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FEATURES OF ANTI-TERRORIST PROTECTION ELEMENTS OF THE URBAN ENVIRONMENT

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***Abstract.** The article defines the concept of terrorism, outlines the directions that contribute to the implementation of a terrorist act. It is highlighted that the anti-terrorist security of Ukraine is being formed as a state system of combating terrorism. The content of protection and countermeasures against terrorism is determined in the conditions of the formation of a tendency to increase the levels of public danger. The need for urban planning and architectural and planning measures to counter terrorist acts in the urban environment is noted. The general theoretical principles of the formation of protection against terrorist attacks in the urban environment by urban planning and architectural and planning means are considered. Changes in the content, forms and methods of modern terrorism are identified: new styles of terrorism around the world – attacks on important educational, commercial or government buildings with large crowds of people, threats to disrupt everyday urban life, the growth of the number of terrorist groups and actions of individual terrorists, committing terrorist attacks in cities, the spread of terrorism in urban open spaces. Recommendations for physical protection of elements of the urban environment are considered.*

The concept of terrorism is specified, the concept of a terrorist act is defined and its most frequent implementation in the form of conflicts and criminal acts in the urban environment, the directions that contribute to the implementation of a terrorist act are outlined. The need for urban planning and architectural planning measures to ensure protection from TA, physical and psychological comfort in the urban environment is indicated. Probable connections between terrorist acts in the urban environment, physical protection of elements of the urban environment, and the psychological state of users of the urban environment have been revealed. Features of anti-terrorist protection of elements of the urban environment are considered.

***The aim.** The purpose of the article is to determine the features of anti-terrorist protection of elements of the urban environment as information support for*

state authorities and special services, use for urban planning and planning measures improving and optimizing the system of physical protection of elements of the urban environment.

Materials and methods. In the course of the study, studies of Ukrainian and foreign scientists and specialists in safety issues were used.

Key words: architecture, urban planning, urban environment, terrorism, terrorist act, anti-terrorist activity, risk assessment, security, physical protection of elements of the urban environment, formation of protection against terrorist attacks in the urban environment by urban planning and architectural and planning means.

INTRODUCTION

Here is still no single, universal definition of terrorism and whether it is perceived as a righteous struggle for a higher cause or as an illegal, horrific act, in the opinion of all, associated with "the use of force and violence against persons or property in order to intimidate or coerce the government, civil population or any part thereof" [1].

Terrorism is a means used to achieve political, social or religious goals [2]. Empirical evidence shows that terrorism is one of the greatest evils of today, it leads to terrible man-made, ecological, social disasters, human and psychological losses [3]. The lethality of terrorist attacks has increased. Statistics over the past 20 years show that although the number of attacks has decreased over the years, they have become more lethal [4; 5].

Domestic legislation [5–9] defines the terrorist threat as one of the main threats to the national security of Ukraine. A number of factors make it possible to ascertain the existence of the probability of an increase in the terrorist threat on the territory of Ukraine, especially in the conditions of deployed military operations. Such factors determine the strategic geographical location of Ukraine in Europe; difficult political situation; activation of separatist movements; high level of corruption; constant increase in the number of people living below the poverty line; violation of the constitutional rights and freedoms of a person and a citizen; expansion of the illegal arms market, etc. [8].

ACTUALITY OF THEME

Building national stability is one of the priority goals of national security of Ukraine at the current stage. It is this direction that determines the need for more effective and actual measures at the city level to increase the resilience of society against terrorist acts. In accordance with the Constitution of Ukraine [5], the laws of Ukraine "On the National Security of Ukraine" [6], "On the fight against terrorism" [7], the Decree of the President of Ukraine "On

the Concept of Combating Terrorism" [8], the Resolution of the Cabinet of Ministers of Ukraine "Regulations on the Unified State System of Prevention, Response and Termination of Terrorist Acts and Minimization of Their Consequences" [9], other legal regulations acts in Ukraine, there is an effective system of providing anti-terrorist and anti-sabotage protection of important state objects, places of mass stay of people, objects of critical and transport infrastructure.

