# Romanian Military Thinking

**Military Theory and Science Journal**
**Published by the Romanian Armed Forces General Staff**
Founded in 1864 under the name "Military Romania"
- English edition, 10th year -

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2014

# Romanian Military Thinking

HIGH ROYAL DECREE NO. 3663
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(Presidential Decree no. 483 on 30.06.2014)

# Romanian Military Thinking
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# Contents

# Contenu

**PAGES OF MILITARY HISTOTRY**

## *Opinions*

## *Opinions*

## *Geopolitics • Geostrategy International Security*

## *Géopolitique • Géostratégie Sécurité internationale*

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## *International Connections*

## *Connexions internationales*

# *Reconciliation and Responsibility*

O n 6 June 2014 we celebrated 70 years since the onset of Operation *"Overlord"*, one of the greatest operations in the Second World War. The Normandy landings were to open the second front in Western Europe, the Westerners intending to get to Berlin simultaneously with their Eastern allies. Otherwise, post-war calculations, which were quite confusing, would have been further complicated.

The overture to the Normandy campaign was performed by airborne troops – paratroopers and infantrymen transported by gliders –, those that were treated with suspicion at the beginning of the conflict and then were dropped across the English Channel to ram into the coast of Europe, which was still under the iron grip of the Third Reich. Descending from the sky on the morning of 6 June 1944, the Allied paratroopers were able to break the *Atlantic Wall*, that concrete and steel shield the Germans erected on the north coast of France, making way for the troops coming by the sea route between England and the Continent. A sea that boiled up near the French coast so that many of those sent to liberate Europe could not see the end of the performance.

Once they were well anchored on the shores of Normandy, the Allied troops began their quite difficult march towards Berlin. However, they offered the French partners the satisfaction of liberating their capital by themselves. Despite the fierce resistance put up by the German forces, the French troops crossed the Seine on 19 August and, on 25 August, the City of Light was liberated. The march of the French 2nd Armoured Division under the *Arc de Triomphe* confirmed the success of Operation *"Overlord"*.

Even if we intended to highlight the undeniable contribution of airborne troops – on 10 June we also celebrated the *Day of the Romanian Military Paratroopers*, those who, on 23 August 1944, played the leading role in the fighting in the north of Bucureşti, after Romania imposed itself the own front and political change

and joined the allies! –, we should not minimise the role of other services – infantry, artillery, armoured troops, combat engineers, and especially aviation, both bombers and transport aircraft, as well as the role of the naval forces that transported the land forces across the English Channel and backed the landings using own artillery. In another register, yet inserted in the same general effort, it should be emphasised the important role played by the Allied *intelligence* community that conducted some specific operations, which are still taught today in the schools in the field.

How are the Normandy landings viewed after 70 years, considering the military confrontation between the two major coalitions of the Second World War, which cost, as the price paid for the Allies victory and for shortening the path to the surrender of the Third Reich, over 10 000 casualties (dead, injured, missing)? Certainly as they were 10 years ago, when, on the Normandy coast, 17 heads of state and government shook hands in a historic meeting. Then Russia was invited *"as a tribute to the role played by the Soviet Union on the Eastern front in the fight against the Nazis"* as well as Germany, as a token of historical reconciliation. It was for the first time when the defeated party was invited to attend the celebration of victory. Although rather late, winners and losers shook hands.

We perceived then, in June 2004, not only a historical reconciliation message sent to the world but also a token of appreciation for the sacrifice of the fallen from either side of the barricade, both heroes and victims of the inability of political leaders of the time to resolve the differences between them through dialogue and peaceful negotiations. The current world political leaders intended to convey the same message of reconciliation and accountability for their own people's history, with the light and dark sides. We saw again, together on the beaches of Normandy, French President, François Hollande, Queen Elizabeth II, US President, Barack Obama, German Chancellor, Angela Merkel, as well as the Kremlin leader, Vladimir Putin, and the newly elected president of Ukraine, Petro Poroshenko. Next to them, a few hundred veterans of the Second World War, some of them even protagonists of the battle on the longest day in history.

Above Sainte-Mère-Église, 1 000 paratroopers recreated the airborne assault on the night of 5/6 June 1944. Back then the US paratrooper John Steele left hanging from the church's spire, like a crucifixion suggestive of Europe's liberty.

We saw the magnificent events dedicated to this anniversary – a celebration of the liberation of Europe – on the landing beaches and in the nearby areas,

all historic sites that are so well capitalised on, being annually visited by millions of people: the war memorials, mausoleums, pillboxes and bunkers transformed into museums, cemeteries of the Allies and the Germans, impeccably preserved, a token of the contemporaries gratitude for the sacrifice of their ancestors. The attempt made by the local officials to have the *D-Day* beaches listed as a UNESCO World Heritage Site, being a universal symbol of peace and reconciliation, is natural. To that end, the French Ministry of Culture has been requested to submit the application to UNESCO.

Nevertheless, it is a period of time since, in our corner of Europe, some borders have gone up in flames. I do not know when and how this fire that may have been smouldering for a long time could be extinguished, but I hope that all those elected to lead own people should prove sufficient wisdom so that Europe and the world cannot get ignited again. It would be regrettable as, although some say that peace can be achieved through war only, many of us want to achieve peace through peace. Otherwise, we may be forced, over years, to commemorate other confrontations, for the same noble cause of reconciliation.

*Colonel Dr Mircea TĂNASE*

**English version by**
*Diana Cristiana LUPU*

# *Réconciliation et responsabilité*

**A**u 6 Juin 2014, on avait célébré 70 années depuis le début de l'opération *„Overlord"*, une des plus importantes dans la Seconde Guerre mondiale. Le débarquement en Normandie était aperçu le point d'ouvrir le second front en Europe occidentale. La volonté des Occidentaux était d'arriver à Berlin au moins tandis que leurs Alliés de l'Est. Sinon, les calculs d'après-guerre, même assez déroutants, ils étaient encore plus compliqués.

L'ouverture de l'opération de Normandie avait été interprétée par les troupes aéroportées – parachutistes et l'infanterie transportée par planeurs –, celles que les Alliés les avaient considérées avec un peu de suspicion au début du conflit et que maintenant, lancées à travers de la Manche, ils en avaient percuté fortement dans le côté d'une Europe encore sous l'oppression du Troisième Reich. Les parachutistes alliés, descendus du ciel au matin du 6 Juin 1944, ont réussi à briser *Le mur de l'Atlantique*, ce bouclier de béton et d'acier que les Allemands avaient érigé sur la côte nordique de la France, en facilitant l'arrivée des troupes venues sur la route de l'eau entre l'Angleterre et le continent. Une eau qui a fait bouilli près de la côté française et beaucoup de ceux qui sont envoyés pour libérer l'Europe n'ont pas perçu la fin de l'opéra.

Les troupes alliées, une fois qu'elles avaient ancrées sur les rives de la Normandie, ont commencé la marche, assez difficile, à Berlin, en donnant cependant de satisfaction aux partenaires français pour libérer eux-mêmes, seuls, leur capitale. Malgré une résistance farouche aux forces allemandes, les français ont traversé la Seine le 19 Août et, au 25 Août, la Ville-Lumière a été libérée. La traversée de la 2ème division blindée française sous l'Arc de Triomphe avait consacrée la réussie de l'opération *„Overlord"*.

Même si nous voulons souligner l'apport indéniable des aéroportées – le 10 Juin, nous avons célébré aussi *le Jour des parachutistes militaires roumains*, ceux qui, le 23 Août 1944, ont également été le premier violon dans les combats dans le nord de Bucarest, après la Roumanie a imposé son propre changement de front et de sa politique et elle s'est ralliée aux Alliés! –, il faut que nous ne minimisons

pas le rôle d'autres catégories de forces – l'infanterie, l'artillerie, les blindés, les ingénieurs de combat, mais plutôt le rôle de l'aviation, à la fois celle de bombardement et du transport, ainsi que le rôle des forces navales qui ont transportés les troupes terrestres à travers de la Manche et ont soutenu le débarquement avec son propre artillerie. Dans un autre contexte, mais inséré dans le même effort général il faut souligner le rôle spécial des *renseignements* des Alliés, qui ont développé certaines opérations spécifiques, enseignées encore aujourd'hui dans les écoles de profile.

Comment on le voit, après 70 ans, le débarquement en Normandie, où sont confrontés de point de vue militaire les deux grandes coalitions de la Seconde Guerre mondiale et qui a coûté, comme le prix de la victoire des Alliés et de raccourcir le chemin vers la capitulation du troisième Reich, plus de 10 000 de victimes (morts, blessés, disparus)? Bien sûr, c'est le même qu'il y a 10 ans, quand, sur les rives de Normandie, 17 chefs d'Etat et de gouvernement se serrèrent la main, lors d'une réunion historique. Ils sont alors été invitées la Russie, comme *„un hommage au rôle joué par l'Union soviétique dans la lutte contre le nazisme"*, mais aussi l'Allemagne, comme un signe de réconciliation historique. Il a été pour la première fois quand la vaincue a été invitée à assister à la célébration de la victoire. Bien que relativement tardif, des gagnants et des perdants ont serrés, avec *fair-play*, leurs mains.

Nous avons aperçu alors, en Juin 2004, un message historique de réconciliation, envoyé dans tout le monde, mais aussi un geste de reconnaissance du sacrifice de ceux qui ont tombé de l'un côté et de l'autre de la barricade, tandis que les héros et les victimes de l'incapacité des dirigeants politiques de l'époque à résoudre leurs différends par le dialogue et des négociations pacifiques. Le même message de la réconciliation et de la responsabilité de leur propre histoire de peuples, avec ses claires et sombres côtés, ils voulaient donner aussi les dirigeants politiques du monde actuel. Nous les avons revus ensemble sur les plages de Normandie à côté du président français, François Hollande, la reine Elizabeth II du Royaume Uni, aussi le président américain, Barack Obama, la chancelière allemande, Angela Merkel, et le chef du Kremlin, Vladimir Poutine, et le président nouvellement élu de l'Ukraine, Petro Porochenko. A côté d'eux, quelques centaines de vétérans de la Seconde Guerre mondiale, certains même les protagonistes de la bataille de la journée la plus longue de l'histoire.

Au-dessus de la ville Sainte-Mère-Église, les 1 000 parachutistes ont récrée l'assaut aéroportée de la nuit de 5/6 Juin 1944. Alors, le parachutiste américain John Steele a été suspendu par la cloche d'une église de village, comme une crucifixion métaphorique pour la liberté de l'Europe.

Nous avons vu les événements magnifiques de cette fête – une célébration de la libération de l'Europe – sur les plages du débarquement et dans les villes voisines, tous devenus des sites historiques tellement illustrés et visités chaque année par de millions de personnes: les monuments commémoratifs de la guerre, des mausolées, des casemates et des bunkers transformés en musées, cimetières des Alliés et des Allemands, remarquablement entretenues, comme un signe de reconnaissance pour le sacrifice des ancêtres. L'idée des communautés locales de l'approche du débarquement à demander à UNESCO, par le ministère français de la Culture, d'inclure des plages du *Jour J* dans le Patrimoine commun de l'Humanité, comme un symbole universel de la paix et de la réconciliation, ne peut être tout à fait que l'une naturelle.

Et pourtant, quelque temps, dans notre ligne bordée de l'Europe il y a des frontières qui sont été reallumées. Je ne sais pas quand et comment on peut éteindre ce feu qui couvait, peut-être, depuis longtemps, mais j'espère que tous ceux qui sont élu à la tête de leur propre peuple prouvent une sagesse suffisante et de ne pas allumer, à nouveau, l'Europe et le monde. Ce serait une honte, parce que, même si certains gens disent que seulement par la guerre on peut aller à parvenir la paix, de plus en plus d'entre nous voulons aller à la paix que par la paix. Sinon, nous pourrions être forcés, au fil des ans, à commémorer, pour la même noble cause de la réconciliation, d'autres affrontements aussi.

**Version française par**
*Alina PAPOI*

# CONFLICT IN SYRIA
## – Continuation
## of the "Arab Spring"
## or Beginning of the Third World War? –

*General (r.) Dr Mihail ORZEAŢĂ*

*The causes of the civil war in Syria are complex. Both parties involved in fights have internal and external supporters, each of them with different interests. That is why it is difficult to reach a peaceful agreement.*

*The chemical weapons attacks caused a very strong international reaction, including the possibility of military strikes.*

*It is hard to predict the end of the crisis but it is almost certain that the world will look different after the civil war in Syria. Russia and China, for instance, may want to take the lead or to change the world order from a unipolar to a multipolar one.*

**Keywords**: *extremism; jihadism; war crimes; chemical attack; world order*

## Introduction

The events in Syria capture the attention of the world through the spatial-temporal scale and violence that characterise them. Started as a continuation of the *"Arab Spring"*, the conflict escalated to the use of chemical weapons in the suburbs of Damascus on 21 August 2013. As it happens in all the confrontations of this type, the parties blame each other and try to convince the international community that their cause and point of view are just. Foreign interference has further complicated the situation that seems increasingly difficult to resolve peacefully. Recently, two factions of the Syrian opposition, the Free Syrian Army[1] and Jaysh Al-Islam[2], refused to attend peace talks in Geneva, scheduled on 22.01.2014. Moreover, their leaders declared

[1] *Syria Peace Talks 'Will Not Stop FSA Rebels'*, article published by *BBC News Middle East*, on 22 November 2013, may be also consulted at http://www.bbc.co.uk/news/world-middle-east-25102022, retrieved on 27.11.2013.

[2] Jamie Detter, *New Syrian Opposition Coalition Initiatives Rejected by Jihadists*, article published by *Voice of America*, on 12.11.2013, may be also consulted at http://www.voanews.com/content/new-syrian-opposition-coalition-initiatives-rejected-by-jihadists/1788846.html, retrieved on 27.11.2013.

that they would not stop fighting during the conference or afterwards, because any solution should be imposed on the battlefield and not by foreign powers.

## *Short history*

Some Syrians protest demonstrations, which took place in March 2011, most likely under the influence of the events in Tunisia, Libya, Egypt and Bahrain, seemed to have a similar end – to topple the power in Damascus and replace it with a more democratic one. The estimated scenario for Syria did not follow the *"model"* in the North African states, as the internal and external support for Bashar al-Assad regime was stronger than in the case of Tunisia, Libya and Egypt. The prolongation of confrontations resulted in the radicalisation of the parties and the increase in the intensity and violence of the clashes, which culminated with the use of sarin gas missiles. So far the number of victims has been impressive. Although the statistics on casualties are controversial – some authors indicate 93 000 deceased[3], and others over 100 000 –, the losses are heavier than in other internal conflicts in the Arab states in the North of Africa. So far there are no statistics of the wounded and mutilated. If we add about 1,6 million refugees[4], the destruction of industrial enterprises, houses and other infrastructure elements, as well as of important part of agricultural crops, we can assess the Syrians drama more accurately.

Sensitised by the tragedy of the Syrian people and fearing the conflict escalation, the international community intervened with calls for negotiation and peaceful settlement of the conflict. The UN offered good offices to mediate between the parties in a peace initiative led by former Secretary-General of the world organisation, Kofi Annan. Unfortunately, the peace mission of Kofi Annan failed[5].

After the attack with chemical weapons in the suburbs of Damascus, the UN decided to send teams of investigators to establish the culprits. After the mission

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[3] Michael Burleigh, *Could Syria Ignite World War III? That's the Terrifying Question as the Hatred between Two Muslim Ideologies Sucks in the World Superpowers*, article published in *The Daily Mail online* on 13.06.2013, may be consulted at http://www.dailymail.co.uk/news/article/-2341340/Could-Syria-ignite-World-War-3-Thats-terrifying-question-hatred-Muslim-ideologies-sucks-worlds-superpowers.html, retrieved on 22.11.2013.

[4] Mona Chalabi, *Syrian Refugees: How Many Are There and Where Are They?*, article published in *The Guardian* on 25 July 2013, may be consulted at http://www.theguardian.com/news/datablog/2013/jul/25/syrian-refugees-crisis-in-numbers-updated, retrieved on 30.08.2013 (The UN estimates that there will be 3.5 million refugees by the end of the year if the growth rate remains 7 300 per day).

[5] Ali Akbar Salehi, *Taking the Lead on Syria*, article published in *The Washington Post*, 8 August 2012, at http://www.washingtonpost.com/opinions/stepping-up-to-ad-syria/2012/08/08/, retrieved on 24.08.2012.

ended, the leaders of the teams of investigators declared that chemical weapons were used, but they could not say who used them.

However, the representatives of the US, France and Great Britain blamed the Syrian government army[6]. After being informed about the massacre generated by chemical weapons, President Obama announced the US decision to militarily intervene against the Syrian government army to prevent the recurrence of similar attacks. President Obama's decision prompted Russian Foreign Minister, Serghei Lavrov, to ask how the West can wage a war against terrorism and, at the same time, support al-Qaeda affiliated organisations acting in Syria as part of the opposition. Moreover, how it is possible for terrorists to be divided into good and bad[7]. After the G 20 Summit in Sankt-Petersburg, the US abandoned the projected military intervention, following the proposal of Russian President, Vladimir Putin.

A new peace conference – *Geneva II* – was scheduled on 22 January 2014. Jihadi groups did not intend to attend the conference and threatened the members of the other rebel factions, referred to as the Syrian National Coalition, that they would be judged by the Muslim law (sharia) for treason if they attended the conference[8].

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[6] Josh Levs, *US on Syria Chemical Attack: What's the Evidence?*, CNN, 9 September 2013, at http://www.edition.cnn/2013/09/09/world/syria-us-evidence-cemical-weapons-attack/index.html, retrieved on 10.10.2013.

[7] Sergei L. Loiko, *Russian Foreign Minister Accuses US of Double Standard in Syria*, article published in *Los Angeles Time*, 2 September 2013, at http://www.latimes.com/world/worldnow/la-fg-wn-russian-foreign-minister-syria-us-20130902,0,4255096, retrieved on 10.10.2013.

[8] Jamie Detter, *op. cit.*

## *Possible causes of the conflict*

At this stage of the conflict, it is difficult to precisely identify the real causes of the explosion of hatred that destroys a country slowly but surely. Some voices, more or less informed and authorised, indicate the autocratic style, the clan politics and the corruption of the current regime as the source of popular discontent, amplified under the influence of the events in North African Arab states. This version includes the persistent memory of the Sunni majority population that paid a heavy tribute – more than 20 000 people – and a locality *"razed to the ground"* in 1982, on the orders of Hafez al-Assad, father of current Syrian president[9]. The coming to power of Bashar al-Assad, a dentist educated in the West, was expected to democratise the state and renounce dictatorship. Although he implemented some reforms in the management of the state and society, Bashar al-Assad could not overcome the resistance to change of the *"old guard"* of the Syrian Alawi leadership, fact that annoyed the Sunni population, the majority, which was at the origin of protests.



Another version relating to the causes of conflict explores the majority of the population dissatisfaction with the distribution of power and income in the state, intensified by the religious differences between the Alawite minority sect and the Sunni majority population. The Alawites represent a variant of the Shiites and hold over 80% of leadership positions in the state and the armed forces, although they account for about 12% of the population[10].

The most likely cause of the conflict is a complex one, including the majority population discontent with the authoritarian leadership of the country and the exacerbation of religious differences, against a background of considerable external influences

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[9] Michael Burleigh, *op. cit*
[10] *Ibidem*.

(the extension of the *"Arab Spring breath"*; the interference of religious extremists, who managed to amplify the feelings of dissatisfaction of the Sunnis against the Alawites, although Syria was known for moderation in religious matters; the interests of states in the region and of the great powers).

## The parties current situation and the forces distribution

Internally, the Assad regime relies on the support of the Alawites, the Christians (about 10 % of the population), and the majority of the military leadership. If the Alawites support the Assad regime because they are afraid of losing the privileges and leadership positions, the Christians support it because they fear the possibility of installing an Islamic regime and the potentiality of reprisals against them, as it currently happens in Egypt[11], Libya and Nigeria, and as it is expected by some Islamist opposition leaders. The data regarding the status of forces have a high degree of uncertainty, because of the increasing number of soldiers and officers who abandon the government army and join the rebels, as it also happens with some civilian officials in the current government[12], and some members of the Alawi sect have taken refuge in neighbour states because of the repression they have been subjected to in the areas controlled by the opposition. To the government military forces, the Alawite paramilitary forces (Shabiba militia), and some Palestinian factions and Hezbollah groups, backed by Iran, should be added.

Externally, the government forces are politically, religiously and militarily supported by Iran, including the Republican Guard Forces[13]. Russia supports the Assad regime politically and with combat assets[14]. The declarations of some EU officials who were in favour of lifting the embargo on armament imports for the Syrian

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[11] Wayne Allyn Root, *The Big Cover-up – Why Obama Really Wants to Go to War in Syria*, article published in *The Blaze*, on 12.09.2013, available at http://www.theblaze.com/contributions/the-big-cover-up-why-obama-wants-to-go-to-war-in-syria/, retrieved on 19.11.2013. (In Egypt, 71 Christian churches were burnt after Hosni Mubarak was toppled. In Libya, the US Consulate in Benghazi was attacked and many Christian churches were destroyed).

[12] Sebnem Arsu, Rick Gladstone, *Eighty-Five Syrian Soldiers, Including a General, Defect En Masse to Turkey*, in *The New York Times*, 2 July 2012, at http://www.nytimes.com/2012/07/03/world/middleeast/dozens-of-syrian-soldiers-defect-en-masse-to-turkey.html, retrieved on 04.07.2012.

[13] Robert Fisk, *Iran to Send 4,000 Troops to Aid President Assad Forces in Syria*, article published in *The Independent* on 16 June 2013, at http://www.independent.co.uk/news/world/middle-east/iran-to-send-4000-troops-to-aid-president-assad-forces-in-syria-8660358.html, retrieved on 14.10.2013.

[14] Chelsea J. Carter, *Putin Warns US, West against Arming Organ-eating Syrian Rebels*, *CNN*, 17 June 2013, at http://www.edition.cnn.com/2013/06/17/world/meast/syria-civil-war, retrieved on 14.10.2013. (Russian President Vladimir Putin pronounced against arming the rebels who *"eat human organs"*, stating that Russia exports armament to the legitimate government in Syria, in accordance with international laws).

opposition made Russia announce that it will export S-300 surface-to-air missiles to allow the government in Damascus to face a possible foreign intervention, based on a contract signed before the outbreak of the conflict[15]. Iraq's Prime Minister al-Maliki (Shia) supports the Assad regime by facilitating the transit of military assets, ammunition and fighters from Iran to Damascus[16].
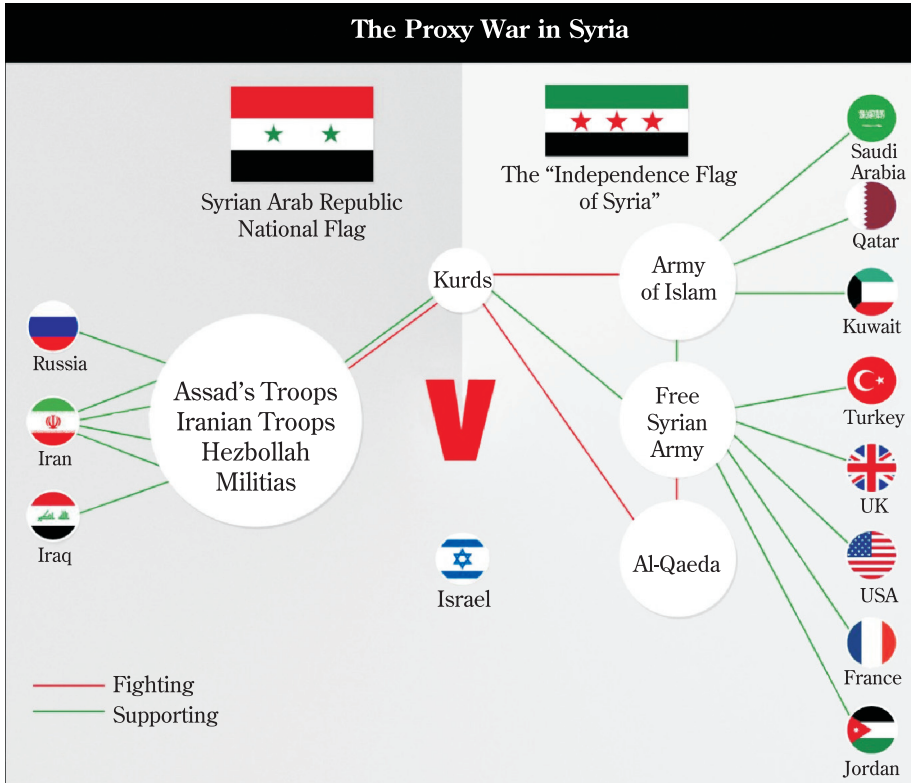


The Syrian opposition is divided. The only common goal seems to be that of overthrowing the current political and military leadership in Damascus. The factions that form the opposition also include fighters from al-Qaeda affiliated organisations (Jabhat al-Nusrat, ISIS, Islamic State of Iraq, Ash-Sham[17] etc.),

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[15] Peter Beaumant, *Syrian Arms Race Has Accelerated through International Pressure*, article published in *The Guardian*, 30 May 2013, at http://www.theguardian.com/world2013/may/30/syrian-arms-race-accelerated-international-pressure, retrieved on 20.08.2013.

[16] Michael Gordon, *Iran Supplying Syrian Military via Iraqi Airspace*, article published in *The New York Times*, 4 September 2012, at http://www.nytimes.com/2013/09/04/, retrieved on 06.09.2013.

[17] *Kuwaiti Private Charities Funding Terrorist Groups in Syria: Report*, article published by *Shafaqna Pakistan (Shia News Agency)*, on 20.11.2013, may be consulted at http://pakistan.shafaqna.com/insight/item/15289-kuwait-private-charities-funding-terrorist-groups-in-syria.html, retrieved on 22.11.2013.

whose number is estimated by the US Secretary of State, John Kerry, at 15-20% of the opposition active members in the aggregate (he calls them *"bad guys"*[18]). The Muslim Brotherhood is also represented, especially by fighters from other Muslim states or by Muslim fighters in the majority of the states in the region, in Asia and Australia[19].

Externally, various factions of the Syrian opposition are backed politically, materially, financially and militarily by Saudi Arabia, Qatar[20] and Turkey[21], as well as by some Western states, mainly the US[22], Great Britain[23] and France (political, material, financial, information and military support – with light weapons, protective equipment against chemical weapons, and trainers). Although there is a great deal of uncertainty about the reality of the events taking place in Syria, most Western leaders have asked Bashar al-Assad to relinquish power[24] and allocated funds for the opposition military aid. Kuwait is considered an active supporter of the Syrian opposition, although the officials in Kuwait-City deny any involvement. However, they admit that Kuwaiti citizens can have personal options and can finance the opposition by traditional *zakat (charity)*[25].

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[18] C.J. Chivers, *Brutality of Syrian Rebels Posing Dilemma in West*, article published in *The New York Times*, 5 September 2013, at http://www.nytimes.com/2013/09/05/world/middleeast/brutaity-of-syrian-rebels-posing-dilema-in-west.html, retrieved on 08.09.2013.

[19] Thomas Friedman, *Threaten to Threaten*, article published in *The New York Times*, 10 September 2013, at http://www.nytimes.com/2013/09/11/opinion/friedman-threaten-to-threaten.html, retrieved on 12.09.2013.

[20] Claude Salhani, *Will Saudi and Qatari Involvement in the Syrian War Impact their Economies?*, article published in *Oilprice.com*, 10 September 2013, retrieved on 14.10.2013.

[21] *Turkey Launches Military Exercises near Syrian Border*, article published by *Reuters* on 6 May 2013. It may be consulted at http://news.yahoo.com/turkey-launces-military-exercises-near-syrian-border-125410487.html, retrieved on 06 May 2013. (Close to the 900-km Turkish-Syrian frontier, there are about 400 000 Syrian refugees. They are among the most vocal protesters against the President of Syria, Bashar al-Assad). More recent data indicate a number of over 700 000 Syrian refugees in Turkey, according to *The Economist* on 09.11.2013.

[22] Aisling Byrne, *The Crusade for Syria: A Big Lie*, 25 May 2012, at http://colorrevolutionsandgeopolitics.blogspot.ro, retrieved on 18.07.2012. (the US Under Secretary of State for the Near East, Jeffrey Feltman, stated, at a congressional hearing, that the US would relentlessly pursue the two-track strategy of supporting the opposition and diplomatically and financially strangling the Assad regime).

[23] Jonathan Marcus, *Syrian Conflict: UK to Give Extra £ 5 Million to Opposition Groups*, article published by *BBC News*, on 10 August 2013, may be consulted at http://www.bbc.co.uk/news/uk-19205204, retrieved on 19.11.2013; see also Sengupta, Kim, *UK to Send £650,000 Worth of Equipment to Help Syrian Rebels with Defences*, article published in *The Independent* on 17.07.2013, may be consulted at http://www.independent.co.uk/news/uk/home-news/uk-to-send-650000s-worth-of-equipment-to-help-syrian-rebels-with.defences-8712390, retrieved on 19.11.2013.

[24] James P. Rubin, *Syria Is Not Kosovo*, article published in *The New York Times*, 4 September 2013, at http://www.nytimes.com/2013/09/05/opinion/syria-is-not-kosovo.html?, retrieved on 08.09.2013.

[25] *Zakat: Charity*, article published by *BBC*, on 08.09.2013, may be consulted at http://www.bbc.co.uk/religion/religions/islam/practices/zakat.shtml, retrieved on 12.11.2013.

Ayman al-Tamini, an expert of the Shillman-Ginsburg Forum in the Middle East, writes that extremist ideologies are quite common among the wealthy citizens in the emirate and the states in the Persian Gulf area. Moreover, the same expert states that those who have such political orientation, if in official positions, *"close their eyes"* not to see particular transactions with extremist-terrorist organisations[26].

Israel has not declared support for the Syrian opposition, but its aviation has hit several targets of the Assad regime, considered as infrastructure elements of the weapons of mass destruction development programme[27].

The opposition fighters and the states that support them have one common goal: to overthrow Bashar al-Assad and replace the current Syrian political leadership. Besides it, the objectives of these states are different, especially the political (who should run the country and with whom should ally), economic (completion of transportation projects for oil and gas from the Gulf to the Mediterranean terminals, with Iran and Russia) and military (to renounce the import of military equipment, ammunition and weapons from Russia and Iran and import them from sponsor states) ones.

Saudi Arabia would like the new Syrian leadership to be true to the monarchy in Riyadh, to weaken the power and influence of Iran in Syria and the Middle East, and to build facilities on Syrian territory to transport Saudi oil and natural gas to customers in the EU by Mediterranean terminals. Saudi Arabia is the largest arms importer in the world, with 21% of total world imports, followed by India with 13%, and Qatar with 6%[28]. The increase in the military capabilities of Saudi Arabia and Qatar is intended to prevent Iranian aggression as well as to prevent some anti-government movements in the area, such as the ones in Northern Africa and Syria.

Qatar would like the new Syrian leadership to be different from that approved by Saudi Arabia, namely one in favour of the economic projects in Doha, which wants to avoid the threats of closing the Straits of Hormuz by Iran so that it can export fossil fuels by pipelines crossing the Syrian territory and having terminals in the Mediterranean.

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[26] *Kuwaiti Private Charities Funding Terrorist Groups in Syria: Report*, article published by *Shafaqna Pakistan (Shia News Agency)* on 20.11.2013, may be consulted at http://pakistan.shafaqna.com/insight/item/15289-kuwait-private-charities-funding-terrorist-groups-in-syria.html, retrieved on 22.11.2013.

[27] Josh Rogin, Eli Lake, *US Intelligence Confirms Latest Israeli Strike inside Syria*, article published in *The Daily Beast*, 16 July 2013, at http://www.thedailybeast.com/articles/2013/07/16/u-s-intelligence-confirms-latest-israeli-strike-inside-syria.html, retrieved on 14.10.2013.

[28] Partha Gangopadhyay, *Arms Race: Is It just a Race to the Bottom?*, Stockholm Peace Research Institute, 26 September 2013, at http://www.sipri.org/media/blogs/eps-blog/arms-race-is-just-a-race-to-the-bottom, retrieved on 10.10.2013.

Turkey's involvement in support of the opposition to the Assad regime has put it in a position to review its relations with the states in the Near and Middle East. The fact that Turkey's Prime Minister Erdogan accused Israel of involvement in the action of overthrowing Egypt's President Mohammed Morsi resulted in changing the favourable course of Turkey's relations with Israel and displeased the US President Obama. This change of attitude came after Obama succeeded, in March 2013, in determining Prime Ministers Benyamin Netanyahu and Recep Tayyip Erdogan to meet and decide the resumption of diplomatic relations, broken off in 2010 after the incident on the Turkish ship *Mavi Marmara*[29]. Moreover, Prime Minister Erdogan insistence on reinstalling Egypt's President Morsi displeases both the military leadership in Cairo and the one in Riyadh that support the military regime in Egypt for fear of the expansion of Islamist extremist actions in Saudi Arabia.

Another cause of dissension between Turkey and Saudi Arabia is the dream of Turkey's Prime Minister to lead an Islamic superpower[30], goal also cherished by Saudi Arabia. The announcement made by Turkey's political leadership that it would build a missile defence system together with China aroused discontent both in Washington and at NATO headquarters[31].

The US attitude to renounce the military intervention against the forces of the Assad regime[32], following the chemical weapons attack on 21 August 2013[33], displeased Saudi Arabia. Prince Bandar bin Sultan, former ambassador of Saudi Arabia to Washington for 22 years, declared, during a discussion with some European diplomats, without specifying whether or not he had the consent of the head of state, that his country did not want to be so dependent on the US and it would review the political-diplomatic, economic and military relations with the USA. One of the first measures to be taken referred to the conflict in Syria, where the Saudis would no longer coordinate their actions with those of the Americans[34].

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[29] Jay Newton-Small, *How Barack Obama Brought Turkey and Israel Back Together*, article published by *Swampland Time*, on 25.03.2013, may be consulted at http://swampland.time.com/2013/03/25/how-barack-obama-brought-turkey-and-israel-back-together, retrieved on 25.11.2013.

[30] *Turkey and its Neighbors: A Reset? New Tone in Turkey's Foreign Policy*, article published by *The Economist*, on 09.11.2013, may be read at http://www.economist.com/news/europe/21589494-new-tone-turkeys-foreign-policy-reset, retrieved on 21.11.2013.

[31] *Ibidem.*

[32] Thomas L. Friedman, *art. cit.*

[33] John Laurenson, *François Hollande and the Syrian Trap*, article published by *Deutsche Welle* on 03.09.2013, may be read at http://www.dw.de/francois-hollande-and-the-syrian-trap/a-17062564, retrieved on 18.11.2013.

[34] Reuters Reporter, *Saudi Arabia Severs Diplomatic Ties with US over Response to Conflict in Syria*, article published by *The Daily Mail online* on 23.10.2013, may be consulted at http://www.dailymail.co.uk/news/article-2472680/Saudi-Arabia-severs-diplomatic-ties-US-response-conflict-syria.html, retrieved on 19.11.2013.

British Prime Minister David Cameron lost a vote in Parliament endorsing military action against the Assad regime[35]. Cameron's decision prompted the President of France, François Hollande, to label it as a schoolboy error[36]. France's President made no reference to the USA, although the French air force was prepared to execute the planned air strikes[37], and President Obama's decision to accept Russia's President Putin to place Syria's arsenal under international control[38] resulted in his calling America's puppet by the right opposition in Paris. Hollande's bellicose announcement to use force against the Assad regime, which has not been completely abandoned, even after the US gave up the military option, seems to have left France politically isolated[39].

## *The conflict probable evolution*

The open sources consulted so far are not sufficiently evident to predict, with a high degree of certainty, how the conflict will end.

The efforts of the international community, under the auspices of the world organisation, are commendable, but they are compromised by the obstinacy with which the jihadist factions oppose any negotiated solution.

The Commander of the Islamic Republican Guard Corps of Iran, Major General Mohammad Ali Jafari, threatened with the *Third World War*[40] and the destruction of Israel[41] while the US and France opted for the military solution. A similar threat was launched by President Bashar al-Assad, in response to France's President Hollande threat to use force against the regime in Damascus[42].

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[35] Bryan-Low Cassel, *UK Parliament Rejects Syrian Action*, article published in *The Wall Street Journal*, 29 August 2013, at http://online.wsj.com/article/SB10001424127887324463604579042571741346530.html, retrieved on 30.08.2013.

[36] Henry Samuel, *François Hollande: David Cameron Committed a 'Schoolboy Error' on Syria*, article published in *The Telegraph*, on 11. 09. 2013, may be consulted at http://www.telegraph.co.uk/news/worldnews/middleeast/syria/10302082/Francois-Hollande-David-Cameron-committed-schoolboy-error-on-Syria.html, retrieved on 18.11.2013.

[37] Jerusalem Post Staff, *France Was Ready for Syria Strike when Obama Decided to Seek Congress's Approval*, article published in *The Jerusalem Post*, 29 September 2013, at http://www.jpost.com/Middle-East/France-was-ready-for-Syria-strike-when-Obama-decided-to-seek-Congress's-approval-327421, retrieved on 14.10.2013.

[38] Laura Smith-Spark, Tom Cohen, *US, Russia Agree to Framework on Syria Chemical Weapons*, article published by CNN on 15.09.2013, may be consulted at http://edition.cnn.com/2013/09/14/politics/us-syria/index.html, retrieved on 17.09.2013.

[39] Thomas Adamson, *French President François Hollande Hasn't Ruled Out "Military Option"*, article published by *Huffington Post*, on 15.09.2013, may be read at http://www.huffingtonpost.com/2013/09/15/franco-syria_n_3931284.html, retrieved on 19.11.2013.

[40] Michael Burleigh, *op. cit.*

[41] *Syria War to Cause Israel Destruction: IRGC*, article presented by Iranian *Al-Alam TV*, on 29.08.2013, may be read at http://en.alalam.ir/news/151031, retrieved on 22.11.2013.

[42] Alastair Jamieson, *Syria Won't Change Position even if there Is World War III*, article published by *NBC News* on 04.09.2013, may be read at http://worldnews.nbcnews.com/_news/2013/09/04/20326519-report-syria-wont-change-position-even-if-there-is-world-war-III, retrieved on 19.11.2013.

To these pieces of the puzzle a few more could be added, apparently unrelated to the conflict in Syria.

Russia transmitted an important message to the world through the large-scale exercises carried out in July 2013, involving over 160 000 troops, and on 30 October. The exercise in October consisted of launching several *RS-12M Topol* ballistic missiles from the space centre in Plesetsk, some *RV-20 Voevoda* missiles from the space centre in Domborovsky as well as of some ballistic missiles from the submarines of the Northern and the Pacific Fleet. Some missiles were launched towards targets situated in the East of Kamchatka Peninsula, and others towards targets situated in Astrakhan range. The missiles launched towards Astrakhan range were intercepted and destroyed by *S-300* and *S-400* surface-to-air missiles. Although Russian officials declared that the exercises were planned in advance, Western commentators considered them a surprise or a signal to China and Japan[43]. We consider that the USA was mainly targeted. To support this statement we would only present President Putin's declaration on strengthening strategic deterrent capabilities in response to President Obama's initiative to eliminate nuclear weapons from the arsenals of states. On that occasion, Russia's President said that his country was developing a new generation of missiles – *R-26M* –, which could not be countered by the US missile defence system[44].

Another message to the world was sent by China, in mid-November 2013, through the establishment of the East China Sea Air Defence Identification Zone, including the Senkaku Islands (in Japanese, namely Diaoyu Islands, in Chinese). The mentioned islands are in dispute between China and Japan, dispute that has amplified in recent months. Within the identification zone, all aircraft are required to identify themselves. Military aircraft from the US, Japan and South Korea flew over the area on 26. 11. 2013 and Chinese fighter jets scrambled to identify them. Moreover, after this event, China established an air patrol service in the area unilaterally determined, using surveillance and fighter jets. The Chinese Communist Party's official newspaper, *The Global Time*, wrote that the Chinese jets would not attack the US jets *"if they do not go too far"* and warned Japan that if it continued to act as on 26 November, then frictions and even dogfights between planes of the two countries could happen. Finally, the Chinese official newspaper called for the Air Force combat training to cope with a potential conflict[45].

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[43] Zachary Keck, *Russia Conducts Surprise Nuclear Readiness Drill*, article published by *The Diplomat*, on 31.10.2013, may be read at http://thediplomat.com/2013/10/russia-conducts-surprise-nuclear-readiness-drill/, retrieved on 20.11.2013.

[44] *Ibidem*.

[45] Ben Blanchard, Roberta Rampton, *China Scrambles Jets to New Defense Zone, Eyes US, Japan Flights*, article published by *Reuters*, on 29.11.2013, may be read at http://www.reuters.com/article20a-patrol-idUSBRE9AR0OM20131129, retrieved on 29.11.2013.

Analysing these events, we can conclude that the civil war in Syria is an opportunity for the world powers and the powers of the Middle East to confront each other in order to establish their place in the world hierarchy. The result of the conflict in Syria could mean the end of the current round of struggle for power and influence in the global and regional arena. After the conflict in Syria ends, it is possible to witness a paradigm shift in the world order by passing from unipolarity to multipolarity.

## Conclusions

The events in the Gulf area, especially the *"Arab Spring"* and the civil war in Syria, have widened the existing gap between the Arab and the Muslim states in the Middle East[46].

Although the conflict in Syria seems to be conducted between pro-government and opposition forces, in reality it is a war as the one described by Thomas Hobbes as *"the war of all against all"*. Each of the two parties in the confrontation is supported by internal and external forces. However, there are also confrontations between supporters, even if they are part of the same camp, at least in declaration.

The rebel factions are not united and they fight each other, especially those having a Jihadist orientation, affiliated to al-Qaeda, and the moderate ones, reunited in the Syrian National Coalition. The interests of Saudi Arabia are different from those of Qatar and Turkey. Moreover, Saudi Arabia intends to review its diplomatic relations with the USA.

Although China supports Iran, diplomatically and economically, it does not hesitate to extend its cooperation with Turkey, which is in competition with Iran for hegemony in the Middle East, resulting in the disapproval of the decision of the government in Ankara by NATO and the US[47].

Besides supporting the parties in direct military confrontation, there are also confrontations between the supporters of the two parties, mainly in the political-diplomatic, economic-financial, informational and psychological fields: Iran and Saudi Arabia for religious hegemony in the region and then in the Muslim world; Iran and Turkey for hegemony in the region and in the Islamic world; Iran and the US to stop or continue Iran's nuclear programme; Russia and the USA[48], and China and the USA for global supremacy etc.

*English version by*
✍ *Diana Cristiana LUPU*

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[46] Robert Worth, *Egypt Is Arena for Influence of Arab Rivals*, article published in *The New York Times*, 10 July 2013, at http://www.nytimes.com/2013/07/10/, retrieved on 16.07.2013.

[47] *Turkey and its Neighbors…, op. cit.*

[48] John Giocaris, *Syria Facts: The Complete Guide to All the Global Players Involved in Syrian Conflict*, article published in *Policy Mic*, on 29.08.2013, may be read at http://www.policymic.com/articles/61461/syria-facts-the-complete-guide-to-all-the-global-players-involved-in-syrian-conflict, retrieved on 19.11.2013.

# CHALLENGES FOR THE FIELD ARTILLERY SYSTEM FOR THE YEARS 2030-2040 (I)

*Brigadier General Dr Florinel DAMIAN*
*Major Ştefan OLARU*

*In this article, the authors try to identify the challenges for the FAS following the structure of the report Strategic Foresight Analysis (SFA), published by HQ SACT Strategic Plans and Policy in October 2013.*

*First, they give a brief introduction to SFA, emphasising that the understanding of the characteristics of the future, the current reality and the detailed knowledge of the lessons learned are elements supporting the understanding of the future international security environment.*

*Then, they write about the potential challenges for FAS from the trends and findings specific to each of the themes discussed in SFA – Political, Human, Technological, Economic and Environmental.*

***Keywords***: *Field Artillery System; Strategic Foresight Analysis; global superpowers; political structures; polycentric world*

More than ever, the modern society faces very rapid challenges, presently undergoing a transition period in the main domains: political, diplomatic, military, economy, social ones, intelligence and, last but not least, infrastructure. Throughout history, the human society has witnessed extremely difficult moments in terms of national, regional and global security, as well as internal stability. During these times of global changes, the powers that are not in the first line of the global security process have been trying to redefine their role and influence in this domain.

On the other hand, those considered enemies of the civilised world have generally had the ability to adapt to any changes in the security environment. The access to current technologies and the globalisation of the dependence on networks and IT products have enabled them to develop more rapidly, especially because they do not have to deal with the restrictions specific to any bureaucratic, administrative system or related to morality.

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From the military perspective, history has shown that the winners have been only those armed forces that have succeeded in adapting to and being flexible regarding the social and events *"stimuli"*, in direct relation to the willingness of those states to ensure the necessary legal framework in order to achieve the effectiveness and complementarity of the existing/necessary systems, in keeping with the desired end state. Presently, taking into account the globalisation and the restricted access to resources, generated by the global crisis, we can easily use the term *"surviving"* for the armed forces of various states, because the need for security must always be associated with the major risks, social perception and people's will.

In this context, several studies, projects and analyses have been done for defining the guiding lines for various international organisations or for some national armed forces. All these documents have been based on previous studies concerning the *future of society and its characteristics*.

Of course, nobody has assumed the role of a modern prophet, but these studies show some trends based on numbers, statistics, tendencies and characteristics of the current society.

We thought that an attempt, more or less successful, to identify the way these trends are reflected in the evolution of the *Field Artillery System – FAS* may be welcome, at least for bringing about new discussions which may ultimately reflect in the doctrinal approach of the specifics of the field artillery in the future.

Although the bibliography is very generous, either the national one or the one from some organisations such as NATO, the EU or the UN, we will try to identify the challenges to the *FAS* following the structure of the report *Strategic Foresight Analysis (SFA)*, produced by HQ SACT Strategic Plans and Policy and published in October 2013.

## Introduction to SFA

This report is based on a variety of studies done in the industry or national and international/multinational organisations, NATO or EU member or partner states or other countries such as China or India. Part of a *Long-Term Military Transformation*, this report forms the basis of *Framework for Future Alliance Operations (FFAO)*[1], both of them supporting the NATO process, especially the *NATO Defence Planning Process (NDPP)*.

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[1] Still in draft stage, this document will be a *Bi-SC Command* endorsed one and will constitute the military consultative element for the Military Committee, International Staff and International Military Staff.

*SFA* identifies trends[2] that will define the future strategic context, resulting in implications for NATO up to 2030 and beyond. These implications derive from specific trends within a single *theme*. However, any of these trends may interact in unforeseen ways that would make them more complex, with consequences and implications not considered in the report. This is why the main conclusion of the report is that the future is neither predicted nor predictable, always leaving enough room for a *strategic shock*[3]. However, the *SFA* emphasises that the current transition period will become more complex and uncertain, presenting the threats and opportunities fuelled by an accelerated rhythm of social and technological change, against the backdrop of globalisation.

*SFA* has identified five themes, each with its own trends and conclusions: *political, human, technological, economic and environmental*.

Based on the trends and conclusions specific to each theme, we will try to understand the potential challenges to *FAS* for 2030 and beyond.

## Characteristics of the Future

If, in his existentialism, the well-known Danish philosopher Søren Kierkegaard spoke about *organic epochs* and *critical epochs*, nowadays we can speak about rapid and successive transition periods, in which the rhythm of change is unpredictable. All these, connected with the new types of threats and risks, have increased global uncertainty. The possible evolution from the current international system, in which a limited number of countries are involved in the global security architecture, to a polycentric world, with dozens of actors practicing a certain kind of power and influence, contributes to bigger uncertainty, generating instability – the essential premise of *critical epochs*. Globalisation[4], understood as a removal of all barriers concerning the international movement of goods, people, information, services, ideas and money, is a phenomenon accelerated by the desire to achieve bigger profits and by the technological advances in communication, information and transportation. The effects of globalisation in all areas of society and the interaction between the factors generating these effects may increase or decrease the tension between the main actors of the security environment.

