

## **INTERNATIONAL ENVIRONMENT AND AIR FORCES**

**Cdor.prof. Vasile BUCINSCHI\*, Ph.D.**

„Carol I” National Defence University

**Col. Codrin HERȚANU\*\***

95<sup>th</sup> Force Protection Group, Air Flotila, Bacău

*At the end of the twenty-first century first decade and the beginning of the second one, the contemporary world is still a contradictory place, full of contrasts, unpredictable and in continuous change. After 20 years from the end of the Cold War, we can only discern the changes of the following decades: from irregular warfare to non-state adversaries, from unipolarity to multipolarity. In this context, Air Forces are still a basic force category assuring the combat success. New risks, challenges and threats of the twenty-first century lead to an increasing complexity of Air Forces use, whereas their employment concepts will have to provide the full domination of the strategic air space, world-wide precise force projection at a high intensity, full-integrated and independent actions development.*

**Keywords:** international environment; Air Forces; irregular warfare; air power.

At the end of the 21<sup>st</sup> century first decade and the beginning of the second one, our contemporary world is still a contradictory, full of contrasts, unpredictable and completely changeable place.

This world is far from the predicted ‘eternal peace’ 200-years-old project of the German philosopher Immanuel Kant. Besides, a place populated only by ‘citizens of the world’ will remain a mere desideratum for the moment, of the above mentioned philosopher.

The present moment is only at 20 years distance – a trivial period of time related to the mankind history – from the end of the Cold War. Not accidentally, Alexander Dumas named its novel ‘After 20 Years’, because

---

\* e-mail: [vbucinschi2000@yahoo.com](mailto:vbucinschi2000@yahoo.com)

\*\* e-mail: [codyh2004@yahoo.com](mailto:codyh2004@yahoo.com)

this interval is usually the moment when a first serious and profound retrospection of the contemporary security environment can be made.

In this two decades the world has significantly changed and the changes pace is emerging faster and faster.

The collapse of communism eased the globalization phenomena spreading. Moreover, the new century tends to underline the end of the American influence on the present geopolitical scene and the beginning of a new era when some Asia states are struggling to impose themselves as relevant worldwide geopolitical actors. China continues to strengthen its sphere of influence not only in Central Asia but also in Africa and South America, and the China-America interdependencies provide Beijing a strategic dialogue with Washington. In the same context, outstanding strategic movements have been made in India, Turkey and Iran as well.

In the same time, the Islamic terrorism irrupted with violence, as an opponent against Western approach towards world and life. In an attempt to keep the military confrontation away from own territories, American and European allies are struggling for over eight years to hinder the Taleban insurgents to regain the power, not only in Afghanistan, but also in more and more neighboring Pakistan territories. In this context, a future NATO withdrawal from Central Asia depends on the new American strategy success – troops supplementing and counterinsurgency – therefore the European states will have to fight with the Kabul administration, as well, in order to provide Afghans a functional state.

However, after 20 years from the end of the Cold War, we can only discern the future changes of the following decades: from irregular warfare to non–state opponents, from unipolarity to multipolarity.

Meanwhile, beside the fact that India and China compete for the highest growing rate, in democracy and authoritarianism respectively, it can be find out an attempt to reconcile democracies with authoritarianism. For instance, due to energy reasons, the United States of America strongly concurs with Russian Federation, for the best relationships with Central Asia autocracies, and China and India are doing the same thing related to the Burmese dictatorship. Besides, in states such as Vietnam we are witnessing the fusion between capitalism and socialism, while in Africa countries the development oasis appear mostly due to local market and not international assistance. In this respect, it seems that the entire neo-liberal thinking, foretokening the liberalism final victory, has made a significant step backwards.

On the other hand, during the last decade of the present stage the Western world has managed to identify a new ideological opponent – namely, the Islamic terrorism and the vector that transpose these precepts into practice

– Al Qaeda, as a non-state actor, fighting to establish a global caliphate. Importantly, the Islamic terrorism ideology is shown in the public opinion as opposing the Eastern Europe present regimes as well. In this respect, it should be mentioned that the actual Muslim world rediscovery (not only the radical Islamism, but also the Sharia, for instance) was made by underlining the opposition and competition with Western traditional ideology.

