Abstract: Conduct of operations requires employment of military units with a set of specific operational capabilities. Based on operational situation, a suitable task force structure must be generated with abilities to fulfill tasks efficiently and effectively, according the objectives and character of operational environment. The paper points to considerations regarding modular task force generation for use in military operations and proposes possible approach of such modular structure development in procedural terms. It describes the inter-relationship of individual categories: threat, scenario, type of operation, operational task, basic and specific military capabilities and a module, with respect to various types of military operations. The paper describes in detail the activities that the Armed Forces typically perform during stability operations and peace support operations. To support the main idea of the paper, there is offered a specific case of modular task force structure generation in terms of fictional task performance: Rescue people from the besieged embassy.

Keywords: modularity, scenario, operations, capabilities.

1. Introduction
Aspects of modularity in military units had raised shortly after the end of the Cold War at the beginning of 1990´s. Modularity, at its very basic, was the idea for creating a pool of standardized, self-contained units-combat, support, and headquarters-that could be assembled into, or “plugged into” (and unplugged from), larger formations as needed with minimal augmentation or reorganization. Modularity was then defined in terms of design methodology aimed at creating standardized, expandable military elements capable of being tailored to accomplish virtually any assignment. The new units are as capable as their predecessors, but they are also adaptable enough to assume whatever form is necessary to meet a broad range of missions. Modularity has become a principal and decisive area of transformation for majority of Armed Forces (AF) with implications to generation and development of purpose-built military organizational structures. Modularity in both theory and practice has significantly boosted the ability of the AF to build packages of units tailored for specific missions. Modularity has naturally entered discussions inside the Czech Armed Forces (CZ AF) in terms of its ability to follow strategic ambitions and objectives set by political representatives, directed towards the use of the AF in the future. With regard to the interests and available resources of the country, it is expected to be used mainly in the types of operations, whose objective is to stabilize the environment and fostering peace. Modular structures attract the attention of many experts from the military, but also the academic environment. Their aim is to create a comprehensive picture of the factors and
processes involved in the development of such structures and provide available information to the appropriate authorities.

2. Factors influencing development of modular structures
Until military unit with modular structure is capable to carry out its selected role in specific environment, there are various factors and aspects that influence development of such structure politicians and military commanders must take into account, starting from strategic to tactical level; the basic include categories (and their demonstration) as security threat, scenario, type of operation – usually typical to the emerged scenario, task (tasks) in the operation, which result from the particular type of operation itself. There exist the key and specific operational capabilities, required from members of the AF, filling the assigned tasks. Character of those tasks will then correspond to the module (or unit with modular structure), acting either separately or in cooperation with other modules, grouped into a larger team – a modular task force. The next chapters consider all those aspects and in some form of organizational hierarchy point on interconnection they have.

2.1. Security threats
Environment that influences the security of the Czech Republic (CR) has constantly undergone dynamic changes and its predictability, due to growing interdependence of security trends and challenges, is decreasing. The Czech White Paper on Defense identifies a number of security threats and risks that may have a direct impact on the security of our country, and thus adversely affect our vital, strategic, and other important interests. Security threats (internal and external), their sources and originators have both national and transnational character, they are intertwined and the differences between them are blurred.

According to capstone Czech strategic security documents they generally recognize three fundamental types of threats:
- Intentionally caused by human (war aggression, crime, political violence, sabotage, etc.);
- Unintentionally caused by human (technological and industrial accidents, failure of systems or elements of critical infrastructure);
- Caused by nature (natural disasters or catastrophes).

Probability of threat of a massive military attack against the CR territory is low in the foreseeable future. Basic guarantees of this favorable position lies in the CR’s membership in NATO and the EU and in favorable relations with neighboring countries. With this reality, however, contrasts increase of asymmetric security threats. They are associated with trends in the global environment that enhance their potential and increase the possibility of spreading threats from relatively remote areas of local or regional conflicts and tensions. A characteristic feature of the current security environment is the fact that even instability and conflicts outside Europe may have a direct impact on our security.

Within the security environment, where CR settles, other specific threats can be identified. These are not of purely military nature and have no direct impact on its security, but threaten its allies. Such threats include: political extremism and its demonstration (particularly terrorism), proliferation of weapons of mass destruction with their delivery systems and their potential applications, cyber-attacks, instability and regional conflicts in the Euro-Atlantic area and its surroundings, disintegration of state authority in conflict-affected areas and the emergence of failed states, mass riots and sabotage, negative aspects of international migration, organized crime and corruption, threats to critical infrastructure functionality (communication, transport and
energy), disruption of strategic supplies or energy, weakening of international organizations and institutions critical for the safety and security of the CR, the creation of spheres of influence through political, economic or military coercion, regional and local conflicts within the Euro-Atlantic area and its wider neighborhood, including “frozen” conflicts, humanitarian disasters and many others, regardless of their natural or anthropogenic origin. All those threats and risks may have undesirable impact on security interests of the CR defined in its Security Strategy.

