

CHARACTERISTICS OF CONTEMPORARY COMBAT OPERATIONS IN URBAN AREAS

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ABSTRACT

The general trend of urbanization at the end of the 20th and the beginning of the 21st century coincides with an increase in armed conflicts between military formations in urban areas.

Weaker armed forces tend to draw stronger armed forces into the closed environment of urban areas to mitigate the effects of their weaknesses in human and material resources. Stronger armed forces express their desire to bypass and avoid the development of armed conflicts in urban areas. On the other hand, when the operational situation requires an armed conflict to develop inside urban areas, the stronger armed forces show a tendency to disproportionately use all their material and human superiority causing damage or destruction of facilities and infrastructure systems of urban areas, and this leads to the suffering of the civilian population. The characteristics of urban areas influence contemporary armed conflicts to manifest themselves differently compared to areas like forests, flat lands, mountains, and others.

By applying the method of analysis of the content of the document, it was established that the basic characteristics of urban areas: built objects for housing and business, communal infrastructure, and the presence of permanent residents, have an impact on the basic characteristics of armed conflicts: multidimensionality, precision, non-linearity in time and space of execution, distributed content, simultaneity in action, integration of forces, interoperability and the need to respect international humanitarian law in the use of military force.

Keywords: Urban areas, Urbanization, Infrastructure, Residents, Armed conflicts

INTRODUCTION

Armed conflicts have historically taken place around and for the Cities, but are increasingly taking place within the urban areas themselves. Contemporary combat operations, as one of the forms of armed conflict, have their own peculiarities in urban areas and therefore it is necessary to notice and single out their characteristics in order to improve their success and reduce human and material losses.

Urban areas are "a part of the territory of a municipality that has built facilities for housing and business; basic utility infrastructure and other facilities to meet the needs of residents who are permanently resident there" (Figure 1) [1].

