THE TRANSFORMATION OF THE ARMED FORCES IN A COMPLEX WORLD

Lieutenant Colonel of the Marine Corps
Samuel Morales

He holds a degree in Political Sciences, a Diploma in International Higher Studies from the Society of International Studies and in Advanced Studies from the National University of Distance Education. In addition, he has a degree as expert in Security Management and Research from the University of Vic. He is an expert in the Islam of Emigration, Sociological and Legal Aspects and in Intelligence Services by the National University of Distance Education; Master’s Degree in Strategic Studies and International Security from the University of Granada and in Economic Intelligence from the University of Barcelona.

During his professional career, he has worked as an analyst in the planning section of the Operations Command of the Defense Staff. He was a member of several international organizations in the Balkans, Haiti, the Gulf of Guinea and Lebanon. He has been Head of the Crisis Area in the Department of National Security of the Cabinet of the President and Technical Adviser in the Office of Strategic Affairs. He is currently serving as Technical Adviser to the Navy’s Chief of Staff.
According to a report by the National Defense University of the United States (Rowell & Singer, 1999), during the World War II, the destruction of a target, occupying an area of 600 x 1000 Feet required the use of 9000 aviation bombs of 2000 pounds and at least 1500 bomber outputs B-17.

In 1970, during the Vietnam War, the destruction of that same objective would have required only 176 of those bombs and 88 departures of F-4 aircraft. Twenty years later, during the Gulf War in 1991, its destruction would have required only one or two laser-guided aviation bombs dropped from an F-117 bomber.

Today, the attack on the target could be achieved using a single Joint Direct Attack Munition (JDAM) launched from a remotely manned platform.

The cost of the resources to carry out the attack to which we are referring has also been drastically reduced. However, the economic cost and complexity of the technology employed has increased exponentially. In addition, this extensive use of technology is amplified by the incidence within modern societies of what is known as the Fourth Industrial Revolution.

A revolution characterized by the exchange of information thanks to the ability to connect all systems, including machines and tools, and not just computer ones; and whose three flagships are artificial intelligence, robots and big data.

The applications of this revolution in the field of defense in areas such as the use of augmented reality, 3D printing, cloud computing, the Internet of things and especially the use of big data and data science represent a broad set of technologies of a disruptive nature for the processes. Products and business models of the traditional industry whose consequences we cannot yet assess accurately but which will surely bring about a systemic change.

Today, there is a consensus among security analysts that the current international scenario is based on great complexity. The dizzying change in actors and relations, volatility and uncertainty

Equally, consequences are also starting to be glimpsed in the relationship between society and the armed forces. The reduction of human costs in the operations and the lack of visibility of these to civil society, together with the professionalization of the armies, is provoking a growing distancing from these with respect to societies that lack not only their own military experience, they also do not know the consequences of armed conflicts on it.

This example of transformation has not been exclusive of the Armed Forces, but in recent years has occurred in a general way within modern societies. These processes of innovation and transformation are even more relevant nowadays due to the effects of the Fourth Industrial Revolution.

The inevitable processes of transformation within organizations

It is evident that the immediate future, if not already the present, gives us an era in which the environment will undergo a drastic and revolutionary change, which will generate great uncertainty as well as will force us to assume higher risks. A change that will take place at great speed, which in many cases will be unexpected, inconceivable, and sometimes unpleasant. A revolution in which the changes will be unpredictable and will force us to react to the surprise.

Victor Hugo called it opportunity. However, to make the future becomes an opportunity, it must evolve and has to be transformed. An organization can be
conceived as the social place where a group of people shares beliefs, values and assumptions that encourage them to have mutual interpretations, which reinforce their actions and those of other actors. However, not all organizations have the same essence, although they are all a space for social construction.

There is a great difference between them, given by the purposes for which they exist, that is, the function to be fulfilled, the members that integrate it and the interests that they serve.

Despite these differences, it is easy to identify points of convergence, which include: being guided by a strategic direction, having a culture of their own, forming hierarchical structures, orienting oneself towards the attainment of objectives. The relationships between its members obey to formal and informal elements.

According to Jose Vargas Hernandez, one of the most important points of convergence is the address. Every organization, lucrative or not, has a leader who thinks on the mission of the organization. The strategic direction must formulate the mission, the objectives, the strategy, the action plans and the decision-making (Vargas Hernandez & Guillen Mondragon, 2005).

