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MILITARY ENGINEERING STRUCTURES WITHIN NATO COMMANDS IN ACCORDANCE WITH THE NEW DOCTRINAL PROVISIONS

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According to the directives of the NATO Military Committee, ensuring the effective military engineering support required by the military engineering command and staff structures, as well as command-control (C2) arrangements at all levels. These C2 arrangements, the structural organization, and their general attributions are regulated in the new NATO Doctrine for Military Engineering, by which to recommend the implementation of the provisions in the organization of NATO commands, as well as of the commands within the NATO national armies. In the following lines, I intend to make a short presentation of the organization of military engineering structures within NATO commands, from different hierarchical levels, under the new doctrinal provisions, also, references to cooperation relations and some clarifications with on their general responsibilities. As the new NATO doctrinal provisions on the military engineering branch are being implemented in the Romanian Army, proposals are to be made to the decision-makers, to modify the military engineering command structures in the Romanian Army, to be similar to those within the NATO commands.

Keywords: NATO; ACO; ACT; SHAPE; JFC; LANDCOM; command-control; military engineering branch.

Military engineering activity is a function in support of operations and represents the totality of measures taken to model, configure the physical environment where operations are performed. As a function, it is led and coordinated by military engineering staff/command structures. Under the guidelines of the Military Committee, ensuring effective engineering support requires adequate leadership and military engineering staff structures and command-control arrangements (C2) at all levels[1]. These C2 arrangements, the organization of military engineering command structures, and their general responsibilities are regulated in the new NATO doctrine for military engineering (AJP-3.12 (C), *Allied Joint Doctrine for Military Engineering*, 2021), which recommends the implementation of provisions in the organization of NATO commands, as well as commands from NATO member national armies.

In the following lines, I intend to make a short presentation of the organization of military engineering structures within NATO commands, from different hierarchical levels[2], under the new doctrinal provisions, also short references to horizontal or vertical cooperation relations, and some clarifications regarding their general attributions, depending on the information they have at the moment. In general, the information about the organizational structures of some entities within the commands/staff has a high level of classification, so the information available to them is not always complete. However, by correlating and analyzing what is available, I believe that I have been able to make appropriate deductions about the organization and role of military engineering structures within NATO commands/headquarters.

As the new NATO doctrinal provisions on the line of military engineering are being implemented in the Romanian Army, the purpose of this approach is to make an analysis and a presentation for the most appropriate popularization of these provisions, and I will finally make proposals to the decision-makers, to modify the military engineering command structures in the Romanian Army so that they are similar to those within NATO commands.

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NATO's military command structure

The North Atlantic Treaty Organization (NATO) is an alliance of *30 states* in Europe and North America. NATO's essential goal is to ensure the freedom and security of all of its members through political and military means, in accordance with the provisions of the treaty and the provisions of the United Nations Charter.

The civilian and military structures created within NATO allow member countries to cooperate to fulfill these fundamental tasks. Through them, the interests in the political, economic field, but also in other non-military fields are harmonized. Joint defence plans are also drawn up to establish the forces, infrastructure, equipment, and all facilities necessary for the conduct of military operations[3].

The North Atlantic Treaty Organization (NATO) is an alliance of 30 states in Europe and North America. NATO's essential goal is to ensure the freedom and security of all of its members through political and military means, under the provisions of the treaty and the provisions of the United Nations Charter.

The civilian and military structures created within NATO allow member countries to cooperate to fulfill these fundamental tasks. Through them, the interests in the political, economic, and other non-military fields are harmonized. Joint defence plans are also drawn up to establish the forces, infrastructure, equipment, and all facilities necessary for military operations.

NATO's Military Command Structure is the backbone of the Organization. It is composed of permanent multinational commands organized at the strategic, operational, and tactical command levels, geographically distributed and financed according to the adopted procedures[4].

It provides an opportunity for all allies to participate in and contribute to the command and control of operations, missions, and activities in all military areas of the Alliance.

Following the Summits that have taken place in recent years, NATO's Military Command Structure has been reformed and a robust, agile, and efficient command system was created. These reforms have also improved the interoperability of the NATO command structure with the NATO Force Structure. The latter is a distinct group of allied national and multinational forces, as well as the commands made available to the Alliance permanently or temporarily.

