveness of the transport system services [12], [13]. Involvement of cycling in Moscow transport system, as well as its inclusion in the chain of multimodal passenger transportation, contributes to the increase of mobility, increases transport accessibility between districts of the city, reduces the time costs and the negative impact on the environment. To activate the cycling in the system of multimodal passenger transportation it is necessary to ensure the availability of parking points in the immediate vicinity of the stopping points of other modes of transport, especially the metro station and the MCC.

At present, the transport infrastructure of Moscow is being developed, improved, reorganized, updated rapidly. Implementation of multimodal technology will make it more effective [14], [15].

Conclusion

As a result of the analysis of the legal framework governing intermodal transportations involving road, rail and air transport and multi-

modal urban and suburban transportations, it was revealed that in the Russian and the international legislation the terms “intermodal” and “multimodal” in relation to passenger services are not fixed. The absence of the formulated concepts in the Russian legislative acts leads the participants of the transportation process to semantic contradiction, which does not allow to develop a unified technology of intermodal / multimodal passenger transportations.

The studies lead to the conclusion that it is appropriate to consider the term “multimodal” equivalent to the term “direct mixed transportation,” and it’s logically correct to divide multimodal and intermodal transportations on the point of responsibility for the docking in the interchange nodes.

When attaching the term “intermodal passenger transportation” and “multimodal passenger transportation,” there is a need to amend the existing legislation, due to the fact that the conditions of transportations change. For example, in the case of intermodal transportation the terms of the ticket sales, ways of implementation conditions of carriage of certain categories of passengers are to change. It is proposed to draw up the necessary amendments as a separate section in the Bill and to make reference to this document in the existing legislation (The Civil Code, the transport charters and codes, etc.). There can be formulated common rules for operations with a single transport document in this document. It should be electronic. Requirements for baggage, carry-on baggage must be formed on the basis of the most stringent of existing, for transportation not to be interrupted due to the violation of certain rules on some mode of transport.

For the development of a single transportation document there will be required the harmonization and unification of requirements to the ticket and to the details indicated in it. Development and implementation of a single transportation document is associated with a number of other problems. These include:

- lack of technical equipment in the ticket sales points and lack of skills in the majority of staff to work with different electronic systems used on different types of transport;
- no single information space;
- issues related to the formation of tariffs.

The organization of intermodal transportation is an innovative technology, which requires the development of a legal instrument, the implementation of the relevant researches, development or improvement of software products, significant financial and labor costs, but at the same time allowing to take maximum advantage of each mode of transport, improve transportation efficiency, speed, comfort, increase the level of security on individual modes of transport and to reduce the cost of transportation.

References

1. Romanova A.S. “The concept of multimodal carriages of goods: a comparative legal aspect” / A.S. Romanova // History of State and Law. 2007. №22, pp. 36–38.
2. Kasatkina A.S. The legal framework for the regulation of international passenger transportations / A.S. Kasatkina // The Legislation and economy. 2014. № 2, pp. 69–79.
3. The Federal Law of the Russian Federation № 14-FZ of January 26, 1996 (ed. of 23.05.2016), “The Civil Code of the Russian Federation (Part Two)” [Electronic resource]. – URL: <http://www.consultant.ru/cons/cgi/online.cgi?req=doc&base=LAW&n=198256&-fld=134&dst=101360,0&rnd=0.8065951551255598#0> (reference date: 21/12/2016).
4. The draft of the Federal Law “On direct multimodal (combined) transport” (prepared by the Ministry of Transport of Russia) (not included in the State Duma, the text as of 03.30.2015) [Electronic resource]. – URL: <http://base.consultant.ru/cons/cgi/online.cgi?req=doc;base=PR-J;n=132371> (reference date: 21/12/2016).

5. Resolution of the Government of Moscow on September 2, 2011 № PP-408 “On Approval of the State Program of the City of Moscow” Development of Transport System “for 2012-2016 and until 2020” (as amended on August 9, 2016) [Electronic resource]. – URL: <http://docs.cntd.ru/document/537907060> (reference date: 21/12/2016).
6. How is Moscow car sharing to arranged? – URL: <http://moslenta.ru/article/2016/02/12/carsharing> (reference date: 21/12/2016).
7. The “Troika” and “Strelka” are now available in a single card [Electronic resource]. – URL: http://troika.mos.ru/passazhiram/news/trojka/trojka_i_strelka_teper_dostupny_v_odnoj_karte/ (reference date: 21/12/2016).
8. About the company “Aeroexpress” – URL: <https://aeroexpress.ru/ru/about.html> (reference date: 21/12/2016).
9. What is a single transportation card “Strelka”? [Electronic resource]. – URL: <http://strelkacard.ru/faq/> (reference date: 21/12/2016).
10. How is the transport system of Moscow and Moscow region is organized? [Electronic resource]. – URL: <http://urban.plandex.ru/transportnaya-sistema-moskvy-i-moskovskoj-oblasti> (reference date: 21/12/2016).
11. Mikhailov A.Iu., Kopylova T.A. CRITERIA SYSTEM IN QUALITY EVALUATION OF INTERMODAL CONNECTIONS OF PUBLIC TRANSPORT / Mikhailov A.Iu., Kopylova T.A. // Proceedings of the universities. INVESTMENTS. BUILDING. THE PROPERTY. Irkutsk State Technical University. 2014. № 6 (11), pp. 73–80.
12. Moscow Intelligent Transportation System. [Electronic resource]. – URL: <http://www.gucodd.ru/index.php/2012-04-11-08-47-20> (reference date: 21/12/2016).
13. Kholoptseva O.A. “Citizens’ new model of transport behavior under the “intellectual” Moscow megalopolis ground public transport system” / O.A. Kholoptseva // ECONOMICS AND BUSINESS. 2014. №7 (48), pp. 423–428.
14. The development of the Moscow transport hub. Improvement of sub-urban-urban passenger transportation and the development of trans-

- port and logistics centers in the region. [Electronic resource]. – URL: <http://www.gudok.ru/events/detail.php?ID=1243953> (reference date: 21/12/2016).
15. MOSCOW transport system – vector of development. [Electronic resource]. – URL: http://dt.mos.ru/Doc/lekciya_reu.pdf (reference date: 21/12/2016).

DATA ABOUT THE AUTHORS

Bludyan Norayr Oganovich, Doctor of Technical Sciences, Senior Research Scientist, Professor, Head of the Department of «Road transport»

State Technical University – MADI

64, Leningradsky prospekt, Moscow, 125319, Russian Federation

np-tama@mail.ru

Paramonova Liudmila Andreevna, Student of Magistracy of Engineering Sciences

State Technical University – MADI

64, Leningradsky prospekt, Moscow, 125319, Russian Federation

paramonova_10A@mail.ru