In the contemporary world outline, NATO role has changed significantly sometimes through the emergence of out of area missions and the Alliance's global level partners, such as Japan, Australia, South Korea, China and India. Meanwhile, a significant fact for the world security system evolution is the establishment of two Alliances in Central Asia, with interests opposing NATO and United States, namely: Shanghai Cooperation Organization (in which China and Russian Federation are competing for the leading role, and India and Iran have the observers status) and the Collective Security Treaty Organization (set up from the majority of the former Soviet Union states, with Russia as the undisputed leader).

In addition to these, there are some phenomena of the contemporary world, which at the first glance seem of low importance. Firstly, the beginning of the exploitation of the Central Asia hydrocarbons deposits is of geopolitical importance. Moreover, the China rising as a major geopolitical actor, leads to the draining of the respective deposits to this economic power.

The biggest democracy of the moment, namely India, has been the witness of some outstanding social-political transformations, through discarding the cvasi-socialist system and leaving Moscow, in the favour of economic partnerships with the United States and the like. Also, the India-USA nuclear pact ratification, in which the America's Indian Diaspora played a significant role, comes to legitimate the special relationships between these two states.

Significant moves are taking place everywhere in our contemporary world, taking into account the fact that, in an interconnected world, a phenomenon the evolves in one part of the globe, is resounding in other part of it or even in its entirety. In this respect, we can give Turkey as an example, a Muslim and secular state established by Mustafa Kemal about 100 years ago. Lately, Turkey completed its Western dimension of its foreign and internal policy with a more and more Eastern one, of new-Ottoman origin and directed towards Africa, Middle East, Caucasus and Central Asia as well as enabling a modern Islam leading regime along with an Armed Forces lower political profile.

Another major phenomenon for the recent contemporary evolutions is the deeper economic interdependencies between USA and China, which lead to their strategic level dialogue. These events have had immediate echoes, leading on one hand to strategic resets in Asia and Japan attempting to begin

an own dialogue with China, and on the other to conclude regional anti-China Alliances (including India, as well).

In the same time, it seems that the China's aim to become one of the major earth's superpowers, no matter what time it takes to achieve this, is persistently followed. Thus, the recent China-Taiwan relationships renewing tends to weaken the United States position in this region, in the long run. Meanwhile, China presence is felt even in Africa or Russia's remote areas.

Other contemporary world phenomena, at a first glance without direct connection with global security, are the evolutions related to Earth's climate dramatically changes.

During the last years, due to the diminishing of mankind potable water reserves, the wealthiest states of the Earth have begun to acquire agricultural surfaces, possessing massive water supplies, in poorer states, in order to feed and support their own citizens. The most relevant examples are South Korea and Saudi Arabia which have purchased significant areas in Madagascar and Kazakhstan, respectively.

Besides, all disputes among states are turning pale related to the global dangers, imposed by climate changes, because it seems that everybody agrees with the fact that human activity and gases emission lead to global warming and catastrophic consequences for mankind. Mostly in the developed countries raises the first attempts to limit these disastrous effects, through the establishment of a carbon market and help granted to poor states for less pollution.

## **Security International Environment**

### *Conceptual delimitations*

I have previously mentioned terms and notions such 'international', 'security environment', 'security international environment', 'threats against security' and so on.

For a more objective analysis, an areas delimitation of the above mentioned notions should be made, trying to better approach real world phenomena and processes.

The term 'international' was launched at the end of the 18<sup>th</sup> century by the English philosopher Jeremy Bentham (1748-1832), deriving it from the Latin word *intergentes* (happening between tribes and other types of social-human organization units). Presently this notion comprises the states relationships system, other state and non-state structures, which are subject of the international law.

According to this approach 'international environment' is the closest in meaning with 'international system'. The last of the two terms is the sum of the identities 'political independent (tribes, states, nations, organizations,

alliances' interacting each other and in continuous evolution<sup>1</sup>. The crossing 'from one international system to another is quite difficult to be distinguished, and the clear separation of them should be made chronological'<sup>2</sup>, has only a taxonomy importance. Therefore, 'international environment' is a syntagm with wider significance, representing the frame in which the international actors are performing. The respective actors are: political, economical, military, power relationships which take place among political, economical and military entities. The relationships established among international system entities are based on national interests; therefore some experts say that states have no friends, but interests.