NATO's Military Command Structure is under the authority of the Military Committee, NATO's highest military entity, composed of Chiefs of Defence from all thirty member countries, which in turn is under the authority of the North Atlantic Council (NAC).

At the strategic level, we identify the command structure for operations, respectively Allied Command Operations – ACO and the command structure for the transformation of the Alliance, respectively Allied Command Transformation – ACT.

The ACO is organized on three levels (strategic, operational, and tactical) and includes commands, as well as other support structures. The ACO, under the command of the Supreme Commander of the Allied Forces in Europe (SACEUR), is responsible for planning and executing all NATO military operations in accordance with the instructions of the North Atlantic Council[5].

ACT is at the forefront of NATO's military transformation. It is under the command of the Supreme Commander of the Allied Forces for Transformation (SACT), who exercises his responsibilities at headquarters in Norfolk, Virginia (USA). The main responsibilities of the ACT include education, training, exercises, and promoting interoperability[6].

In the following lines, we will refer only to the commands on the line of operations, where we identify the military engineering structures that are the subject of this analysis.

At the strategic level, there is the Supreme Headquarters Allied Powers Europe (SHAPE) near Mons, Belgium, where SACEUR exercises its responsibilities.

At the next command level, the operational level, there are three Joint Force Commands (JFCs), which are located in Brunssum (Netherlands), Naples (Italy), and Norfolk (USA). These commands are led by a commander of the joint forces, who is supported by the staff of these commands. They can be deployable or non-deployable.

At the tactical level, there are the HQ Allied Land Command in Izmir (Turkey), the HQ Allied Maritime Command in Northwood (England), and the HQ Allied Air Command in Ramstein (Germany).

To all this, we can add the Commands of the Allied Corps (Rapid Deployable, EUROCORPS, Multinational) and also the Commands of the Multinational Divisions, to which we will refer in the following lines.

Military engineering structures within NATO commands

As mentioned above, the Alliance is based on a combination of leadership structures through which command and control are provided for

the execution of military operations. To ensure adequate military engineering support, effective coordination at all these levels of command is required. The most efficient use of all military engineering resources is achieved, in accordance with the doctrinal provisions[7] by a *chief of military engineering* (*senior military engineering advisor*) existing at each command level, who has the technical and coordinating authority for all available military engineering resources and can organize multinational capabilities in accordance with the general priorities of the commander during an operation. To manage all issues on the line of military engineering, the chief of military engineering is supported by specialized staff and staffed in dedicated command structures.

Chief of military engineering: roles and responsibilities[8]

Chief of military engineering, advisor on the line of military engineering at all levels of command. MC 0560/2, *Military Committee for Military Engineering Policy* stipulates that commanders need a military engineer adviser to be supported by a staff to ensure effective use of resources and military engineering capabilities that are limited. The effectiveness of the chief of military engineering and specialized staff at each command level will depend directly on good coordination and close cooperation between the staff at all levels and between all components.

Strategic level. At this level, the chief of military engineering together with subordinate staff contributes as experts to the operational planning process. They confirm that adequate engineering capabilities will be generated promptly to meet short, medium, and long-term requirements. The military engineering specialists at this command level work closely with the International Staff, the International Military Staff, and the Senior National MILENG Representatives. It also collaborates with national planning personnel for engineering capabilities intended for the execution of military operations.

Operational level. At this level, the chief of military engineering is the chief adviser to the Joint Force Commander (JFC) for all issues of military engineering. It coordinates the judicious allocation of engineering resources to meet the objectives set. Its main tasks are to identify the requirements for engineering support, to advise the commander of the joint forces on the availability of engineering capabilities and resources, and to coordinate the engineering effort on the entire territory of the components (land, naval, air, etc.). The chief of military engineering, on behalf of the Joint Force Commander, will have the coordinating authority to ensure the most efficient use of capabilities and resources. These forces may include the ability to cross large obstacles (modular bridges, pontoon bridges over watercourses); countermobility capabilities; specialized Explosive Ordnance Disposal (EOD) capabilities; specialized construction capabilities, etc.