Another important feature of the future is its complexity in terms of security. The growing interdependence of global systems will make it difficult for any crisis or major event to be isolated or treated individually and will usually entail a multitude of cascade effects.

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[2] The details are available in *SFA*, Executive Summary, p. 1, point 2.
[3] By strategic shock one understands the singular and radical event, foreseen or unforeseen, which produces discontinuity in the defined trends and reshapes the strategic environment.
[4] More details in *SFA*, Chapter 1, point 6.

The understanding of the characteristics of the future, of the current reality and detailed knowledge of the lessons learned are elements supporting the understanding of the future international security environment. Some countries, which take a European approach to the international security environment, see its multi-polar configuration not only through the superpowers' role which, as mentioned above, tend to change, but also through the interaction between international/multinational organisations, whose relationship will change compared to the present moment[5]. Thus, we can speak about a major involvement of the countries in the Southeast Asia (especially China and Japan), India and Brazil on the international stage, the economic growth in these areas placing them, along with Russia, at the forefront of the security architecture. The US will try to maintain its primary role in this configuration.

NATO, with a well-defined enlargement policy, will continue to be the most influential security organisation at global level, but not with the same intensity. Without a strategic shock, the EU will continue the federal approach, based on a single currency and with its own defined borders. A reconsideration of the allocation/establishment of forces and military means will lead to the creation of a powerful tool in the field of EU foreign and security policy, namely the European Union (EU) Army[6]. This aspect will be detailed below in the influence of the political theme on the *FAS* physiognomy.

The climate changes, the population growth, particularly in the African region, the migration waves, the individual/group conscience in terms of religion, with perpetual struggle for access to resources, will be the main challenges in the security environment and major germs of any kind of future confrontations, including military.

## Challenges for the *FAS*

As mentioned earlier, we will try to deduce the potential challenges for the *FAS* from the trends and findings specific to each of the themes discussed in *SFA – Political, Human, Technological, Economic* and *Environmental*.

### A. Political Theme

The first question that may be asked: *is not the leap from politics to FAS somehow too big*? Maybe, but the intermediate studies developed so far, otherwise, in the normal course, relating to the armed forces and especially land forces,

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[5] A more detailed approach is available in *"Vision of the Polish Armed Forces 2030"* published by the Ministry of Defence of the Republic of Poland in May 2008.

[6] About this potential army, we wrote in *Artileria Modernă Română* Magazine, issue 1-2/April 2010.

have a national perspective, and an individual approach to such a study would result in trends specific only to that national army. Therefore, in order to have an overview of all NATO member countries and other EU member countries, we will try to deduce the key features directly from the analysis of the political theme, as detailed in the *SFA*.

### 1. Change of the hierarchy of global superpowers

New powers will redefine the security balance worldwide with direct influence on the military dimension as well. We are referring here to the European Union and the military force that will be enabled by it. From the perspective of the Ministry of Defence of Poland[7], the EU Army will be the mainstay of the NATO armed forces. It will be created by the allocation of military components by member individual states in operational subordination to a supranational command. On the other hand, the force will also have units set up by direct recruitment by the European institutions. Around 2030-2040, the EU Army will have all operational capabilities required in order to plan, conduct and evaluate the full spectrum of military operations, at strategic, operational and tactical levels.

As a support arm, *FAS* will undergo the process of resizing all land forces. There will be doctrinal adjustments to ensure a coherent framework for equipment, training and engagement to all *FAS* units, during both NATO and EU missions. However, the EU will maintain its *"stability and support"* operations, the manoeuvre forces participating in such operations generally requiring lightweight and mobile *FAS* components such as data acquisition/assessment systems and mortars up to 120 mm calibre, but with improved capabilities (fires over 10 km, while reducing the number of gunners within the team from 4-6 to 2-4) and fully integrated in the automated multi-echelon C2 system. This will somehow force a separation of the artillery units earmarked for stability and support operations (mortar units, data acquisition units) from those earmarked for warfare operations (155 mm-calibre self-propelled and armoured heavy artillery units, which have to fire over 40-70 km, reactive launchers units, missile launchers units, which have to be able to engage the targets over 70-150 km). Considering the funding of units created by direct recruitment by EU institutions and the average salary of the military from *FAS* structures by the individual funding of states, an imbalance will occur in the recruitment of manpower, which will lead to a rethinking of the funding system through a *"customer-oriented"* approach. Consequently, *FAS* structures classifications will result, based on their capabilities and on certain certifications that will provide access to additional financial resources from the EU. European recruitment requires

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[7] *Ibid*, 5, 1.6-1.7.

a review of the concept of *"harmonisation"* (interoperability being the first step of the *"harmonisation process"*) towards a clearer *"path"* of *"identity"* of doctrine, techniques, tactics and procedures (TTP) used, types of missions/tasks carried out, the C4ISTAR system, weapon systems, ammunition etc.

Another centre of power that will change the international security landscape will be BRIC[8]. Although it will initially be involved in an economic competition in which BRIC, together with Indonesia, Mexico and Turkey, already known as E7, will be a real counterweight to what G7 is now[9]. After the financial and economic crisis that affected most countries in the past five years, the economic development will inevitably be followed by the military development, as well as by repositionings according to new interests.

From this point of view, NATO's relevance and influence may be declining. But the relationship with the EU, as mentioned above, and with BRIC, with each state or with various potential alliances, will not necessarily be one of competition, but will give rise to a new partnership system. NATO will bring as many members and partners as possible under its influence. The need to ensure the capacity of carrying out operations under Article 5 of the Treaty will lead to a geographical approach to the positioning of the force structures. Implicitly, the *FAS* structures, based on the NATO *"system of systems"* standard capabilities at operational and/or tactical level (harmonised and equipped with C4ISTAR systems, large calibre weapon systems and an appropriate logistic system), have to be properly designed, equipped, educated/trained and positioned in the NATO countries, from where they have the fastest and most optimal response to the expected/ unexpected/asymmetric threats in accordance with the ACO structures directive/ OPLANs. For those capabilities located in different possible future rear operation areas and are to be deployed to different assembly areas, there will be provided the operational and strategic transport capability and appropriate Air/Sea Areas of Debarkation/Embarkation (A/SPOD/E).

These movements and repositioning of military capabilities will trigger reactions on the part of competitors that will turn into real arms races. The UN will try to stop or limit these approaches by different resolutions and sanctions. As a consequence, the scientific and applicative research for the field artillery will become of special significance and will ensure a balance among technological progress, economic sustainability and the real need for the organisation and equipping of *FAS* structures.

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[8] BRIC – Brazil, Russia, India and China. The subject is largely detailed in *"BRICs and Beyond"* by Goldman Sachs.

[9] The comparative analysis is presented in *Global Europe 2030-2050*, European Commission Group of Experts.

### 2. Change of political structures

In several countries, especially in the Middle East and North/Central Africa, more possible changes in the political regimes will occur, from authoritarian to democratic ones[10]. Sometimes this will happen against the backdrop of some strong tensions that will cause instability at NATO borders. Most likely, in such cases one will address, among other things, peace support (PSO – all forms)/stability and support operations, where the *FAS* structures will be involved with C4I and data acquisition systems and elements of logistic or weapons system, especially mortars. The *"know how"* from the current operations will be improved and the current system of lessons learned will improve the education/training platform needed to reach the end state of these operations.

### 3. A polycentric world

Emergent technologies and modern transport and communication systems/IT (CIS) will allow small groups of persons, with delegated authority, to act in an organised manner and to become important actors who will get involve in the configuration of the economic, social and political environment of NATO or EU member states. Beside them, other regional actors such as ASEAN[11] and African Union will be involved in regional peace and stability actions/operations. Currently, each organisation works directly with private security companies[12] and will continue to do so, as long as the public perception on the potential victims of conflicts is different among the national (governmental) armed forces comparing with private companies.

The existence and use of these companies will generate risks and exposure to various effects and undermine the state monopoly in the security/armed forces area. The technology will enable these companies to play a major role in accessing and manipulating information, and various components of *"System of systems"*. In terms of *FAS*, these companies can generate three risks. The first is related to the migration of experts, as long as the income package will be more attractive in the private companies, which will lead to a direct competition on human resources recruitment. The second is derived from the first and related to the indirect access to information of former *FAS* employees. The third is that these companies will substitute a capability that the armed forces, including the *FAS*, when required, will not have at all or will have, but not at the necessary level of expectation and without too much experience.

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[10] *SFA*, Chapter 2, point 5.
[11] Acronym for *Association of Southeast Asian Nation*. Details at http://www.asean.org/
[12] More details at http://www.privatemilitary.org/home.html#.Uuqn6vtkkc8

The polycentric world, on the one hand, will offer new opportunities for cooperation with regional and international organisations (partner countries, NGOs, IGOs etc.) yet, on the other hand, it will be more sensitive in terms of potential revision of treaties or their fragmentation[13]. Any potential changes to agreements and rules may also have implications on the *FAS* through changes related to data/information development and use, CBRN ammunitions, rules of engagement during operations, logistics and states transit agreements etc.

Another consequence of polycentrism on NATO is the difficulty of reaching a consensus because of the different perception of threats, combined with the multidisciplinary approach to risks. The prioritisation of national agendas before the Alliance's one and the different perception of threats have, in subsidiary, consequences on *FAS* structures in terms of readiness for participation in operations, deployment of components' systems, in accordance with the specifics of the mission, operations planning and allocation of necessary resources/funds for mission fulfilment.

Therefore, the political theme, as detailed in *SFA*, leads to the identification of certain risks and implications on *FAS*, issues which define, from this point of view, to a certain extent, the trends of field artillery as a *"system of systems"* over the next 20-30 years.

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*In the second part of the article, the authors will write about demographic changes and aspects of the geopolitical challenges of 2030-2040.*

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[13] *Ibid*, 10, 9.a.

# MILITARY FORCES THE WESTERN WORLD – USA PLUS SOME ALLIED COUNTRIES – WAS PREPARED TO USE IN THE CONTEXT OF THE SYRIAN CRISIS (AUGUST-SEPTEMBER 2013)

*Dr Florin DIACONU*

*The study lists and evaluates the main elements of military power which several major political actors of the Western World (USA, Great Britain, France, Israel and Turkey) were able to use, in case of need, in late August and in September 2013, if a massive military strike against vital strategic targets in Syria should have become necessary in order to deny the Assad regime any chance to use weapons of mass destruction (WMDs) either against civilian population, or in destabilising (or threatening) the regional balance of power. One of the partial conclusions is that international media heavily underestimated, maybe accidentally, the sheer might of a potential massive military strike against strategic targets in Syria.*

*Keywords: Syria; weapons of mass destruction; regional balance of power; military strike; USA; Great Britain; France; Israel; Turkey*

At the end of August 2013[*], the information that nerve gas (sarin, most probably, according to what we know at this very moment) had been deliberately used in Syria, against civilian population in one of the suburbs of Damascus, became public. As a direct consequence, several major political actors in the Western world (the United States, plus a number of strategic allies and partners of the US) swiftly started planning a significant military action which, in case of need, might have been able to severely hit major strategic targets controlled by the Assad regime. The same military action might have been able to destroy, in case of need – or at least to significantly diminish – the capability of the decision-makers in Damascus to use again

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[*] The article was published in Romanian in *Gândirea militară românească*, no. 6, 2013.

weapons of mass destruction (WMDs) in order to maintain political control in Syria, or in order to influence or harm the Middle East balance of power. This very study lists and evaluates the main elements (presented with a lot of details by open sources of all sorts, including international media) of the military power of the Western world which have been mobilised and deployed near Syria, in order to prepare a possible military strike targeting the destabilising military capabilities of the Assad regime. This study is complementary to another one, already sent to the *Infosfera* magazine (which is regularly published by the General Directorate for Defence Intelligence of the Ministry of National Defence[1]); this second study presents the main elements of military power of Syria, Iran, and of the Russian Federation, elements which might have been used in defensive operations (or in operations of mainly defensive nature), in case of a more or less massive Western military strike against strategically significant targets in Syria, vital (or at least very important) for the Assad regime.

### The Forces of United States of America

Starting with the end of August 2013, the United States deployed – and went on deploying in early September 2013 as well – several *very* modern and effective combat ships in regions of the World Ocean near Syria. Among these vessels, we list here at least five large *Arleigh Burke*-class destroyers[2], all of them armed with advanced guided missiles. At the end of August 2013, *Reuters* stated that usually the US had in the Mediterranean three large guided missile destroyers, but that the escalating crisis in Syria made the *US Navy* to keep there some extra two destroyers, which were sailing back home, after being deployed for several months in the Indian Ocean. Each of the five large US destroyers present in late August 2013 in the Eastern Mediterranean Sea was armed with three dozen or even more *Tomahawk*

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[1] In Romanian, the structure is officially called *Direcţia Generală de Informaţii a Apărării.*

[2] *Arleigh Burke*-class destroyers are armed with guided missiles and are very potent multi-role combat ships, able to successfully fight against air, surface, submerged or terrestrial targets. 62 ships of this type are operational (*DDG 51* to *DDG 112*) and other four are now in different stages of completion, in naval yards. Each ship is 155,3 meters long, its engines generate almost 100 000 horse powers and have a gross displacement of roughly 9 648,4 tons. Their speed is at least 30 knots. Their crew is made up of 276 sailors, NCOs and officers. Each ship has five quick-firing *MK 45* 127 mm guns, able to accurately hit targets 20 miles away. These destroyers also have torpedo tubes, anti-submarine weapons and different types of air defence missiles. For more details see *"Detroyers – DDG"*, on the official webpage of the *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=4200&tid=900&ct=4. The main feature of these combat vessels is that are armed with 90 (Flight I) to 96 (Flight II) cell *Mk 41 Vertical Launching System* (*VLS*). Each cell has a fully operational missile inside it, so that each destroyer can fire 90 to 96 missiles (anti-ship, air defence, anti-submarine and cruise missiles). See *"Arleigh Burke-class destroyer"*, www.en.wikipedia.org/wiki/Arleigh_Burke-class_destroyer.

cruise missiles[3], which means that at least almost 200 weapons of this type could have been launched against targets in Syria. The same media source quoted Byron Callan, an analyst working with Capital Alpha Partners. He stated, *Reuters* said, *"that a limited Syrian strike would use about 200 to 300 Tomahawk missiles, compared to about 221 used in the Libya operation"*. Reuters also quoted Retired Admiral Gary Roughead, who served as chief of naval operations during the 2011 strikes on Libya. He is now a visiting fellow at Stanford University's Hoover Institution. Roughead said that *"if you're going to try to shape events, you really need to hurt them"* and that *"you would have to do something that would diminish the effectiveness of the Syrian military and that would be their command and control, perhaps their leadership, and then their ability to control air space"*. According to the opinion of the retired US admiral, *"any strike on Syria would have to be targeted precisely to do the maximum amount of damage to Syrian military headquarters and other key sites – and to avert the possibility of retaliatory action"*[4].

On 23 September 2013, *USA Today* published an article stating that in the new context generated by the decision of the Assad regime to accept the plan proposed and initially supported by the Russian Federation, and later on by the US as well, the US Navy was keeping four large guided missile destroyers in the Mediterranean: *USS Stout*, *USS Ramage*, *USS Gravely* and *USS Barry*. We cannot ignore the obvious meaning of deliberately decreasing the number of such ships deployed near Syria with 20% (from 5 ships to only 4), but we strongly underline that, even in this situation, their number was anyhow 33% larger than the usual one (only 3 ships, as previously stated). *USA Today* quoted, on the same occasion, the opinions of Ray Mabus, US Navy Secretary. This high official had stated, a few days earlier, at the National Defense University, that *"I guarantee you that if we are called upon to strike, we will strike hard and we will strike fast"*. Mabus had also said that such an action

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[3] The *Tomahawk* cruise missiles are designed and build by *Raytheon Systems Company*. It *"can fly into heavily defended airspace and precisely strike high-value targets with minimal collateral damage"* and it has *"a range of approximately 1 000 statute miles"*. Some of the Tomahawks (*Block II*) have a range of up to 2 500 kilometres. These missiles are used by the US military since 1984. Each missile costs 569 000 dollars (1999 FY prices). The *Tomahawk* has a total weight of 2 900 lb (1 300 kg), or 3 500 lb (1 600 kg) with booster. Its total length, with booster, is 6,25 meters. The warhead usually is conventional, with 1 000 pounds (450 kg) High Explosive (HE) or Submunitions dispenser. For more details see the text *"Tomahawk cruise missile"* (most recently updated on 23 April 2010), on the official site of *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=2200&tid=1300&ct=2, and also *"Tomahawk Cruise Missile"* on the webpage of *Raytheon*, http://www.raytheon.com/capabilities/products/tomahawk/

[4] For the opinions of Callan and Roughead see Andrea Shalal-Esa, *"Sixth US Ship Now in Eastern Mediterranean 'as Precaution'"*, *Reuters* article, 30 August 2013, http://www.reuters.com/article/2013/08/31/us-syria-crisis-ships-idUSBRE97U01Z20130831

of the US naval forces *"will degrade the Assad regime's capabilities"*, *USA Today* also stated[5].

In early September 2013, several reliable open sources say with all necessary details, the US carrier *Nimitz*[6], together with the support and escort ships belonging to the same strike group, moved from the northern part of the Indian Ocean to the northern part of the Red Sea. This move clearly made significantly shorter the distance from the flight deck of *USS Nimitz* to any (and all) potential targets in different locations on Syrian territory. *Nimitz* was accompanied by several combat ships: a cruiser, *USS Princeton*[7], and three large destroyers, armed with guided missiles (*USS William P. Lawrence*, *USS Stockdale* and *USS Shoup*). These destroyers are belonging to the same *Arleigh Burke* class as the destroyers already deployed to the Mediterranean[8]. Another carrier, *USS Harry Truman* (*CVN 75*) has been deployed, starting with the final days of August 2013, to the Arabian Sea and Persian Gulf region. *USS Truman*, a carrier with the same basic features and tactical parameters *USS Nimitz* has, sailed from Norfolk, its homeport, on 22 July 2013. Later on, it sailed to the South through the Suez Canal, together with its support and escort ships[9]. According to open sources, *USS Truman*

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[5] For the diminishing number of US destroyers in Eastern Mediterranean in the second half of September 2013, and also for statements made by Ray Mabus see Tom Vanden Brook, *"Navy Still Prowling Waters near Syria"*, in *USA Today*, 23 September 2013, http://www.usatoday.com/story/nation/2013/09/23/navy-syria-bashar-assad-chemical-weapons-tomahawk-cruise-missiles/2855721/

[6] *USS Nimitz* (*CVN 68*) is a large aircraft carrier which entered active service in 1975. Propulsion system: nuclear. Total cost: approximately 8,5 billion USD (2012 FY prices). 332,8 meters long, with the flight deck 76,8 meters wide, *Nimitz* has a total displacement of more than 98 560 tons. Crew has 3 000-3 200 sailors, NCOs and officers. Speed: approx. 34,5 knots (1 knot means 1 mile/hour). Some extra 1 500 men are in the air wing, plus 500 with other special assignments. The *"approximate"* number of aircraft is *"larger than 60"*. For all these see *"Aircraft carriers – CVN"*, on the official site of *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=4200&tid=200&ct=4

[7] *USS Princeton* (CG-59) is a large guided missile cruiser, belonging to the *Ticonderogra* class. San Diego (California) is its homeport. The total cost of such a ship is almost 1 billion USD. The displacement of the vessel is 9 754 metric tons, full load. Speed – *"30 plus knots"*. Crew has 30 officers and 300 enlisted men. Armament: *MK41* vertical launching system Standard Missile (MR); Vertical Launch *ASROC* (VLA) Missile; *Tomahawk* Cruise Missile; Six *MK-46* torpedoes (from two triple mounts); Two *MK 45* 5-inch/54 calibre lightweight guns; Two *Phalanx* close-in-weapons systems. The ship carries two SH-60 *Seahawk* helicopters. For all these elements see *"Cruisers – CG"*, on the official site of the *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=4200&tid=800&ct=4

[8] For the moments when *Nimitz* sailed to the Red Sea, and for the other ships in the same *strike group* see, for example, *"US and Allied Warships off the Syrian Coastline: Naval Deployment Was Decided 'Before' the August 21 Chemical Weapons Attack"*, 2 September 2013, on the site of *GlobalResearch*, http://www.globalresearch.ca/massive-naval-deployment-us-and-allied-warships-deployed-to-syrian-coastline-before-the-august-21-chemical-weapons-attack/5347766

[9] For the sailing route and for the region to which *USS Truman* has been deployed see *"Egypt Allows USS Truman To Transit Suez Canal"*, in *Star and Stripes*, 20 August 2013, www.stripes.com/news/middle-east/egypt-allows-uss-truman-to-transit-suez-canal-1-236237

was escorted by two guided missile cruisers (*USS San Jacinto* and *USS Gettysburg*) and by two *Arleigh Burke* class destroyers, also armed with guided missiles (*USS Bulkeley* and *USS Mason*). *USS Truman* has a complete embarked air wing (*Carrier Air Wing 3*), with 8 squadrons. Six of these squadrons have supersonic combat planes of different types, while the other two are armed with combat, submarine warfare and rescue helicopters of several types[10]. The embarked air wing *"is capable of projecting tactical air power over the sea and inland, as well as providing sea-based air, surface and subsurface defense capabilities"*[11].

The United States of America could also use, for combat missions of all sorts against targets in Syria, several of the submarines already deployed to the Mediterranean and regularly patrolling this large and important sea. On 26 August 2013, *Washington Times* published an article stating that at that very moment the US had in the Mediterranean several submarines armed with cruise missiles, and that the exact location of these subs was highly classified, because they carry not only missiles, but also special forces units[12] which can be landed, in case of need, anywhere on the shores of the sea the submarines are patrolling in. Most probably, the submarines open sources are speaking about are belonging to the *Ohio* class. Each of these submarines has a nuclear propulsion system (which means a really huge range) and can carry – and launch – up to 154 *Tomahawk* cruise missiles. Any Ohio-class submarine is also able to transport to the enemy shores a special operations unit with 66 soldiers, NCOs and officers. In late summer 2013, the US had four operational *Ohio*-class submarines: *USS Ohio* (*SSGN 726*), *USS Michigan* (*SSGN 727*), *USS Florida* (*SSGN 728*) and *USS Georgia* (*SSGN 729*)[13]. *Tomahawk* cruise missiles can also be launched by the US attack submarines belonging to the *Los Angeles* class

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[10] For the exact structure of the strike force escorting *USS Truman* see *"Harry S. Truman Carrier Strike Group Enters 5th Fleet"*, on the official site of the *US Navy*, www.navy.mil/submit/display.asp?story_id=76020

[11] *"Welcome to the Finest Aircraft Carrier in the Fleet!"*, on the official site of *USS Harry S. Truman*, http://www.truman.navy.mil/

[12] For the presence of US submarines in the Mediterranean and for their combat capabilities see Kristina Wong, *"US Destroyers, Subs on Standby for Strike Order on Syria"*, in *The Washington Times*, 26 August 2013, www.washingtontimes.com/news/2013/aug/26/us-destroyers-subs-on-standby-for-strike-order-on-/?page=all

[13] For all data used here see *"Guided Missile Submarines – SSGN"*, on the official site of *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=4100&tid=300&ct=4. The same open source says that *Ohio*-class submarines are almost 171 meters long, have a speed of more than 20 knots, and a crew of 15 officers and 144 sailors and NCOs. The submarines have also four torpedo tubes.

(with a total number of 31 ships), *Seawolf* class (3 submarines) and *Virginia* class (9 ships)[14].

In late August and early September 2013, the US also had, nor far away from Syria, significant combat elements belonging to the *United States Marine Corps* (*USMC*)[15]. We are speaking about at least *"several hundred Marines"*, on the very large amphibious assault ship *USS San Antonio* (*LPD 17*). *San Antonio* is the first vessel of a completely new class which will have, in the end, 12 units of this sort. *San Antonio* is specially designed and build, says an official text, in order to *"transport and land Marines, their equipment and supplies by embarked air cushion or conventional landing craft or Expeditionary Fighting Vehicles, augmented by helicopters or vertical take off and landing aircraft"*[16]. According to the official presentation we are quoting here, this ship is specially designed to *"support amphibious assault, special ops, or expeditionary warfare missions through the first half of the 21st century"*[17]. 208 meter long, a 32 meters beam, and with a total displacement (full) of almost 25 000 tons, *USS San Antonio* became operational in 2006. The vessel has a speed *"in excess of 22 knots"*. Its motto is *"Never Retreat, Never Surrender"*. It carries four *CH-46 Sea Knight* helicopters or two *MV-22 Osprey* tilt rotor aircraft. Several other airships (generally one or two) can be carried in a hangar under the main deck. *USS San Antonio* is armed with *"two 30 mm Close-in-Guns, for surface threat defense; two Rolling Airframe Missile launchers for air defense"*. It also carries a significant number of landing craft of different types (both conventional and air cushion) and can carry and launch up to 14 *Marine Corps Expeditionary Fighting Vehicles* (*EFVs*)[18]. The ship has a crew of 363 sailors,

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[14] *Los Angeles*-class submarines have, each of them, 12 vertical tubes for launching *Tomahawk* cruise missiles. *Seawolf*-class submarines can use their torpedo tubes in order to launch cruise missiles (each of them being able to carry up to 50 torpedoes or *Tomahawks*). The newest *attack* US submarines, those belonging to the *Virginia* class, have, each of them, 12 vertical tubes for launching *Tomahawks*. For these details and data, see *"Attack Submarines – SSN"*, on the official site of *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=4100&tid=100&ct=4

[15] For the structure, mission and history of the *USMC* see the massive amount of data on the official web page of the Corps, http://www.marines.com/home

[16] Fragment also quoted in dr. Florin Diaconu, *"Statele Unite şi 'Noul Golf': provocări strategice şi răspunsuri tactice"*, in *Romanian Diplomatic Institute (IDR) Policy Paper no. 4/2013*, http://www.idr.ro/publicatii/Policy%20Paper%204.pdf, pp. 8-9; the detailed presentation of *USS San Antonio* is to be found on the official web page of the combat vessel, http://www.san-antonio.navy.mil/

[17] Detailed presentation of *USS San Antonio*, on the official web page of the combat vessel, http://www.san-antonio.navy.mil/

[18] For the basic features and parameters of this amphibious armored combat vehicle see, for example, the presentation *"Expeditionary Fighting Vehicle (EFV), United States of America"*, on the highly specialised web page *army-technology.com: news, views and contacts from the global Army industry*, http://www.army-technology.com/projects/efv/. The combat vehicle *"will be launched from US Navy amphibious ships*

NCOs and officers and can carry and land, even under heavy enemy fire, 699 Marines (66 officers and 633 soldiers and NCOs)[19]. Some forces usually transported by *USS San Antonio* had been actively involved in the multinational large-scale military exercise Eagle Resolve 2013 (which took place in Qatar and in the UAE). Among these *USMC* elements transported by *USS San Antonio* we can list 27 men (which approximately means a platoon-size unit), 18 light armoured combat vehicles, mortars, several *CH-53 Super Stallion* transport helicopters, several small landing craft, and also several small logistics units[20]. USS San Antonio sailed, at the end of August 2013, from the Arabian Sea, through the Red Sea and the Suez Canal, to the Mediterranean. *San Antonio* is one of the three naval vessels transporting the quite large (more then 2 200 men) *26th MEU*. This *Marine Expeditionary Unit (MEU)* was directly involved in two large multinational military exercises (with both command & planning activities, and combat exercises), in the first half of 2013, only a few months before the massive and quick escalation of the Syrian crisis. These two major military exercises were called *Eagle Resolve* (it took place in April-May 2013, in Qatar and UAE) and *Eager Lion* (in Jordan, in June 2013)[21]. The *26th MEU*, together with all other six operational units of the same type the US can use at any given moment, have a structure with four complementary elements: *a command element* (with 200 military personnel), *a ground combat element* (practically a very heavily reinforced battalion, with almost 1 200 men, with its own tanks and artillery, plus some military engineers), *an air combat and transport element* (a reinforced squadron, with some combat and transport helicopters, including heavy helicopters able to airlift large and heavy weapons systems), *and a logistic support element* (with 300 men), able to produce and/or deliver almost anything the combat and command elements need (fresh water for the entire force, ammunition, fuel, etc.).

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at a ship-to-shore distance of up to 25nm, i.e. beyond the visual horizon. The vehicles can transit to shore at high speed and travel inland up to 200 miles without refuelling. Once refuelled the vehicles have a range up to 340 miles". The vehicle is *"operated by a crew of three, including the vehicle commander, gunner and driver. The personnel variant carries 17 fully equipped marines, i.e. a rifle squad of 17 marines, each with individual combat equipment"*. The vehicle is strongly armed: with a *Mk46* turret which *"incorporates a 30/40mm ATK Kk44 Bushmaster automatic gun which has a firing rate of 200 rounds a minute and can fire all standard NATO 30/40mm ammunition"*, and with *"a general purpose M240 7,62 mm machine gun with 600 rounds of ready-to-use ammunition"*, which is *"mounted coaxially with the main gun"*. Some *"smoke grenade launchers are installed on the hull"*.

[19] For all these see *"About us"*, on the official web page of *USS San Antonio*, http://www.san-antonio.navy.mil/

[20] Gary Keen (Petty Officer 1st Class), *26th MEU Kicks Off Exercise from Gulf Shore*, 24 April 2013, http://www.dvidshub.net/news/105725/26th-meu-kicks-off-exercise-gulf-shore#.Uek1C9JSjkq

[21] For these two major multinational military exercises in the Greater Middle East and for the role of the Marines in the *26th MEU* see, for example, dr. Florin Diaconu, *op. cit.*

Usually, a MEU has resources enabling it to operate, within the framework of missions of any type, without extra supplies for at least 15 days[22]. The fact that *USS San Antonio* and its several hundred Marines were not far away from Syria in late August and early September 2013 indicates quite clearly that, in case of need, the other two assault and landing ships carrying the *26th MEU*, could have been sent, either as a credible and potent deterrent force, or in combat missions of different sorts, to the eastern Mediterranean.

At the end of this chapter of the present study, it is useful, we think, to list and briefly present *some* of the *strategic* asserts the US might have been able to use, with potentially devastating results, against different targets in Syria. *Heavy bombers* are one such strategic asset. Several *B-52 Stratofortress*[23] long-range and very heavy bombers (able to reach without any problem Syria, if they resupplied with fuel in midflight, by special transport planes acting as air tankers) are usually deployed at Diego Garcia, in the Indian Ocean. Several dozen airplanes of the same type are operational within the strategic forces of the US and can reach Syria even if they start flying from the territory of the United States. The US also has newer supersonic heavy bombers, the *B-1 Lancers*[24]. They can fire specially designed cruise missiles (the *AGM-158 Joint Air to Surface Standoff Missile – JASSM*; each *B-1* can fire up to 24 cruise missiles of this type[25]). The US also has some stealth heavy bombers (we are speaking about the *B-2 Spirit*[26]). These are clearly

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[22] For these elements (structure and capabilities of the MEU) see dr. Florin Diaconu, *op. cit.*, p. 8, and also the general presentation of the 26th MEU, called *26th Marine Expeditionary Unit: A Certain Force in an Uncertain World*, www.26meu.marines.mil/About/MEU.aspx

[23] The *B-52* "*is a long-range, heavy bomber that can perform a variety of missions. The bomber is capable of flying at high subsonic speeds at altitudes up to 50 000 feet (15 166,6 meters). It can carry nuclear or precision guided conventional ordnance with worldwide precision navigation capability*". It first flew in 1954. Its length is 48,5 meters, and its wingspan is 56,4 meters. Maximum takeoff weight is 219 000 kilograms, and its payload is 31 500 kilograms. It has a range of 8 800 miles and a speed of 650 miles/hour. The longest combat mission was 34 hours long, more precisely a 16 000 miles long round trip, from Barksdale Air Force to Iraq, on 2-3 September 2006. For the features of the *B-52*, see *"B-52 Stratofortress"*, on the official site of the *US Air Force*, www.af.mil/information/factsheets/factsheet.asp?id=83.

[24] For the basic features and combat capabilities of the *B-1 Lancer* see the article *"B-1 Lancer Bomber"*, on the official web page of *Boeing*, www.boeing.com/boeing/history/bna/b1b.page

[25] For the capability of the *B-1* of firing cruise missiles in combat missions see the article *"Rockwell B-1 Lancer"*, www.wikipedia.org/viki/Rockwell_B-1_Lancer

[26] B-2 Spirit *"is the only US aircraft that combines long range, large payload and stealth in a single platform, giving it the ability to project air power anywhere in the world. It can fly more than 6 000 nautical miles unrefueled and more than 10 000 nautical miles with just one aerial refuelling. With its ability to carry more than 20 tons of conventional and nuclear ordnance and deliver it precisely under any weather conditions"*, it *"also has the ability to change the outcome of a conflict with a single mission"*. For all the features see *"B-2 Spirit Stealth Bomber: B-2 Spirit – Protecting Freedom Worldwide"*, www.northropgrumman.com/Capabilities/B2SpiritBomber/Documents/pageDocuments/B-2 …

able to hit and destroy targets in Syria using bombs and missiles of different types (including cruise missiles and guided munitions which are notorious for their extreme accuracy in reaching targets). Credible open sources say that a hangar had been specially build for *B-2 Spirit* bombers at Diego Garcia, and that these mighty stealth bombers are able to transport and fire *strategic* cruise missiles (the *AGM-129*, with a range of up to 1 500 miles or more than 2 500 kilometres)[27].

One of the conclusions of this relatively detailed presentation of the elements of military power the US could have used against Syria, in the context of the quickly escalating crisis in late August and early September 2013, is one dealing with the total number of cruise missiles the US could have used, in case of need – and, militarily speaking, was prepared to use. Several open sources are quoting a American credible military and civilian specialists saying that a potential attack against the Assad regime might have been launched simply by firing *up to* 200 to 300 cruise missiles against targets of all sorts, whose common denominator is that all of them were to be vital (or at least very important) for the regime in Damascus. But, if we carefully evaluate *all* the data and figures offered by open sources, we suddenly find out something else. Only the four large guided missile destroyers sailing not far away from Syrian shores could fire, together, almost 180 *Tomahawk* cruise missiles (we reached this very figure simply presuming that 50% of their launching systems are armed with missiles of other types, to be used, in case of need, against enemy ships, aircraft of submarines). But Tomahawk cruise missiles might have been fired not only by the already listed four destroyers belonging to the *Arleigh Burke* class, but also by other ships: at least two submarines (able to fire, together, 50 to 308 cruise missiles) and the surface combat ships escorting the large aircraft carrier *USS Nimitz* (the *USS Princeton*[28] guided missile cruiser, plus three large guided missile destroyers – *USS William P. Lawrence*, *USS Stockdale*, and *USS Shoup*). Many other cruise missiles, including some strategic ones, can be launched by different types of bombers. So that it suddenly becomes clear that, intentionally or not, the number of cruise missiles to be launched, used by both serious military specialists and by media, has been significantly below the level of *real* US capabilities. We are speaking about real figures three to five times larger than the 200 to 300 hundred missiles media spoke about.

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[27] For this capability see *"B-2 Spirit Stealth Bomber, United States of America"*, on the *Airforce-Technology.com*, www.airforce_technololy.com/projects/b2/

[28] *USS Princeton* (*CG-59*) is a *Ticonderoga*-class cruiser, armed with guided missiles. It can fire different sorts of missiles, including *Tomahawk* cruise missiles. For all these see *"Cruisers – CG"*, on the official site of *US Navy*, www.navy.mil/navydata/fact_display.asp?cid=4200&tid=800&ct=4

We still do not have enough data for better explaining the huge difference separating the limited number of cruise missile media spoke about and the real potential of the already deployed fighting platforms of the US present not far away from Syria (surface combat ships, submarines) or easily deployable weapons systems (bombers of different types, flying either from Diego Garcia or, across the Atlantic and the Mediterranean, directly from the territory of the US). Anyhow, *one of the possible explanations of this really huge difference might be an almost classic intelligence operation (a large scale disinformation)*, aiming to make the enemy think that the total might of the US potential strike is going to be by far much weaker that the real capabilities the American decision-makers might have easily used. Such a topic – *if* we are really speaking about a large and well-planned *disinformation* operation – is anyhow well beyond the scope of the present study.

## Great Britain

On 29 August, the British newspaper *The Telegraph* published an article saying that the *Royal Air Force* (*RAF*) was going to send six *Typhoon*[29] jets to an airbase in Cyprus[30], as a defensive step against any possible Syrian attempt to attack and harm British military targets on the island. The text indicates that, at that very moment, a potential Syrian counter-offensive reaction was taken into account if the West decided to launch an airstrike against targets in Syria, vital (or at least very important) for the Assad regime. *RAF* sources quoted by media stated that the six *Typhoon* jets will be deployed to the Akrotiri airbase, acting as a potent defensive shield if this important British military asset would be attacked by *"rogue aircraft"*. The *RAF* clearly stated that the six *Typhoons* were *not* equipped for firing any sort of missiles against ground targets, and also that their deployment to Cyprus is to be regarded as being *"purely a prudent and precautionary measure"*.

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[29] *"Eurofighter Typhoon is the world's most advanced swing-role combat aircraft providing simultaneously deployable Air-to-Air and Air-to-Surface capabilities. It is in service with 6 customers across 20 operational units and has been ordered by a seventh. The aircraft has demonstrated, and continues to demonstrate, high reliability across the globe in all climates. It has been combat proven during operations in Libya"*. For all its features see *"Press Release – Eurofighter Typhoon Achieves 200 000 Flying Hours"*, 9 September 2013, www.eurofighter.com/media/news0/news-detail/article/press-release-eurofighter-typhoon-achieves-200000-flying-hours.html

[30] For the deployment of RAF jets to Cyprus in the context of the escalation of the Syrian crisis see Ben Farmer, Peter Dominiczak and Roland Oliphant, *"Syria Crisis: Britain Sends Six Typhoon Fighter Jets to Cyprus Ahead of Military Strikes"*, in *The Telegraph*, 29 August 2013, http://www.telegraph.co.uk/news/worldnews/middleeast/syria/10273157/Syria-crisis-Britain-sends-six-Typhoon-fighter-jets-to-Cyprus-ahead-of-military-strikes.html

We mention here that, normally, *Typhoon FGR4* combat aircraft are armed, for air combat (against different types of enemy combat planes and helicopters), with advanced anti-air missiles (*AMRAAM*[31] and *ASRAAM*[32]).

### France

Surprisingly (but only for some commentators), France immediately and fully joined, at the end of August and in early September 2013, when the Syrian crisis was reaching its climax as a result of the decision of the Assad regime to use nerve gas against civilian population, the decision of Washington, DC to prepare (and to implement, if necessary) plans of striking selected targets, vital for the prestige and power of the regime in Damascus.

François Hollande, the French President, declared, at the end of August, that *"France is ready"* for a military strike aiming to destroy – or at least to diminish – the Syrian capability of using weapons of mass destruction either against civilian population, or in order to deliberately harm the regional balance of power. The declaration we quoted above was issued immediately after the British Parliament rejected a governmental document supporting a resolute military action against the Assad regime. *"Each country is sovereign to participate or not in an operation"*, said Hollande, quoted by *BBC*. He also stated that the freedom to decide in favour, or against, a military strike in Syria *"is valid for Britain as it is for France"*. Hollande made very clear the fact that Paris thought that the most desirable solution was a military action based on a decision of the United Nations. Nevertheless, he also stated that, in the UN would not be able to act swiftly and effectively, an international coalition would emerge, including both the Arab League and some European countries. Hollande also said that, even if the coalition would be a quite large one, *"there are few countries which can have the capacity of enforcing any sanction through the appropriate measures"*[33].

At that very moment, said several open sources, France was able – and prepared – to attack, in case of need, strategic targets in Syria by means of extensively using

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[31] *AMRAAM*, 3,66 meter long and with a total weight of 150,75 kilograms has *"unmatched air combat and air defence capabilities"*, with *"3 000 live-fire evaluations and 9 air combat victories"*. It has a *"96 % rate of success"*. For the technical and tactical features of the *AMRAAM* (*Advanced Medium-Range Air-to-Air Missile*), see the brief presentation on the official *Raytheon* web page, http://www.raytheon.com/capabilities/products/amraam/ and also *"AIM-120 AMRAAM Slammer"*, on *FAS.org*, http://www.fas.org/man/dod-101/sys/missile/aim-120.htm

[32] *ASRAAM* has a range of 300 metres to 15 kilometres. The weight is approximately 100 kilograms, 10% representing the warhead. It flies very fast (over Mach 3). For the *ASRAAM* (*Advanced Short Range Air-to-Air Missile*) see data and figures http://www.fas.org/man/dod-101/sys/missile/aim-132.htm

[33] *"France's Hollande Backs US on Syria Action"*, *BBC*, 30 August 2013, http://www.bbc.co.uk/news/world-middle-east-23897775

*Rafale* and *Mirage* supersonic aircraft, some of them using the Al-Dhahra airbase in the UAE, estimated *BBC* on 30 August 2013. The same reliable media source also said that the French aircraft carrier *Charles de Gaulle* was in Toulon, in the western Mediterranean[34].

A few comments are necessary. First of all, the presence of *Charles de Gaulle* in Toulon, at the end of August 2013, did not deny this ship the possibility to quickly sail, at full speed, to the eastern part of the Mediterranean Sea. Significantly smaller and slower than the huge carriers of the *US Navy*, the French capital ship[35] has a speed of approximately 27 knots (miles/hour), which means that it is perfectly able to cover, in 24 hours, more than 1 200 kilometres. In order to sail from Toulon to the waters off Syria, the route (including the need to circumvent a quite large part of the Italian Peninsula) is only some 2 000 miles (3 600 kilometres)[36] long. So that we are speaking about a distance *Charles de Gaulle* can cover less than three days.

Secondly, among the French military aircraft listed by *BBC* as being prepared to intervene in a strike against Syrian strategic capabilities (mainly against targets connected to the use of weapons of mass destruction), the *Mirage 2000* can fire specially designed stealth cruise missiles (practically invisible on radar). Such a cruise missile is called *SCALP*[37] and it has a range of 250 to 400 kilometres. Each *SCALP* has a warhead able to penetrate thick layers of reinforced concrete and carrying 400 kilograms of explosives[38].

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[34] *Ibid.*

[35] *Charles de Gaulle* is 262 meters long and has a total displacement of 38 000 tons (only roughly 40% of the displacement of the average carriers of the US Navy). Started active service in 2000. The vessel was heavily upgraded in 2007. The carrier is armed with up to 40 aircraft, including *Rafale M* (with a range of up to 3 340 kilometres), *Super Etendard* (range – 1 682 kilometres) and with three early warning *E-2C Hawkeye* aircraft. *Charles de Gaulle* also has several helicopters (AS 565 Panther or NH 90). Crew – 1 150 personnel, plus 600 engineers and pilots for all aircraft, and up to 800 Marines. For all these elements see the text *"Charles De Gaulle Nuclear-Powered Aircraft Carrier, France"*, on the site *Naval-Technology.com*, http://www.naval-technology.com/projects/gaulle/

[36] In straight line, across Italy (a route available for aircraft, for example, but not at all for ships or vessels of any sort), the route from Toulon to Damascus is 1 548 miles long (2 869 kilometres). For these figures see http://www.happyzebra.com/distance-calculator/Damascus-to-Toulon.php

[37] For *Mirage* capability of transporting and firing *SCALP*s, see *"Mirage 2000 Multirole Combat Fighter, France"*, on the site *Airforce-Technology.com*, http://www.airforce-technology.com/projects/mirage/

[38] For the technological and tactical parameters of the cruise missile SCALP *(Systéme de Croisiére conventional Autonome á Longue Portée de precision)* see the text *"SCALP EG/STORM SHADOW/BLACK SHAHEEN"*, on the web page *Missile Threat. A Project of the George C. Marshall and Claremont Institutes*, http://missilethreat.com/missiles/scalp-eg/. The missile is 5,1 meter long and has a total weight of 1 300 kilograms.

## Israel

From the very beginning, we have to state, clearly, that the military might of Israel is large enough to completely defeat and completely destroy, if necessary, the Syrian military forces. If we properly take into account that, both in 1967 and in 1973, the *IDF* (*Israeli Defence Forces*) were able to clearly defeat the combined military forces of both Egypt and Syria, it is easier to imagine what result might have a direct military confrontation between Israel and Syria. We might also remember that Syria is, demographically, 4 times smaller than Egypt. In such a situation, the only possible outcome of an Israeli-Syrian war might be an even more devastating Israeli victory than those in 1967 and 1973. For better understanding the capability gap separating the two countries, let us briefly evaluate some relevant data and figures[39]. If we are speaking strictly about numbers, Israeli armed forces are somewhat smaller than the Syrian ones (the Israelis have some 168 000 active duty soldiers, and some 408 000 reserves). However, if we are also speaking about *quality* of weapons (how modern and how effective they are), and above all about the *effectiveness* of both Israeli troops and command structures, a huge Israeli superiority quickly becomes obvious. The very structure of the Israeli military forces clearly shows this. The Syrian Air Force has only a limited amount of manpower – 7 600 active duty military personnel. The Israeli Air Force is, on the other hand, in terms of manpower, 4,5 times larger, with its 35 000 active duty military personnel. Speaking about main battle tanks (MBTs), the Israeli forces have only some 3 657 heavy armoured combat vehicles of this sort, while the Syrians have – at least on paper – 4 600 MBTs. But most of the Israeli tanks (including the more than 1 600 *Merkava*) are very modern and highly effective, while most of the Syrian tanks are belonging to types that already were obsolete some decades ago. The Israelis enjoy a significant superiority in artillery pieces of all sorts (5 432 artillery tubes, many of them self-propelled, while the Syrians have only 3 150). With its 402 very modern aircraft, the Israeli Air Force vastly outnumbers and outguns the Syrian Air Force. The Israeli Navy, with its several conventionally propelled submarines (some of them, highly effective, built in Germany), three modern corvettes and 51 smaller combat vessels, also is vastly superior if compared to the Syrian one.

But, within the context of the quickly escalating Syrian crisis in late August and early September 2013, it is very clear that the Israeli attitude was not at all dominated by strictly military considerations. On the contrary, long-term political planning prevailed. The Israeli decision-makers knew very well that, quite clearly, the Assad regime is not at all a friendly one. Yet, they also knew that Syrian authorities

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[39] The data and figures used to commensurate Israeli military power quoted from the International Institute for Strategic Studies, *The Military Balance 2005-2006*, Routledge, 2005, pp. 192-194.

have – and use, at least sometimes – a fully operational *institutional* memory. Defeated in all previous confrontations by Israel, the political and military leaders of the regime in Damascus have *all* the rational reasons to avoid, at all costs, the trauma of a potential new major military defeat, if they behave in an exceedingly aggressive way the Israelis simply cannot accept. On the other hand, a vast number of open sources shows, with all necessary details, that a vary large part of the anti-Assad opposition forces in Syria has a political agenda – and is motivated by an ideology – Israel can legitimately regard as being *significantly more dangerous* for the Israeli vital interests that the ongoing rhetoric and actions of the Assad regime. That is why Israel adopted a low-profile, very cautious, and clearly defensive stance in late August and early September 2013. A set of measures was adopted, aiming both not to overheat to much the already escalating crisis in Syria, and to effectively protect Israeli citizens and territory.

On 28 August 2013, the Israeli *"security cabinet approved a limited call-up of reservists in vital military capacities. Security sources would not specify how many reservists were to be called up, or to which units, though some reservists attached to the Home-Front command were expected to be among those called up"*. Different open sources say that we are speaking about less than 1 000 military personnel called to active duty (some of them necessary to immediately reinforce the missile defence batteries and air defence systems of all sorts, and some of them working for the military intelligence units, or for home front command and coordination structures). On that occasion, Prime Minister Binyamin Netanyahu declared that *"the IDF is ready to defend against any threat and prepared to respond severely against any attempt to harm Israeli citizens"*. Aiming to deter and disrupt any missile attacked Syria or the Lebanese Hezbollah (openly backed by both Iran and Syria) could start, the Israeli high command deployed some supplementary air defence and missile defence batteries belonging to the *Iron Dome* system in Haifa, Ashkelon and Eilat. Other batteries were to be quickly deployed to positions in the upper north, near Amakim and Safed. Several anti-missile batteries armed with *Patriot* and *Arrow 3* systems were also repositioned in order to be able to properly intervene if the situation in Syria grew worse[40].

