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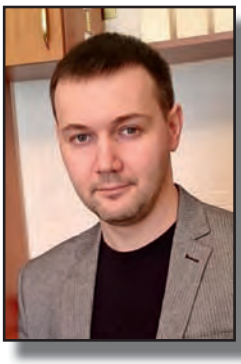
The Stakeholders of Transport Infrastructure as an Element of the Transport Security System



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ABSTRACT

Using the methods of systematic and comparative analysis, the article systematized the tasks, main stages and participants in the transport security process, analyzed the role of the transport infrastructure stakeholders in this process, and formulated the functional structure of the activity of the transport infrastructure stakeholder in the form of an appropriate scheme in the framework of ensuring transport security. The main component of the transport security management system is determined. The results of the study, in addition to development of the existing methodological apparatus in the field of transport security, can be used in the following areas: in organizing the process of managing transport security of transport infrastructure facilities and vehicles of various types of transport, in the educational process of higher and secondary educational institutions, as well as educational process of specialized training centers for training of specialists in the field of transport security. The results of the study may also be of interest to officials responsible for ensuring transport security, especially in such companies as JSC Russian Railways, PJSC Aeroflot and State Unitary Enterprise Moscow Metro, which are the largest stakeholders of transport infrastructure in the Russian Federation.

Keywords: *transport security, transport infrastructure entity, act of unlawful interference.*

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In 21st century, transport remains one of the main goals of modern terrorism both in Russia and in the world [1–12]. In acts of unlawful interference* (AUI) in transportation activite, the number of victims, dead and injured is in the tens, and in some cases hundreds [7; 13].

So, on March 11, 2004, in Madrid (Spain), in four commuter trains arriving at Atocha station in the morning rush hours, a number of AUI using explosive devices were committed almost simultaneously (Pic. 1), as a result of which 192 people were killed and 1856 people were injured [7; 13].

The largest terrorist attack in the history of mankind, in New York (USA, 2001) as a result of which two skyscrapers were completely destroyed [14; 15], is also an example of the possible consequences of AUI in transport activity (Pic. 1). In this incident, as a result of non-compliance with safety rules, airliners were seized, becoming the instrument for committing AUI (Pic. 2).

In the Russian Federation, a set of measures to ensure transport security** is currently being implemented to protect transport facilities from AUI.

Ensuring transport security (ETS) is «implementation of a state-determined system of legal, economic, organizational and other measures in the field of the transport complex, corresponding to the threats of acts of unlawful interference» [16].

«The objectives of ensuring transport security are stable and safe functioning of the transport complex, protecting the interests of individuals, society and the state in the field of the transport complex from acts of unlawful interference» [16].

Transport security at the present stage is a very complicated socio-political and scientific-technical task, the essence and content of which remain theoretically unexplored.

Currently, the process of ensuring transport security includes a significant number of operations of a legal, material and informational nature, performed by both government bodies

Pic. 1. Consequences of AUI on the railway in Madrid (2004, Spain) [13].

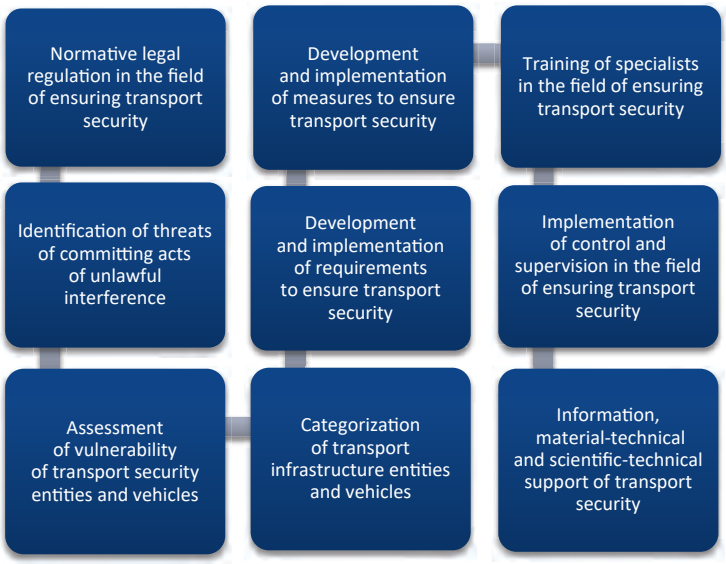
a)

b)

