

## CONDITIONS IN RESPECT OF LOGISTIC SUPPORT OF PEACE-KEEPING MISSIONS

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### Abstract

Logistical support of military contingents participating in operations conducted outside the country is complicated and creates a number of difficulties. In addition, these operations are conducted in the different places in the world, usually far away from the country. These difficulties further exacerbated the volatility of conditions of logistics tasks resulting from reigning in place of a mission, the climate, the possibility of using logistics infrastructure and the state of the transport network.

The article presents the characteristics of logistic support of military units performing tasks in peace-keeping missions considered in terms of operational and tactical, terrain and climate as well as logistic conditions. These factors play a crucial role in planning and preparing the logistics of forces dedicated to perform tasks outside the country. These factors must be taken into account to develop a logistical plan and then implement it.

**Keywords:** Logistics, Logistic system, NATO logistics

### 1. INTRODUCTION

The need to prevent and counteract international conflicts has been determined on one hand by the situations and conflicts that pose threat to international peace and safety, and on the other hand by the difficulty to find effective political solutions considering the fact that it is impossible to reach unanimity of the superpowers - permanent members of the UN Security Council.

In this situation, beside diplomatic actions focused on solving conflicts peacefully and stopping military actions, peace-keeping operations are conducted, major goal of which is to create conditions for a peaceful diplomatic settlement [1].

New threats and challenges determine various changes in the role and the tasks of the armed forces. It also implies transformations of the model of military operations. The army more often participates in peacekeeping and stabilisation missions in different regions of the world, actively conducts mediation processes and negotiation procedures, and in crisis situations, is often the only instrument and the guarantee of solution. More extensive military operations, carried out mainly by the US Army, have been followed by emergence of new methods of support, that have lead to development of the theory and practice of logistics systems.

Ever since wars have been conducted, logistic problems have been present. They have been the major condition of success of any operation, as their goal is to satisfy material and other needs of the soldiers and the military equipment. Such needs include: ammunition, food, fuel, transport, health protection, infrastructure, accommodation, repairs, armament, etc. These issues have always belonged to logistics, although their specificity has been modified.

### 2. OPERATIONAL AND TACTICAL CONSIDERATIONS

Peace-keeping operations of the military units are organised and conducted under the protectorate of the United Nations (UN), according to the Charter of the United Nations. Such actions are initiated by the UN Security Council and consist in using appropriate forces and measures in order to maintain or restore

international peace and safety by changing the situation that poses the threat to the peace or initiation of an action to be taken in connection with a threat of peace violation [2].

The idea of such actions is to strive for keeping international peace by the activity of military units in terms of prevention, limitation, settlement, monitoring and suppression of international conflicts and building a new and safe life after the conflict [3]. Peace-keeping actions are organised and carried out in form of peace-keeping operations (missions) [3].

The objectives of a peace-keeping mission should be defined in the mandate as clearly as possible, so that they can be transferred into the code of conduct and instructions. The authorities authorised to issue the mandate should define in detail their goals, so that the implementing authorities could transform the mandate into clear and feasible tasks that would constitute the reference for all parties involved in the peace-keeping mission and at the operating command for the NATO forces [4].

The essential operational and tactical factors determining the method and scope of planning and implementation of logistic support of military units in peace-keeping missions include [4]:

- the time to reach readiness to operate in the mission area,
- the position of the contingent within the group of forces participating in the mission, resulting from the agreements.

The factors listed above will have direct impact on the method of preparation of the unit for the peace-keeping mission [5]: planning and arrangement of supplies, scope of special and well-being services to be provided. The distance to the mission area will determine the type of transport to be used for regrouping (air, sea, rail or road transport), arrangement of delivery of supplies and preparation of supply sources in the home country (supply chain) [6].

During the preparatory phase of the mission, at the conference of the states participating in creation of the Peace-Keeping Forces, areas of responsibility are defined each time for individual contingents. Depending on the position of a given unit in the planned group of the Peace-Keeping Forces, it can be entitled to the area of 80 to 150 km [7]. It determines the use of the unit in one or several concentrations [8], and also the method of arrangement of the logistic support and deployment of logistic facilities [9].

