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## FOREWORD

This English language special issue of the Defence Review is the latest collection of high quality contributions by Hungarian military scholars and our international partners. They address a wide range of topics on applied sciences and security policy with the common aim of making our world safer.

The authors in the first section of this issue focus on the current problems and trends of terrorism. *Gordon Woo* analyses a new aspect of spreading terror by exploring the connections between violence and the media. *David Winston*'s work shows us how the tools and methodology of terrorist attacks change as circumstances, perpetrators and target locations change. The same question is examined by *Attila Kasznár* and *György Zoltán Bács*, as they call attention to the lone-wolf perpetrators from the viewpoint of counter-terrorism. *Richard Warnes* in his study emphasises the importance of local communities as a capability resource for civilian-based national resistance against terrorism.

Many challenges may influence security policy worldwide. In this field of research, I recommend two brilliant papers on U.S. foreign policy, the first by *Fabio Vanorio* on reforming the Committee on Foreign Investments of the United States, and the second is the study by *István Tarrósy* on the changes of the USA's policy in China and Africa. Focusing on Africa, *Mariann Vecsey* presents the latest migration trends in the continent, and then *Karim Boudadi* examines the security cooperation in the Sahel Region.

In the field of applied sciences, there are several papers seeking appropriate answers to current professional challenges. It is the current information dependence that inspired *Zoltán Pozderka* and *Győző Csanádi* to examine the questions of CCIR and information management. I highly recommend also the study by *Imre Porkoláb* and *Ben Zweibelson*, opening a window on innovation in NATO. *Erika Héregi* gives an outstanding summary of the military administration tasks related to personnel augmentation in the Hungarian Defence Forces.

Considering the wide-ranging content of this issue of the journal, I am proud to present it as a product of national and international contributions and I hope that not only military specialists, but civilian experts will find these papers more than useful.

*Brigadier General Attila Géza Takács,*  
*Commander,*  
*HDF Military Augmentation, Preparation and Training Command*

David Winston:

## DIY TERRORISM: A LOOK AT THE PARADIGM SHIFT IN DAESH'S RECRUITMENT TACTICS THROUGH THE LENS OF CENTRAL ASIAN FOREIGN TERRORIST FIGHTERS

*ABSTRACT: With Daesh having almost completely lost its hold over Syria and Iraq, it has shifted its strategy towards spreading its brand elsewhere. It has undergone a noticeable shift in its media from attempting to promote travel to the so-called caliphate to promoting attacks on the "far enemy", or targets outside of Muslim lands. Daesh is lowering the threshold for executing a terrorist attack by promoting a new style of terror attack called 'Just Terror' which utilizes easily acquired materials to inflict high casualty attacks. By doing so it is creating a higher frequency of terror attacks by making the attacks more accessible to unskilled extremists. Daesh is codifying these attacks by creating a detailed guideline in their online journals. This has spawned a new type of terrorist known as an 'enabled attacker', where they have all of the operational knowledge of a terrorist trained by a terrorist organization without the direct interaction with that terrorist organization. This enables Daesh to spread its brand and have strikes committed in its name without direct involvement in the operation of the attack. Daesh is additionally looking towards recruiting from new regions as their influence in Syria and Iraq is dwindling. Central Asia has been experiencing a growing level of extremism since its involvement in the Soviet-Afghan War, and Daesh is looking to subvert al-Qaeda's hold on the region through encouraging enabled attackers. It has invested significant resources of its media operations to create propaganda that resonates with disenfranchised Central Asians, and its efforts seem to be garnering it a foothold in the region. As the Daesh-inspired attacks from the Central Asian diaspora increase, Daesh will appear to be the dominant force in the region, which will in turn increase its influence in Central Asia. Daesh will increase its digital campaigns in regions around the world to create a global 'caliphate'.*

*KEYWORDS: terrorism, Daesh, ISIS, al-Qaeda*

### INTRODUCTION

The latter half of 2017 has seen the most significant blow to Daesh, the so-called Islamic State, since the international terrorist organization's birth in 2014. Daesh experienced continuous defeats on the battlefields of Iraq and Syria, from the Iraqi military retaking Mosul and Tal Afar to its losing its supposed capital in Raqqa and finally being driven out of one of its last remaining strongholds in Deir ez-Zor. Daesh has been completely ousted from all

urban areas in both Iraq and Syria, with Rawah being retaken on 17 November by Iraqi forces and al-Bukamal being captured by Syrian government forces two days later.<sup>1</sup>

Their largest territorial holding is in the desert in northeast Syria east of Ash Shaddadi, which is likely to soon be taken by the SDF<sup>2</sup>. It seems Daesh's days of holding physical territory are numbered. But is it too soon to celebrate its demise? While holding physical territory gave gravitas to Daesh's narrative of representing a new caliphate, its true power comes from its influence on social media. Daesh's media operations has had unprecedented success in attracting foreign terrorist fighters to its cause. It initially used this influence to entice its followers to travel to its territory in Iraq and Syria and join its so-called caliphate. However, as its physical territory has shrunk, its strategy in spreading its brand has undergone a major shift. Daesh has spawned a new wave of terrorists known as enabled attackers, those that execute attacks abroad in Daesh's name using tactics and methodology derived from Daesh media sources. These tactics are known as 'Just Terror', an entirely new approach from the suicide-bombings that permeated the 2000s. Daesh is employing this new tactic in tandem with a new focus on recruitment in Central Asia. The confluence of these two strategic shifts will be examined in this paper as a case study to understand its implications on foreign terrorist fighters as a whole.

## EXAMINING THE PARADIGM SHIFT THROUGH ONLINE MESSAGING

As Daesh loses its physical territory, there has been a noticeable shift in its messaging. At its height of territorial control from Summer 2014 until January 2015,<sup>3</sup> Daesh's propaganda revolved around highlighting its idyllic way of life in the so-called caliphate. Daesh would show videos of happy children in parks, doctors speaking on the healthcare services provided and scenic views of nature in the territory.<sup>4</sup> Daesh's media arm, al-Hayat Media Centre, began uploading a series of videos called Mujatweets in May 2014. These sharp and easily digestible clips showed "snippets of day-to-day life in the Islamic State", interviewing foreign recruits as they extolled the virtues and benefits of 'making hijrah' (alluding to the Muslim prophet's journey from Mecca to Medina to represent coming to Daesh territory) and becoming Daesh fighters.<sup>5</sup> The vast majority of propaganda during this period had the clear intent of enticing people to move to the so-called caliphate in Iraq and Syria.

<sup>1</sup> Abdul-Zahra, Q. "ISIS loses its last major territory in Iraq". *The Christian Science Monitor*. 17 November, 2017. <https://www.csmonitor.com/World/Middle-East/2017/1117/ISIS-loses-its-last-major-territory-in-Iraq>, Accessed on 30 November 2017.

<sup>2</sup> Illingworth, A. "ISIS Launches Attack against Kurdish Forces near Key City in Hasakah". *AMN - Al-Masdar News* | زوين رخصملا. 18 January, 2018. <https://www.almasdarnews.com/article/isis-launches-attack-kurdish-forces-near-key-city-hasakah/>, Accessed on 15 April 2018.

<sup>3</sup> Moore, J. "ISIS is going broke and its caliphate is unlikely to survive the year, says new analysis". *Newsweek*, 29 June 2017. <http://www.newsweek.com/islamic-state-wont-survive-fourth-year-after-territory-and-revenue-collapse-630018>, Accessed on 30 November, 2017.

<sup>4</sup> Zelin, A. Y. "Picture Or It Didn't Happen: A Snapshot of the Islamic State's Official Media Output". *Perspectives on Terrorism* 9/4. 2015. 85–97.

<sup>5</sup> "Digital Developments: Extremists' Use of Modern Communication Tools". Counter Extremism Project. 13 December 2016. <https://www.counterextremism.com/content/digital-developments-extremists-use-modern-communication-tools>, Accessed on 30 November 2017.

By mid-2016, Daesh was beginning to experience a series of significant territorial losses. Daesh lost control of key cities such as Ramadi in January 2016, Abu Ghraib in February 2016 and Falluja in June 2016. The previous year it had lost many key border towns essential for movement of goods and militants, such as Kobani and Tal Abyad on the Turkish-Syrian border. By June 2016, Daesh had lost 45 percent of its territory in Syria and 20 percent of its territory in Iraq.<sup>6</sup> It was clear that Daesh's plans for establishing a territorial caliphate in Syria and Iraq were in jeopardy. No one was more cognizant of this than Daesh itself. This can be seen in its propaganda messaging during this period. In the July 2016 issue of its popular English-language propaganda magazine *Dabiq*, Daesh had a clear shift in strategy. One passage read:

But if you are unable to [perform hijrah to the Islamic State], then know that you have been blessed with the opportunity to serve a much greater purpose than dwelling among Muslims and waging jihad on the outer edges of the land of Islam. Indeed, you are behind enemy lines, able to strike them where it hurts them most.<sup>7</sup>

Rather than directly discouraging hijrah which might indicate weakness or acknowledgement of defeat, Daesh framed the argument as an alternative to hijrah if making hijrah was a difficulty. At the time, it was indeed becoming increasingly difficult to enter Daesh territory as the common entry points through Turkey were being secured and Daesh's territory was being threatened from all sides. Their aim in this text was alternatively to encourage attacks on the 'far enemy', a jihadist term for the enemies in the 'Dar al-Harb' (lands of war) or non-Islamic lands. Daesh's initial focus was on the 'near enemy', or 'Dar al-Islam' (lands of Islam), and it pursued this by establishing a territorial stronghold in the Arab lands of Syria and Iraq, hoping to extend to the rest of the Dar al-Islam and establish its extreme form of Sharia throughout the Muslim lands. As this goal is becoming out of reach, Daesh is attempting to stay relevant in the Islamist discourse. Through inspiring attacks on the far enemy throughout the world in its name, Daesh maintains its dominance in the jihadist arena. This is effectively accomplished by stoking fear in the West. The same *Dabiq* article quotes its senior leader Abu Muhammad al-Adnani saying the following:

If the tawaghit have shut the door of hijrah in your faces, then open the door of jihad in theirs ... If one of you wishes and strives to reach the lands of the Islamic State, then each of us wishes to be in your place to make examples of the Crusaders, day and night, scaring them and terrorizing them, until every neighbor fears his neighbor.<sup>6</sup>

In its encouragement of attacking Westerners (whom it calls Crusaders), Daesh is promoting its new tactic of spreading terror throughout the West. This is attractive to Daesh from a marketing standpoint. If the West deems Daesh as their main threat, international media outlets will give Daesh prominent press coverage. Daesh wants to be seen as the strongest and most influential jihadist organization to attract the next generation of recruits. Especially as its revenue sources are drying up with the loss of oil fields and smuggling routes, it is benefitting from the free press that fearmongering provides. This is also influencing the type of attack it is promoting.