### Turkey

Turkey also is significantly more powerful, militarily, than Syria[41]. It has 514 000 active duty soldiers, plus some 380 000 reserves. Turkey also has some

[40] For all the elements listed along this paragraph see Herb Keynon, Yaakov Laapin, *"Security Cabinet Okays Limited Enlistment of IDF Reservists"*, in *Jerusalem Post*, 28 August 2013, www.jpost.com/Diplomacy-and-Politics/Netanyahu-urges-Israelis-to -carry-on-with-daily-lives ....
[41] For a complete and *relatively* recent source offering the necessary data we can use to commensurate the military power of Turkey (and also to better understand how vastly superior is Turkish military might

4 200 tanks (almost 1 400 of these being *Leopard*-type MBTs, more modern and more effective than any armoured combat vehicle Syria has), more than 7 450 artillery pieces, a Navy with 13 conventionally propelled subs and 19 frigates, and an Air Force with 445 combat aircraft, many of them very modern ones. In several occasions, Turkey had been directly affected by the evolution in Syria: artillery and mortar shells, plus some missiles fired in Syria landed in Turkey, and several borders regions in Turkey obviously are under increasing pressure because of increasing numbers of Syrian refugees.

Because of serious military, political and geostrategic reasons, Turkey had mobilised and deployed on the Syrian border a quite large part of its armed forces even before the quick escalation of the Syrian crisis in late August 2013. Open source do not offer any accurate data on how large these military unit were; only the general idea that several large units had been deployed near Syrian border was intensely present in media.

When the difficult situation in Syria became a quickly escalating crisis, the Turkish armed forces, together with the political leader in Ankara, prepared for the worst. On 28 August 2013, the Turkish Foreign Minister, Ahmet Davutoglu, clearly stated that *"We are now at a more alert position... Turkey will take whatever measures necessary within the framework of its own strategic interests"*. The high Turkish official also said that *"The Turkish armed forces have the mandate to take every measure against any security threat from Syria or elsewhere ... and retaliate within the rules of engagement"*[42]. Moreover, on 28 August 2013, Turkey deployed in regions near of the Syrian border specially trained and equipped detachments in order to identify even tiny traces of chemical combat agents of all sorts, and also for decontamination procedures and operations. An official source in Ankara, Mustafa Aydogdu, spokesperson for the Disaster and Emergency Management Directorate (AFAD), said that the deployment of these special detachments was decided in order *"to be prepared particularly in case of a chemical attack"*. *"Almost all"* these units with strong anti-chemical and decontamination capabilities have been sent *"in Kilis, Hatay and Sanliurfa"* Aydogdu said *"naming several Turkish border cities that house dozens of refugee camps"*[43].

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if we compare it with the military resources of Damascus), we could use the International Institute for Strategic Studies, *The Military Balance 2005-2006*, Routledge, 2005, pp. 98-101.

[42] *"Turkey Puts Military on Alert, Says all Options Open on Syria"*, *Reuters*, 28 August 2013, www.reuters.com/article/2013/08/28/us-syria-crisis-turkey-military...

[43] Humeyra Pamuk, *"UPDATE 1-Turkey Sends Aid Workers Trained for Chemical Attacks to Syria Border"*, *Reuters*, 28 August 2013, www.reuters.com/article/2013/08/28/syria-crisis-turkey-refugees ...

# THE ROLE OF MILITARY INTELLIGENCE IN THE DECISION-MAKING PROCESS IN THE CONTEXT OF ROMANIA'S NATO MEMBERSHIP

*Colonel Dr Vasile CERBU*
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*There has been considerable decrease in the danger of armed confrontation in the Euro-Atlantic area and its vicinity. However, the increased risk of local crises and regional conflicts arising is manifest. Thus, the sources of risk for our country are more and more unconventional, but non-military threats may intensify and come from unexpected directions and sources.*

*Even if Romania does not think of any state as being a potential aggressor, in an unfavourable circumstance, it may fall prey to internal, external or combined hostile actions. In this respect, the authors believe that it is necessary for the effects of the changing geostrategic balance to be predicted at all levels and under all forms.*

*Keywords: military capabilities; the UN; crisis management; command and control*

At the beginning of the third millennium, the global security situation (including the regional one) undergoes constant transformation. This transformation is deep, and it is determined by the evolution of some processes and phenomena of military and non-military nature that have an impact not only on the security of all states but also on the states policy meant to protect their own national interests.

## 1. Security environment characteristics

The current security environment in the Euro-Atlantic area and its proximity, which undergoes an extensive restructuring and remodelling process, favours the emergence/ manifestation of tension and uncertainty that may generate military conflicts. The proliferation of some specific, conventional and asymmetrical risks can seriously affect the overall positive evolution towards building a security architecture in Europe and worldwide.

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It can be stated that the current security environment is influenced by the tendency for multi-polar reconfiguration of power architecture, the competition between the new global and regional actors, the dispute over the access to vital resources and their control, as well as by the regime changes in areas that are characterised by instability/volatile security situations. It is the case of the Middle East and North Africa.

Internationally, the complex globalisation process and the new power poles relationship with the new international state and non-state actors result in resuming the competition for the strategic resources access, control and management at global and regional level, while increasing interdependence and interaction between the states in the world. The protection of fundamental interests and the accomplishment of security-related goals by Romania require that the military system should be able to prevent, deter and stop any attempt of aggression, regardless of the way it may occur or be justified in front of the public and international security bodies.

It is difficult to separate between the developments in the national and international environment, especially because of the interplay of some processes that create favourable conditions for the predictable or unpredictable occurrence of some risks to national security, which often have a transnational impact. In the future, the focus will more and more shift from military risks, dangers and threats to non-military ones, and certain vulnerabilities will influence their evolution.

Internally, there are still sensitive situations, determined by various social and economic developments, immigration, and the status of certain minorities or territorial entities. These situations have evolutions or involutions in terms of risk. That is why more attention should be paid to these areas and phenomena, and effective measures to monitor and counter risks should be taken. Monitoring is essential to identify the symptoms of their transformation into dangers and threats to the Romanian state national interests.

The current security situation of Romania is expressed by the difference between the desideratum of ensuring the optimal conditions for the state to freely develop and promote national interests, on the one hand, and the state of play generated by the external and internal environment, on the other hand.

In the Euro-Atlantic area and its proximity, the danger of an armed conflict has been significantly reduced. However, there is an increased risk of local crises and regional conflicts. Thus, for our country, risks sources become more unconventional, and non-military threats may amplify and come from hardly predictable directions and sources. Even if Romania does not consider any state as potential aggressor, in an unfavourable context, it may fall victim to internal, external or combined hostile actions. In this regard, we consider

that the effects of geostrategic balance modifications should be predicted in advance, at all levels and in all forms.

The unprecedented explosion of terrorism and the increasingly diversified forms of its manifestation have highlighted a number of existing vulnerabilities in Romanian and international contemporary society, as well as asymmetrical, atypical, covert and unconventional challenges that provide a thorough overview of stability and security.

We appreciate that the evolution of the international situation in the first decades of the 21st century will depend on the political-military and economic factors, whose trends and effects are already manifest in the present, influencing international relations and the global security situation. Some of these factors, potential crisis generators, will also affect the security situation in Romania to a greater or lesser extent.

## 2. Crises and their areas of manifestation

The new NATO strategic concept maintains crisis management as a key mission and commits NATO, on a case by case basis and by consensus, in accordance with article 7 of the Washington Treaty, to effectively contributing to conflict prevention and to actively engaging in conflict management, including in *crisis response operations – CROs*. Thus, the Alliance develops consultation procedures, arrangements for crisis management, military and training capabilities to plan actions in the event of civil emergencies.

It can be stated that the Alliance efficiency in crisis management is given by its distinct contribution to the international community efforts to preserve or restore peace and prevent conflicts. In this regard, NATO has participated in peacekeeping operations and other operations under the responsibility of the UN Security Council, the EU or OSCE, including by providing resources and capabilities. Romania makes an important and distinct contribution to crisis/conflict management and resolution.

At the Lisbon Summit, NATO stated that its crisis management capabilities should be adapted to the risks and threats the Alliance could address, and that the necessary measures to develop a single integrated NATO crisis response system should be taken. Cyber attacks have added a new dimension to NATO crisis management in the context of collective defence. Thus, it was taken the decision to establish structures for defence against these attacks/actions.

All NATO member countries take part in *NATO Crisis Response System*. In order to achieve an integrated, sustainable and interoperable system at NATO level, we consider that the *National Integrated Crisis Management System* should be developed. It should be compatible with the existing policies and procedures in the Alliance.

Although, currently, the interests of the states in the Euro-Atlantic area are not conflict generators, in its southern proximity there are instability and conflict phenomena whose effects, possibly major, are difficult to determine, as well as trends towards fragmentation, marginalisation or isolation of some states.

In the Alliance area of interest, crises are possible to produce, which, depending on their area of manifestation and causes, can be of political, diplomatic, economic, social, financial, military or ecological nature.

In the context of the substantial changes in the international security environment, the concepts of surveillance and early warning have new valences and thus these concepts as well as the role of intelligence structures should be reconsidered in the Romanian Armed Forces.

## 3. Need for early warning

In the context of diverse challenges related to warning, in accordance with the new NATO concept adopted in Lisbon, *NATO Intelligence Warning System – NIWS* is aimed at non-traditional military expertise areas. Thus, it is attached great importance to information collection, processing and dissemination to potential national or the Alliance beneficiaries regarding the evolution of risks, dangers, threats or problems that could affect the security interests of the Alliance, member states or partners. The warning process should be institutionalised and it should not be ad-hoc. Moreover, it should be timely and correct, ensuring processed or structured information so that the decision formulation could deter or neutralise an evolving crisis. Warning is complete only when a decision is made, and it should be timely and predictable in order to be effective. Warning appropriateness and accuracy support the provision of necessary information. At minimum level warning may be the prerequisite for the decision to take no action. Any action can have an impact on preventive options, crisis response measures, counter-surprise or counter-aggression.

## 4. Surveillance and early warning in the new security context

The risks and threats to national security are complex and multi-directional, and the manner and the place in which they can develop into a crisis or a military threat are difficult to predict and assess. Within the Alliance, the Romanian Armed Forces should be able to respond to these risks, dangers and threats, and, if it is necessary, to take action to ensure stability and security in Europe and in NATO member states, and to manage conflict/crisis situations in the Euro-Atlantic proximity.

The risks and threats to national or the Alliance security most likely result from the negative consequences of instability, which, in turn, is the result of some major economic, social and political difficulties. Here we may include terrorism, border disputes, ethnic and nationalist tensions, religious fanaticism, competition for resources, ecological and population pressure, struggles for internal power. These risks could result from the concentration of large quantities of conventional weapons in many countries and from the proliferation of weapons of mass destruction. These factors have generated the latest crises in North Africa and the Middle East, and they have also affected, in varying degrees, the states in the Euro-Atlantic area.

The military intelligence structures, the units and the submits in surveillance and early warning forces should be able to supervise, identify, monitor and report the triggers for some external crises, in the area of strategic interest of Romania, or for some internal crises to the military decision makers so as they can enable the timely adoption of appropriate measures to prevent the situations that threaten national security and territorial integrity.

We appreciate that early warning, in a broad sense, is based on data and information from multiple sources, which include news networks or specialised systems such as those in the field of humanitarian UN, OSCE, and NGO missions, research centres that disseminate useful information through the media or the internet.

## 5. Military intelligence subsystem – basic component of the Land Forces command and control support system

One of the essential elements of the Land Forces structures command and control system is represented by the *support system*, which includes the military intelligence subsystem, the communications and information subsystem, the logistics support subsystem, the command points, and the command and control procedures.

The *military intelligence subsystem* of the land forces structures is a set of interrelated elements (forces, resources, actions, and measures) unitarily designed in order to provide the land forces command and control elements with timely and effective information, at operational and tactical level, during operations. It is an element of the land forces structures combat power and it provides the commander and the staff with processed information that is relevant in exercising command and control. We consider that information is the most important resource available to the commander to plan operations. The information from all echelons and from all sources generates the common operational picture of the threats,

risks and vulnerabilities in the area of operation/conflict. Following the interpretation of recognised/integrated common operational picture commanders become aware of the situation and make decisions.

Military decision-making process – MDMP is the product of the recognised common operational picture analysis to determine the relationship diagram between the operational environment-related factors (mission, enemy/OPFOR, terrain, weather, available forces), their support, available time, and civilian considerations. The analysis of common operational picture facilitates MDMP by the identification of opportunities and restrictions for accomplishing the missions, and for establishing the available forces and the intelligence requirements.

At the same time, situation, risk, threat and enemy vulnerability (both in quantity or quality) awareness is used in the command and control process to influence the perception and the actions of nongovernmental organisations or those of international institutions/organisations.

During crisis escalation, *surveillance and early warning* have an important role. The components of the national surveillance and early warning system are: a) land surveillance, b) aerial surveillance, c) naval surveillance, d) electronic surveillance, CBRN surveillance. Land forces take part in/execute activities specific to *electronic surveillance, CBRN surveillance, land surveillance and aerial surveillance* (with UAV/UAS).

Military intelligence structures and ISTAR elements in the land forces structures, at both operational and tactical level, should be able to survey, identify, monitor and transmit to military decision-making factors at specific levels signals that there may be internal or external crises in the areas of responsibility and interest. Such information ensures taking timely measures to prevent crisis situations. The aim of early warning is represented by processed information in all aspects: secret or unclassified/ public, coded or uncoded, civilian or military, meant to identify the symptoms of some possible crises/military conflicts, to manage the evolution of risk, danger or threat amplifiers. It is what we generically call *information superiority*, which is difficult to achieve throughout the *CRO*, but is essential in key planning and execution moments.

There is a difference between early warning and conflict prevention. Thus the purpose of early warning is to provide processed information, based on which, at the level of the land forces command and control elements, can be planned and implemented preventive measures in the short and medium terms, and for which means of preventing conflicts in the long term can be predicted. Conflict prevention requires measures and actions meant to prevent risks and threats from becoming manifest and disputes form escalating/risk effects form developing.

At the level of land forces structures, surveillance is accomplished by information collection using all the sources specific to *OSINT, HUMINT, SIGINT, IMINT* and *MASINT*, Intel fusion, information analysis and dissemination, data basis management, INFOSEC.

The land forces structures which form the ISTAR subsystem (which ensures surveillance and early warning), as part of the national military intelligence system, has a command and control component, an execution component (which ensures Intel collection), own communications and information component (as part of the communications and information system which is present in each large unit and unit), and a logistic subsystem. The own communications and information component is necessary because the actions of ISTAR structures precede the actions of the structures that are charged with crisis prevention/management, which requires raising the operational capacity. The amount of information is large and the transmission of other pieces of information could block the communications component, with major negative effects on situational awareness/common operational picture.

Moreover, we consider that the effect of achieving information superiority/ advantage in *CROs* is the information cycle reduction and decision superiority/ domination. Information superiority also generates enhanced combat power by networking sensors, decision-making factors and weapon systems. In this way, the following are achieved: total or partial situational awareness, enhanced command and control speed, high pace of operations, high lethality, and high degree of synchronisation.

In our opinion, the purpose of information superiority is to ensure the development of another concept of *CRO*, whose effect should be the operational domination of the battle/operation space. It can be achieved by meeting three operational superiority challenges: a) information automated processing and transport, b) battle/operation space awareness, c) information operations, based on a developed information structure.

The information superiority achieved through ISTAR structures potentiates all the factors of the land forces structures combat power, which is more obvious in *CROs*. The information advantage/superiority and decision domination/superiority represent the key of success in *CROs* in both national or international environment.

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Technology has revolutionised the battle space and it continues to have a significant influence on the conduct of operations. Digitisation and the use of IT to obtain, manipulate and utilise intelligence in the three-dimensional battle space to meet the needs of commanders, subordinate echelons, and support elements will allow a clear and precise view of the battlefield, ensuring thus the command and control

act superiority. Modern technology enables a complex integrated intelligence environment, both horizontally and vertically, while providing fast methods to process and disseminate military information. Digitisation requires interoperability built on common procedures and standards, able to provide command and control data both vertically, from strategic to tactical levels, and horizontally, in the battlefield. However, this action will not replace the military intelligence analysis made by the human operator while processing data and information. Effective digitisation will improve and speed up MDMP, allowing the commander to optimally allocate forces, depending on the mission, in response to enemy decisions. Yet, the less analysed aspect of this technological revolution is represented by the dependence on systems that are vulnerable to a wide range of enemy actions.

The increase in the number of military intelligence structures as well as their resizing will result in significantly improving the data and intelligence available to command and subordinate echelons. A proper management will improve the commander capacity to assess a certain situation and to plan operations so that they can be successful. On the other hand, when C4I system cannot handle the large amount of information, it can jam. So the large amount of information has a double signification and it should be carefully analysed.

The use of *WEB* technology allows the access to data and information from a wide range of sources. Even if the large amount of data and information is profitable, special attention should be paid to unchecked data or to those having an unknown source. Prudence is necessary to avoid the situations when classified data and information, which refers to Allied Forces capabilities and activities, are presented as unclassified.

Another main characteristic of current *CROs* is the total asymmetry between the parties in conflict. The asymmetry is represented by a strong, modern state, having well equipped forces, a well defined national interest, as well as a severe policy and moral constraints, on the one hand, and, a state or a group of people having ill equipped and small forces, obeying no international rules, and having a total commitment to their cause, without caring too much about life or goods, on the other hand.

In the asymmetric warfare, military information processing is very complex because of the large amount of intelligence requests arising from the need to conduct operations against an unpredictable enemy.

# CONCEPTUAL-DOCTRINAIRE CHANGES REGARDING AEROSPACE POWER USE (II)

*Colonel BEng Daniel BĂNICĂ*

*The balance of power of the next 20-25 years will be subject to change. The conditions influencing the growth of states refer to wars, efficiency of political leaders, economic realities, ideological conceptions, religious and ethnic realities, all of which affect the course of future events.*

*There are more and more issues that are increasingly difficult to deal with at local level. In the author's opinion, although national governments will further play an essential role, it will be more and more difficult for bilateral relations to be managed and for successful negotiations to take place with almost 200 states, according to the predictions regarding 2028.*

*The most powerful states of 2028 will be those that know how to do more with less resources, use renewable energy sources and effectively reuse all waste products.*

***Keywords:** missile defence; aerospace power; radar system; surface-to-air missile interceptors*

## Global Battle Over the Missile Shield

The fact that the American missile shield has been placed in several parts of the world, Europe included, has brought an increasingly virulent reaction from Moscow in this regard[*]. The change in the perspective of the White House regarding the shift of the US massive focus towards the Asia-Pacific area has caused concern in Kremlin as well as in China.

In September 2012, Washington and Tokyo agreed to build an advanced X-Band radar in Southern Japan, to join an existing AN/TPY-2 radar in Japan's Aomori Prefecture. Some reports suggest that the US Missile Defense Agency and the US Pacific Command are considering a third radar, somewhere in Southeast Asia, possibly in the Philippines area. Washington is also planning to expand the grouping of Aegis-equipped warships patrolling international waters in the region.

Starting from these premises, Russia and China see their strategic glacis endangered and are determined to act accordingly. At the beginning of 2013, Russia and China discussed in Beijing the need for a strengthened cooperation regarding missile defence in response to US plans to deploy missile shield elements in several strategic points around the globe[30].

Moscow and Beijing have objections to the US missile defence initiative, arguing that Washington has been worsening the global and regional security environment, particularly in the area of military non-proliferation processes, to the detriment of Russia and China's nuclear inhibitors. The two countries have been holding regular bilateral consultations on strategic issues since 2005. In this strategy, Russia and China could involve Iran, following past discussions that took place in Tehran.

At the Chicago summit in May 2012, the leaders of NATO member states confirmed their commitment to cooperate with Russia on missile defence. They restated that NATO missile shield in Europe was not directed against Russia and would not undermine Russia's strategic deterrence capability. Moreover, they proposed that Russia should establish two joint missile defence centres, connected by points of data fusion, as well as joint planning operations and should develop a system of transparency in missile defence[31].

During a meeting with Russian military elite, Russian President Vladimir Putin said: *"systematic attempts are being made from the outside to disrupt the strategic balance in this or that manner. In fact, the second stage of the US global missile defence system is being launched, and the possibilities for further NATO eastward expansion are being explored"*, told the Kremlin leader on 20.02.2013 quoted by *RIA Novosti*.

Moscow has consistently opposed the missile shield location in South-East Europe, arguing that this militarisation plan is meant to intimidate Russian ballistic system.

On the other side, the US and NATO give assurances that the defence programme is meant to block potential nuclear attacks, coming from North Korea or Iran[32].

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[30] Nikolai Patrusev, Head of the Security Council of Russia, 10 January 2013.

[31] Missile Defense Agency, *Missile Defense: The First Sixty Years* (Missile Defense Agency, Washington DC, 26 October 2011), 1-2, http://www.mda.mil/global/documents/pdf/first60.pdf, retrieved on 21 May 2013.

[32] http://www.inprofunzime.md/stiri/politic/vladimir-putin-balanta-strategica-a-fost-distrusa.html, retrieved on 12.04.2013.

Russia is seriously concerned over US missile defence plans, said Russian Federation Security Council Secretary, Nikolai Patrushev, during a meeting with the head of the Polish National Security Bureau, Stanislaw Koziej: *"I hope our Polish (... and Romanian) partners will understand our arguments and assist in the provision of guarantees that the missile defence system deployed in Europe will not be targeted against Russia. At least we should continue the dialogue and communicate each party's concerns to our partners"*[33].

Russia does not just seek alliances to fight the American strategy, it also develops, in parallel, capabilities for its own missile shield. At the beginning of 2013, the Russian armed forces announced the start of the construction of three new Voronezh-class radar stations in three regions – Eastern Siberia, Krasnoyarsk, Republic of Altai, in southern Siberia and in the Orenburg region, in the centre of the country, as announced by Colonel Alexei Zolotukhin, from Russian Space Forces, quoted by *RIA Novosti*.

Russian Foreign Ministry confirmed that the Russian army would not extend the lease of the Gabala radar station in Azerbaijan anymore. The lease contract, signed in 2002, expired on 24 December 2012.

The role of this missile defence radar in Russia's defence system would be taken over by the new radar system based in Armavir, in Krasnodar, southern Russia. The Russians provided the Gabala radar to the US in order for the latter not to build the missile defence shield in Europe. In 2007, Moscow offered the US joint use of the Gabala radar station in Azerbaijan and of the one from Armavir, in the Krasnadar region of Russia in order for Washington – then under the Republican administration of President George W. Bush – to abandon the installation of US missiles in Poland and a radar station in the Czech Republic, as mentioned by Russian Foreign Minister quoted by *Ria Novosti*, on 13 January 2013.

On 16 March 2013, Barack Obama Administration announced that it decided to adjust the anti-missile system in Europe by giving up introducing interceptor missiles and would instead develop missile protection measures on US territory. US Secretary of Defense, Chuck Hagel, announced at that time that the US anti-ballistic interceptors would install 14 additional anti-missile interceptors in the states of Alaska and California, amid threats posed by North Korea and Iran: *"The measure aims to boost the missile defense in the long term amid threats from Iran and North Korea.*

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[33] http://romanian.ruvr.ru/2013_02_28/Rusia-este-ingrijorata-de-planurile-Statelor-Unite-in-domeniul-apararii-antiracheta/, retrieved on 12.04.2013.

*The 14 batteries will be deployed until 2017"*, said Hagel. Currently, there already are 30 missile interceptors in Fort Greely (Alaska) and Vandenberg (California) bases[34].

Russia has argued for a long time that the US missile defence project would affect its strategic capabilities for nuclear deterrence. NATO Secretary General, Anders Fogh Rasmussen, said that a unified Russia-NATO missile defence system would be ineffective, observation made during a Moscow-Brussels video conference[35].

Within the strategic plan of the Crisis Response Operation of the NATO-Russia Council (CRO-2013), Anders Fogh Rasmussen said: *"I do not think the most efficient way would be to have a unified, integrated (missile defence) system"*.

NATO insisted on implementing two independent, but coordinated missile defence systems, one Russian and one of the Alliance. On the other hand, Moscow proposed creating an indivisible system that integrated the pieces of equipment of the two parts[36].

Starting 2014, Russia will have a computerised missile defence system that will connect current S-300 and S-400 surface-to-air missiles, radars and control systems in a high-speed computer network[37].

According to a source in the Russian Aerospace Defence Forces, the first area of full deployment of the new system will be created in the autumn of 2013 in the Moscow region.

The new configuration of the Russian missile defence is based on the automated control system of the Aerospace Defence and Air Forces, designed by *Almaz Antey* society.

Surface-to-air missile interceptors as well as mobile missile defence systems and radars will be connected to the common control centre. Then all new missile defence systems, such as the S-500 missiles and the new radars, will be integrated into this system[38].

The automated control system will process the information collected from all radars on the ground, advanced detection radar aircraft and spatial

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[34] Aleksander Vershbow, *NATO speră că reconfigurarea planului antibalistic al SUA va facilita cooperarea cu Rusia*, Brussels, Mediafax, 1 April 2013.

[35] Lilia Traci, *NATO exclude posibilitatea unui scut antirachetă comun cu Rusia*, Agerpress, 28 March 2013.

[36] *Ibid.*

[37] *Izvestia*, 15 May 2013, taken from *RIA Novosti*, Moscow.

[38] Mihaela Toth, Agerpress Agency, 15 May 2013.

detection means. Connection and exchange of information will be provided by high-speed wireless mobile communication systems made by the *Mikran* company, headquartered in Tomsk[39].

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We all wish that the world was able to maintain the balance from the '70s, when the world economy was rising and experiencing a relative trend of development.

That was due to global balance, which called for moderation in terms of certain excesses. In my opinion, a balanced world, with real progress, is desirable on a permanent basis (and not the transient illusions of today). The progress of such a world would have a controllable speed so that the real standard of living worldwide would be raised in a gradual manner, and not in an unbalanced one, with only certain peaks in some parts of the world.

Certainly, the balance of power of the next 20-25 years will be subject to change. The conditions influencing the growth of states refer to wars, efficiency of political leaders, economic realities, ideological conceptions, religious and ethnic realities, all of which affect the course of future events.

Some courses of evolution of current phenomena can be considered more likely to occur than others. Thus, we can predict that the world will be multipolar. By 2028, the United Nations Security Council is likely to expand from the 15 current members up to 25-30 and may include permanent members such as: Brazil, India, Japan, South Africa, Egypt, Indonesia and Turkey. At the same time, the regional organisations on every continent – African Union, Association of Southeast Asian Nations[40] (ASEAN), NAFTA[41] (or a version of it from North America) – are expected to be much stronger. Each one will follow its own version of political and economic integration, inspired by the European Union. In the Middle East, Israel, the Palestinian Authority, Jordan, Syria and Turkey, leaving behind the millennia-long rivalries and dissensions, can become the centre of a flourishing free trade zone.

The main reason of these enlargement processes at regional level is that there are more and more issues increasingly difficult to deal with at local level.

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[39] Daryl G. Kimball (Executive Director of the Arms Control Association, independent institution located in Washington), *How to Break the Deadlock on Missile Defence*, in *The Moscow Times*, 27.05.2013.

[40] Currently, ASEAN consist of: Brunei, Cambodia, the Philippines, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand and Vietnam.

[41] North American Free Trade Agreement was signed in 1992 between the USA, Canada and Mexico, covering a market of over 375 million consumers.

Although national governments will further play an essential role, it will be more and more difficult for bilateral relations to be managed and for successful negotiations to take place with almost 200 states, according to the predictions regarding 2028.

The most powerful states of 2028 will be those that know how to do more with less resources, use renewable energy sources and effectively reuse all waste products. We may assume that the leader in this domain will be Japan[42], a civilisation that has stood for centuries in the avant-garde of the development of ways for coexisting with nature.

Moreover, one of the most dramatic changes will take place at social level. Social revolution seems to enter its global phase, irreversibly changing the nature of the relation between citizens and leadership, as well as between states. The revolutions in the Arab world – the so-called *"Arab Spring"* – are only a first symptom of this changes.

*English version by*
✎ *Iulia NĂSTASIE*

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[42] Frank Rose, *Strengthening International Missile Defense Cooperation*, in *Hampton Roads International Security Quarterly*, 4 (1 October 2011): 21, in *ProQuest*, retrieved on 11 April 2013.

# INFLUENCE OF TECHNOLOGICAL EVOLUTION ON MILITARY OPERATIONS

*Colonel Dr Iulia Frasina TĂNASE*

## 1. The relation between the equipment of the forces and the evolution of military operations

*The huge technological progress in the field of armament technology has decisively influenced the physiognomy of contemporary military operations. In this context, information collection, environmental conditions, political, cultural, religious and humanitarian restrictions are characteristics of the future military conflict.*

*Therefore, the components of large units, units and subunits should be able to adapt to the requirements related to the nature of the mission, the conditions in which the actions are performed, while the combination of different components of smaller echelons should be rapid, efficient, and effective.*

***Keywords**: technological progress; equipment; military operations; logistics*

The influence of modern technologies on the way military operations are planned and conducted and the evolution of the security environment are reflected in the requirement for military structures to have greater autonomy in action, so that they can permanently conduct rapid, decisive, dynamic missions and manoeuvres. The multinational military operations in which our country participates determine the need for establishing large units and units with modular and flexible structure, able to carry out a wide range of activities and to project force depending on the mission requirements, thus achieving the goals efficiently and effectively. This probable evolution greatly influences the structure of the armed forces as a whole and of each component in terms of providing forces with equipment, combat assets and materials, as well as of training them.

To have an as realistic as possible view of the probable physiognomy of future military operations the operational requirements for the modern fighter should be taken into account. The modern fighter should be educated and trained to be an expert

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in a wide range of missions. Moreover, in most circumstances, the fighter should demonstrate adaptability, ingenuity, creative, innovative and proactive thinking, capacity for analysis and synthesis, ability to understand the military phenomenon as a whole and to make the best decisions when the situation requires it.

The equipment with combat assets and materials strongly depends on the character of military operations and the impact of advanced technologies, the relationship between operational requirements and equipment possibilities being biunivocal and in continuous progress. In this context, it is worth mentioning that technology sometimes exceeds the military operations requirements, which determines spectacular leaps in terms of their physiognomy. As far as the weapon systems are concerned, they have evolved in some directions whose effects are convergent i.e. improvement of tactical and technical characteristics of classic armament (tanks, cannons, missiles, airplanes, helicopters, vessels etc.), modernisation of used equipment, and achievement of some complex and efficient combat platforms having long-range (thousands of kilometres) precision fire capabilities in any environment and conditions. Simultaneously, new firing equipment and technologies have emerged, digitised ones, in fact weapon systems that connect, in a single complex, surveillance, identification and localisation capabilities (to determine the coordinates, characteristics, hallmark and source) and data processing, firing and neutralising capabilities. Many times, these weapon systems are interconnected with command systems, achieving the so called *"system of systems"*[1].

The dynamic and flexible character of military operations requires the reconsideration of the structure of the units so that they can cover the entire range of tasks and areas of responsibility such as information management relating to own troops, enemy, terrain and weather, material, financial and human resource management, and logistics management to meet the need for multilateral logistic support.

The need for delimiting the current management requirements from the operational ones has resulted in the establishment of operational commands, intended to command forces during crisis or conflict situations in certain areas. This model, with its specific advantages and disadvantages, enables the separation of current, administrative issues, related to the force preparation and generation, from operational ones, related to the management of forces to prepare and conduct military or other operations in peacetime, crisis situations or armed conflicts.

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[1] *Strategic Assessment 1997*, the US Defence University, Institute for National Strategic Studies, pp. 273-274.

Although it is human, material and financial resource consuming, the model represents the option for most modern armed forces.

In this context, the structure of logistic systems should be also transformed according to the physiognomy of military operations. Thus, logistic systems should be modular, flexible and integrated, in relation to the force components, based on the unit needs for ammunition, fuel, food and equipment. The precision of individual or collective weapons could reduce the consumption of ammunition or change its structure in the combat space; moreover, advanced technologies could lead to lower energy consumption during military operations or they could reverse the relationship between the electric energy and hydrocarbon based energy consumption in favour of the former, which could substantially change the structure of existing logistic systems. The growing pace of action, the high rate of change in the combat space, the need for autonomy in action and other such developments will result in changing the structure and philosophy of logistic systems, and future technologies will allow for automatically tracking consumption, planning and supplying in an as decentralised as possible way, although controlled and supervised by upper echelons. All these aspects will determine the essential modification of the logistic systems upper echelons, the adoption of modern concepts and methods consistent with the physiognomy of military operations.

## 2. The technological dimension of the Revolution in Military Affairs

In the context of the latest types of asymmetric threats, the complex approach to consolidating a high-tech architecture for a new form of warfare, the asymmetric one, is proper to the *Revolution in Military Affairs – RMA*. By this, the states that are technologically well-equipped and have adequate information can defeat an enemy army in a few days. *RMA*, according to Andrew Latham, *"includes the nonexclusive technical transformations that are inherent to the new ways of conducting warfare"*. Basically, it is incumbent upon *RMA* to transform an old military system into a new one, adapted to some appropriate military concepts, being *"a fundamental change in the nature of warfare, caused by the innovative application of new technologies that, combined with deep changes of military doctrine and operational and organisational concepts, radically alters the character and conduct of military operations"* as Andrew Marshall states. The success of military revolution leads to technological innovations, which are assembled into inventions, and then into weapon, information, communication and other systems. *RMA* results from the reunion of doctrinal and organisational innovations in military technology.

*RMA* requires the modification of the current methods of obtaining, storing, transmitting, and representing information, due to the increasing power of computers and miniaturisation capabilities. *Precision* replaces firepower and mass destruction shocking actions, decisively involving high information technology.

In the last decade, new technologies have transformed warfare into a *high-tech* field, where information allows for quick and precise strikes, meeting the current *RMA* requirements. In other terms, the latest armed clashes have demonstrated that the new paradigm of warfare combines and integrates *"the modern air and space systems, the high destructive precision of advanced conventional weapons, and the speed of modern communications in a war machine capable of rapidly defeat any force that is devoid of modern technology"*.

Currently, it is unanimously believed that the major technological developments of the future are based on the huge technological advances, the access to global information and intelligence systems, as well as on flexible management, budgetary allocations, strength, monopoly etc.

*RMA* is characterised by the rapid evolution of military technology due to the significant progress in many technological areas: computer science, electronics and telecommunications. According to Andrew Krepinevich, as far as the *"revolutionary potential"* is concerned, all most promising technologies are more or less related to information, allowing for collecting and processing a huge quantity of information relating to the enemy goals, significantly developing precision ammunition, as well as for optimising forces training and weapon systems concepts thanks to simulators. The identification of key technologies for future military conflicts, thus determining the operational capabilities able to master the three environments and outer space, infinitely multiplies the investigation and innovation possibilities.

However, the pace of development has not been the same in all countries of the world. Therefore, at the NATO Summit in Washington, in April 1999, the *defence capabilities initiative* was launched as a *"response to the technological gap between the United States and its European allies, gap that became evident during the Gulf War, when the Alliance forces interoperability was jeopardised because of the difference between the technological capabilities, especially in terms of command and control"*[2]. Hence the need to develop and modernise the military structures of all the countries involved in conflicts, carrying out military operations alongside other members

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[2] Av.ec.dr. Ion Gheorghe, *Managementul industriei de apărare în epoca globalizării transferurilor de tehnologie militară*, in *Managementul integrat al resurselor de apărare*, Scientific Paper Session, Braşov, 2007, p. 186.

of a coalition or alliance. Our country's NATO membership creates obligations as well as a series of *"opportunities for some companies in the Romanian defence industry if they can meet the international quality requirements"*[3].

## 3. Efficiency and effectiveness in military actions depending on procurement

Military operations are conducted following certain rules, established in time and depending on previous experience, tests, simulations etc. However, no commander can exactly determine the easiest way to accomplish the mission, but each norm, rule or principle that is respected contributes to success.

### 3.1. Ways to improve efficiency in armed combat

*Efficiency* is a general and essential concept proper to praxeology, being pursued in all human actions. As any general concept, efficiency has distinct aspects that define the content of each type of action. These aspects, together with the common ones that are inherent to the entire society, determine particular types of efficiency that are different from one type of activity to another. For instance, during military operations, efficiency compels *"…to destroy the enemy command installations"*[4]. Moreover, the enemy communication lines should be interrupted to prevent information from circulating along the chain of command. Own troops should seize the initiative and strike in the depth of the enemy disposition to prevent the enemy support echelons from intervening in combat. Air, naval and land operations should be well-integrated and synchronised. As much as possible information should be collected about the enemy, and the enemy should be prevented from reconnoitring own troops.

In military operations, a major efficiency criterion is the ratio between the outcome and the effort made to obtain it. In armed combat, the effort criterion is subordinate to the goal and, by its components, correlates partial objectives and the final goal. Specifically, we can talk about *efficiency* in military operations if the mission is accomplished with the planned forces and assets, and losses are minimal.

Professional military literature often mentions the term *effectiveness*, having a narrower meaning than efficiency. Effectiveness considers only the correlation between outcome and goal, being mainly used to determine the armament properties and directions for use in warfare without taking into account the effort and resource consumption.

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[3] Mădălina Dănuța Badea, *Economia României și dimensiunea economică a apărării armate în țara noastră*, Scientific Research Paper no. 1, p. 60

[4] Alvin and Heidi Toffler, *Război și antirăzboi*, 1995, p. 86

The scientification of operational and tactical thinking is a way to provide current armed combat with viability and efficiency. It should be characterised by realism and originality, directed mainly towards the qualitative and intensive aspects, effectively capitalising on the available forces and assets. The process of decision-making by the commander cannot be based on intuition and experience. The valuable knowledge acquired in the form of conclusions and lessons learned during training or participation in conflicts in different parts of the world represents a valuable guide. Commanders should use these pieces of knowledge intelligently to stay connected to the latest actional aspects in the military. The solution to the increasingly complex problems, in terms of improved efficiency, requires theoretical depth, so that the analyses undertaken and, especially, the decisions taken could be scientifically substantiated.

Another way to increase efficiency in armed combat is to save human energy. If less energy is required for the design and execution of an action, the total amount of energy can be allocated for the execution of several actions and the achievement of complex goals. Military experts pay special attention to the continuous improvement of two main aspects of armed combat – energy (or firepower) and information, which represent the fundamental support for the troops and combat equipment management.

In this context, the importance of providing the force structures with material goods should be stressed. It is relevant to use the latest weapons, equipped with night vision devices, highly competitive in finding and hitting targets to make the fighter self-confident, on the one hand, and efficient in achieving the assigned task, on the other hand. To meet this desideratum, special attention should be paid to the national defence industry and research capabilities in the field of military technology, which should *"boost the general progress of military knowledge and practice, military art, and the performance of military equipment and systems by making full use of all human, material, financial, technological and information resources"*[5].

Moreover, modern warfare requires the existence of management systems that are continuously operational and reliable, capable of processing, in real time, large volumes of information that is diverse in terms of presentation, importance and tactical-operational content.

An important direction that has beneficial consequences in various fields is the use of effective and efficient computers, knowing that their performance increases tenfold every five years.

To carry out operations in high-tech battlefield and engage the *Force* effectively in combat, standard structures should be created. The essential element

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[5] *Government Programme 2010-2013*, chapter 23, national defence.

that should be considered in this context is that the increase in the effectiveness of the groups of forces that act independently, individually or jointly depends on the coordination of standardisation activities, especially in terms of specific systems, equipment and modules.

Standardisation will ensure interoperability on the battlefield, cooperation, establishment of operational needs, definition of technical configuration for network organisation.

The standardisation of future structures will cover the following aspects:
- provide the group of forces and the fighter with appropriate equipment in the field of observation, communication, protection, mobility and support;
- ensure regular exchange of information on the structure, concept and doctrine of waging war, strategy and specific tactics.

The modularisation of force structure is essential for carrying out future actions. The future task force modular organisation ensures:
- high combat capacity with reasonable resources;
- enhanced firepower and hitting capability;
- increased mobility;
- anticipatory-preventive management;
- timely manoeuvre and counter-manoeuvre;
- permanent logistics, with the possibility of increased sustainability in the theatre.

They will provide:
- conditions for synchronous, synergistic and decisive action in the operational field;
- increased actional autonomy;
- capabilities to fulfil a wide range of missions, with reduced and competitive specialised and special forces.

The new type of organisation stipulated by the concepts of future warfare will allow anticipatory self-control, which will enable own forces to decisively outrun the opponent. At the same time, it will increase the engagement accuracy and timeliness.

The flexibility of the future modular structure generates multifunctionality, initiative in relation to the types of activities for which it is designed, but it is known that the main quality of this type of structure is the proactive (pre-emptive) character, which allows the force module to permanently outrun the enemy in action. In the atypical confrontation with terrorist elements and groups, a modular structure has the greatest chance to succeed.

## 3.2. The impact of technology on efficiently engaging the military structures in combat

The new advances in technology result in the fact that, currently and perhaps in the future, military actions have ampleness in time and space, specialised forces and assets, joint character, high intensity and complexity. They can be conducted in all types of environment, employing a great variety of tactical procedures, especially on the flanks and in the depth of the enemy disposition, rapidly, and in various terrain, time and weather conditions.

Armed conflicts, coupled with the third millennium technologies, will reveal the complexity of the environment in which actions are performed, characterised by the overlap between civil and military environments, the expansion of guerrilla, the use of both lethal and non-lethal weapons, explosives, and possibly of the third generation nuclear weapons. Technological advances will enhance the advantages provided by the quality of the armed forces.

These developments are best seen from an actional perspective. Currently, the available military capabilities often require the physical concentration of forces to neutralise the combat power of the adversary. The necessary time to concentrate and use them requires the execution of sequential operations in terms of time and tactics.

In the future, the manner of conducting military operations will be changed. Information superiority and new technologies will lead to the achievement of the planned effects by applying combat power adaptively and selectively. The superior lethality of new weapon systems allows for the concurrent execution of the actions that were previously executed sequentially following the concentration of forces. The more accurate and longer range systems will result in the destruction or neutralisation of the opponent using fewer systems and taking fewer risks. Essential changes also occur in terms of time. Improved command and control capability will reduce the need to achieve the fighting disposition days or many hours before the attacks. As there is accurate information about the arrangement of targets, the amount of forces engaged in the main effort can be reduced.

All these aspects demonstrate that to concentrate the effort, at the right time and place, less physical concentration of forces is necessary than in the past. However, it cannot be said that the physical presence of the human resource in the battle space will be completely eliminated, thus avoiding exposing the human resource to the dangers that are inherent in any military operation.

New technologies, along with the correct use of information, will provide the military subunits and units with greater capabilities and advantages.

Thus the forces can see the danger before and know better the operating environment, including the neighbouring situation, and they can make decisions faster. They will be able to generate a greater range of effects, timely concentrating the necessary combat assets. Combining this capability with faster supply, the forces will better meet the objectives set to accomplish their missions under any conditions in the battle space. To exploit the potential of new technologies, the full range of necessary improvements should be made systematically. This process begins with the development of a new conceptual framework for future operations. The basis of this framework is represented by improved command and control capabilities that can be provided through information superiority. Thus, the traditional functions of manoeuvre, firing, protection and logistics will be transformed. This transformation will be so great that these functions will become new operational concepts: dominant manoeuvre, precise engagement, multidimensional protection, and focused logistics.

❖ *Dominant manoeuvre* represents the multidimensional application of the means of information, employment and deployment to use joint forces, disposed on large areas, in order to accomplish the assigned missions. It presupposes the existence of some structures capable of performing, from dispersed positions, synchronised and sustained operations. They should be able to apply an overwhelming force in the same environment and create asymmetric advantages in other environments, by attacking from different dimensions (from the air or from the sea to the land, from the land or the sea to the air defence). The force organisational capacity, according to its mission, will ensure the protection of the troops, which is another key element of the dominant manoeuvre success.

❖ *Precise engagement* consists is a system of sophisticated weapons able to localise objectives and targets, transmit orders and reports, generate desired effects, establish ambition level, maintain flexibility in reengagement with precision when necessary. Precise engagement will exactly combine the information operation, the target acquisition and the command and control system to enhance the opportunities to achieve the desired effect, significantly reducing risks and collateral damage.

❖ *Multidimensional protection* refers to all the measures taken so that own forces cannot be affected by the effects of the sophisticated weapons the enemy could use. Without taking effective protection measures, the new operational concepts will become useless. The essential condition relating to this type of protection is represented by the multidimensional control of the battle space, to ensure that own forces can maintain their freedom of action during deployment, manoeuvre and engagement while being protected. Multidimensional protection

allows for the efficient employment of own forces, altering the enemy opportunities to react. It will be essential, in the majority of operations, to meet success.

❖ *Focused logistics* will represent the reunion of new information technologies at each functional domain level, augmented to ensure a proactive response in extreme situations, to change the destination of goods even during transport, to ensure optimal logistics packages directly to the echelon for which they are necessary. It should be tailored according to the needs of the forces that are more dispersed and mobile, providing the necessary logistic support on schedule.

Each logistics functional area will also incorporate the highest information technology so that the rigid, *"linear"*-type organisation in the past could be replaced by the current flexible and multidirectional organisation. Modular logistics packages will be established so that they can meet not only planned situations but also emerging ones.

The armed forces logistics should work closely related to civilian operators to take full advantage of the new business practices and the values of the national economy and international trade. Active and reserve logistics capabilities, prepared to work in the system of joint operations, should be able to provide logistic support as long as necessary. Information technologies will enable the optimisation of air, sea or land transport, assist the punctual logistics systems, and increase the life cycle of the combat equipment in inventory. The result of this combination of improvements will be a smaller and more flexible force, which will require smaller but more efficient logistic structures, thus reducing the vulnerability of logistics lines of communication.

The application of these four operational concepts that are to be developed in the coming years will enable the armed forces to achieve the total domination that is necessary for victory.

Technological advances will decisively influence the evolution of armed conflicts. The new generation of smart weapons, C4I systems, electronic surveillance, reconnaissance and hitting systems, the information and psychological warfare techniques and technologies will be used massively in operations and battles.

There have been a lot of changes in the military bodies based on technological development. Some countries that are advanced in this regard envisage significant investment to transform their armies into a future force capable of integrating with the 21st century changes, having a joint expeditionary element. It is intended to establish a multi-purpose, multi-mission, reconfigurable combat system, as well as a digital communications tactical system that will form the basis of future force

capabilities. Based on the new technologies, the force will be restructured, establishing a modular, joint, expeditionary, relevant and flexible force.

Modular groups, numerically small, with increased mobility, will lead to the compression of the time allocated for actions, because they can accomplish their missions much faster than in classical wars in terms of actional intensity and density.

The nature of the mission, the time of the action, correlated with competitive equipment, will mark, in turn, the group size. Moreover, a shorter action in the theatre will implicitly lead to greater protection. The capacity for action in the physical and communications field, having different duration, will be higher, given the increased viability of the infrastructure and network, based on high capacity for protection and security, concealment and dissimulation, as well as on the timely and effective support.

High technologies, massively integrated, will increase the combat assets invisibility, the capacity to detect objectives, the effect and precision, the ability to influence morale, mood, and individual and collective behaviour of the adversary, by providing more opportunities for psychological action and manipulation of information, culture, traditions, attitudes, interests etc.

In conclusion, some technological and tactical trends that directly and decisively influence the battlefield of the future, in terms of establishing, equipping, training and effectively employing task forces in military actions should be highlighted as follows:

- the military specialists concern with obtaining and testing intelligent and high precision arms and ammunition. They require damage diversification and collateral damage reduction. In the future, the targeted lethality of *"killing technology"* allows for the destruction of military objectives key elements without killing soldiers or completely destroying the target;
- the duel weapon – counter-weapon will continue, technology being the key element that will ensure superiority in modern battle space. The renewal of weapon systems is continuous and rapid, involving the tendency to shorten the period each generation of assets is maintained in the troops inventory;
- as a result of miniaturised technology, materials and energy costs tend to decrease, and performance criteria such as accuracy, range, effect at the target, initial velocity have increased several times compared with the arms and ammunition existing 20-25 years ago;

- an interesting phenomenon is noticed, especially in the conflicts at the end of the 20th century and the beginning of the 21st century, namely that the practice of conducting military operations, under the impact of high technologies, relatively outruns doctrinal changes;
- military analysts have been more concerned with providing conclusive answers and practical solutions related to the changes in the content of warfare and the level of military engagement, the technological advances and their impact on the battlefield, the prospect of war and modern armed struggle; these questions are particularly justified by the fact that the states strategic doctrines constantly improve, bringing significant changes in the domains of military art, under the direct and multilateral impact of technological advances etc.

