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THE FUNDAMENTAL ELEMENTS OF THE FORCE PROTECTION SYSTEM ACCORDING TO THE NATO STANDARDS

ABSTRACT:

The level of the threat of large-scale invasion of the Russian armed forces in Ukraine is staying high yet. This requires commanders and headquarters to intensify their work to protect troops in order to minimize their vulnerability to the negative effects of the forces and means of the aggressor. The experience of conducting the operation of the Joint Forces in selected areas of Luhansk and Donetsk regions during the 2014-2015 makes it possible to assert that the existing Force Protection (FP) system in the Armed Forces and the National Guard of Ukraine at that time was not on a perfect level. From that exact time the process of active reforming of indicated military formations has begun, including the field of FP. It is known, that the strategic goal of Ukraine is the membership in the NATO. To obtain membership in the mentioned Organization, it is necessary to create the appropriate conditions. One of these conditions is the transition of the Armed Forces and the National Guard of Ukraine to the standards of the North Atlantic Alliance, including FP standards. Taking into consideration the strategic goal of Ukraine, it is necessary to implement reforms of these military units in the direction of FP, according to the standards of the North Atlantic Treaty Organization. FP in NATO is understood as a complex of measures and means to minimize the vulnerability of personnel, facilities, equipment, materiel, operations, and activities from threats and hazards in order to preserve freedom of action and operational effectiveness that facilitates successful mission accomplishments. To the Fundamental Elements of NATO FP include: Tactical Area of Responsibility Control; Air Defence; Chemical, Biological, Radiological, and Nuclear Defence; Resilience; Military Engineering Support to FP; Consequence Management; Medical FP and Force Health Protection; Security. A research on study the NATO standards in the field of FP, their comprehensive analysis and adaptation to the realities in which the military formations of Ukraine are currently operating, will allow to improve the existing FP system and implement it in the activities of the Armed Forces and the National Guard of Ukraine.

INTRODUCTION.

It is known, because of another act of armed aggression of the Russian Federation, that took place in November 2018 in the Kerch Strait area against ships of the Naval Forces of the Armed Forces of Ukraine, the threat of a large-

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scale invasion of aggressor's armed forces into Ukraine has increased [1]. In these conditions, FP ensuring is acquiring the special relevance.

Problem formulation. The number of losses of personnel, equipment, etc., suffered by the Armed Forces and the National Guard of Ukraine during participation in the operation of the Joint Forces in selected areas of Luhansk and Donetsk regions in 2014-2015 testifies the imperfection of existing at that time the FP system.

However, since that time the active reforming of indicated military formations began, and it is still ongoing. Undoubtedly, in order to achieve the goals of the reforms that are started its implementation, it is necessary to research the experience of the leading countries of the world, including the approach to FP.

In addition, the strategic purpose for Ukraine is membership in the NATO. The peculiarities of the current stage of Ukraine integration into NATO are to create the necessary conditions for such membership. One of these conditions is the transition of the Armed Forces and the National Guard of Ukraine to NATO standards, including in the area of FP [2].

The in-depth research and comprehensive analysis of NATO standards in the field of FP, their adaptation to the realities in which the military formations of Ukraine are currently operating, will improve the existing FP system and implement it in the activities of the Armed Forces and the National Guard of Ukraine.

The mentioned above determines the relevance of the chosen research direction.

Analyze of recent researches and publications. In the sources [3]-[6], the contemporary views of domestic scientists and military experts on the FP in conducting of operations are given.

Thus, the Manual [3] defines the bases of organizing of the Combat, Marching, and Guarding Security, Military Engineering Support to activities, Chemical, Biological, Radiological, and Nuclear Defence, Medical Protection, etc.

In the source [4] the general issues concerning with the engineering, technical and physical protection of military facilities were disclosed.

In the source [5], the authors outlined the organization of the Medical Protection of the Armed Forces of Ukraine, taking into account the modern achievements of military and medical sciences.

In [6], only the FP fundamental elements according to NATO standards are presented.

At the same time, the issue of studying the NATO approach to FP and its fundamental elements remains out of sight.

The purpose of the article is to conduct the research of NATO FP fundamental elements.