This wide range of responsibilities means that strategic leadership has influence over the members of the organization at three different levels: in the systemic structure, in the behavior patterns and in the processes.

It should also be considered that the formulation of any strategy goes together with the evolution of the organization and its services. It is the strategist who determines the strategies that will be implemented to achieve the desired end-state. Thus, it is easy to assume that the transformation of organizations, from a traditional model to a modern one, also requires a new style of leadership.

Under the context of what really an organization means, it is necessary to know that a true transformation has two aspects. The internal one, that not only has to deal with the institutional changes and the way it affects the institution, but also with the perception from its member about the process, which is related with the personnel and their values. The external aspect, related to the impact of this transformation process, that are produced in the political, security, technological, economic and social environment.

Unfortunately, it’s so hard to deal with any change; the only constant of these processes is evolution. An evolution that must be led by people of action, since only the action produces results.

In addition, it is necessary to consider that the true transformation occurs when the momentum goes in the same direction with the two mentioned tendencies, internal and external change. This need for synchronization forces us to observe carefully the environment in order to evolve the institutions in the same direction as it does.

Among the different constitutive elements of any transformation process, it is necessary to influence in the technological, social and human aspects. In the first place, technology, because it is a good starting point, and we must not forget that the transformation has to go further.

Second, the agility of institutions, understood as the ability to reconfigure structure, processes and technologies, which creates opportunities of value while protecting the institutional culture, its values and human capital, aspects that have to remain always at the center of priorities.

Third, the commitment of all the members of the organization, because they are agents of change. A commitment that requires processes of collaboration, co-creation and talent management. This is the reason why any transformation process must penetrate from above through commitment and vision, which involves the whole institution to articulate the change in an uncertain environment.

This new revolution offers challenges and opportunities of a disruptive nature, to countries, institutions, companies and the citizens themselves. This will generate a great level of uncertainty and will require the obligation to assume higher levels of risk, which make it inevitable that errors are commented on.

The important thing is to make a quick and transparent mistake to make the right mistakes, always maintaining the achievement orientation established by a clear vision, to fix what’s wrong and to turn them on the right course, despite of the difficulties.

True leadership is the ability to turn a vision into reality. For this, it is necessary to take advantage of opportunities, as well as to adapt strategies, plans and measures, and to provide resources; everything, striving to avoid the resis-
It is necessary to understand the ability of people to take risks and to adapt the old tools to new tasks; but at the same time, also avoid the flight of talent through constant innovation, retention processes and the promotion of new ideas.

Transformation processes require the adaptation of the organizational structure, the incentive system, the dedication indicators, the leadership team and even some aspects of the organization's culture.

Donella Meadows in her book thinking in Systems states: “A system is not a mere collection of elements. A system is a set of interconnected elements coherently organized to achieve an objective”. It is easy to deduce that a system is composed of three fundamental elements: its function or purpose, the constituent elements and the interconnections.

On the other hand, as Jay Forrester states: “All social systems tend to have sensitive points of influence through which the behavior of the system can be changed”.

Under this approach, we must consider that it is not necessary to modify all the components of a system to achieve a significant change. Some components have more influence than others do, so the effort should be focused on those components. In addition, it is necessary to consider that, sometimes, small modifications in the basic structure of a system can motivate profound changes in its global behavior.

In synthesis, a transformation is not an isolated event, but a process, a gradual and progressive succession of events that, following fundamental principles and rules, lead to an objective.

In any case, in order to face a process of a successful transformation, it is necessary to know the causes of its possible failure. The main ones are:
One of the most efficient ways to consolidate changes is to ensure that the leaders of the new organization have the required knowledge, skills and attitudes. They should be a true reflection of what is needed in the future.

The importance of strategic communication in transformation processes

Surprisingly, many transformation processes fail due to lack of communication and lack of motivation. Not only at the beginning, but also during the process and even at the end.

Communication must always be transparent and real. Its management, in appropriate periods, is a privilege as well as a tool to mobilize organizations and take people out of their comfort zone.

Direct, face-to-face communication is more effective than indirect communication. However, in large and dispersed organizations, it is not possible to have conversations with all members. Nevertheless, looking for efficiency in the selection of the channels to be used, it’s necessary to consider that the closer they can come choosing those, the better they will be.
Finally, it must be ensured that communication is conscious and consistent, regardless of the number of methods and channels used. The communication needs to be simple and has to involve both the rational and emotional part of the members of the organization.