Armed forces are closely connected to technological developments, being the first beneficiaries of scientific and technical progress. Nothing that is very important in the technical and scientific field escapes the military factor and the defence policy. Furthermore, over time, society has benefited from the results of research and from the significant discoveries in the military field. Radar, electronic computer, geospatial positioning system (GPS) and many other systems that are common to modern society have been created and first used in the military.

*English version by*
*Diana Cristiana LUPU*

# TRAINING ACTIVITIES ORGANISATION AND CONDUCT (II)

*Colonel Dr BEng Anghel-Dorinel BUCIU*

*The author presents different types of evaluation as well as some tools and resources for both trainers and trainees evaluation. Among them, investigation, project and portfolio are mentioned. Investigation provides the trainee with the opportunity to apply the acquired knowledge creatively, in new and different situations. Project is an active and participatory evaluation method. Portfolio is a complex evaluation tool that enables the trainer to assess the progress made by the trainee in terms of knowledge, skills and behaviour.*

***Keywords****: training; evaluation tools and methods; knowledge; skills*

## 4. Performance of training activities

The way we access and process information largely depends on the manner it is received and provided as well as on the personal learning style.

To facilitate learning and the provision of information we should consider the personality type of those we serve and the way we address them.

### 4.1. Participants information relating to training activities

In adult education, the central role is played by communicating information considering the specific characteristics (biological, psychological, social) of adulthood and their implications in the process of personal development. Regardless of the way we analyse adult education, it is always related to adult capabilities. Hence one of the fundamental objectives of lifelong learning: *learning to learn*.

Broadly defined, communication is the process of transmitting and receiving information, based on co-sharing the meaning.

Depending on the criteria taken into account, there are several forms of communication. The first criterion considered in classifying the forms of communication is the *method* or *technique to deliver the message*. Thus the following are identified:

a) *direct communication* – if the message is sent using primary means: word, gesture, mimicry;

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b) *indirect communication* – when secondary techniques are used: writing, print, signals sent by cable, graphical systems etc.; in the indirect communication the following are distinguished:
  • printed communication (press, magazines, books, posters etc.);
  • recorded communication (video, disk, tape etc.);
  • wireless communication (telephone, telegraph, cable, optical fibre etc.);
  • radio communication (radio, TV etc.).

Depending on *how the individual participates in the communication process*, the following forms of communication can be identified:

a) *intrapersonal communication* or self-communication, achieved by each individual in his/her inner self;

b) *interpersonal or group communication*, conducted between individuals within the group or organisation to which they belong;

c) *mass communication* – communication is made to the public by specialised institutions using specific means.

A further classification criterion is *the manner in which the communication process is performed according to the relationship between the individuals* within an organisation:

a) *upward communication* – achieved from the lower levels of an organisation to the higher ones;

b) *downward communication* – when information flows from higher levels to lower levels;

c) *horizontal communication* – achieved between individuals in similar hierarchical positions or between the departments of an organisation in the collaborative relationships established between them.

### 4.2. Facilitation of learning activities

Learning is the process by which beings learn new things. By learning, bodies transform. Depending on environmental conditions, transformation is often evidenced by new behaviours.

The conditions for effective learning are: the relationship with the environment; the changes occurred, manifested mainly by behaviour; permanence (relative).

### The 5 F of facilitation:
➤ *Friendly*

Facilitators have a considerable influence on the overall tone and atmosphere of a meeting/training. At first, people look at their seats more than at each other. A friendly attitude provides the participants with a sense of relaxation that helps improve the quality of their contribution. This attitude is contagious – a smile brings about another smile.

➢ *Firm*

There will always be time limits. The facilitator has the responsibility to lead the discussion further, although some participants will resist it.

➢ *Focused*

Each training session requires a focus – planning learning objectives ensures it. Each session should, more or less, follow the initial project/plan. Staying focused can mean being firm.

➢ *Flexible*

Some discussions may deviate from the original programme. The facilitator should determine the circumstances in which they may be continued or they require redirection.

➢ *Fair play*

All participants should be treated equally and should be offered opportunities to get involved. The facilitator is responsible for everyone to learn.

### 4.3. Providing trainees with feedback

Feedback is a very important adjusting/self-adjusting mechanism because it facilitates not only the act of teaching, communicating knowledge by the trainer, but also the act of learning, receiving and assimilating information by the trainee. Although feedback has many synonyms, its principle is the foundation for any effective action because it provides operational information relating to a particular action effect. Feedback facilitates both the act of teaching and the act of learning.

Command enables information processing and transmission so as to obtain the best result in terms of training. In this case, the trainer-trainee relationship is straightforward, from command to execution, having thus a unilateral character. Control ensures that the effect anticipated by command is achieved. In this case, the trainer-trainee relationship is reversed, being a relationship from the receiver to the transmitter, from execution to command.

Thus feedback is not only an effective means to adjust the message conveyed but also a specific way to self-adjust learning. The trainer continually adjusts the form and content of transmitted information and, in general, his/her attitude towards the act of training depending on how the message is received by the trainee. The trainee can self-control the act of receiving information, of learning based on the benchmarks provided by the trainer. In this way, the very interpersonal relationship that arises between the two agents involved in training will have new meanings and lead to high-performance training.

Convinced by the necessity of feedback in training activities, R. Mucchielli states that *feedback deprivation reduces learning to a discourse that is not received, not efficient, and frustrating for both partners.*

Special attention is paid in the literature to the methods used by the trainer to shorten feedback, the path from the diagnosis of learning quality and efficiency to its optimisation. In this respect, it is insisted not only on the trainees' efforts integration and their mental learning disposition exploitation but also on the development of the trainer ability to anticipate the trainees' possibilities or the act of learning goal.

Along with the concept of *feedback* that of *feedforward* is increasingly used. It designates a specific form of retroaction. If feedback is the means by which the goal becomes cause, feedforward is the means by which the goal anticipation becomes cause.

Thus, the two forms complement each other: either the trainer will work more intensively when trainees' evaluation results are unsatisfactory *(feedback)* or will act preventively, anticipating the evolution towards such results *(feedforward)*.

### 5. Trainees assessment

Assessment represents all the activities meant to collect, organise and interpret the data obtained from the application of measurement tools in order to issue a value judgment on which a particular decision in terms of education is based.

### 5.1. Application of assessment tests and tools

In general, performance assessment has three functions: diagnostic, prognostic and certification as follows:

- *diagnostic*, meaning to make known the circumstances and factors that lead to specific outcomes of trainees to determine possible remedial procedures when there are problems;
- *prognostic*, meaning to anticipate the performance of trainers based on the results and to plan the next sequences of learning activities. Typically, this function is associated with the diagnostic evaluation, being complementary.
- *certification* of the knowledge and skills of the trainees at the end of a long period of training.

Pedagogical theory and practice operate several classifications of the types of assessment, according to different criteria (assessment area, time, the way results are interpreted etc.).

### 5.2. Assessment sessions organisation
### Types of assessment

According to the way assessment is integrated in the didactic process the following types are identified:

➢ *initial assessment*, which is conducted at the beginning of a training programme in order to establish the level of the trainees knowledge. The information obtained

following the assessment helps the trainer to plan future activities so that they can be appropriate to trainees or to initiate, if necessary, remedial programmes;

➢ *formative assessment* accompanies the entire didactic process. For this reason, its ameliorative effects on the learning activity are considerable, permanently providing the opportunity to relate to the set objectives and to highlight the progress made from one training sequence to another. For formative assessment, the obtained feedback is more useful and efficient, helping not only the trainer but also the trainee to adapt future activity to the particular situation;

➢ *summative assessment* is usually conducted at the end of a long training period (e.g. chapter, semester, academic year, education cycle etc.), providing useful information regarding the trainees performance in relation to the training objectives. Summative evaluation focuses on the permanent elements related to the application of basic knowledge, the demonstration of some important abilities acquired by trainees during a long training period.

If it is important who performs assessment, the following types are interesting:

- *internal assessment*, when the assessment action is performed by the same person/institution that is directly involved in training activities (e.g. the trainer);
- *external evaluation*, which involves a person/institution other than that providing training.

**Assessment methods**

Assessment theory and practice approach both traditional and complementary methods. Traditional assessment methods bear this name due to the fact that they have been most commonly used in time. The following methods belong to this category:

- oral assessment;
- written assessment;
- practical assessment.

❖ **Oral assessment** represents the most commonly used assessment method, which involves the demonstration of some skills and abilities that are difficult to detect through written assessment (e.g. verbal communication skills).

The advantages of using oral assessment are as follows:

- assessment flexibility and individual appropriateness due to the possibility of alternating the type of questions and the degree of difficulty depending on the quality of the answers provided by the trainee;
- opportunity to clarify and correct possible mistakes or misunderstandings relating to a specific content on the spot;

- answer formulation follows the logic and dynamics of an oral discourse, which provides the trainee with the opportunity to express freely, originally, to argue etc.

❖ **Written assessment** is often used and sometimes preferred, due to the advantages that cannot be ignored especially when the enhancement of the training process and the increase in the assessment objectivity are desired. Among the advantages, the following can be mentioned:

- it saves time, which is very important considering the budget allocated to the teaching-learning-assessment relationship. Written assessment allows for assessing a large number of trainees in a short period of time;
- it covers both the volume and the depth of the assessed content. Written assessment allows for assessing all trainees on the same curricular sequence, which enables comparison between trainees, assessment being thus more objective;
- it provides the trainer with the opportunity to make more objective value judgements, based on well established and predetermined assessment criteria;
- trainees have the opportunity to develop their answers independently, without any outside intervention, reflecting knowledge and skills demonstrated at own pace;
- tense and stress states, which can have a negative impact on the trainees who are shy or have other emotional problems, are reduced.

The major disadvantage is represented by the relative delay in correcting the mistakes or in filling the identified gaps.

❖ **Practical assessment**

It is used to assess the trainees' ability to apply certain theoretical knowledge as well as the degree of mastery of abilities and practical skills. Although practical activities provide the trainee with the opportunity to develop not only general knowledge (communication, analysis, synthesis, evaluation) but also specific, applicative ones (data and tools handling, results interpretation), the assessment of trainees by practical tests is little capitalised on.

For the successful implementation of a practical activity, trainees should be informed on:

- ➭ the themes of practical works;
- ➭ the way they are assessed (scoring scales);
- ➭ the conditions provided to carry out these activities.

Traditional assessment methods, designed to strike a balance between oral, written and practical tests, currently represent the main and dominant elements of assessment. There are also complementary assessment methods.

The main complementary assessment methods, whose formative potential supports the assessment individualisation by backing the trainer, are as follows:
- �> systematic observation of the trainees' activity and behaviour;
- ➤ investigation;
- ➤ project;
- ➤ portfolio;
- ➤ self assessment.

**Systematic observation of the trainees' activity and behaviour**

In the observation form of the trainee's activity (the assessment tool designed to implement the method of systematic observation of the trainee's activity and behaviour), the trainer records significant information relating to the trainer's progress and personality traits. On this basis, the trainer individualises learning activities and requirements that involve the trainee.

Indicative model:
- General information about the trainee: surname, name, age, education.
- Particularities of intellectual processes: thinking, language, imagination, memory, attention, sense of observation, other characteristics.
- Skills and interests.
- Affective traits.
- Temperament traits.
- Attitudes:
  - ➤ to the self;
  - ➤ to the subject/obligations;
  - ➤ to the colleagues.

**The evolution of skills, attitudes, interests and level of integration**

We suggest a list of intellectual and social skills the trainer may propose to form in the trainees, whose consolidation is tracked and recorded in the *Trainee's Observation Form*:

a) *intellectual skills:*
- oral expression;
- reading;
- writing;
- reasoning skills: definition, comparison, classification, analysis, synthesis, abstraction, generalisation, essentialisation, materialisation;
- identification of tacit assumptions involved in judging or reasoning;
- identification of prejudices, stereotypes, discrimination, and manipulation;

b) *social skills:*
- recognition and acceptance of differences;

- fostering positive relations with others;
- non-violent conflict resolution;
- taking responsibilities;
- participation in negotiation and adoption of solutions;
- participation in maintaining a stimulating and enjoyable environment;
- asking questions;
- asking for help;
- demonstrating empathy;
- listening with patience;
- teamwork;
- collaboration;
- decision-making;
- role-play;
- assessment.

This form is filled during more classes/activities. It allows the trainer to monitor each trainee, to assign appropriate roles in the group, to assess the trainee level at any given time as well as the changes in the trainee's behaviour; it allows the assessment of both the process and the activity outcome.

### Investigation

As a complementary assessment method, investigation provides the trainee with the opportunity to creatively apply the acquired knowledge, in new and diverse situations, during a class or a sequence of classes.

The teaching activity performed through this assessment practice can be organised individually or in working groups, and the assessment of investigation is usually holistic.

The contribution of this type of activity to the development of the trainees applicative skills is considerable (especially for problem solving, development of reasoning skills, logical thinking etc.).

### Project

As a form of learning activities organisation, the project (project, as an assessment tool, materialises the methodological approach; the project is also the assessment method that entails learning) is an active, participatory method, which consists of transfer of knowledge, skills and capabilities, interdisciplinary approaches, enhancement of the trainees social skills. The assessment of the process and outcome requires the trainer attention and application. The trainer should assist the trainee/group of trainees throughout the development of the project – from choosing the theme or problem identification to final results presentation in front of the class.

We suggest that trainers should have an *assessment form* (similar to that presented above) and regularly fill in it the assessment of each trainee's activity, even if the trainees work in group.

It is useful to organise a discussion/debate after each stage in the project development to encourage trainees to:

➥ reflect on their activity and acquisition – in terms of knowledge, skills, attitudes, transferable experience;

➥ self assess their activity and progress;

➥ discuss difficult, unpleasant or insufficiently developed aspects.

Moreover, to consolidate and assess knowledge, the trainer may use, especially after the information collection, organisation and processing stage, a criterion-referenced test; it will consist of objective, semi-objective and subjective items, so that the trainees can systematically reflect on the learning process and outcomes.

### Portfolio

Portfolio represents a complementary assessment method as well as a complex assessment tool that helps the trainer to track the trainee's progress – in terms of cognition, attitude and behaviour.

Portfolio contains:

• results of written assessment (tests, homework etc.);

• results of practical activities, projects, investigation, conducted research;

• reports, essays, published articles, papers, results of individual study activities;

• individual observation/assessment form;

• self-assessment form;

• attitude surveys;

• other outcomes of the trainee's activity.

Portfolio is the trainee's *"visiting card"* allowing for a global, exhaustive picture of the activity performed by the trainee in a given period of time. The value judgement the trainer makes relating to the quality of the trainee's activity reflects the overall development and not an accidental state at a particular moment.

As an assessment tool, portfolio has a few features that the trainer should always take into account:

• the components of the portfolio are established by the trainer; however, the trainee is free to add any other piece he/she considers relevant to his/her activity;

• the components of the portfolio are assessed separately, at the time they are prepared; the overall portfolio assessment should be carried out based on explicit criteria – which ensures assessment objectivity –

communicated to trainees when they start prepare the portfolio  (criteria communication is essential for the development of self-assessment skills in trainees);

• portfolio is a flexible tool, thus portfolio and its components design can be adapted to the specific activity ;

• portfolio allows for the inclusion in the assessment of some outcomes of the trainee's activity that are not typically considered; thus it encourages the trainee's personal expression, his/her engagement in more complex and creative learning activities, diversification of knowledge, practised skills and abilities;

• because it summarises the trainee's activity over a relatively long period of time, portfolio assessment can serve as a summative assessment or even as part of an examination.

**Self-assessment**

In parallel with the assessment that is carried out as part of teaching, which should be as *"transparent"* (performed along with trainees and in compliance with their training needs) as possible, the trainer should aim at developing self-assessment skills in the trainees; he/she should create situations in which trainees can practice self-control and self-assessment related to cognitive and attitudinal behaviour and in different contexts.

Trainees should be encouraged to ask themselves questions such as:

➢ *Have I carried out the task well enough?*

➢ *Am I satisfied with my achievements?*

➢ *What exactly prevented me from getting a better result?*

➢ *Is there another way/procedure/strategy to achieve the task?*

➢ *What is the difference between my results and the results of my colleagues?*

➢ *What should I do to improve my results?*

➢ *Would it be better to set a deadline for obtaining better results? Why?*

➢ *What displeases me most in my activity?*

The answers to these questions (as well as to other ones, whose contents can be left to the discretion of the trainee or can be established by open discussions in the classroom) can be recorded in the trainee's self-assessment form.

If participants are interested in discussing answers in the classroom, the trainer can organise a discussion/debate on them. Subsequently, trainees can determine, for example, the most important factors of their success.

To develop self-assessment skills, the trainer should:

• present the assessment standards, objectives and levels of performance to trainees;

- formulate expectations clearly, being objective and consistent;
- encourage trainees to ask self-reflective questions and to constantly fill the answers in the *Self Assessment Form*;
- encourage assessment within the group or the whole class.

In the process of self-assessment and consolidation of self-assessment skills, the trainee will get accustomed to the learning activity goals and objectives, will become aware of own mental and practical behaviour, will turn the training activity into self-training activity.

*Reflective diary* – includes the trainee's notes on the performed activity. Experiences, feelings, opinions, thoughts are regularly and critically recorded in it. This alternative assessment method represents a regular, open and flexible reflexive reflection that allows the trainer to help the trainee to improve the quality of training.

*Reflection* – debate on a controversial topic is not a task in itself. It can be followed by a discussion on the way the debate has been conducted: the presentation of the premises, evidence, logical argument, counter-argument and the case reconstruction from the pros and cons perspective etc. In the event of a debate, we consider it would be useful to change the roles: from actors in the debate, trainees will become spectators, and they will see the discussed subject from the standpoint of the public, thus re-analysing it. Consequently, they will answer questions such as:

➢ *What have I learned about the discussed subject?*
➢ *What were the new issues?*
➢ *Was it possible for one of the parties to really "win" the debate?*
➢ *Which was the strongest argument relating to the discussed subject, whatever the role of the trainees was (for or against)?*
➢ *What conclusions can be drawn following the "cool" analysis of the discussed subject?*
➢ *How can we apply what we have learned in our everyday life?*

### 5.3. Preparation of assessment portfolio

Portfolio represents all the products the trainees are able to develop during their training experience. Portfolio looks like a collection of trainees' works, made in order to indicate effort, progress and results.

Portfolio is a complex tool to assess the results obtained by trainees during a training programme. Through portfolio continuous and summative assessment can be intertwined. Portfolio is always personalised and private.

A trainee's portfolio may include: samples of assessment tests (worksheets, assessment tests, practical tests), homework, answers to questionnaires, the trainer's comments on homework, projects or individual or group investigations, conclusions

drawn from visits, tours, samples of the trainees' work (essays, posters, graphic organisers, quintet), self-assessment forms, reports etc.

When preparing a thematic portfolio, participants should be clearly informed on the requirements related to:

- proposed theme or the field from which subjects can be chosen;
- presentation (file, CD, disk, audio, video cassette etc.);
- portfolio size (minimum and maximum number of pages, number of products);
- required structure: objectives, motivation, contents, types of products (reviews, reports, interviews, copies of documents, case studies, questionnaires etc.), conclusions, bibliography;
- materials order and sources.

The preparation of a portfolio requires time, resources for documentation (magazines, books, the internet etc.) as well as for developing products. The trainer should ensure that the products presented by trainees are made by them and not by other people.

While assessing portfolios the trainer may use assessment criteria such as:

- general appearance: presentation in a folder/file, specifying the title, portfolio content, objectives and motivation, products order;
- portfolio content: reports, projects, essays, graphic materials, conclusions following visits, trips etc., conclusion writing, references.

In assessing portfolios it is useful that the trainer should not limit to awarding grades but incorporate feedback comments that reflect both the strengths and the weaknesses in the trainees' activity.

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*English version by*
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# THE CONTRIBUTION OF DECEPTION TO PLANNING AND CARRYING OUT THE CAMPAIGN (III)

*Colonel Eugen Anton POPESCU*

*The third part of this article is focused on describing the three types of conflict according to John Boyd: attrition conflict, manoeuvre conflict and moral conflict.*

*The author writes about the role of deception in planning and carrying out the campaign, for each type of these conflicts. He addresses the matter of the creation of alternative expectations in the deception process, illustrating it with a causal chain. Last but not least, he writes about the integration of deception in each of these conflicts.*

*In the author's opinion, deception can be used for subversive purposes, by exploiting dissensions within the organisation in order to increase mistrust and disagreements, thus magnifying internal frictions and creating the conditions for its division. Carrying out deception with a subversive role interferes with the decision-making cycle of the adversary, thus reducing his efficiency.*

***Keywords**: attrition; manoeuvre; moral conflict; causal chain; deception*

## 4. Integration of deception in planning and carrying out the campaign

There are numerous criteria for the classification of military conflict. In terms of approach, there are *direct approaches* (attrition conflict) and *indirect approaches* (manoeuvre conflict). To these, famous military theorist John Boyd adds a third type – moral conflict. Boyd explains the three types of conflict or approaches to conflicts from the perspective of detailed studies undertaken in an attempt to identify patterns of conflict: *attrition conflict, carried out by Napoleon, by all belligerents in wars in the nineteenth century, the one carried out by the allies during the Second World War and the planners of the nuclear war today; manoeuvre conflict, carried out by the Mongols, by General Bonaparte, Confederate General Stonewall Jackson, Union General Ulysses S. Grant, Hitler's Generals (in particular, Manstein, Guderian, Balk, Rommel) and American Generals Patton*

Colonel Eugen Anton Popescu – the Operational Command Centre, the General Staff, the Ministry of National Defence.

*and MacArthur; moral conflict, carried out by the Mongols, most guerrilla leaders, some of the leaders who fought counter-guerrilla wars (such as Magsaysay) and certainly others, from Sun Tzu to nowadays*[31].

In order to analyse the way of integrating deception in the campaign, a systematic approach is required, capable of revealing the ways through which deception provides the application of operational ideas specific to each type.

### 4.1 Integration of deception in the attrition conflict

In the attrition conflict, the destructive force is the central element. *Figure 1* briefly shows the essence of the war of attrition according to John Boyd.
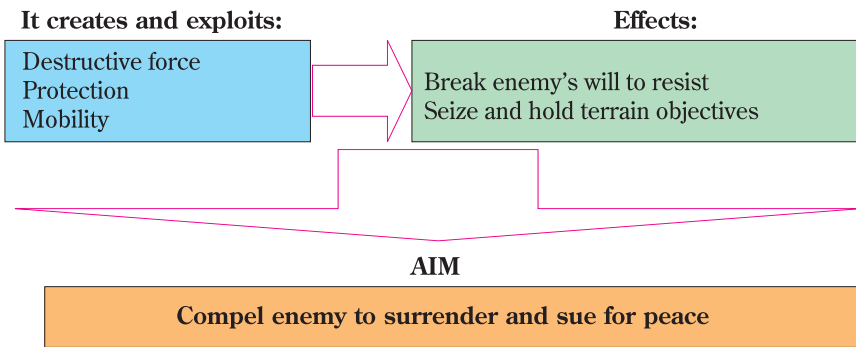


**Figure 1: The essence of the war of attrition according to John Boyd**

Protection, achieved through fortifications, armours, dispersion of forces, as well as camouflage, smoke and nature, is designed to mitigate the effects of enemy firepower[32]. Therefore, deception is used only to apply the principle of security and mainly aims at the tactical level but also involves an interference in the enemy's target management process.

### 4.2 Integration of deception in the manoeuvre conflict

The manoeuvre conflict, as Boyd called it, or the indirect approach, after the founder of the theory, BH Liddell Hart, essentially means to focus the force on the enemy's weaknesses. Steve Winter summarises the indirect approach by Liddell Hart in eight maxims, three of which are relevant to deception: choosing the course of action least expected by the opponent; choosing the lines of operations that provide alternative targets; exploiting the *"line of least resistance"*[33].

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[31] John Boyd, *op. cit.*, p. 111.
[32] *Ibid*, p. 113.
[33] Steve Winter, *The Eight Maxims*, http://www.wizards.com/default.asp?x=ah/article/ah20031016a, retrieved on 15.03.2013.

As shown before, deception may have as objective the creation of a misperception among opponents regarding the chosen course of action. Diversion, with its two components – diversionary attack and demonstration –, supported by measures specific to camouflage, may create the appearance that the main attack will take place on a direction that the opponent believes to have anticipated. Similarly, when the opponent is on the offensive, by using deception techniques, one can create the perception that the defence effort is organised in a direction deemed favourable by the opponent. Choosing the lines of operations that may provide alternative targets also allows for the creation of *"alternative"* or *"desirable expectations"*, on the part of the opponent, and by use of deception techniques, one can surprise the opponent and create a relative advantage, which, by exploiting the opportunities that arise, may cause cascade vulnerabilities (weaknesses into the disposition of the opponent). Moreover, *"Fire and forces manoeuvre and means are used in combination as cheng/ch'i or Nebenpunkte/Schwerpunkt (focusing the effort on creating the conditions or vulnerabilities/focusing the effort on exploiting the conditions or vulnerabilities created –* our note*) in order to draw attention and enemy forces, to expose and exploit vulnerabilities or weaknesses"*[34].

In Boyd's view, as far as the manoeuvre conflict is concerned, *"Ambiguity, deception, novelty, mobility and violence are used to generate surprise and shock among the enemy"*[35]. The essence of the manoeuvre conflict, according to Boyd, is shown in *figure 2*[36].

Boyd believes that ambiguity creates alternative or competing perceptions about events that may exist or not. Ambiguity causes the effect of disorientation, defined by Boyd as a *"mismatch between events one observes or anticipates and events he must react or adapt to"*[37]. Deception is intended to portray events that do not exist. Deception contributes to achieving the surprise, defined by Boyd as *"disorientation generated by perceiving extreme change (of events or efforts) over a short period of time"*[38]. Therefore, Boyd confirms the process of creation of *"alternative expectations"* theorised by Daniel and Herbing *(figure 3)*[39].

Boyd believes, in fact, that ambiguity, deception, novelty, rapid and short manoeuvres and effort all produce cascading effects, first of all, the disorientation and surprise of the enemy, which in turn, shock the enemy. Then, the state of shock

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[34] John Boyd, *op. cit.*, p. 114.
[35] *Ibid.*
[36] *Ibid*, pp. 115-117.
[37] *Ibid*, p. 117.
[38] *Ibid.*
[39] Michael Bennett, Edward Waltz, *op. cit.*, p. 24, apud Donald Daniel & Katherine Herbig, *Strategic Military Deception*, New York, Pergamon Press, 1982.

**It creates, exploits and magnifies:**

Ambiguity
Deception
Novelty
Fast transient manoeuvres
Effort (cheng/ch'i, - Nebenpunkte/Schwerpunkt)

**Effects:**

Disorientation
Surprise
Shock
Disruption

**AIM**

Generate many non-cooperative centres of gravity, as well as disorient
or disrupt those that adversary depends upon, in order to magnify friction,
shatter cohesion, produce paralysis, and bring about his collapse.

**equivalent to**

Uncover, create and exploit many vulnerabilities and weaknesses,
hence many oportunities, to pull adversary apart and isolate remnants
for mop-up or absorption.

*Figure 2: The essence of the manoeuvre conflict according to John Boyd*

causes the disruption of the adversary, shatters cohesion, produces paralysis
and brings about collapse of the adversary system. This causal chain is shown
in *figure 4*[40] .

**Deception**

**A-Type**
**Ambiguity increasing**

- state of uncertainty
- multiple alternatives

Multiple
alternatives

**M-Type**
**Misleading**

- diminish ambiguity;
- provide attractive alternative

M1
Desired alternative

M2
Improbable alternative

M3
Plausible alternative
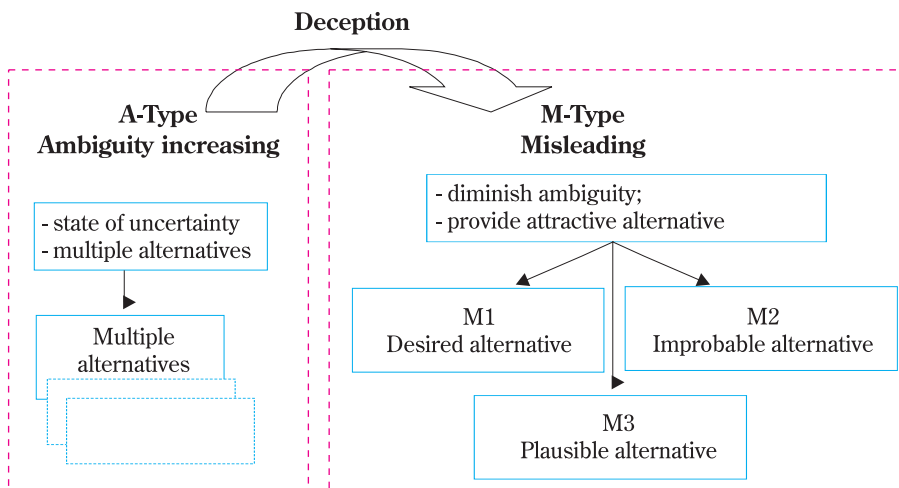
*Figure 3: The creation of "alternative expectations" in the deception process,*
*according to Donald Daniel and Katherine Herbig*

[40] Frans Osinga, *Science, Strategy and War – The Strategic Theory of John Boyd*, p. 212.
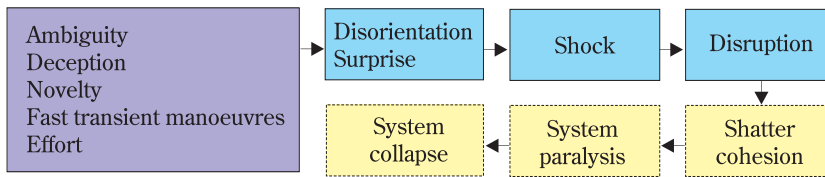
*Figure 4: Manoeuvre approach – the causal chain, in John Boyd's view*

### 4.3 Integration of deception in the strategy of moral conflict

Boyd believes that the atmosphere of war is hostile, characterised by menace and uncertainty, which naturally leads to mistrust. In his research, he noticed several features of conflicts addressing its moral aspects. Thus, he noticed that there are no fixed recipes for organisation, tactics, communications, leadership. Moreover, the success belonged to those who granted wide freedom for subordinates to exercise imagination and initiative, yet harmonise within intent of superior commander. Moreover, commanders must heavy rely on moral values instead of material superiority, as a basis for cohesion[41].

In war, one must create an atmosphere that inspires subordinates to take initiative within the framework set by the superior commander's intent and commanders, through their moral authority, as well as their psychical and physical energy and mental agility, must inspire them. But the benefit is huge: internal simplicity that allows for rapid adaptability to the environment[42]. In order to understand the essence of moral conflict, some definitions of basic terms are required[43]: *"moral strength"*: the ability to overcome menace, uncertainty and mistrust; *"moral victory"*: triumph of courage, confidence and esprit against fear, anxiety and alienation states in confronting danger, uncertainty and mistrust; *"moral defeat"*: triumph of fear, anxiety and alienation over courage, confidence and esprit when confronted by menace, uncertainty and mistrust; *"moral values"*: human values that permit one person to carry on in the face of menace, uncertainty and mistrust; *"moral authority"*: person or body that can give one the courage, confidence and esprit to overcome menace, uncertainty and mistrust. *"Moral fibre or moral order is the glue that holds society together and makes social direction and interaction possible ... Without this glue, social order pulls apart towards anarchy and chaos, leaving no possibility for social direction and interaction"*[44]. Moral conflict exploits elements that characterise the atmosphere of war.

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[41] *Ibid.*
[42] John Boyd, *op. cit.*, p. 118.
[43] *Ibid*, p. 121.
[44] John Boyd, *Strategic Game*, p. 28.

Thus, menace, uncertainty and mistrust result in fear, anxiety and alienation of individuals. These, in turn, cause segregation of the organisation or nation, thereby creating non-cooperative centres of gravity *(figure 5)*.
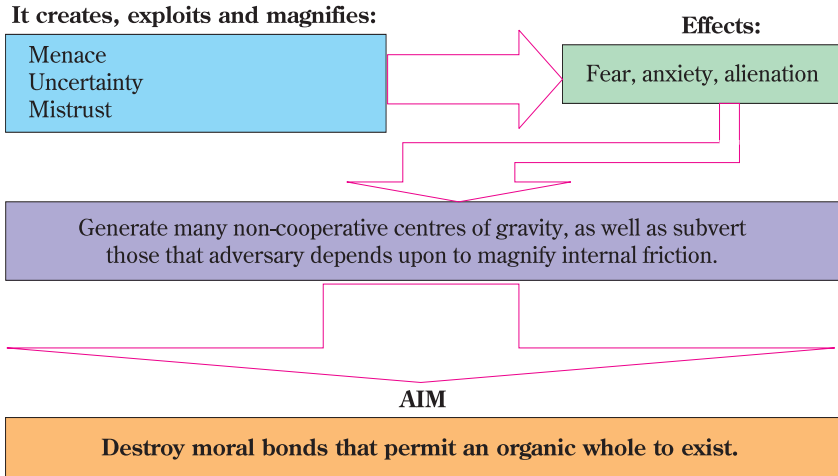


**Figure 5: The essence of the moral conflict according to John Boyd**

Moreover, Boyd argues that the engagement of centres of gravity on which the enemy relies provides the magnification of internal frictions of the organisation or nation concerned. Indeed, Clausewitz believes that *"friction (interaction of many factors such as uncertainty, psychological/moral factor, their forces and effects etc.) impedes activity. Friction is the only conception which, in a general way, corresponds to that which distinguishes real war from war on paper. In this sense, friction represents the climate and atmosphere of war"*[45]. Friction is generated and magnified by menace, ambiguity, deception, uncertainty, mistrust etc.[46]. That is why actions are needed in order to magnify friction among the adversary by the action of *"negative factors"* (menace, uncertainty and mistrust) and also to build up counterweights against those factors on their own troops through *("positive factors")* initiative, adaptability and harmony, and with courage, confidence and esprit[47].

Menace, uncertainty and mistrust are the result of perceptions of reality. Deception contributes to ambiguity and thereby produces uncertainty, mistrust and doubt. In this respect, disinformation, as a deception technique, can play an important role. The moral conflict is carried out before, during and after an armed conflict, in order to destroy the moral ties that enable the adversary to resist.

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[45] Frans Osinga, *op. cit.*, p. 235, apud Clausewitz, *On War.*
[46] John Boyd, *Organic Design for Command and Control*, p. 8.
[47] John Boyd, *Patterns of Conflict*, *op. cit.*, p. 125.

Deception, mainly through disinformation, is engaged during the armed conflict and in the post-and pre-conflict periods in order to model the strategic and operational environment by increasing frictions among the adversary and induce perceptions that lead him to making bad decisions. *"The plans and ways of inflicting injury on the enemy are not part of a particular method. Entice away the enemy's best and wisest men, so that he may be left without counsellors. Introduce traitors into his country, that the government policy may be rendered futile. Foment intrigue and deceit, and thus sow dissension between the ruler and his ministers. By means of every artful contrivance, cause deterioration amongst his men and waste of his treasure"*[48]. Deception may be engaged in subversion actions. Subversion is defined as being the action planned and carried out in order to weaken the military, economic, political and moral power of a target-state.

Deception can be used for subversive purposes, by exploiting dissensions within the organisation in order to increase mistrust and disagreements, thus magnifying internal frictions and creating the conditions for its division. Carrying out deception with a subversive role interferes with the decision-making cycle of the adversary, thus reducing his efficiency[49].

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*In the following issue, the author will address the issue of the integration of deception in the attrition-manoeuvre-moral conflict and draw a series of conclusions regarding deception and its contributions to applying other principles of war.*

**English version by**
 Iulia NĂSTASIE

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[48] Sun Tzu, *Arta războiului*, cap. VIII, 14, http://hot24.weebly.com/uploads/5/2/3/8/5238782/sun_tzu_-_arta_razboiului.pdf, retrieved on 23.06.2013.
[49] James D. Monroe, *Deception: Theory and Practice*, p. 68.

# THE ROLE OF *HUMINT* IN COMBATING ASYMMETRIC THREATS

*Lieutenant Colonel Iosif SOLOMON*

*Globalisation requires new approaches to managing change of all sorts, crisis control, armed confrontations and conflict settlement, with the use of all instruments available for society, in an exhaustive range, one that is not limited to the traditional solutions in the field of security.*

*Asymmetric threats cover a wide variety of modes of action (especially terrorism) or security issues (for instance, trafficking). They can occur from a state, by means of an indirect strategy, or from non-state entities, with broader objectives and activities.*

*Keywords: intelligence; security; HUMINT; asymmetric threat; national security; intelligence agencies*

**T**he operational environment at the beginning of the 21st century includes actors pertaining to long-term analysis instruments – not only states but also non-state actors such as:

- transnational terrorist organisations and extremists that possess advanced skills in working with the media and intend to limit the Western influence and presence in their countries;
- warlords that strive hard to keep their power and control over the population;
- international criminal organisations able and determined to trade anything, from drugs to armament;
- non-governmental organisations engaged in monitoring the activity of governments and in serving social purposes;
- profit-seeking multinational corporations;
- humanitarian organisations engaged in assisting communities that are at an impasse.

*Asymmetric threats* can be defined as *the wide and unpredictable range of military, paramilitary and information operations, led by nations, bodies, individuals*

Lieutenant Colonel Iosif Solomon – Military Intelligence Directorate, the General Staff, the Ministry of National Defence.

*or indigenous forces or forces under their command, specifically aiming at weaknesses and vulnerabilities in enemy governments or armed forces.*

Asymmetric threats may be grouped in three main categories: *information operations, weapons of mass destruction* and *non-traditional operations.*

❖ *Information Operations (IO)* – all countries depend on information systems. Computers are used in all the fields of activity, from simple daily tasks to communications, energy, finances. Moreover, electronic systems are crucial in collecting the information that is necessary in the decision-making process. Because of this real dependence on computers, any country is vulnerable to information operations conducted by any hostile group or state. These groups could, for instance, seek to infiltrate into civilian or military systems that exploit information technologies (C3IRSR2 and logistic ones included) to penetrate or manipulate the data, attack essential infrastructure or disturb decision-making processes, information collection and management capabilities. Information operations can have different forms:

- *attacks against infrastructure objectives* (attacks against information networks, electronic warfare, physical destruction etc.);
- *disinformation and deception* (propaganda operations by man to man actions, including by using the media and disseminating false information etc.);
- *psychological operations* (hostage taking, pamphlet dissemination, radio and television broadcasting, or using other media to spread fear and discouragement).

❖ *Weapons of mass destruction (WMD)* – in recent years we have witnessed the proliferation of weapons of mass destruction, whose name comes from the fact that they can kill or injure a large number of people over an extended area. In spite of the existence of international treaties, numerous countries continue to develop this type of weapons or to procure the vectors that are necessary to carry them to the desired targets. The fact that some of these weapons can be produced by individuals adds to the threat. WMD-related risks may be:

- *nuclear* – even if the possibility for a generalised nuclear war has disappeared, nuclear weapons continue to represent a threat. There is significant uncertainty regarding the physical security of the former Soviet Union arsenal and fissionable material, which could be surreptitiously taken from civilian or military installations and acquired by hostile individuals or organisations. Proliferation is also a problem at the level of states: India and Pakistan are the latest countries

that have developed nuclear weapons while other states, such as North Korea or Iran are supposed to have nuclear weapons programmes;

- *bacteriological* – bacteriological agents are relatively inexpensive to obtain. They may be produced by civilian industries, and they can inflict many casualties or cause large-scale damage. Aware of the enormous danger that may be generated by bacteriological agents, the international community developed the *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*[1]. However, some states have not signed or ratified the document, non-state actors escape the provisions of this act, and the *Convention* does not have any verification mechanism;

- *chemical* – chemical weapons are relatively easy and inexpensive to obtain. As in the case of bacteriological weapons, there is an international treaty that prohibits the use of these weapons, but some countries refuse to obey this prohibition;

- *radioactive* – any country that has a civil nuclear technology can produce radioactive weapons. These weapons use the harmful effects of radioactive materials to kill, injure or make people ill. They are fairly easy and inexpensive to produce but their distribution is difficult. Terrorist organisations could especially use radioactive material with conventional explosives and obtain *"dirty bombs"*.

❖ *Non-traditional operations* – this type of operations entails the use of unconventional tactics and relatively unusual places to attack the adversary. Moreover, the actors that use such tactics frequently employ methods from civil disobedience to terror to override the opponent numerical, tactical and technological advantages. They may take the following forms:

- *the use of new tactics and terrains*: the use of unorthodox tactics and unconventional terrains (i.e. urban areas) by an asymmetric adversary may facilitate a direct attack on the material wealth or maximise the physical and psychological impact of an attack, complicating the potential military or police responses. A military response in residential areas poses particular problems because the large number of civilians may prevent the identification of attackers. In addition, a counterattack could further increase the number of civilian casualties;

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[1] *Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction*, London, Moscow, Washington, 10 April 1972.

- *civil disobedience*: an asymmetric opponent can generate threats by strikes, riots, demonstrations, illegal occupation of important points in a locality (e.g. communication centres) as well as by initiating boycotts to destabilise and discredit the opponents or cause damage. This type of unconventional action is commonly used in failed states (like Somalia) or in countries that do not exercise political control over the territory. Mention should be made that such unconventional actions are aimed at not only the armed forces but also the civilians in the attacked area.

- *use of terror*: actions such as the intentional targeting of civilian populations in  areas that are far from the  main stage of the conflict, hostage taking, kidnapping, mutilation, murder and other criminal activities may induce terror among the population without the asymmetric attackers exposing themselves to high risks. In this respect, we can mention the daily kidnappings of journalists or judicial officials by the non-governmental factions in Columbia and of humanitarian personnel in Chechnya.

The advantage of unconventional actions is that they can be organised in anonymity/conspiracy and they are not subject to international treaties governing the relations between states in terms of resolving conflicts between subjects of international law.

Both the simultaneous employment of conventional capabilities alongside the unconventional use of force and the continuous adaptation of non-military levers (political, economic, social, religious, informational, diplomatic) to achieve the set goals have been called *"asymmetric warfare", "hybrid warfare"*, hence the associated terms *"asymmetric threats", "hybrid threats"* etc. Chinese theorists call this concept *"unrestricted warfare"*.

The characteristics of asymmetric threats include:
- complexity, defined by the process pace and non-linearity;
- low vulnerability, given by the uncertainties regarding the enemy picture, the dissipation of its centre of gravity, and the causality of dangers;
- complementarity of actions in generating an impact that exceeds the sum of the effects of the actions considered individually;
- continuous and high adaptability by capitalising on the creativity ensured by decision decentralisation and command chain fluidisation;
- high lethality compared to the use of lethal means, by selecting them to circumvent the limitations imposed by international law.

# The role of *HUMINT* to support combating terrorism

The role of information is to assist the decision-making element to have an accurate picture of the joint battlefield, which involves assessing the capabilities and the possible intentions of the adversary (terrorist groups), as well as the data about the neutral population. To fulfil this role, *HUMINT* system should be able to achieve the following objectives:

a. provide warning;

b. inform decision-makers through preventive analyses;

c. counteract the informative actions of the opponent (terrorist groups).

Given the set objectives, *HUMINT* supports the decision-making element by:

a. timely warnings relating to terrorist threats to create the possibility of effective (preventive or protection) counter-measures;

b. awareness and understanding of the capabilities, intentions, actions and vulnerabilities of the adversary (terrorist group);

c. awareness and understanding of the environment and situation;

d. assessment of own forces vulnerabilities to information collection or psychological actions as well as to the actions meant to deceive performed by the opponent (terrorist group).

If the provided support meets national interests and political objectives, *HUMINT* is part of strategic support level (*strategic HUMINT*).

*Operational HUMINT* supports the joint operations in the theatres of operations.

*Tactical HUMINT* provides support for army corps echelons and below.

By analysing *HUMINT* process through the complexity of its products, it can be classified as follows:

### A. Strategic level

This is the highest level of collecting information derived from the collection of information from a very large area in response to the government requests for information, including the full spectrum of national and international issues, such as the military, diplomatic, political and economic ones.

This level includes information about the terrorist groups organisation, leadership, objectives, *modus operandi*, sources of funding, available weapons and equipment, contact with elements outside the group, including foreign intelligence agencies etc.

This information is required for the development of political and military plans to combat terrorism at national and international level.

*Strategic HUMINT* focuses on national security objectives and involves mainly government information services. This method helps governments to answer the question: *"What are the terrorist threats to the national interests?"*. Information collection from human sources at strategic level, to support counter-terrorism, is classified into seven categories. Each of these categories can be divided into subcomponents. This approach entails familiarity with the types of information included in the category of strategic *HUMINT*. These subcomponents are:

*1. Biographical information* represents the study of individuals and their potential by knowing their personality and past. The elements of this category are:

    a) data on the education level and occupation of terrorist elements;

    b) personal achievements – both personal and professional;

    c) habits – the manners and lifestyle of terrorist elements;

    d) position, influence and potential – current and/or future position and power of influence;

    e) attitude and hobbies – significant data that may influence the access to such elements.

*2. Economic information* studies the economic strengths and weaknesses of a terrorist group. The elements of this category are:

    a) economic vulnerabilities – how much the operational capacity of a terrorist group is affected by stopping some material facilities;

    b) economic sources and capabilities – any means by which a terrorist group supports its actions.

*3. Sociological information* refers to people, habits, behaviours and institutions.

    a) the characteristics of the human elements that make up a particular terrorist group – habits, moral values etc.;

    b) the welfare of the individuals that are followers of a particular group.

*4. Information on transport and telecommunications* studies the means to be used by terrorist groups.

5. *Information on armed power* refers to the integrated study of all the military components belonging to a terrorist group. The elements of this category are:

    a) strategy – military alternatives related to geographical position, terrain, economy and politics;

    b) tactics– terrorist operations doctrine;

c) terrorist military objectives – terrorist military camps, organisation and armament;

d) training – terrorist elements training as it is conducted at all echelons;

e) organisation – a detailed analysis of the command structure;

f) human force – available resources and their status.

*6. Information on the structure and command* studies all the structure and command aspects that influence terrorist actions. The elements of this category are:

a) structure of terrorist organisations – organisation of departments and ministries;

b) ideologies of terrorist organisations – decisions and actions;

c) ideological dynamics – terrorist groups views and responses relating to certain events;

d) propaganda – information and disinformation programmes;

e) political and information services – organisation and functions.

*7. Scientific and technological information* studies the potential and capabilities of a terrorist group to support specific goals through the creation/acquisition of new processes and devices that are necessary for terrorist actions. The elements of this category are:

a) armament and improvised devices;

b) access to the components of nuclear weapons and energy;

c) NBC capabilities.

*Methods employed at strategic level*

One of these methods is *covert action*. Covert actions entail all the methods employed by *HUMINT* – agents, counter-agents, liaison services, radio stations, newspapers, armed forces, personnel for special operations and many others – to support political leadership to influence the events and visions in a foreign territory without making visible the government involvement. Because covert actions have been used in one way or another by all states, agencies have the responsibility to develop and maintain the abilities and logistic capabilities that are necessary to accomplish such missions in a very short time.

Another *HUMINT* method is based on *recruitment*. Although it is not an officially recognised term, the current *HUMINT* model may be labelled as *recruitment-based model (RBM)*. A very common *HUMINT* tool is to recruit agents from among the enemy. It is essential that, when using this tool, a member of the opponent

group who has access to important information should be found to be transformed into a spy by building a close relationship and, eventually, asking directly *"Would you spy for me?"*. In time, this instrument has become the central piece of *HUMINT* operations, dominating the other instruments by the allotted time and attention. After years of trial and error, the organisational solution to the problem of penetrating a system has been that of relying on finding agents inside it and of developing an approach in which the recruitment of agents plays a fundamental role in *HUMINT* operations.