The chief of military engineering must ensure that directives at the strategic level are transmitted in the form of clear tasks to all military engineering forces. Also, commanders at all levels need to know very well what the priorities are, to ensure the efficient use of military engineering capabilities. They must be planned centrally by the chief of engineering of joint forces and subordinate personnel throughout the operational planning process. The plotted tasks will be executed decentralized at the lowest command level. This may include the military engineering capabilities of NATO forces, host nations, contractors, organizations, and international agencies with which we cooperate. The effort of military engineering support can be changed between components according to the main effort set by the Joint Force Commander.

Tactical level. The chief of military engineering at the tactical level is responsible for coordinating military engineering capabilities that perform specific tasks in the domains of mobility, countermobility, supporting the survivability and sustainability of forces, and general engineering support, tasks that affect the operating environment. At this level, in the absence of a chief of military engineering, this role can be temporarily assumed by a commander of a military engineering unit.

Organization of military engineering command structures[9]

Military engineering, well-configured and robust command structures are essential for all-level controls. They are organized in an *independent Service* which must include the following capabilities:

Military engineering operations planning[10] *(section/office/compartment)*

The military engineering staff contributes to the planning process and provides the necessary military engineering data or information for all potential operations in collective defence, as well as for crisis management. The military engineering structure must be able to advise, plan, execute and report the activities of all military engineers. Depending on the tactical situation and the type of operation, it may be necessary to augment the structure with additional specialized personnel. The involvement of military engineering staff in the command activities in planning activities is essential for all operations, in order to determine the necessary military engineering resources.

Conducting military engineering operations

The main task of the military engineering staff within the commands is to synchronize the military engineering efforts and to advise on the employment of the military engineering units in operations. It also has up-to-date information on their operational capacity, necessary for the planning and execution of current operations. Depending on needs, in compliance with NATO security policies, it can disseminate certain military engineering intelligence to key non-NATO actors, in order to achieve adequate military engineering support.

Intelligence

The engineering staff within the command structures permanently cooperates with the intelligence staff within the dedicated intelligence structures and permanently manages all the engineering intelligence. The military engineering intelligence held is disseminated according to needs during all phases of the operation. These data and information refers to elements of road, airport, port, railway infrastructure, works of art, data on watercourses, military engineering capabilities of the opponent, data on threats with explosive munitions. Engineers contribute with the necessary intelligence to achieve Common Operational Picture.

Infrastructure

The military engineering staff is up to date with all the data and information about the infrastructure in the area of responsibility. It contributes with estimates to the operational planning process and also makes proposals regarding its development, data necessary for the elaboration of the infrastructure development plans.

Logistics

The military engineering staff within the command is constantly up-to-date with the requirements for the military engineering resources required in the theater of operations. He knows the situation of 4th class military engineering materials, as well as national ones, as well as the allocation priorities.

Explosive Ordnance Disposal (EOD)

Within the military engineering structure, an *EOD Cell* is established, which has the role of coordinating and integrating the efforts of EOD specialists on the line of specialized support in the assigned area of operations. For a group of multinational joint forces, a *Multinational EOD Cell* is established, which manages the EOD elements within the component commands, the national ones within the joint force, those belonging to the host nations, as well as other organizations. Through this cell, the chief of military engineering has the technical authority and coordination of EOD support throughout the area of responsibility[11].

The relationship of military engineering command structures at different hierarchical levels[12]

At the strategic level, military engineering personnel mediate the coordination of engineering activities between the politico-military and operational levels, as well as with other non-NATO organizations. The chief of military engineering at strategic level issues guidelines on engineering capabilities in the NATO Defence Planning Process, policy and doctrinal developments related to the military engineering branch, infrastructure issues of interest, planning, and leadership, at the strategic level, of all aspects of military engineering during operations and exercises.

Strategic engineering planning will define the general requirements for military engineering support for NATO operations and ensure that sufficient engineering capabilities are available for the operational commander.

Military engineering advice on operational infrastructure requirements will assist financial controllers at the strategic level in determining the funding required. Requirements normally generated at the tactical level are validated and approved at the operational level and then transmitted at the strategic level. They are analyzed and subsequently submitted for approval.