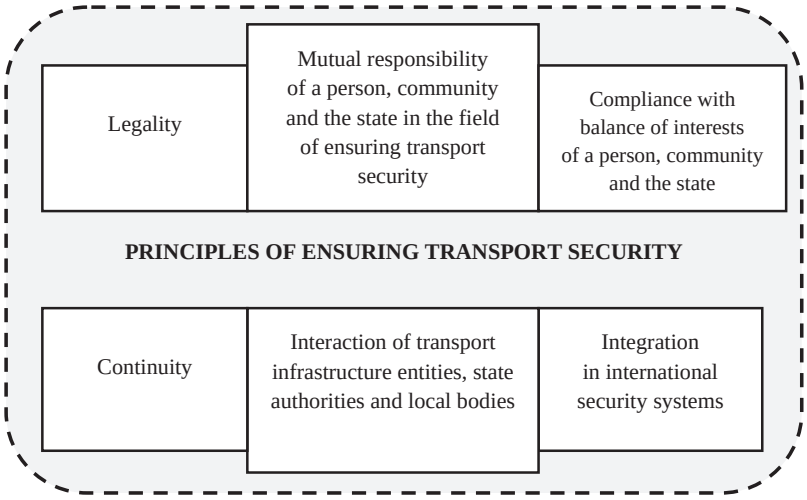
Pic. 2. Terrorist attack in New York (USA, 2001): a) approach of a captured airliner [14]; b) ram of the second skyscraper by a captured airliner [15].

* Act of unlawful interference (AUI) – «unlawful act (inaction), including a terroristic act, posing threat to safe activity of the transport complex, causing harm to life and health of people, material damage or posing threat to occurrence of these consequences» [16].

** Transport security (TS) – «state of protectability of transport infrastructure entities (TIE) and vehicles from acts of unlawful interference» [16].



Pic. 3. Tasks of ensuring transport security in the Russian Federation.



Pic. 4. Principles of ensuring transport security in the Russian Federation.

and transport infrastructure entities. At the same time, the number of legal acts regulating the field of ensuring transport security is constantly growing, including federal laws, decrees of the President, government orders, orders of the Ministry of Transport and other federal departments.

The *objectives* of this study are to analyze and systematize the existing situation in the field of ensuring transport security that has developed in the Russian Federation as a result of adoption and enactment of the Federal Law of 09.02.2007 No. 16-FZ «On Transport Security», including identification of the main components of the transport security management system.

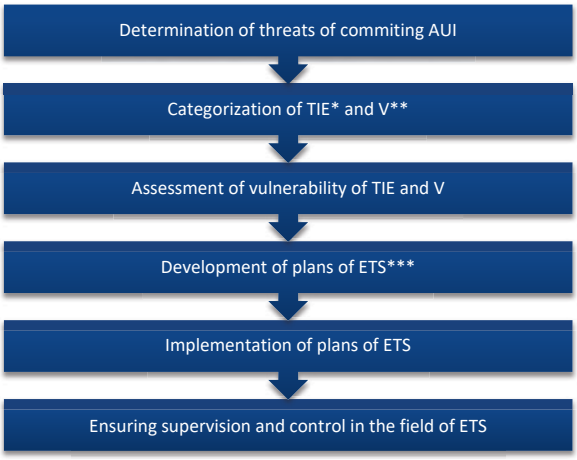
The main tasks of ensuring transport security defined by Federal Law No. 16-FZ «On Transport Security» are systematized by the author in Pic. 3.

The basic principles of ensuring transport safety in accordance with [16] are shown in Pic. 4.

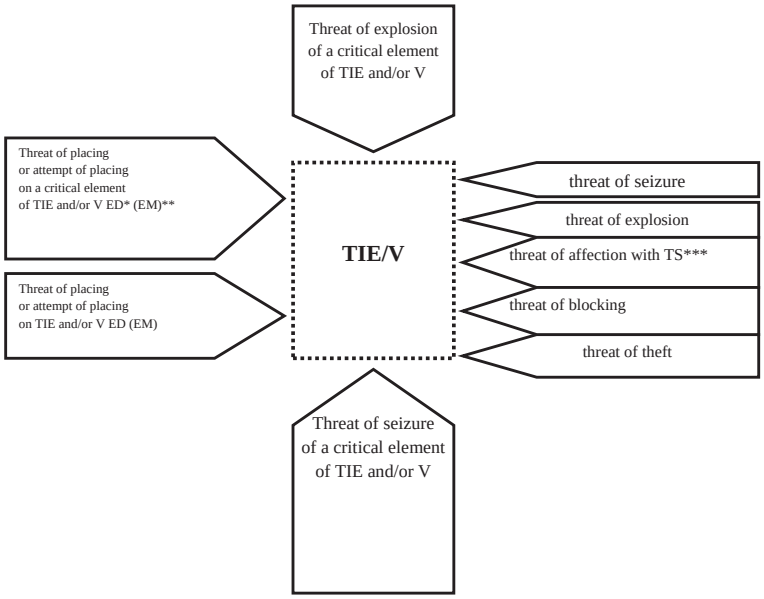
The process of ensuring transport security in accordance with Federal Law No. 16-FZ consists of six main stages (Pic. 5).