### B. Operational level

*HUMINT at the operational level* is specific to the activities conducted by the joint military forces, under a particular international mandate, in which the means of collecting information are authorised to operate only in the area of responsibility of the particular structure or within the area of interest. To that end, information collection and the quantity of engaged resources are tailored to meet the requests for information formulated for each phase and stage of the joint military action. Once the mandate ends and the area of action is left, especially in the case of long-term operations, the requests for information are to be met by the newly established national intelligence agencies.

When the objectives and requirements are mainly focused on supporting the joint forces and their operations, *HUMINT* support is at operational level *(operational HUMINT)*.

Many intelligence officers have considered the information needs: analysis of tribal networks, economic analysis or information collection to support counterterrorism operations. A very important but uncovered field is that of *cultural information*, which has been considered useless until recently. However, after the failures in the early period of the war, it was decided to train intelligence officers in collecting and analysing cultural data to include them in the intelligence products from all sources.

Centralised and synchronised information collection employing all the elements deployed in the theatre of operations is important to provide an as complete as possible picture of terrorist networks by what is called *information fusion*.

The mutual support between different units, agencies and countries often encounters cultural or institutional barriers. Information operators have to overcome these bureaucratic barriers and focus on the common goal: information collection to support military actions.

Depending on the operating environment, the awareness of demographic data can also become relevant in counterterrorist actions. These data relate to the structure of social class, race, ethnicity, tribe, political party, gender, age, physical ability, nationality, language, religion, profession or employment status and level of employment. Moreover, individuals or important groups have become new key points. This category may include religious leaders, families in positions of great financial power, influential members of the opposition or anyone who could have significant influence over a large or important majority. Insurgents could target, stir or sabotage any of these categories to achieve some of the goals ahead[2].

Key elements may also be the neutral groups of that population. The analysis of the population provides the military forces with the opportunity to identify important formal and informal leaders as well as the groups of people that may be interesting for information analysts. This socio-cultural analysis increases the power of the entire spectrum of military operations by providing a starting point in winning the hearts and minds of the population. The assessment of the battlefields effects starts with the analysis of the environment and its effects on the operations of own and enemy forces. An analyst can consider the political situation and its related forces.

Considering the full spectrum of operations required by counterterrorism, two types of contacts with target elements can be identified:

- lethal – where the target elements are important leaders (annihilation/ capturing actions are executed);
- non-lethal – where the target element is the population (actions to win the hearts and the minds are executed).

Between 2001 and 2004, intelligence cells at operational level focused almost entirely on the problem of equipment and personnel, analysing terrorist networks and providing support for military actions.

However, the realities of the battlefield in the war on terrorism have highlighted the necessity to re-focus attention on the human factor, especially on the neutral one, as the element that significantly influences the success of military operations.

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[2] Michael L. Kolodzie, *Commentary: The Asymmetric Threat*, see http://www.almc.army.mil/alog/ issues/JulAug01 /MS628.htm

### C. Tactical level

*Tactical HUMINT* addresses the immediate needs of the element that makes decisions related to the conduct of current military operations, with emphasis on the protection of the troops in the face of proximate threats.

*Tactical HUMINT* represents the intelligence process organised to support a mission by providing responses to requests for information regarding the enemy resulted from the development of the concept of operations. Usually, they are aimed at knowing the terrorist groups composition, fighting power, disposition, tactics, equipment, terrorist elements personnel and personalities, terrorist actions specific plans, other capabilities and intentions. This type of information is also called *preventive information* or *indication and warning information*, which will allow own forces to predict a terrorist action, to prevent an attack, and thwart a terrorist plot.

Operators that collect information from human sources are some of the best sensors for the operations against terrorism, when they are properly used based on detailed requests for information and supported by the analysis factors of all sources. However, the operations executed by *HUMINT* sources represent a long-term process. In planning ISR (Intelligence, Surveillance, Reconnaissance), planners should consider that the *HUMINT* sources availability and capacity to collect information are closely connected to the terrain accessibility, the support in the area, the restrictions imposed by the force protection and assigned tasks.

As terrorist threats represent a constantly moving target, having a dynamic nature, the information means should be extremely flexible to provide early warning. While maintaining some technical capabilities to collect information is vital, it is very important to motivate the use of *HUMINT* capabilities. Moreover, *HUMINT* should be used innovatively so that it could be effective in penetrating tough targets and in choosing the optimal sources included in terrorist organisations[3]. Thorough knowledge of the regional, sub-regional or local history, as well as of the languages and customs is always essential. In conclusion, it is vital that *HUMINT* should provide signals and warnings relating to terrorist threats. To that end, innovative methods to recruit sources are necessary. We should recognise that ordinary citizens do not have information about terrorist organisations and their plans, but they may become the target of such organisations influence.

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[3] Christina Lamb, *Taliban Bomber Wrecks CIA's Shadowy War*, Timesonline, see http://www.timesonline.co.uk/tol/news/world/Afghanistan/article6974081.ece

One of the most important roles of *HUMINT* at this level is that of prevention. Having well developed *HUMINT* sources among terrorist organisations, decision-makers can be provided with the opportunity to take action against terrorist elements before they accomplish a mission.

The practice of information collection has evolved from conventional to counterterrorist operations.

To cope with this scourge it has been necessary to reassess *HUMINT* roles and capabilities (considering the current environment in which battles are waged) as well as to redirect efforts to support the decision-making element to counter terrorism. This process is far from being completed.

Special emphasis should be placed on finding some effective ways to penetrate terrorist groups so that information leakage channels can be opened even in the decision-making areas of these groups. This can be achieved only by adapting the old collection methods such as those based on recruitment or covert actions to the new conditions.

In counterterrorist operations, the environment has become as important as the enemy, because most neutral people, the centre of gravity, live in this environment. Counterterrorist operations require thorough awareness of cultures, religions, tribes, social classes, ethnic groups and languages.

With this change has come the challenge to learn about different people and the environment in which they live. The knowledge of population, social networks and terrorist elements helps us to appreciate the true value and importance of the human factor in the fight against terrorism. Special attention should be given to the neutral groups of that population. The neutral population analysis enables military forces to identify important informal or formal leaders as well as the groups of people that are interesting for information analysts. This socio-cultural analysis increases the power of the entire spectrum of military operations by providing a starting point in terms of winning the hearts and minds of the population.

However, an effective action on the population can be achieved only by using the information from human sources obtained by all those in charge of such activities: local agencies, joint information groups, national agencies and coalition partners services.

To succeed, flawless national and international cooperation as well as a global approach to the phenomenon is necessary. A first step is represented by the adoption, on 8 September 2006, of the UN *Global Counterterrorism Strategy* and of the *"Action Plan"* by the 192 member states. To support this cooperation more attention

should be paid to providing enough channels and links to achieve the operational intercommunication that is appealed to in a national or international combat terrorism strategy[4].

Moreover, managing and planning the requirements related to *HUMINT*-type information exchange represents a prerequisite of effective combat terrorism policies.

Even if *HUMINT* is not the only method to determine the intention and provide early warning regarding terrorist actions, it has the advantage of being the best. The value of the human resource is essential for the violent terrorist apparatus. That is why the main state actors in the international arena will be practically forced to engage, in turn, considerable human resources to counter terrorist plans. Terrorists, in other words, do not generally enjoy major technical capabilities. When major technical capabilities are employed in terrorist actions, they are often acquired by members of terrorist organisations personal involvement in *HUMINT* activities. An example in this respect may be the attacks on *11 September*. All technical capabilities employed by terrorists are represented by aircraft hijacked as a result of the efficient use of human resources. In other words, the new model of terrorism cannot be easily detected using technical means. To combat it, states should learn to actively reuse considerable human resources to infiltrate terrorist groups. We can thus expect, even at this stage, to discover that terrorists are fully aware of the role of the human resource in combating violent religious activities. That is why we consider they will develop, at least theoretically, a series of mechanisms to defend against *HUMINT*-type activities or a series of mechanisms to directly eliminate *HUMINT* components engaged in the war on terror by the Western world.

Terrorist groups are fully aware of the importance of *HUMINT* activities on the front in Afghanistan. The US armed forces, the allied armed forces that operate in Afghanistan, CIA, as well as the local authorities working with the coalition counterterrorist effort are still bodies that work hierarchically. In their case, terrorists can strike the superior hierarchical elements to derive substantial advantages. For instance, online edition of the *Times* informs, on 3 January 2010, that seven CIA agents were killed while they met a key informant in the east of Afghanistan. The event is a good example to understand the difficult situation the CIA is confronted with in Afghanistan. Practically, the number of agents who know the people and have significant work experience in Afghanistan is relatively small. Killing seven and injuring six agents puts the agency in a difficult situation as relatively

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[4] Mircea Mocanu, *Intelligence în operaţiile militare ale secolului XXI*, Editura Universităţii Naţionale de Apărare *"Carol I"*, Bucureşti, 2013.

many quality human resources are totally or partially eliminated from the game for the next period. Quality refers to the fact that an agent having 14 years of experience in Afghanistan is lost.

The article is valuable as it describes the new type of relationship established between the intelligence agent and the informant: *"In the past, when we handled operations related to Russia, the worst thing that could happen in the case of a double agent was that the particular informant could provide inaccurate information. Now, if we have to do with a double agent, he/she can detonate in front of us".*

Terrorists become increasingly aware of the importance the intelligence has and of the way it can be used to their advantage. Instead of mobilising impressive resources to physically combat a large numbers of soldiers, the terrorist apparatus hits the coalition in its essential quality points. Killing an informant who has been invested in a certain amount of material resources actually multiplies terrorists' power by eliminating an essential quality resource of the coalition. The fact that terrorists focus their attention on the annihilation of information resources says a lot about the way the information collected from human sources becomes a practice increasingly used by the coalition. We can also observe that, in general, terrorists realise the crucial importance of *HUMINT* to solve the problems in Afghanistan and elsewhere.

Far from being ignorant about this new reality, terrorists prefer, in turn, to conduct *HUMINT*-type operations to deceive or even debilitate some key information centres. Thus we can easily notice the fact that terrorists themselves increasingly focus on information collection or the recruitment of human resources that have access to information. On 06.01.2010, *AFP* reports that it was captured a former chief of the Afghan police, Mohammad Qasim, who deserted from the position he had as head of the police in Farah province. When he deserted he took with him armament, police uniforms, police vehicles and, last but not least, a certain number of police officers. Taking armament, colleagues, police uniforms and vehicles and their transition on the side of the Taliban insurgent forces may be an interesting event in itself, but the true value of the story resides in the fact that Qasim was the chief of police in Farah.

The Taliban, aware of the way in which the Coalition employs *HUMINT* to manage different aspects of warfare, seek to put an end to this practice by killing the agents in charge of collecting and interpreting information. In addition to trying to diminish the coalition information collection capabilities, the Taliban seem to have understood the general concept of *HUMINT* and seek to recruit human resources that have access to information to hit the coalition in the hot spots.

## Conclusions

The war on terror changes the nature of the relationship between *intelligence* collector and *intelligence* provider. The relationship suddenly becomes risky, and the focus on counterintelligence and on false information is replaced by direct violence. The Taliban, aware of the way the Coalition employs *HUMINT* to manage different aspects of war, seek to put an end to this practice. Moreover, they seek to recruit human resources who have access to important information. Therefore, the Coalition should rethink the strategy to recruit human resources among the Taliban as well as the strategy to collect *intelligence* if it intends to keep *HUMINT*-type practices at the basis of the joint effort to combat the terrorist threat.

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✎ *Diana Cristiana LUPU*

# THE NORTH ATLANTIC ALLIANCE TRANSFORMATION AND THE INTELLIGENCE ENVIRONMENT

*Colonel Dr Eduard SIMION*

*NATO should permanently adapt to the current security environment and the future challenges. In this context, the paper mainly addresses intelligence as one of the areas that undergoes transformation. Thus it is shown that NATO intelligence doctrine and procedures have been revised to meet the requirements specific to small scale interventions and counterinsurgency operations, in a complex operational environment. Moreover, some of the factors that influence the intelligence capability are presented. The comprehensive approach is mentioned as a solution to institutionalise the relationship between military structures and non-military actors in the joint operational environment, which also requires intelligence capabilities able to adapt to various specialty areas so as to ensure optimum communication channels with the partners from the civil environment.*

*Keywords: intelligence; doctrine; DOTMLFPI; comprehensive approach*

The broad overview of NATO's adaptation to the current security environment and to the future challenges is presented in the *strategic concept* and the policies meant to govern the effective way of achieving the Alliance goals. The assessments and estimates that conceptually underlie NATO transformation process, beyond the political will of nations, arise from gained experience, lessons learned, analytical approach to threats and security risks, altogether contributing to shaping the various courses of action the Alliance should take.

A good example in this regard is the *Multiple Futures Project – MFP, figure 1*, an initiative designed to enable modelling plausible future environments the Alliance can face, with a time horizon of 2030, in order to identify relevant threats and their military and security implications. In the context of the globalised world evolution, the experts taking part in the project have identified

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a complex set of challenges, determined by a wide range of causal factors:

• (multidimensional) power of other (state or non-state) entities;

• fragility of other entities (including the instability caused by failed states);

• nature (natural disasters, energy resources, water and food provision etc.);

• systemic societal changes (triggering the transformation of military organisations in changing societies);

• complex operational environment.

The study of *MFP* algorithms regarding the evolution of future security, suggestively called: *"Dark Side of Exclusivity"* (weak and failed states generate instability in areas
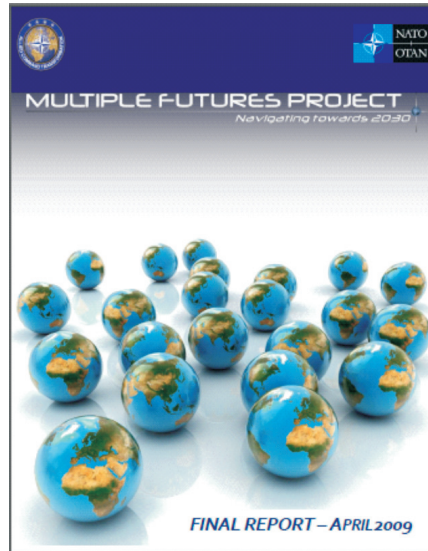


**Figure 1: MFP Final Report**

of interest, and the states of the globalised world are faced with related strategic choices), *"Deceptive Stability"* (developed states concerned with societal change and demographic issues rather than geopolitical risk), *"Clash of Modernities"* (advanced, rational, networked societies with inherent fragility challenged by external authoritarian regimes) and *"New Power Politics"* (an increasing number of major powers, competition and proliferation undermining the value of international organisations[1]), is extremely interesting to the *intelligence* community. The customised approach to these models, in conjunction with the states national interests and their pragmatic development goals, represents a key element in the assessment and estimation activity.

At NATO level, *MFP* outlines the framework and premises of four fundamental directions of the Alliance transformation summarised as follows:

• determination to respond to an armed attack, in compliance with Article 5 provisions;

• flexibility with regard to non-Article 5 types of attacks – non-traditional challenges or humanitarian disasters that require the military forces contribution;

• responsibility shared by all members as far as the contribution to crisis management is concerned, if the North Atlantic Council authorises such a mission;

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[1] MFP-Final Report, 2009, 5-6.

- reaffirmed commitments, with partners and other non-NATO nations, to create the premises for defensive diplomacy, military cooperation, partnership building and capability strengthening[2].

The *2010 NATO Strategic Concept* outlines strategic priorities for the next decade, stating the requirements and ensuring the capability development framework – updated by the decisions taken at the NATO Summit in Chicago (May 2012) and implemented in the defence planning process to meet the commitments to collective defence, crisis management, and cooperative security *(figure 2)*.

Last year, during the 30th *International Workshop on Global Security* (Paris, 24 June 2013), NATO Deputy Secretary General, Ambassador Alexander Vershbow, reviewed the challenges the Alliance and the Transatlantic Community should face after 2014, the inflection point of the Alliance transformation (determined by the need to refocus post-ISAF, considering especially readiness and interoperability)[3].

In the context of economic crisis, one major challenge is to tailor the European countries contribution to NATO, to balance the US one, as the current Alliance capabilities should be maintained and developed[4]. This is also the logic of *Smart Defence* initiative, found in different capability development projects and programmes (harmonised with the European Defence Agency initiatives) as well as in the regional cooperation arrangements in the field of security (the Franco-British Treaty signed at Lancaster House, the Visegrad Group, the Weimar Group, the Nordic Defence Cooperation/NORDEFCO etc.)

The *Connected Forces Initiative – CFI*[5] completes the *Smart Defence* programme by the training opportunities based on NATO standards, both contributing to *NATO Forces 2020* goal set out at the Chicago Summit[6].

Threats such as proliferation of ballistic missiles or cyber attacks require, in turn, appropriate response capabilities, in addition to the efforts aimed at combating terrorism and piracy.

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[2] Hans Binnendijk, Geoffrey Hoon (coord.), *Affordable Defense Capabilities for Future NATO Missions*, Special Report of Center for Technology and National Security Policy, National Defence University, USA, 2010, 1.

[3] See http://www.nato.int/cps/en/natolive/opinions_101606.htm

[4] Especially for capabilities that require high maintenance and operation costs – drones, tanker aircraft, strategic airlift, electronic warfare equipment etc.

[5] CFI development framework entails expanded education and training, enhanced exercises and better use of technology (http://www.nato.int/cps/en/natolive/topics_98527.htm); in this framework, *intelligence* capability should be proactively promoted considering not only *Joint Intelligence, Surveillance and Reconnaissance – JISR* but also information and data collection.

[6] See http://www.nato.int/cps/en/natolive/official_texts_87594.htm
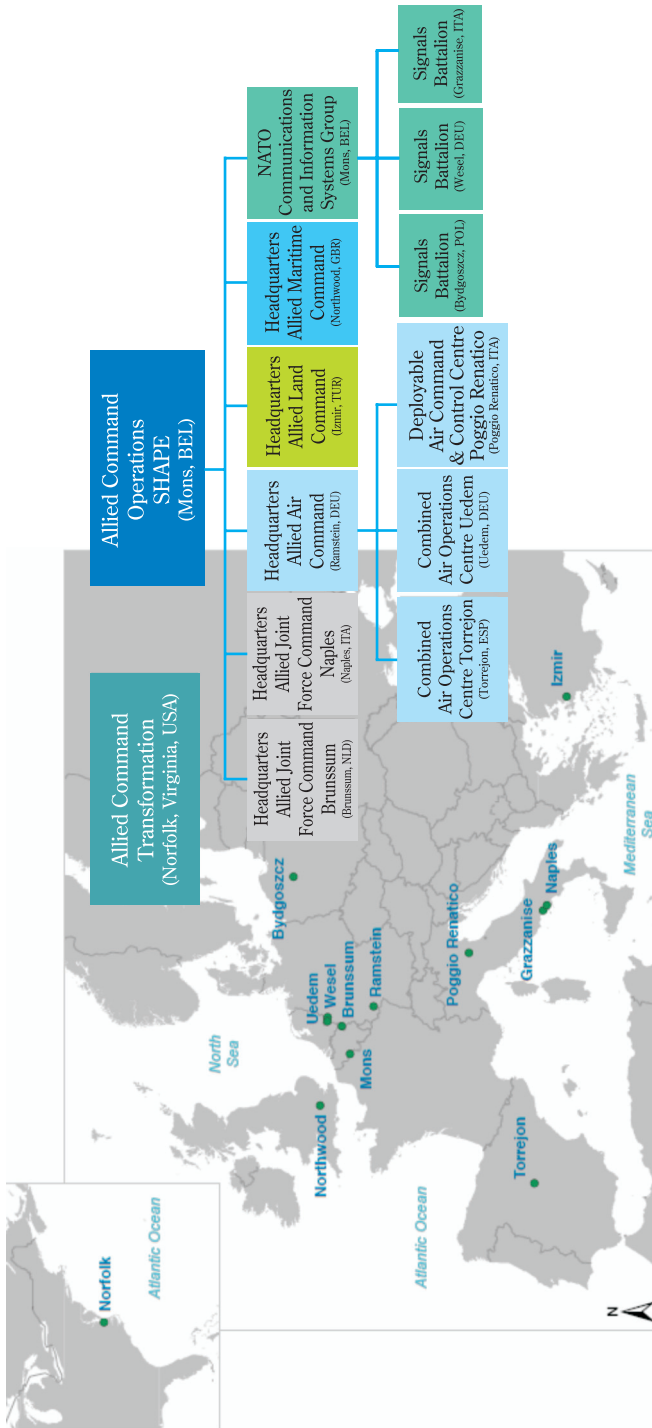
*Figure 2: New NATO Command Structure*[8]

[8] NATO Public Diplomacy Division, *The Secretary General's Annual Report 2012*, p. 16.

In order to properly address these objectives, one of the goals of transformation is to obtain superiority, translated into objectives represented by information superiority and network-based capabilities[7].

To meet these goals, it is necessary the coordinated effort of the responsible structures and the networks they generate in time in the actions entailed by concept development and testing, doctrine and procedure updating, implementation of some scientific and technological research projects, defence planning, personnel education and training – as functional areas of transformation.

The conceptual level of transformation – *intelligence* included – is exploited and finds applicability in the area defined by the acronym *DOTMLFPI (Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities, Interoperability)*.

Transformation efforts are concretely reflected in NATO member states, directly involving political and military decision-makers. They are the ones that should achieve/ensure the capabilities specified in the force goals at the level of the Alliance contributing structures.

Besides expressing the political will and ensuring budgetary resources, there are other responsibilities regarding interoperability, deployability, procurement of equipment, modernisation of education and training process, compliance of the legal system and specific regulations, development and participation in institutionalised forms of support to NATO development process, taking responsibilities and participation in various forms of cooperation.

## Intelligence in NATO – Doctrinal Aspects

*NATO Intelligence Doctrine* (AJP 2.0A) reiterates the characteristics of the current security environment and notes the necessity – besides knowing the aspects strictly related to determining the adversary military forces and capabilities – to deepen and understand the adversary's culture, motivation, capabilities and objectives, correlated with those of the population in the theatre of operations.

The recent revision of NATO intelligence doctrine and procedures has resulted in lowering the level of classification as well as in refocusing requirements from the ones specific to classic, interstate warfare to those specific

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[7] The Alliance cognitive and technical ability to combine different components of the operational environment by information networks and infrastructure (materialised in NATO Network-Enabled Capability – NNEC) illustrates the underlying idea of cooperation *("share* [*information* – A. N.] *to win"*) as an organisational culture trait, leading to better situational awareness and supporting decision-making processes that eventually result in interoperability and operational effectiveness, resource consumption optimisation, saving lives etc. Seeking to ensure the coherence and effective integration of already existing systems, NNEC has specific objectives at individual/operator, process architecture and support technology levels, having implications at strategic, operational, and tactical levels. (http://www.nato.int/cps/en/natolive/topics_54644.htm)

to small scale interventions and counterinsurgency operations, in a complex operational environment.

The factors influencing the *intelligence* capability analytically and in terms of collecting information from different sources are related to the complexity of operations and the nature of the adversary, the oversaturation with information, and the ability to transcend the traditional relevance limits.

The comprehensive approach comes as a solution to institutionalise the relationship between military structures and non-military actors in the joint operational environment, increasingly present in crisis or conflict areas. Optimal cooperation and coordination, considering the comprehensive approach principles, also require *intelligence* capabilities to adapt to various specialty areas so as to ensure optimum communication channels with the partners from the civil environment.

*NATO Intelligence Doctrine* provides guidance on the way contemporary *intelligence* structures should adapt to the current environment as follows:

- focusing on both the adversary and the operational environment;
- collecting structures/means should be prepared to gather relevant information at all levels – tactical, operational, strategic;
- ensuring the necessary precision and accuracy to identify the adversary when concealed in the society;
- maintaining a strong and permanent link between commanders and subordinate *intelligence* structures;
- ensuring information flows horizontally and vertically within the command structure;
- developing information on potential targets to exploit the opportunities provided by understanding all associated aspects.

As shown in the series of standardisation documents in the field of *intelligence* in NATO *(figure 3)*, not all domains of information collection benefit from standardisation within this framework; the Alliance makes efforts to develop standards[9] to cover their whole spectrum.

In general, the taxonomy of *intelligence* categories is made in relation to the type of sensor (receiver) – including the collection modality – and the source of data and information. Based on these elements, we distinguish[10]:

➢ *Acoustic Intelligence (ACINT)*, derived from data related to the sound, intercepted by various special devices: hydrophones, geophones, sonar, integrated

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[9] *SIGINT* (The Netherlands), *IMINT* (Canada), *MASINT* (Canada), *OSINT* (Canada), *TECHNICAL EXPLOITATION* (ACT), *BIOMETRICS* (The Netherlands).

[10] Description of *intelligence* subdivisions based on NATO definitions in AAP-6 Catalogue.
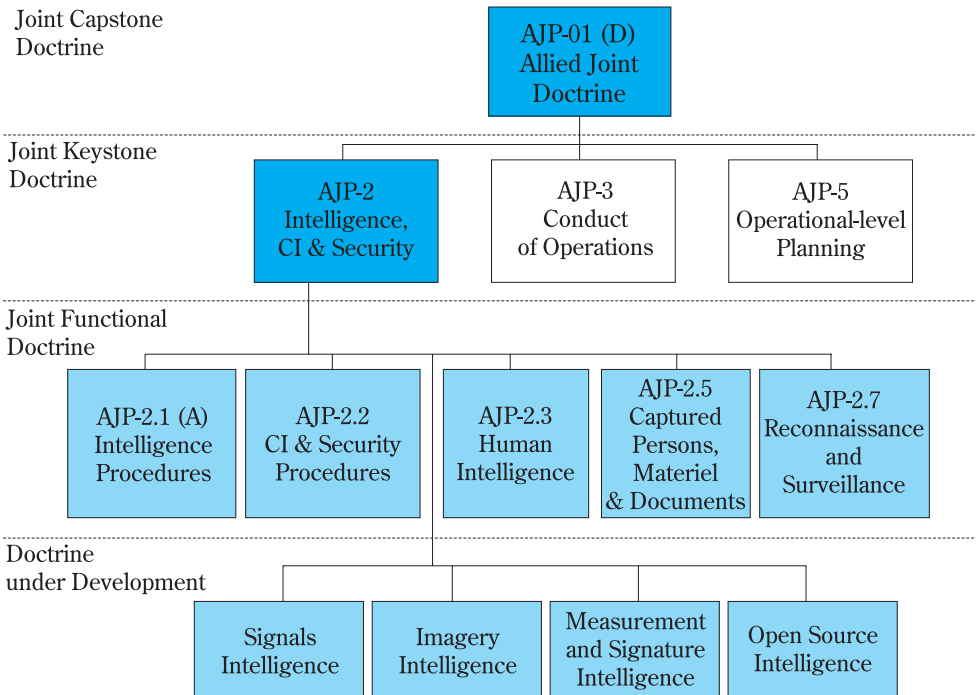
**Figure 3: NATO Joint Intelligence Doctrines**

undersea surveillance systems etc.; in general, this type of information is relevant to motion detection and trajectory determination;

➢ *Human Intelligence (HUMINT)*, data collected by human operators from human sources (including their documents and materials); the characteristic of this type of *intelligence* is the access to information related to the adversary psychological (intention, morale) or social (relationships between individuals and organisations) aspects;

➢ *Imagistic Intelligence (IMINT)*, obtained based on images/video captures, achieved from land, maritime or air/space platforms;

➢ *Measurement and Signature Intelligence (MASINT)*, derived from the quantitative and qualitative analysis of the data obtained by various measuring instruments, mainly aimed at identifying emission equipment or sources;

➢ *Open Source Intelligence (OSINT)*, derived from publicly available information (radio, TV, the Internet, various publications) or limited distribution/access information which is not classified; *OSINT* offers data of interest in absolutely all areas (basic intelligence), being highly facilitated by the developments in information technology;

➢ *Signals Intelligence (SIGINT)*, derived from collecting and exploiting electromagnetic signals or emissions, can be separated into two distinct sources:

- *intelligence* derived from the interception of the electromagnetic signals that are specific to communications *(COMINT)* – radio messages, communications between correspondents etc.;
- *intelligence* derived from the technical evaluation of electromagnetic transmissions, other than communications *(ELINT)* – such as those produced by radars, missile guidance systems, laser and infrared instruments or electromagnetic spectrum emissions.

## Joint Intelligence, Surveillance and Reconnaissance in NATO

In NATO, *intelligence* is seen as part of a set of integrated capabilities – *Joint Intelligence, Surveillance and Reconnaissance (JISR)* –, spectrum that combines the elements of planning and operation of all information collection means with information processing, exploitation and dissemination, resulting in direct support for planning, preparation and execution of operations[11].

Naturally, the level of national ISR capabilities integration into the Alliance is perfectible[12]. However, the steps that have been made so far are more than promising *(figure 4)*.

In this context, it should be recognised the important role played by NATO member states participating in *MAJIIC (Multi-sensor Aerospace-ground Joint ISR Interoperability Coalition)* project[13] to develop the new *JISR* concept, based on the common technology and procedures employed within the exercises that gather representative entities of participating nations *(MAJEX[14])*, initially limited to the technical disciplines of collecting data and information, which have gained new dimensions since the initiation, planning and conducting of *Unified Vision* trial *(figure 5)*.

*Unified Vision*, 2014 trial, will focus not only on *JISR* capabilities interconnection but also on their operational integration, command and control, and *ISR* means use at tactical level. Interoperability, based on the nations compliance with the STANAGs

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[11] *JISR Initiative* in NATO was launched at the Chicago Summit, in 2012.

[12] Part of the identified problems pertain to the systems availability at national level, the harmonisation of collecting efforts, or the exclusive control over the collected information and data, see George I. Seffers, *NATO Works MAJIIC Again*, in *Signal Magazine*, October 2011, see http://www.afcea.org/content/?q=node/2743.

[13] See http://www.nato.int/docu/update/2007/pdf/majic.pdf

[14] See http://www.ncia.nato.int/news/Pages/20122112-MAJEX12-%E2%80%93-NATO-Agency-hosted-exercise-puts-NATO%E2%80%99s-Joint-ISR-Smart-Defence-initiative-into-practice.aspx

**High Altitude
Long Endurance**
- **MTI/SAR Radar**
- **EO/IR**

**LEO Space Systems**
- **MTI/SAR Radar**

**Low Altitude UAVs**
- **SAR**
- **EO/IR Motion Imagery**

**Tactical Recce**
- **EO/IR**
- **SAR**

**Med-High Altitude
Long Endurance UAVs**
- **EO/IR**
- **MTI/SAR Radar**

**Land-Based Artillery
Locating Radar**
- **Firing positions**

**Low Altitude UAVs**
- **EO/IR**

**Med-High Altitude**
- **Air tracks**
- **ESM**

**Land-Based Recce**
- **EO/IR**
- **MTI radar**

**Med-High Altitude**
- **MTI/SAR radar**
- **ESM**

**Med-High Altitude/Long Endurance**
- **MTI/SAR radar**
- **ESM**

**Maritime Recce**

**Medium Altitude**
- **MTI radar**
- **ESM**

*Figure 4: ISR sensors in MAJIIC (2006), centred exclusively around technical collectors*[15]

[15] See http://www.nato.int/docu/update/2007/pdf/majic.pdf

in the field, requires an environment that enables the validation of these requirements and the practice of integrated *ISR* in the operational environment[16], and *Unified Vision* represents the optimal framework for training, testing and adjusting doctrinal and procedural references.

NATO *JISR* development plan is shown in *figure 6*, containing the main steps that will allow meeting specific requirements by the end of 2014.

*Figure 5: Unified Vision, trial 2014, Logo (Nemo solus satis sapit = no person can be wise enough on his own)*

The development of *JISR* capabilities has a component that is essential to ensure NATO surveillance means – *Alliance Ground Surveillance (AGS)*[17], consisting of five *Global Hawk* unmanned aerial vehicle *(figure 7)*, as well as of ground support, command and control elements.

AGS system will be purchased by a group of 14 NATO member nations (Bulgaria, Czech Republic, Denmark, Estonia, Germany, Italy, Latvia, Lithuania, Luxembourg, Norway, Romania, Slovakia, Slovenia and the USA) and will be available to the Alliance between 2015-2017 (the date on which France and Great Britain will assess their own contributions to the system).

It will enable the Alliance to survey the areas of interest and static or moving targets at high altitude, using the high-performance sensors *Global Hawk* is equipped with.

## Knowledge Development vs. Intelligence in NATO

*Knowledge Development (KD)* – a concept that, in NATO, signifies the proactive process that covers information collection, analysis, storage and distribution in order to contribute to the common and shared understanding of the operational environment – represents the means by which the information products in the *intelligence* cycle (focused on risks and threats) get rich in substance

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[16] Matthew J. Martin, *Unifying Our Vision. Joint ISR Coordination and the NATO Joint ISR Initiative*, JFQ 72, 1st Quarter – Special Feature/Joint ISR Coordination and the NATO Initiative, 2014, see http://www.ndu.edu/press/lib/pdf/jfq/jfq-72/jfq-72_54-60_Martin.pdf

[17] See http://www.nato.int/cps/en/natolive/topics_48892.htm

| 2012 | 2013 | | | | 2014 | |
|------|------|------|------|------|------|------|
| Q4 | Q1 | Q2 | Q3 | Q4 | Q1 | Q2 |
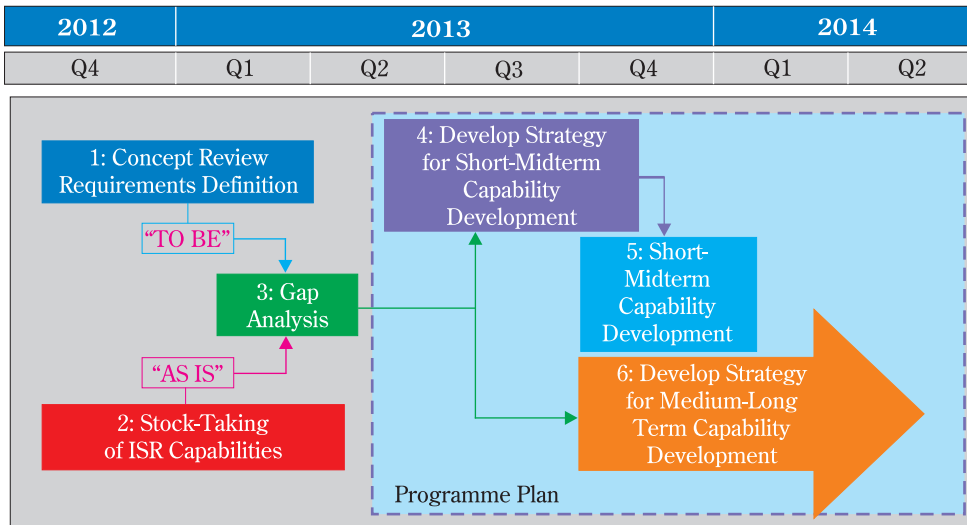


**Figure 6: NATO JISR Development Plan**[18]

through a better understanding of the interactions and possible effects in the political, military, economic, social, infrastructure and information areas (known as *PMESII* in the analysis activity), in different phases of crisis management.



**Figure 7: Northrop Grumman RQ-4 Global Hawk**[19]

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[18] See http://www.aofs.org/wp-content/uploads/2013/10/131010.03-NIAG-SG177-Munday.pdf
[19]  See http://www.af.mil/shared/media/photodb/photos/070301-F-9126Z-229.jpg

NATO *KD* Pre-doctrinal Handbook highlights two significant differences between *KD* and *intelligence*[20]:

- *intelligence* is focused on actual or potential adversaries, while *KD*, within the comprehensive approach, is related to the capabilities, interactions and influence of all key actors in complex operational environments;
- *KD* includes the deliberate use of non-military sources beyond the scope of military *intelligence* activities, including information and knowledge collection form international governmental and non-governmental organisations, agencies, commercial organisations etc.

*KD* capability is necessary for situational warning activities, planning, execution and evaluation of operations within the comprehensive approach. The comprehensive picture of the operational framework is formed by the fusion of *KD* and *intelligence* products in an integrated analytical format, subsumed under the need to develop the knowledge and understanding of the security phenomena that are specific to areas of information interest.

*Figure 8* illustrates how information and knowledge management contributes to knowledge development, the *intelligence* capability being a key pillar of this desideratum.
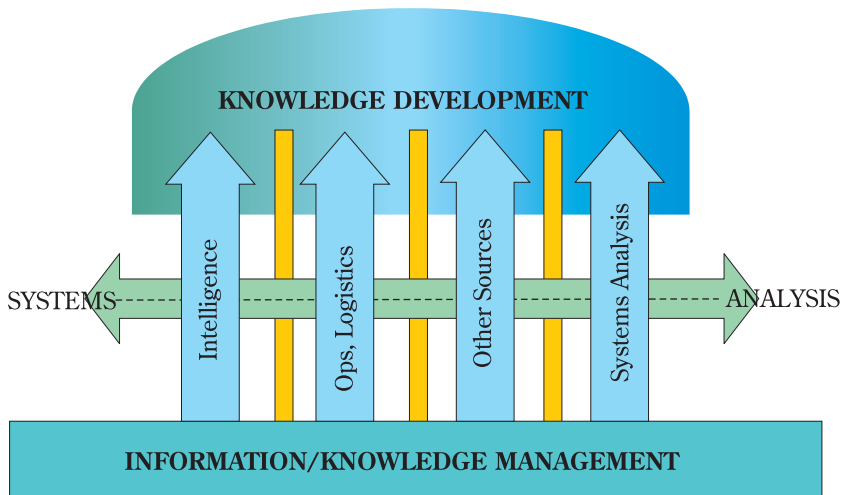


**Figure 8: Relationship between knowledge development and information/knowledge management**[21]

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[20] Bi-SC – KD, 2011, VI.
[21] Bi-SC – KD, 2011, 5-1

The joint concept of Strategic Commands regarding knowledge development describes *KD* as the integration of isolated data into a usable informational and relational block[22]. However – based on the *KD* implementation methodology and the specific functions assumed in the data collection process (declared beyond the scope of *intelligence* activities) – aspects that require a clear delineation of responsibilities related to the two complementary disciplines are identified. It is only the operational practice that will contribute to the process of *KD* identity consolidation.

## Biometrics among NATO Intelligence Capabilities

Physical anonymity, besides the one in the virtual space, has come to the attention of military intelligence and counterintelligence structures, once the transition of the spectrum of threats to the asymmetric, unconventional ones, in which the individuals or human networks become security risk vectors. In this case, the military power and its available capabilities cannot be used properly, requiring the adaptation of *"sensors"* as well as of the ability to understand the operational environment and to identify threats to the new realities.

Since biographical data/documents may be too common to allow accurate identification, wrongly recorded or translated, falsified or misinterpreted, the biometric data collected relating to physical details: the topometry of the face (distance between the bones of the face), fingers or hands (fingerprints), the shape of the ear, the structure of the iris, the venous structure of the arms, DNA structure, or to behaviour: the dynamics of writing, speech, typing on the computer or gait become high precision identifiers. The use of automated systems to compare and recognise people ensures efficiency, contributing decisively to the quality of the specific products that are disseminated.

Acknowledging the need for a biometric capability within NATO, as it has been demonstrated by the operational environment reality and the experience gained by certain nations with rich operational practice and active involvement in the research and development of the necessary technical solutions, NATO member states unanimously adopted the conceptual framework of biometrics in support of NATO operations, MCM 0050-2012, followed by the promulgation of a technical standard (STANAG 4715[23]), able to meet the requirements related to the interoperability of national biometric systems.

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[22] Bi-SC Knowledge Development Concept, 12 August 2008.
[23] STANAG 4715, Biometric Data Interchange, Watch Listing and Reporting Standard, October 2013.

The process of developing a doctrinal foundation relating to the use of this capability is in full swing, the initial draft of Allied Joint publication called *"Countering Threat Anonymity: Biometrics in Support of NATO Operations"*, whose curator is the Netherlands, being under debate in NATO Working Group for joint intelligence.

The effort to standardise the biometric capability exceeds the strict framework of collecting, processing and exchanging information at the level of military structures; other entities that are specialised in ensuring security and enforcing law *(figure 9)*, having rich experience in the field, are absolutely necessary partners in the attempt to identify and neutralise the threats posed by individuals.
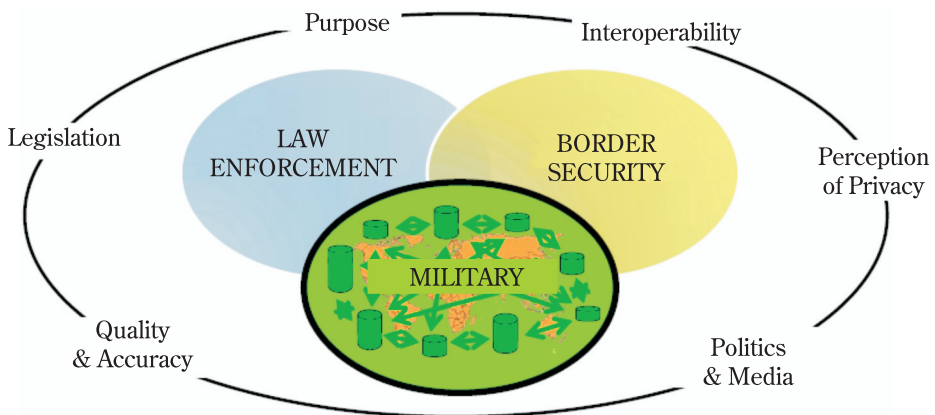


**Figure 9: Biometric capability effectiveness maximisation; limitations and collaboration opportunities**[24]

At operational and tactical level, the military applications of biometrics are particularly relevant to the operations or actions centred on human environment, mentioning here countering the threats posed by improvised explosive devices, force protection, control of access roads and mobility corridors, counterinsurgency, operations against terrorism, anti-piracy actions, humanitarian support or personnel evacuation and recovery. In addition to detecting individuals that constitute threats to own forces, biometric data may prove useful in identifying persons of interest, coordinating the collection of intelligence from human sources, authentication applications etc.

In *intelligence*, the analysis of biometric data and of contextual data connects individuals and places, time, relations, activities etc., which, in conjunction

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[24] Bernard Wulfse, *Biometrics in Support of NATO Operations*, Netherlands Joint Task Force C-IED, 2013, Biometric Consortium Conference, see http://biometrics.org/bc2013/presentations/wulfse.pdf

with data and information collected by other specific means, can provide the complete picture of events, identify human networks involved in hostile activities, detect different people working under cover, anticipate threats etc.

Despite their usefulness, the implementation of biometric systems raises a number of problems such as legal issues, cost related to assets purchase and operation, standardisation, interoperability, personnel training, operation security, database management, personal data protection, information exchange, automation assisted by specialised personnel and so on.

Depending on the identified solutions to these aspects, the exploitation of national expertise, and the development of doctrinal basis, we can talk of a future NATO capability in the field.

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# WHYDIALISM AND NATIONAL INTEREST – ESSAY ABOUT PATTERNS OF INDIAN DIPLOMACY –

*Mirela BĂCANU VASILE*
*Dr Silviu Valentin PETRE*

*Globalisation intensifies the already existing international society and brings together people from all cultures. In spite of sharing the lingua franca of Anglosphere (English language, internet, several international cultural references) politicians, diplomats, businessmen or common people have trouble in finding the true nature of the others. Especially for decision-makers, it is compulsory to display sensitivity towards diverse contexts.*

*Western mind does not feel at ease grasping Indian diplomatic and strategic culture, in spite of South Asia's European legacy. Here it is proposed a three-layered model with afferent priorities: searching for prestige and recognition; search for power both in military and economic terms, and attention towards welfare. US-Indo Civil Nuclear Deal from 2008 is given here as a test case and platform for future theoretical extrapolations.*

*Keywords: India; diplomacy; caste model; strategic culture; Globalisation Index; Civil Nuclear Deal*

## Introduction

Contemporary international relations are overwhelmed by at least three different inner tensions or dialectics:

- between grand narratives provided by classical schools of thought (realism, liberalism, Marxism, probably constructivism, with all their updates);
- between theory and empirical studies concerned with policy-oriented issues (area studies, foreign policy analysis; ardent matters such as: North-South divide; fixing financial institutions such as IMF; climate change and terrorism to name only a few);

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• between Western mindset and what we might call the multipolarisation of perspectives in different domains of research[1].

As the international community becomes ever more reflexive and aware of geo-cultural path dependence, to build upon a notion crafted by Immanuel Wallerstein, we are left to face a dilemma: on the one hand, globalised Western values have their limitations and biases; one the other hand, they provide a lingua franca, which, for better or worse, helps all of us, from all the cultures to stand on the same platform where we may agree to disagree, if not find strong common denominators or satisfactory solutions. What we most probably need is a metalingua franca – a shared set of practices, procedures able to compound one kind of diplomacy[2].

Given the above, this article grapples with India's relationship with South Asia after 9/11 in the light of rapprochement with the United States. The findings of the research entail that no well-established school of thought can fully explain Indian behaviour. Neorealism, liberalism or even Marxism bear explanatory power upon narrow sequences.

The conclusions of the entire inquiry are formulated in a rather open-ended intuitive manner, implying that the patterns of Indian diplomacy should pay attention to domestic factors and political culture. As such, three are the priorities pursued by Indian elites, especially after 2001: a) prestige; b) (military or political) power; c) wealth/prosperity in this order.

## *Foreign policy as transmitting belt between national societies and the international system*

From a certain point of view, major distinctions between domestic and international politics is nonsensical and artificial as both of them are two halves of the same coin/purpose: to unite one community and separate it from others. Although neorealist school operates with the billiard ball model and conceives states as unified rational and hermetic actors, in actual world, governments

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[1] Ole Wæver, *The Sociology of a Not So International Discipline: American and European Developments in International Relations*, in *International Organization* 52, 4, Autumn 1998, pp. 687–727; Pinar Bilgin, *Thinking Past 'Western' IR?*, in *Third World Quarterly*, vol. 29, no. 1, 2008, pp. 5-23; Amitav Acharya, Barry Buzan, *Non-Western International Relations Theory: Perspectives On and Beyond Asia*, Routledge, New York, 2010; Stephen M. Walt, *Is IR still 'an American Social Science'?,* in *Foreign Policy,* 6 June 2011; Șerban F. Cioculescu, *Fața nevăzută a Chinei: paradigme, autori și evoluții instituționale în domeniul cercetării relațiilor internaționale*, in *Monitor Strategic*, nr. 1-2, 2012, pp. 40-57.

[2] For cultural impact upon diplomacy as well as about reflections about lingering differences in diplomatic style during a globalised age see: Wilfried Bolwski, *Diplomatic Processes and Cultural Variations: The Relevance of Culture in Diplomacy*, in *The Whitehead Journal of Diplomacy and International Relations*, Winter/Spring, pp. 145-160, esp. 147.

are often sandwiched by pressure exerted from multiple directions, generated internally and externally. Modern day diplomacy, even in authoritarian countries, cannot be reduced to the whims or mind frames of some few but is exerted in a routinised fashion by professional bureaucracies. More so, in democratic regimes, where statesmen have limited mandate and are under constant and often severe scrutiny, foreign policy goals cannot pursue symbolic goals unless they come in package with economic or other kind of evident benefits[3]. In the words of Peter J. Katzenstein: *"The main purpose of all strategies of foreign economic policy is to make domestic policies compatible with the international political economy"*[4].