Apart from these notions, 'international environment' consists of 'international actors' as well – international law subjects (with legal personality) which promotes their interests in the international environment through policy and diplomacy. The most important category of the above mentioned subjects is the state; however a bigger and bigger weight goes to international organizations – government (their members are states and state institutions) and non-government (their members are structures which do not represent government, but civil society communities joined by their mutual particular or global interests such as: human rights, animals rights, child rights, pollution removing and environment rescue and so on). A particular category for international actors, with a greater weight lately, tends to become the international corporations – giant-size firms from economical domain which have a lot of branches in other states, apart from the residence state. Besides of these there is a rather big range of organization, which cannot be classified into none of the above mentioned categories, but having a great deal of influence lately. It is about the terrorist networks and those having connections with illegal activities, namely the so-called organized crime networks. These 'actors' activities manage to lure international community attention; therefore, this takes measures to protect itself. For this purpose, many projects have been initiated in order to strengthen the co-operation and collaboration among states and groups of states to prevent and counter-attack the destructive actions of organized crime and terrorists.

#### *The future of the security international environment*

The fourth Report of the Central Intelligence Agency of the United States of America, named '*Global Trends 2025: A Transformed World*'<sup>3</sup>,

<sup>1</sup> Eugen Străuțiu, *International Relationships Introductory Topics*, „Lucian Blaga” University Publishing House, Sibiu, 2007, p. 7.

<sup>2</sup> *Ibidem*, p. 8.

<sup>3</sup> *Global Trends 2025: A Transformed World*, published at <http://www.mtholyoke.edu/acad/bushj/lite>, consulted on the 11th of January 2011.

allows us to make a projection into the future for the next fourteen years. The basic conclusion of this Report is that the United States will lose their influence not as a consequence of their self-decline but due to the fact that states like India and China will soon assert themselves during the next period.

Practically, the United States will change their superpower status with one of a member of the world leading-states group, with consequences at political, economic and military level.

In the same Report is mentioned: '*The unipolar moment is over*'. The multipolar world will assert itself soon. The Report conclusions talk about Japan caught between China and USA, about Russia which will progress or stagnate, about India which will follow China, as well as about countries such as Turkey, Iran and Indonesia, with a growing role in the near future.

One of the most important assertion of the Report refers to the fact that we can witness the present Alliances system vanishing and the hierarchy that outcome at the end of World War II. The entire international system will be revolutionized. Not only the new players – Brazil, Russia, India and China – will gain a place at the international upper table, but also these will change the power games stakes and rules. The unprecedented wealthy transfer from West to East will go on in the foreseeable future.

The economic growth added to 1.5 billion people Earth population increasing will put pressure on resources – particularly energy, food, water – whenever demand exceeds supply.

The conflict potential will grow, partly due to the political turbulence in Middle East areas. This multipolar system has a greater instability than the bipolar or unipolar systems, therefore it is estimated that new non-state actors will arise, such as: businessmen groups, some tribes and clans, religious organizations and criminal networks, which will perform in a transformed world.

China will be the second world economy in 2025 and the first military power. India will closely follow it, whereas Russia will have an ascendant route if the oil barrel price will continue to be bigger than 50-70 USD. These three countries will follow the 'state capitalism' frame, not the Western liberal one.

The Report underlines the fact that terrorism will not vanish until 2025, however its impact could lessen, if the economic growth will continue, and the unemployment among youth will decrease in Middle East. The youth economic opportunities along with political pluralism will drive away some individuals from terrorist groups, whereas others driven by a variety of factors (the wish to revenge and to become 'martyrs') will continue to use violence to achieve their goals.

In 2025 the terrorist and insurgent groups will probably be a mixture of old groups' descendants – inheriting organization, command and control

structures, as well as sophisticated attacks training procedures – and new comers groups composed of future radical violent persons.

The scientific and technical knowledge spread could place some most dangerous capacities of the world in the hands of those terrorist groups which will still be active in 2025. The biotechnology industry globalization spreads the knowledge and capacities in this field, increasing the accessibility towards pathogenic germs, which might be used in terrorist attacks. Radiological and chemical weapons could be used by terrorists or insurgents for mass destruction. Advanced tactical weapons proliferation will increase their potential related to terrorist use. Antitank guided rockets and other portable weapons systems as well as thermobaric explosive devices are other examples of capacities that can be used by terrorist and insurgent groups.