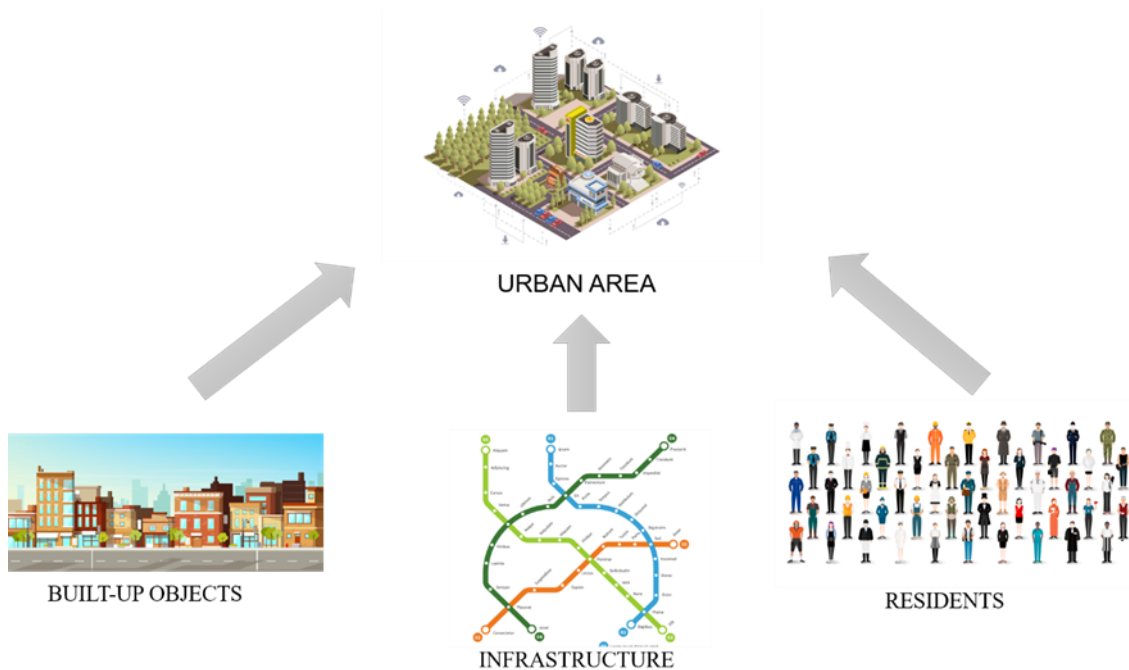


Figure 1. Elements of the urban area

Urban areas are classified according to different criteria and are most often divided into cities (urban) and villages (rural), but from the military point of view in relation to the course of operations, urban areas are a unique whole representing a special type of area that requires military units to perform actions and procedures that differ from procedures in areas of other characteristics such as plains, a mountain or a forest. For this special type of area, terms such as urban space, urban environment, urban environment, and similar are also used in the literature [2].

CONTEMPORARY COMBAT OPERATIONS

Control of political, industrial, commercial, transport, and communication centers, decisively affects the outcome of battles, campaigns, and the entire war. Technological advances, especially in aviation, have led to the fact that it is possible to conduct armed actions in a much more accurate way than in the past with significantly fewer civilian casualties and collateral damage. Urban areas are developing by number in population, size, and importance, which significantly affects the military units to impose restrictions on the conduct of combat operations [2].

Noticeable expansion reduces the space for maneuver for military units to tour them in the coming and therefore reluctantly enter conflicts within urban areas. The disadvantage of performing operations in urban areas is also influenced by the fact that two very significant, and basically opposite phenomena are happening in the world: expanded urban areas and the trend of shrinking armed forces. According to a report by the newspaper "The Economics" after the Cold War, the armies have shrunk. As an example, it is stated that western Germany, which in 1990 could engage 215 combat battalions, and in 2015, after the reunification of The German Republic, this number was 34, that is, it decreased by 84%. The number of Italian battalions [3] in the same period, dropped by 67% and the British by almost half. U.S. forces in Europe have shrunk from 99 battalions to 14, and from half a million troops to 76,000 today [4]. Such trends of shrinking armies

are contrary to the expansion of urban places if it is known that it is necessary to engage many more soldiers to occupy one large populated place compared to other areas of the same size [5].

Combat operations in urban areas require more human and material resources; it is a very violent, decentralized type of armed conflict waged by relatively small units where infantry is sent to work closely with and cooperate with armored units, artillery, air forces, and all the other forces involved. Urban areas represent an environment that imposes large challenges, on fast, materially equipped, and murderous military forces, relatively small, as they become larger and more complex. Historically these challenges have largely remained the same, but technological advances have led to the evolution of combat operations in urban areas [6], [7].

Contemporary combat operations are most often planned, prepared, and carried out during a state of war, in peace, and in conditions of emergency. Combat operations in urban areas are carried out as operations of preventive deployment of forces; counterterrorism operations; counterinsurgency operations; offensive; defensive and ancillary operations (Figure 2) [8]. There are other divisions of combat operations in which the basis is the use of weapons and combat to perform the assigned mission and tasks.