However, for the simplicity of our argumentation, we shall conceive state as a unitary actor being nonetheless aware of the limitation of such perspective. Further, we shall employ the indifference curve as Gilpin does and consider national interest as a composite between different sectoral directions[5]:
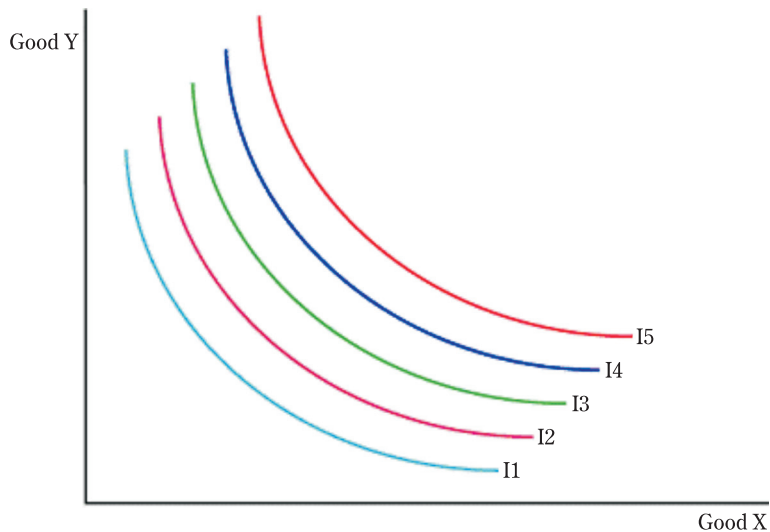


Once we have laid down the theoretical mainframe, another question arises as to how can one measure the correlation between foreign policy goals and the internal picture of a certain society. This research proposes the utilisation of Globalisation Index (GI) as a tool in this regard. Globalisation Index is one of the most recent

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[3] Robert D. Putnam, *Diplomacy and Domestic Politics: The Logic of Two-Level Games*, in *International Organization*, vol. 42, no. 3, Summer 1998, pp. 427-460, esp. 430, 434-435; Donna Lee, David Hudson, *The Old and New Significance of Political Economy in Diplomacy*, in *Review of International Studies* (2004), 30, pp. 343-360.

[4] *Ibid*, p. 431.

[5] Robert Gilpin, *War and Change in International Relations*, Princeton University Press, Princeton, 1981, pp. 18-21.

developments crafted to tackle the interactions between national-states and the external environment writ large. Divided on four issues: politics, economics, personal contacts and society, GI takes into consideration elements such as the number of treaties a state is part of, number of people with digital alphabetisation (skills to use a phone or internet connection), number of tourist received each year and so on.

## Indian grand narrative as influenced by cultural and economic tenets

Indian external politics was usually defined by the personality of the incumbent prime minister and his supporting political forces (from the personal staff to political parties). During Nehru's time, it was about an emerging dirigisme completed by his daughter Indira into an almost fully-fledged etatism after several nationalisations; more or less pro business attitude in Rajiv Ghandi's tenure; after 1991, Narasima Rao, Atal Bihare Vajpaee and Manmohan Singh styled different blends between laissez-faire and protectionism[6, 7].

Nehruvian worldview inspired all of the above mentioned to this very day, in spite of certain changes. For India's first prime minister, his country should seek a via media between the ideological blocks of the *Cold War*. His effort aimed at building a democracy without capitalism: from the West, he took the commitment towards parliamentarism and federalism and from socialism a quasi-dirigiste state-run economy[8, 9]. Democracy was considered the best regime that could do justice

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[6] In assessing post-1991 Indian economic performance, most pundits and economists manifest admiration towards high performances but deplore hampering factors such as: overwhelming bureaucracy, daunting corruption and unfinished liberalisation. R.A., *Now Finish the Job*, in *The Economist*, 15 April 2012; Kenneth Rogoff, *What's Troubling India?*, in *Project Syndicate*, 2 November 2012.

[7] The structure of the Indian budget can be a rather good and empirical based proof of politico-economic grand design. Comparing different budgets from early 1970s till 2010-2012, at least two main trends are to be noticed: • fiscal nation-building: meaning the growth of budget revenues coming from taxes (both from direct and indirect taxes). To give only a glimpse: combined centre and state tax revenue to GDP ratio increased from 6,3 percent in 1950-51 to 16,1 percent in 1987-88; • the other major trend is the downscaling of defence ratio out of GDP, from 34% in 1970/71 to 16% in 1990-1991 to further 9% in 2011-2012. The numbers show a certain leaning from state-centred political economy to the market centred as taught by neoclassical economics along with a civilianisation of spending: from military issues towards developmental one. Full analysis in Supriyo De, *Fiscal Policy in India: Trends and Trajectory*, January 2012, esp. pp. 10-22.

[8] From a vast literature dedicated to India's first decades dirigisme, we can list Nandan Nikelani, *Imagining India. The Idea of a Renewed Nation*, Penguin Books, 2005. For a divergent view on Nehru plight with capitalism, see: Suranjan Das, *The Nehru Years in Indian Politics*, in *Edinburgh Papers in South Asian Studies*, Number 16, 2001.

[9] For the puzzling impressions left by Nehru's flirt with socialism see different views: • Mohit Sen: *"It is wrong to brand Nehru as a representative of the national bourgeoisie … One need not question the subjective sincerity of Nehru. He did want to make India a modern, socialist society"*; • Jayaprakash Narayan: *"You want to go towards socialism but you want the capitalists to help you in that. You want to build socialism with the help of capitalism"*, Suranjan Das, *op. cit.*, p. 17.

to human diversity, especially in a huge country with so many cultures and idioms while socialism – the optimum tool for attaining human prosperity as against the greed inducing Western capitalism. On a more concrete plan, Jawaharlal Nehru's position tried to combine Ghandi's rural romanticism with a push towards industrialisation[10].

International affairs followed the same marks to a very large extent: a leaning towards China and other developing countries (the Non-Alignment Movement) doubled by an intimate relationship with Russia (from both ideological and military interest) and tripled by friendship with the United States and the other Western nations[11]. The first to crumble was Sino-Indian alliance in 1962. Here Nehru based his top diplomatic pillar on the belief that India and China, as world's oldest civilisations, shared common goals, confronted similar economic challenges therefore understanding should come natural. In reality, *Cold War* power politics and Chinese dissatisfaction with the Tibetan border as well as the irritation of Beijing's elite before what they considered to be Nehruvian arrogance exploded in the 1962 conflict.

The relationship with the United States in the first twenty years of the *Cold War* balanced a shared vocation for English language and Westminster-inspired political culture with more material interest. From the American point of view, Washington should assist a fellow democracy against the Communist block and provide technological means, such was those embodied in the *Atoms for Peace programme*. For the Indian nuclear programme, American and Canadian willingness to share latest technology was a chance not to be missed. Nehru and his friend, scientist Homi Bhaba, were searching to modernise their nations by spreading electricity to impoverished masses. The relationship broke down in late 1960s, when the US, USSR and the other UN permanent members signed the *NPT: Nuclear Proliferation Treaty*, committing themselves to struggling against future sharing of military nuclear technology or against the birth of other nuclear powers apart from them. Having being wounded in its pride, India rejected the *NPT* as a nuclear apartheid and chose to run a civil nuclear test in 1974.

Things have improved progressively after 1991 and especially with the dawn of a new century.

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[10] Beatrice Renzi, *Between the Village and the West: Local Research Associates and the Challenge of Mediation*, Institut für Ethnologie und Afrikastudien, Gutenberg University, 2005, p. 4.

[11] For a brief description of India's engagement with Non-Alignment, as well as its activity with the UN see: K.V. Kesavan, *India and Community Building in Asia: From Idealism to Realism*, in *Ritsumeikan Annual Review of International Studies*, vol. 4, 2005, pp. 9-21. Although Non-alignment became India's mark on the world stage, New Delhi's diplomat actually excelled at bilateral bargains than in multilateralism settings. For a critique of bilateralism and multilateralism see Rohan Mukherjee, David M. Malone, *For Status or Stature?* in *Pragati. The Indian National Interest Review*, 4 February 2011; Amrita Narlikar, *India Rising: Responsible to Whom?* in *International Affairs* 89: 3 (2013), pp. 595-614.

9/11 and its aftermath were seen as the obituary of the Westphalian world with all its subsequent connotations. In fact, the *Global war on terrorism* became a pretext to enhance states power, be they liberal or authoritarian. In a geographical sense, American-led effort blended with South Asia's security environment. Washington, New Delhi and Islamabad (along with smaller regional actors) compounded a triangle of interests, tensions and many zero-sum outcomes. For South Asia, 2001 had a meaning of its own as India experienced the bombing of the Parliament caused by terrorist with Pakistani allegiance; in Nepal, crown prince Dipendra killed his parents and, last but not least, the creation of *CCOMPOSA – Coordination Committee of Maoist Parties and Organisations of South Asia* hailed the maturing of Maoist insurgency as subcontinental factor to be reckoned with.

## Civil Nuclear Order as case study

No modern nation ever debated the nuclear question as much as India, concluded South-Asian expert Stephen P. Cohen[12]. For post-1947 political elites based in New Delhi, nuclear technology, both in civilian and in military versions, signified prestige and development. It meant that the *"subaltern can speak"*, to quote literate Gayatri Chakravorty Spivak's famous formula[13]. We have seen above how India's quest for Western technology in the 1950s and then the revolt against NPT and subsequent treaties shaped its international stand for decades to come.

As New Delhi became a valued US ally during the war on terror, bilateral relations with Washington grew beyond security to tackle economic matters as well[14].

The overture for the whole process to come was Manmohan Singh's visit to the United States and his meeting with George W. Bush, the American president. A joint declaration about a nuclear partnership was issued to allow both parties to start an intense diplomatic process at different levels. In order for Washington to be able to transfer atomic equipment and technology to non-NPT signatories, it would have to modify *Nuclear Energy Act 1954* prohibiting any intercourse like

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[12] Stephen Philip Cohen, *India Emerging Power*, Brookings Institutions Press, Washington DC, 2001, p. 159 and passim.

[13] Gayatri Chakravorty Spivak, *Can the Subaltern Speak?* in C. Nelson, L. Grossberg (eds), *Marxism and the Interpretation of Culture*, Macmillan Education, Basingstoke, 1988, pp. 271-313; Dipesh Chakrabarty, *Postcoloniality and the Artifice of History: Who Speaks for "Indian" Pasts?*, in *Representations*, no. 37, Special Issue: *Imperial Fantasies and Postcolonial Histories* (Winter, 1992), pp. 1-26; Gyan Prakash, *Subaltern Studies as Postcolonial Criticism*, in *The American Historical Review*, vol. 99, no. 5 (December 1994), pp. 1475-1490.

[14] Xenia Dormandy, *India: America's Indispensable Ally*, in *The Christian Science Monitor*, 11 March 2009; Amrita Narlikar, *op. cit.*, p. 599.

the one just mentioned. A new norm, *Henry J. Hyde Act* (with its full denomination: *"Henry J. Hyde United States-India Peaceful Atomic Energy Cooperation Act of 2006"*) made a derogation for New Delhi in this regard (16 November 2006). One month later, on 18 December, President Bush signed the act into a functional law. Several steps would play their part, the entire labour having its pinnacle on 8 October 2008, when the same President Bush signed what has come to be known as the *United States-India Nuclear Cooperation Approval and Non-proliferation Enhancement Act*. The documents were inked by the representatives of both nations: US Secretary of State, Condoleeza Rice, and her Indian counterpart, Pranab Mukerjee, then Foreign Affairs Minister[15, 16].

Two years later, Indian Parliament passed a much controversial law called: *The Civil Liability for Nuclear Damage Act*, 2010 or, simply, *Nuclear Liability Act*. The text regulates the relations between supplier and operator of the nuclear facility and, more importantly, it establishes the responsibility and the payment in case of an accident. To quote the preamble: "[The Nuclear Liability] *Act to provide for civil liability for nuclear damage and prompt compensation to the victims of a nuclear incident through a no-fault liability regime channelling liability to the operator, appointment of Claims Commissioner, establishment of Nuclear Damage Claims Commission and for matters connected therewith or incidental thereto"*[17].

From here controversies arise not only within India but also outside the country where international companies working in the field are eager to tap South Asia's electricity market.

Some criticise the act for capping the damages that are to be paid by the suppliers (aka external providers) and for channelling the burden towards Central Government[18]. Other Indian analysts argue that the 2010 moment actually stands as a benchmark for the international regulations in the field as it charts very clear rules to be obeyed[19].

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[15] Chronology of the Indo-US nuclear deal, in *Times of India*, 9 October 2008.

[16] The debate in India was rough and pitted Manmohan Singh's heterogeneous and fail coalition against the opposition. However, as we have stated from the beginning, state will be considered a unitary actor. Entering into the black box of Indian decision-making apparatus is beyond the purpose of this undertaking.

[17] *The Civil Liability for Nuclear Damage Act*, Ministry of Law and Justice, no. 38 of 2010.

[18] Rina Chandran, *Analysis – Land, Liability Bill Keep India Nuclear Power in Dark*, *Reuters*, 1 April 2010; SC to Examine Legality of Nuclear Safety Law, in *Outlook India*, 16 March 2012; Jim Riccio, *Don't Change N-liability Law to Suit MNCs*, in *The Times of India*, 23 September 2012.

[19] Dipesh Patel, *An Analysis of the Civil Liability for Nuclear Damage Bill*, 2010, in *Indian Law Journal*, vol. 3, issue 4, October-December 2010; Mohit Abraham, M. P. Ram Mohan, *Don't Waver Now on Nuclear Liability*, in *The Hindu*, 20 September 2012.

Nonetheless, international providers such as Westinghouse accuse Indian lawmakers of enhancing the already established red tape. Such names, especially from the Anglo-Saxon world (which are private players and not state owned) point to the fact that if Indian themselves misuse atomic facilities, New Delhi will have an easy tool to wash its hands and blame the *plumbers*[20].

## *Searching for a pattern beyond the "Why" factor*

Given the developments of the last decade, many Westerners view Indian behaviour in nuclear diplomacy as schizophrenic, odd if not downright erratic. After decades of longing for status and recognition, New Delhi has secured in 2008 the much-coveted goal. Prestige and plenty were at hand due to Henry Hyde Law. However, two years later, Nuclear Liability Law seems one step forward and one step back! Why is that?

In order to answer that dilemma, one has to look at the bigger picture and make a detour through strategic culture. Defined as: *"a set of shared beliefs, assumptions, and modes of behaviour, derived from common experiences and accepted narratives (both oral and written), that shape collective identity and relationships to other groups, and which determine appropriate ends and means for achieving security objectives"*[21]; *"the traditional cultural, historical, political and societal factors that help shape the defence policies and strategic behaviour of countries"*[22]; *"a country's strategic culture is the sum total of ideas, conditioned emotional responses and patterns of habitual behaviour of its national strategic community. It is underlined by continuity of thought amongst individuals as well as by organisations within a country"*[23].

Strategic culture may give us the psychological profile of a nation the way it is resumed by the elites. Capturing India's strategic culture has been one of the most teeth cutting problems up to the point that some Western analysts gave up finding patterns and concluded it was nonexistent[24]. Others like Sumit Ganguly

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[20] Paul K. Kerr, *US Nuclear Cooperation with India: Issues for Congress*, Congressional Research Service, 26 June 2012; Daryl G. Kimball, *India Nuclear Deal: Dumb and Dumber*, in Arms Control Now, 28 April 2011; Yogesh Joshi, *Paying Dividends: The US-India Nuclear Deal Four Years On*, in *The Diplomat*, 28 December 2012; *Early Works Pact on Indo-US Nuclear Deal Doon: Blake*, in *The Hindu*, 27 February 2013.

[21] Rodney W. Jones, *India's Strategic Culture*, *Defense Threat Reduction Agency, Advanced Systems and Concepts Office*, 31 October 2006, p. 27.

[22] K. Booth, R. Trood, *Strategic Cultures in the Asia-Pacific Region*, Auckland, Macmillan NZ, 2004 apud David J. Kilcullen, *Australian Statecraft: The Challenge of Aligning Policy with Strategic Culture*, volume 3, number 4 (November 2007), pp. 45-65, esp. 46.

[23] Harjeet Singh, *India's Strategic Culture: The Impact of Geography*, Centre for Land Warfare Studies New Delhi, 2009, p. 2.

[24] Indrani Bagchi, *Why India Does Not Have a Vibrant Strategic Culture*, in *Economic Times*, 21 October 2012; Admiral (r.) Manmohan Bahadur, *Strategic Culture Alien to India*, in *The New Indian Express*, 13 September 2013.

see it *"implicit and inchoate"*[25]. Harjeet Singh contemplates the maturing of Indian strategic culture as a function of geography, albeit not in a deterministic manner:

*"Deeply embedded thoughts related to Indian geography have exerted a powerful influence in shaping its strategic thinking. […] Geography has profoundly affected India's history and insular outlook, and, therefore, its strategic culture. India's strategic location, size and large population have contributed to its importance, its pre-eminence in the Indian Ocean region and its global relevance. Its geographic barriers have contributed to its insular conception, allowing India to develop its own unique culture. Historically, it has developed through a northwest population flow* [un]*till the 18th century. It has the great advantage of being a compact landmass, with a large unintended coastline. It has evolved with the development of river basin civilisations. Xenophobia has never been a part of India's culture, but its experience of colonisation has made it wary of foreign influences and interventions. Yet, India is a spiritual culture that has the ability to bring others into its fold"*[26].

Rahul Bonsle makes a *tour de horizon* through previous studies and takes into consideration both the political and the military level before resuming the main traits of Indian strategic tradition: *"The complexity of Indian strategic traditions and its nuances are well highlighted to include lack of articulation, significance of timing, evolutionary approach to security issues, cultivated ambiguity, crisis as tipping point, non reliance on force as the ultimate arbitrator, weak historical perspective, feudal outlook, Kautilyan realism clashing with Gandhian liberalism, continental focus and armed forces culture"*[27].

All of the above are evidently pertinent contribution to the very theoretical puzzle this article grapples with. However, they either focus on sectoral matters or present a list of attributes without telling how those come together and mingle. As we agree with Thomas Donnelly that *"strategic culture holds the premise that the character of any regime (<regime> understood in a broad sense) is the best guide to understanding how it may act, and it recognises the connections between domestic and international behaviour"*[28], we shall try to model India's pattern of diplomacy/grand strategy (here considered synonymous) out of the internal regime, namely the political economy of Independence how it was briefly presented previously.

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[25] Sumit Ganguly, *"Indian Strategic Culture"*, abstracts of paper presented at the *AAS Annual Meeting*, 11-14 March 1999, Boston, quoted in Rahul K. Bhonsle, *Jointness: An Indian Strategic Culture Perspective*, in *Journal of Defence Studies*, *Institute for Defence Studies and Analyses* – IDSA, August 2007.

[26] Harjeet Singh, *op. cit.* pp. 1 and 23-24.

[27] Rahul K. Bonsle, *op. cit.*

[28] Thomas Donnelly, *Countering Aggressive Rising Powers: A Clash of Strategic Cultures*, article based on a presentation held at a FPRI conference called *"The Future of American Strategy"*, 5 December 2005, Philadelphia.

Using the case study presented above as a sample, we advanced a possible pattern for Indian diplomacy. Far from the realm of the erratic, we assert that Indian elites craft their solutions and responses according to a list of three priorities: the search of prestige **– brahmanic level**; the search for military/political might **– kshatryan level**; the search for economic prosperity **– vaishyan level**.

We deem this model: *multilevel* or *caste-type diplomacy*. We employ the word *<caste>* not in a narrow way, implying that Indian decision-making or Ministry of External Affairs is organised according to caste structure. It is employed as an operational metaphor, like *<billiard ball model>* or *<homo oeconomicus>*. Mental crutches to approximate and explain reality[29].

Above, one could see how post-Independence diplomacy was influenced by several factors/strata: millennial cultural tradition; British legacy and Nehruvian touch precipitated into a cocktail of legalism and protectionism. A cocktail not easily understandable for Western/American mindset, where a commitment to spreading democracy along with free market values go hand in hand without saying.

To bring further prove to our argument, one must take a look at the globalisation index for 2012-2013[30]:

| Year | Overall Globalisation Rank | Economic Globalisation Rank | Social Globalisation Rank | Political Globalisation Rank |
|------|----------------------------|------------------------------|----------------------------|-------------------------------|
| 2012 | 110 | 129 | 142 | 23 |
| 2013 | 107 | 128 | 144 | 18 |

It is more than evident that India fares better at the political chapter than at any other chapter. Still, what can we make of those rankings and how can one utilise the correlation to capture patterns of Indian diplomatic culture?

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[29] The argument does not want to assert here a linear and simplistic correlation between religion and modern institutions or practices. Although religious mindset or the personal belief of those who formulated Indian grand strategy and continue to do so may have an impact, our explanation rests more on top-down bureaucratic culture inherited from the British blended with the intellectual allegiance towards socialism (in different degree) which held economics not as a free endeavour to be pursued on a market but ultimately as the work of the statesman and bureaucrat. For the impact of Hinduism on Indian institutions and capitalism in South Asia see: Patrick Heller, *Degrees of Democracies. Some Comparative Lessons from India*, in *World Politics*, no. 52, July 2000, pp. 484-519; Mario Gómez-Zimmerman, *The Capitalist Structures of Hinduism*, in *Religion & Liberty*, volume 6, number 3, Acton Institute, May-June 1996; Dr Sanjeev Kumar Sharma, *Ancient Indian Democracy – Studies, Research and Some Modern Myths*, in *Indian Journal of Politics*, AMU, Aligarh, vol. XXXIX, no. 3, July-September 2005, pp. 155-166.

[30] To get access to data sheet see: http://www.kof.ethz.ch/static_media/filer_public/2012/09/16/rankings_2012_1.pdf; http://globalization.kof.ethz.ch/media/filer_public/2013/03/25/rankings_2013.pdf (last visited on 8 January 2014).

*First*, we should assert the limitations of the index[31]. It bares some significance when taking into consideration economic process, trade, FDI, number of internet users or number of treaties but does not tell us much about the quest for (military) power – namely what we baptised the kshatryan level. Here we can open a bracket and talk about India's push towards military modernisation: for methodological reason, the kshatryan level can be assigned to political globalisation (defence cooperation and imports, although expensive, dwell in the realm of politics more than that of economics and day-to-day creation of goods).

*Second*, we have to be aware about multiple possibilities to read the index within the context of our study. Thus, it can be interpreted to imply that:

a) sharp contrast between political column and all the other is caused by the fact that Indian decision-makers are more concerned with playing a high-profile role on the international arena and pursuing aggrandisement. Overall Indian society is more akin to socialise, to be in the club/keep up with the Jonses (in the broadest possible meaning: cultural, entrepreneurial, diplomatic, geopolitical) than convert the results of that socialisation into something concrete, material. We may take notice that although the Indian Chamber of Commerce has signed dozens of FTAs all over the world, doing business inside India is considered extremely hard and frustrating for numerous strangers as the World Bank's Doing Business Index shows (see the India Report Card on the next page).

b) respectively, as the subcontinent is still a very poor region with daunting differences, protectionism has a lot of sway[32].

We can also compare defence sector with dynamics of India's behaviour in the case of Nuclear Deal.

Since 2007, India toppled everyone else to become the most voracious importer of military equipment in the world[33]. Unfortunately, most high profile acquisitions focus on grand systems (tanks, rockets, helicopters, submarines) and less on other factors such as developing an indigenous industrial base or the quality of the human factor, which employs that equipment. A soldier-centred approach has shown numerous problems (insufficient number of officers; low popularity of armed forces amidst young people; rising number of soldiers' suicide etc)[34]. Thus, priority

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[31] For a critique approach towards Globalisation Index, see: Ben Lockwood, *"How Robust is the Foreign Policy/Kearney Index of Globalisation?"* in CSGR Working Paper no. 79/01, August 2001.

[32] Pushan Dutt, Devashish Mitra, *Endogenous Trade Policy through Majority Voting: An Empirical Investigation*, in *Journal of International Economics* 58 (2002) pp. 107-133; Kevin O'Rourke, *Democracy and Protectionism*, Institute for International Integration Studies, no. 191, December 2006.

[33] Hari Kumar, *Why Has India Become the World's Top Arms Buyer?*, in *The New York Times*, 21 March 2012.

[34] Sudha Ramachandran, *India's Troubled Soldiers*, in *The Diplomat*, 4 December 2013.

## INDIA REPORT CARD

| | Doing business | | Change in Rank |
|---|---|---|---|
| | Rank 2013 | Rank 2014 | |
| Overall rank | **131** | **134** | **−3** |
| Indicators | | | |
| Starting a business | 177 | 179 | −2 |
| Dealing with construction permits | 183 | 182 | 1 |
| Getting electricity | 110 | 111 | −1 |
| Registrating a property | 91 | 92 | −1 |
| Getting credit | 24 | 28 | −4 |
| Protecting investors | 32 | 34 | −2 |
| Paying taxes | 159 | 158 | 1 |
| Trading across borders | 129 | 132 | −3 |
| Enforcing contracts | 186 | 186 | 0 |
| Resolving insolvencies | 119 | 121 | −2 |

**Starting a business**

| | India Vs BRIC Rank 2014 |
|---|---|
| Brazil | 123 |
| Russia | 88 |
| India | 179 |
| China | 158 |

**India Vs South Asia**

| | South Asia | India |
|---|---|---|
| No. of procedures | 7 | 12 |
| Time taken (in days) | 16.2 | 27 |

Source: Doing Business 2014 – World Bank Group

**Source**:
- *Why Is India Slipping in Ease of Doing Business Rankings?* in *Business Standard*, 10 November 2013; Saptarishi Dutta, *Ease of Doing Business in India Slips*, in *The Wall Street Journal*, 29 October 2013; World Bank, *Doing Business 2014, The Ease of Doing Business in India*, http://www.doingbusiness.org/data/exploreeconomies/india

lays on prestige and visible effects and not with individual (in this case the soldiers) well-being. More simply put: India's military modernisation is more capital intensive than human intensive.

Similarities and differences rise to attention. On the one hand, the search for prestige and power (brahmanic and kshatryan levels) is obvious. On the other hand, there is a sharp contrast between the protectionist policies in the energy sector (Nuclear Liability Act-2010) and the gross neglect of grass root-level investment in defence. We might try to reconcile both cases if we considered them as stemming from the same malaise: statism (and the lack of liberalism as the corollary).

### Concluding remarks and research results dissemination plan

This article tried to embed a metapremise in a specific case study. Namely, that Indian external behaviour cannot be understood through Western made paradigms unless we operate some amendments to them. Following Robert Putnam

and Robert Gilpin, our argumentation entailed that there is a certain political economy behind diplomatic profile of each country. With regard to India's strategic culture and diplomatic patterns, a growing literature tries to find a satisfactory answer. The suggested model presented here envisages Indian external behaviour as structured on three successive layers in the following order: a) search for engagement with the international community; b) search for power (military, political, economic); c) search for individual welfare. Albeit nascent and not fully mature, the model can be useful for business community eager to invest on Indian soil.

Even today, Western mindset[35] is beset with two images about India: one overly metaphysical and the other, more recent and overly materialistic. First image sees Bharat civilisation with all its shades and variety as the spiritual manifest of a community, which has refused the world. The second image, nurtured by CNN and BBC, holds India as mix of poverty and bustling technological miracle.

Much fewer are those studies concerned with understanding how material and spiritual/cultural factors mingle in moulding Indian silhouette in front of the rest of the world. This puzzle, baptised here as a *<why-ism>*, hampers a true dialogue between people and civilisations. If it is overcome, the results should be more than fertile.

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[35] To be understood as a general framework and not a label for everyone living there.

# GEARING UP
# FOR THE 2014 NATO SUMMIT
## – Key Priorities –



*NATO flag flying at NATO Headquarters Brussels*[1]

Later this year, more precisely, on 4-5 September, the next NATO Summit will take place in South Wales. This will be the largest gathering of international leaders ever to take place in Britain and the first NATO Summit in the UK since 1990.

As stated by Mr Anders Fogh Rasmussen, NATO Secretary General: *"This Summit will be an important opportunity for NATO. We will mark the conclusion, at the end of 2014, of our ISAF mission, as well as a new phase of our engagement in Afghanistan. We will take further steps to modernise our Alliance so that it remains strong, flexible and ready to face any security challenge. And we will reaffirm the bond between Europe and North America that is the source of our strength, our security and our success"*[2].

Given this context, the Allied Command Transformation, the strategic-level NATO headquarters located in Norfolk, Virginia (USA), has produced a series of informative and interesting articles to highlight issues/initiatives that are expected to be focal points during the summit. We will feature these articles, courtesy of Major Jeffrey M. Pray, Media Relations Officer, Strategic Communications, ACT, in this issue of the *Romanian Military Thinking* Journal in hopes that they will reach national military audiences so that summit discussions and outcomes are better contextualised and understood.

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[1] http://www.nato.int/cps/en/natolive/photos_62582.htm
[2] http://www.nato.int/cps/en/SID-79322508-599EE392/natolive/news_104982.htm?selectedLocale=en

# ACT Looks to the Future, Summit

*Commander Chap GODBEY*

The North Atlantic Treaty Organization is a political and military alliance that has served its member nations well, even as significant changes in the geopolitical situation have changed the alliance over the decades. Originally conceived in the aftermath of World War Two and the rise of the Cold War, NATO continues to be a useful tool for its member nations. NATO has over time successfully adapted and improved in reaction to great change, such as the fall of the Berlin Wall and the post-9/11 world. Some of the Alliance's transformation has also happened in anticipation of these geopolitical changes. Some Alliance transformations, such as expansion of the Alliance and increased partner participation in NATO activities, are examples of NATO's both adapting to and anticipating that change. The Alliance's transformation over time has not only maintained NATO as relevant to its member nations in reaction to those world changes, but made NATO indispensable as a means to keep the member nations working with each other and achieving their common goals.

Today, another such change is on the horizon: that of NATO's withdrawal from combat operations in Afghanistan. After over a decade of operations far from home, NATO will transform yet again, adjusting to this new situation and new future. This operations change is now an opportunity to anticipate the future strategic context for the Alliance in the long term. The opportunity requires, however, that the Alliance can respond to the urgent nature of short-term issues while remaining focused on the importance of longer term adaptation.

A shift from ongoing combat operations to longer term adaptation reflects a potential change in focus from one strategic command inside NATO to another. Allied Command Operations (ACO), the strategic command located in Mons, Belgium, focuses more on current operations and plans. Allied Command Transformation (ACT) in Norfolk, Virginia, on the other hand, is the military strategic command for NATO that focuses more on future operations, from certifications of future deploying units as part of their training and exercise role, to anticipating the future strategic context for the Alliance out to the next thirty years. The Alliance is driven

Commander Chap Godbey, US Navy – NATO Allied Command Transformation (ACT) Staff Officer.

by political considerations of the member nations. However, the military structure of NATO, and how a NATO military command organises and integrates with member nations, partners, and international organisations, can transform to adapt to those political considerations. NATO canal so transform to anticipate future military challenges. Transformation is where ACT's focus, less visible while operations in multiple locations took prominence, will become more important to the Alliance's future posture.

That future posture will be debated this fall. Every two years, a summit conference with heads of the nations meets to discuss the future of NATO. For the fall of 2014, the summit will be in Newport, Wales, United Kingdom. The outcome of the summit is one of the more consequential change points for the Alliance, and is a useful point of focus for ACT to use in articulating what a future military model for NATO might look like. Since the majority of discussion may well be the shorter term consideration of Afghanistan, a large number of topics that affect that future military posture will have to be packed into a relatively short period of strategic, high level discussions.

ACT's transformation efforts are split into twenty separate initiatives, ranked in priority, and at differing levels of maturity. Although the initiatives make for a long list of topics, they all fit into the same theme: NATO transformation from post-Afghanistan to the next several decades. The following graphic shows these initiatives.

### Initiative priority and maturity

| Priority Group 1 | Priority Group 2 | Priority Group 3 |
|---|---|---|
| ☐ Interoperatility | ● Cyber Defence | ● Gender/UNSCR 1325 |
| ☐ Smart Defence | ● Maritime Security | ◊ Green Defence |
| ☐ NDPP (plus innovation, industry) | ☐ Framework Nations Concept | |
| ☐ JISR | ☐ Federation Mission Network | |
| ● Missile Defence | ☐ Resolute Support mission | |
| ◊ 20 year operational lessons learned | ◊ Defence Capacity Building | |
| ● Combined Forces Initiative | ◊ NATO-EU Relations | |
| Transatlantic Bond/Burden Sharing | | |
| ◊ Political Guidance | | |
| ◊ Futures work/FFAO | | |
| ☐ Partnerships | | |

> ● Very mature; "What" and "How" understood
> ☐ Under development
> ◊ Low level of maturity

The first group of initiatives (on the left) has the highest importance in context of transformation. Some, such as missile defence and the Connected Forces Initiative, are more mature and better understood. In mid-development are initiatives such as interoperability and standardisation, Smart Defence, the next round of the NATO Defence Planning Process adapting to innovation and industry input, Joint Intelligence, Surveillance and Reconnaissance, the nature of NATO's transatlantic bond and burden sharing for member nations, and partnerships with non-NATO nations. The least mature initiatives in this highest-priority group would be futures work and the Future Framework for Alliance Operations, incorporating the lessons learned from the last twenty years of NATO operations, and adapting to the newest political guidance from the nations. This group of flagship initiatives can deliver a more interoperable, more coherent set of NATO capabilities for future decision makers.

The next tranches of initiatives similarly shape NATO's future capabilities. Cyber Defence and maritime security are the furthest developed in this group, while initiatives such as the Federated Mission Network, the RESOLUTE SUPPORT mission, and the Framework Nations Concept are under development. The NATO-EU relations and Defence Capacity Building initiatives are less mature but still at the same level of importance. Finally, Green Defence and UNSCR 1325 gender initiatives complete the initiatives.

These above twenty initiatives can themselves be individually described in a more complex manner. Smart Defence, for instance, itself contains a long list of flagship projects, each project supporting the overall Smart Defence goal of avoiding unnecessary duplication amongst NATO member capabilities and minimising or eliminating capability gaps. All of these flagship projects feeding into Smart Defence in turn support ACT's overall goal of NATO transformation.

Transformation will have to occur in a fiscally constrained environment, where urgent requirements for operations lessen and longer-term capability development and interoperability become more of a focus. There are many complex initiatives that make up this goal of transformation. Together all of these initiatives serve to match that common theme of transforming NATO to best anticipate the future.

# Smart Defence, Smart Nations

## Allies show that a multinational cooperation mind-set is increasingly at the heart of capability development

*Richard PERKS*

NATO promotes Allies' working better together to efficiently build and maintain capabilities that increase effectiveness. It is one example of how NATO is addressing fiscal realities head-on, while simultaneously ensuring its ability to continue to field modern and relevant defence capabilities. Smart Defence (SD) is backed by a vision, action and leadership to foster a mind-set of multinational cooperation. From the outset, SD was built with and for Allies with commitment at the highest political levels. The idea is simple: help Allies identify and pursue multinational capability development opportunities that address both their national defence requirements and NATO's priorities through a phased continuous approach; building efforts across the short, medium and long term.



Richard Perks – Strategist, Smart Defence Core Team Capability Development Division.

## Intent Backed by Action

A SD portfolio of projects is under development and growing with new and innovative ideas from across the Alliance. The projects are multinational solutions to national capability requirements. By aligning the projects with NATO's Defence Planning requirements, the multinational solutions generated through SD can help fulfil NATO's capability requirements. This bottom-up approach is important to keep SD accessible to all Allies and solidify a SD mind-set. The portfolio currently has two completed logistics projects, Helicopter Maintenance and Demilitarisation, Dismantling and Disposal of deployed assets. Cooperation associated with Helicopter Maintenance saved an Ally millions of Euros, but more importantly significantly improved mission availability. There are 27 active projects and about 120 proposals under development at various levels of maturity.

## NATO's Role

NATO's role is to help Allies identify practical areas for cooperation and facilitate and encourage progress. This function is accomplished within NATO's capability planning domains and is overseen by committees. Committees are best positioned to harmonise potential multinational solutions with NATO requirements. These committees are becoming 'marketplaces' to understand priorities, discuss ideas, and develop new multinational proposals. They are the primary forum to facilitate the development of project proposals through the identification of lead and participating Nations, conduct project workshops and to share lessons learned. NATO staffs have been proactive in helping Allies identify potential SD projects that can also help to fulfil NATO's pressing capability shortfalls. Sixty percent of SD projects and proposals can contribute directly to meeting NATO's shortfalls.

## Capabilities that Increase NATO's Relevance

The 2014 NATO Summit is the opportunity Allies have to raise their ambition to use SD tools to show solidarity, resolve and to make progress in more challenging and politically visible capability areas. Focused efforts are in the Joint Intelligence Surveillance and Reconnaissance (JISR) and Ballistic Missile Defence (BMD) capability areas.

Under the JISR initiative launched at the 2012 Chicago Summit, NATO is developing an architecture that will permit nations to *"plug-in"* national surveillance assets and share data. JISR emphasises the idea of essential connectivity. NATO continues to identify the 'connective tissue' frameworks and standards that help

guide and focus Allies' JISR capability development. Considerable multinational progress is being made in shared training that will enable both the Alliance Ground Surveillance capability as well as address lessons learned from Operation Unified Protector (Libya). A long-range maritime surveillance capability being developed by a group of Allies may serve to highlight the overall efforts and essential connectivity of JISR.

Sensors and weapon systems contributed by Allies are the foundation of the interim NATO BMD capability declared in 2012. The permanent basing of four United States (US) multi-mission missile defence-capable AEGIS Destroyers in Rota, Spain is a fundamental building-block. Allies are gearing up to work together in the development of plans and operational concepts and to commit ships to combined deployments with these US ships. This essential first step of a phased and continuous SD approach enables all Allies, even those not BMD capable, to make a meaningful contribution to the mission. Short-term efforts like these could be important to medium and long-term multinational cooperation in other broader aspects of BMD outside of the maritime domain.

## An Advocate of Multinational Cooperation

Allied Command Transformation (ACT) plays a key role in promoting the SD vision. ACT's current priorities include developing multinational efforts with Allies in JISR (pg15) and BMD (pg16). These represent the broader and balanced efforts of ACT to promote and support cooperation and innovative ideas across the capability spectrum. Additionally, ACT looks longer-term by promoting efforts now that can enable future cooperation. As an example, requirements for long-term Theatre Air Mobility capabilities can benefit from discussions between defence planners and Allies to identify interest. Simple efforts now, to synchronise intent and eventually programme and budget requirements, is an essential first step to long-term cooperation on major capabilities. Finally, through Defence Planning activities and the management of the SD Database of projects, ACT helps to create a shared understanding of opportunities for cooperation and actively supports groups of Allies in their pursuit of multinational solutions.

# 'Ways' to Get There

## An overview on how focusing on *NATO Forces 2020, Connected Forces Initiative* and *Smart Defence* can get NATO *"there"* and increase its relevance

*Major Jon MCGOWEN*
*Rick  PERKS*

With a focus on the implementation of the 2010 Strategic Concept, NATO's Heads of State and Government established *NATO Forces 2020* (NF 2020) as the Alliance's capability focus point and what is ultimately a way-point towards 2030 and beyond.

In a strategy context, NF 2020 represents an *'ends'*. NATO's Defence Planning Process (NDPP) is the primary *'means'* for the Alliance to achieve NF 2020. But, as Allies find it increasingly difficult to maintain and develop cost-effective, interoperable military capabilities, the Connected Forces Initiative (CFI) and Smart Defence are being identified as important *'ways'* to help Allies realise their NF 2020 strategic goal.

## Effective and Efficient Focus

CFI has an effectiveness-focus. It helps Allies effectively use capabilities together, to maintain and enhance interoperability gains in view of a decreasing operational tempo.  Smart Defence has an efficiency focus. It helps Allies to identify and pursue efficient multinational capability development opportunities to address both Allies' and NATO's priorities.

In the strategic context – *'ends'* should equal ways plus means. *'Means'* generally refer to the tangible or intangible resources; in this context we can imagine them to be those specific processes and funding that together will help deliver NF 2020. 'Ways' explain how the ends will be accomplished by the employment of resources.

Major Jon McGowen, United States Air Force – NATO Allied Command Transformation (ACT) Staff Officer.
Rick Perks – Allied Command Transformation (ACT) Smart Defence Core Team.

The identified 'ways' for CFI currently include:

- Increased emphasis on live exercises. A high-visibility live exercise in 2015 and consideration for live exercises every year afterwards, possibly based around the NATO Response Force (NRF),

- A well balanced NATO Training Concept that addresses the full range of Alliance missions, and

- Enhancing NATO Special Operations Forces and better use of technology as a broad connecting enabler.

Smart Defence is a way for Allies to increase efficiency in their Defence Programmes through multinational courses of action that can reduce an individual Ally's burden in addressing NDPP minimum capability requirements. It is important to note, that there is substantial positive crossover between CFI and Smart Defence. A significant number of projects in the Smart Defence portfolio contribute to both effectiveness and efficient capability development. These are best characterised by the 15 projects involving 27 Allies that are focused on multinational development of education and training. Multinational aviation training is a good example. Recently, representatives of four Allied nations signed a letter of intent expressing their political will to start practical work in forming structures of a Multinational Aviation Training Centre (MATC) for crews of *'Mi'* type helicopters. The principle of the MATC is not to build a centre at one specific location, but to use the best training facilities that exist in participating countries.
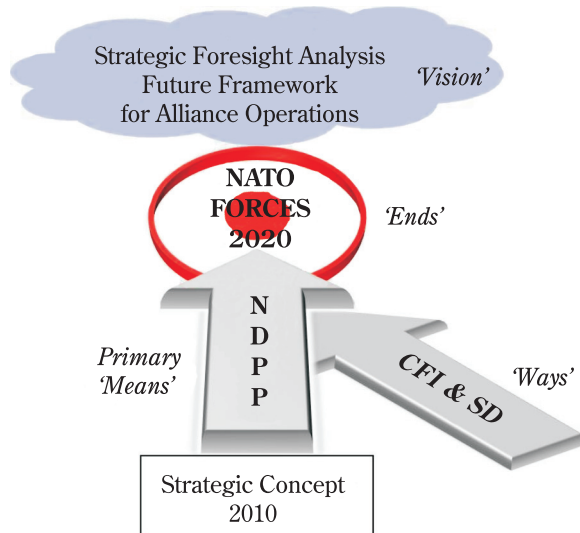
## Support the 'Ways' by Backing the 'Means'

The intent, expressed in terms of the NF 2020 'ends' and supporting 'ways' is important. But to continue to build support and to practically move forward, the intent must be backed by the intangible 'means' of will, commitment, and action. For CFI this will is focused on the effective use of exercises and national capabilities. For Smart Defence, it is a focus on the efficient development of capabilities.

As we move towards NF 2020, the most important aspects of CFI and Smart Defence will be the mind-set that they engender in Capitals and NATO Headquarters. Such a mind-set, should help Allies work better together through initiatives like the MATC. Ultimately, this mind-set is envisioned to be the 'force multiplier' that helps Allies deliver NF 2020. By promoting multinational efforts, Allies can work better together to maintain a high level of combat effectiveness and interoperability, while efficiently maintaining and building capabilities that continue to increase NATO's relevance.

# *Doing Better with Less*

## NATO can do better and achieve more towards the goals of the Connected Forces Initiative, as seen through the successful influence on Afghanistan operations by applying the principles of NATO Network Enabled Capability (NNEC) to define future solutions

*Major General Mels de ZEEUW*
*Mike ROWLAND*

## A Success Story

This story starts with the International Security Assistance Force (ISAF) in Afghanistan.

After years of frustration, the Commander of the International Security Assistance Force (COMISAF) applied the principles of NATO Network Enabled Capability (NNEC) to the operational environment. This new direction made coalition information-sharing a top priority and resulted in the Afghanistan Mission Network (AMN). More than just technology, the AMN has become the basis for training, exercises, and operations. Most importantly, the AMN created a culture based around unrestricted information sharing, or the need to share. With this culture change, visible improvements to interoperability and greater awareness at all levels of capability, not just at a technical level, were achieved.

Today, COMISAF has better command and control (C2), better training, and, in many fields, improved mission success. Operational effectiveness across the federation built by AMN can be increased, which leads to better interoperability, while achieving cost efficiency in an era of scarce resources. Seemingly,

Major General Mels de Zeeuw, Netherlands Royal Air Force – Assistant Chief of Staff, Command and Control, Deployability and Sustainability.
Mike Rowland – Director of Staff, Command and Control, Deployability and Sustainability.

the foundation of implementing the NNEC principles for this improvement was therefore paving the way and preparing the mind-sets for much broader projects like Smart Defence and the Connected Forces Initiative (CFI).

## An Evolution

The AMN experience was a step in the right direction, but it was not the final solution. As a tangible example of NNEC's *"Share to Win"* philosophy, the AMN was quickly recognised within NATO. It was further identified that the AMN approach needed to be institutionalised and made more agile and enduring as *'federated mission networking'*. The result was Allied Command Transformation's (ACT) Future Mission Network (FMN) concept.

Concurrent with the developments of AMN and FMN, the Smart Defence Initiative and the Connected Forces Initiative (CFI) have emerged as parts of a larger, overarching theme for NATO's future.

ACT has drawn a clear connection among each of these strands. Smart Defence (efficient delivery of capabilities through multinational projects, pooling and sharing, prioritisation, coordination) and CFI (better integration of forces through a better use of technology) are directly linked to the NNEC vision which aims to improve operational effectiveness through the networking (federation) of services and processes. The outcomes of each of these initiatives can be easily aligned to focus on improved operations in every environment and mission area within NATO's Level of Ambition along with the required preparatory training.

## A New Chapter: NNEC and FMN,
## Linked with Smart Defence and CFI

From the NNEC perspective, the phrase "*better use of technology*" needs to be considered in two ways.

• First, NATO's thrust towards *obtaining* better technology, striving for the leading edge, and deploying this to the field *as soon as practicable* while keeping in mind the need for cost efficiency. The goal remains to achieve technology superiority with the help of the FMN implementation and, maybe, Smart Defence projects.

• Second, *using* the technology better. This is where the human aspects, namely education and training, of NNEC come into play to achieve information

and decision making superiority; how technology supports the human to more effectively or efficiently perform tasks and make decisions. Stronger emphasis needs to be placed on the non-materiel dimensions of capability development.

That being said, both strands are necessary to achieve operational effectiveness and interoperability in an austere environment, or, otherwise said, to achieve *"execution superiority"*.

The goals of CFI (improved training, expanded exercises, and better use of technology) are *interdependent*. Rapidly deployable forces, unpredictable missions, and the need for maximum agility, drive training and exercises to inescapably depend on the availability of technology. These three elements of CFI must be harmonised for any one element to succeed.

## Balancing Effectiveness with Economy

To achieve the real benefit of CFI, a balance must be reached among the three major elements mentioned above. Tangible capabilities are needed by future NATO Commanders which translate the principles of information sharing and networking into real, usable solutions. It will be these solutions that must be aligned, providing NATO with networking capabilities and made available by the member nations within a cost-effective framework.

ACT's Command and Control, Deployability and Sustainability (C2DS) Division leads the development of the Future Mission Network and NNEC. Perhaps better presented as *federated mission networking*, the FMN work will provide a key enabler for CFI.

# Learning from Past Experiences

## NATO takes a look at the good and the bad from past operations to improve the way ahead

*Lieutenant Colonel Jose Raul GOMEZ BAS*

History shows us that experience is almost always the best teacher. One certainly learns from one's own experience, but this is a slow process and may come with great cost. Alternatively, one may quickly build vast amounts of experience at little costs just learning from others. This is the aim of the Lessons Learned process: to share experience and avoid the same mistakes as others made before.

After two decades of Operations, NATO has identified a multitude of lessons. Many of those lessons have either led or are leading to significant transformations in how NATO is structured and how it functions at all levels. These operations indicate that, while significant improvement to some NATO capabilities have been achieved, further transformation could yield significant benefit to future NATO-led operations and preparation of forces.

### What is a Lesson Learned?

A lesson learned is useful information gained through experience that an organisation should retain for future use and that might be relevant for others. So, to identify lessons you can ask yourself: *What is not working that can be improved?* or *What is working well and can be shared with others?*

Depending on the lesson, it could be a successful procedure or outcome that you wish to repeat or it could be a means to avoid an undesirable result you have experienced.

### Innovation through Lessons Learned Process

It is not by chance that Lessons Learned is a major pillar of transformation. The added value of the work being completed within Allied Command Transformation (ACT) is the essence of innovation such as transforming NATO's training, capabilities and strategic thinking.

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Lieutenant Colonel Jose Raul Gomez Bas – Spanish Air Force, ACT Capability Development, Innovation Doctrine and Lessons Learned.