Taking into account the complex security situation of Ukraine and the peculiarities of the development of the state and society, the approach to combating terrorist acts and protecting the urban environment is oriented towards the elimination of violence, crime, adaptation to the needs of citizens, taking into account the connections between terrorist threats and environmental factors of vulnerability. Emergency situations that arise as a result of a terrorist act in the urban environment and develop according to a pessimistic scenario acquire local and local scales in the urban planning system.

THE AIM

The purpose of the article is to determine the features of anti-terrorist protection of elements of the urban environment as information support for state authorities and special services, use for urban planning and planning measures to improve and optimize the system of physical protection of elements of the urban environment.

MATERIALS AND METHODS

In the course of the study, studies of Ukrainian and foreign scientists and specialists in safety issues were used.

ANALYSIS OF PREVIOUS STUDIES

A significant number of publications by foreign and domestic scientists are devoted to the organizational and legal foundations of anti-terrorist activity, criminological aspects of terrorism, etc. The global scale of terrorism in

the world is the object of study in the works of domestic scientists N. Avdeeva [11] (importance of urban environment design for anti-terrorist activities), V. Antipenko [12] (legal principles of combating terrorism), S. Belaya [13] (the theory of countering terrorism), T. Biletska [14], O. Ishchenko [15] (conflict challenges of modern society), K. Zharinova [16], R. Kizyana [17] (history of terrorist threats), V. Lipkan [18], T. Milova [19] (national security, rights and freedoms in Ukrainian society), I. Ryzhov [20], A. Tupikova [21] (aspects of modern counter-terrorism strategies) and relate to the formation of the concept and nature of terrorism, the actions of terrorists in the urban environment:

- careful study of information to make a decision regarding the direction of terrorist action;
- the use of social conflict processes or actions, taking into account situational conditions, the possibility of their exacerbation or strengthening to achieve the goals of committing terrorist acts;
- use of specific urban planning conditions and situations.

RESULTS AND DISCUSSION

The result of the analysis of these studies within the framework of the specified goal is the determination of the content of security, protection and counter-terrorism. Anti-terrorist activities include the prevention, detection, suppression, disclosure, investigation and minimization of the consequences of terrorist activities. Three directions have been identified that contribute to the implementation of a terrorist act: a motivated criminal or terrorist; a target or victim that is located or is in an urban environment; lack of witnesses or, on the contrary, a crowd of people [22].

Accordingly, the main tasks of anti-terrorist activity in urban conditions are: ensuring reliable physical protection of elements of the urban environment; identification of urban planning conditions that contribute to the implementation of terrorist activities; readiness for localization and liquidation of emergency situations due to a terrorist act. Urbanization is closely related to economic and social development. At the same time, cities all over the world suffer from the onslaught of violence and corruption, problems with crime, lack of security in the urban environment. In this sense, they have the greatest individual vulnerability elements of the urban environment – buildings, squares, open and closed spaces, transport infrastructure structures, etc.

Probable objects of terrorism consist of:

- objects of everyday activity (the attack on them is intended to provoke anxiety and fear);

- objects large in volume and number of people (probability of incidents with mass casualties, destruction, infrastructure damage).

Understanding the connections “terrorist threat – physical environment – users of the urban environment” makes it possible to carry out rational risk assessments, develop measures to combat terrorism for the physical protection of elements of the urban environment, and preserve the psychological balance of citizens.

Counterterrorism involves operations at various levels that focus on the built environment as it relates to the threat of terror. Ensuring the security of potential targets and preventing threats correspond to one of the biggest tasks in the field of architecture: to provide users of the urban environment with physically and psychologically comfortable elements of it [23].

The anti-terrorist protection of elements of the urban environment by architectural and planning methods means a set of measures and planning techniques to prevent the possibility of committing terrorist acts, eliminate the causes and conditions that contribute to their commission, as well as their preparedness to reduce the consequences of an emergency situation.