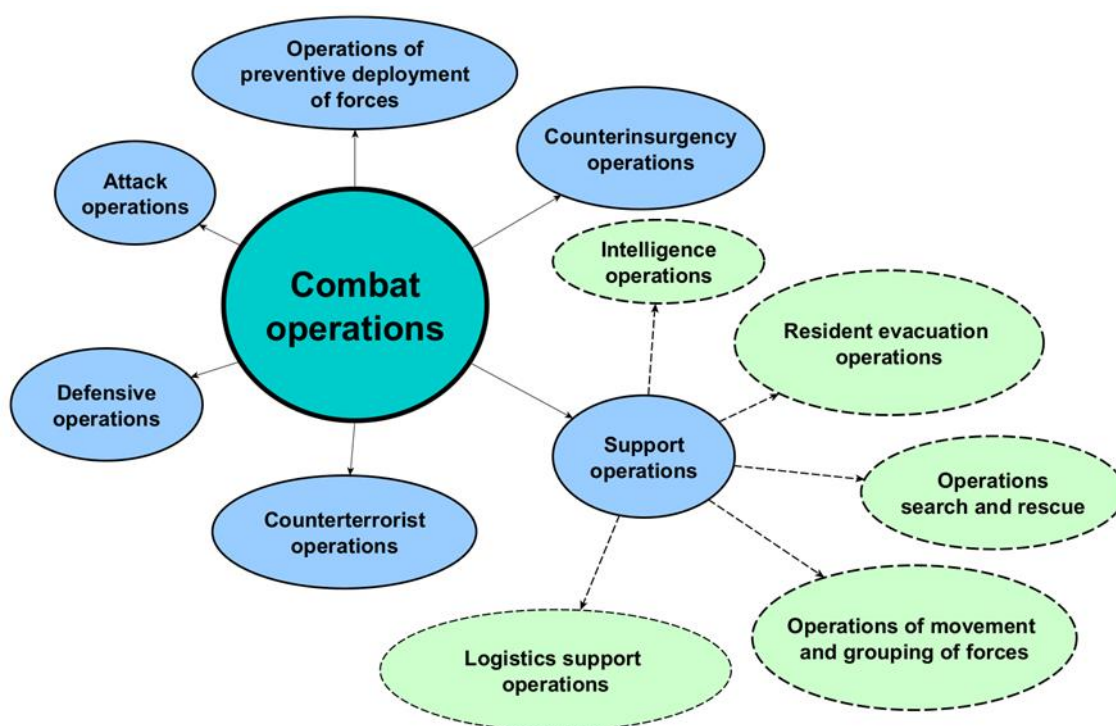


Figure 2. Classification of contemporary combat operations

The armed forces of different countries, at the beginning of World War II, had their experience in conducting combat operations in urban areas such as:

- immediate fighting on a full scale with a huge number of casualties: Stalingrad (1943), Manila (1944-1945), Seoul (1950-1951);
- aerial bombardment with a large number of casualties: Dresden (1945) and Tokyo (1945);
- Civil War: Beirut (1975-1990), Monrovia (2003);

- Revolution: Managua (), Budapest (1956);
- the precision bombing of Baghdad (2003), Belgrade (1999);
- counterterrorist operations (Marawi, 2017);
- non-combat residence evacuation operations (Monrovia (1990-1991);
- Anti-insurgency operations: Fallujah (2004 and 2016);
- Special Operations: Kyiv (2022), Mariupol (2022) [2].

CHARACTERISTICS OF COMBAT OPERATIONS IN URBAN AREAS

Urban operations are complex and challenging, they are not only purely military but also multidimensional because they need to consider the economic, social, and other characteristics of the city. Successful operations in urban areas require special tactics and training, and customized weapons and equipment. Preparations for operations in urban areas not only need to include training for combat in cities but also to better understand the "flow" of the city. Flow is the interaction of people and the exchange, of resources and information both within the city and between the city and its surroundings. This flow is similar to the nervous system of a living organism. It is also physical, i.e., connected to the existing infrastructure network of the city such as streets, canals, or railways, as well as non-physical. Functioning effectively in a populated place requires an understanding of how the city works, i.e. how all flows of information, commodities, people, energy, waste, and trade in and out of the city shape the interaction between different parts of the population with their formal and informal governance structures and actors. Some urban experts believe that the social infrastructure of the city is more important than the physical infrastructure [6],[9].