In today's changing security environment, the ability to identify and implement innovations quickly is of paramount importance to NATO's ability to undertake the full range of Alliance missions. Lessons Learned contribute to the successful reform and transformation of the Alliance, and is an essential component of any organisation committed to continuous improvement and development.

Accordingly with the above and focusing on the NATO Transformation Seminar and NATO Summit, the Nations and the Military Committee expect lessons from the last two decades to be mirrored in keystone doctrine and in this particular context, ACT will do an analysis and write a report to support the development of the Alliance future capabilities, noting NATO doctrine, which has been identified as the DNA that runs through Smart Defence and CFI. NATO doctrine will subsequently be amended to serve as the repository for all Lessons Learned and to contribute to further improvement of training, exercises, education and force preparation for the Alliance to include preparation and conduct of Resolute Support Mission.

## Expectations

The subject study aims to identify important NATO lessons and best practices from two decades of operations with special focus on Support to Kosovo Security Force (KFOR), the NATO Training Mission-Iraq (NTM-I), the International Security Assistance Force (ISAF) in Afghanistan, including Phase 3B Transition and NATO Training Mission-Afghanistan (NTM-A), as well as Operation Unified Protector (OUP).

The report is expected to cover the strategic themes and lessons from the past 20 years of NATO operations with focus on the strategic level, overarching lessons that can and should impact strategic and operational level and that therefore should consider the impact on all future capability development requirement within the DOTMLPF-I[1] spectrum.

This way, the subsequent report, to be developed in close coordination with the International Military Staff (IMS) and Allied Command Operations (ACO), will be used for future capability development and to identify gaps (e.g. operational doctrine). In line with current priority themes within NATO, the report will address NDPP and capabilities; Smart Defence; Connected Forces Initiative and interoperability; partnerships with Nations and entities; comprehensive approach, military capacity building; C4ISR[2]; concepts and doctrine (AJP-3).

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[1] Doctrine, Organisation, Training, Material, Leadership, Personnel, Facilities, – Interoperability.
[2] Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance.

**NATO Operations and Missions**

| | | |
|---|---|---|
| **1995-2004** Bosnia and Herzegovina | **06/1999** Kosovo | **08/2003** Afghanistan |
| **2001-2003** the former Yugoslav Republic of Macedonia | | |
| **10/2001** Monitoring the Mediterranean Sea | **06/2014** NATO Training Mission in Iraq | **10/2005-02/2006** Pakistan earthquake relief operation |
| | | **04/2009-06/2009** **10/2008-12/2008** Counter-piracy Gulf of Aden |
| **06/2005** Supporting the African Union | | |

Source: NATO/OTAN                                                 © DW

## Applying the Findings

This study will greatly assist NATO to identify potential gaps and develop future capabilities and also preserve all the lessons learned and best practices in an easily accessible document.

Experience is indeed the best teacher, but it must be documented and shared throughout the lessons learned process to allow a community-wide understanding gaining years of knowledge.

# Building NATO Missile Defence "Connecting the Many Pieces"

## NATO member nations have decided to build a Missile Defence capability posing an exciting challenge to achieve the required level of interoperability and readiness

*Lieutenant-Colonel Jean-Hervé L'HÉNAFF*

***Let us begin with a semi-fictional scenario:*** *A rogue-state is making preparations for the launch of a Medium Range Ballistic Missile on a European Capital city. What does NATO do to counter this threat?*

### Addressing the Threat

*From Theater Missile Defence (TMD) to Ballistic Missile Defence (BMD)*

During the 2010 Lisbon NATO summit, in an effort to pursue collective defence, the member nations decided to develop a NATO Ballistic Missile Defence (BMD) capability.

The aim is to provide all of NATO's European populations, territories and forces, with full coverage and protection against the increasing threat posed by the proliferation of ballistic missiles. It was decided to build this capability by expanding the Active Layered Theatre Ballistic Missile Defence (ALTBMD[1]), currently under development. It is critical to bear in mind that expanding ALTBMD to BMD does not remove the goal of protecting our troops on the battlefield. Conversely, while expanding the former ALTBMD capability, the ability to protect our troops on the battlefield will be consolidated and optimised.

An Interim Capability was declared at the last NATO Summit in Chicago in May 2012, as planned in Lisbon. The Initial Operational Capability (IOC) is expected in 2018, and the Full Operational Capability (FOC) is expected in 2021.

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Lieutenant-Colonel Jean-Hervé L'Hénaff, French Army – NATO Allied Command Transformation (ACT) Command and Control, Deployability and Sustainability, Space and Ballistic Missile Defence.
[1] The ALTBMD capability primarily protects troops from Short Range and Medium Range Ballistic Missiles (SRBMs and MRBMs) attacks on the battlefield.

Moreover, it was confirmed in Chicago that NATO common funding will only apply to systems for Battle Management, Command, Control, Communications and Intelligence (BMC3I). According to the Chicago declaration, the member nations will provide the remaining systems on a voluntary basis, through national procurement, and interface these assets with the BMC3I. The U.S. European Phased Adaptive Approach (EPAA) constitutes a large share of nations' voluntary contributions. Through an incremental approach, the U.S. intends to counter the full spectrum of ballistic missiles that may strike Europe. A number of European NATO nations have also indicated their intention to contribute with naval or ground spots hosting BMD assets, communications, sensors and interceptors that are needed for an effective system.

**PHASES OF BALLISTIC MISSILE TRAJECTORY**



## How BMD supports Connected Forces Initiative (CFI)

*Connecting the many pieces*

Once there is a clear intent to achieve the implementation of the BMD capability through both common funding and national voluntary contributions, connecting the many pieces still remains a challenge.

BMD is a political tool in the sense that the Allies want to exert a political control ahead of any engagement following a hostile act. Given the very short flight-time of ballistic missiles, ensuring that this control can be exerted in a timely and effective manner creates a very wide variety of challenges, ranging from political

sensitivities to technical issues. Real-time political consultation would not be a realistic aim. The bottom-line is that the BMC3I must provide the appropriate level of governance to the political authorities while ensuring the prompt and effective interception of the incoming ballistic missiles. The BMC3I will also control engagement in real-time by ordering the appropriate interception system. Thus, the BMC3I and all the components of the BMD capability need to 'speak a common language'. This is a prime example of interoperability. This is part of how BMD supports CFI; ensuring that a large variety of systems are able to work together and form a robust capability against the increasing threat posed by ballistic missiles.

### Education, training, exercises and evaluation

Not only do the systems need to work together, but so do the operators and the leadership, including those at the political level. Together, they need to be prepared to face a hostile act.

Allied Command Transformation (ACT) has the lead on NATO's efforts to shape and implement a comprehensive training plan aimed at having forces and structures ready for the IOC in 2018, as well as the FOC in 2021.

This effort has already begun with the current assessment of processes that already exists, what should be continued, as well as what needs to be improved or created. This task takes into account all NATO infrastructure and available knowledge. Nations will be provided with recommendations and opportunities across the whole spectrum of Education, Training, Exercise and Evaluation (ETEE).

## Ensuring Effectiveness

Connecting the many pieces and proposing the best possible plan for ETEE is how NATO intends to ensure that the Allies get the ballistic missile defense they need in a timely and cost-effective manner. The BMC3I will be the focal point to build this capability. By ensuring capability effectiveness through technical aspects and, critically, the human dimension of BMD, ACT is strongly involved in NATO's endeavor to address, among others, the threat posed by rogue states with the capability to launch ballistic missiles.

# Transatlantic Teamwork: Enhancing the NATO Ballistic Missile Defence Capability

***Missile proliferation is a threat well-understood by the Alliance as numerous countries – some in close proximity to NATO's member nations – are developing sophisticated ballistic missiles of increasing range***

*Commander Willem VELDHOVEN*

To date, over thirty countries have, or are acquiring, ballistic missile technology that could eventually be used to carry conventional warheads and weapons of mass destruction. The proliferation of these capabilities does not necessarily mean that there is an immediate intent to attack NATO Nations, but it does mean that the Alliance has a responsibility to take this into account as part of its mission to protect its populations, territory, and deployed forces. In light of these emerging threats, the Alliance has sought to transform the focus toward building relationships with regional partners and developing critical capabilities with European Allies.

Referred to as the *'centrepiece'* of the transatlantic defence partnership, the Alliance is considered the greatest peace movement in history[1]. As a collective security alliance, NATO maintains relevancy through modernisation as it prepares to defend against 21st-century threats which may include ballistic missile attack.

## Transatlantic Defence Capability

NATO Ballistic Missile Defence (BMD) was established in September 2005 with the Active Layered Theatre Ballistic Missile Defence Programme for the protection of deployed forces. As a result of the NATO Lisbon (2010) and Chicago (2012) Summits, the programme was expanded to include the protection of NATO European

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Commander Willem Veldhoven, Netherlands Navy – NATO ACT Programme Manager Ballistic Missile Defence.

[1] http://groundreport.com/the-centerpiece-of-our-transatlantic-defense-partnership-will-continue-to-be-nato-said-hagel/

populations and territory. Notably, during the 2012 Chicago Summit, NATO declared achievement of an *'Interim'* BMD capability.

Two years later, on the road to the 2014 NATO Summit, the Alliance is moving towards achieving a full operational capability (FOC). Recently, NATO Deputy Secretary General Alexander Vershbow acknowledged that a FOC system would mean 'full coverage and protection for all NATO European populations, territory and forces', iterating that the FOC system embodies the 'best of transatlantic teamwork' in terms of development and deployment.

A FOC system would be large enough to defend against limited attacks by states and non-state actors yet small enough to avoid fuelling regional arms races. The system is constituted – in terms of interceptor types, numbers and locations – to defend against principal threats to NATO European populations and territory. Existing within the system, are political, operational and technical strands of work which are complex, and require cooperation among Nations and stakeholders. As a result of the complexities, Allies are encouraged to partner and engage in a series of independent, yet mutually reinforcing activities that if combined would lead to an increase in available sensor and interceptor systems capabilities

## Transatlantic Teamwork

Allied Command Transformation (ACT) aided in the facilitation of the 2012 Interim BMD Capability declaration by providing support to the NATO International Staff (IS) and Allied Command Operations (ACO). Today, HQ SACT continues to provide support to the NATO BMD programme through three lines of effort: *the NATO Theatre Missile Defence capability; BMD Battle Management Command Control Communication and Intelligence (BMD BMC3I); and the BMD Training and Education Plan.*

NATO BMD activities extend throughout ACT. For example, the BMD Deliverable Team coordinates ACT's efforts in completing assigned BMD tasks and provides support to the BMD Programme Office, IS, ACO and other NATO organisations. Capability Development Directorate's BMD programme of work contributes to ACT's Strategic Campaign Plan objectives by leading NATO's military transformation and developing capabilities that address defence and security challenges, and improve NATO's ability to conduct current and future operations. Experimentation is an example of a reinforcing activity within ACT as experiments focus on BMD requirements development, refinement, and validation.

Research and Development adds to the effort with projects focussing on information fusion techniques and BMD operator screen enhancement.

Further, within the Smart Defence initiative, related BMD multinational projects will aggregate into a focal point in 2014 to demonstrate this important capability on the road to the 2014 NATO Summit. Many interested Allies, even those not BMD capable, will work together in the maritime domain, with deployments in support of US AEGIS BMD[2] platforms. Such an effort could take full advantage of lessons learnt by Allies in the Theatre Missile Defence Forum and promote connectivity with existing NATO systems.

## Beyond the 2014 Summit

Together with other on-going BMD related ACT activities, the BMD programme of work will provide the Alliance with an operational BMD capability that offers protection to NATO European populations, territory and forces. Transatlantic teamwork is an essential component to collective security – and both support the development of an effective and efficient NATO BMC3I capability. Missile defence will undoubtedly be of increasing importance to the Alliance in the coming years, possessing the capability to strengthen regional stability. ACT will continue to be a part of that collective cooperation, – today and well beyond the 2014 Summit.

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[2] Aegis BMD/SM-3 system is a keystone in the ballistic missile defence of Europe.

# The Continuing Evolution of the NATO Deployable Forces including the NATO Response Force

**Since its creation in 2003,
the NATO Response Force (NRF)
has been very successful in meeting its mission.
Why then are we continually evolving the NRF
and is this evolution making the NRF
more operationally effective and interoperable?**

*Commander Paul DELHAISE*

The modern NATO Deployable Forces concepts date back to 1994, but the declaration that the NATO Response Force (NRF) was to be created occurred at the Prague summit in 2002. It was stated at the 2002 summit that the NRF was to be: *"A tiered readiness joint force; expeditionary in character and design, able to execute the full range of missions... from Peace to high intensity warfighting"*. The first NRF stood up in 2003 with a mission (which remains extant today): *"To provide a rapid demonstration of force and the early establishment of NATO military presence in support of an Article V or Crisis Response Operation"*. This first NRF achieved initial operational capability on 15 October 2004 and final operational capability two years later. However, by 2006, it became apparent that the NRF was not attracting sufficient interest to achieve the necessary fill rates.

## The Evolution Begins

This issue led to the development of the Deployable Joint Staff Element concept where the three Joint Force Commands at Brunssum, Naples, and Lisbon would take turns to lead the NRF during its operational period. They would be supported by a Forward Element from either the deployable headquarters from Heidelberg

Commander Paul Delhaise, Royal Canadian Navy – NATO Allied Command Transformation (ACT) Concept Development Staff Officer, Capability Development Division.

or Madrid and would be further supported as required from various component commands.

This framework seemed to work fairly well in terms of being able to generate the headquarters and forces for the NRF. Yet this framework also caused some difficulties. The Forward Elements were from one of two nations, the main headquarters from one of three other nations, the communications and information systems (CIS) were supported from one of two even different nations and the deployed camps maintained and managed from yet a different nation. The unfamiliarity of all of the various staffs across numerous nations had a detrimental effect in the early stages of operations. The benefit though was that many nations were able to get involved with the NRF and thereby develop their national capabilities and improve their ability to work better with other nations.

However, the deployable forces concept would soon be forced to change in response to world events that affected national economies and eventually the fabric of NATO itself.

> **"CFI presents an opportunity, building on Alliance experience, including on Operations, to ensure that Allies develop and retain the ability to work effectively together and with Partners as appropriate"**
> - Chicago Summit Defence Package 2012.

## The New NCS and the CFAO

Faced with budget cuts and difficulties in filling positions, the NATO Command Structure (NCS) underwent a critical review and restructuring in 2011. A number of headquarters were closed and personnel in other headquarters were reduced. The biggest impact on the deployable forces concepts was the closing of the Joint Force Command (JFC) headquarters at Lisbon and the deployable headquarters at both Heidelberg and Madrid. Fortunately, the development of the next deployable forces concept was already underway and quite mature. The Conceptual Framework for Alliance Operations (CFAO) brought together all of the deployable force concepts and documents replacing outdated guidance and concepts, providing a *"one-stop shopping"* document for deployable forces. The CFAO concept allows the Command and Control of NATO Deployed Forces from one of the two remaining JFCs allowing portions of the JFC headquarters to deploy into theatre if desired. Alternatively, selected and qualified NATO Force Structure (NFS) headquarters can be included in the rotation with the two JFCs to lead NATO deployed forces.
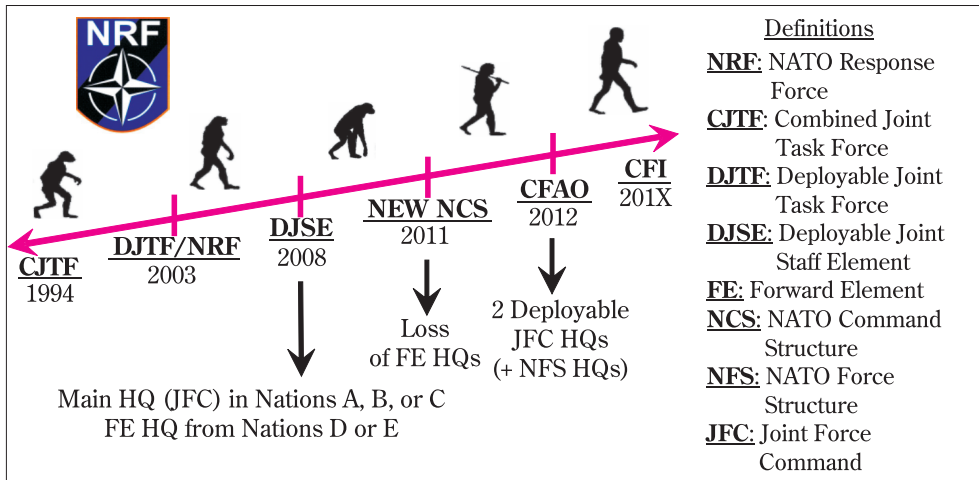
## Does the Evolution Continue?

As a result of the impending draw-down of the mission in Afghanistan, the NATO Secretary General initiated the Connected Forces Initiative (CFI).The CFI focus areas of training, exercises, and improvements in technology, will improve the interoperability and effectiveness of the NRF. CFI also provides the opportunity to look at the deployable forces concepts to determine if additional changes can be made that will improve operational effectiveness and interoperability. Rotation lengths of headquarters and collocation of force protection, CIS and deployed camps that might improve readiness of the NRF are being considered. However, no changes to the NRF framework will be considered until the new NCS has reached steady state.

Future discussions about durations and rotation of the NRF headquarters will explore the various benefits and drawbacks that affect transformation, readiness and operational effectiveness. The additional time available will be put to good use in allowing a thorough analysis and wide discussions to occur before any final proposals are made that may cause another evolution of the NRF.

# Enabling Precision Operations

**Responding to a distress call brings numerous entities across the globe together in a moment of time. Being prepared for the success of the rescue mission takes joint confidence, trust, and commitment**

*Captain Charles REID*
*Commander Chris HOWSE*

## Orchestrating a Rescue

Near the Somali Coast, a group of civilians from Europe and North America fall victim to a roving band of Somali Pirates while sailing their yacht in the Gulf of Aden. Acting on their distress call, a Maritime Patrol Aircraft operating in support of NATO's Operation Ocean Shield finds the hijacked yacht being held captive and immediately sends a locating report. Simultaneously, National Intelligence Agencies across the Alliance begin the task of piecing together the information required to give key leaders and Commanders the situational awareness required to inform future decisions regarding a rescue attempt. A frigate arrives on the scene, confirms the identity of the yacht and establishes that the hostages have been taken ashore. The number and identity of the hostages is quickly established from registration documentation which is shared within the Alliance. Meanwhile, the NATO Intelligence Fusion Centre is drawing on previous network analysis to establish a list of likely pirate leaders and their bases. As reports flow in from National Agencies, who are exploiting specialised technical means to collect information, the data is fused to provide a more comprehensive picture. Working as a coordinated team the outputs of National and NATO intelligence capabilities are harnessed effectively to produce a successful result: the victims are located at a nearby farmhouse.

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Captain Charles Reid, United Kingdom Navy – NATO Allied Command Transformation (ACT) JISR Section Head.

Commander Chris Howse, United States Navy – NATO Allied Command Transformation (ACT) Staff Officer Signals Intelligence & Electronic Warfare.

Acting in close consultation with National Authorities, who represent the victims, the NATO Commander develops a rescue plan. Before it can be executed, however, reports from National Authorities indicate that pirate leaders are planning to move the hostages. Immediately, NATO Alliance Ground Surveillance assets are brought into play and the aircraft is guided onto a new flight pattern over the target area. Using onboard sensors, the surveillance operator identifies a number of vehicles moving away from the target area. By correlating this data with other intelligence sources provided by Alliance and Partner Nations it is possible to track the hostages to their new location and also to better assess the future intentions of pirate leaders. It appears that the pirates intend to trade the hostages for weapons and support from Al Shabab. After careful consideration it is decided to execute a rescue and NATO Special Forces are brought into play. A surgical operation is conducted in the dark of night, supported by precision, real-time intelligence coordinated across National and NATO operations centres spread across four continents and at sea. Their rapid response, coupled with professionalism – and no small amount of surprise for the bad guys – results in a successful rescue and numerous pirates apprehended for prosecution.

## From Scenario to Reality

While this scenario is just an example, it depicts how the NATO Joint Intelligence Surveillance and Reconnaissance (JISR) Initiative will contribute to future operations. The intent is to provide a coherent framework that seamlessly brings together both NATO and National ISR assets to service the intelligence
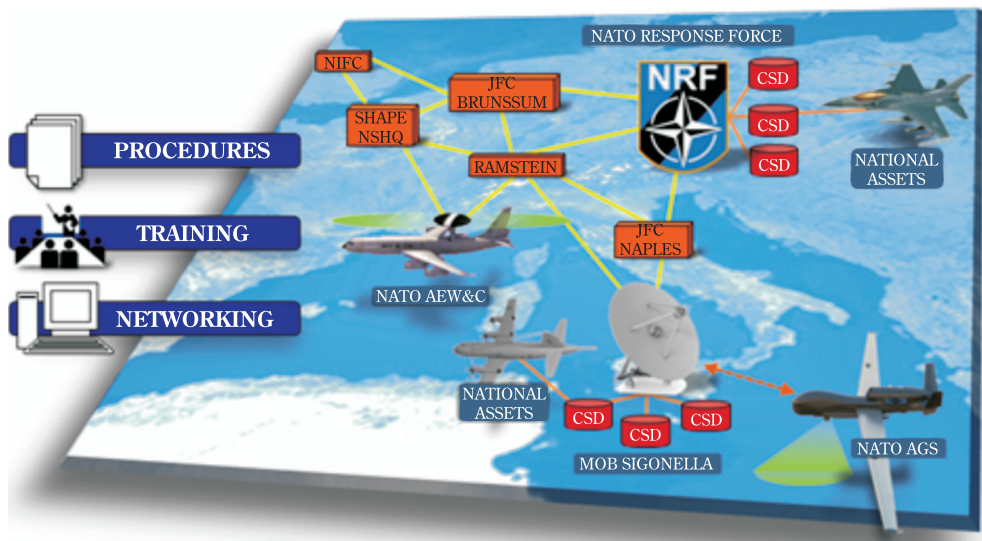
requirements of key leaders, commanders and other decision makers from the strategic to the tactical levels. By providing NATO with such an enduring capability, it will enable the collection and exploitation of information in order to produce and share the Intelligence products which are critical to operational success.

Much like the scenario depicts, the JISR Initiative seeks to make the improvements necessary within NATO to exploit information more efficiently by overcoming a series of challenges involving procedures, training and the networking of information systems. Overcoming the technological challenge of creating a truly networked environment, enabling the timely sharing and exploitation of highly classified and sensitive intelligence without compromising the data is essential. No less important is the development of supporting doctrine, tactics and procedures. The combination of these new capabilities and the provision of proper training produces skilled personnel who are then able to exploit this data and turn the shared information into high quality intelligence products. The results: the ability to exploit information effectively in operations; no longer only in scenarios.

## Success Lies Within

Critical to the success of future NATO missions is the continued support of the Nations who together have a shared responsibility to gather intelligence and to maintain situational awareness.

The introduction of NATO Alliance Ground Surveillance does not replace national intelligence collection contributions. In fact, a wide range of collection assets is vital to all military operations, from disaster relief, to peacekeeping and combat operations. It is essential that best use is made of all NATO systems as well as the sensors, platforms and analytical horsepower belonging to multi-national, national, partner and commercial entities. This is what the initiative seeks to achieve by integrating extant and emerging national and multi-national capabilities and optimising their output.

Ultimate success of this programme will be achieved with the willingness and commitment to share information and intelligence data within the Alliance. This will be possible when Nations are confident that their sensitive information will be protected and used effectively to improve situational awareness and, in turn, to deliver operational effect.

# NATO Network Enabled Capability Federating the Future Mission Network

## NNEC provides overarching principles to enable for future missions effective and efficient networking, in line with the Comprehensive Approach and the Connected Forces Initiatives

*Colonel Patrick GRELIER*
*Dr Alberto DOMINGO*

## An Update on the NATO Network Enabled Capability (NNEC) Concept

The NNEC concept developed doctrine and guidelines on how to federate capabilities to be used in joint and combined operations. The concept considers both military and non-military partners and is constructed in line with the NATO Comprehensive Approach set forth at the Lisbon Summit. Capability unification used in support of future operations is the *raison d'être* of the Alliance. Federation fosters information sharing between mission partners, resulting in better situational awareness and improved command and control, which are key requirements for *"information superiority"* that dramatically improve mission effectiveness. Federation can be achieved through simultaneous utilization of the four NNEC components: the underlying **networks and systems**, the **information** to be shared, the **processes** to do so, and the **policy and doctrine** required to enable and empower users to share the information they possess. True *"enterprise-level"* federation can become a reality through coherent and balanced efforts made in all four areas.

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Colonel Patrick Grelier, French Armament – NATO Allied Command Transformation (ACT) Communications and Information Services Branch Head.

Dr Alberto Domingo – NATO Allied Command Transformation (ACT) Technology and Human Factors Section Head.

A number of innovative tools have been developed to enable the inclusion of NNEC elements in existing, planned and new capabilities. The **NNEC criteria** are a set of (NNEC-driven) requirements that can be overlaid on capabilities to ensure they will be able to seamlessly exchange information with other peers. The **NNEC assessment process** is the method to formally validate the capability in terms of its ability to support information sharing and federation. Other tools are available as part of the NNEC Body of Knowledge, e.g. the **NNEC roadmap**, a planning and analysis tool to ensure on-time and efficient organization of resources and activities; or the **NNEC-NDPP** guidelines, exploring how to embed federation requirements into NDPP as the main NATO procurement planning tool.

## Implementing NNEC: A Success Story

Significant efforts have been made to *"operationalize"* the NNEC concept (i.e. to bring the abstract benefits of federation closer to the warfighters). In conjunction with the development of the guidelines and tools described above, the Afghanistan Mission Network (AMN), first emblematic implementation of NNEC, served as proof of concept, and NNEC principles have permeated all areas of capability development. In addition, a number of NNEC compliance assessments have been conducted, to measure capability compliance with NNEC criteria. Those assessments have helped quantify federability compliancy and progress, generating a number of observations and solid recommendations to help refine both the capability assessed and the criteria themselves.

## NNEC in Support of Developing
## Future Mission Network (FMN)

The FMN concept warrants timely implementation to meet NATO and Nations' expectations. Possessing the potential to become NNEC's next emblematic implementation; building on the principles of federation of networks and services, information sharing and efficient exploitation of current capabilities. The FMN also embraces and exploits lessons identified from operations in Afghanistan and Libya. The contributions of NNEC are encapsulated in the NNEC components, offering solutions and innovative developments such as new policy models for information assurance and information management joining instructions that formalize and describe information sharing mechanisms; the concept of information clearinghouses, distributed information repositories and multi-level

information tagging; and federation of assets built over common essential core services, COI provided specialized (mostly Web) and mediation services in line with the C3 services taxonomy.

## The Way Ahead

The NNEC principles are more relevant than ever highlighting the continued need for a long-term vision, further development of innovative tools and use of emerging technologies to feed implementation. Seeking interoperability at all levels, they support FMN implementation, and the ambitions of the Connected Forces Initiative. The benefits that can be gained through use of a federated approach are becoming critical drivers and are fully embraced and supported by NNEC. Achievement of the current initiatives being pursued by the Alliance will require changes in education and training, exercises and the ways new and emerging technologies are introduced and employed in operations. The practical solutions offered by NNEC compliant capabilities have the potential to make this possible, providing support to the coordination of conceptual requirements, implementation and operational coherency.

✉ Contact us at is-nnec@act.nato.int

# Warning: Information is Everywhere

**Cyber Defence is not a new topic,
but one that continues to increase in relevance
and importance. The attackers are often silent,
but with an intelligently armed force within the Alliance
it is an attack that can be prepared for and won**

*Lieutenant Commander Jim MAHER*

## Wicked Threats Force Progress

Today, everyone is dependent upon information and its ease of access whether at home, at work, or in military operations. This message is true regardless what side of the Atlantic one calls home. However, the benefits of Internet access come with risks such as identity theft, cybercrime, and cyber espionage. These threats are the same for individuals, organisations, and nations.

NATO is attuned to the severity of complex cyber challenges that have even been categorised as *"wicked"*. It is the seriousness of cyber threats that has NATO making progress by evolving its approach to the topic.

## Strength in Numbers: Planning and Preparation

There is no doubt that cyber-attacks will occur, it is how Allied Command Transformation (ACT) prepares the foundation, by starting at the lowest level possible, which will determine a successful outcome.

ACT is leading several activities that will assist in bringing Nations together for cyber defence. Preparing NATO to face the cyber challenges that will arise in the future is just the beginning.

Cyber awareness is the foundation of preparing NATO. By properly informing you, the user, the individual and the organisation, there will be no *"weakest link"*, but instead a force stronger in numbers and information.

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Lieutenant Commander Jim Maher, United States Navy – NATO ACT C3 Information Assurance-Cyber Defence.

Dangers that the World Wide Web harvest are increasing: Malware[1] is everywhere; Phishing[2] attacks are now able to specifically target you. Attackers know your name and email address and can become familiar with your personal interests. To better counter these risk areas ACT is conducting a Pilot Awareness Campaign throughout 2014. Once the pilot is complete, the programme will be adopted NATO-wide, arming users with the necessary information needed to defend themselves both at work and at home against cyber threats.

Countering threats includes preparing an informed network to help support the efforts. ACT is working with the Cooperative Cyber Defence Centre of Excellence (COE) in Tallinn, Estonia and the NATO Communications and Information (NCI) Agency to develop the Cyber Defence Education and Training courseware and curriculum that NATO needs to support its missions. This includes the cyber specialists in Mons, Belgium that work at the NATO Computer Incident Response Capability (NCIRC) Technical Centre (TC); military planners at SHAPE who need to consider cyber as part of their operational planning; and policy leaders who are making strategic decisions. The knowledge and comprehension of the effects that cyber plays at each of these levels is fundamental to ensure NATO is prepared to respond appropriately to future threats.

## Transferring Knowledge to Operations

Planning, preparation, and cooperation provide the foundational knowledge and awareness which need to be translated into military operations (by doctrine) and tested (through exercises); an on-going and interactive process.



[1] Malware is short for malicious software, is software used to disrupt computer operation, gather sensitive information, or gain access to private computer systems.

[2] Phishing is the act of attempting to acquire personal information by masquerading as a trustworthy entity in an electronic communication.

Technology has advanced warfighting so rapidly that NATO doctrine has failed to keep pace. Both Allied Command Operations (ACO) and ACT are addressing these issues through the Cyber Defence Action Plan and making steady progress. This progress will enable future exercises to be conducted and executed taking into account the myriad of cyber challenges that NATO Forces will face in a contested cyber environment. Furthering this idea, ACT is proposing nations endorse a *"cyber range"* capability that will enable the Connected Forces Initiative (CFI) to support future cyber training, exercises, experimentation, and validation.

ACT is focusing on requirements and capabilities formulating the next generation of cyber defence capabilities. By encouraging Nations to participate in a variety of cyber-related Smart Defence initiatives, NATO can remain in stride with the advancement of technology and the associated threats and vulnerabilities that have yet to be discovered and exploited.

## Cyber Defence Transformation

In a holistic view, Cyber Defence within NATO is evolving as ACT plays a key role.

An enhanced cyber policy is being discussed at NATO Headquarters; NATO recently declared NCIRC Full Operational Capability (FOC) as providing centralised cyber defence protection over critical sites. ACT is delivering a comprehensive Cyber Defence Education, Training, and Exercise programme. The exercise and training mission where ACT is in the lead, are part of a wide-range of Cyber Defence deliverables for the NATO Summit in the fall of 2014.

This measurable progress puts roots down that can be followed to NATO employees who are embracing cyber awareness and taking ownership of their responsibility to safeguard and protect information. These roots also extend to NATO Nations who are developing and enhancing their own national cyber strategies to ensure they are prepared to operate in cyberspace with the same freedom as they operate on land, sea, and in the air.

ACT's cyber activities are the building blocks to ensuring its people are trained and prepared to effectively operate in this environment, and they will fully support NATO's role as a *"facilitator"* and *"coordinator"* in this area.

In the end, NATO Forces and their respective organisations will operate in the cyber domain and successfully execute future missions with the confidence and assuredness necessary – as a result of the foundation, planning, preparation, and cooperation led by ACT.

# Cyber Defence: A Major Topic in NATO's Transformation

**NATO operates in a connected world, and uses an information technology infrastructure to communicate and collaborate with nations and organisations around the world. The global network of these interdependent infrastructures is called *"cyberspace"*. The Alliance needs to defend its freedom of movement in cyberspace and the safety of its information against cyber threats, through a Cyber Defence programme**

*Peter WOUDSMA*

As a highly-visible organisation, NATO has always been exposed to attacks on its Information Technology (IT) infrastructure. Hacker groups have tried – and continue trying – to disrupt NATO's political and military capabilities and mock our public image. Hacking incidents in the late 1990s, related to our operations in the Balkans, led to the start of NATO's Cyber Defence Programme. After the 2002 Prague Summit, initiatives were taken to establish the NATO Computer Incident Response Capability (NCIRC), an organisation now under the NATO Communications and Information Agency (NCI Agency) that monitors our infrastructure and responds to cyber threats and attacks. Since then, the Nations have re-confirmed NATO's commitment to Cyber Defence, and implementation into the new Strategic Concept and the Cyber Defence Policy has begun.

## A Plan for Cyber Defence

Allied Command Transformation (ACT) is involved in NATO's Cyber Defence Programme in several ways. The Cyber Defence Action Plan (CDAP) was introduced in 2011 with the release of the Cyber Defence Policy. It reflects a number

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Peter Woudsma – NATO Allied Command Transformation (ACT) Engineer with the Technology and Human Factors Branch.

of short-term actions that are taken to mature NATO's Cyber Defence capabilities and enhance the political and operational mechanism of the response capability of the Alliance. ACT is leading in about one-third of these actions, and providing support to one-third more. Several of this command's activities focus on aspects that have a relationship with the Connected Forces Initiative (CFI). Through the development of education, training, exercises and evaluation (ETEE) solutions we will sustain *"expanded education and training"*. Our development of a burden sharing concept strengthens a *"better use of technology"*. Other aspects cover assessments of Cyber Defence measures and dependencies, the establishment of a standardised appropriate vocabulary and the development of a transformational agenda for future Cyber Defence solutions.



Furthermore, ACT is contributing to this topic through its leading role in Consultation, Command, and Control (C3) capability development. Our investment proposals and project plans help to make sure that new solutions are implemented with state-of-the-art monitoring and protection capabilities. The specific requirements for these capabilities are captured in the C3 Classification Taxonomy.

## Cyber: The Fifth Dimension

The current Cyber Defence activities in the Alliance – e.g. from the CDAP, at the NCIRC, with IT Modernisation and C3 capability development – are moving forward at a steady pace. These activities have leaned heavily on the technical aspects of NATO's own communications and information systems (CIS) in the past ten years. Nevertheless, the scope of Cyber Defence is wider than the current work, as is highlighted by several trends. For instance, in member nations there is a growing awareness of the operational implications of this activity. Some nations even consider cyberspace as the fifth dimension of warfare, right next to sea, land, air and space. United States intelligence officials recently told that they believe that the United States faces a greater threat from cyber-attacks than from terrorism.

Moreover, the *"Tallinn Manual on the International Law Applicable to Cyber Warfare"* – a study written by an independent team of legal experts at the invitation of the Cooperative Cyber Defence Centre of Excellence (CCD COE) – appreciates existing international law for cyberspace in the context of armed conflicts and the right to self-defence. Amongst other things, it analyses the possibility to invoke NATO's Article 5 in case of a cyber-attack on any NATO country.

## The Human Dimension

ACT believes we need to consider Cyber Defence in a broader approach. Our CIS infrastructure – and therefore cyberspace – should no longer be seen solely as a technical enabler for operational and administrative processes. Cyber Defence is not an exclusively technical issue but rather a response to a threat to all aspects of the Alliance. NATO can perform a role in coordinating the planning and implementation of national Cyber Defence capabilities as well as the integration of cyber responses between NATO and member nations.

It is important to put a greater emphasis on the human dimension. Cyber attackers often exploit human weaknesses through *"social engineering"*. Studies show that users are the weakest link in Cyber Defence and we need tools and measures to offer them an easier capability to protect data, guarantee use of the IT infrastructure according to their legitimate needs, and prevent them from knowingly or unintentionally creating security violations. We must raise awareness through information, training and exercises programs.

## A Continuous Effort

With all the activities going on in ACT and beyond, and all the investments that are being made in C3 capabilities across the whole DOTMLPFI[1] spectrum, it will not guarantee that NATO will be permanently and fully protected against cyber-attacks. Cyberspace is becoming increasingly sophisticated. Cyber threats are constantly evolving and the Alliance needs to be vigilant and inventive to counter them. That is a continuous effort, and through the update of our programs and our expertise, ACT is well-positioned and strongly committed to perform its transformational role in Cyber Defence.

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[1] DOTMLPFI: Doctrine, Organisation, Training, Material, Leadership Development, Personnel, Facilities, Interoperability

# Capacity Building as a Tool for Comprehensive Security

**Partnerships was a central theme
in the 1990 London Summit.
Member states will once again address the topic
in this year's Wales Summit**

*Keseah SILVERMAN*

Capacity building is an essential contribution to the development of international order and stability. It is a part of NATO's responsibility to better offer defence and security capacity building support to Partners as was decided in the Berlin Partnership Policy[1].

NATO carefully considers how additional capacity building support could be offered to non-Partners. It is important for Alliance Nations and Partners alike to understand that support should be upon request, on a case-by-case basis, within the available resources as approved in NATO financial procedures, complimentary with other international organisations and open to contributions from Allies and Partners.

## NATO's Capacity Building Activities

In addition to requiring topic-specific expertise, capacity building programmes are complex, require knowledge of the country and region, patience, and long-term commitment, including the occasional or enduring presence of NATO personnel on the ground and frequent travel, as well as careful follow-up and assessment. NATO has clear mandates, programmes, tools and experience to support defence capacity building. The Strategic Concept Core Tasks 2 (Crisis Management)

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Keseah Silverman – Regional Analyst for Central Asia, Bi-SC Military Partnerships Directorate.

[1] The Berlin Partnership is defined as making dialogue and cooperation more inclusive, flexible, meaningful and strategically oriented.

and 3 (Cooperative Security) and the Berlin Partnership Policy provide clear foundations. NATO's bilateral cooperation plans are significantly focused on defence capacity building. NATO's cooperation tools, including the Partnership Cooperation Menu (PCM), the Professional Development Programme (PDP), the Defence Education Enhancement Programme (DEEP), the Building Integrity Programme (BI), and the Resettlement Programme (RP) similarly focus on defence capacity building. NATO has additional experience in an operational context, in Kosovo, Iraq and Afghanistan, as well as in training and advisory roles in Bosnia-Herzegovina, the Former Yugoslav Republic of Macedonia and with the African Union.

The role of the NATO Command Structure's (NCS) in capacity building is to develop the skills, abilities, and processes in order to enable Partners to develop their defence capacity and to assist in achieving military capabilities. The 2014 Summit will focus on providing capacity building tools to non-NATO Partners which are not under the current NCS. The NCS and all its resources use the following tools, amongst others, to provide defence and related security capacity building for the Alliance and its Partners: expert team visits and mobile training teams; individual training and education courses; exercises, conferences, seminars, and consultations; and port visits and associated activities. The NCS also contributes to Defence Capacity Building in forms of operational advice assistance in defence policy; security sector reform (SSR); training and education of local forces (T&E); disarmament, demobilisation and reintegration (DDR); Security Force Assistance (SFA); collection/storage/destruction of arms and ammunition; and human resource management and capacity building.

## Benefits of Capacity Building:

As NATO looks to a post-2014 future with a lower level of operational deployment there is an opportunity to improve the focus and effectiveness of NATO's support to defence capacity building. Capacity building takes time and resources but is less costly compared to involvement in operations and as result is imperative due to current global defence spending restraints.

## Suggestions

Capacity Building should be demand-driven and concentrate on agreed priorities. Objectives should be clear, should focus on sustainment, and be based on solutions that have local buy-in, and also take into account potential leverages.

NATO should adopt a comprehensive approach to capacity building whereby political, civilian, and military instruments are involved, as appropriate, during planning and implementation. Successful capacity building will be beyond multi-faceted and will extend beyond *'train and equip'* programmes. NATO should engage, as required, with partner countries, international organisations, non-governmental organisations, and local authorities to seek an optimum division of labour based upon mutual strengths, mandates and roles. Defence capacity building should take into account the links between the different elements of the wider security sector in the recipient country. A flexible approach should be adapted to local circumstances and to the contributions and ability of other actors and international and non-governmental organisations which will mean potentially working with Interior Ministries, police, as well as Ministries of Defence and armed forces.

# The Secretary General's

Annual Report **2013** (II)

## Counter-piracy

2013 marked a significant reduction in pirate activity off the Horn of Africa and in the Gulf of Aden. There were no successful attacks in the area in 2013. The presence of the international navies off the coast of Somalia has been a determining factor, together with measures taken by the international merchant shipping community.

With the global annual impact of Somali piracy estimated at US$18 billion by the World Bank, efforts to counter piracy are an important investment. Throughout 2013, NATO continued to deter and disrupt pirate attacks and protect vessels in the region, working closely with other international actors. In the framework of Operation Ocean Shield, NATO forces cooperate with the EU-led Operation Atalanta, with US-led Combined Maritime Forces, and with countries such as China, Japan and Russia. This collective effort has allowed the international community to maintain pressure on Somali pirates and strengthen partnerships in the maritime domain.

While these efforts have yielded positive results in the short term, they cannot address the root causes of piracy ashore. For a lasting solution, more work needs to be done in the area of regional capacity-building. Although not in the lead in these efforts, NATO is committed to continuing to provide expertise in this field.

## NATO support to Turkey

In November 2012, repeated violations of Turkey's territory from Syria, along NATO's southeastern border, led to a request from Turkey for Alliance support. NATO Foreign Ministers agreed to deploy Patriot missiles to augment Turkey's air defence capabilities, helping to defend and protect Turkey's population and territory and to contribute to the de-escalation of the crisis along NATO's border.



By early 2013, six defensive Patriot missile batteries were operational in Turkey helping to protect Turkish citizens from possible ballistic missile attacks. As part of a regular review of deployment in November, Allies agreed to maintain this support in 2014. The command and control of the Patriot missile batteries rests with the NATO Command Structure, and NATO continues to keep the situation in Syria under close review.

# Broadening partnerships for global security

Today's global challenges require a cooperative approach to security. Complementing the close relationships among NATO member countries, partnerships are an increasingly important part of the Alliance's core business. NATO has actively engaged with partners for over two decades. As the security environment has evolved, and as the number of countries and institutions working with NATO has grown, so have the Alliance's approaches to and mechanisms for working with partners.

In 2010, NATO leaders agreed that the promotion of Euro-Atlantic security is best assured through a wide network of partner relationships with countries and organisations around the globe. They recognised the value of partners' contributions to operations and the importance of giving those partners a structural role in shaping strategy and decisions on NATO-led missions to which they contribute.

To expand the areas of cooperation with partner countries and organisations and facilitate increased dialogue, Allies endorsed a new partnership policy in 2011. Since then, one of NATO's aims has been to improve flexibility so that partners can easily join political consultations and integrate into NATO operations on the basis of their individual interests and their specific capabilities. In 2013, NATO engaged with more partners in more substantive areas than ever before.

## Extending partnership networks

### Middle East and North Africa

Throughout 2013, the Alliance's engagement in the Middle East and North Africa continued to develop through and beyond the established frameworks

NATO adopts a broader approach to partnership in its new Strategic Concept, opening the way to deeper cooperation with a wider network of partners.

NATO and Afghanistan sign a Declaration on Enduring Partnership.

Five non-NATO countries participate in the NATO-led operation, Unified Protector, in Lybia; Jordan, Morocco, Qatar, Sweden and the United Arab Emirates.

NATO launches a more flexible partnership policy and operational partners are given a greater role in shaping decisions related to the operations to which they contribute.

ISAF troop contributor Mongolia adopts a programme of cooperation with NATO covering areas such as crisis management, capacity-building and interoperability.

Leaders from the 50 countries contributing to ISAF, joined by President Karzai and representatives from Russia, Japan, Pakistan, Central Asian states, the UN and the EU, meet during NATO's Chicago Summit.

New Zealand focuses on cyber defence, disaster relief, crisis management and joint education and training in its new programme of cooperaion with NATO.

NATO and Australia commit to developing a stronger relationship through the signing of a Joint Political Declaration and, later, adopt a new cooperation programme.

November | March | April | March | May | June | June

2010 | 2011 | 2012

of the Mediterranean Dialogue and the Istanbul Cooperation Initiative. In October, following preparatory discussions among experts in Tripoli and Brussels, NATO Defence Ministers agreed to respond positively to a request for assistance from Libya. Specifically, Libya asked NATO to assist the country in strengthening its security and defence sector. This engagement signals the Alliance's commitment to projecting stability in its neighbourhood by helping to build local capacity and foster accountable and effective security institutions.

In September, NATO and Djibouti agreed to develop closer cooperation that includes the establishment of a liaison office in support of NATO's counter-piracy operation, Ocean Shield. Despite civil unrest in Egypt, NATO continued its training programme in landmine detection. And NATO is working with Mauritania to establish a national operational coordination centre to strengthen national civil protection services.

### Asia-Pacific

In 2013, NATO continued to build its relations with key partners in the Asia-Pacific. In April, NATO and Japan signed a Joint Political Declaration, highlighting their shared strategic interests in promoting global peace, stability and prosperity, and outlining areas for increased cooperation. NATO and Japan cooperate broadly in Afghanistan, where Japan has been a catalyst for and leading provider of financial support and development assistance. Other areas of cooperation include coordination in crisis management and in dealing with challenges including disaster relief, terrorism, piracy and cyber attacks. April 2013 also marked the first visit of a NATO Secretary General to the Republic of Korea, a valuable contributor to the ISAF mission which is also interested in expanding cooperation with the Alliance.

The Republic of Korea and NATO step up cooperation while, in parallel, Seoul continues to contribute to ISAF in Afghanistan. — September

Iraq formally enters NATO's partnership family with the signing of a cooperation accord with the Alliance. — September — 2013

First-ever visit of a NATO Secretary General to the Republic of Korea. — April

Japan – a long-standing contributor and donor to NATO operations – signs a Joint Political Declaration with the Alliance. — April

The helicopter maintenance project founded by NATO and Russia is expanded to help the Afghan Air Force develop the ability to operate and maintain its fleet of helicopters independently. — April

Military-to-military cooperation is strengthened with Pakistan. — May

The NATO SILK-Afghanistan internet connectivity programme shifts from satellite to fibre-optic communications. — May
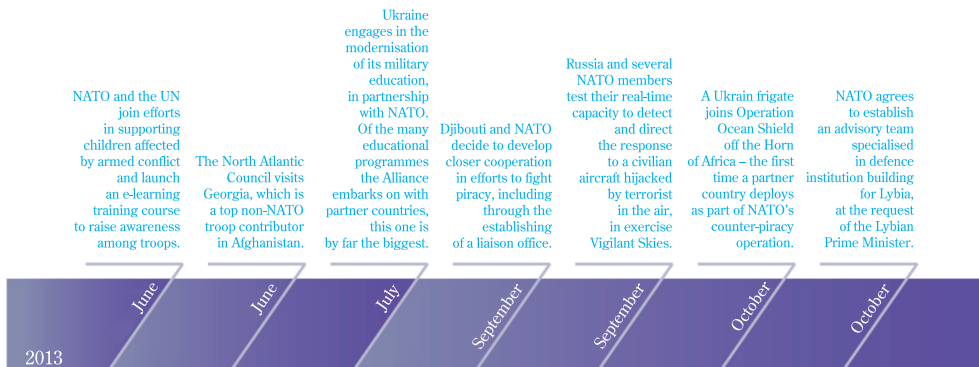
NATO's partnerships in the Asia-Pacific are grounded in a global perspective of today's security challenges. NATO's partners in the Asia-Pacific region, which also include Australia, New Zealand, and Mongolia, have been valuable troop contributors to the International Security Assistance Force (ISAF) in Afghanistan. Building on these experiences in the field, NATO coordinates with these partners to retain the ability to work together in operations while expanding cooperation in other areas, including counter-terrorism and cyber defence. These initiatives complement expanding NATO ties to other countries of the Asia-Pacific region, including Malaysia and Singapore. Senior staff from NATO and China continued their informal security dialogue in 2013.