2.2. The nature of future operations
Future operations, in which the AF may contribute to the elimination of the above-mentioned threats, are much more complex than in the past. Military operations are conducted across the spectrum of conflict. However, no conflict is the image of only one type of operation. There may be a blending of different situations requiring various approaches to address them and multiple ways of employing military force at any time. While humanitarian assistance can be provided at one place of the operational area, nearby can be conducted an intense fight against the insurgents, groups of armored combat units or a war fighting in a built-up area. The very next day, other activities may be provided, e.g. forensic evidence, supply of electricity, water supply and other commodities procuring to the civilian population and/or return to combat again. Individual statuses of peace, tension and fight can be local or spatial, as well as their duration and intensity. Any crisis might be a variety of combat, counterinsurgency, stabilization, peacekeeping or support activities, the boundaries of are often blurred and are not apparent entirely. Changes in situations can occur suddenly and very quickly and can happen with increasing intensity and almost continuously.

The operations the CZ AF can participate in may be conducted at a considerable distance from the CR territory. Because the operations will be performed in various operational environments, military units will have to quickly adapt to ever-changing progress of operations, including the operations of high-intensity, lethal and non-lethal methods of warfare with a wide variety of stability, peace promoting or supporting humanitarian activities requiring diverse set of capabilities and skills.

2.3. Scenarios for employment of the AF
Scenarios for employment of the AF represent a detailed description of conditions for the future operational situation in which the AF will perform determined tasks. The purpose of the scenarios is also to facilitate analysis of how best to fulfill mission tasks, to meet the objectives and contribute to achieving of the desired end state. Scenarios are a key element for capability based planning, the initiation of force generation processes, elaboration of tasks list and capability goals, the successive capabilities development and the creation of investment plans.

Scenarios provide an opportunity for better decision-making, facilitate assessing of what the most likely fundamental (key) capabilities will be required, analyzing their impact and significance in the long and medium horizon and predicting what technologies will be associated with the requirements related to these key and other capabilities. There are four basic scenarios in which the CRAF assume its employment; three of them response to threat of military nature and one scenario relates to support of non-military crisis management.

*Scenario 1* considers operational situation when the CRAF have to address the major threat and to plan, prepare and conduct defense of their territory within the framework of NATO collective defense in accordance with Article 5 of the Washington Treaty. Considering such situation, it is assumed sufficient warning time (even several years), during which it will be necessary following a progressive adaptation of the AF in terms
of its size, complementation and methods of employment for defense contrary to those that the CR maintains in peacetime.

Scenarios 2 and 3 characterize involvement of the CR in stabilization, respectively peacekeeping operations by regular professional AF. Involvement in such operations does not require declaration of emergency state or state of war on the territory of the CR. These scenarios are not associated with defense against external attacks.

Scenario 4 represents situations in which the AF led non-military crises operation with peacetime available forces.

The general scenarios overview (S1 - S4) is as follows:

S1: The conduct of combat operations within the collective defense of the NATO and the EU territory, including military activities inside the CR territory.
S2: Stabilization operations (security operations), including counterinsurgency operations (COIN), led outside the NATO and the EU territory.
S3: The peace support operations (PSOs) conducted outside the territory of NATO and the EU.
S4: Peacetime military engagement and operation in support of civilian authorities (e.g. Humanitarian Operations, Capacity Building, Restoration of Essential Services etc.) in non-military crises situations led inside the country and outside of the NATO and the EU territory.

These scenarios symbolize a general framework for the use of the AF not only of the CR but also the other NATO (EU) member states.

2.4. Operational scenarios

The CR AF will deploy within the broader efforts of the international community, in accordance with the Charter of the United Nations (UN) principles in the whole spectrum of operations led by NATO, EU and UN or ad hoc created coalitions. Prediction of security threats indicate that the emergence of a conflict, which would require conducting of collective defense in the near-term is less likely. On the contrary, engagement of the AF will be expected in scenarios with the characteristics of the stability operations and peace support operations.

The experience from the NATO military operations indicates that such sub-scenarios may include e.g.:

Sub-scenario 1: Rescue of captives in built-up area with critical infrastructure;
Sub-scenario 2: The threat of use of weapons of mass destruction in a built-up area;
Sub-scenario 3: Protection of critical infrastructure and equipment;
Sub-scenario 4: Providing the distribution of humanitarian aid in crisis areas;
Sub-scenario 5: Protection and evacuation of minority populations;
Sub-scenario 6: Elimination of asymmetric threats;
Sub-scenario 7 - N: Other, further unidentified.

Each of these sub-scenarios represents a clear description of the possible operating conditions of a future situation in which the AF will perform its tasks. It may appear that the different sub-scenarios are specific in nature and in some cases are unique. True is, that the character of activities the members of the AF will have to perform in the following sub-scenarios, will be common and in many cases they do not significantly differ.