Intense combat at close distances on a wide front is a feature of large-scale combat operations during conflicts in urban areas. Armed forces need the ability to locate, closer and destroy the enemy, or repel enemy attacks in an urban setting. Armed forces contribute to teams of combined armaments that deliver combat power capabilities using unique capabilities according to the requirements and mission of the operation. Regardless of technological advances, combat forces on the ground achieve many of the joint force commander's goals using well-planned, rapid, violent action along with surprise, boldness, concentration, and pace. One cannot overestimate the need to use and use well-trained, integrated and trained teams of combined weapons. These forces must have the training, organization, weapons systems and skills to quickly and violently isolate an urban target, gain a foothold through strike action and secure it from a determined enemy, maximizing maneuver, fire support and effective small unit leadership to defeat that enemy. In limited emergency operations, effective tools and broad freedom are given to small units, ensuring huge, rapid mortality on contact that can destroy enemies in the city and, second, minimize collateral damage. Developing the ability to fight closely with the security forces of a partner country can shape the operational environment and prevent conflict [10].

By comparing the influential factors of modern combat operations in urban areas with those carried out in other areas, it is noted that although they share most of the same characteristics, there are differences in their details (Table 1) [2].

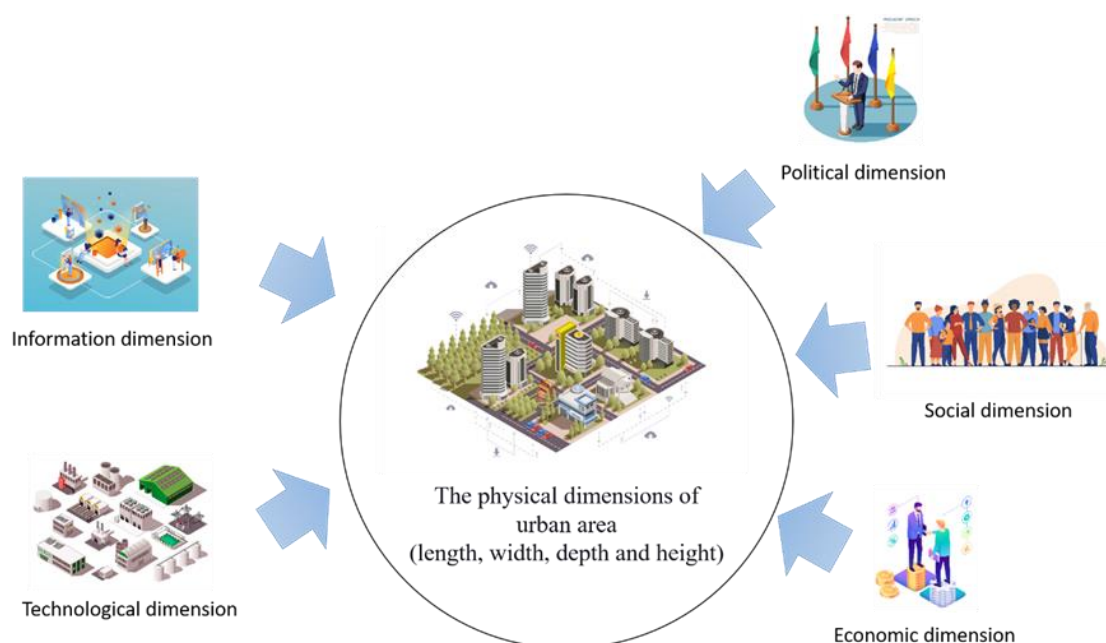
Table 1: Aspects comparison of combat operations in urban areas and in other environments [2].

Aspects	Urban areas	Plains	Forest	Mountain
Number of civilians	High	Low	Low	Low
The presence of valuable infrastructure	High	Low	Low	Low
Multidimensionality of the operating environment	Yes	No	Some	Yes
Performance restrictions	Yes	Some	Some	Some
Observation, detection, range	Short	Long	Short	Medium
Directions of movement	Many	Many	Few	Few
Freedom of movement in vehicles	Low	High	Low	Medium
The functionality of communication means	Degraded	Fully capable	Degraded	Degraded
Logistics requirements	High	High	High	Medium

The main characteristics of modern armed conflicts in urban areas are: multidimensionality, precision, nonlinearity in time and space of execution, distribution of content, simultaneity in action, integration of forces, interoperability and the need to respect international humanitarian law in the use of military force [11].