RESULTS OF THE RESEARCH.

NATO defines the FP as follows: “measures and means to minimize the vulnerability of personnel, facilities, equipment, materiel, operations, and activities from threats and hazards in order to preserve freedom of action and operational effectiveness thereby contributing to mission success” [7].

FP comprises a number of distinct but inter-related fundamental elements, as illustrated in figure 1, which can achieve the desired objective [7].

Consider each of Fundamental Elements separately.

Tactical Area of Responsibility Control. The threat of an attack against a deployed location necessitates the establishment of an area of operations around and inside a base, facility or deployable camp known as the tactical area of responsibility (TAOR). This is to prevent both direct and indirect attacks being targeted at mission essential equipment, infrastructure (to include facilities), or personnel. If a TAOR is established, the establishing authority should place the TAOR under the control of a single commander. The area around any operating location dictates what FP measures, tasks, and activities need to be applied in order to counter prevalent threats and hazards and seek to achieve a secure operating environment. Most deployed NATO locations are not sited to take account of tactical considerations. This will affect the size of any TAOR, which will need to be large enough to take account of threats and likely avenues of attack against assets using any location from which to mount operations, as well as the defence of the base itself.

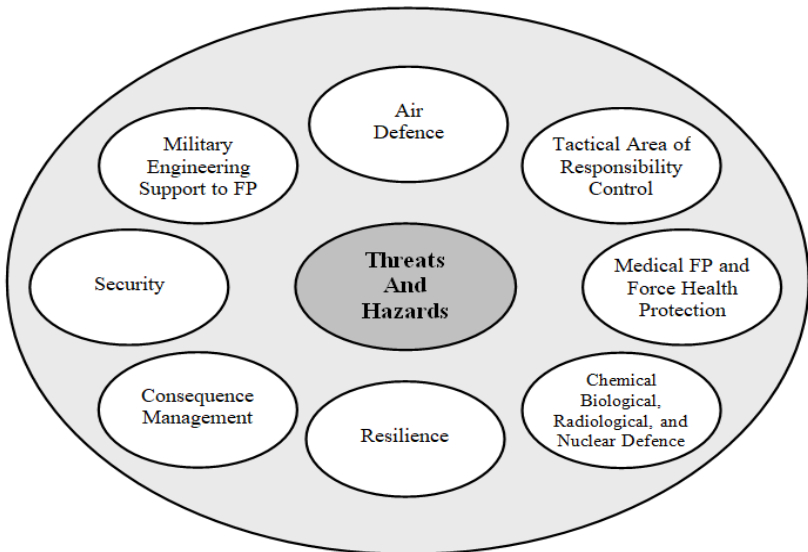


Fig. 1. FP Fundamental Elements

TAOR control includes all actions to gain control over the situation in the TAOR such that friendly forces have freedom of operation and adversaries do not. TAOR actions are illustrated in figure 2 [7; 8].