The directives and guidelines transmitted from the strategic level to the commanders at the operational level, allow them to initiate and carry out the operational planning process. Based on the strategic military directives, operations, including engineering support, are planned and executed to achieve the set strategic objectives. At the tactical level, tasks/missions are planned and executed in accordance with the Operations Plan (OPLAN)/ Operation Order (OPORD) and subsequent orders (FRAGO) received[13].

The chief of military engineering at the operational level will advise the Joint Force Commander on the tasks on the line of military engineering and on their prioritization. It will also advise and direct the operational components on all areas of expertise in the field of military engineering and will allocate the related engineering resources.

The support of military engineering at the tactical level will create effects, and they must support the achievement of operational objectives, contributing to the achievement of the desired final state.

The military engineering structure within SHAPE

Following the decisions taken at the NATO Summits, the Military Command Structures underwent an extensive process of transformation. At the same time, the organizational and military engineering command structures underwent organizational changes. Initially, they had a simpler organization, but having to manage several important and complex areas, it was necessary for these military engineering command structures to be reorganized and diversified.

According to the 2014 SHAPE organization[14], the military engineering structure within this strategic command had the following organization:

The Joint Military Engineering Division, organized into two branches: the *Military Engineering Plans Branch* and the *Military Engineering Operations Branch*, was part *of the Resources Directorate* headed by a two-star general[15]. The Joint Military Engineering Division was headed by a *Deputy Chief of Staff for Military Engineering*, with the rank of Brigadier General, who also *served as the ACO Senior Joint Engineer*.

The Military Engineering Plans Branch was responsible for supporting the strategic planning process by providing military engineering data and coordinating all military engineering contributions to all ACO plans. In addition, he provided specialized expertise in NATO policy, doctrine, defence planning, force generation, training, procedures, and standardization. Coordinate infrastructure aspects of the NSIP (NATO Security Investment Program) in NATO countries, packages, and capability plans of NATO command. It also plans, develops, and implements policies, doctrines, procedures, and standards on infrastructure requirements for its management and capability development, as well as for environmental protection.

The Military Engineering Operations Branch was responsible for strategic military engineering support for the command and control of all operations/exercises and provided feedback on all identified/learned lessons, on a specialized basis. Also, it had to manage all aspects of military engineering necessary for the development of information training; manage and coordinate NSIP infrastructure aspects in operations; provide expertise in Explosive Ordnance Disposal (EOD), and military engineering support for force protection, Counter Improvised Explosive Devices (C-IED) and military search operations.

Regarding the structure of military engineering within SHAPE in 2021[16], following organizational changes that occurred to streamline activities and to meet the challenges of the current security environment, in organizing the NATO command, there is an *Infrastructure and Engineering Division/ Strategic Enablement Directorate/SHAPE*, which is led by a *chief of engineering*. This division includes several branches/services/offices, as follows: *Infrastructure and Environmental Branch*; *Plans Branch*; *Operations Branch*; *Intelligence*; *Logistics (MILENG Logistics)*; *Explosive Ordnance Disposal (EOD)*.

Military engineering structures within the Joint Force Command

The Joint Force Command operates at the operational level and is able to effectively execute

the command and control over the assigned forces in order to obtain operational effects in the assigned Joint Operating Area[17]. Relations with other NATO Command Structures and NATO Force Structure Component Command Headquarters may differ depending on the situation: peace, crisis or conflict.

The Joint Force Command is headed by a commander with the rank of four-star general (there is also a deputy commander – a three-star general), who is seconded by a chief of staff (two-star general). The deputy chiefs of staff are subordinated to the line of planning, operations, and support (one-star generals). Several categories of forces are represented in the command, the basic ones being the land, air, and naval forces.

Directorates are divided into *joint* type departments led by officers with the rank of colonel. In the Support Directorate is *Joint Military Engineering Division*. The Support Directorate is responsible for planning, directing, monitoring, evaluating, and coordinating the functions of the support staff.