Let us consider in more detail the main stages of ensuring transport security:

Identification of threats to commit AUI. By a joint Order (Ministry of Transport of the Russian Federation, Federal Security Service of the Russian Federation, Ministry of Internal Affairs of the Russian Federation) dated March



Pic. 5. The process of ensuring transport security. *TIE – transport infrastructure entities, ** V – vehicles, *** ETS – ensuring transport security.



Pic. 6. Potential threats of committing AUI with the activity of TIE and V. *ED – explosive device, **EM – explosive materials, ***TS – toxic substances.

5, 2010 No. 52/112/134 [17], nine potential threats of acts of unlawful interference with the activities of TIE and V were identified (Pic. 6).

Categorization of objects of transport infrastructure and vehicles. The number of categories and categorization criteria for TIE and V are established in the manner determined by the Ministry of Transport of the Russian Federation, in agreement with the Federal Security Service of the Russian Federation, the Ministry of Internal Affairs of the Russian Federation, and the Ministry of Economic Development of the Russian Federation [16].

The categorization of transport infrastructure entities and vehicles is carried out by the competent authorities* in the field of ensuring transport security (by mode of transport):

- TIE and V of air transport: Rosaviation;
- TIE and V of railway transport: Roszheldor;

* Federal executive authorities, authorized by the Russian Government to carry out functions to render state services in the field of ensuring transport security.

• TIE and V of road transport: Rosavtodor;

• TIE and V of sea and river transport: Rosmorrechflot [the abridged names of Federal Agencies in the field of, respectively, civil aviation, railway, road, sea and river transport].

The vulnerability assessment (VA) of TIE and V is carried out by specialized organizations in the field of ETS, organizations and units of the FSS of the Russian Federation and the Ministry of Internal Affairs of the Russian Federation, taking into account the requirements for ensuring transport security on the basis of a public agreement at the rates established by the Federal Tariff Service of the Russian Federation [16].

The customer in the contract for VA is the owner of TIE or V, i.e. stakeholder of transport infrastructure (STI)*.

The results of the vulnerability assessment of TIE and V are approved by the competent authorities (by mode of transport).

Development and implementation of ETS plans. Based on the results of the vulnerability assessment of ETS and V, the stakeholder of transport infrastructure develops a plan of ensuring transport security (PETS) of TIE or V. ETS plan includes a system of measures to ensure TS. The procedure for development of PETS is established by the Ministry of Transport of the Russian Federation, in agreement with the Federal Security Service and the Ministry of Internal Affairs of the Russian Federation [16].

Plans to ensure transport security of TIE and V are approved by the competent authorities.

In accordance with Federal Law No. 16-FZ dated February 2, 2007 «On Transport Security», transport security of transport infrastructure entities and vehicles is entrusted to the stakeholders of transport infrastructure, unless otherwise provided by the legislation of the Russian Federation**, including the obligation to implement PETS of TIE and V.

In the development and implementation of plans to ensure transport security, STI must:

• develop and coordinate with the authorized state bodies a set of organizational and administrative documents, including: documents governing access control, the procedure for transferring information about the threats of AUI to TIE and V to the security forces, etc;

• equip TIE and V with technical means of ensuring transport safety, including: introscopes, metal detector frames, barriers, access control systems, etc.;

• appoint persons responsible for ensuring transport security in STI, as well as at TIE and V, conduct training and certification of employees whose job responsibilities include the functions related to providing TS, and also implement a wide range of other measures aimed at ETS of TIE and V belonging to STI.

When implementing PETS, STI has the right to engage external organizations on a contractual basis, certified by the competent authority as transport security forces to ensure transport security at his facilities.