<sup>6</sup> Almkhtar, S., Wallace, T. and Watkins, D. "ISIS Has Lost Many of the Key Places It Once Controlled". *The New York Times*, 18 June 2016. <https://www.nytimes.com/interactive/2016/06/18/world/middleeast/isis-control-places-cities.html>, Accessed on 30 November 2017.

<sup>7</sup> "Words of Sincere Advice from an American Convert in the Islamic State to the Former Christian Who Accepted Islam". *Dabiq*, 15. 2016.



## NEW TERRORISM STRATEGY: JUST TERROR

Daesh is instigating a paradigm shift in the style of terror attack to be used by their followers. The suicide bombings and large-scale IED (improvised explosive device) plots of the 2000s are giving way to a more readily actionable form of terrorism. This is known as 'Just Terror'.<sup>8</sup> Just Terror promotes using easily accessible materials to execute attacks on as many people in a populated area as possible. Prominent Just Terror tools are vans which can be used to ram people on busy streets and knives to stab people once the van becomes inoperable. The benefits of this tactic for Daesh are fivefold:

1. Encourages the layman jihadist to act

Before, executing a terrorist attack required a great deal of technical prowess. The jihadist would need to learn how to make a bomb, usually from online forums with questionable reliability. This could have discouraged many individuals who were radicalized but did not have the ability or skillset to assemble a suicide jacket or IED. With Just Terror, all one needs is to rent a van and/or buy a knife, and they have all of the tools necessary to act. The ease of executing an attack makes the threshold for action much smaller.

2. Eliminates financial barriers to executing attack

The financial cost is much lower in Just Terror than bombing plots. The terrorist does not need to purchase expensive bomb-making ingredients or technological equipment, but simply can rent or borrow a van and purchase a simple hunting knife. Many Daesh recruiters have had to send money to their militants to pay for flights to Turkey or equipment for an attack. Now that will not be necessary. At a time when its resources are dwindling, this cheaper method is preferred.

3. Minimizes cold feet

The extensive time it takes to assemble a bomb gives the radicalized individual time to rethink their actions and potentially decide against an attack. Any attack using an IED or suicide vest would have required methodical, premeditated action. With Just Terror attacks, emotion plays a much larger factor in decision-making. One can simply decide in a moment of anger to ram their car over pedestrians without the time to reconsider under calmer circumstances.

4. Less chance of capture before executing attack

Many IED plots have been thwarted before they had the chance to be initiated. This is because making an IED requires purchasing many suspicious materials that may raise red flags to security forces. For instance, there was an attempted massive bombing plot in London in 2004. The preparation included purchasing a large amount of fertilizer and storing it in a West London storage unit. The manager of that facility became suspicious of the large amount of fertilizer being stored for a prolonged period of time and alerted the authorities. The police arrested the seven-person terror cell and prevented an attempted attack that could have killed hundreds.<sup>9</sup> With Just Terror, no suspicious supplies need to be purchased. Renting a van or purchasing a knife raises no red flags in most regions. These supplies can be gathered out in the open.

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<sup>8</sup> "Just Terror Tactics". *Rumiyah*, 3, 2016.

<sup>9</sup> Summers, Ch. and Casciani, D. "Fertiliser bomb plot: The story". *BBC News*. 30 April 2007. <http://news.bbc.co.uk/2/hi/6153884.stm>, Accessed on November 30, 2017.

5. Allows higher frequency of attacks which strengthens its image and leads to sustained fear to be manipulated

Most significantly, Just Terror creates the conditions which enable more attacks to be executed at a higher frequency, creating more fear for Daesh to capitalize on. If terror attacks become more accessible to the radicalized, it will lead more people to launch attacks who otherwise might have been dissuaded by the complexity of the matter. This is also true for those who may have been discouraged by the financial barriers. The ease of striking allows Daesh to mobilize its followers in a moment's notice. This gives Daesh more control over its image. If there is a sentiment that it is becoming a less dominant terrorist group in a region, Daesh can call on its followers in the region to initiate a Just Terror attack. It only takes one follower present to execute the attack and give the impression of Daesh influence in the region. It also helps build its narrative of being the representative of Islam fighting Western dominance. Higher frequency of attacks in the West by those identifying with Daesh leads to perceiving Daesh as the main threat to the West. For those already antagonistic towards the West, it will convey Daesh as being the most capable of disrupting their influence. Finally, a high frequency of attacks by Daesh followers leads to increased Islamophobia around the world. This can bring about disenfranchisement of Muslims from their wider communities which Daesh can capitalize on by attempting to radicalize them.

## CREATION OF THE ENABLED ATTACKER

Given the extensive benefits of this new tactic to Daesh, it has developed a comprehensive methodology for its followers to adhere to in administering Just Terror. In doing so, it has created a new kind of terrorist. This is what is now known as an 'enabled attacker'. Traditionally, there have been two types of terrorist attacks: those committed by lone wolves, terrorists with no connection to an extremist organization, and those that are directly controlled attacks, in which the terrorist is directly communicating with the terrorist organization and is commanded to commit the attack. Enabled attackers are a hybrid of the two previous categories. While they may not have any direct communication with the terrorist organization, they have a detailed strategic framework already mapped out for them to apply to their attack.<sup>10</sup> In the case of Daesh, it has outlined in explicit detail the parameters for executing a Just Terror attack.

In the November 2016 issue of *Rumiyah*, the newest Daesh magazine produced in the style of *Dabiq*, Daesh has explained the methodology behind Just Terror as follows:

Vehicles arouse absolutely no doubts due to their widespread use throughout the world. It is for this obvious reason that using a vehicle is one of the most comprehensive methods of attack, as it presents the opportunity for just terror for anyone possessing the ability to drive a vehicle. Likewise, it is one of the safest and easiest weapons one could employ against the kuffar, while being from amongst the most lethal methods of attack and the most successful in harvesting large numbers of the kuffar.<sup>11</sup>

<sup>10</sup> Hoffman, B. "A Growing Terrorist Threat on Another 9/11". *The Wall Street Journal*. 08 September 2017. <https://www.wsj.com/amp/articles/a-growing-terrorist-threat-on-another-9-11-1504888986>, Accessed on 30 November 2017.

<sup>11</sup> "Just Terror Tactics".

The benefit of explaining its rationale to its followers is to entice them to carry out an attack. Daesh presents the act as feasible and attainable by anyone who can drive a car, which is likely a high proportion of *Rumiyah* readers. It also plants the seeds for someone on the fence who reads the magazine to see an opportunity to act in a moment of anger. The article continues by stipulating the exact specifications of the type of vehicle that can best accomplish murdering the most amount of people and indicating all potential targets. Such details enabled the attack of Uzbek national Sayfullo Saipov when he rammed a flatbed truck through a bike path along the Hudson River in New York City on 31 October killing eight people and injuring 12, only stopping when he crashed into a bus. He then exited the vehicle and ran down the highway waving a paintball and pellet gun until he was shot and subdued by police. The FBI believe he was specifically following the instructions of this magazine, and all evidence seems to support this assertion.<sup>12</sup> In addition to having several Daesh videos and articles in his phone, Saipov openly admitted to authorities that he was inspired to attack from Daesh videos.

In examining the methodology of the attack, a pattern of consistency between the instructions in the *Rumiyah* article and the operation of the attack becomes apparent. Firstly, Saipov drove over pedestrians repeatedly until his vehicle was rendered inoperable by ramming into a school bus. The article states, "In a bid to ensure utmost carnage upon the enemies of Allah, it is imperative that one does not exit his vehicle during the attack. Rather, he should remain inside, driving over the already harvested kuffar, and continue crushing their remains until it becomes physically impossible to continue by vehicle".<sup>10</sup> Saipov clearly followed this instruction to a T. Next, the article reads, "At this stage, one may exit the vehicle and finish his operation on foot, if he was able to obtain a secondary weapon".<sup>10</sup> True to the instructions, he left the vehicle with secondary weapons of a paintball gun and a pellet gun. Saipov rented a flatbed truck from Home Depot that was load-bearing up to 3,000 pounds, on a raised chassis and possessing a bumper.<sup>13 14</sup> These are all stipulated in the *Rumiyah* article's 'Ideal Vehicle' guideline. The article also mentioned targeting "pedestrian-congested streets" which Saipov guaranteed by choosing a crowded bike path in Manhattan. The article further encouraged attacks on civilians by targeting outdoor attractions, stating, "In general, one should consider any outdoor attraction that draws large crowds... All so-called "civilian" (and low-security) parades and gatherings are fair game and more devastating to Crusader nations".<sup>10</sup> This is likely why Saipov chose Halloween to execute his attack, as that is a day of frequent outdoor celebrations. His date of attack could have additionally been influenced by multiple Daesh-linked Twitter accounts which specifically called for attacks on Halloween.<sup>15</sup> Daesh provides all potential extremists with an exhaustive guide to conducting an attack. All independent thought is removed from the equation. One needs solely to follow these

<sup>12</sup> Mueller, B. et al. "Prosecutors Describe Driver's Plan to Kill in Manhattan Terror Attack". *The New York Times*, 01 November 2017. <https://www.nytimes.com/2017/11/01/nyregion/driver-had-been-planning-attack-in-manhattan-for-weeks-police-say.html>, Accessed on 30 November 2017.