Depending on the situation within these sub-scenarios, the AF will focus on stabilization activities (security and control, support of security sector reform, building the host nation security forces capabilities, the initial reconstruction of services and facilities) and their accompanying tasks (e.g., patrolling and searching, observation/monitoring, escorting, providing humanitarian assistance or training of local security forces).
Members of the AF will also cover other specific tasks, resulting from the nature of sub-scenarios. Such may include preventing and blocking the entry of individuals or groups into the embarkation, detention and guarding, prevention of toxic substances and their dissemination, searching for material used for the manufacture of weapons of mass destruction or weapons themselves, tracking, retention and defeating of terrorists. They also may ensure the security of the local population by preventing violence against it, crowd controlling, and protection of entry points to the military base (checkpoint), protection of convoys, supplies and installations, evacuation of individuals and groups and many other activities related to the basic scenarios or sub-scenarios.

The historical experience indicates that the difference between war and peace cannot always be clearly identified and separated. It may occur within a short time that the character of the situation will change very quickly and the soldiers must conduct not only stabilization and peacekeeping activities, but come back again to those of offensive and defensive character.

2.4. Required capabilities
Managing these activities in the framework of main scenarios and sub-scenarios requires development of basic capabilities and skills by individuals and units that will support the tasks and the achievement of the objectives. With regard to individual sub-scenarios, the basic capabilities of the individuals, units or task forces (modules) will obviously copy the required tasks and may include:

- Crowd control (or dispersion the crowd) and directing of its movement;
- Separation of individuals or groups;
- Rescue (release) of individuals or groups;
- Pulling of individuals from the crowd;
- Identification of individuals or groups in the crowd;
- Prevention the entry of peoples, vehicles, planes vessels into space or area;
- Protection and support of individuals and groups;
- Elimination of individuals and groups;
- Protection and/or elimination (destruction, damage, etc.) Of weapons and military equipment, vehicles, aircraft (UAVs) or vessels (submarines), civilian infrastructure and equipment
- Ensuring and protection of communications;
- Others.

During application of such capabilities, there should be a general requirement for rules of engagement compliance, minimizing of civilian casualties and violence against prisoners and noncombatants, causing minimal damage to civilian infrastructure equipment and observance of international laws of war, treaties and conventions.

3. Fundamentals of modular structure development
Displaying of all aspects that influence modular structures development is possible via logical flow of all factors mentioned above. They are indicated and described in following four figures. The general consideration about threats and their impact on security environment are issues for high ranking politicians and selected flag officers. They constitute the way to cope with the crisis, assign resources and limitations and determine all necessary steps to solve the problem. Demonstrations of threat are obviously visible as impacts on environment where the threat occurs and as such they indicate precaution needed to undertake.
According to character of the situation, a decision about execution of military operation is taken to solve the problem. As indicated in Figure no. 1, the predominant themes of the operation are then similar to the character of the scenarios. Based on character of operation that is going to be executed, the related military tasks will be evident. Each type of operation require fulfilling those fundamental tasks which support achievement of intermediate and final operational objectives in accordance with the strategic end state. There exists broad set of military tasks which are common in all types of military operation and no particular modular structure must be built. Depending on changing nature of variables in operational environment there are other accompanying specific tasks that must be executed regardless the previous assignment of units.

Focusing on stabilization and peace support operations, as indicated in Figure no. 2, the specific tasks are implied under the (stabilization and peace support operation) boxes. Fulfilling those tasks requires employment of military units with related capabilities or generation of new capabilities that will be created within the units additionally. Experience from operations warn the more actors are situated in operational environment the more operational situations may be visible.

When the situation in the operation becomes more obvious and requirements for specific task execution are determined, the military commander must approach to matching of capabilities to the specific task.
The military commander may utilize general capabilities that all members of the unit possess and combine them with specific capabilities that will guarantee the execution of a task. In case the specific capabilities are not intrinsic for the unit selected to execute the task, they must be built, generated, trained or acquired from another unit, e.g. as portrayed in Figure no. 3, required capabilities (skills) must match anticipated tasks.
Precise analysis of operational environment may indicate that the specific task will demand execution of simultaneous or subsequent, synchronized and complementary activities performed in logical order.

Each task or group of tasks is then assigned to the modules, mutually cooperating groups of soldiers fully equipped with capabilities for the specific task – as indicated in Figure no. 4 – rescue people from the besieged embassy.

There is no purpose to describe the definite set of tasks and capabilities related in this scholar example. One may assume that the crowd dispersion, elimination of hostile individuals and/or groups, protection and escort of people, securing and/or protection of communication on which rescued people will be transported, and finally evacuation of rescued to the safety are typical tasks for such kind of operation. As indicated, there could be very specific capabilities the soldiers must possess to be able to disperse the crowd e.g., from peaceful persuasion of curious civilians to brutal assault against insurgents. Definitely, tasks and related capabilities will vary.
Conclusion
Development of military units with the modular structure can be seen in a wider context. Such development has been affected by factors such as threats and their demonstration and related aspects of military operations. Characteristic tasks in predominant themes of operations indicate the need for the use of a broad set of operational capabilities. Regarding the changing character of operations is to be expected that the generation of modular structures will be focused on the tasks of stabilization and peace support operations. Aspects of modular military structures are matters of military commanders, their use, however influence other factors in the operating environment.

References