The Joint Military Engineering Division within the Support Department is headed by the *chief of military engineering of the Joint Force* (JFENGR) and, for example, in 2014 it organized the following branches/services/offices: *Operations*; *Plans*; *Infrastructure*.

The *Joint Military Engineering Division* is responsible for providing advice on issues related to force engineering support and combat engineering support for NATO activities and operations.

The military engineering structure was led by the *chief of military engineering of the joint force*. It was responsible for advising and coordinating all aspects of engineering for NATO's activities and operations within the area of joint operations, in the theater, and for events outside these areas, in NATO partnership commitments.

The Joint Force Commander will be advised by the chief of military engineering, on the issues on the line of military engineering related to the execution of operational responsibilities/tasks. Priorities for providing engineering support will be determined during the operational planning process. The chief of military engineering also acts as the coordinating authority for military engineering capabilities for all components.

The chief of military engineering prepares general guidance in the field of military engineering support, provides the military engineering data necessary to develop the concept of operation, planning, and organizing the process of generating force, and in particular, for generating military engineering forces. He represents the technical and coordinating authority for the means/resources of military engineering within the grouping of forces, in order to ensure their efficient use, balancing the military engineering support effort between the components of the force and orienting the military engineering support effort according to the needs dictated by the operational situation.

According to the recommendations contained in AJP-3.12 (C), *Allied Joint Doctrine for Military Engineering*, 2021, the Engineering Division within the Joint Forces Commands has the following structures: *Infrastructure and Environmental Branch*; *Plans Branch*; *Operations Branch*; *Intelligence*; *Logistics*; *Explosive Ordnance Disposal (EOD)*.

The responsibilities of these branches/services/offices are similar to those at the strategic level, but they are adapted to the needs of the joint level.

The military engineering structure within LANDCOM

The Allied Land Command (LANDCOM) is responsible for coordinating and synchronizing NATO and partner land forces, in order to enable the preparation, interoperability, standardization, and management of land space[18].

This command is led by a commander with the rank of three-star general (there is also a deputy commander – two-star general), who is seconded by a chief of staff (two-star general). The deputy chiefs of staff are subordinated to the line of planning, operations, and support (one-star generals, heads of directorate).

The directorates are divided into divisions and are headed by officers with the rank of colonel. Within the Operations Directorate, there are the G.2-Intelligence, G.3-Operations, and G- Engineering (GENG) Divisions.

G-Engineering Division (GENG Division) within LANDCOM is headed by *Assistant Chief of Staff G Engineer* – ACOS GENG) and is composed of the following services/offices[19]: *Operations & Training Branch*; *Infrastructure & Plans Branch*; *Coordination/Environmental Protection Office*.

The Engineering Division has as current responsibilities the monitoring and evaluation of the necessary military engineering skills. It provides specialist advice and support for force protection, CIMIC, and other specialized areas as needed. Provides engineering advice on environmental issues and coordination of this field. It also provides feedback to NATO engineers on all identified/learned lessons, on a specialized line.

The Division Plans coordinates and synchronizes all actions related to military engineering support to contribute to the implementation of operations plans, which include military engineering support for the development and maintenance of infrastructure in the Joint Operations Area (JOA), as well as support for ensuring freedom of maneuver/ movement. Engineers are involved in activities carried out at a strategic and operational level in the event of the deployment of NATO forces. In addition, there are inherent tactical employment issues that need to be understood in order to fully appreciate the skills and abilities of engineers in response to employment.

Assistant Chief of Staff G Engineer (ACOS GENG) is the *chief of military engineering (Chief Engineer)* and *Senior Advisor* of the Commander in all matters of military engineering, of the G-Engineering Division (GENG Division). He is subordinate to the Deputy Chief of Staff Operations (DCOPS Ops) together with the *chief of intelligence* (G.2-Intelligence) and the *chief of operations* (G.3-Operations). *The G-Engineering Division* is responsible for all military engineering issues on the command line, including matters as necessary.

The military engineering structures within the Multinational Corps Commands

The Commands of NATO Multinational Corps have a high degree of operationalization and can deploy rapidly at the command of SACEUR, in an Area of Operations assigned to conduct joint or combined operations[20].