Fulfilling the task of the architect’s profession to protect people and property from various offenses requires the development of an introspective definition of a specific need for security. Many sources refer to the content of the analysis, according to which the security needs of the urban environment are determined through risk assessment (the consequences of hostile actions for the building and its inhabitants, other elements):

- threat analysis, which determines the object’s threat level by assessing the intentions, motivation and possible tactics of a potential terrorist act;

- analysis of the urban development situation, which identifies and sets the priority of the element of the urban environment subject to protection, according to its nature, value, location, mode of operation, accessibility, etc.;

- vulnerability analysis, which determines weak points of the object in its construction, operation and location [25].

Analysis of risk assessment can be carried out through the use of computer programs, for example, CAPIndex with integrated relevant applications for calculating the probability of statistics of specific categories of crimes depending on the location and use of the architectural object [25].

CONCLUSIONS FROM THIS STUDY

Thus, the requirements for anti-terrorist protection of elements of the urban environment should determine the degree of their potential danger and as a place of formation of a crisis situation caused by a terrorist act. Therefore, qualitative methods of analyzing the vulnerability of elements of the urban environment and identifying their critical components with the determination of the category of elements of the urban environment based on indicators characterizing the social, economic and urban planning consequences of emergency situations

BIBLIOGRAPHY

- [1] FBI, 28 Code of Federal Regulations (Section 0.85). *Terrorism in the United States*, Department of Justice. Washington, DC : Counterterrorism Threat Assessment and Warning Unit. 1999.
- [2] Kozlow C. & Sullivan S. *Jane's facility security handbook*. Jane's Information Group: US, 2000.
3. Slovic P., Fischhoff B. & Lichtenstein S. *Facts and fears: Understanding perceived risk* (Chapter 8). *The perceptions of risk* / ed. P. Slovic. London : EarthScan Publications. 2000.
- [4] Pillar P.R. *Terrorism and US Foreign Policy*. Washington, DC : Brookings Institution Press. 2001.
- [5] Конституція України: станом на 14.11.2019 р. URL: <http://zakon2.rada.gov.ua/laws/show/254к/96-вр> (дата звернення: 14.11.2019).
- [6] Про національну безпеку України : Закон України від 21.06.2018 № 2469-VIII: станом на 12.11.2019 р.
- [7] Про боротьбу з тероризмом : Закон України від 20.03.2003 р. № 638- IV: станом на 14.11.2019 р. URL: <http://zakon4.rada.gov.ua/laws/show/63815> (дата звернення: 14.11.2019).
- [8] Концепція боротьби з тероризмом в Україні : Указ Президента України від 05.03.2019 року № 53/2019. URL: <https://www.president.gov.ua/documents/532019-26178> (дата звернення: 14.11.2019).
- [9] Положення про єдину державну систему запобігання, реагування і припинення терористичних актів та мінімізації їх наслідків : Постанова Кабінету Міністрів України від 18.02.2016 р. № 92. URL: <http://zakon3.rada.gov.ua/laws/show/92-2016-п> (дата звернення: 14.11.2019).
- [10] Newman O. *Defensible space: Crime prevention through urban design*. New York : The Macmillan Company. 1972.
- [11] Авдеева Н.Ю. Особливості захисту архітектурного середовища міста Києва від терористичних загроз у концептуальному проектуванні студентів-архітекторів ННІАП НАУ. *Архітектура та екологія* : матеріали VIII Міжнародної науково-практичної конференції (м. Київ, 31 жовтня – 01 листопада 2016 року). Київ : НАУ, 2016. С. 10–13.
- [13] Белай С.В. Державні механізми протидії кризовим явищам соціально-економічного характеру:

caused by a terrorist act are needed here. In addition, the requirements for anti-terrorist protection of elements of the urban environment should be aimed at determining the required level of protection through the use of methods for assessing the effectiveness of the physical protection system.

The content and conditions for fulfilling the requirements are the basis for categorizing elements of the urban environment according to the level of potential danger and assessing the adequacy of the level of physical protection against threats of a terrorist nature.