<sup>13</sup> Barron, J. "What We Know and Don't Know About the Manhattan Terror Attack". *The New York Times*, 31 October 2017. <https://www.nytimes.com/2017/10/31/nyregion/nyc-shooting-truck-attack.html>, Accessed on 30 November, 2017.

<sup>14</sup> "Load N Go Flatbed Truck". *The Home Depot*. <https://www.homedepot.com/tool-truck-rental/load-n-go-truck-rental/>, Accessed on 30 November 2017.

<sup>15</sup> Mueller, B., Rashbaum, W. K. and Baker, A. "Terror Attack Kills 8 and Injures 11 in Manhattan". *The New York Times*, 31 October 2017. <https://www.nytimes.com/2017/10/31/nyregion/police-shooting-lower-manhattan.html>, Accessed on 30 November, 2017.

exact instructions and they can be considered a fully-fledged member of the 'caliphate'. This makes the line needed to cross to execute an attack that much thinner.

Creating enabled attackers builds a sustainable and efficient recruitment platform for Daesh. It can theoretically create a global army without directly communicating with any of them. Saipov and many others are drawn to Daesh propaganda independent of any direct involvement from Daesh operatives and can be operationalized and mobilized through readily accessible online material. Daesh no longer needs training camps to train militants, it only needs internet access. Daesh recruits no longer need to train in weapons-handling and bomb-making, they only need to acquire a vehicle. As Daesh loses resources and territory, this will prove to be an invaluable resource that it will exploit further. As it recalibrates its methodology for recruitment, it is also recalibrating its targets for recruitment.

## DAESH SETS ITS SIGHTS ON CENTRAL ASIA

Daesh influence in Syria and Iraq has been thoroughly exhausted, with its number of supporters rapidly dwindling as its stranglehold over the region is lost. It has either revealed itself to be the apostate that it truly is to the locals and current foreign terrorist fighters who see firsthand the atrocities that Daesh is committing and realize the promise of the idyllic caliphate was a lie, or it has lost the stature it once had, and those looking for an extremist group to rally behind will flock elsewhere. Daesh is seeking a new target audience to radicalize and mobilize to its brand. The extent of extremist activity throughout Central Asia seems to have caught Daesh's attention.

The Manhattan attack is only the latest of several high-profile attacks from Central Asian nationals associated with Daesh. Another being the 2017 New Year's Day attack at Reina Nightclub in Istanbul that left 39 killed and 79 injured. The culprit was 34-year-old Uzbek national Abdulkadir Masharipov. Unlike Saipov, Masharipov was a direct operative of Daesh. He was reportedly part of a larger Central Asian Daesh terror cell. He was trained in Daesh training camps in Afghanistan and Pakistan.<sup>16</sup> He then received direct orders from Raqqa to travel to Istanbul on 15 December to plan out an attack for New Year's Eve.<sup>17</sup> From 5-6 June 2016, at least 16 Kazak nationals who were suspected Daesh operatives took part in a series of attacks in Aktobe, Kazakhstan, killing 7 and injuring 37.<sup>18</sup> A plot on 10 June 2016 in the Batken region of Kyrgyzstan was thankfully foiled by Kyrgyz security services. The perpetrators were 3 Kyrgyz nationals who fought in Syria and returned to organize a terror cell in their home country.<sup>20</sup> There is a clear extremist element in the region that Daesh is keen to tap into.

Daesh has been increasingly trying to recruit Central Asians for the past three years. This is evidenced by its investment in Russian language propaganda to attract the disen-

<sup>16</sup> "Istanbul Reina nightclub attack suspect 'trained in Afghanistan'". *BBC News*. 17 January 2017. <http://www.bbc.com/news/world-europe-38648306>, Accessed on 30 November 2017.

<sup>17</sup> "Istanbul Reina nightclub attack suspect captured". *BBC News*. 17 January 2017. <http://www.bbc.com/news/world-europe-38645787>, Accessed on 30 November, 2017.

<sup>18</sup> "Kazakhstan: Gunmen attack gun shops and army unit in Aktobe". *BBC News*. 05 June 2016. <http://www.bbc.com/news/world-asia-36455744>, Accessed on 30 November 2017.

<sup>19</sup> "Police arrest, kill radical Islamist gang, after attack on military base in Kazakhstan". *RT International*. <https://www.rt.com/news/345468-kazakhstan-shooting-hostages-attacks/>, Accessed on 30 November 2017.

<sup>20</sup> "Kyrgyz Detain Three Alleged IS Fighters". *RadioFreeEurope/RadioLiberty*. 17 June 2016. <https://www.rferl.org/a/kyrgyzstan-islamic-state-suspects-detained/27804683.html>, Accessed on 30 November 2017.

franchised from the Russophone region. Al-Hayat Media Centre launched *Istok*, a Russian version of *Dabiq*, in May of 2015. Much like *Dabiq*, *Istok* highlights the ‘heroics’ of foreign terrorist fighters, with *Istok* focusing specifically on Central Asian recruits and recruits from the Caucasus. Just two weeks after *Istok*’s release, Daesh put out a Russian-language journal *Furat Press*.<sup>21</sup> Daesh also has materials released in Kyrgyz, Kazakh, Uzbek and Tajik languages.<sup>22</sup> Before Daesh shifted its focus to the far enemy, it was already trying to entice Central Asians to join the fight in Syria and Iraq. In April 2016, Al-Hayat Media Centre released two YouTube videos to promote Central Asian hijrah. The first showed a Kyrgyz man who traveled to Daesh territory with his family to raise his children under Sharia law. The second video shows two men and their sons from Kazakhstan calling on other Kazakhs to move to the so-called caliphate to leave what he called “Kafiristan” (pun on kafir – infidel – and Kazakhstan) and raise their children under a proper Islamic education.<sup>21</sup> Both videos were spoken in the native tongues of the countries. The subject matter of these propaganda videos indicates how carefully Daesh studied the values and culture of the region in order to recruit them. Central Asia is a region with strong family values, and appealing to potential Central Asian recruits’ concerns as parents was a key motivating factor for many to move to Daesh territory. Its influence in the region was further solidified when it released a video of the former head of Tajikistan’s special forces, Gulmurod Khalimov, pledging allegiance to Daesh.<sup>20</sup>

## THE BIRTH OF EXTREMISM IN CENTRAL ASIA

As of December of 2015, over 2,000 foreign terrorist fighters are known to have originated from Central Asia. These numbers are expected to have increased substantially since then. Central Asia is the third largest point of origin for Salafi jihadist foreign fighters in Syria and Iraq.<sup>23</sup> This is a particularly profound phenomenon, as Central Asian Muslims traditionally belong to either the Hanafi school of Sunnism, which is known for being one of the more flexible and liberal schools of thought in Islamic jurisprudence, or the Sufi sect of Islam which promotes an inwardly focused, non-political practice of Islam.<sup>24,25</sup> This begs the question of why the number of Central Asians embracing a politicized and radical interpretation of Islam is on the rise. This trend began with the Soviet-Afghan War.

Religious suppression in Central Asia under the Soviet Union led to a growing resentment that Central Asians carried with them through their conscription to the Soviet-Afghan War.<sup>26</sup> There they were confronted with the Mujahidin, a fighting force that seemed to represent religious and political freedom to many of the Central Asian conscripts. The identification of religious and cultural bonds shared by Afghans and the wider Central Asian community

<sup>21</sup> Bacchi, U. "Isis targets jihadists in former Soviet nations with Russian-language propaganda magazine *Istok*". *International Business Times* UK, 03 June 2015. <http://www.ibtimes.co.uk/isis-targets-jihadists-former-soviet-nations-russian-language-propaganda-magazine-istok-1504238>, Accessed on 30 November 2017.

<sup>22</sup> Botobekov, U. "ISIS and Central Asia: A Shifting Recruiting Strategy". *The Diplomat*. 17 May 2016. <https://thediplomat.com/2016/05/isis-and-central-asia-a-shifting-recruiting-strategy/>, Accessed on 30 November 2017.

<sup>23</sup> Lynch, Th. F., III. et al. *Return of Foreign Fighters to Central Asia: Implications for U.S. Counterterrorism Policy*. Washington DC: National Defence University Press, Institute for National Strategic Studies, 2016.

<sup>24</sup> Warren, Ch. S. "The Hanafi School". Online Datasets. 28 May 2013. doi:10.1093/obo/9780195390155-0082.

<sup>25</sup> Cornell, S. E., and Spector, R. A. "Central Asia: More than Islamic extremists". *The Washington Quarterly* 25/1. 2002. 193–206. doi:10.1162/016366002753358410.

