# Leadership in Future Operational Environment

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Abstract—Rapidly changing factors that affect daily life also affect operational environment and the way military leaders fulfill their missions. With the help of technological developments, traditional linearity of conflict and war has started to fade away. Furthermore, mission domain has broadened to include traditional threats, hybrid threats and new challenges of cyber and space. Considering the future operational environment, future military leaders need to adapt themselves to the new challenges of the future battlefield. But how to decide what kind of features of leadership are required to operate and accomplish mission in the new complex battlefield? In this article, the main aim is to provide answers to this question. To be able to find right answers, first leadership and leadership components are defined, and then characteristics of future operational environment are analyzed. Finally, leadership features that are required to be successful in redefined battlefield are explained.

**Keywords**—Future operational environment, leadership, leadership components.

#### I. Introduction

DUE to the changing elements of operational environment, future leaders must gain the ability to meet the challenging demands of new missions that have broadened the spectrum of operation. New battlefield conditions require leaders that can deal with complex and opaque characteristics of future conflicts, have the ability to develop solutions for unprecedented situations, adapt new conditions easily. Since the only unchanged element in new battlefield is human, this article tries to demonstrate effects of changing conditions on leaders and to underline some of the leadership features which are considered crucial for success in the new battlefield.

Leadership features can vary from nation to nation due to the cultural differences. However, this article stresses on most effective and non-culturally changing features of leadership, which can be applied in almost all situations.

Though there are three levels of leadership, which are strategic leadership, organizational leadership and direct leadership [1], this article only focuses on the tactical level leadership. Tactical level leadership or in other words direct leadership can be called as frontline leadership [1] that starts from squad level leaders.

## II. LEADERSHIP

## A. Definition

According to Gary Yukon leadership can be defined as "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish

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shared objectives" [2]. Or in a short way, Dwight D. Eisenhower defined it as "Leadership is the art of getting someone else to do something you want done because he wants to do it" [3]. It can be inferred from two definitions above that leadership is the ability of having people do the job that must be done for the organization. Armed forces are huge and complex organizations that require effective military leaders to fulfill required task for the benefit of the countries.

#### B. Components of Military Leadership

Military leadership has four different interrelated components that are moral domain, physical domain, military domain and intellectual domain. These four leadership domains composed of overlapping leadership features all of which are vital for healthy unit management and success in the battlefield. Although none of the features in these four domains can be ignored, some features come to fore due to the requirements of current operational environment.

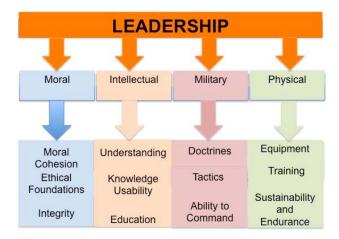


Fig. 1 Leadership Components

# III. FUTURE OPERATIONAL ENVIRONMENT

We live in a world of rapid changes that have altered the conditions of operational environment. Contrary to the traditional operational environment, future operational environment (FOE) can be characterized as uncertainties. Furthermore, both the rules of traditional and future warfare will merge, even overlap. For this reason, we will face variety of violent activities stemming from both the state and the non-state actors. All these factors have combined to change the traditional linearity of war and conflict, thus have enabled the birth of irregular warfare that welcomes uncertainties.

According to [4]-[7], future operational environment will bring new threats that are uncertainty, urbanization, proliferation of weapon of mass destruction, change in tactics, limited resources, failing states and natural disaster mostly

caused by the effects of climate change. How these new threats affect operational environment is explained below.

#### A. Uncertainty

As stated before, the main feature of FOE is uncertainty [6], [8]. The core assistant of uncertainty is technology. With the help of advanced technology, state and non-state actors can cause violent actions and significant problems, which make operational environment uncertain and extremely dangerous. Even more, technology helps these actors to change the area of conflict. In other words, actors can cause violence in variety of places around the world simultaneously without being caught. Here, violence means not only traditional ways such as bombing and killing but also modern ways such as cyberattacks, illicit trades and defamation that change the area of conflict from terrain to almost every domain.

#### B. Urbanization

One of the other characteristics of FOE is urbanization [4]. In close future most of the operations will be take place in the areas, which are heavily populated and most of the economic activities take place in [5]. According to the UN World Urbanization Prospects Database, in 2006, the number of people living in urban areas exceeded those living in rural areas. Furthermore this urbanization trend seems to continue [9]. If rapid urbanization cannot catch up with required infrastructure, the result will be more poverty, more crimes and great homeland for criminals. In order to help those people in poverty and to prevent criminal actions, long term international humanitarian assistance and stabilization operations will be required [6].