### 3. TERRAIN AND CLIMATE CONSIDERATIONS

A distinctive feature of peace-keeping missions conducted and supervised by NATO is that they may be performed in any area of the world in various terrain and climate conditions. The mission area might have complex terrain structure, various surface and changeable weather conditions. In tactical and operational view, the major criterion of classification is its accessibility for the military units. When the terrain is plain or covered with hills with height not exceeding 50m and slopes accessible for military vehicles, and also when terrain cover, that is forests, swamps, rivers, lakes or buildings, takes no more than 50 % of the overall area, then the accessibility conditions are normal (average). Beside that, normal conditions are also when visibility is at least 4 km, air temperature is between -5 and +30 °C and snow cover does not exceed 15 cm [10]. Terrain and weather conditions that are characterised by factors beyond the abovementioned ranges are referred to as specific conditions (actions in urban area, in the mountains, in the forest, on the sea shore, in winter and at night). The characteristic feature of performing the tasks related to logistic support in specific conditions is that the military units, and therefore logistic units, must carry out many additional actions in order to overcome the difficulties resulting from the specific conditions and to adjust the methods of operation.

In the logistic aspect, all listed terrain and weather conditions classified as specific, are assessed in terms of [11]:

- possibility to locate the units and deploy logistic facilities,
- ensuring appropriate functional conditions for logistic facilities,

- layout and level of development of the road network (transport infrastructure),
- preparation of vehicles to ride in the terrain,
- possibility to acquire water,
- method of arrangement of supplies,
- possibility to provide medical support,
- possibility to evacuate the injured and sick or damaged armament and military equipment,
- scope of additional special and well-being services,
- defence and security of logistic units, etc.

The length of the mission is also very important. Referring to the previous experience of units performing peace-keeping missions, it can be assumed that most peace-keeping missions are long-term operations - lasting over a year, while the personnel is changed at least every six months. It usually implies the stay of the military units in varied weather conditions, different from those in the home country. That leads to the necessity to supply the contingent with additional untypical equipment and technical material resources, as well as to conduct analyses of the influence of different air temperature and humidity on the operation of the equipment, its resistance to corrosion and durability of protective coating. Furthermore, terrain structure will enforce the method of arrangement of supply delivery, evacuation of armament and military equipment as well as medical evacuation. It should also be taken into account that the contingent performing the peace-keeping mission will be located in the area destroyed in military operations.

#### **4. CONSIDERATIONS OF LOGISTIC SUPPORT FOR MILITARY CONTINGENTS IN PEACE-KEEPING MISSIONS**

The arrangement of logistic support [12] for contingents participating in peace-keeping missions depends on the group of participants of a given mission, scope of logistic tasks to be performed for the military contingent, as well as the rules of organisation and performing of those tasks [13].

Currently, peace-keeping missions are operations of international military contingents operating under the common command of NATO, under the patronage of the UN. The international aspect of commanding the military units occurs mainly at the level of the division and the brigade. Most often they contain national battalions with their own logistic units (subdivisions). These units perform the tasks related with logistic support for their divisions (battalions), and should also be prepared to perform the role of the Lead Nation or the Specialist Nation in terms of selected logistic tasks, within the entire international division (brigade).

According to the NATO Land Forces Logistic Doctrine ALP 9(B), STANAG 2406 (also valid during peace-keeping missions organised under NATO command), logistic support for military units encompasses:

- logistic planning (logistic and economic reconnaissance, assessment of logistic situation, drawing up plans for logistic support for military units, IT support),
- supplying (deliveries of all types of supplies for the military units),
- regrouping and transport (coordination of regrouping and transport, planning, conducting and control of regrouping),
- maintenance of armament and military equipment (repair, restoration and evacuation, spare parts management, removing redundant, abandoned and damaged armament and military equipment from the battlefield or the area of activity),
- medical support (evacuation of the injured and sick, arrangement and providing equipment for medical facilities, sanitary and epidemiological protection, blood supply and psychological support),
- financial and banking support (provision of salaries and goods, financing of travel, financial support of the host-state, financial advisory).

