



CONSIDERATIONS ON THE NATO AND EU APPROACH TO CRITICAL INFRASTRUCTURE PROTECTION

Prof. Dr. Habil. Mircea VLADU

*“Nicolae Bălcescu” Land Forces Academy, Sibiu
10.55535/RMT.2023.3.10*

The North Atlantic Treaty Organization (NATO) and the European Union (EU) agree that the strategy of conflict management has undergone fundamental changes in that the neutralisation of critical infrastructure has become an element that facilitates success much more easily than the neutralisation of an adversary’s forces, as it triggers chain reactions leading to the destabilisation of society.

According to NATO and EU experts, an infrastructure can only be considered critical when it becomes essential and of particular importance to the functionality of a system and when some or all of its components become vulnerable to certain threats.

From this perspective, NATO’s concerns for the protection of critical infrastructure are set out specifically in Directives 114/2008 and 2557/2022, and those of the EU have been extended in particular after the terrorist attacks of 11 March 2004 in Madrid.

With this in mind, the following are some considerations regarding the need to prevent the neutralisation or destruction of critical infrastructure, presented from NATO and EU perspectives.

Keywords: NATO; European Union; infrastructure; critical infrastructure;



INTRODUCTION

Romania’s accession to NATO and the EU took place in the context of the emergence of a security gap following the abolition of the Warsaw Treaty, to which the Socialist Republic of Romania was part of, and the need for harmonious economic development within the European economic community, following the abolition of the Community of Mutual Economic Assistance, to which it was also part of.

Ensuring national security and the protection of critical infrastructure, especially in the context of the exacerbation of critical actions, cannot be achieved by Romania by its own forces alone, but only within NATO and the EU. From this perspective, NATO and the EU have addressed and continue to address the issue of national security and critical infrastructure very carefully, especially in the wake of the increased terrorism, both at state, regional and global level.

From this perspective, NATO and the EU have each developed a concept of critical infrastructure protection, which will be discussed below.

NATO’S CONCEPT OF CRITICAL INFRASTRUCTURE PROTECTION

From NATO’s perspective, interest in critical infrastructure has increased particularly after the terrorist events of 11 September 2011 and as a result of increased local, regional and global terrorist threats and actions.

NATO’s approach to critical infrastructure issues is primarily addressed through the *Civil Emergency Planning Committee*, which was established in 1950 with the creation and development of the Civil Emergency Planning Program.

This committee is NATO’s main advisory body on civil protection issues and the use of civil resources to achieve Alliance objectives.

Ensuring national security and the protection of critical infrastructure, especially in the context of the exacerbation of critical actions, cannot be achieved by Romania by its own forces alone, but only within NATO and the EU. From this perspective, NATO and the EU have addressed and continue to address the issue of national security and critical infrastructure very carefully, especially in the wake of the increased terrorism, both at state, regional and global level.



NATO's need for civil emergency planning has been driven by the ever-changing world and the proliferation of terrorist threats to the populations of NATO member states, as well as threats from natural disasters.

The term *planning* refers to the collection and analysis of information on the occurrence of emergencies in Alliance states and the allocation of resources available for their management in order to limit and liquidate their consequences.

An analysis of the history of the emergence, development and management of emergencies has shown that they have not only occurred within the national borders of a single state, but have also extended their effects to the areas of several states, thus taking on an international character. Based on this, NATO became involved in emergency management, *"which became a force in civil protection and consequence management, with a focus on possible terrorist attacks with chemical, biological, radiological and nuclear agents"* (NATO, 2006, p. 1).

Critical infrastructure protection is a priority of NATO's civil emergency planning work, in which all partner countries participate.

Cooperation at international level facilitates the much-needed exchange of information to ensure the protection of critical infrastructure, including the identification of threats and vulnerabilities to critical infrastructure and the procedures to be applied to ensure timely and effective protection.

Educating authorities and the population about the importance of infrastructures of all kinds, both for their societies and for the international community (Ibid., p. 9), is an important issue to which NATO pays particular attention.