<sup>26</sup> Alexiev, A. *Inside the Soviet Army in Afghanistan*. Santa Monica, CA: The RAND Corporation, 1989.

as well as their common struggle with Soviet oppression led many to sympathize with the Afghans' plight and join the Mujahidin in support. Despite the increasing radicalism within the Mujahidin, their perceived effectiveness at freeing their country from outside forces garnered them further praise and adulation from their Central Asian neighbors. Many took up arms in support, leaving their countries and cutting ties with their society. Many of those never returned, further entrenching themselves in more radical movements locally. Those that did return harbored a deep-seated hostility towards their newly independent secular government coupled with a new sense of empowerment. This laid the seeds for the Islamic Movement of Uzbekistan (IMU).<sup>27</sup>

In a period of rising radicalization within Central Asia, the IMU was created in 1998 as an even more radical group who saw the efforts of the current movements as inadequate. Initially formed to remove Uzbekistan President Islam Karimov from power and establish Sharia law in Uzbekistan, the IMU morphed into a more globally-focused terrorist organization. Throughout the mid to late 90s, as their connection with the Taliban and al-Qaeda grew, the IMU began establishing training camps and offices in Taliban-ruled Afghanistan. They also developed a large stronghold in Tajikistan in order to have tactical access to the Ferghana Valley, which straddles Uzbekistan, Tajikistan and Kyrgyzstan, and to control drug trafficking routes. The Uzbekistan government's crackdown on radical groups in the early '90s forced many to seek refuge in Tajikistan, further entrenching radical elements in the country. These radicals joined the United Tajik Opposition in the Tajik Civil War from 1992 to 1997.<sup>23</sup> These events led to a funnel effect that brought the radical elements from the Central Asian countries of Uzbekistan, Tajikistan, Kyrgyzstan and Kazakhstan into the same spaces. This further broke down national identification and grew a unified Islamist sentiment in the region.

This Islamist unity continued during the US invasion of Afghanistan, which saw many Central Asian extremist groups allying themselves with the Taliban. During the campaign, the IMU suffered heavy casualties and escaped to Waziristan in Pakistan's Federally Administered Tribal Areas (FATA).<sup>28</sup> In Pakistan they engaged in combat against government forces, while a faction remained in northern Afghanistan to continue their fight against Afghan government forces and international actors like NATO. The IMU were active players at the height of Daesh's rise when their emir Usman Ghazi pledged allegiance to Daesh on 6 August 2015. However, this allegiance was disputed, with another faction of the IMU claiming on 10 June 2016 that they were the true representatives of the IMU and they aligned themselves with the Taliban and al-Qaeda.<sup>29</sup> Ghazi and his followers were killed fighting the Taliban in Zabul Province, Afghanistan in October of 2015 and the al-Qaeda-aligned IMU faction is believed to have been absorbed by other al-Qaeda-linked groups.<sup>30</sup> Despite their recent dissolution, the IMU played a significant role in international extremism, especially considering the number of splinter groups from the IMU that are active today.

<sup>27</sup> Rashid, A. "They're Only Sleeping". *The New Yorker*, 19 June 2017. <https://www.newyorker.com/magazine/2002/01/14/theyre-only-sleeping>, Accessed on 30 November 2017.

<sup>28</sup> Sidikov, A. "Islamabad Pins Border Violence On Central Asian Group". *RadioFreeEurope/RadioLiberty*. 02 February 2012. [https://www.rferl.org/a/Pakistan\\_IMU\\_Militants\\_Afghan\\_Border\\_Unrest/1181286.html](https://www.rferl.org/a/Pakistan_IMU_Militants_Afghan_Border_Unrest/1181286.html), Accessed on 30 November 2017.

<sup>29</sup> Lynch, Th. F., III. et al. Return of Foreign Fighters...

<sup>30</sup> Weiss, C. "Islamic State Eulogizes Former Islamic Movement of Uzbekistan Figure Killed in Iraq". *Long War Journal*. 08 November 2017. <https://www.longwarjournal.org/archives/2017/11/islamic-state-eulogizes-former-islamic-movement-of-uzbekistan-figure-killed-in-iraq.php>, Accessed on 15 April 2018.



In the early 2000s, Central Asia saw a rise in active terrorist organizations, many of which came from the IMU itself. The Islamic Jihad Union originated as a sect of the IMU and then separated their operations. Like the IMU, their original goal was to overthrow the Uzbekistan government and institute a fundamentalist theocracy. They executed a string of attacks in Uzbekistan in 2004, with organized suicide bombings in Tashkent and Bukhara from 29 to 31 March, killing 47, and another suicide bombing plot at the Israeli and US embassies in Tashkent on 30 July, killing nine.<sup>31</sup> They moved their operations to the FATA in Pakistan and eastern Afghanistan when security forces in Uzbekistan cracked down on their operations. Katibat Imam al-Bukhari is another terrorist organization of concern in the region. Most abhorrently, they specialize in child soldier recruitment. They weaponize children as young as 10 and train them in hand-to-hand combat and firearms operation. They operate in eastern and northern Afghanistan as well as in northwestern Syria with the al-Nusra Front.<sup>32</sup> Even if these children are liberated, a major challenge will arise when they grow up without a family support network and face the difficulties of displacement. It may lead to a new generation of disenfranchised for groups like Daesh to recruit. This leads to a wider question of what will happen to the disenfranchised Central Asian foreign terrorist fighters en totum?

## THE FUTURE OF DAESH INFLUENCE IN CENTRAL ASIA

As territorial boundaries are shifting, many Central Asians active in these extremist groups will get further displaced. Experts believe some may return to their home countries, while others may have difficulty doing so if their government is aware of their activities abroad.<sup>27</sup> Those who cannot return to their home country may migrate to other Central Asian countries where they are not on the government's radar, or possibly to Western countries. This creates emerging threats involving radicalized Central Asians throughout the world. Given the prominent influence and allegiances al-Qaeda has to the region, Daesh will have to fight for dominance. Ansar Jihad is a sub-unit of Hay'at Tahrir al Sham which has extensive connections with al-Qaeda, Katibat Imam al-Bukhari has a history of fighting alongside al-Qaeda in several conflicts and Islamic Jihad Union has ties to the Taliban, Haqqani Network and al-Qaeda.<sup>33</sup> It is precisely because al-Qaeda is so influential in Central Asia that Daesh will rely extensively on creating enabled attackers in the region through targeted propaganda. This has already shown to be an effective measure in the region, so it is likely it will further increase its focus on releasing Russian, Uzbek, Tajik, Kyrgyz, and Kazakh language propaganda through al-Hayat Media Centre. Daesh only needs one Central Asian to be spurred by its message into executing an attack to portray a sense of dominance in Central Asia. This ironically will have the effect of legitimately spreading Daesh's dominance in Central Asia and throughout the Central Asian diaspora community. Daesh's strength over al-Qaeda

<sup>31</sup> "The 2004 Attacks in Uzbekistan: Context and Implications for U.S. Interests". CRS Report for Congress. April 16, 2004. The Library of Congress.

<sup>32</sup> Roggio, B., and Weiss, C. "Uzbek group in Syria trains children for jihad". *The Long War Journal*. 29 December 2015. <https://www.longwarjournal.org/archives/2015/12/uzbek-group-in-syria-trains-children-for-jihad.php>, Accessed on November 26, 2017.

<sup>33</sup> Roggio, B. and Weiss, C. "Islamic Jihad Union details its involvement in Taliban's Azm offensive". *The Long War Journal*. 25 July 2015. <https://www.longwarjournal.org/archives/2015/07/islamic-jihad-union-details-its-involvement-in-talibans-azm-offensive.php>, Accessed on 26 November 2017.

is not in its physical influence or physical territory anymore – its strength lies in its digital influence. While al-Qaeda may have significant pull in the region, this influence is under threat. As indicated by the increasing number of high-profile attacks from Central Asian extremists done in Daesh's name, the rebalance of power has already begun to take effect.

Daesh is seeking to portray its global reach in terms of holding physical territory in several provinces around the world. These are known as Wilayah (Arabic for provinces). The dominant Wilayah in Central Asia is Wilayah Khorasan which had counted IMU as a member. In order to become a Wilayah, a group must demonstrate that they are the dominant jihadist organization in the region. There is no evidence to support Wilayah Khorasan was the dominant group when they made their bay'ah, public declaration of allegiance, to Daesh leader Abu Bakr al-Baghdadi. Quite the contrary, Wilayah Khorasan's area of operation includes Afghanistan and Pakistan, where al-Qaeda is the clear dominating force. Daesh seems to be learning that if it cannot hold physical territory, it will then give the impression of holding physical territory to give off the perception of power. Another requirement to become a Wilayah is to make a public declaration of allegiance in a medium that can go viral. This is key, as it shows the importance to Daesh in utilizing social media to influence the region. If Central Asians see Wilayah Khorasan's public declaration of allegiance to Daesh in a sharable platform, they are more likely to be convinced of Daesh's power. This will make Daesh the most likely group to turn to if they become radicalized.

## FUTURE AIMS FOR A GLOBAL CALIPHATE

As Daesh struggles to maintain the illusion of power in Syria and Iraq, it is turning its strategy towards growing the illusion of power in Central Asia. This illusion can quickly grow into real power through the utilization of online platforms enabling attackers to use Just Terror to spread fear and establish its brand in the region. By granting easy access to a foolproof guide to executing a Just Terror attack, Daesh has essentially created a "do-it-yourself" (DIY) tool for committing acts of terrorism. It will further rely on this tool in the years to come as its old ways of influence lose their saliency. Central Asia is one of multiple regions Daesh will seek to grow this digital campaign in an attempt to truly establish a global 'caliphate'. The far enemy is becoming the main focus of Daesh extremism and its primary weapon in this battle is the internet. Global practitioners in counterterrorism need to recalibrate their focus as well towards limiting this influence through disrupting Daesh's message and flooding the digital space with alternative messaging and counter messaging. They need to make particular efforts to empower organizations operating in the Central Asian sphere to provide these alternative narratives and engage Central Asians who may be vulnerable to Daesh's propaganda. Daesh's power circularly lies in its ability to provide certainty of its power to its target audience. It has lost power in Syria and Iraq because it can no longer portray a certainty of power. This is not merely because of the physical losses of territory, but because of the online awareness of their loss of influence in the region. It is unlikely that Daesh will attempt the same plan of establishing a physical caliphate, so as its strategy shifts towards the digital sphere, so must ours.