In peace-keeping missions organised by NATO (similarly as in the Polish Armed Forces) military supplies are divided into five material classes [11]:

Class I - food products for personnel and animals in set amounts, regardless of the local changes in battle or terrain conditions: food and forage,

Class II - goods in standard amounts set in post-related charts of receivables and equipment, e.g. uniform, armament, tools sets, spare parts, vehicles,

Class III - fuels and greases for all purposes, except the use in combat aircraft or armament (flame-throwers), e.g. fuel, lubrication oil, grease, coal, coke,

Class IV- goods in standard amounts not specified in charts of receivables. Most often refers to: building and fortification materials, as well as supplementary goods similar to those listed in Class II, such as supplementary vehicles,

Class V - combat assets.

Logistic support for military units participating in peace-keeping missions conducted by contingents of the armies of the NATO member states is organised and provided according to the principles of: responsibility, cooperation, competence, sufficiency, economy, flexibility and access to information.

The general model of logistic support of a military contingent participating in a peace-keeping mission mainly depends on its manpower, armament and equipment, length of the mission, distance of the mission site (area) from the home country, level of standardisation and logistic interoperability of the contingent with the military units of the other states participating in the mission, possibility of contracting supplies and provision of special and well-being services in the mission area, etc.

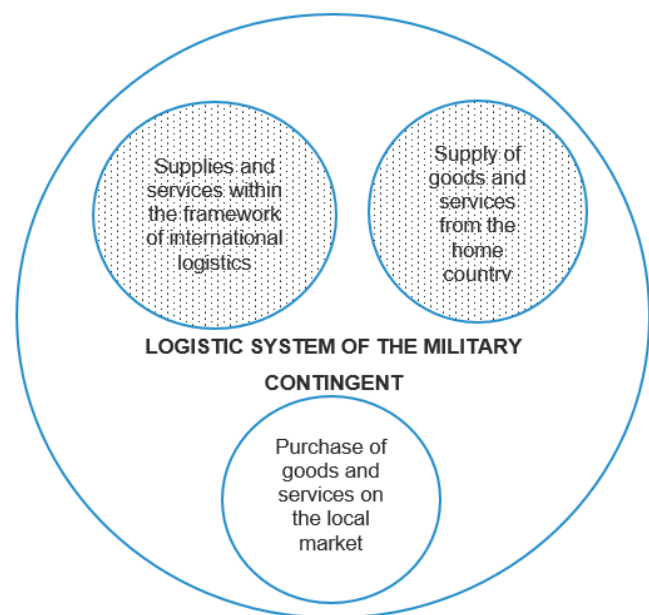
If the degree (level) of logistic interoperability of the military contingent with the units of the other states participating in the peace-keeping mission is average, the major (dominant) factors (beside the logistic potential of a given contingent) in the logistic support process include [14]:

- supplies of combat and material assets, armament and military equipment as well as services from the home country;
- supplies of goods and services (special and well-being) provided within the framework of international logistics.

The complementary factors may include the purchase of goods and services on the local market.

- dominant factors
- complementary factors

**Fig. 1** General scheme of logistic support of the military contingent (prepared on the basis of [13])



Arrangement of supplies from the home country for the military contingent participating in the peace-keeping mission, especially when the mission lasts very long, usually requires appointment of special supply groups in the home country and also National Support Groups in the mission area, that often belong to the international logistic bases providing services for military contingents of the countries participating in the mission. National Support Groups are usually divided into National Support Elements responsible for supplying the contingent in goods in individual material classes.

Technical support for the military contingent on a peace-keeping mission is provided mainly by its personnel. In this connection, technical units (subdivisions, divisions) are supported by repair forces and assets in order to guarantee their autonomy. Damaged armament and military equipment that cannot be repaired using the assets of the contingent, is repaired in site within the framework of service contracting, or evacuated to the home country [15].

Medical support for the contingent on a peace-keeping mission is provided mainly by the personnel of the contingent, using the medical assets. In particular cases, when the injured and sick require special aid (3<sup>rd</sup> level of medical service), treatment is provided within the framework of service contracting in site, or they are evacuated to the home country.