One of the greatest concerns is still the possibility for terrorists and other outlaws groups to gain and use biological germs or, although of low probability, nuclear devices in order to provoke mass crime. A special attention is bestowed to Al-Qaeda, which will have 20 years of existence. Some experts think that this organization will be rather old and ‘will be replaced by similar extremist groups, of Islamic origin’<sup>4</sup>, stating that a terror wave evolves in a 40-years cycle. Al-Qaeda weaknesses owing to the fact that it will not to reach its strategic objectives, along with its inability to attract huge amount of people on its side as well as with its self-destructive actions will cause its disintegration in a more accelerated pace than it has been thought.

On the other hand, history suggests that the global Islamic terrorist movement will live longer than Al-Qaeda and the strategic counter-terrorist efforts will have to focus on the way another successor terrorist group will evolve and the reasons for these matters.

In a multipolar world, the international interest’s fragmentation will diminish some actors influence, like UN, which will very hard manage to act with coherence. New members may be added to the Security Council, but we can infer that it will become less efficient, without having a leader nation to standardize the different points of view. The *global governance* concept will lose its weight because, in a multipolar world, it is quite hard to find acceptable solutions for all relevant actors.

In a multipolar world, religious groups may play an increased role, unlike the secular groups. We can expect that in some states, the religious groups affiliated to some power centres will not perform according to the state standards, but will have autonomy and self-governance claims. Therefore, it can be expected that the authority of some European states with strong Muslim minorities will be contested.

---

<sup>4</sup> *Mapping the Global Future – Report of the National Intelligence Council’s 2020 Report*, published at <http://www.foia.cia.gov/2020/2020.pdf>, consulted on the 10<sup>th</sup> of January 2011.

To sum up, as Europe will approach the year 2025, an increasing number of people will live in enormous urban areas, where the potential of the intolerant religious ethnic conflicts is growing. In this context, some enclaves that resign state's authority will evolve, allowing the spreading of conflicts such as 'Suburbs Riot' of 2008-2009 Paris.

Besides, it is assessed that the Earth population will grow with about 1.2 billion people until 2025, reaching almost 8 billion. This grow will not be homogeneous, so the difference between 'old' (people under 30 are less than 30% of the total population) and 'young countries' (people under 30 are more than 60% of the total population) will increase. Importantly, 'young countries' with a rapid population grow are now grouped in the so-called 'instability arc'<sup>5</sup> (North Africa, Middle East, Caucasus, South Asia, the Balkans, South and Central Asia, South-East Asia areas), which comprises the most vulnerable to conflicts states.

In this perspective, the new economic 'tigers' emergence will evolve where the population will grow up, recording a respective growth of the labour force, namely where the young people will become 'workers'. If such dynamics does not happen (in Africa, Palestinian Territories, Afghanistan or Pakistan), the social climate will suffer from conflicts and violence. On the other hand, in a global interconnected world, every conflict, internal or not, can degenerate and influence the regional and global security climate<sup>6</sup>.

## **Air Force In The Present International Environment**

### *A Brief History Of Air Force Evolution*

According to the armed conflict rules, different types and armed forces categories combat employment doctrines and tactics are directly influenced by available weapons systems and technologies. Air Forces do not divert from this rule, but on the contrary, they are the first to react at the technologies and war evolutions and changes.

Thus, during the First World War the strategic thinking was influenced by its mass feature and in the second big confrontation of the 20<sup>th</sup> century, by the industrial society and the movement feature. Even though the World War II consumed massive aviation resources, forces, means and actions strategies proved to be vulnerable. However, it should be underlined the massive aviation support and the Air Forces outstanding participation at the first

---

<sup>5</sup> *Mapping The Global Future –The National Intelligence Council's 2020 Report*, published at <http://www.foia.cia.gov/2020/2020.pdf>, consulted on the 10th of January 2011.

<sup>6</sup> Mihail Orzeată, *Security And Continuous Trasnsformation In The 21st Century*, Military Publishing House, Bucharest, 2004, p. 115.

joined operations and at the most relevant air-land and air-maritime-land operations in the history (The Normandie Landings).

Air Forces strategy imposed over few decades, through rapid extension of their technical dimension. Aviation - the new offensive weapon - introduces the third dimension in the strategic war space by the way it used forces and means.