Multidimensionality

Multidimensionality implies that, in addition to the physical dimensions of the urban area (length, width, depth, and height), the political, social, economic, technological, and information dimensions must be taken into account, in which human resources imply not only military personnel but also the civilian population of the populated place in which the combat operation is carried out (Figure 3) [11].

**Figure 3.** Multidimensionality of contemporary combat operations in urban areas

The communication means and digitalization push the boundaries of the area in which the forces are used. Because increasing the power of weapons in contemporary conditions, attacks are performed on a much wider scales, which includes the electromagnetic spectrum. By improving command and information systems in real-time, it is possible to increase the pace of execution of operations [11].

Precision

Three components allow precision in the execution of contemporary combat operations in urban areas: 1) timely and accurate information for making rational decisions, 2) consolidation of information into a single operational picture of the battlefield, and 3) simulation that allows elements of military forces to be formed on the basis of a developing crisis. These components give a new quality to the development and deployment of forces, the execution of various tasks, precise maneuverings and fire support, increased power protection, optimal logistics and optimal positioning of operational layout elements in time and space [11].

In preventive deployment operations, precision in deployment is as important as precision when hitting objects in attack and defensive operations. Counterterrorism and counterinsurgency operations accurately avoid civilian casualties and reduce collateral damage to facilities and infrastructure. Assistive operations populated by intelligence gathering in intelligence operations affect accuracy by gathering accurate and timely information about the enemy, space and time.

Nonlinearity

Nonlinearity is most obvious in connection with the physical space of urban areas. In contemporary conditions conducting combat operations in urban areas is characterized by the absence of precise organization of area to the front, depth and background. In urban areas, there is rarely a clear line of demarcation between the conflicting parties [11].

In offensive operations in urban areas, it is characteristic that combat activities are directed in several directions towards the centers of gravity of the defense's instead of the front along the entire line of contact with the enemy.

In defensive operations within urban areas, there are plenty of solid shelters inbuilt objects, but when the forces of the enemy enter a populated place, defenses are most often organized at resistance points with constant activity. The dispersion of forces within built structures, underground passages, streets and parks decentralizes the command of units on the ground. This decentralization combined with various tasks that can be obtained is usually achieved through the use of small units, complex command, combat identification, data exchange and target recognition [2].

Combat operations were moved to urban areas with acceptance of the risk of the independent action of units in the assigned zones of operation. The time dimension of nonlinearity is reflected in the simultaneous execution of various tasks and requirements for information networking of forces [11].

Distribution of the content of the actions

The distribution of the content of combat and non-combat actions in combat operations in urban areas is determined by the specifics of the urban areas where military operations are prepared and carried out. The dispersion of forces over a wide combat area requires the engagement of forces whenever and when it is necessary to achieve decisive effects, as opposed to concentrating on one the deciding point. The basis for the distribution of command and management, action and against actions, security, intelligence activities, maneuvers, fire support, protection of forces, and civil-military cooperation, is a unique development of the idea, parallel planning and coordination of all participants in the operation and directly depends on the use of command and information systems [11].

Simultaneity

Simultaneity in the actions of engaged forces in military operations in urban areas is enabled by the distribution of content. Military forces are used in a series of high-tempo actions in the zone of conducting military operations in an urban area to confront the enemy in a large number of completely different situations [11].

Almost all combat operations in urban areas were carried out much longer than expected at the beginning. The protracted battles of Khorramshahr during the Iran-Iraq War (1980-1988) and Kyiv, Ukraine (February-April 2022), halted the attackers from advancing longer than expected, leading to changes in operational and strategic plans (Figure 4) [2].