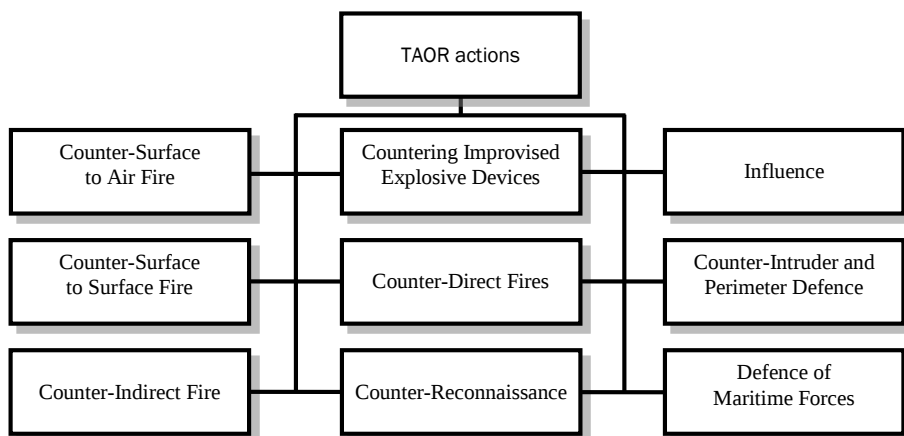


Fig. 2. TAOR actions

Air Defence. Air defence operations are normally the responsibility of an Air Defence Commander who integrates and coordinates the air defence assets of each force component into a coherent joint air defence plan. This includes establishing weapons control procedures and measures for all defensive counter-air weapon systems and forces, coordination with regional and Host Nations air defence systems, and the exchange of information necessary to support civil defence activities. Air defence measures, tasks, and activities are both active and passive. Active air defence involves any direct defensive action taken to destroy, nullify, or reduce the effectiveness of enemy air and missile attack against friendly forces and critical elements. Passive air defence includes all other measures taken to minimize the effectiveness of hostile air and missile attacks, through individual and collective protection of friendly forces and critical assets. Below are several air defence measures, tasks, and activities, namely [7; 9]:

- Theatre Missile Defence (defence against ballistic, cruise and air-to-surface missile attack);
- Surface Based Air Defence (defence from the surface against attack from the air);
- Maritime Air Defence (anti-air warfare is the defence of maritime forces against attack from the air, including surface-to-surface and air-to-surface missiles, cruise missiles, rockets and bombs);

- Airborne Air Defence (defence from the air against air attacks);
- Counter-Rocket, Artillery, and Mortar (It consists of three basic components – sense, warn, and intercept. Actions to detect, and warn base personnel of, attack using indirect fires. To sense and warn, ‘intercept’ may be added, which involves engagement of incoming munitions; in such circumstances, fire control is essential to prevent fratricide and fall of shot must be considered);
- All Arms Air Defence (the low-level air defence of a unit using small arms; fire control is essential to prevent fratricide and fall of shot must be considered).

Chemical, Biological, Radiological, and Nuclear Defence (CBRN). The aim of CBRN defence in support of FP is to help to prevent the CBRN incidents, protect NATO forces from the effects of CBRN incidents, and to take recovery actions, so that NATO forces are able to accomplish the mission and maintain freedom of action in a CBRN environment. Consequently, CBRN defence measures, tasks, and activities can be both active and reactive in nature by preventing CBRN incidents, as well as by recovering from the consequences of CBRN incidents. CBRN Defence in support of FP does not cover offensive actions to nullify, eliminate, or disable CBRN weapons or their delivery systems, however, the principles and capabilities described here may be employed by commanders during CM operations designed to prevent CBRN incidents. CBRN defence can be divided into five components which are inter-related and underpinned by the principles of FP. CBRN components are illustrated in figure 3 [7; 10; 11].

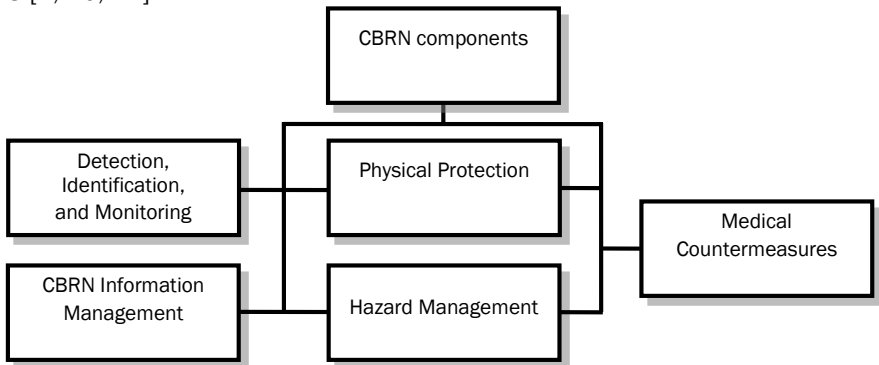


Fig. 3. CBRN components

Resilience. Measures, tasks, and activities to increase friendly forces’ ability to continue to operate despite adversary action or other hazards.