**The Evolution of the Paradigm in Armed Conflicts**

The difficulty of dealing with a changing environment has also been evident, as demonstrated in the introductory example, in the area of defense. In the last three decades, innumerable attempts have been made to delimit the: “new wars”.

Without intending to show an exhaustive list, the most representative lists are those presented by Rupert Smith (War amongst the people), Martin Libicki (Non-obvious warfare), Mary Crannell and Ben Shepard (Narrative warfare), Frank Hoffman (Hybrid warfare), Charles Dunlap (Lawfare), Qiao Liang and Wang Xiangsui (Unrestricted warfare), Edward Luttwak (Post-heroic warfare), William Lind (4th Generation warfare) or John Boyd and Frans Osinga (Decision Cycle Dominance).

There is no doubt that the way of dealing with conflicts has evolved and, consequently, the type of force required and its use.

This evolution has been influenced not only by factors directly linked to force and threats but also by the evolution of world geopolitics from the bipolar world defined by the Cold War. The eruption of a new historical wave of exacerbated nationalisms. The threat of global terrorism of a Jihadist-Salafist nature and the financial crisis that flourished in 2008 has conditioned the distribution of budgets and the acceptance by the population of certain budget items, which inevitably include those for defense, to the benefit of others associated with maintaining the welfare state achieved in recent decades.

The concept of mission command should not be understood as a doctrinal approach to the leadership of organizations, nor as a form of command and control, nor as an approach to the management of the technological revolution that faces a society.

Today, there is a consensus among security analysts that the current international scenario is based on great complexity. The dizzying change in actors and relations, volatility and uncertainty: factors that will probably continue to increase in the years to come and that determine the prediction and decision making needed to define the model of armed forces, which poses a permanent challenge to those responsible for defense planning.

In this environment, conventional clashes between large military units, although not entirely ruled out in future conflicts, seem to have given way to two new forms of confrontation, asymmetric conflict and hybrid warfare, in which violent non-state actors are gaining, increasing preponderance.

The way of dealing with conflicts with of “no boots on the ground” mindset has favored the greater presence of these actors. Due to the implementation of interventions with local forces, regular or not, known as Proxy Forces, all with the intention of minimizing their own casualties and the duration of interventions after the length in the operations in Afghanistan and Iraq.

The rise of these actors and their ability to surprise repeatedly national and international security systems is largely due to their flexibility and adaptability to the dynamic and fluid environment.
Thus, a large number of these new actors share two common elements, even though their motivations, beliefs, ideologies and objectives are different. First, they repeatedly take action, often indiscriminately, against non-combatants with justifications of all kinds. Secondly, despite having taken the many preventative measures, they have a surprise effect that influences the public’s perception of security.

Its effectiveness is largely based on the unpredictability of its actions, the surprise effect they achieve and the exploitation of everyday aspects and situations. Moreover, they are constantly developing new and innovative methods for carrying out their activities, adapting their procedures to use the means at their disposal effectively, in order to exploit the weaknesses of our complex and interconnected system of life.

Nor should the increasingly common connections between organized crime and terrorist organizations or insurgent groups be ignored. This symbiotic relationship between the two criminal models presents a challenge, the consequences of which are difficult to assess in a general way, and therefore requires a specific case-by-case study.

The above-mentioned relationship may cause military units to be involved in operations to support police forces within the State itself following the raising of alert levels, fundamentally anti-terrorist, or in the application of contingency plans established for the protection of critical infrastructures.

In this context, rigid hierarchical structures, distorted when based on an erroneous idea of the concept of “centralized decision”; in favor of the deviated notion of “personalized decision”; offer an adequate level of response in the framework of the confrontation between conventional forces. However, as early as 2004 in Iraq, they proved ineffective in dealing with violent non-state actors.

Despite the reluctance of some sectors of military organizations to the evolution of outdated concepts of command and control, a rapid analysis of organizational theories shows the impossibility of developing an organizational model that responds effectively to such differentiated environments.

Thus, in the military sphere, an evolution is being observed from the traditional hierarchical structures towards others based on distributed control systems, which, protected by adequate leadership, information systems and procedures, increase their capabilities in complex and multidisciplinary environments.