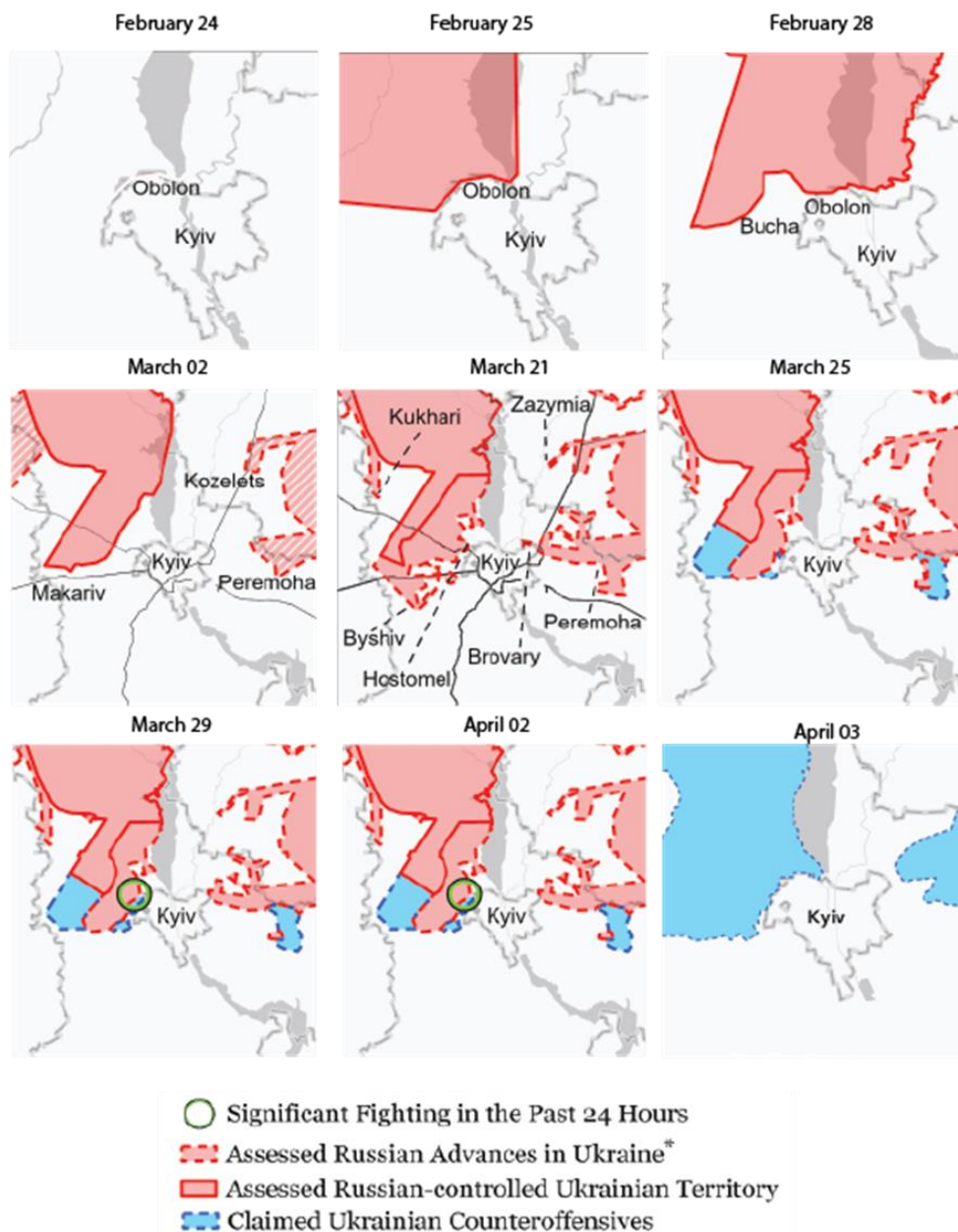


Figure 4: Battle of Kiev, Ukraine [12].