NATO is also involved in *"Civil Preparedness"* in the sense that it has established obligations for each state to take responsibility for the protection of both its population and its critical infrastructure against disasters caused by terrorist actions or natural factors. As a result, it can be stated that *"NATO acts as a forum that provides best practice in this regard"* (NATO, 2023), since any military operation is dependent on civilian support and relies on civilian resources and infrastructure, including transport routes and means, ports, airports and airfields, communication networks, medical systems, etc.

It should also be noted that in February 2016, NATO set out the following requirements for increasing national resilience from the perspective of Alliance member states (NATO, 2016): *"continuity of government and critical government services; energy sources; ability to deal effectively with uncontrolled movement of people; food and water resources; ability to deal with mass casualties; telecommunications and computer networks; transportation systems"*. From the above, it can be concluded that Civil Preparedness is a complex process carried out by the Civil Emergency Planning Committee, involving all NATO members and Alliance partners. This process involves educating civilians, in times of peace and stability, in the field of emergency and disaster management so that they can maintain their basic functions in times of crisis or conflict. In addition to the national capabilities of each Alliance member state to conduct counter-terrorism, identify terrorist threats and reduce vulnerabilities, and counter-terrorism when a terrorist attack occurs, NATO is constantly concerned with the ongoing development of appropriate response technologies and capabilities to protect armed forces and civilian populations, as well as critical infrastructure, against possible terrorist attacks. In order to achieve this goal, NATO member states are pooling their funding to be able to deal with the most urgent situations of threat or attack from terrorist structures.

The need to ensure the protection of critical infrastructure has led NATO to develop specific programs aimed at: the protection of ports and maritime assets, which are particularly important for the conduct of economic activities; the protection of networks, including the Internet, which are so important for human communication in all areas of society; the protection of energy infrastructure, on which the security and prosperity of states depend, etc. At the same time, NATO has developed education and information, supporting international courses on the protection of critical energy infrastructure in countries such as Kuwait and Ukraine, forums on the protection of critical infrastructure in various cities in Croatia, and has continuously developed programs to prepare member countries and partners of the Alliance to be able to respond in a timely and appropriate manner to hostile events and to protect their critical infrastructure with a higher degree of vulnerability.



Civil Preparedness is a complex process carried out by the Civil Emergency Planning Committee, involving all NATO members and Alliance partners. This process involves educating civilians, in times of peace and stability, in the field of emergency and disaster management so that they can maintain their basic functions in times of crisis or conflict.

Educating authorities and the population about the importance of infrastructures of all kinds, both for their societies and for the international community, is an important issue to which NATO pays particular attention.



THE EUROPEAN UNION'S CONCEPT OF CRITICAL INFRASTRUCTURE PROTECTION

The European Union has attached and continues to attach great importance to the protection of critical infrastructure, especially after the terrorist attacks in Madrid on 11 March 2004. In this context, the European Union has taken steps to regulate critical infrastructures, establishing various means of preventing terrorist attacks on them, has taken steps to inform and prepare the member states for better management of the critical infrastructure situation and has improved response strategies in the event of attacks and protection arrangements, thereby ensuring a high and effective level of security of critical infrastructures, communication networks and the Internet, thus guaranteeing the safety of the public in the member states.

With this in mind, the European Union has taken steps to set up teams, formations and organizations responsible for the protection of critical infrastructures.

The main body responsible for the implementation of critical infrastructure protection policies has been nominated as the governmental body of each state, through the structures at its disposal.

To this end, the Romanian Government has delegated the task of protecting each critical sector to one or more ministries, depending on the field of activity, as mentioned above, a delegation which is valid for all Member States of the European Union, but which may differ to a greater or lesser extent without infringing the provisions of the European Union.

The European Union Agency for Network and Information Security (ENISA) operates at European Union level as a centre of expertise for cyber security in Europe and has been directly involved since 2004 in raising the level of network and information security within the European Union.

The Agency collaborates with EU members and the private sector to provide advice and solutions, addressing topics such as: the development of national cyber security strategies; data protection, protection of privacy enhancing mechanisms for emerging technologies, trusted services and the identification of the cyber threats as a whole. "At the same time, the agency works in the areas of recommendations,

support in policy development and implementation, and direct collaboration with EU-level operational teams" (ENISA, 2023).

It should be noted that these entities play an important role in critical infrastructure protection, as they are specialised structures that are a form of response to requests for this activity. They exist in every country and what differs is their name.