Military Engineering Support to FP (MILENG). MILENG support to FP is one of the eight defined FP fundamental elements; however military engineers also provide support in many other joint functional areas as part of engineering

tasks. Additionally, MILENG supports the efforts to coordinate the activities of a large number of FP specialist areas, each with their own plan and priorities. In particular, MILENG supports many consequence management measures, tasks, and activities to include Explosive Ordnance Disposal (EOD) disposal, restoration of essential services and facilities, and fire safety. MILENG support to FP is divided into some sub categories [7; 12]:

- Protective Infrastructure (This includes all the infrastructure related measures, tasks, and activities that contribute to FP as well as planning, design, construction, and maintenance of all infrastructure and facilities to include appropriate blast and ballistic protection. It also includes consideration of appropriate safety distances within a camp layout (e.g. obstacles, fences) and hardening of individual sleeping areas);

- Fire Protection (Fire protection includes the design and construction of fire prevention and suppression systems within infrastructure. It includes the development, implementation and monitoring of a fire safety program within a camp, which may also include training, as well as fire response capabilities in coordination with other logistics capabilities and FP fundamental elements);

- Support to Explosive Ordnance Disposal (Specially trained military engineers can be employed to assist EOD elements with the disposal of large quantities of munitions in order to reduce the significant threat to friendly forces and the local civilian population. The affiliation of EOD to MILENG varies within NATO nations; therefore the command status of all EOD forces participating in an operation will be clearly defined both in operations orders and within national and international directives. Military engineers are also responsible for the provision of awareness training to all force personnel on mines and other explosive hazards in support of EOD forces);

- Support to Countering Improvised Explosive Devices Activities (Military engineers, due to their training in military search, or in specialist roles such as EOD and geospatial engineering, can support Countering Improvised Explosive Devices (C-IED) operations to defeat the device);

- Camouflage, Concealment, and Deception (This includes the planning, design, construction, and maintenance of concealment and deception);

- Military Search (Military search is an essential element of FP – both protecting coalition bases and enabling freedom of action and movement. Military search provides assurance of potential “high level” targets during pre-planned events and is employed to safeguard disparate friendly or neutral factions in the area of operation);

- Route and Area Clearance (Route clearance is a mobility task, under the MILENG support to joint function maneuver and fires, of which some components fall under FP. It targets physical hindrance to movement on road networks or itineraries and areas to facilitate freedom of movement. Route and area clearance include the detection and, if found, the identification, marking and neutralization, destruction, or removal of mines, improvised explosive



devices, booby traps, or other explosive ordnance threatening a defined route/area to allow a military operation to continue with reduced risk).

Consequence Management. Consequence management includes measures, tasks, and activities taken to mitigate the damage, loss, hardship, and suffering caused by catastrophes, disasters, or hostile actions. It also includes measures to restore essential services, protect public health and safety, and provide emergency relief to affected populations [7].

Medical FP and Force Health Protection. In a medical context, FP is the conservation of the fighting potential of a force so that it is healthy, fully combat capable, and can be applied at the decisive time and place. It consists of actions taken to counter the debilitating effects of environment, occupational health risks, Environmental Industrial Hazards, disease, and selected special weapon systems through preventive measures for personnel, systems, and operational formations. Elements of medical activity contribute directly to FP; therefore, medical and FP staffs should work together in order to minimize preventable casualties and to ensure that, where casualties do occur, appropriate resources are available to manage them. There are two aspects to medical support to FP: medical force protection and force health protection [7; 13].

Security. Security enhances freedom of action by limiting vulnerability to hostile activities and threats and covers a range of activities that contribute directly and indirectly to FP. It aims to minimize attacks on personnel, information, equipment and installations through the application of physical, procedural and technical measures. Security in NATO encompasses entry control, operations security, counterintelligence, information, cyber/computer, physical, personnel, and air transportation security. Such security programs interact with related programs for counter-crime and law enforcement, and road traffic and recreational safety. Safety and security remain as individual and collective responsibilities throughout the whole threat spectrum. As NATO moves through crises to conflict, war-fighting elements of FP will apply increasingly; however, the basic elements of security, which illustrated in figure 4, remain an integral part of FP [7].

CONCLUSION.

Thus, the article contains the conducted research of the approach to FP in North Atlantic Treaty Organization.

FP in North Atlantic Treaty Organization is understood as a complex of measures and means to minimize the vulnerability of personnel, facilities, equipment, materiel, operations, and activities from threats and hazards in order to preserve freedom of action and operational effectiveness that facilitates successful mission accomplishments.