REFERENCES

- [1] FBI (1999). 28 Code of Federal Regulations (Section 0.85). *Terrorism in the United States*, Department of Justice, Counterterrorism Threat Assessment and Warning Unit. Washington DC [in English].
- [2] Kozlow, C. & Sullivan, S. (2000). *Jane's facility security handbook*. Jane's Information Group: US [in English].
- [3] Slovic, P., Fischhoff, B. & Lichtenstein, S. (2000). *Facts and fears: Understanding perceived risk* (Chapter 8). *The perceptions of risk* / ed. P. Slovic, London: EarthScan Publications [in English].
- [4] Pillar, P.R. (2001). *Terrorism and US Foreign Policy*. Washington, DC: Brookings Institution Press [in English].
- [5] Konstytutsiia Ukrainy: stanom na 14.11.2019 p. [*Constitution of Ukraine: as of November 14, 2019*]. Retrieved from: <http://zakon2.rada.gov.ua/laws/show/254к/96-вр>. (Last accessed: 14.11.2019) [in Ukrainian].
- [6] Pro natsionalnu bezpeku Ukrainy: Zakon Ukrainy vid 21.06.2018 № 2469-VIII: stanom na 12.11.2019 p. [*For the national security of Ukraine: Law of Ukraine from 21.06.2018 № 2469-VIII: as of 12.11.2019*]. Retrieved from: <http://zakon4.rada.gov.ua> (Last accessed: 14.11.2019) [in Ukrainian].
- [7] Pro borotbu z teroryzmozom: Zakon Ukrainy vid 20.03.2003 r. № 638-IV: stanom na 14.11.2019 r. [*On the fight against terrorism: Law of Ukraine dated March 20, 2003 No. 638-IV: as of November 14, 2019*]. Retrieved from: <http://zakon4.rada.gov.ua/laws/show/63815> (Last accessed: 14.11.2019) [in Ukrainian].
- [8] Kontseptsiia borotby z teroryzmozom v Ukraini: Ukaz Prezydenta Ukrainy vid 05.03.2019 roku № 53/2019 [*The concept of combating terrorism in Ukraine: Decree of the President of Ukraine dated March 5, 2019 No. 53/2019*]. Retrieved from: <https://www.president.gov.ua/documents/532019-26178> (Last accessed: 14.11.2019) [in Ukrainian].
- [9] Polozhennia pro yedynu derzhavnu systemu zapobihannia, reahuvannia i pryypynennia terorystychnykh aktiv ta minimizatsii yikh naslidkiv: Postanova Kabinetu Ministriv Ukrainy vid 18.02.2016 r. № 92 [*Regulations on a unified state system for preventing, responding and stopping terrorist acts and minimizing their consequences: Resolution of the Cabinet of Ministers of Ukraine dated February 18, 2016 No. 92*]. Retrieved from: <http://zakon3.rada.gov.ua/laws/show/92-2016-п>. (Last accessed: 14.11.2019) [in Ukrainian].
- [10] Newman, O. (1972). *Defensible space: Crime prevention through urban design*. New York: The Macmillan Company [in English].

теорія, методологія, практика : монографія. Харків : Національна акад. НГУ, 2015. 349 с.

[14] Білецька Т.В. Соціально-політичний конфлікт в українському суспільстві періоду трансформації: фактори виникнення і особливості прояву : автореф. дис. на здобуття наук. ступеня канд. соціол. наук : 22.00.04. Київ, 2011. 16 с.

[15] Іщенко О.М. Соціальний конфлікт в цивілізаційному процесі: формування, розгортання та розв'язання : дис. на здобуття наук. ступеня канд. філософ. наук : 09.00.03. Київ, 2003. 183 с.

[17] Кізян Р.В. Дослідження історії виникнення терористичних загроз. Службово-бойова діяльність Національної гвардії України: сучасний стан, проблеми та перспективи. *Збірник тез доповідей науково-практичної конференції*, м. Харків, 14 берез. 2019 р. Харків : НА НГУ, 2019. С. 90–92.