# C. Proliferation of WMD

The third characteristic is proliferation of weapons of mass destruction (WMD). Advanced technology enables many state and non-state actors to gain the mass destruction ability of nuclear, biological, radiological and chemical (CBRN) weapons [4]. CBRN weapons give end to the traditional warfare and pose asymmetric threats for all countries in the world.

## D.Change in Tactics

Another characteristic is change in tactics. With the help of technology and knowledge sharing abilities, adversaries have begun to use mixed or hybrid tactics that are composed of both regular and irregular [4]. Especially non-state actors lack effective military capabilities. In order to overcome this incapability, they search for effective but low-cost solutions. The most significant of these solutions is cyber tactics combined with other irregular means. Potential adversaries, by using cyber warfare, can detect weakness in defense systems and exploit it to harm their enemies on strategic level while, on the terrain, use handmade explosives to cause violence in tactical level.

## E. Limited Resources

Limited resources will also be another element [6]. We have been using every kind of resources carelessly and now we are about to face scarcity. There is a competition for scarce resources, especially for the ones related with energy. This trend seems to continue in the future and it is for sure that scarcity will be the main reason of the conflicts and war in the days ahead.

## F. Failing States

Failed or failing states will be another problem area of FOE [5]. Unable to constitute strong armed forces, these states can be seen as the homeland of terrorism and violence. Violence of this kind causes threats not only for the country itself, but also for the neighboring countries. In order to mitigate the harmful effects of violent actions, transnational stabilization and preventive actions will need to be executed.

## G.Natural Disasters and Climate Change

Final element of future operational environment will be natural disasters and side effects of climate change [6]. Although over the last twenty years, there are worries and counter actions to stop or at least slow down the global warming, so far there is no tangible result. Furthermore every day, the situation deteriorates. The prospective situation will be something like this: natural disaster and climate change triggered by global warming, big scale rescue operations, replacement of fertile land with arid one, thus scarcity and again conflict on limited left over resources.

As stated above, new and unprecedented threats are waiting to be solved by future army leaders. These new elements of future battlefield have caused new burdens for future army leaders and have altered the traditional linearity of war and conflict. The emerging environment that is shaped by these new threats creates a vicious cycle in which the impacts of one threat cause the birth of another threats. In other words, the elements of future operational environment should be taken together to take the desired results.

# IV. FUTURE LEADERSHIP FEATURES

Considering the new threats and their effects on future security environment, future army leaders must improve their skill in line with new requirements of battlefield. Although all leadership features have significant importance for success, some of the features must be given priority and higher importance. Below are the leadership features that come to fore in reaching operational aims:

## A. Fast Decision-Making

In the rapidly changing operational environment, fast decision making ability of a leader is crucial. This ability enables leaders to save the lives of not only his or her interiors but also his enemies. Especially small unit leaders will be all alone in the field without the help of supervisors. First they need to realize and understand the context of the factors that affect the operational environment. Second, they need to evaluate the pros and cons of each course of action then; the final step is to act best possible option. This process requires that leaders think and decide faster than their adversaries. The best way that enables leaders to decide fast is to take the

advantages technological opportunities. Although it takes almost two years two provide leaders with fast decision making ability, simulation-training programs is the most effective way [10]. Other than training, leaders will need assistance and technological support in the field. This covers increased communications of voice, text and data and decision-making tools such as situational assessment, problem detection, planning and sense making. [11].

## B. Stress Management

Stress is a natural element of daily life. Stress is not a big deal as long as you know how to deal with it. Due to the complex and uncertainty filled nature of FOE; leaders will need to endure high levels of stress. It is a normal thing that actions of each leader for stress management differ. On the other hand, according to a survey done by Center for Creative Leadership, most of the leaders do exercise/physical workout to beat the stress [12]. This way of dealing with stress is very effective and required for future leaders, since FOE requires future leaders to have physical endurance. From this definition it can be inferred that stress management and physical endurance go hand in hand.

## C. Creativity

In order to be successful in the unforeseeable operational environment, leaders must be creative. Creativity means developing new ideas to solve the situation at hand. Creativity requires both the creative thinking and the critical thinking. For this reason, leaders' first need to learn the terminology related with creativity. During military education, required intellectual skills have to be acquired by all junior leaders. These skills must be supported with variety of case studies and scenarios in order to use critical and creative thinking skills effectively. Innovation and 'thinking out of box' should be main principles of leader development strategy [13].

## D. Communication Skills

Communication is the most effective tool for leaders in reaching the hearts of people they lead. Communication enables leaders to convey their ideas and to make people do the required job willingly. Leaders apply communication skills on activities such as critical thinking, decision-making, creative thinking and problem solving [14]. In operational environment, mission accomplished requires leaders who have the ability to make the right decision at the right time and to have their messages understood by their interiors. For this reason, leaders need high communication skills that carry clear, concise, organized and right the point messages. Considering the brutal and noisy operational environment, it will be vital to transmit your message to the right people at right time. To be able to succeed that their messages and commands understood correctly, leaders must be skilled not only in classical way of communication, which is writing and speaking, but also in the use of technology mediated communications especially when units operate in wide areas of responsibility.