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Zoltán György Bács – Maj. Attila Kasznár:

## IS THE LONE PERPETRATOR REALLY ALONE?

ABSTRACT: *As a consequence of the terrorist attacks of the past years the expressions “lone perpetrator, the lone terrorist, or the lone wolf” have become part of the public conscience as an organic component of terror. At the same time the more similar acts – considered terrorist attacks – happen the clearer it becomes that the perpetrators classified to be from the same group significantly differ from each other. It is reasonable to question whether the lone perpetrators are really alone. Or perhaps a part of the criminals called lone perpetrators are not alone in fact and they fit in a different system of criteria?*

KEYWORDS: *terror, lone perpetrator, single perpetrator, lone wolf*

*If you know the enemy and know yourself, you need not fear the result of a hundred battles. If you know yourself but not the enemy, for every victory gained you will also suffer a defeat. If you know neither the enemy nor yourself, you will succumb in every battle. (Sun Tzu)*

### INTRODUCTION

During the past years, mostly since the unprecedented wave of terrorist attacks has begun in Europe in November 2015, the term of “lone perpetrator” spread both in the public and the specific professional vocabulary. This expression is based upon that the perpetrator of a terrorist attack carries out his deadly mission against a target chosen “theoretically” by him, getting closer there on his own way, seemingly alone, without any supporters or wingmen, independently from any organization. The problem is not new. As early as a decade ago the challenge caused by lone perpetrators figured in the European Commission’s report on this special field. The authors of the document stated that “the replacement of the structured and hierarchic groups by semi-autonomous cells or lone perpetrators was going on and the enhanced use of the internet to inspire and stimulate the local terrorist and individuals, to mobilize them and to educate and train them.”<sup>1</sup> It is obvious that the EU-forum considered this tendency as a real problem as early as 2008 and it was mentioned later several times on different special forums. So did the TE-SAT as well, which pointed out in its report in 2012 analyzing the global processes “amongst the arrested persons there are more and more persons who are lone perpetrators or members of jihadist cells independent from the already known terrorist organizations (al-Qaeda on the territory of the Islam Maghreb and the al-

<sup>1</sup> „The report of the Commission to the European Parliament and the Council about the implementation of the frame resolution of the Council 2008/919/IB of 28 November 2008 about the amendment of the frame resolution 2002/475/IB about the struggle against terrorism”. <http://ec.europa.eu/transparency/regdoc/rep/1/2014/HU/1-2014-554-HU-F1-1.Pdf>, Accessed on 10 February 2018.

Sabab in Somalia).<sup>2</sup> It means the problem was recognized earlier but these persons became important from the political point of view and of national security in Europe only in 2016.<sup>3</sup>

Neither the seemingness nor the peculiar implementation of the terrorist act means that the perpetrator carried out the attack spiritually and physically alone in harmony with the original and authentic meaning of the expression „loneliness”. Thus it is not certain that all the perpetrators called “lone wolves” could meet the criteria of a real lone perpetrator.

The latest research by Agnes Hankiss proved that the perpetrators who committed the crimes in the conditions mentioned above were not lone wolves because their tight contact through one or two persons to the terrorist organizations interested in the terrorist act supplying the logistic and material support and granting the psychic and other training for the perpetration were confirmed.<sup>4</sup> Thus the well-known researcher denied the general opinion that “many of the Islamist attempts in the past years were perpetrated by persons called “lone wolves” who supposedly were not members of any terrorist groups.”<sup>5</sup>

Logically, the term “lone perpetrator” does not suit the signficante and meanings attributed to that because the following definition about the “lone perpetrator” is not true in all cases: “The term, which describes an individual actor who strikes alone and is not affiliated with any larger group, is now widely used by politicians, journalists, security officials and the general public.”<sup>6</sup>

All the above mentioned facts lead to the question: is the lone perpetrator alone? What does this notion mean, how a perpetrator becomes lone wolf? If a lone perpetrator is not alone, what is the correct expression, the appropriate term? The present study tries to find the answers to these basic questions important from the point of view of national security and counter-terrorism, using the method of comparing. The authors agree with the statement of the researchers of the International Centre for Counter-Terrorism saying: “Comparative research is not a solution to all problems with regards to terrorism research, but it has the opportunity to greatly increase our understanding of this complex phenomenon.”<sup>7</sup>

## THE ETYMOLOGIC PROBLEM

Referring to the lone perpetrator there is a really tough problem due to the fact that the word “lone” has a narrower meaning comparing with the aimed or possibly aimed meaning of the “lone perpetrator” created by the specialists when categorizing a certain type of behavior of perpetrators of terrorist acts.

<sup>2</sup> Répási K.: “Az Európai Unió terrorfenyegetettsége a TE-SAT 2012 jelentés tükrében”. *Nemzet és Biztonság* 5/5-6. 2012. 158.

<sup>3</sup> Besenyő J. “Low-cost attacks, unnoticeable plots? Overview on the economical character of current terrorism”. *Strategic Impact* 62/1. 2017. 83–100. <https://www.cceol.com/search/article-detail?id=531307>, Accessed on 10 February 2018.

<sup>4</sup> Hankiss Á. “A magányos merénylő legendája”. *Magyar Idők*, 1 July 2017. <https://magyaridok.hu/lugas/egesdel-oket-1872439/>, Accessed on 11 January 2018.

<sup>5</sup> Répási K. “Európa az iszlamista terrorizmus árnyékában”. *Hadtudományi Szemle* 6/1. 2013. 44.

<sup>6</sup> Burke, J. “The myth of the ‘lone wolf’ terrorist”. *The Guardian*, 30 March 2017. <https://www.theguardian.com/news/2017/mar/30/myth-lone-wolf-terrorist>, Accessed on 12 January 2018.

<sup>7</sup> Leenaars, J. and Reed, A. “Understanding Lone Wolves: Towards a Theoretical Framework for Comparative Analysis”. International Centre for Counter-Terrorism, The Hague. April 2016. 12. <https://www.icct.nl/wp-content/uploads/2016/05/ICCT-Leenaars-Reed-Understanding-Lone-Wolves-April-2016.pdf>, Accessed on 12 January 2018.

The meanings of the words lone and single are close to each other and in both cases they refer to loneliness and co-completeness.<sup>8</sup> At the same time this co-completeness is far from having the meaning the creators of the term “lone perpetrator” wanted to attribute to him. The essence of the problem is that by now the “lone perpetrator” has become an umbrella term under which many experts want to push in different perpetrators with distinct attitudes.

In other words, the criteria of loneliness are valid only in cases of certain “lone perpetrators” but in the cases of others not. It is worth examining two components:

1. Being alone beside its moral or spiritual meaning mostly refers to physical solitude. It is also true in the case of a smaller part of perpetrators while their majority is not alone at all, they are just the only persons involved directly in the perpetration of a given terrorist act.

2. Another important moment has a clear psychological implication. In the case of those „lone perpetrators” where loneliness is missing the psychological part of solitude is also found among the motives of the perpetration. Therefore the qualification of these perpetrators as „lone wolves” is doubtful.

It is obvious there are important semantic problems related to the current general use of the term „lone perpetrator”. The case studies of this class of perpetrators can also prove how significant this problem is.

## THE LONE PERPETRATOR

When analyzing the lone perpetrator it is necessary to state that these persons always have an asystematic mental status,<sup>9</sup> represented in a distorted, incoherent conglomerate of political and sociological ideas. Many scientific works prove: “mental problems or a general social inability underlie the histories of many of the lone individuals mentioned.”<sup>10</sup>

The classic example of the „lone perpetrator” is the Norwegian Anders Behring Breivik, who blew up a car bomb using a home-made explosive device on 22 July 2011 in the center of Oslo first, and started a massacre by shooting on the island of Utøya. “On the island of Utøya, forty kilometers from the Norwegian capital, Oslo, in the camp of the governing Labor Party he shot dead 69 persons and wounded another 66 with a Ruger Mini-14 semi-automatic rifle and a Glock 17 handgun.”<sup>11</sup> All together 77 got killed and 96 persons received wounds in the two attacks. Breivik’s case is a real classic example. He became radicalized in secret, separated from everything and everybody. In his case the distorted political conviction was formed by surfing on extreme right wing pages. It confirms the supposition that the technical and technological development as a side effect of globalization and mostly the growing use of the internet offers practically unlimited opportunities for the divulgence of extreme ideologies. Thus the chance of the people susceptible for radicalization to get familiar with materials and methods which can be used for extremist purposes significantly increases. This will cause the growth of the number of people ready to perpetrate terrorist acts. Nevertheless,

<sup>8</sup> “A magyar nyelv értelmező szótára”. <http://mek.oszk.hu/adatbazis/magyar-nyelv-ertelmezo-szotara/kereses.php?csakcimben=&szo=MAG%C3%81NYOS&offset=2&kereses=mag%C3%A1nyos>, Accessed on 3 January 2018.

<sup>9</sup> Répási K.: “Újjáéled-e az európai szélsőjobboldali terrorizmus?”. *Nemzet és Biztonság* 5/5-6. 2012. 108.

<sup>10</sup> Pantucci, R. “A Typology of Lone Wolves: Preliminary Analysis of Lone Islamist Terrorists”. The International Centre for the Study of Radicalisation and Political Violence. March 2011. 35. [http://icsr.info/wp-content/uploads/2012/10/1302002992ICSRPaper\\_ATypologyofLoneWolves\\_Pantucci.pdf](http://icsr.info/wp-content/uploads/2012/10/1302002992ICSRPaper_ATypologyofLoneWolves_Pantucci.pdf), Accessed on 05 February 2018.

<sup>11</sup> Tálás P. and Csiki T. “Az oslói/utóyai merényletről”. ZMNE SVKK. 2011. 1. [http://193.224.76.4/download/svki/Elemzesek/2011/SVKK\\_Elemzesek\\_2011\\_8.pdf](http://193.224.76.4/download/svki/Elemzesek/2011/SVKK_Elemzesek_2011_8.pdf), Accessed on 02 February 2018.

these persons can never be linked to any radical community, they are neither active members nor detectable supporters thus they do not get into the scope of counter-terrorist or national security organizations. Their radicalization takes place in a closed circle, it is practically self-radicalization. At the same time it also means that forming a distorted ideology will not spread; it will remain a factor affecting the mentality of one single person. The fact that along a new ideology further radicalization cannot be developed is an important factor in the activities of counter-terrorist and national security services.