These trends are geared towards smaller operational organizations, characterized by high readiness, rapid projection capacity and a design towards interventions of a limited nature, capable of acting in various domains through the integration of the capabilities provided, among other means, by remotely manned vehicles or cyber war.

The decisive advantage during confrontation, today as in the past, is based on using the type of force required on the right target at the right time, thanking to a clear understanding of the environmental characteristics where operations take place, as well as their potential evolution.

This decisive advantage cannot be achieved by confronting a hierarchical system, governed exclusively by criteria of efficiency, with a network structure governed by criteria of survival and adaptability. The new paradigm shift in the planning and conduct of operations is not so much based on carrying out tactical actions efficiently as on executing the right actions in each situation.

This new model of organization requires a renewed style of leadership, oriented to its exercise through the influence. The unit commander must develop a leadership that fosters the initiative of subordinate commanders, as well as decision-making at those same levels, which facilitates coordination among them and even with other agencies in the area, without resorting to the micromanagement of the commander or the micromanagement of its Staff.

A style of command that relates to understanding the operational environment and the concept of mission command or Auftragstaktik, as Robert M. Citino (Robert M, 2015) states, this concept allows lower-ranking commanders to take the initiative to act as the situation dictates even if it means ignoring higher orders.

For all this, it is shown as a requirement to not only have an agile decision-making system, but also with a commander who exercises leadership through his personal vision of the environment, so that it really facilitates and guides action at all levels when changes occur in the environment.

There is a broad consensus among security analysts that the current international scenario is based, both nationally and internationally, on great complexity, rapid changes in actors and relations, volatility and uncertainty.
This leadership model should encourage initiative, freedom of action and involvement of all subordinates. Rather than indicating the "what"; for subordinate units to develop the "how"; at present we should tend to establish the "why and for what"; leaving subordinate units to surprise us with the "what"; and the "how". This requires a system based on effective professionals, committed, proactive and responsible for their field of work.

**The Constant Revolution in Military Affairs**

The evolution of the environment that we have described has subjected the armed forces to a constant process of transformation that may begin after the end of the 1991 Gulf War. After that conflict, the need to form units capable not only of facing the traditional combat between conventional units, but also of responding quickly and effectively to less intense crises began to emerge.

These units had to be easily projected and sustainable while maintaining the lethal capacity of their predecessors and adding versatility and adaptability to meet a wide range of challenges ranging from irregular to conventional warfare. In addition, these organic changes necessarily had to be accompanied by doctrinal changes.

In order to carry out the tasks assigned effectively, these new units also had to be organized, equipped and trained from a joint perspective that has also been transformed into an integrated one.

The implementation of the transformation received a great impulse at the beginning of the first Bush’s administration and then went to the NATO. Later, the Prague Summit in 2002 marked the beginning of a remodeling of this alliance’s structure and the creation of the Supreme Command of Transformation in the American city of Norfolk.

This transformation process was judged to face the highly complex strategic environment of change. So, its permanent strategic purpose is to achieve operational advantage over a hypothetical adversary by overcoming their capabilities. Permanent transformation or innovation implies an alteration in the culture of any military institution which, while preserving its essential values, adopts innovative forms of action.

At the beginning of the twenty-first century, everything related to transformation was new for most armed forces because it meant putting into practice an integral modality of activity that acted simultaneously on the organization, processes, technology and personnel, especially in the aspect of training, in order to achieve the effectiveness of the military institution.

The concept of mission command: paradigm of military transformation or example of unbeatable challenges?

Perhaps the best example of transformation action in the military field in recent decades was the change in philosophy advocated by the concept of mission command (Auftragstaktik). A concept that not only represents the highest

---

1 Captain Adolf von Schell, a German exchange officer at the Fort Benning Infantry School during the 1930s, explained this concept in the following way: Orders are not written providing the slightest detail of execution, only the mission is stated to the commander who is to carry it out. The reason for this is that only the field commander has the ability to accurately assess and adapt to the environment. Based on the evolving operational environment and a clear understanding of the higher purpose, the field commander could vary his duties.
form of military professionalism, but also a real transformation of the military organization.

However, despite the years since its formulation, it has only been partially implanted in most armies, possibly due to the difficulty of coping with such a deep and far-reaching cultural change.