The American Billy Mitchell was an Air Force strategy and use visionary. He saw war future seized by air supremacy. Air operational strategy directly addresses to achieving and maintaining air supremacy. At the end of the previous millennium and the beginning of the present one, the space and informational supremacy principle is enforcing. Nevertheless the close interaction between the three armed forces categories is still valid, which 'favours a strategies merger'<sup>7</sup>, formerly independent.

From the almost dogmatic approach of the air strategic bombing, through target effect, in only a few decades we reach the distance high precision guided weapons, which is similar with passing from quantitative to qualitative war thinking. The operational strategy domain opposes strategic bombing to ground support.

The operational strategies insert parallel war and strategic coercion elements, with vast extension of air missions range. Preemptive action is followed almost immediately by sudden reaction, and the long distance action by war aircraft pre-placement, selective strikes, personal and materials strategic lift.

According to Herve Coutau-Begarie, inside air strategy we will encounter 'a conventional and an alternative strategy, a total war and a limited conflict strategy, a destructive and an interdiction strategy, an offensive and a defensive strategy, a dissuading and an action strategy'<sup>8</sup>.

On the non-contact war strategy coordinates – an effect of the exponential growth of new technologies – air operational strategies addresses a limited precise employment, striking the vulnerable points (without or with minimum collateral damages) and vital centres, in order to get impossible or non-efficient adversary reaction, and from the opposite side, the use of the most various means and actions – terrorism, guerilla, total, civil, informational, psychological media war etc.

The last two decades show that Air Forces continuous adapt to warfare strategy evolution. In the '90 USA's forces and means strategies and those

---

<sup>7</sup> Herve Coutau-Begarie, *Breviaire strategique*, published at [www.stratisc.org/pub/Breviaire-10.htm](http://www.stratisc.org/pub/Breviaire-10.htm), consulted on the 12<sup>th</sup> of January 2011, p. 1.

<sup>8</sup> Herve Coutau-Begarie, *Le phenomene: nouvelle histoire*, cited at <http://www.amazon.com/Herv%C3%A9-Coutau-B%JP3CFK>, consulted on the 12<sup>th</sup> of January 2011.

belonging to other worldwide relevant powers, we found profound changes, 'joint' concepts emergence, significant increasing of air base and war aircraft number.

At the end of the 20<sup>th</sup> century, the interdependency between strategy and technology generates integrated strategic military action, with American concepts 'Air-land Battle 2000' and 'deep strike' (where Air Forces have a significant role, owing to their high accuracy reconnaissance-striking systems) which enlarge the battlefield at the military actions theatre with an emphasis on Air and Land Forces joint actions.

High precision and altitude strike of the ground indicated objectives (by Special Forces) or through command central network systems ('surgery strikes' theory) is the present air operational strategy feature. Manoeuvre is planned on the basis of colonel John Warden's gravity centres concepts.

The Another remarkable theoretician, American John Boyd, the author of OODA cycle (Observation-Orient-Decision-Action) proposed a paradigm change for Armed Forces planners, towards operations that will keep enemy in an unbalanced and desinformed state, without being able to coherently use its military power.

2003 Iraq Air Campaign 'Shock and Awe' took into account elements of Boyd's thinking. The campaign strategy wanted to lengthen the Iraqis OODA cycle, through hitting their C4I systems, regime's command points, basic critical infrastructure, thus Saddam regime was not able to sustain coherent military actions and rapidly collapsed. Causing the non-cooperation among Iraqi centres of gravity (performed on Effect Based Operations basis, suggesting the strike of vulnerable connections between these centres), the Americans managed to psychological paralyze Saddam's regime, just from the war beginning.

From the United States Air Forces perspective, the strategic masking, electronic warfare, communication means and C4ISR systems allow the real time actions command. Air manoeuvre might be circumscribe in a short OODA cycle which can be followed in only a few minutes. The enemy strategic immobilization is based on high precision air-to-ground weapons power increasing, from 8% during 'Desert Storm' to 70% during 'Iraqi Freedom'.