Another group of perpetrators who are usually also called “lone perpetrators” are the amok, who are often included into the group of terrorists by the authors of studies specialized in these topics. Because of practical considerations they cannot be included into the category of terrorists as their motives are completely free of political intentions. Once terrorism is “basically a political phenomenon behind which there are structural and psychological factors as well”<sup>12</sup> amok cannot be considered as terrorists. It is doubtless that the acts perpetrated by amok have strong signs of terrorism due to their character.

## THE SEEMINGLY LONE PERPETRATOR

The method called by the special literature „method of the lone perpetrator” practically is just an appearance. It has been changing throughout the past years. When it received a special role in the tactics of international terrorist organizations at the beginning of 2010, it seems it did not meet the expectations of the terrorist because the majority of lone perpetrators make an attempt to perpetrate their terrorist acts in a very unprofessional way, even those who were trained in Pakistan. Al-Quaeda also encouraged looking into the causes of the failed attempts in order to avoid the repetition of the same mistake during the next attempt – experts said. Many lone perpetrators cannot even perpetrate their acts because they are captured by the police much earlier.<sup>13</sup> For today this idea has to be reviewed. The events of the immediate past show the acts perpetrated by “lone wolves” are on the top. It is proven by the well-known expert of security policy Marie-Helen Maras in her study of 2014, where she divides the persons perpetrating terrorist acts in two different groups:

- domestically educated lone wolf,
- Islamist lone wolf.<sup>14</sup>

The position of the American expert seemingly confirms that lone perpetration as a terrorist tactics became one of the major menaces in the activities linked to post-modern terrorism. Nevertheless, this kind of loneliness should not be confused with the solitude of the classic perpetrator’s loneliness. It is unequivocal that a brand new terrorist tactics has spread. The terrorist selects the target himself, he selects the tools and the methods, but at the same time he receives permanent support from one or another terrorist community or group. This support is minimum, quite often it has just ideological character. There is no permanent connection, no personal talks, meetings, there are no direct traces, or suspicious events, the perpetrator is mostly invisible for the authorities even though he makes a statement of loyalty oath prior to the attack by electronic way, on Facebook or on other social media, to some terrorist organization although this type of behavior is not a criterion.

<sup>12</sup> Gál I. L. “Új biztonságpolitikai kihívás a XXI. században: a terrorizmus finanszírozása”. *Szakmai Szemle* 8/1. 20012. 5.

<sup>13</sup> Répási. “Az Európai Unió...”. 157–163.

<sup>14</sup> Maras, M-H. *A terrorizmus elmélete és gyakorlata*. Budapest: Antall József Tudásközpont, 2016. 86–89.

What is the reason of this innovation, why is it so efficient? The reason is simple: “the lonely acting perpetrators seldom get into the focus of authorities.”<sup>15</sup> The detection of potential perpetrators is difficult because their lone acting guarantees the highest level of conspiracy.

To understand the nature of the seemingly lone perpetrator who in effect does not fit the criteria of the “lone wolf”, and to more precisely present the method of the perpetration it is indispensable to analyze the target as well. Based upon the formal logic one can suppose that this kind of perpetrator carries out the attack against one target although it is not always true. When the target of the terrorist attack is one person or a group of determined persons or an object, a building, or a compound or facility the principle “one perpetrator – one target” is true. An example of this was the attempt against the Prime Minister of Israel Jichak Rabin by a Jewish extremist.

This principle is not valid when a whole group of perpetrators carries out a coordinated attack against the same target. The target can be a determined person or a group of determined persons or a building or an institution. The example of this case was the attempt against the President of Egypt, Anwar Sadat by the Muslim Brotherhood during a military parade.

But what is the situation if there is no determined target – as it is usual in terrorism – but there is just the mission which is alarmingly inhuman: the physical annihilation of persons, the more the better, who have not any relation or link with the perpetrator, they do not even know each other, or at least, to cause them grave physical and psychic trauma, intimidation and the maximum possible destruction of the objects on the operational scene.

In similar cases there are three more factors to be assessed. One is the intention of the perpetrator determining the possible tool of the attack, the second is the tool itself and the third is the scene of the attack.

If the perpetrator is not ready to become a martyr on the scene of attack he chooses the tool of the act in a way to have chance to escape and to continue the attack in another possible location or to have a chance to carry out another attack. In these cases the tool is a knife, hatchet, chopper, vehicle, firearm, hand grenade, or other easily concealable and rapidly useable artifact. The principle in this case is “one perpetrator – alternative mission – several scenes – variable tools.” The best example is the case of the perpetrator who was disarmed by American servicemen on a train in Germany. The perpetrator had not only firearms but cold weapons as well.

If the perpetrator is ready for martyrdom, they usually choose for self-detonation using a detonating vest or other explosive devices with tools enhancing the effect of fragments. This situation can be described like “one perpetrator – one mission – one scene – one tool.”

If we look over the frequent perpetration patterns in Afghanistan and Iraq, we’ll see the attacks are mostly perpetrated in public places – markets, in front of different institutions – usually with the use of explosive devices by self-detonation. In order to increase the number of potential victims several devices are often detonated at the same time or within short intervals. In these cases the formula of the attack is “several perpetrators – one mission – parallel scenes – identical tools.”

If we try to determine the type of the Madrid attempts we see the attacks were perpetrated at the same time in different vehicles of public transport as scenes and by using explosive devices. The perpetration formula is “multiple perpetrators – one mission – several scenes – identical tools.”

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<sup>15</sup> Répási. “Újjáéled-e...”. 111.



Analyzing the attempts at the Stade de France, at the Bataclan and on another scene in 2015 where the perpetrators self-detonated or used firearms it comes clear that the perpetration formula or the perpetration pattern is the most complicated in comparison with the other attacks. It is „multiple perpetrators – combined mission – multiple scenes – different tools.”

In 2016 Dabiq suggested attacks against targets like hotels, bars where after an explosion or arson in the closed premises the other team of perpetrators waiting outside the building would use firearms against the people fleeing from the scene thus multiplying the number of the victims and the information value of the attack so badly needed by all the terrorists. Similar attack was perpetrated in Mumbai too. The pattern of this kind of attacks is “multiple perpetrator groups – combined mission – same scene – combined tools.”

As we have already mentioned above the perpetration pattern depends on the intention of the perpetrator. This intention is also directly influenced by the conditions and the opportunities of the perpetrator, be the perpetrator an organization, a group or an individual. Consequently, the structural disintegration of the terrorist organizations like the Islamic State will change the patterns, the characteristics, the aims, the methods, the tools and possibly the perpetrators of the attacks carried out in the name of the organization. The strategic aim will also change: the installation, recognition and consolidation of the Caliphate will lose its importance as a primary strategic aim; it can be only a secondary one. After the destruction of the organizational structure of the terrorist organization by the coalition forces, the new and most important aim will be the minimum preservation of the functional capacities of the organization saving the communication network, the elaboration of the new operational strategy including the transformation of the financial sources, the creation and use of new sources. In order to extend its operational scene into the virtual space terrorism will use the newest electronic tools and the human resources available for terrorist organizations in its intention to penetrate into the financial structures and the financial and stock market activities. Its allies are as usual: the countries permanently supporting terrorism like Iran, North Korea and Russia, full of anti-Western sentiments, disposing of extraordinarily developed electronic knowledge and technics and ready to use any kind of tools against Western cultures. Furthermore, terrorists can count on their old business-based allies; the international network of organized crime, syndicates, or groups.

## SUMMARY AND SUGGESTIONS

Looking through the views on “lone perpetrators” we have to agree with the “Research exploring those who become lone actors will always have value, especially as we seek to identify those at risk and prevent radicalization to violence.”<sup>16</sup>

Consequently, it seems true that the “lone perpetrator” as a common notion is imported from the juridical terms into the public language. It is full of naive connotations, rough prejudices and moral and ethical enthymemas.<sup>17</sup> Furthermore, its generalized, simplified and idealized use is univocally misleading, professionally baseless and counter-productive from

<sup>16</sup> Pantucci, R., Ellis, C. and Chaplais, L. “Lone-Actor Terrorism: Literature Review”. Royal United Services Institute. 2015. 17. [https://www.isdglobal.org/wp-content/uploads/2016/02/Literature\\_Review.pdf](https://www.isdglobal.org/wp-content/uploads/2016/02/Literature_Review.pdf), Accessed on 05 February 2018.

<sup>17</sup> Bukovics I., Fáy Gy. and Kun I. “Alkatpszichológiai modellek alkalmazása a terrrorelhárításban”. *Nemzetbiztonsági Szemle* 3/4. 2015. 5.



the point of view of efficient counter-actions. As it has been proved by the examples above the term “lone perpetrator” is applied practically to two different groups of perpetrators:

1. the lone perpetrator;
2. That perpetrator who is different from the first group of perpetrators in his psychology, system of social links and aims but he carries out his attempt alone.

The division is even more complicated because the first group can be divided further into two sub-groups:

- a) the classic lone perpetrator i. e. the really single terrorist (for example Breivik) and
- b) The amok.

The interpretation of the classic lone perpetrator as a notion seems to be easier as they usually are subject of an intensive self-radicalization process. Its result is their complete alienation of the society and of the real life and they carry out their politically motivated act according to a distorted philosophic system. Since “studies addressing terrorism agree that it is mainly a political phenomenon based on both structural and psychological factors,”<sup>18</sup> in the majority of the cases amok cannot be considered as terrorism as the act itself has not political motivation. This kind of attacks shall be classified as common criminal acts using tools of terrorist character. The approach to the classification of the act from the tool side is extraordinarily important because the use of terroristic tools, the terrorist-like actuation of amok makes the counter-actions of the counter-terrorist services justified.