[18] Ліпкан В.А. Теоретичні основи та елементи національної безпеки України. Київ. 2003. 600 с.

[19] Мілова Т.М. Окремі особисті права і свободи громадян України та їхня відповідність європейським стандартам. *Часопис Київського університету права*. 2005. № 3. С. 80–84.

[20] Рижов І.М. Проблемні аспекти сучасних стратегій протидії тероризму. Академія Безпеки Відкритого Суспільства. URL: <http://www.aoss.org.ua/cgi-bin/index.pl?page=amat&id=575>.

[21] Тупіков А., Белай С., Кізян Р. Досвід Франції у створенні системи антитерористичної безпеки населення: уроки для України. *Честь і закон*. 2018. № 4 (67). С. 4–9.

[22] Slovic P., Fischhoff B. & Lichtenstein S. Facts and fears: Understanding perceived risk (Chapter 8). *The perceptions of risk* / ed. P. Slovic, London : EarthScan Publications. 2000.

[23] Holahan C.J. *Environmental Psychology*. Random House. New York, 1982.

[24] AIA, *Building Security through Design*. Washington, DC.: AIA. 2001.

[11] Avdieieva, N.Iu. (2016). Osoblyvosti zakhystu arkhitekturnoho seredovyschha mista Kyieva vid terorystychnykh zahroz u kontseptualnomu proektuvanni studentiv-arkhitektoziv NNIAP NAU [*Features of the protection of the architectural environment of the city of Kyiv from terrorist threats in the conceptual design of students-architects of the NNIAP of the NAU*]. Arkhitektura ta ekolohiia: materialy VIII Mizhnarodnoi naukovo-praktychnoi konferentsii (m. Kyiv, 31 zhovtnia – 01 lystopada 2016 roku). Kyiv: NAU. S. 10–13 [in Ukrainian].

[13] Bielai, S.V. (2015). Derzhavni mekhanizmy protydiv kryzovym yavyshcham sotsialno-ekonomichnoho kharakteru: teoriia, metodolohiia, praktyka: monohrafiia [*State mechanisms for countering socio-economic crisis phenomena: theory, methodology, practice: monograph*]. Kharkiv: Natsionalna akad. NHU. 349 s. [in Ukrainian].

[14] Biletska, T.V. (2011). Sotsialno-politychnyi konflikt v ukrainskomu suspilstvi periodu transformatsii: faktory vynyknennia i osoblyvosti proiavu [*Socio-political conflict in the Ukrainian society of the period of transformation: factors of occurrence and peculiarities of manifestation*]: avtoref. dys. na zdobuttia nauk. stupenia kand. sotsiol. nauk: 22.00.04. Kyiv, 16 s. [in Ukrainian].

[15] Ishchenko, O.M. (2003). Sotsialnyi konflikt v tsyvilizatsiinomu protsesi: formuvannia, rozghortannia ta rozv'iazannia [*Social conflict in the civilizational process: formation, deployment and resolution*]: dys. na zdobuttia nauk. stupenia kand. filosof. nauk: 09.00.03. Kyiv, 183 s. [in Ukrainian].

[17] Kizian, R.V. (2019). Doslidzhennia istorii vynyknennia terorystychnykh zahroz. Sluzhbovo-boiova diialnist Natsionalnoi hvardii Ukrainy: suchasnyi stan, problemy ta perspektyvy [*Study of the history of the emergence of terrorist threats. Service and combat activity of the National Guard of Ukraine: current state, problems and prospects*]. Zb. tez dop. nauk.-prakt. konf., m. Kharkiv, 14 berez. Kharkiv: NA NHU. S. 90–92 [in Ukrainian].

[18] Lipkan, V.A. (2003). Teoretychni osnovy ta elementy natsionalnoi bezpeky Ukrainy [*Theoretical foundations and elements of national security of Ukraine*]. Kyiv: Tekst, 600 s. [in Ukrainian].