In Europe, the A 400 M aircraft building is a part of the strategy to project the future continental air power and an answer for the strategic military air need. Unfortunately, European states air power is seriously marked by national budget matters. Practically, the power differences, and particularly that of the air power, remain one of the main issues in establishing the present air strategies. The victory, in a nowadays conflict with the temporal, spatial and technological impact, brings up the problem of forces and means strategic asymmetry, with are quite difficult to size and evaluate.

During the 20<sup>th</sup> century Air Forces have encountered technological developing that have allowed them to increase their possibilities, and therefore the way of use. After initial use in reconnaissance, observation and bombing missions, aviation moved to 'flexible response' and emphasized the strategic air lift, next step was electronic warfare, air refueling, command, control and airborne detection missions, to finally got to cumulated effects strikes, combat search and rescue, humanitarian and population protection missions.

After 9/11 Air Forces were used against terrorists. Together with Special Forces, they contributed to strike enemy's vital and gravity centres, their actions has become global, continuous and dedicated (for missions types – attack, defense, reconnaissance, air surveillance, electronic warfare, transport, command and control, rescue, etc.) There has been used unmanned air vehicle (UAV) for intelligence, electronic warfare actions, surface target illumination/marketing, air defense deceiving and ground attack, without diminishing the Air Forces manned component.

At this moment Air Forces have superior capabilities for intelligence, in order to centralize, analyze and use these. Decision making process shorten has an increased role in developing the combat and support operations rhythm. Long distance force protection imposed Air Forces the imperative to solve the transportation and logistics matters.

Air Forces employment during the last decades conflicts supposed to perform air operations on both inside and outside theatres, the use of strategic air lift capabilities, air refueling, jamming and suppression of air defense means with intelligent ammunition and surveillance and reconnaissance air means.

Beginning with first combat aircraft appearance, Air Forces theorists inferred that the new means employment should be directed both by the general principles of armed warfare and by those specific for air space actions.

In the present international environment of the greatest importance is to distinguished both the elements and features representing the Air Force continuity line and the new ones, specific to actual conditions.

### *Air Forces Continuous Elements*

The continuity for Air Forces is represented by those elements of their actions and of the respective doctrines, that are found in their entire evolution.

Thinkers like Giulio Douhet and Hugh Trenchard stated, from the very beginning, that Air Forces act best in offensive, being a preponderant attack means. The offensive actions priority has a decisive role in air combat, meaning that they rather act than react, imposing so the operation time, place, aim and rhythm. The initiative must be gained as soon as possible. While deffensive may be imposed by the combat situation, success in war is

commonly achieved only through offensive action. Even some defence campaign success was rather achieved through selective offensive employments than defence actions. Air Forces are obviously offensive at the tactical level, even though they are employed in defence at operational or strategic level.

Another principle that Air Forces commanders has to follow is the freedom of action. This creates the necessary conditions for the Air Forces actions to be performed according to the issued plans. Air Forces capacity to mass and maneuver forces along with their ability to operate at the tactical, operational or strategic war level or to simultaneously operate at all these levels, provides commanders a valuable resource that allows him to directly and almost immediately gain initiative. Freedom of action is materialized through gaining and maintaining a level of air space control.

Freedom of action was from the very beginning the reason for the first aviation units commanders to request these means to be grouped in entities apart from those of land forces, in order to allow them to act on their own tactics and procedures, with maximum efficiency.

Firstly, the Air power definition and conceptual delimitation was made by Giulio Douhet. Besides, he said that air space must be dominated/controlled, in order to gain victory in war. This was a real leap ahead for Air Forces and an engine for their development. With insignificant differences these concepts, prefigured almost one hundred years ago are still valid until now, representing the central core of every strategy used in wars.

Another not accidental example is the Israel state, which in spite of the fact it is surrounded by hostile states, it has managed to keep its present territory by an efficient use of its own air power, among other means.

Surprise achievement is what Israeli Air Forces managed to perform in the 1967 war against Egypt. At that moment this was to choose, in an unexpected way for the enemy forces, the moment in which the air operation was initiated. Besides, this concept might also include to choose the place, means, methods and procedures for air operations (actions) to be performed, time and weather exploitation, the use of masking procedures, and the deceiving maneuver as well as electronic warfare. Air Forces speed and range allows them to achieve surprise more rapidly than the surface forces. In addition, Air Forces may increase the land forces opportunity to achieve surprise, allowing them to gain initiative and to surpass enemy in combat disposal accomplishment. That was the case in Arab-Israeli wars, when IAF (Israeli Air Forces) allowed their land forces to take over initiative and defeat the enemy forces.