In the previous case studies we got knew the perpetrators of the second group cannot be considered „lone ones” either because in the majority of the known cases they have a wide-spread contact system with the terrorist communities, „at the most they may not have imminent and direct contacts with the terrorist organizations.”<sup>19</sup> Their cases are peculiar, their status can be compared with the so called “sleeping cells” which can be activated in due time. We can state the actors of the second group fit the criteria of being classified as terrorists.

Going through the characteristics of the persons in the first and second groups one can see they differ not only in some cases or at some points but practically they differ by all the characteristics except acting without companion during the perpetration. Thus we consider appropriate to introduce a new auxiliary notion the “unipersonal perpetrator.”

The new notion more precisely the new structure brought up by the use of the new notion can lead to some changes in the coherency of the dedicated literature and what is even more important, it can open a space for the synthetization of tasks of the services devoted to the special counter-terrorist operations. By the introduction of the notion “unipersonal perpetrator” the following categories can be set up:

The person perpetrating a terrorist act without companion can be:

- I. lone perpetrator
  - a. classic lone perpetrator
  - b. amok
- II. unipersonal perpetrator

As it is clear in this case the univocal separation of the types of perpetrators based upon the specific features is feasible. This makes intelligence, physical counter-actions and also court processes against them easier. “We should never miss the fact that the terrorist, the person intending to perpetrate a terrorist act is nobody else than a crime perpetrator. The efficient

<sup>18</sup> Gál I. L. “Some Thoughts about Terrorism and Human Rights in Hungary: the Ahmed H. Case”. *Terror & Elhárítás* Special Issue. 2017. 32.

<sup>19</sup> Farkas J. “A magányos merénylők radikalizálódása”. *Acta Humana* 4 NS/5. 2016. 18.

counter-action against him and the general prevention aimed to withhold other members of society bethinking similar plans have to be materialized in the criminal prosecution of the lone perpetrator preparing a terrorist act.”<sup>20</sup>

At the same time in order to carry out a successful mission against “lone or unipersonal perpetrators” it is of basic importance that the counter-terrorist officers have „to learn to use the mentality of the terrorist. On the one hand it means we have to be able to imagine attacks with a level of cruelty overpassing the tolerance of many experts of analysis, on the other hand we have to take into consideration the importance of fortuitousness as a key element of terror.”<sup>21</sup> The opinion expressed by the well-known national security expert of the Johns Hopkins University has a special importance considering this really creative and flexible form of terrorism thus it confirms the idea that “in the asymmetric struggle against terrorism new and more efficient tools have to be applied to be successful.”<sup>22</sup>

“Handling the potential terrorist acts to be perpetrated by lone attackers requires the elaboration and implementation of new special intelligence and investigation strategies by the law enforcement agencies.”<sup>23</sup> To create these special methods mentioned by the expert of the American think-tank it is important to be aware that „for lone wolf terrorism to be appropriately addressed, researchers must first dedicate appropriate attention to the topic in order to assist in the influencing of future policies and counter-terrorism and extremism measures.”<sup>24</sup>

The appropriate response from the government, law-enforcement, and national security agencies always requires a high level of complexity and coordination. In this regard some expert say: “if a country wanted to eradicate lone wolf terrorism, it would need to completely eliminate the sale of goods such as guns, fireworks, nails, pressure cookers, lead pipes, Christmas lights, and matches.”<sup>25</sup>

These ideas rather reflect one of the most radical views, nevertheless, the efficient response to the security risk and threat represented by the „unipersonal perpetrators”, or classic „lone perpetrators” need a serious, well-coordinated and well-managed counter-intelligence and counter-terrorism system. The key point of the efficiency of the countermeasures is the highest possible level of the intelligence services’ activities. It is more than clear that the successful countermeasures against „unipersonal perpetrators” or „lone perpetrators” depend on the quality of intelligence which in its turn requires the appropriate legal and professional background. The perpetrator without companion is one of the most important actual challenges for national security in general and counter-terrorism in particular. We

<sup>20</sup> Neparáczki A. V. “A terrorcselekményt előkészítő magányos elkövetőre vonatkozó szabályok a Büntető Törvénykönyvben”. *Terror & Elhárítás* 4/1. 2015. 134.

<sup>21</sup> Lowenthal, M. M. *Hírszerzés*. Budapest: Antall József Tudásközpont, 2017. 434.

<sup>22</sup> Padányi J. “Az aszimmetrikus hadviselés során alkalmazandó eljárások, eszközök és módszerek”. *Hadtudomány* 25/1-2. 2015. 81.

<sup>23</sup> Farkas. “A magányos...”. 19.

<sup>24</sup> Dickson, L. W. “Lone Wolf Terrorism a Case Study: The Radicalization Process of a Continually Investigated & Islamic State Inspired Lone Wolf Terrorist”. Degree project in Criminology 15 credits. Malmö University, Faculty of Health and Society, Department of Criminology, 2015. 42. <http://muep.mau.se/bitstream/handle/2043/19258/Lone%20Wolf%20Terrorism%20-%20Masters%20Thesis%20-%20Lewis%20W.Dickson.pdf?sequence=2&isAllowed=y>, Accessed on 12 January 2018.

<sup>25</sup> Wiskind, C. “Lone Wolf Terrorism and Open Source Jihad: an Explanation and Assessment”. International Institute of Counter-Terrorism. 2016. 3. <https://www.ict.org.il/UserFiles/ict-lone-wolf-osint-jihad-wiskind.pdf>, Accessed on 14 Jan 2018

should not forget that terrorism is in permanent evolution and “the potential of lone wolf cyber terrorism warrants future study.”<sup>26</sup>

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<sup>26</sup> Alfaro-Gonzalez, L. et al. „Report: Lone Wolf Terrorism”. Prepared by Security Studies Program National Security Critical Issue Task Force. Georgetown University, 2015. 8. <http://georgetownsecuritystudiesreview.org/wp-content/uploads/2015/08/NCITF-Final-Paper.pdf>, Accessed on 17 January 2018.

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Richard Warnes:

## THE IMPORTANCE OF LOCAL COMMUNITY INTELLIGENCE IN COUNTERING TERRORISM

Speech/ Paper for NATO Centre of Excellence – Defence Against Terrorism (COE – DAT), Terrorism Experts Conference (TEC), Ankara, Turkey - 24- 25th October 2017

*ABSTRACT: Recent terrorist incidents in Europe and beyond, have highlighted the changing nature of the terrorist threat. Increasingly this has seen a shift from larger organised spectaculars to smaller self-contained cells and 'lone actors', using explosives and weaponry when accessible, but willing to launch attacks with 'cold weapons', such as knives, and vehicles. While the previous larger attacks were often easier for the police and security forces to identify, because of the necessary communications, command and control, and associated organisational and financial signatures, recent attacks are more difficult to identify particularly when the operational planning is in the mind of a single 'lone actor'. Many such attacks are inspired, targeted, sanctioned and legitimised through the use of the social media and the internet. As a result, while the traditional 'top down' intelligence of national intelligence agencies remains critical, the role of 'bottom up' local community intelligence has become increasingly significant... No outsider will ever understand the complexities of a local community, and the individual actors within it, as somebody already inside that community... This is reflected in the growing focus in many countries on the development of 'human intelligence' (HUMINT) and increased emphasis on engagement with the community through community policing. Consequently this paper will examine both the changing nature of the terrorist threat and the concomitant importance of local community intelligence in countering terrorism.*

*KEYWORDS: counterterrorism, intelligence, local communities*

### INTRODUCTION

Recent terrorist incidents in Europe and beyond, have highlighted the changing nature of the terrorist threat. Increasingly this has seen a shift from larger organised spectaculars to smaller self-contained cells and 'lone actors', using explosives and weaponry when accessible, but willing to launch attacks with 'cold weapons', such as knives, and vehicles. While the previous larger attacks were often easier for the police and security forces to identify, because of the necessary communications, command and control, and associated organisational and financial signatures, recent attacks are more difficult to identify particularly when the operational planning is in the mind of a single 'lone actor'. Many such attacks are inspired, targeted, sanctioned and legitimised through the use of the social media and the internet.

As a result, while the traditional 'top down' intelligence of national intelligence agencies remains critical, the role of 'bottom up' local community intelligence has become increasingly significant... No outsider will ever understand the complexities of a local community and the

individual actors within it, as somebody already inside that community... This is reflected in the growing focus in many countries on the development of 'human intelligence' (HUMINT) and increased emphasis on engagement with the community through community policing. Consequently this paper will examine both the changing nature of the terrorist threat and the concomitant importance of local community intelligence in countering terrorism.<sup>1</sup>

## THE CHANGING NATURE OF THE TERRORIST THREAT

Historically during the later 1990s and early 2000s, the nature of terrorism predominantly shifted from more hierarchical nationalist and political groups, such as the Provisional Irish Republican Army (PIRA), Basque *Euzkadi Ta Askatasuna* (ETA) and Kurdish *Partiya Karkeren Kurdistan* (PKK), to religiously motivated extremist groups with different targeting tactics and more agile network structures. As members of such networks have frequently demonstrated, they aspire to cause no warning, mass casualty, and multiple attacks, often utilising Person Borne Improvised Explosive Devices (PBIED - 'suicide bombs'), against the public in an effort to inflict the maximum number of casualties. This in turn means that the police and intelligence services cannot allow a terrorist cell to 'run', as they did with traditional groups in order to obtain evidence, because of the risk to the public; consequently they need to intervene at a much earlier stage.<sup>2</sup>

More recently, this threat from religiously motivated extremist groups, based on a corrupted misinterpretation of Islam, has further increased in part due to the shift from *al-Qaeda* to the Islamic State of Iraq & the Levant (ISIL - '*Daesh*'), resulting in further changes in targeting and structure. Previous spectacular attacks utilising larger cell networks were more complex and time consuming, required more communication, command and control (C2) and had larger organisational and financial signatures, such as the terrorist conspiracies associated with United Kingdom (UK) Operations CREVICE (2004), RHYME (2005) & OVERT (2006). These created a larger intelligence signature and made it more likely for the police and intelligence services to identify and monitor them. Now with *Daesh* there has been a shift towards attacks by smaller, self-contained cells and individual lone actors ('Lone Wolves'). Consequently, we have seen an increased tempo of terrorist attacks executed by smaller numbers. These are decentralised, low cost and whilst using explosives and weaponry when accessible, the terrorists are willing to utilise low technology 'cold weapons', such as knives and vehicles against the general public in 'crowded places', such as at London Bridge and Borough Market in June 2017.