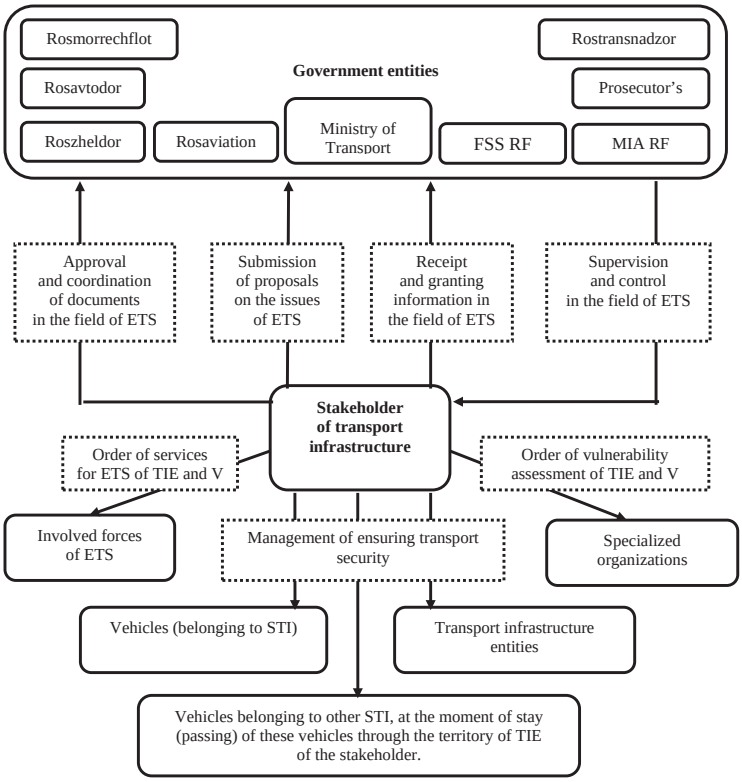
Ensuring supervision and control in the field of ensuring transport security. Stakeholders of transport infrastructure and carriers are responsible for failure to comply with transport security requirements in accordance with the legislation of the Russian Federation. In accordance with the Order No. 313 of the Ministry of Transport of Russia dated December 13, 2011, supervision and control in the field of ensuring transport security is entrusted to the Federal Service for Supervision in the Field of Transport (Rostransnadzor).

System analysis of the existing situation in the field of ETS that has developed as a result of adoption and enactment of the Federal Law «On Transport Security» allows us to conclude that the main role in planning and implementing measures aimed at ensuring transport security of TIE and V of the transport complex of the Russian Federation, is allocated currently to stakeholders of transport infrastructure. It should be noted that in accordance with [16] STI is involved in management of ensuring transport security not only of its own vehicles, but also vehicles owned by other stakeholders of transport infrastructure, at the time of stay (passing) of these vehicles through the territory of TIE of the stakeholder.

Comparative analysis of the legislative requirements in the field of ETS in different countries of the world shows that formation of ETS process takes place everywhere in its own

* Stakeholder of transport infrastructure is a legal entity or an individual, owing transport infrastructure and vehicles or using them on other legal basis.

** Transport infrastructure entities and vehicles, ensuring transport security of which is carried out exclusively by the federal executive authorities, are defined by the federal laws, normative legal acts of the Government of the Russian Federation.



Pic. 7. Functional structure of STI activity within ETS.

way, however, there is a general tendency to assign a certain part of the functions to ensure transport security to the stakeholders of transport infrastructure [1–7; 16]. For example, in the United Kingdom and France, performance of ETS functions is distributed between state and non-state actors. So, in the London Underground, three structures are involved in ensuring transport security: the British Transport Police, the London Department of Transportation and operating companies [8]. In the USA, after the September 11 attacks in New York, the Transportation Security Administration (TSA) was created under the Department of Homeland Security, a government agency that provides transport security for most of the US transportation facilities, including those belonging to private companies [12].

It is possible *to systematize* the functional structure of the activity of STI within the framework of ETS with the following interconnected blocks (Pic. 7).

The relationships between the stakeholder of transport infrastructure, competent authorities, regulatory authorities, involved safety department, carriers, etc., as elements of the security system have their own specifics. On the one hand, ETS management within the country is carried out by state bodies, at the same time the stakeholder of transport infrastructure is directly responsible for ensuring transport security of TIE and V. This feature determines the need to highlight the concept of *ETS management at the level of STI* as the main component of ETS management system. ETS management at STI level «includes a lot of links that perform various functions, but are united by a common integrative goal» [18]: ensuring the state of protectability of transport infrastructure objects and vehicles from AUI.

In the Russian Federation, the three largest stakeholders of transport infrastructure for such estimated factors as the number of TIE and V, as well as the amount of financial costs for ensuring transport security, currently include: JSC Russian Railways, PJSC Aeroflot and State Unitary Enterprise Moscow Metro [19].

Conclusions. The study allows us to conclude that at present, the stakeholder of transport infrastructure has a special role in ensuring transport security, STI combines all the elements of the transport security system, providing the process of managing ETS of the transport infrastructure entities and vehicles.

The STI functions in case of ETS are inherent to the features characteristic of any other production activity. However, in comparison with other types of activities, ensuring transport security has a number of specific features generated by the nature of the process of ensuring transport security. According to the author, ETS management at the STI level is the main component of the transport security management system in the Russian Federation.

The results of the study can be used in the following areas: in organizing the process of managing transport security of transport infrastructure entities and vehicles of various modes of transport, in the educational process of higher and secondary educational institutions, as well as in the educational process of specialized training centers for training specialists in the field of ensuring transport security.

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