

TRENDS IN THE FUTURE OPERATIONAL ENVIRONMENT

Vasile CHINDRIȘ

„GEMINA” 4th Infantry Division, Cluj-Napoca, Romania

DOI: 10.19062/1842-9238.2016.14.1.5

Abstract: *When analyzing the future operational environment, we must take into consideration that strengths or weaknesses in one domain may create future opportunities or threats in that area and/or in another which are connected to it. Therefore, a comprehensive awareness of the present operational environment and how it evolves in the future is crucial. The success of military operations carried in the future operational environment requires an exhaustive understanding of its present and, especially, of its probable characteristics. Early identification of trends regarding the factors that define the operational environment will help decision makers to better plan the future military actions. Planning is the art and science of understanding the situation, forecasting the desired end state and establishing effective ways of achieving the expected outcome. The fact that operational environment is the framework of carrying military action makes it a fundamental element to consider in operational planning process.*

Keywords: *future, operational environment, globalization, trends, technology, resources, urbanization, climate.*

1. INTRODUCTION

Romanian land forces, especially air defense structures, will act in a more and more complex operational environment, in which challenges will arise increasingly varied or even unexpected.

On that basis I consider it is necessary to formulate views regarding the operational environment development and forecast trends in air threats that may arise, and will have to be countered by air defense structures.

I believe that these views will enable military planners a better understanding of the context in which forces will act and establish lines of action for future changes in missile and anti-aircraft artillery.

Given the evolving nature of the international security environment, most changes are based on a rather large dose of uncertainty coming from nature, extent or duration, so we can predict its surprising, seismic and discontinuous character.

According to some military analysts' operational environment is “*a sum of conditions, circumstances and influences affecting the use of own forces requiring commanders' decision.*”[1]

2. THE OPERATIONAL ENVIRONMENT

The constituent elements of the operational environment can be grouped according to the following categories [2]: physical environment, threats and uncertainties, the local population, the presence and involvement of other agencies, forces and organizations.

Contemporary operational environment has some constants that define its nature, such as globalization, cross-border crime, ethnic tensions and religious, separatism or national borders contesting and the migration phenomenon, armed forces modernization, international markets diversity, the advanced technologies for different actors (state or non-state) worldwide.

It also has several variables that can be critical like „*international relations and regional nature and stability of the state, the economy, demography and social situation, the intelligence, the physical environment, the technological level, the international organizations, the nation's will, time and military capabilities*” [3].

These variables are interrelated and sometimes overlapping. They may have greater or lesser influence on the operational environment depending on the situation at a certain time.

British doctrine protrudes, quite pragmatically the operational environment of the future: „*Future conflict will not be an exact science: it will remain a unique human activity and impossible to predict accurately. Opponents (state or non-state) and threats (conventional and unconventional) will be in mixed configuration. The palette of threats will be expanded, including the proliferation of weapons of mass destruction, cyber attacks and other new irregular threats*” [4].

Regarding the actors of the future operational environment, as we have shown above, the analysis will be according to their type as state and non- state actors.

Regarding state actors, they are expected to increase control over resources and spheres of influence, a situation in which, combined with the failure of some states it will generate instability and conflict. These animosities between countries can lead to minor conflicts in the first phase, which may degenerate into major conflicts or even wars. Ethnic tensions, religious or separatist may add more volatility to these conflict situations. The rivalry between states, expansionism trends can lead to so-called „wars” that could be carried through intermediaries, a form of unmanageable conflict. Also proliferation of nuclear weapons and technology development remind us the catastrophic type threat as a characteristic of these actors.

Developing air platforms (which can evolve at low altitudes, at speeds ever higher, with a smaller radar footprint) and ballistic missiles constitutes a challenge for anti-aircraft and rocket artillery structures. Non-State actors, as defined by the absence of government involvement and identified as multinational corporations, NGOs, local authorities will be more influential than they are today and will have a greater impact on the world economy.

Cooperation between state actors and non-state actors will be crucial in the evolution of the future security environment. The trends are towards greater commitment and greater importance of local authorities. Extremist non-state actors, in most cases driven by ideology with criminal inclinations, will try to impose their will. They also will be able to exploit information technologies with the potential to significantly influence the economy and will be able to use a certain range of military capabilities on a limited scale, using innovative tactics, which will allow the exploitation of state actors' vulnerabilities [5].

These extremist non-state actors are likely to develop an increasing level of lethality in order to defeat the state actors protection systems and also could have access to weapons of mass destruction. They will try to obtain *spectacular and violent* effects and also link to criminal organizations. As for the future, the threat level will increase and the difference between state actors and non–state actors will decrease noticeably.

These extremist non-state actors are likely to develop an increasing level of lethality in order to defeat the state actors protection systems and also could have access to weapons of mass destruction. They will try to obtain *spectacular and violent* effects and also link to criminal organizations.

As for the future, the threat level will increase and the difference between state actors and non –state actors will decrease noticeably. The development of radar jamming devices and air reconnaissance stations of various types (active, passive) for air defense structures will have a negative influence on the overall radar image.

The operational environment will continue to evolve, presenting varied challenges to military forces such as threats generated by opponents performing actions whose character range from conventional to unconventional, with capabilities that require cutting-edge weaponry and technology.

These significant challenges arise from: *population growth, migration, decreasing resources, climate change, continued globalization, rapid urbanization and technological advances.*

A combination of these factors can lead to major challenges and an unstable security environment.