They may be deployed as command of the Multinational Corps, as a command for the land component, as a joint command for NATO Force Structures, to command a small-scale joint operation and as a command capable of supporting a NATO command structure, a Joint Forces Command, to lead a major joint operation or to increase forces for ongoing operations.

These commands are led by a commander with the rank of three-star general (there is also a deputy commander – two-star general), who is seconded by a chief of staff (two-star general). Subordinate to the Chief of Staff are his deputies on the line of planning, operations and support (generals with one-star heads of divisions) and other divisions with special destinations.

The divisions are split into services led by officers with the rank of colonel. Depending on the command, the *Engineering Service (G-ENG)* is located within the Combat Support Division (at NRDC-T) or within the Operations Division (at NRDC-GR)[21].

The *Engineering Service (G-ENG)* within a Multinational Corp is headed by a *chief of military engineering*, who is also *Assistant Chief of Staff Engineer* – ACOS ENG, and is composed of the following branches/departments/offices: *Operations*; *Plans*; *Infrastructure & Environmental Protection*; *Intelligence*; *EOD.*

The G-ENG has a smaller number of people in peacetime, but in the event of displacement or crisis, it will increase with additional staff.

The G-ENG has as current responsibilities the monitoring and evaluation of the necessary military engineering skills. He provides specialized advice and support for force protection, CIMIC and other specialized areas as needed and provides engineering advice on environmental issues and coordination of this field. It also provides feedback for all identified/learned lessons, on a specialized line.

The G-ENG plans, coordinates and synchronizes all actions related to engineering support to contribute to the implementation of operational plans, which include military engineering support for the development and maintenance of infrastructure in the Area of Responsibility (AOR), as well as engineering support for ensuring freedom of maneuver/movement.

Conclusions

According to the military engineering policies issued periodically by the Military Committee[22], commanders at all hierarchical levels (strategic, operational, and tactical) need a military engineering advisor, namely the *chief of military engineering* who, together with a specialized staff, must be able to manage efficient use of

military engineering resources. Experience shows that military engineering resources are usually limited, so they must be planned and used wisely. The effectiveness of military engineering staff at each level will depend on good coordination and close horizontal and vertical cooperation. The involvement of military engineering staff throughout the operational planning process is essential. Planners are responsible for involving engineers to support planned operations.

The chief of military engineering at the Strategic Allied Command is responsible for directly advising the commander and command team on all military engineering issues and also for guiding and coordinating the military engineering staff of the command.

At the operational level, the military engineering staff of the Joint Forces Commands must constantly collaborate with all other staff elements to plan, coordinate, integrate and synchronize the military engineering support during the operation. The staff of military engineering in the Joint Forces Command must also cooperate and coordinate closely with the authorities of the host nation, the contributing nations with troops, civilian organizations, and agencies.

In cooperation with the staff of military engineering at the operational level and the staff of military engineering at the tactical level, the chief of military engineering at the level of the joint forces exercises his coordinating authority over all the military engineering structures in the theater.

NOTES:

1 *** MC 0560/2 *Military Committee Policy for Military Engineering,* 2017, p. 3.

2 The military engineering at the strategic level or higher than the NATO Command Structure (NCS) is regulated by the Allied Command Operation Directive (AD) 084-001 Military Engineering.

3 https://nato.mae.ro/node/416, accessed on 03.11.2021.

4 *NATO Encyclopedia 2014-2019*, NATO Headquarters, Brussels, Belgium, *passim*.

5 *** AJP-3 (C), *Allied Joint Doctrine for the Conduct of Operations*, February 11, 2019, pp. 1-4 – 1-6.

6 *Ibidem*.

7 *** AJP-3.12 (C), *Allied Joint Doctrine for Military Engineering*, 2021.

8 *Ibidem*, pp. 2-1 – 2-2.

9 *Ibidem*, pp. 2-2 – 2-3.

10 *The operation of military engineering* shall mean all military engineering activities circumscribed to a specific objective of engineering support of a joint operation or the operation of a large unit of combat forces.

11 *** AJP-3.18, *Allied Joint Doctrine for Explosive Ordnance Disposal Support to Operations*.