To the Fundamental Elements of North Atlantic Treaty Organization FP include: Tactical Area of Responsibility Control; Air Defence; Chemical,

Biological, Radiological, and Nuclear Defence; Resilience; Military Engineering Support to FP; Consequence Management; Medical FP and Force Health Protection; Security.

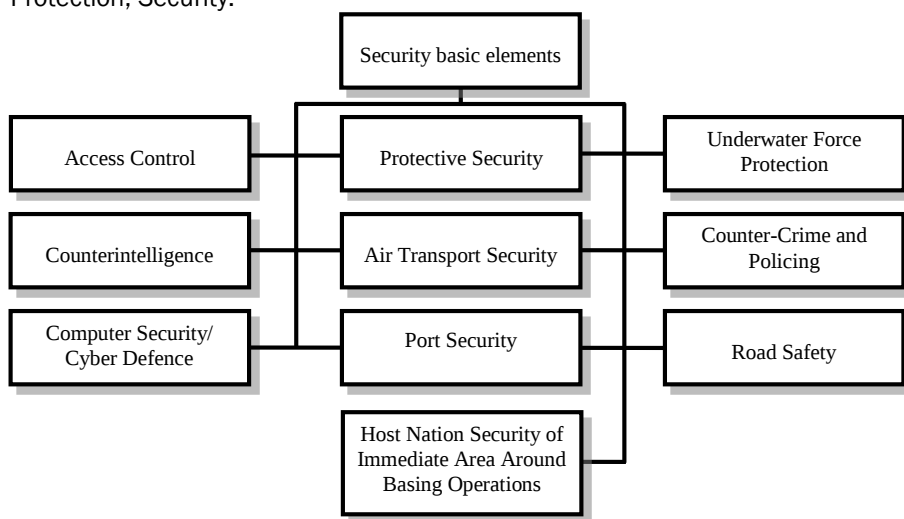


Fig. 4. **Security basic elements**

The results of the research showed the existence of general similarities in the FP fundamental elements of North Atlantic Treaty Organization and Ukraine, and some differences at the same time.

The FP in National Guard of Ukraine operations and actions could be defined similarly to NATO FP as the measures necessary to achieve protection against sabotage, subversion and terrorism, as well as against loss or unauthorized disclosure.

But as an example of difference, we can mention, that due to the war conflict that Russian Federation is waging on the Ukraine' territory, there is possibility for National Guard of Ukraine formations to include into FP measures of civil-military cooperation activity (CIMIC) as an effective tool in the local environment. The main goal of National Guard of Ukraine CIMIC activities in the areas of its' units deployment is to create a positive public opinion and providing favorable conditions for the implementation of the tasks and functions of the National Guard of Ukraine.

As it was mentioned before, security is one of the fundamental elements for FP. CIMIC activities will contribute directly and indirectly to security. While on a planning process of security commanders should take into consideration CIMIC officers' advices and include CIMIC activities into general security plan for FP.

The CIMIC activities could also directly contribute to TAOR. In the Joint Forces operation area it could be cheap and effective (no translators or local guides are needed). And at the same time CIMIC contribution to TAOR could reduce threat to personnel and equipment from local civilian people who are too affected by Russian anti-Ukrainian propaganda. Also CIMIC can contribute to intelligence information gathering and so on.

That was only one example of possible differences in approach to FP in the modern Ukrainian realities. But the research and analysis of NATO standards in the field of FP will definitely improve the existing FP system of the Armed Forces and the National Guard of Ukraine.

To obtain membership in NATO, it is necessary to create the appropriate conditions. One of these conditions is the transition of the Armed Forces and the National Guard of Ukraine to the standards of North Atlantic Treaty Organization, including FP standards. Taking into consideration the strategic goal of Ukraine, it is necessary to implement reforms of these military units in the direction of FP, according to the standards of North Atlantic Treaty Organization.

The North Atlantic Treaty Organization FP planning process standards could be taken as the direction of further research as the point of interest for the National Guard of Ukraine on its' way to self-reforming.

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