Integration military forces with civil society organizations

The result of carrying out combat operations in urban areas is many civilians, not military casualties [2]. Integration of military forces with civilian organizations in contemporary combat operations in urban areas requires the achievement of unity, despite the different priorities of participating organizations, many of which preserve their independence, freedom of action, and impartiality. In such conditions, the need for improving communications, planning, and interoperability with potential participants in contemporary operations is expressed [11].

Particular attention should be paid to the manner of marking targets within the limited space of the populated place. Dealing with the preparation of battlefields and data collection in the field is much more demandingly involved in operational planning. The results of dealing with the preparation of battlefields and data collection in the field can reduce the use of inadequate weapon systems and lead to the decision to strike targets with precision ammunition, thereby reducing collateral damage [2].

Interoperability

Interoperability is the ability of the joint and simultaneous operation of the military forces of different nations [11].

Combat operations carried out in urban areas have greater restrictions than operations in other areas. The presence of civilians and the need for the preservation of infrastructures greatly influence operations and help shape rules of engagement and rules for the use of force. The rules of engagement and the rules for the use of force determined for operations are often harmonized and refined according to the situation in order to limit collateral damage to civilians and their own forces while allowing flexibility in the execution of the mission. Most combat operations in urban areas since 1967, it has had one or more of the following limitations determined by the forces engaged: the fewer losses in their own forces; reduction to minimize civilian losses and/or collateral damage; or restrictions on the use of land-based weapons not of the army or air force and air defense [2].

Respect for international humanitarian law

Respect for international humanitarian law in military operations in the urban area requires knowledge and implementation of its provisions. International humanitarian law is a set of rules that, for humanitarian reasons, seek to limit the consequences of armed conflict. International humanitarian law protects persons who do not participate (or no longer participate) in hostilities and limits the means and methods of warfare [11].

The use of military force in contemporary operations in urban areas is based on the most important principles of international humanitarian law:

1. Proportionality, indicates the limited right to choose the means of carrying out actions. Life expectancy, injury to civilians, and damage caused by actions in a populated place must be proportionate to the military benefit derived from the actions (Article 22, Convention on the Laws and Customs of War on Land – IV Hague Convention);
2. Caution implies that the infliction of losses on civilians and the destruction of their property in a populated place are minimized.
3. Differentiation implies observing and respecting the differences between civilians and combatants and civilian and military objects in a populated place implies that only those actions which have a military justification can be taken and do not justify the excessive use of force, which is prohibited for the purpose of achieving goals in armed conflicts.

4. Humanity implies a focus on people, whereby it is considered that the treatment of both sick and injured obligations of all military forces in a populated place is considered to be lessened [11].

CONCLUSION

Armed conflicts have historically taken place around and in urban areas. In the 21st century, they are increasingly taking place within urban areas. The observed phenomenon in the place of armed conflicts coincides with the trend of expansion of urban areas.

Weaker armed forces tend to draw stronger armed forces into enclosed spaces in urban areas in order to minimize the effects of their weaknesses in human and material resources.

The stronger armed forces show an aspiration to bypass and avoid the development of armed conflicts in urban areas during their performances. On the other hand, when an operational situation forces that an armed conflict develops within urban areas, stronger armed forces tend to use all their material and human superiority, disproportionately using force, thereby causing damage or destruction of facilities and infrastructure systems of urban areas, and this leads to suffering and suffering of the civilian population.

The characteristics of modern armed conflicts, due to the characteristics of urban areas, manifest themselves quite differently compared to other areas. The main characteristics of urban areas are built buildings for housing and economy, basic communal infrastructure, and the presence of permanent residents. The main characteristics of modern armed conflicts in urban areas are multidimensionality, precision, nonlinearity in time and space of execution, distribution of content, simultaneity in action, integration of forces, interoperability, and the need to respect international humanitarian law in the use of military force.

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