### *Novelty Elements For Air Forces*

The conflicts progressing of the last two decades shows that Air Forces continuously adapt, in line with war strategy development. After the end of Cold War, United States Armed Forces, for instance have been consistent downsized. However the number of the American air bases increased with 30% and the combat aircraft number faced a similar evolution.

At the end of the 20<sup>th</sup> century the American concepts 'Air-land battle 2000' and 'deep strike' emerged. Air Forces possess the leading role in planning these types of operations and actions. It is the American strategists merit that managed to fully value those essential Air Forces features responsible for victory settling in favour of own forces.

At the present moment air operational strategy underlines the use of unmanned air vehicles for high altitude precise striking of the ground objectives. These means are also used to search insurgents positions in the Middle East operational theatres.

The 2003 Iraq Air Campaign 'Shock and Awe' had some elements of the classical theory of air power. The campaign strategy aimed to strike the C4I systems, regime's command points, basic critical infrastructure, thus Saddam regime was not able to perform coherent military actions and was defeated.

Causing the non-cooperation among Iraqi centres of gravity (performed on Effect Based Operations basis, suggesting the strike of vulnerable connections between these centres) and suppressing the Iraqi centres of gravity co-operation, Americans managed to psychologically paralyze Saddam's regime just from the beginning of war.

In the future, in war against terrorism, Air Forces will strike 'the vital centres of the networks' (bases, network knots, depots) will perform preemptive air strikes, with specific means, against terrorist groups, during action or action preparation, will accomplish Special Forces elements transportation directly involved in terrorism fighting (air support).

### **Conclusions**

In the 20<sup>th</sup> century, Air Forces encountered technological developments which allow them to increase their capabilities and thus their ways of employment.

After initial use in reconnaissance, observation and bombing missions, aviation moved to 'flexible response', underlined the air strategic transportation, then was employed in electronic warfare missions, air refueling, command, control and airborne warning etc., to get to cumulated effect strikes, combat search and rescue mission, population protection.

After the 11<sup>th</sup> of September 2001, Air Forces have been used against terrorists, together with Special Forces, have stricken enemy's vital and gravity centres. In addition, their actions have become global, continuous and dedicated (for missions types – attack, defence, reconnaissance, air surveillance, electronic warfare, transport, command and control, rescue). Unmanned air vehicles have been used to gain information, electronic warfare, ground targets marking, ground based air defence deceiving, without forgetting the air power manned component.

In the present context of the international environment, Air Forces actions inside global war against terrorism have meant performing individual and integrated air operations in exterior and interior theatres.

From de combat aircraft coming out, Air Force evolution has been always carried on between continuity and inovation. The tradition and continuity elements has been given by the necessity to take into account all armed forces rules and regularities, and particularly those specific for air environment combat. On the other hand, the new discoveries and scientific researches have been always firstly implemented in the weapons systems that performed actions in the third dimension, these aspects providing the modernity tinge for Air Forces.

## BIBLIOGRAPHY

- Coutau-Begarie Herve, *Breviaire strategique*, published at  
[www.stratisc.org/ pub/ Breviaire-10.htm](http://www.stratisc.org/pub/Breviaire-10.htm)
- Coutau-Begarie Herve, *Le phenomene: nouvelle histoire*, cited at  
[http:// www.amazon.com/Herv% C3%A9-Coutau-B%JP3CFK](http://www.amazon.com/Herv%C3%A9-Coutau-B%JP3CFK)
- Orșeață Mihail, *Securitatea și continua transformare în secolul XXI*, Military Publishing House, Bucharest, 2004.
- Străuțiu Eugen, *Teme introductive în relațiile internaționale*, „Lucian Blaga” University Publishing House, Sibiu, 2007.
- Tendințe globale 2025: o lume transformată*, publicat la adresa  
[http://www.mtholyoke.edu/ acad/bushj/lite;](http://www.mtholyoke.edu/acad/bushj/lite)
- Mapping the Global Future – Report of the National Intelligence Council's 2020 Report*, publicat la adresa  
[http://www.foia.cia.gov/2020/2020.pdf;](http://www.foia.cia.gov/2020/2020.pdf)