From this perspective, the following entities can be mentioned: "CERT/CC (Computer Emergency Response Team/Coordination Centre); CSIRT (Computer Security Incident Response Team); IRT (Incident Response Team); CIRT (Computer Incident Response Team); SERT (Security Emergency Response Team). CERT started out as a response force but has expanded to become a security service provider, including preventive services such as alerting, security warnings, security management and training services" (CEPS, 2010).

Although no longer a full and binding member of the EU, the United Kingdom remains an important partner of the EU. As a result, we believe it is beneficial to recall the existence of the centre called WARPs (Warning, Advice and Reporting Point) in the UK as part of the NISCC (National Infrastructure Security Coordination Centre) outreach strategy on the protection of UK critical infrastructure from electronic attacks, which highlights that there is an entity that plays an important role in critical infrastructure protection in terms of dealing with warning and alerting, information sharing, reporting, but also raising awareness and educating the public. The Centre has proven its effectiveness in improving information security, stimulating better communication of alerts and warnings, improving education and awareness and encouraging incident reporting. The Centre is an example of best practice in a state's concern for the protection of its critical infrastructure, which can be implemented in EU member states as well.

The private sector in each EU member state or partner country has most of the critical infrastructure in the commercial sector, and good cooperation between the public and private sector in each country is needed to protect it properly.

Collaboration between the private system of infrastructure owners and operators and that of the technology and information sector,



Although no longer a full and binding member of the EU, the United Kingdom remains an important partner of the EU. As a result, we believe it is beneficial to recall the existence of the centre called WARPs (Warning, Advice and Reporting Point) in the UK as part of the NISCC (National Infrastructure Security Coordination Centre) outreach strategy on the protection of UK critical infrastructure from electronic attacks.



which has much more limited, local capabilities, is more complicated.

The private sector operates through associations/organisations such as ICASI (Industry Consortium for the Promotion of Internet Security).

In the Conficker Work Group, industry representatives unite under the same goal of preventing *Conficker* virus attacks on Windows operating systems

CONCLUSIONS

NATO and the European Union are concerned with the protection of critical infrastructure, and from this perspective they are increasingly concerned to understand and apply as rigorously and effectively as possible a concept of critical infrastructure protection, as changes in the security environment can irreparably affect the achievement of their objectives. This has contributed to an awareness of the particular importance of critical infrastructures for the development of a strong, stable and secure society and the need to address the causes that may lead to disruption of their operations or to limit the effects of such incidents.

In order to establish procedures and viable means to generate a high level of resilience of NATO and EU member states, these two major political and military organisations have established and required each member to meet national standards, on the basis of which each must participate in joint international support. Responses to these actions are in line with the available resources and capabilities of each country, as some are more developed and others lag behind and seek to engage the domestic political process towards sustainable critical infrastructure protection.

WEB RESOURCES:

1. CEPS TASK FORCE REPORT (2010). Center for European Political Studies. *Protecting Critical Infrastructure in the EU*. Brussels, https://iris.luiss.it/retrieve/handle/11385/36860/860/Critical_Infrastructure_Protection_Final_A4.pdf, retrieved on 11 March 2023.
2. ENISA (2023), <https://www.enisa.europa.eu/about-enisa>, retrieved on 11 March 2023.

3. NATO (2006). *NATO's Role in Civil Emergency Planning in Background*. Brussels, pp. 1, 9, https://www.igsu.ro/documente/SAEARI/NATO_CEP.pdf, retrieved on 11 March 2023.
4. NATO (2016). *Press conference by NATO Secretary General Jens Stoltenberg following the meeting of the North Atlantic Council at the level of Defence Ministers*, https://www.nato.int/cps/en/natohq/opinions_127972.htm?selectedLocale=en, retrieved on 11 March 2023.
5. NATO (2023). *Weapons of Mass Destruction*, https://www.nato.int/cps/en/natohq/topics_50325.htm?selectedLocale=en, retrieved on 11 March 2023.



In order to establish procedures and viable means to generate a high level of resilience of NATO and EU member states, these two major political and military organisations have established and required each member to meet national standards, on the basis of which each must participate in joint international support.