The concept of mission command should not be understood as a doctrinal approach to the leadership of organizations, nor as a form of command and control, nor as an approach to the management of the technological revolution that faces a society.

On the contrary, it must be understood as a cultural philosophy of the whole organization in all the activities that it develops. The organizational culture is much more important for the effective application of a concept of transformation than the involvement of people in its development.

However, the German success in its application was also based on the selection of leaders at all levels of the organization, who possessed three common characteristics: a solid doctrinal knowledge, an independent character and a tendency to assume responsibilities in decision-making.

An organizational culture that was executed by men of action and that encouraged the making of a good decision in a timely manner as opposed to a better but extemporaneous decision.

This organizational culture is necessary in the armed forces if they are to stand against the permanent process of transformation successfully. Especially, as it is made in the Armed Forces of Colombia, in which they plan and deliberate, in order to face this process.

Conclusions

Modern societies face a process of change known as the Fourth Industrial Revolution. A revolution characterized by the exchange of information thanks to the ability to connect all systems, including machines and tools, and not just computer systems; and whose three flags are artificial intelligence and big data.

This process of systemic change, the scope and consequences of which are difficult to anticipate, is also having an impact on national and international security systems. There is no doubt that the way of dealing with conflicts has evolved and consequently the type of force required and its use in the conflict scenario.

Therefore, there is a broad consensus among security analysts that the current international scenario is based, both nationally and internationally, on great complexity, rapid changes in actors and relations, volatility and uncertainty. For this reason, decision-making to define the necessary model of armed forces pretends to be a permanent challenge to those responsible for defense planning.

The armed forces, like any other sector of society, will be forced to face a constant process of transformation in the coming years, in order to continue to be an effective tool for their governments in managing crisis situations. Despite the reluctance of some sectors of military organizations to the evolution of outdated concepts of command and control, a cursory analysis of organizational theories shows the impossibility of developing an organizational model that responds effectively to such differentiated environments.
Unfortunately, there is no a clearly defined model on how to deal with change; the only constant feature of these processes is precisely evolution. Although there is one element in common to all of them, the end of any transformation process is always the same: whether members of an organization do other things or do them in another way to increase effectiveness and efficiency.

We have to be fully aware that a transformation is not an isolated event, but a process, a gradual and progressive succession of events which, following fundamental principles and rules, lead to an objective.

In addition, it is important to bear in mind that a real change has two sides. One internal, which affects the institution itself and not only has to deal with the changes within it but also with the perception from its member to the process. A perception that is directly related to people and values; and another external, related to the impact of the changes that take place in our political, security, technological, economic and social environment. True transformation occurs when the impulse generated by these two tendencies in the same direction is accompanied.

Likewise, in transformation processes, one of the main aspects to consider is the direction of the process and the commitment of this direction to the desired end situation. An evolution that must be led by people of action, since only action produces results. The real difficulty lies not in the formulation of the change’s strategy, but in its implementation, and experience shows that the lack of commitment on the part of the governing bodies of the process is one of the main challenges that will have to be faced.

For this reason, the direction of a transformation process requires a renewed style of leadership, oriented more than to the exercise through the command, to its exercise through the influence. A model that encourages initiative, freedom of action and involvement of all subordinates. This requires a system based on effective professionals, committed, proactive and responsible for their field of work.

Thereby, this must be supported by an institutional model based on influence, on the promotion of initiative and on freedom of action, so that when units in the field face the adversary, they know how to neutralize their advantages, getting a higher rate of decision.

Transformation is a long-term process that requires building trust and without credibility there is usually no trust. Change management, like process improvement, requires knowledge, capacity and methodology. This makes it easy to see that one of the most efficient ways to consolidate change is to ensure that the leaders of the new organization have the required knowledge, skills and attitudes. They must reflect reflection of what is needed in the future.

There’s no doubt that the main challenge facing any transformation process is people. This challenge can be approached from three different perspectives, always bearing in mind that all members of an organization are agents of change.

The first is related to what each person is willing to transform, leaving behind inertias created after years of operation and work processes strongly rooted. The second is directly related to the investment which we are able to make training the personnel. And the third one, it is oriented towards the degree of commitment of the members of the organization to the transformation process and to ensure their commitment.

The armed forces, like any other sector of society, will be forced to face a constant process of transformation in the coming years, in order to continue to be an effective tool for their governments in managing crisis situations

References