## Countries aspiring to join NATO

Particularly close relationships are maintained with the four partner countries that aspire to NATO membership – Bosnia and Herzegovina, Montenegro, the former Yugoslav Republic of Macedonia*, and Georgia. In 2013, good progress was made in implementing the reforms necessary to meet the Alliance's standards, even if further progress is required for these countries to achieve their membership aspirations. Specific areas of work include: registering immovable defence properties as state property in Bosnia and Herzegovina; bringing security agencies up to NATO standards and addressing corruption in Montenegro; and continuing progress toward civilian and military reform goals as set out in the Annual National Programme in Georgia. An invitation to the former Yugoslav Republic of Macedonia* will be extended as soon as a mutually acceptable solution to the issue over the country's name has been reached with Greece.

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* Turkey recognises the Republic of Macedonia with its constitutional name.

NATO and the UN join efforts in supporting children affected by armed conflict and launch an e-learning training course to raise awareness among troops.
June

The North Atlantic Council visits Georgia, which is a top non-NATO troop contributor in Afghanistan.
June

Ukraine engages in the modernisation of its military education, in partnership with NATO. Of the many educational programmes the Alliance embarks on with partner countries, this one is by far the biggest.
July

Djibouti and NATO decide to develop closer cooperation in efforts to fight piracy, including through the establishing of a liaison office.
September

Russia and several NATO members test their real-time capacity to detect and direct the response to a civilian aircraft hijacked by terrorist in the air, in exercise Vigilant Skies.
September

A Ukrain frigate joins Operation Ocean Shield off the Horn of Africa – the first time a partner country deploys as part of NATO's counter-piracy operation.
October

NATO agrees to establish an advisory team specialised in defence institution building for Lybia, at the request of the Lybian Prime Minister.
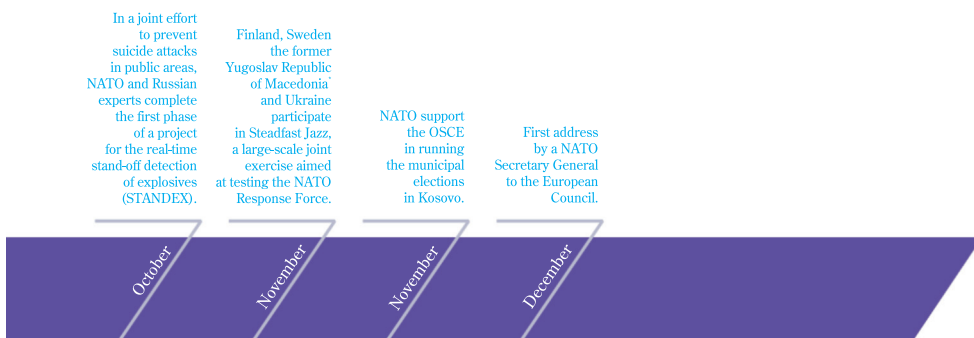October

2013

**Russia**

The 2010 Lisbon Summit launched a new phase in relations between NATO and Russia, with agreements to do more together on Afghanistan, enhance training on counter-narcotics, and fight terrorism. In 2013, practical cooperation grew, despite continuing disagreements on a number of issues including missile defence. Russia continued to provide important transit facilities for NATO and partner forces in Afghanistan, and progress was made in counter-narcotics cooperation. NATO and Russia also sustained their joint support to the Afghan Air Force through the NATO-Russia Council Helicopter Maintenance Trust Fund. In April, the second phase of the project expanded the support provided to the Afghan forces, and at the end of 2013, 40 Afghan maintenance staff had completed initial training.



Photo: NATO-Russia Council

In December 2013, NATO and Russia agreed to launch a new trust fund project for the safe disposal of obsolete and dangerous ammunition in the Kaliningrad region. The first phase will focus on the disposal of tens of thousands of obsolete bombs and shells, making the area safer for those who live there and creating the conditions for former military sites to be converted to civilian use.

In a joint effort to prevent suicide attacks in public areas, NATO and Russian experts complete the first phase of a project for the real-time stand-off detection of explosives (STANDEX).

Finland, Sweden the former Yugoslav Republic of Macedonia* and Ukraine participate in Steadfast Jazz, a large-scale joint exercise aimed at testing the NATO Response Force.

NATO support the OSCE in running the municipal elections in Kosovo.

First address by a NATO Secretary General to the European Council.

October    November    November    December

Further progress was made on counter-terrorism. In September, NATO and Russian fighter aircraft flew together during a live counter-terrorism exercise, Vigilant Skies 2013, where the capacity to respond to the hijacking of civilian aircraft in mid-air was tested. This was preceded, in early summer, by the testing in real-life conditions of the STANDEX project technology developed jointly by NATO and Russian scientists to detect explosives concealed on suicide bombers in public spaces with particularly high transit rates such as airports and train stations. This technology is now under commercial development.

### International organisations

Cooperation with other international organisations has become integral to NATO's crisis management. In 2013, the Alliance worked to reinforce links with other key regional and global institutions. In September, NATO and the United Nations (UN) marked five years of enhanced partnership since the signing of the Joint Declaration on UN/NATO Secretariat Cooperation in 2008. These five years have been characterised by growing practical cooperation and an increasingly effective political dialogue between the two organisations to support regional capacity-building and crisis management, with a strong focus on Afghanistan.

NATO and the European Union continued their close cooperation in 2013. In December, NATO's Secretary General addressed the European Council during their meeting on defence. This was the first address by a NATO Secretary General to the European Council. This high-level engagement was matched by cooperation on the ground in Afghanistan, Kosovo, and Bosnia and Herzegovina; structured dialogue continued at the staff level to exchange information and avoid duplication. Similar staff-to-staff contacts also continued with the Organization for Security and Co-operation in Europe and with a number of other key organisations, such as the League of Arab States, the Gulf Cooperation Council, and the International Committee of the Red Cross. NATO's planning and capacity-building support to the African Union Mission in Somalia also continued in 2013, including with a small NATO military liaison team at the African Union Headquarters in Addis Ababa, Ethiopia.

### Remaining connected

In 2013, the Alliance updated its Political-Military Framework which ensures that partners can participate more effectively in Allied assessments, planning, and decision-making on current and potential operations. This and other measures

build on the experiences of partner country involvement in NATO-led operations in Afghanistan, Kosovo, Libya and the counter-piracy operation, Ocean Shield. Through these experiences, NATO and its operational partners improved their political consultations and gained higher levels of interoperability. To secure these gains, NATO's partners will be more systematically integrated into NATO's regular training and exercise programmes.

As part of these efforts, NATO is fostering partner participation in the NATO Response Force (NRF), NATO's rapid-reaction force. In 2013, Sweden joined the NRF alongside Finland and Ukraine, while Georgia pledged to make forces available to the NRF in 2015. In the autumn, four partners participated in the Alliance's largest exercise of the last seven years, Steadfast Jazz, which served to certify the NRF rotation for 2014.

Partners also participated in other major exercises in 2013. One example is Capable Logistician, which was sponsored by the Czech Republic and conducted in Slovakia in June 2013. Thirty-five countries, including nine partner countries, participated in this major logistics field exercise that addressed support activities as diverse as movement and transportation, water supply, infrastructure engineering and smart energy.

> **"NATO's partners will be more systematically integrated into NATO's regular training and exercise programmes**

Education is another area where cooperation expanded in 2013. Through its training programmes, NATO is helping to support institutional reform in partner countries. Initially, these programmes focused on increasing interoperability between NATO and partner forces. They have expanded to provide a means for Allies and partners to collaborate on how to build, develop and reform educational institutions in the security, defence and military domains. NATO has developed individual country programmes with Afghanistan, Armenia, Azerbaijan, Georgia, Iraq, Kazakhstan, Mauritania, Moldova, Mongolia, Serbia, Ukraine and Uzbekistan.

# Modern defence

Since the end of the Cold War, NATO's forces have undergone a dramatic transformation. Armour-heavy land forces previously prepared for the defence of continental Europe are now capable of being deployed and sustained over great distances in diverse roles and in challenging, often unfamiliar environments. Many have been re-equipped with wheeled armoured vehicles that have greater mobility, as well as protection against land mines and improvised explosive devices. A new generation of medium transport helicopters facilitates the rapid movement of ground forces and their supplies.

Allies' air forces, once tied logistically to their home airbases, are now able to quickly deploy overseas. This is due, in part, to the acquisition of deployable airbase logistic support modules, as well as the procurement of larger, longer-range transport aircraft and air-to-air refuelling tankers to give combat aircraft longer reach. Allied navies have improved their capacity for long-term deployments and for supporting joint operations from the sea as a result of the development and introduction into service of larger, more capable aircraft carriers and large amphibious ships.

All services are also better integrated to contribute to a comprehensive approach to stabilisation operations. These efforts to make NATO forces more deployable, flexible and agile have accelerated in recent years with the NATO-led operation in Afghanistan, Operation Unified Protector in Libya and the counter-piracy operation, Ocean Shield. It will be essential for Allies to maintain these hard-won gains in deployability as the operational tempo varies in the years to come.

## Smart solutions to security challenges

Delivering modern defence requires securing cuttingedge capabilities and training forces to operate seamlessly together. With the agreement of the Strategic Concept in 2010, Allies affirmed the primacy of their commitment to defence of Allied territory and populations and deterrence against potential threats. To ensure the credibility of this commitment, Allies pledged to maintain and develop a range of capabilities. Acquiring these capabilities and forces in a climate of prolonged austerity is not easy but remains essential. Through a series of initiatives, NATO is on track to provide innovative solutions to deliver a modern defence.

In 2011, the Secretary General launched the Smart Defence initiative, promoting prioritisation, specialisation and multinational approaches to acquisition. At the Chicago Summit in 2012, NATO Heads of State and Government endorsed the initiative and agreed on a package of 22 Smart Defence projects. They also endorsed the Connected Forces Initiative (CFI) to sustain and enhance the high level of interconnectedness and interoperability Allied forces have achieved in operations and with partners. In 2013, Allies completed two Smart Defence projects, broadened the portfolio of projects, and made considerable progress on those already underway. Within the framework of CFI, Allies began to implement plans to revitalise NATO's exercise programme.

In 2010, Allies adopted a package of critical capabilities that included the Alliance Ground Surveillance (AGS) system, enhanced exchange of intelligence, surveillance and reconnaissance data, and improved defences against cyber attacks. NATO leaders also agreed to develop the capability to defend their populations and territories against ballistic missile attack. Steady progress has been made in each of these areas. In 2012, the procurement contract was signed for AGS, Allies endorsed an initiative on Joint Intelligence, Surveillance, and Reconnaissance (JISR), improvements were made to NATO's cyber defence capabilities, and Allies declared an interim NATO ballistic missile defence capability. In 2013, the first NATO AGS aircraft was produced, JISR concepts were refined and advanced, NATO's Computer Incident Response Capability was improved, and the command and control structures for NATO's missile defence system were enhanced.

## NATO Forces 2020

At the Chicago Summit in 2012, NATO adopted the goal of NATO Forces 2020: a coherent set of deployable, interoperable and sustainable forces equipped, trained, exercised and commanded to operate together and with partners in any environment. Two key programmes support this goal: the Smart Defence initiative and the Connected Forces Initiative.

With the Smart Defence initiative, NATO provides a framework for using scarce resources more efficiently by promoting the joint acquisition of important capabilities. This approach builds on existing mechanisms for cooperation among Allies, and promotes prioritisation, specialisation and multinational approaches to acquisition.

The Connected Forces Initiative is another catalyst for achieving a modern defence and delivering NATO Forces 2020. While Smart Defence addresses

the acquisition of some of the key capabilities required by the Alliance, the Connected Forces Initiative focuses on the interoperability of NATO's forces – their ability to work together. It aims to ensure that Allies and partners retain the benefits of the experience gained while working together during multinational deployments to Afghanistan, Libya, the Horn of Africa and the Balkans.

In addition to these initiatives, NATO is pursuing programmes to improve its capabilities in certain key areas – specifically in the fields of intelligence, surveillance and reconnaissance (ISR) capacities, ballistic missile defence, and cyber defence.

## Smart Defence

Many of the modern defence capabilities required to face today's challenges are extremely expensive to develop and acquire. It is increasingly prohibitive for individual Allies to obtain specific capabilities on their own. Moreover, it does not always make good economic sense for an individual Ally to acquire these expensive technologies when there are mechanisms available for a cooperative approach. NATO's Smart Defence initiative builds on the strengths of the Alliance to deliver essential capabilities while reducing unit costs. Drawing on existing mechanisms, it aims to better coordinate defence efforts by aligning national and Alliance capability priorities. And it provides a platform for Allies to build on their individual strengths through coordination with the Alliance and each other, thus achieving specialisation by design rather than by default.

Launched in early 2011, Smart Defence has begun to deliver concrete savings for NATO Allies. Two projects were completed in 2013. Through the US-led Helicopter Maintenance project, Allies work collectively to maintain deployed helicopters in Afghanistan instead of maintaining them individually. Participating countries report saving millions of euros in maintenance costs while reducing repair time by up to 90 per cent. The other Smart Defence project completed in 2013 facilitates proper disposal of military equipment that countries no longer need. The NATO Support Agency has developed a way for countries to use off-the-shelf legal and financial tools that significantly reduce the costs of disposal. The clear benefits of these coordinated approaches have motivated national and NATO officials to pursue collective solutions in other areas.

## "Smart Defence has begun to deliver concrete savings for NATO Allies

In 2013, Allies broadened the portfolio of Smart Defence projects and made considerable progress on a number of projects already underway.

**Multinational Cyber Defence Capability Development**: this project improves the means for sharing technical information and promotes awareness of threats and attacks. Participating countries signed a Memorandum of Understanding in 2013, providing the basis for future progress.

**Pooling CBRN Capabilities**: this project will pool existing chemical, biological, radiological and nuclear (CBRN) protection equipment and forces to create a multinational CBRN battalion framework and conduct multinational training and exercises. Several CBRN projects exist and are organised around different regional groupings. They aim to generate synergies and increase interoperability.

**Multinational Aviation Training Centre**: building on operational experience gained in Afghanistan, this project will provide top quality training for helicopter pilots and ground crews. The training will focus on the deployment of helicopter detachments in support of NATO operations, as well as preparing Aviation Advisory Teams that provide training for the Afghan National Security Forces.

**Multinational Military Flight Crew Training**: this project aims to rationalise pilot training to reduce costs, as well as the number of training facilities required by Allies.

It will facilitate closer cooperation and ultimately improved interoperability. Multinational Joint Headquarters Ulm: this project is transforming an existing German joint command into a deployable multinational joint headquarters. Officially opened in July 2013, it addresses NATO's deployable headquarters needs in a multinational context, facilitating enhanced coordination while reducing costs.

**Pooling Maritime Patrol Aircraft**: by pooling a range of maritime patrol aircraft capabilities owned by Allies, this project will allow more flexible use of assets. It will lead to a more efficient allocation of assets to specific missions and tasks and continued access to this capability for Allies that are significantly reducing their inventories. A technical agreement has been in place since January 2013 and the handover to Allied Maritime Command (Northwood, United Kingdom) for activation is scheduled for July 2014.

**NATO Universal Armaments Interface**: in 2013, further progress was made to standardize weapons integration on fighter aircraft. This project will provide Allies with greater flexibility for using ammunition in operations. In addition, it will reduce future costs, increase interoperability and reduce the time needed for the integration of new weapons.

NATO plans to build on initial achievements, pursuing projects at the high end of the capabilities spectrum. In this respect, at their meeting in October 2013, NATO Defence Ministers discussed the capability areas they would like to develop in the context of more demanding Smart Defence projects. This work will continue into 2014 and beyond.

## Connected Forces Initiative

The Connected Forces Initiative (CFI) aims to enhance the high level of interconnectedness and interoperability Allied forces have achieved in operations and with partners. CFI combines a comprehensive education, training, exercise and evaluation programme with the use of cutting-edge technology to ensure that Allied forces remain prepared to engage cooperatively in the future.

In February 2013, NATO Defence Ministers endorsed plans to revitalise NATO's exercise programme; implementation began in October. These plans set the course for a more rigorous multi-year training schedule to ensure NATO and partner forces retain the ability to work efficiently together. They broaden the range of exercise scenarios and increase the frequency and the level of ambition of exercises. This will allow countries to continue to develop their operational

compatibility, and provide an opportunity to test and validate concepts, procedures, systems and tactics. Allies are also encouraged to open national exercises to NATO participation, adding to the opportunities to improve interoperability.

CFI includes a technology element to ensure that Allies identify and exploit advances in this area. It encompasses a range of solutions to seamlessly connect forces during training, exercises and, most importantly, when working side-by-side in operations. For instance, building on NATO's Afghan Mission Network, which interlinks the communication and information systems of Allied and partner forces in Afghanistan, NATO is developing a Future Mission Network, which will ensure that NATO has a similar capability for all of its future operations. This project exemplifies the underlying logic of CFI – to preserve the gains achieved in operations as the Alliance moves forward.

NATO has already begun to increase the scope of multinational exercises. In November 2013, NATO conducted its largest live exercise since 2006 in a collective defence scenario. Steadfast Jazz brought together thousands of personnel from Allied and partner countries to train, test, and certify the units serving in the 2014 rotation of the NATO Response Force (NRF). This exercise was conducted at sea, in the air, and on the territories of Estonia, Latvia, Lithuania and Poland. It incorporated a headquarters component provided by Allied Joint Force Command Brunssum (The Netherlands) to test the new NATO Command Structure.

Allies agreed in 2013 to hold a large NATO exercise after the conclusion of the ISAF mission in Afghanistan. This major exercise involving partners will take place in 2015 and will be hosted jointly by Spain, Portugal and Italy. A comprehensive programme of exercises is being developed for 2016 and beyond.

The NRF, activated in 2003, is NATO's most deployable force, able to operate globally and react to a wide spectrum of challenges. Made up of air, land, maritime, special operations forces elements and component command headquarters from across the Alliance, it can be appropriately scaled to quickly meet any threat, providing a targeted and flexible response to crises. Contributing to the NRF is an important way for Allies to demonstrate their commitment to the Alliance. Allies provide troops and component command headquarters on a yearly cycle, which allows NRF units to build expertise and lasting relationships between Allies' forces. Improving the interoperability and readiness of the NRF is an important element of CFI. It will therefore be heavily involved in training and exercise programmes beyond 2013.

**NATO Response Force rotations**
**2003-2013**

Land component HQ



Maritime component HQ



Air component HQ
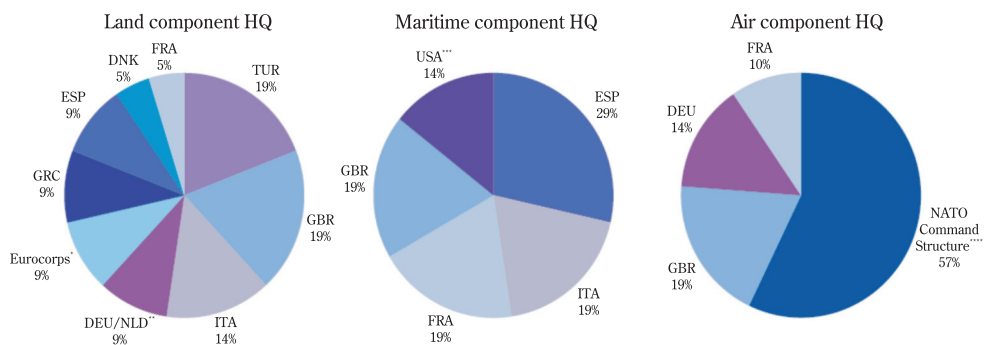


Note: For 2012 and 2013, the rotations lasted 12 months, compared to six months for the period 2003-2011.
* Eurocorps rotations involve a headquarters provided by Belgium, France, Germany, Luxembourg and Spain together.
** Germany and the Netherlands together as part of the HQ 1st German/Netherlands Corps.
*** The United States is the framework nation for HQ Naval Striking and Support Forces, NATO (STRIKFORNATO).
**** The applicable NATO Response Force rotations between 2003 and 2013 were filled by the Allied Air Command HQs Ramstein and Izmir.
Source: NATO
Figures have been rounded off.

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*In the third part of this report, the author will address the topics regarding JISR, Alliance Ground Surveillance and the need for reforming the Alliance.*

# IN THE *TRIPLEX CONFINIUM* OF GREAT POWERS. OUTLOOK ON ROMANIA'S GEOPOLITICAL AND GEOSTRATEGIC POSITION IN THE MAELSTROM BETWEEN 1938 AND 1940 (I)

*Colonel Dr Dan PRISĂCARU*

*Included in the "Cordon Sanitaire"/ "Sanitary Cordon" created by France after the Great War of 1914-1918, Romania was the southern "anchor" of the French defence system in Central and Eastern Europe between 1919-1940, intended to break off the political and ideological influences of Germany and the Soviet Union.*

*Together with the geopolitical and geostrategic importance of the Romanian space, the richness of the natural resources, among which oil occupied a leading position, generated a keen interest among the Great Powers, especially Germany and USSR, which intended to expand their control over Romania.*

*The belated understanding of the "game" of interests, the weaknesses generated by foreign propaganda, a certain rigidity of București foreign policy after 7 March 1936, when the balance of power significantly changed in Europe and a series of deficiencies of the Romanian inter-war state and society were the main causes of the territorial dismemberment of Greater Romania in 1940.*

*Keywords: collapse of collective security; geopolitical pressure; buffer state; territorial dismemberment*

*Motto: "We are a state of European necessity, in the attention of the East and West, the North and South alike. (…) Our geopolitical and geostrategic position has permanently attracted concern and sympathy, sometimes protection, but more often, lust and danger".*

Gheorghe I. Brătianu, *Foreword to Geopolitics and Geohistory*, in *Romanian Magazine for Southeastern Europe*, I, no. 1, September-November 1941.

## Romania – "Eastern bastion" of peninsular Europe

In the field of international relations, geopolitics, geostrategy and/or political geography, the geopolitical position is an element of particular importance. Although the definition continues to generate debates and controversies[1], military

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[1] Sergiu Tămaș, *Geopolitica – o abordare prospectivă*, Editura Noua Alternativă, București, 1995; Paul Dobrescu, *Geopolitica*, Editura Comunicare.ro, București, 2003; Paul Claval, *Geopolitică și geostrategie. Gândirea politică, spațiul și teritoriul în sec. al XX-lea*, Editura Corint, București, 2001; Ilie Bădescu, *Tratat de geopolitică*, Editura Mica Valahie, București, 2004; Constantin Hlihor, *Geopolitică și geostrategie în analiza relațiilor internaționale*, Editura UNAp *"Carol I"*, București, 2005; Idem, *Geopolitica. De la clasic la modern*, Editura KartaGraphic, București, 2011.

historian Petre Otu pointed out that most authors tended to accept that it comprised two components[2]: a geographical (area, latitude, longitude, relief, hydrographic network, climate, vegetation, mineral resources, geographical neighbours, natural borders, etc.) and a political one (the remoteness from or proximity to the regional, continental and global centres of power, the nature of the neighbourhoods, the domestic political system etc.). The geopolitical position of a state results from the interaction between these components. Other authors consider the geopolitical position as being defined by *"the sum of highly favourable conditions needed to strengthen their own national foundations, to assert that country within its community"*[3]. The geopolitical position includes three levels: macro-position (or the relations with world powers), the middle position (the place on the continent) and micro-position (the relations with neighbouring states)[4].

A special interest presents the buffer position (in the middle). The buffer state[5] is the geographical and political entity, with a relatively low power, which is situated between two or more great powers, created and maintained to ensure the reduction of conflicts. The buffer zone is the region where there are multiple powerful states and where, at a certain point in time, the *"power vacuum"* appears. Consequently, the great powers will seek to expand their domination and control over that space or block the access of another strong state in that area[6]. In international relations, buffer zones are meeting and friction points of great interest, places where many conflicts are generated or take place.

The dynamic nature of the geopolitical position is determined by the variability of the relationship between geographical and political factors. Ion Conea, one of the most remarkable personalities of Romanian geopolitics, stressed that while *"the geographical location remains always the same, the geopolitical position is always different"* and *"the political face of the Earth is a giant chess board, on which players always move pieces, always giving them new positions and functions"*[7]. Thus, the Romanian geographer/historian argued that global political environment should be observed and defined on geographical bases: *"the geographical conditions explain and characterise this environment"* and geopolitics is *"the political expression of a set of geographic features that converge into it"*.

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[2] Petre Otu, *Îmbrăţişarea anacondei. Politica militară a României în perioada 1 septembrie 1939-22 iunie 1941*, Editura Militară, Bucureşti, 2006, p. 16.

[3] Vasile S. Cucu, *Consideraţii geopolitice* (I), în *Geopolitica*, vol. I, Editura "Glasul Bucovinei", Iaşi, 1994, p. 361.

[4] *Ibid.*

[5] Martin Wight, *Politica de putere*, Editura Arc, 1998, p. 168.

[6] Petre Otu, *op. cit.*, p. 18.

[7] Ion Conea, *O poziţie geopolitică*, Imprimeria Institutului Statistic, 1944, p. 37.

Along with the political, economic, military, geostrategic meanings the nature and structure of the geographical factor bear in a certain historical context of regional, continental or global power relations, the geopolitical position of a state defines its precedence over the immediate or more distant neighbours. History has shown that the destiny of states and nations has been significantly affected by the existence of one or more powers in their vicinity. The member states of the *"Sanitary Cordon"*[8] designed from the Baltic to the Black Sea after the Great War of 1914-1918 are an eloquent testimony to this effect.

Rudolf Kjellen argued that *"each state shall bear, at any time, a certain pressure from abroad, which is directly related to the size, strength and character of its neighbours, so it must always consider itself under siege"*.

From these descriptive elements, we will try to briefly outline the geopolitical position of Greater Romania during 1938-1940 and its implications for the military policy and the actions undertaken on the secret front. In this regard, it is necessary to address some defining political and geographic features.

After the Great Unification of 1 December 1918, recognised by the Paris Peace Treaties 1919-1920, Romania's area was 295 049 sq kms (the tenth country in Europe in terms of size), and, in 1938, the population was of 19 353 398 inhabitants (the eighth among European countries), compared to 137 000 sq kms and a population of approximately 7,25 million in 1916[9]. At European level, Romania had 2,52% of the continent and 3,85% of its population[10].

Romania's population density was 65,1 inhabitants per sq km in 1935, this average being higher than the European one, which stood at 45,4 inhabitants per sq km. The total length of interwar Romanian borders was 3 400,37 kms, with a ratio of 1,2 km border for each 100 sq kms. The natural borders (rivers, streams) measured 2 285,9 km and 1 114,4 km the conventional ones. These features placed the Romanian state among the European countries with the most balanced ratio between the length of the borders and the area they enclosed, military experts considering it as optimal because it ensured the conditions required to mobilise significant resources for national defence effort.

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[8] The *"Sanitary cordon"* is defined in various studies and analyses of international relations as post-1919 France policy, that meant the creation of a *"barrier"* of states, in Central, Eastern and South-East Europe, consisting of Finland, Estonia, Latvia, Lithuania, Poland, Czechoslovakia, Romania and Yugoslavia, to oppose the political and ideological influence of Germany and the USSR and to support the French security system.

[9] Lt. col. Constantin Verdeş, *România. Studiu geografic, fizic, economic şi militar*, vol. I, Bucureşti, 1939, p. 21.

[10] Victor Slăvescu, *Potenţialul de război economic şi financiar al României*, Bucureşti, 1937, p. 17.

| Country | Border type | | | | | | |
|---------|-------------|------|--------|--------|---------|-----|-------|
|         | **Mountains** | **Hills** | **Plains** | **Rivers** | **Streams** | **Sea** | **Total** |
| USSR | | | | | Dniester (812) | | 812 |
| Hungary | | | 407,2 | | Mureş (20,8) | | 428 |
| Bulgaria | | 213,4 | | Danube (388) | | | 601,4 |
| Poland | 74,9 | | | | Dniester (112,4); Ceremuş, Prut (159,3) | | 346,6 |
| Czechoslovakia | | 122,3 | 13 | | Tisa, Tul (65,7) | | 201 |
| Yugoslavia | | | 283,6 | Danube (232,9) | Bega, Timiş, Berzova, Nera, Cevaya, Caraş (40,87) | | 557,3 |
| Black Sea | | | | | | 454 | 454 |
| **Total** | **74,9** | **335,7** | **703,8** | **620,9** | **1 211,07** | **454** | **3 400,37** |

*Greater Romania border structure*[11]

    The national territory, with an ellipsoidal shape, with the long axis measuring 650 km in the east-west direction and the short axis of 550 km in the north-south direction ensured favourable conditions for achieving a strong defensive system and carrying out manoeuvres. Furthermore, the Danube River, a natural barrier of strategic value, and Dniester River, with its right dominant bank on the Romanian territory, represented natural elements that strengthened the defence.

    The relative equal share of the three forms of relief – mountains, hills, plains – and the land configuration provide Romania with a harmonious and balanced geographical unity, this contributing essentially to the durability and strength of Romanians throughout history. The strength of the Romanian unity was given by the Carpathian Mountains[12], which were considered by Ion Conea *"the backbone of the Romanian land and people"*[13]. Together, the Carpathians, the Black Sea[14]

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[11] *Anuarul statistic al României. 1937-1938*, Imprimeria Naţională, Bucureşti, 1939, p. 41.

[12] The role the Carpathian Mountains in the historical evolution of the Romanian people is highlighted in many studies and scientific papers, among which: Ion Conea, *Transilvania – inima pământului şi statului românesc*, in *"Geopolitica şi geoistoria"*, year I, no. 1/1941, pp. 18-34; *Idem, Destinul istoric al Carpaţilor*, Editura *"Ţară şi Neam"*, Bucureşti, 1941; George Vâlsan, *Transilvania în cadrul unitar al pământului şi poporului românesc*, in *Transilvania, Banatul, Crişana, Maramureşul. 1918-1928*, apud Petre Otu, *op. cit.*, p. 55.

[13] Extensively, in the study *Destinul istoric al Carpaţilor*, in *"Rânduiala"* magazine, Bucureşti, 1941; the study was reprinted in Ion Conea, *"Geografie şi istorie românească"*, 1944, The *"Luceafărul"* collection (pp. 83-110). On this issue, see the study published in this collection entitled *"Spaţiul geografic românesc"*, pp. 7-25, and the article *"Carpaţii – hotar natural?"* in *"Geopolitica şi Geoistoria"*, no. II, 1942, p. 62 et seq.

[14] Gheorghe I. Brătianu, *Originile şi formarea unităţii româneşti*, Editura Universităţii *"Alexandru Ioan Cuza"*, Iaşi, 1998, p. 17.

and the River Danube[15] represent the three physical and geographical elements that have played a decisive role in the genesis and development of the Romanian people.

In his reference book, entitled *"Probleme româneşti dunărene"/"Romanian Issues about the Danube"*[16], N. Al. Rădulescu stated that *"navigation on the Danube could be done freely only when the Russians were not present at the Danube mouths, this principle being especially true in the future"*. As a result, the Romanian geographer concluded there was a connection between the size of the Romanian state and the European status of the Danube, therefore: *"1. the safety of river navigation could be threatened by the existence of states in the middle basin interested in obstructing the connection between the state in the upper basin and the one that stands guard at the mouths of the Danube; 2. Europe needs a powerful and unified Romanian state at the mouths of the Danube, with a Black Sea coast large enough to make it possible for the Danube Delta to be guarded"*[17].



*Gheorghe I. Brătianu*
*(1898 -1953)*

Furthermore, Gheorghe Brătianu formulated a series of geopolitical ideas and theses that remain fully valid today. Thus, in his lecture *"Black Sea issue"*[18], held during 1941-1942 at the University of Bucharest, the historian wrote about the geopolitical concept of Romania's *"security space"* which, according to him, *"comprises those regions and points without which a nation can meet neither its historic mission, nor the opportunities that make up its destiny"*.

On the same occasion, Gheorghe Brătianu also introduced necessary delimitations between the concepts of security space, ethnic space and vital space. Thus, ethnic space was *"the space inhabited by the same people, in the sense of a nation"*, while the vital space was a *"balance of power"*, respectively *"the space over which a force expands*

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[15] On the role of the Danube, see George Vâlsan, *Dunărea de Jos în viaţa poporului român*, in *"Graiul românesc"*, I, no. 10 (October), Bucureşti, 1927.

[16] Excerpt from the papers of the *Institute of Geography of the King Ferdinand University* from Cluj and Timişoara, volume VII, 1942, pp. 1-29.

[17] *Ibid.*

[18] Gheorghe I. Brătianu, *Chestiunea Mării Negre*, (lecture 1941-1942), University of Bucharest, Faculty of Philosophy and Philology. Geopolitical aspects of the course were presented by the historian in other circumstances too. See, in this respect: *Spaţiul etnic, spaţiul vital, spaţiul de securitate*, in *"Analele Academiei de Ştiinţe Morale şi Politice"*, vol. II, 1942, *"Originile şi formarea unităţii româneşti. Prelegeri ţinute la Şcoala Superioară de Război"*, Bucureşti, 1942. Details about the geopolitical lectures held by Gheorghe Brătianu at the Superior School of War, see locotenent-colonel dr. Petre Otu, *Studiul geopoliticii la Şcoala Superioară de Război*, in *"Revista de Istorie Militară"*, no. 6 (34)/1995, pp. 22-24.

*at some point"*[19]. In consequence, the security space could coincide with the ethnic space, resulting in a *"strong position"*, but it could also be larger than it. In his opinion, the affirmation of the security space did not mean the will and the desire to conquer *"a vital space"*, therefore it was not the manifestation of an expanding force.

Also, Gheorghe Brătianu identified two *"key positions"*, from a geopolitical point of view, that Romania had to include in the evaluation of its geostrategic interests: *"1. Bosporus and the system of straits, in general, that leads navigation beyond this great enclosed sea; and 2. Crimea, a forward maritime bastion into the Black Sea, which, through its harbours and ancient strongholds, is an obvious position of power over the entire maritime area. Whoever has Crimea can control the Black Sea. And who does not have it, cannot control the Black Sea. It is obvious that this problem is related to our issues, because, ultimately, the straits are nothing but the extension of the Danube Delta"*[20]. Based on these geopolitical and geostrategic realities, Gh. I. Brătianu added that *"the concept of security space means that we cannot be indifferent to what happens in these two key positions of a sea that is so closely connected to our existence"* and concluded that *"the history of the nineteenth and twentieth century is a fight between Russia and Europe for the Black Sea"*[21].

Studying Romania's position on the European continent, Simion Mehedinți concluded that Romania was located at the eastern border of peninsular Europe, Dniester being *"the Eastern border of* [peninsular – A/N] *Europe"* and *"the Carpathian fortress and its surroundings form* **Europe's Easternmost bastion**" (emphasis added in the original text).

Another element that influenced Romania's key geopolitical position in the 1938-1940 was, again, the wealth of natural resources, among which oil played a primordial role. Romania's international status in the first half of the twentieth century cannot be objectively explained unless the implications of the competition between the great powers to control this vital resource for carrying out the Second World War[22] are not shown.

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[19] *Ibid.*

[20] *Ibid.*

[21] *Ibid.* Given the Romanian interests in the Black Sea area and the Straits, Gheorghe Brătianu highlighted a number of previous solutions on this matter: *"The 1923 Lausanne Convention established the regime of the straits, which provided the demilitarisation of the straits and freedom of trade in the Black Sea. Therefore, the issue was dealt with that way, by taking into account the interests of the Black Sea countries. The 1936 Montreux Conference changed that system. It was yet another sign of change in the European balance of power. In addition, the 1856 Congress of Paris had destroyed Russian naval bases, also destroyed Sevastopol, prohibited Russia from having a war fleet in the Black Sea. That was how the security space was guaranteed, a space that was not only ours, but Europe's, at that time, just as it is today"*, in Constantin Corneanu, *Sub povara marilor decizii. România şi geopolitica marilor puteri 1941-1945*, Editura Scripta, Bucureşti, 2007, pp. 24-25.

[22] Among the scientific papers regarding this issue: Gheorghe Buzatu, *O istorie a petrolului românesc*, Editura Enciclopedică, Bucureşti, 1998; Gavriil Preda, *Importanţa strategică a petrolului românesc.*
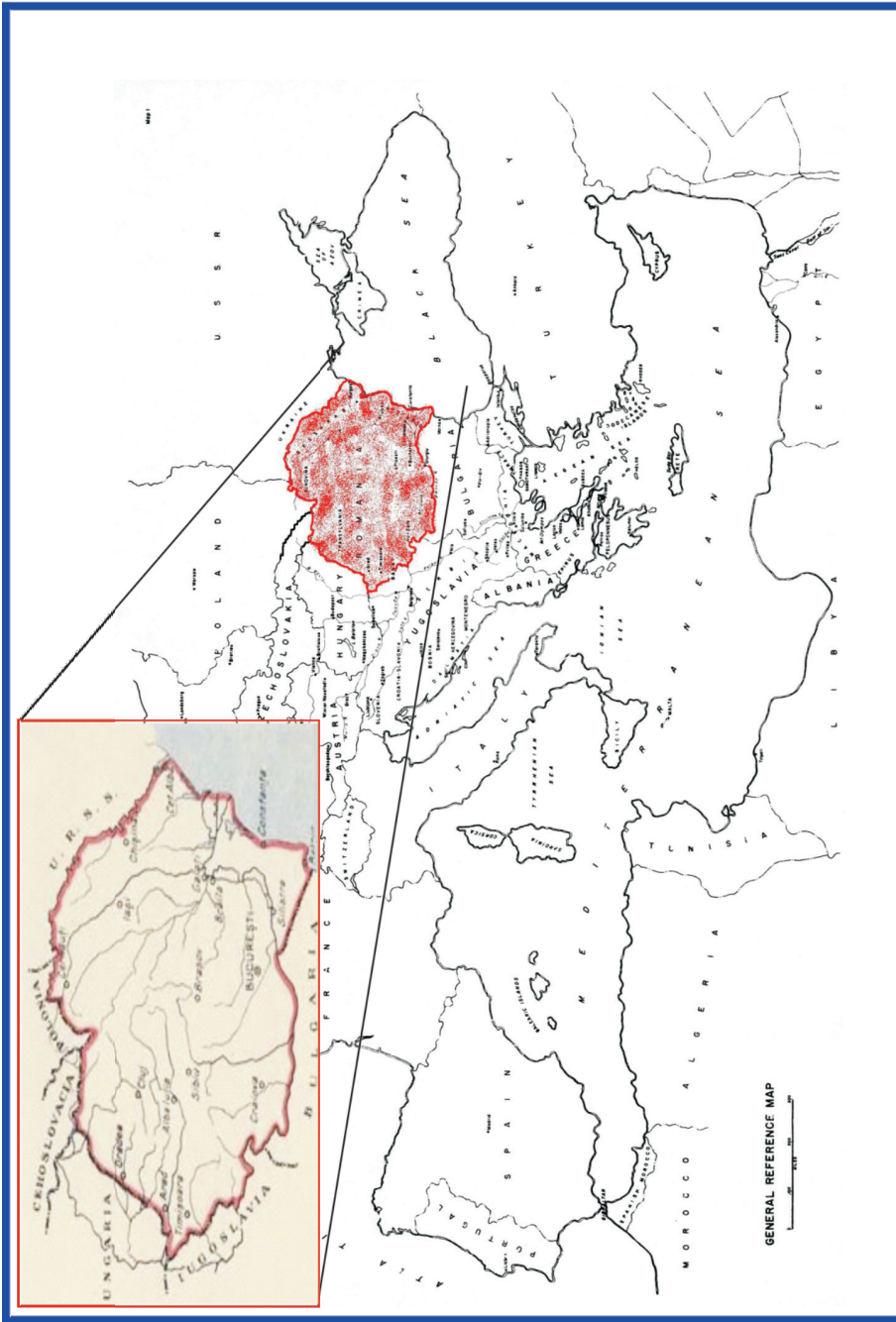
*Romania – Peninsular Europe's "Easternmost bastion"
and its neighbours after the Great Union of 1 December 1918*

Being *"the king of fuels"* for over a century and a half, the oil has decisively influenced the economy and world civilisation, which has triggered a permanent struggle between organisations, states and great powers at global or regional level. Thus, the assertion according to which oil is also *"capable and culpable"*[23] is justified: it is able to contribute to providing a high living standard and guilty for the aggressions that have brought disasters upon humanity. This has proved to be true also for our country. The two major world wars of the twentieth century turned Romania into a genuine arena of confrontation and a *"land of discord"* in the political, economic, diplomatic, military realm and, last but not least, in the secret war between great powers with interests in this area.

In the early months of 1939, Romania produced 3 328 939 tons of oil, being the fifth largest producer in the world and the only exporter state in Europe. The Romanian oil was rich in light elements, allowing quality gasoline production, the product being seen as one of the best in the world. Moreover, the Romanian oil fields were located nearby industrialised areas of central and northwestern Europe, therefore, they were a convenient oil provider in case of any trouble in the supplying system from other regions.

In January 1936, Dr Steinberger, a specialist in oil issues, published an article in *"Deutsche Wehr"* intended to draw attention to the oil needs of the German armed forces in the event of an armed conflict, namely 12,5 million tons (5,5 million tons for the Land Forces, 1,7 million tons for the Air Forces, 2 million tonnes for the Naval Forces, 2,45 million tons for the home front)[24].

Also, in the study *"Das Erdöl Weltkrieg" (Oil in the World War)*, published in Stuttgart, Dr Ferdinand Friedensburg highlighted the interest for the oil resources from Poland, Romania, the Caucasus and Middle East, the only areas that could be dominated by the German Land Forces[25]. Thus, it was emphasised that Romania held an important place in Berlin's war plans, something which, in our opinion, was not perceived and understood in time and in-depth by the political and military decision-makers from București.

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*1939-1947*, Editura PrintEuro, Ploieşti, 2001; Horia Brestoiu, *Impact la paralela 45 – incursiune în culisele bătăliei pentru petrolul românesc*, Editura Junimea, Iaşi, 1986; Eugen Preda, *Miza petrolului în vâltoarea războiului*, Editura Militară, Bucureşti, 1983.

[23] Horia Brestoiu, *Impact la paralela 45 ...*, p. 5.
[24] Constantin Corneanu, *op. cit.*, p. 28.
[25] *Ibid*, p. 29.

On 26 March 1939, USSR Ambassador to Paris conveyed a series of information and impressions to Moscow gathered from the official circles according to which Germany would attack France only when Romania *"comes completely under German influence (the peaceful option shall be also accepted)"*[26], which would make Hitler *"the undisputed master of the Danube basin, secure the supply of wheat and oil, provide a base at the Black Sea and pave the way for the Balkans and the Middle East"*[27].

In a study about the Vienna Award of 30 August 1940 presented to his staff, Eugen Cristescu, director of the Special Intelligence Service, stated that *"the black gold, which is another name for oil, a gift of nature so rich in benefits, played a negative role in our interests this time"*[28].

All these examples highlight the importance of the Romanian geographical space among the concerns of geopolitical centres of power. Unfortunately, the Romanian political class was not aware of how exceptionally important could have been playing the oil *"card"* and what role it could have had in our country's relations with the Great Powers. The misreading of the *"game"* of these powers' interests had dire consequences for Greater Romania.

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[26] Apud Eugen Preda, *Miza petrolului în vâltoarea războiului*, Editura Militară, Bucureşti, 1983, pp. 28-29.
[27] *Ibid*.
[28] Cristian Troncotă, *Eugen Cristescu. Asul serviciilor secrete româneşti*, Editura Roza Vânturilor, Bucureşti, 1994, p. 142.

# The Imperfect Fighter Pilot
## – A Story Rewritten

The idea of presenting a film in the pages of our Journal came from the Armed Forces Film Studio as a natural proposal to promote a new artistic success. I should tell you that I received much of the films the studio made in the last years and I saw them, each in its time, as some beautiful living books, with stories and characters that became part of my own sentimental archive.

I think it is a great opportunity for any producer and director to be able to recreate, on film, facts that occurred almost seven decades ago, in which the role of the main character is played by the protagonist himself. The directors and camera operators of the Armed Forces Film Studio had the marvellous inspiration of illustrating, into a film-poem, a sequence from the epic of the Second World War, whose protagonist was determined to gently go through the years and make us all take part in a touching story of life and death, of wings ruthlessly severed by forces foreign to our Romanian spirit, gifted by the Creator with the grace of flight.

I knew the story – I read and presented, in the covers of this Journal, the book dedicated to General Aviator Ion Dobran by Colonel AF Aurel Pentelescu – but the experience is different and more powerful this time, because, just as the director of this film, Prof. Dr Adrian Leonte, hoped, when he recreated it for the video cameras, the meeting place of words and pictures is not only authentic and expressive, but literally moving. A story of the beauty and freedom of the flight, of the enthusiasm and excitement of youth, of the patriotism and sacrifice for the country, of the fair-play of flying aces, of the absurd of severed wings and falling prey to absurdity, of the hope and rise from the ashes of burnt dreams, of the friend-foe/fighter-hunted confrontation at redefined levels and attitudes.

A cinematic story that also has a … story.

✎ *Colonel Dr Mircea TĂNASE*

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What I would like to say, first of all, is that we are not dealing with just a movie here, but with a confession of mine. I must confess to an admiration. What began as something that could be categorised as miscellaneous – a get-together between two former enemies, 65 years after they fought against each other in the Second World War – turned out to be a story to tell my grandsons. I was at the National Museum of Romanian Aviation, to be present when Air Flotilla General (at that time) Ion Dobran, Ret. and American Colonel Barrie Davis, Ret. met again. More precisely, I wanted to see and, why not?, to meet a fighter pilot about whom I heard from Felicia Antip, the journalist, that he was also an excellent Bridge player. And I was fortunate enough to do so. I was given the opportunity to meet a charming man. And not because, after a while, he welcomed me into his home as if we had known each other for a lifetime. But because he has a certain kind of distinction freed from the constraint of rhetoric of any sort, he is a man who has always nurtured his self-esteem and generosity, he is spontaneous and sharp-witted, all of which facilitate a relation of direct communication. And, most of all, he is a treasury of memories, all marshalled up in a military style, which in fact turned out to be very beneficial for what I needed back then. When he agreed to continue our conversation in front of the camera, I already knew we would have enough material even for a book. Which was already written. All I had to do was to sit and listen.

The two video cameras, plus a photo camera, plus the necessary lighting devices did not bother our magnificent storyteller – or at least he did not seem bothered by them. Under not at all comfortable circumstances, his discourse remained relaxed and smooth, providing us (camera operators Cătălin Suzeanu, George Motoacă and Emilian Boboc, Major Cornel Mituț and me) with a truly stimulating professional comfort. Those words had to be put down on paper and thus get the recognition they truly deserved.

Through Cătălin Suzeanu, who would later switch from the video camera to the instruments of video editing, those words started to flow, sometimes smoothly and sometimes turbulently, through a very densely populated world. Anytime one expected him to talk about one of his many faces as a young pilot, he would choose to evoke his brother in arms, commanders and friends instead, with a kind of genuineness of treasuring the values that could be found only in the chosen few. Researchers Sorin Turturică and Vasile Tudor assisted us in deciphering the puzzle of photographs and fragments of old film footage kept in archives that were too little searched through, unfortunately. Having said all this, we hope that we succeeded in creating an equally authentic and expressive image at this meeting place of words and pictures.

✍ **Professor Dr Adrian Leonte**
Head of Directing Office,
the Armed Forces Film Studio

**English version by**
✍ *Iulia NĂSTASIE*

RMT SPECIAL

A STORY REWRITTEN

The Imperfect Fighter Pilot

MINISTRY OF NATIONAL DEFENCE
FILM STUDIO

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Cover 1: *Blue sky!*, Bobocu Airfield, 14 June 2014.
    Photo: Colonel Dr Mircea TĂNASE.
Cover 4: *Towards a new alignment*, Mălina Range, June 2014.
    Photo: Lieutenant Colonel Toni ENE.

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