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The essence of the efficiency of the logistic support for the military units is reflected in provision of special and well-being services according to the "4xP" principle: in proper time, in proper quantity, with proper quality and to proper recipient [10].

In conditions of the peace-keeping mission, this efficiency cannot be reached without good knowledge of all factors determining the process of logistic support for the contingent within the mission area, which includes operational and tactical, logistic, terrain and climate considerations.

The responsibility for the logistic support of the military units performing actions on international missions belongs to all states that send their forces, and these states must guarantee complete support by providing equipment as well as combat and material assets [16].

The scope of responsibility of the country sending their forces encompasses provision of logistic support for their contingent according to the NATO requirements, which is followed by the necessity to deliver supplies directly from the national sources or through the member states, on the basis of the agreements on common provision of logistic support for the military units.

The issues that are particularly important concern the method of regrouping of a selected division and the type of transport used for regrouping, the method of restoration of combat and material assets, armament and military equipment, treatment and evacuation of the injured and sick, provision of well-being services, Host Nation support as well as financial settlements with the local authorities.

In order to perform the tasks listed above properly, the following rules of logistic planning should be taken into account:

- The intent and procedures of logistic support of the division (contingent), as well as the structures of the logistic units must reflect the size of the military units for which the services will be provided and the expected variants of use. The intent should reflect availability of logistic facilities for international peace-keeping actions, logistic support possible to be obtained from NATO agencies and organisations, required level of standardisation of equipment, supply resources and logistic procedures, coordination of movement and transport, usage of military transport units, taking over bases and regrouping.
- The potential of logistic resources must be sufficient to reach the intended degree of readiness and mobility, in order to guarantee durability of the military potential. This includes the following issues: calculation of daily standards of consumption, planning the transport during regrouping to the mission area and during delivery of supplies, preparation of equipment and material assets in order to reach the most effective method of development, planning local orders for goods and services.
- Ensuring supplies of material assets for own military units, including initial self-sufficiency until the time when the logistic structure of the entire peace-keeping force reaches the operational readiness and maintaining supplies for the military units, that should be planned with the general intent to provide logistic support for the peace-keeping forces.
- A wide scope of tasks within a peace-keeping mission requires independence in performing tactical tasks at the company level, that (organises grouping) performs individual actions within the distance up

to several dozen kilometres from the area of contingent location. It concerns manoeuvrability, mobility and self-sufficiency in terms of logistic support for own subdivisions.

The process of planning logistic support for a unit appointed for a peace-keeping mission should be preceded with reconnaissance [17], that would provide information on the possibility of concluding bilateral agreements with the host state and the transit state concerning regrouping of forces and assets using the chosen means of transport, stations, harbours, airfields, equipment for loading heavy cargo (palletisation systems, containers, container cranes, container transport vehicles), communication lines, as well as the structure of the area of location of local assets in terms of its suitability for accommodation, usage of power supply installations, drinking water acquisition after decontamination and treatment, possibilities of warehousing, possibilities of getting support from other NATO military units in case of their earlier deployment, etc.

## 5. CONCLUSION

The efficiency of logistic support for military units participating in a peace-keeping mission will largely depend on the skills of own logistic units, in particular in terms of using the language and the knowledge of logistic procedures followed during peace-keeping missions, as well as the rules of movement of subdivisions within the area of responsibility [18].

The options of logistic support may involve completely integrated international logistic forces or only national support. NATO forces will usually be supported by a combination of different available options. Irrespective of the option used in fulfilment of a given task, individual countries, as well as the NATO forces commander, bear the responsibility for supplying the involved forces. In all cases, the chosen option of logistic support should be adjusted to the requirements of the task and be consistent with the rules of logistics. The prerequisite of participation in the missions of the Alliance is general knowledge and following the NATO logistics rules. The structure of logistics encompasses support for national units as well as support for international formations.

Logistic support of assigned forces requires innovative approach and development of universal rules of providing logistic support for military contingents. Forces assigned for this type of tasks operate in different parts of the world, characterised by specific terrain and weather conditions. Their work is even more difficult due to changeability of logistic conditions of task completion, resulting from the possibility of using the logistic infrastructure or the condition of the local transport network [19].