12 *** AJP-3.12 (C), *Allied Joint Doctrine for Military Engineering*, 2021, pp. 2-3 – 2.4.

13 *** AJP-3, *Allied Doctrine Joint for Conduct of Operations*, 2019.

14 *** AJP-3.12 (B), *Allied Joint Doctrine for Military Engineering*, 2014, p. 2-2.

15 *Ibidem*.

16 *** AJP-3.12 (C), *Allied Joint Doctrine for Military Engineering*, 2021, p. 2-2 – 2.3.

17 https://jfcbs.nato.int; https://jfcnaples.nato.int; https://en.wikipedia.org/wiki/Allied_Joint_Force_Command_Naples, accessed on 03.11.2021.

18 *** *The LANDCOM Handbook*, Izmir, Turkey, 2019; https://lc.nato.int/, accessed on 03.11.2021.

19 *Ibidem*, pp. 97-100.

20 https://www.nato.int/cps/en/natohq/topics_50088.htm; http://www.hrf.tu.nato.int/vision-mission.html, accessed on 03.11.2021.

21 https://nrdc.army.gr/; http://www.hrf.tu.nato.int/index.html, accessed on 03.11.2021.

22 *** MC 0560 *MC Policy for Military Engineering,* 2008; MC 560/1 – *MC Policy for Military Engineering*, 2012; *** MC 560/2 *MC Policy for Military Engineering*, 2017.

REFERENCES

*** AJP-3, *Allied Doctrine Joint for Conduct of Operations*, 2019.

*** AJP-3 (C), *Allied Joint Doctrine for the Conduct of Operations*, 11 February, 2019.

*** AJP-3.12 (B), *Allied Joint Doctrine for Military Engineering*, 2014.

*** AJP-3.12 (C), *Allied Joint Doctrine for Military Engineering*, 2021.

*** AJP-3.18, *Allied Joint Doctrine for Explosive Ordnance Disposal Support to Operations*.

*** APP-6, *NATO Glossary of Terms and Definitions*, 2019.

*** ATP-3.12.1 *Allied Tactical Doctrine for Military Engineering,* 2016.

*** ATP-3.2.2, *Command and Control of Allied Land Forces*, Edition B Version 1, 2016.

*** *Brussels Declaration on Transatlantic Security and Solidarity*, NATO Public Diplomacy Division, Brussels, Belgium, 11 July 2018.

*** MC 0560 *MC Policy for Military Engineering,* 2008; MC 560/1 – *MC Policy for Military Engineering*, 2012.

*** MC 0560/2 *MC Policy for Military Engineering,* 6 September 2017.

*** *NATO Encyclopedia 2014-2019*, NATO Headquarters, Brussels, Belgium.

*** *NATO Summit Guide, Warsaw, 8-9 July 2016*, NATO Public Diplomacy Division, Brussels, Belgium, 2016.

*** *Strategic Concept for the defence and Security of Members of the North Atlantic Treaty Organization Adopted by Heads of State and Government at the NATO Summit in Lisbon 19-20 November 2010*, NATO Public Diplomacy Division, Brussels, Belgium, 2010.

*** *The LANDCOM Handbook*, Izmir, Turkey, 2019.

*** *The Secretary General's Annual Report 2011-2019*, NATO Public Diplomacy Division, Brussels, Belgium.

https://www.nato.int

http://www.mae.ro/sites/default/files/file/pdf/TRATATUL%2520NORD-ATLANTIC.pdf

https://www.mae.ro/node/5337

https://shape.nato.int

https://www.act.nato.int/

https://jfcbs.nato.int

https://jfcnaples.nato.int

https://lc.nato.int/

https://www.nato.int/cps/en/natohq/structure.htm

https://shape.nato.int/military_command_structure

https://nrdc.army.gr/

http://www.hrf.tu.nato.int/index.html

https://en.wikipedia.org/wiki/Allied_Joint_Force_Command_Naples.

https://en.wikipedia.org/wiki/Allied_Joint_Force_Command_Brunssum

https://www.nato.int/cps/en/natohq/topics_50088.htm

http://www.hrf.tu.nato.int/vision-mission.html

https://lc.nato.int/