#### E. Situational Awareness

Situational awareness can be defined as acquisition of knowledge when attention is focused on an area of interest [15]. Situational awareness, which consist of knowledge about battlefield elements such as enemy, units and operational environment, is an indispensable component that enables mission accomplished. To develop a unit situational awareness, first leader must create an atmosphere in which shared understanding of mission and ideas maintained [15]. This atmosphere empowers subordinates to question and then understand the details of the mission at hand. Second, leader must establish a communication network, which enables small sections in units to communicate their activities openly to the entire unit and learn other small sections' activities by listening their responsibilities. By doing so, leaders will be able to realize where the information gap exists and what to do to make up for it [15].

## F. Cultural Knowledge/Awareness

With regard to FOE, units may be deployed in accustomed areas. Especially during stabilization, peacekeeping and rescue/relief operations, transnational operations must be executed in harmony with allies. Cultural awareness plays important roles in such operations because of the cultural diversities. Leaders and units must be well trained in cultural gap existing between their home country and host country in order to succeed mission without facing difficulties. Cultural awareness required not only in peacetime activities but also in wartime operations. In an operation, mission can only be accomplished if we understand adversary's cultural dynamics and societal structure [16]. Cultural understanding is very effective in reducing battlefield friction. With the help of cultural awareness, leaders gain insight into intents of the enemies, which make both the leaders and units ready for the type of operation to be executed. There is also another perspective, in which feelings of people matters about our country. Leaders lacked in cultural understanding can cause increase in animosity towards our nation and create negative image of our military forces. In sum, leaders and their units must be expert in cultural dynamics of both the adversaries and the allies in order to succeed in mission execution. For this reason, military training doctrine must cover societal structure and cultural dynamics of areas in which military operation can be executed. In addition, foreign language education must be given significant importance in order to increase cultural understanding. Lastly, sacrosanct events and objects must be taught to all units and respected in the battlefield.

# G.Adaptability

Adaptability is doing the effective and required set of actions for the altered situation [17] and leader is the one who can manage the change. Adaptability enables leaders to integrate his unit with the changing environment and to provide required systems, equipment and applications against altered threats. Although there is not enough research on training adaptive leaders [18], several empirical methods can

be advised. First method is, preparing an experience catalog that will help leaders to choose the best option when they face with new situations. Experience review reduces the reaction time of leaders by providing situations that are similar to the situation at hand. The other method is establishing a practice-feedback cycle. This cycle gives leaders an opportunity to practice new skills by which leaders gain experience and then use this experience when faced with new situations [17].

## H.Versatility

Versatility can be described as the ability of turning from one kind of task to one of the other tasks. Elements of FOE have changed the traditional linearity of war and conflict and broadened the spectrum of missions. Future operations will require the ability to deal with variety of tasks at the same time. In battlefield, leaders will compute not only the actions of adversaries but also the actions of non-violent civilians. During evacuation of civilians, immigration, stabilization and peacekeeping operations, units will consider both saving life of civilians and eliminating adversaries. This multi-task capability requires something more than specialization on a single topic. To acquire versatility, leaders need to think out of box and train themselves for variety of tasks.

Fig. 2 summarizes the leadership requirements of FOE in order to be successful in the battlefield.

Uncertainty	Fast Decision Making Creativity Adaptability Communication Skills
Urbanization	Cultural Knowledge / Awareness Versatility Adaptability Communication Skills
Proliferation of WMD	Stress Management Adaptability Communication Skills
Change in Tactics	Fast Decision Making Creativity Versatility Communication Skills Adaptability
Limited Resources	Fast Decision Making Versatility Communication Skills
Failing States	Situational Awareness Communication Skills Creativity
Natural Disasters and Climate Change	Versatility Stress Management Communication Skills

Fig. 2 Requirements of FOE

# V.CONCLUSION

In this article, the effects of future operational environment on tactical level leaders are analyzed and required skills that leaders must gain in order to be successful in new complex battlefield are underlined.

Leaders are indispensable for armies. We need to train leaders considering that human is the only element of future battlefield that remains unchanged. Advanced technology and rapidly changing circumstances have started to define the characteristics of future operational environment. To be able to succeed their missions, FOE requires leaders that:

- Have sophisticated understanding in culture, foreign language and geo-politics,
- Are able to operate in joint and multinational environments.
- Are competent enough to operate in broad spectrum of tasks,
- Are skilled in fast decision-making, stress management, adaptability, versatility, situational awareness, cultural knowledge, creativity and communication.

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