Considering the factors determining logistic support of the Polish Military Contingent as well as logistic activities in such situations, it is quite clear that the support is provided according to specific (special) rules. They are: quick aid to the injured and sick, gathering and protection of supplies, distribution of supplies and logistic services, priorities of supplies and provision of special and well-being services, using (logistic) assets of the local market.

Implementation of new ideas and improvement of previous solutions should enable more effective operation of military units and squads in the turbulent combat environment. Military logistics gains in importance only when it leads to improvement of input effectiveness (supplies and provision of special and well-being services) and contributes to improvement of working efficiency of individual elements in the logistic system.

## REFERENCES

- [1] Spory i konflikty międzynarodowe u progu XXI wieku, red. ŁUKASZUK L., AON, Warszawa, 1999.
- [2] Wybrane problemy współczesnych operacji pokojowych, red. JÓŹWIAK A., AON, Warszawa, 2002.
- [3] Regulamin działań wojsk lądowych, MON, Warszawa, 1999.
- [4] GAZDA A., OLEJARZ T. NATO Logistics System - Example of the Polish Armed Forces. Mechanics and Materials, Logistics Development, Vol. 708, 2015, pp. 26-32.

- [5] HAJTO S., STANKIEWICZ G. Łańcuch logistyczny polskich kontyngentów wojskowych w misjach stabilizacyjnych i operacjach pokojowych, Zeszyty Naukowe WSOWL, Vol. 150, No. 4, 2008, pp. 117-126.
- [6] BARAN M. Zabezpieczenie logistyczne Polskiego Kontyngentu Wojskowego w misji pokojowej (na przykładzie KFOR), praca studyjna - maszynopis [mps], AON, Warszawa, 2003.
- [7] Planowanie wojskowe NATO dla potrzeb Działań Zabezpieczających Pokój. MC - 327. NATO, 1994.
- [8] NOWAK E. Logistyka wojskowa - zarys teorii. Warszawa, 2000.
- [9] Doktryna logistyczna Wojsk Lądowych (DD/4.2). Warszawa, 2007.
- [10] BODZIANY M., CZUBA R. Zabezpieczenie logistyczne Polskich Kontyngentów Wojskowych w ujęciu organizacyjno - proceduralnym. Zeszyty Naukowe WSOWL, Vol. 146, No. 4, 2007, pp. 187-199.
- [11] OLEJARZ T. Wsparcie logistyczne polskich kontyngentów wojskowych poza granicami kraju. Zeszyty Naukowe PRz ZiM, Vol. 18, No. 4, 2011, pp. 85-92.
- [12] SOLARZ J. Doktryny militarne XX wieku. Kraków: Avalon, 2009.
- [13] NOWAK E. Zabezpieczenie logistyczne wojsk lądowych w operacjach. Myśl Wojskowa, Vol. 609, No. 4, 2000, pp. 129-143.
- [14] SMAL T., SZCZEPIŃSKI R. Zabezpieczenie logistyczne współczesnych operacji sojusznicych na przykładzie ISAF. Logistyka, No. 3, 2011.
- [15] JAŁOWIEC T. Dylematy zabezpieczenia technicznego Polskiego Kontyngentu Wojskowego w Afganistanie. Zeszyty Naukowe WSOWL, Vol. 159, No. 1, 2011, pp. 85-97.
- [16] KRÓL H. Zabezpieczenie logistyczne działań innych niż wojna. Systemy logistyczne wojsk, WAT 2722/2002.
- [17] JUNIEC K. Wybrane elementy szkolenia oficerów logistyki przygotowujące do funkcjonowania w środowisku koalicyjnym (część 1). Systemy Logistyczne Wojsk, No. 38, 2012, pp. 3-11.
- [18] AJP-4A - Sojusznicza Połączona Doktryna Logistyczna.
- [19] Zimon D. An Attitude of Subcarpathian's Residents to Sustainable Solutions for Urban Transport. International Letters of Natural Sciences, Vol. 50, 2016, pp. 41-52.