[19] Milova, T.M. (2005). Okremi osobysti prava i svobody hromadian Ukrainy ta yikhnia vidpovidnist yevropeiskym standartam [*Separate personal rights and freedoms of citizens of Ukraine and their compliance with European standards*]. *Journal of the Kyiv University of Law. Chasopys Kyivskoho universytetu prava*. № 3. S. 80–84 [in Ukrainian].

[20] Ryzhov, I.M. Problemnii aspekty suchasnykh stratehii protydiv teroryzmu. Akademiia Bezpeky Vidkrytoho Suspilstva [*Problematic aspects of modern counter-terrorism strategies. Open Society Security Academy*]. Retrieved from: <http://www.aoss.org.ua/cgi-bin/index.pl?page=amat&id=575> [in Ukrainian].

[21] Tupikov, A., Bielai, S., Kizian, R. (2018). Dosvid Frantsii u stvorenni systemy antyterorystychnoi bezpeky naseleння: uroky dlia Ukrainy [*France's experience in creating a system of anti-terrorist security of the population: lessons for Ukraine*]. *Chest i zakon*. № 4 (67). S. 4–9 [in Ukrainian].

[22] Slovic, P., Fischhoff, B. & Lichtenstein, S. (2000). Facts and fears: Understanding perceived risk (Chapter 8). *The perceptions of risk* / ed. P. Slovic. London: EarthScan Publications. 2000 [in English].

[23] Holahan, C.J. (1982). *Environmental Psychology*. New York: Random House [in English].

[24] AIA (2001). *Building Security through Design*, Washington, DC: AIA. [in English].

АНОТАЦІЯ

Чемакіна О., Авдеєва Н., Бутик М. Особливості елементів антитерористичного захисту міського середовища.

У статті визначено поняття тероризму, окреслено напрями, що сприяють здійсненню терористичного акту. Наголошується, що антитерористична безпека України формується як державна система боротьби з тероризмом. Визначено зміст захисту та протидії тероризму в умовах формування тенденції підвищення рівнів суспільної небезпеки. Відзначається необхідність проведення містобудівних та архітектурно-планувальних заходів щодо протидії терористичним актам у міському середовищі. Розглянуто загальнотеоретичні засади формування захисту від терористичних атак міського середовища містобудівними та архітектурно-планувальними засобами. Визначено зміни у змісті, формах і методах сучасного тероризму: нові стилі тероризму в усьому світі – напади на важливі навчальні, комерційні чи державні будівлі з великим скупченням людей, загрози порушити повсякденне міське життя, зростання кількості терористичних груп та дії окремих терористів, вчинення терористичних актів у містах, поширення тероризму на міських просторах. Розглянуто рекомендації щодо фізичного захисту елементів міського середовища.

Конкретизовано поняття тероризму, визначено поняття терористичного акту та його найбільш часту реалізацію у вигляді конфліктів і злочинних дій у міському середовищі, окреслено напрями, що сприяють здійсненню терористичного акту. Вказано на необхідність проведення містобудівних та архітектурно-планувальних заходів щодо забезпечення захисту від ТП, фізичного та психологічного комфорту в міському середовищі. Виявлено ймовірні зв'язки між терористичними актами в міському середовищі, фізичним захистом елементів міського середовища та психологічним станом користувачів міського середовища. Розглянуто особливості антитерористичного захисту елементів міського середовища.

Мета. Метою статті є визначення особливостей антитерористичного захисту елементів міського середовища як інформаційного забезпечення органів державної влади та спеціальних служб, використання для містобудівних та планувальних заходів вдосконалення та оптимізацію системи фізичного захисту елементів міського середовища.

Матеріали та методи. У ході дослідження були використані дослідження українських та зарубіжних учених і спеціалістів з питань безпеки.

Ключові слова: архітектура, міське планування, міське середовище, тероризм, терористичний акт, антитерористична діяльність, оцінка ризику, безпека, фізичний захист елементів міського середовища, формування захисту від терористичних атак у міському середовищі містобудівними та архітектурно-планувальними засобами.

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