Population growth is likely to and will generate overcrowding, especially in urban areas and this will lead to instability. The population is expected to reach 8 billion by 2024, 9 billion by 2040 and 10 billion by 2062[6]. The growth rate will be higher in less developed countries and slower or even zero in the most developed ones. Simultaneously with the population growth we see a decrease in resources which can generate: tensions between state actors, increased migration, extremism and the forging of new alliances. Another component of the demographic dynamics is migration. Migration flow itself influences world's the demographic, social and economic security.

Decreasing resources will lead to increased costs associated with them and together with population growth can lead to high inequalities between nations or within them. As a result, deprived areas it will appear and instability and corruption will be installed very easily. The need for transportation of essential resources using long routes and sometimes bypassing some countries may increase instability and tensions between states. The need to protect these routes, as well as access to resources, may act as a catalyst for conflict between state actors.

Climate change happens nowadays: changing seasons and rainfall, temperature rise, glaciers melting and the average global sea level rise. It is expected that these changes will continue, and extreme weather events that lead to risks like floods and droughts become more frequent and increase their intensity. The impact over nature, economy and our health varies by region and territory and may result in loss of life and material, famine and diseases. Side effects of climate change will be: increased migration, social unrest, instability and conflict.

Less developed countries will feel the impact more acutely because they are unlikely to have the resources necessary like the more developed countries to successfully mitigate it. "*Globalization is a process of interaction and integration of individuals, companies and governments of different nations, a process driven by treaties, investments and access to information technology. This process has effects on the environment, culture, political and economic system, development and prosperity, development and social mental state around the world*" [7].

As a strict term, globalization means a multitude of economic and social changes made by mankind nowadays and monetary financial flows integrated into large scales with an impact on the characteristics of social interactions.

Globalization refers to that transmutation occurred in the structure and organization of human societies that led to extensive dissociation and polarization of nation-states or, at least, what has left nowadays at the beginning of the third millennium. However, the term should not be "read" as likely to foresee the imminent birth of another kind of harmonious society and also should not be understood as a universal process of integration into the new structure of world characterized by increasing convergence of cultures and civilizations, which are today mostly national" [8].

Globalization will have increasingly larger consequences worldwide: affecting national sovereignty, cultural and spiritual identity, domination of multinational companies, free movement of capital, information, persons and goods, affirming the culture of the contract, the birth of a global civil society – and that will require action from the international community.

Urbanization has now become a general phenomenon, specific and irreversible, with a trend towards increased complexity, scale and dynamism. It is expected that the majority of the population will want to live in cities, but because of this, there is possibility that many suburban areas will become ghettos and hence showing major security problems.

Technology has advanced so much that is everywhere in our lives and there is almost no place on the globe where technology has not penetrated yet as part of an important trend of the last two centuries.

The technology provides multiple benefits for humanity, but every advantage can become a disadvantage at the same time because the technology is a double-edged sword.

Technological advance can increase economic imbalance between state actors, generate regional instability and provide opportunities for early control of future threats.

Technological developments will provide opportunities for the armed forces to obtain a military advantage in a future armed conflicts and pressure on defense budgets in order to counter the capabilities of the enemies.

Open markets will facilitate access to all state and non-state actors in modern equipment technology and combined with lower production costs will allow technologies to proliferate, allowing for a diverse range of actors having access to them, including non-state actors' extremists.

Technology development is expected to grow towards new directions and at much higher speeds, which will make the procurement of technical defense to be difficult to sustain according to the new requirements. In my opinion the purchase of superior technique will not be enough and the actors who will be able to integrate new technologies, to modernize and to upgrade existing.

CONCLUSIONS

It is essential to understand these general trends, because they help decision-making elements to apply coordinated national actions in response to these changes. Global trends could lead to tensions, instability and even conflict. Whatever the purpose, the opponents in the future operational environment will be extremely adaptable and “fluid” being able to use a wide range of technological facilities, equipment and procedures, combined with conventional weapons and improvised means.

REFERENCES

- [1] Bălăceanu Ion, Teodor Frunzeti, Valentin Dragomirescu, Marius Hanganu, Cristian Petre, *Interaction strategies in modern armed conflicts*, Volume II – National Defence University “Carol I”, Bucharest, 2011, p.101
- [2] AJP 3.2 Allied joint doctrine for land operations, NATO HQ, Brussels, 2007 pp.1-3
- [3] Ion Bălăceanu, Teodor Frunzeti, Valentin Dragomirescu, Marius Hanganu, Cristian Petre, *Interaction strategies in modern armed conflicts*, volume II – National Defence University “Carol I”, Bucharest, 2011, p.101
- [4] Strategic trends programe. Future character of conflict, UK Ministry of Defence, 02.02.2010, p. 6 pe <https://www.gov.uk/government/publications/future-character-of-conflict>, accessed on the 03.07.2016
- [5] Hoffman, B., Holy Terror: The Implications of Terrorism Motivated by a Religious Imperative' pe <https://www.rand.org/content/dam/rand/pubs/papers/2007/P7834.pdf> accessed on the 03.19.2016
- [6] https://www.ined.fr/en/everything_about_population/graphs-maps/population_graphs/ / accessed on the 03.26.2016
- [7] <http://www.globalization101.org/what-is-globalization/> accessed on the 03.27.2016
- [8] F. Erhan, Globalization. In search of balance, Editura. Economica, Bucharest, 2003, p.
- [9] Moşoiu, Ovidiu & Bălăceanu, Ion. (2013). *Tehnică militară și sisteme de armament destinate apărării antiaeriene*. Braşov: Editura Academiei Forţelor Aeriene „Henri Coandă.
- [10] (2007). AJP 3.2 Allied joint doctrine for land operations, NATO HQ, Brussels.