Many of these attacks conform to the *Inghimaasi* concept; '*Immersing oneself deep into enemy lines to inflict damage or attain shahada – martyrdom*', which has been encouraged in *Daesh's Dabiq & Rumiya* and *al-Qaeda* in the Arabian Peninsular's (AQAP's) Inspire magazines/ web sites. This also mirrors aspects of the concepts behind military special operations and influence operations, maximising the psychological shock, impact and effect on 'the enemy'. Worryingly many of these recent attacks were self directed, or semi – directed,

<sup>1</sup> Warnes, R. "Beyond Procedural Justice: The Significance of Personal and Community Relationships in Countering Terrorist Recruitment". In Ekici, S., Akdoğan, H., Ragab, E., Ekici, A., Warnes, R. et. al. (ed), *Countering Terrorist Recruitment in the Context of Armed Counter Terrorist Operations*. NATO Science for Peace. Amsterdam: IOS Press, 2016. 221–238.

<sup>2</sup> Clarke, P. "Learning From Experience-Counter Terrorism in the UK Since 9/11". Colin Cramphorn Memorial Lecture, 25 April 2007.

being remotely inspired, targeted, sanctioned and legitimised by the web. While *al-Qaeda* is an exclusive 'vanguard' movement, checking, vetting and selectively inviting membership, *Daesh* uses the web and social media to mobilise and suggest attacks from any individual inspired and radicalised by their narratives. Anyone can then commit attacks in the name of the so called '*Islamic State*', while *Daesh* claims responsibility for the attack by its 'soldiers'. Given this shift in attack methodology, targeting, coordination and structure, how do the police and intelligence services identify a terrorist conspiracy before it occurs, particularly when the attack planning is in the mind of a 'lone actor'?

Sadly, in a number of countries, such attacks appear to have also resulted in an 'amplification' of support for the far right, an increase in 'hate crimes' against minority communities and in some cases acts of violence and terrorism by individuals linked to, or motivated by, the extreme right wing. An example being Darren Osborne, who drove his van into a group of worshippers outside Finsbury Park Mosque during *Ramadan* in June 2017, two weeks after the London Bridge attack. Again, how do the police and intelligence services identify such extremist individuals?

## THE IMPORTANCE OF LOCAL COMMUNITY INTELLIGENCE

Perhaps one way forward is through the generation of local community intelligence, through an understanding of the 'Human Terrain', the mobilisation of members of the local community to provide 'additional eyes and ears', the generation of a more permissive environment for surveillance and ultimately the recruitment of human sources to provide local HUMINT.... Arguably, although the traditional 'top down' intelligence of national intelligence agencies remains critical, due to the previously outlined changing nature of the terrorist threat, the role of this 'bottom up' local community intelligence has become increasingly significant. Thus although the nature of terrorism itself has changed, often allowing the police less opportunity to develop a strong evidential case as a conspiracy progresses, local community knowledge continues to play an important role. Just as in the more traditional criminal policing role, when countering terrorism the effectiveness of the police is therefore contingent on both the support of the local community and on the police's understanding and knowledge of that community. Consequently, to a greater or lesser degree, and particularly when dealing with culturally and linguistically diverse communities, this local community knowledge, and the resultant intelligence it generates, permeates the various functions of the police when countering terrorism, having a significant impact on their effectiveness. Much of this is predicated on trust....

## COMMUNITY ENGAGEMENT – THE POLICE & PROCEDURAL JUSTICE MODEL

A number of academics, predominantly in the fields of Sociology and Criminology, have advanced the concept of Procedural Justice.<sup>3</sup> This argues that police legitimacy and associated compliance with the law is not only linked to their effectiveness in countering crime, but also how police interact with the public. If officers treat members of the community fairly and

<sup>3</sup> See for example the works of Tom R. Tyler, Ben Bradford, Jonathan Jackson, Mike Hough, Andy Myhill, Paul Quinton, Elisabeth Stanko and others.



in a just manner, it will help build trust, enhance legitimacy and ultimately develop some level of institutional authority.<sup>4</sup> This factor appears particularly relevant amongst culturally and linguistically diverse minority communities, where research has shown that when minority communities perceive the behaviour of police during their interactions as fair and without prejudice, their confidence and trust increases.<sup>5</sup> Such confidence in, and perceived legitimacy of, the police amongst both minority communities and the wider public is critical to the level of interaction and engagement, the development of local community knowledge, trust, contact and the concomitant willingness of the public to report offences, suspicions and pass on information... Essential for the development of 'bottom up' community intelligence.

In a specific counter-terrorist context, the significance of public trust, associated legitimacy and the resultant willingness to talk to the police have been highlighted by a number of examples. In France, in two separate incidents local landlords reported their suspicions of tenants to the *Gendarmerie*. Subsequent enquiries resulted in the recovery of a significant quantity of commercial explosive from the *Armée Révolutionnaire Bretonne* (ARB – Breton Revolutionary Army) and the arrest in 2002 of the then heads of the 'military' wing of ETA ('Basque Fatherland and Freedom'). Likewise in the UK a self-storage worker phoned the police in 2004 when a group of young British men of Pakistani origin stored half a ton of Ammonium Nitrate fertiliser in a west London storage facility. This led to the complex counter-terrorist Operation CREVICE, which resulted in five life sentences for 'conspiring to cause explosions'. Finally, as a direct result of concerns raised by members of the Muslim community in Bristol during 2008, police investigated and later arrested the radicalised convert Andrew 'Isa' Ibrahim, who was found to be in an advanced stage of fabricating his own suicide vest, comprising Hexamethylene Triperoxide Diamine (HMTD), Home Made Explosives (HME), with enhanced fragmentation from ball bearings, for a solitary, so called 'lone wolf' suicide attack on a nearby shopping centre.<sup>6</sup>

## COMMUNITY ENGAGEMENT – THE MILITARY & INTELLIGENCE AGENCIES

While the various academic concepts associated with the Procedural Justice Model have traditionally been framed around policing and the wider criminal justice system, such factors as community engagement, public perception and trust are equally important in the development of local community intelligence by the military and national level intelligence agencies. This is particularly the case with Military Aid to the Civil Authorities (MACA) operations, where the military are operating in domestic counter-terrorist 'policing' and security type roles. Much of this initial trust is predicated on public familiarity, where the public are used to seeing the military utilised in such 're-assurance' roles on a day to day or regular basis. Examples include the use of the Irish Army as 'Aid to the Civilian Power' (ATCP) during the historic period of 'the Troubles', the French deployment of troops in Operations *VIGIPRATE* and more recently *SENTINELLE*, following the Paris terrorist attacks in 2015, the use of Spanish troops to protect transport networks and critical infrastructure, particularly following the 2004 Atocha rail bombings and the deployment of Turkish troops

<sup>4</sup> Jackson, J. et al. "Why do People Comply with the Law?". *British Journal of Criminology* 52/6. 2012. 1051–1071.

<sup>5</sup> Bradford, B., Jackson, J. and Stanko, E. "Contact and Confidence: Revisiting the impact of public encounters with the police". *Policing & Society* 19/1. 2009. 20–46.

<sup>6</sup> Details based on author's interviews and personal knowledge.



to provide additional security against both Kurdish PKK and Religious terrorist threats. It is argued therefore that although framed for a different field, these examples show that aspects of the Procedural Justice Model, such as fair treatment, the development of trust, the conferring of legitimacy and subsequent institutional authority, are transferable concepts to military counter-terrorism, particularly when units are being utilised in such domestic MACA operations.<sup>7</sup>

Likewise, while the various national intelligence agencies clearly lack the immediacy and level of overt public interface of the police, and are arguably protected behind a layer of operational and methodological secrecy, their access and effectiveness can also be significantly impacted by wider public perceptions, the associated levels of trust (or lack of it) and subsequent institutional legitimacy. This has recently been demonstrated by the impact of the Wikileaks and Snowden revelations. Such trust is particularly important when seeking to develop human intelligence (HUMINT) from the recruitment and development of sources amongst local communities, where personal relationships and contact are so critical.

However, it can be argued that these factors are not only relevant in a domestic context. Since the development of local community intelligence is predicated on the ‘human factors’ of building trust with these local communities, interacting and engaging with people, developing a rapport, understanding and knowledge, it can be argued that such concepts are cross-cultural, eminently transferable and relevant to foreign military counter-insurgency operations. This is demonstrated in an example raised by Kilcullen, a former special advisor to General Petraeus, concerning some US military units in Iraq during 2006. He states that:

Rather than working with the population so as to protect them from the insurgents, some units, because of their lack of situational awareness and personal relationships with the people, tended to treat all Iraqis as a potential threat and thus adopted a high-handed approach that alienated the population. This exacerbated the backlash against their presence, discouraged people from coming forward with information about the insurgents and thus further reduced these unit’s situational awareness, leaving them trapped in a vicious cycle of intervention and rejection<sup>8</sup>

*“Clearly in such violent ‘kinetic’ environments as Iraq, or indeed Afghanistan, a balance must be made between the level of engagement with the local community and ‘force protection’, attempting to ensure that troops on the ground are not exposed to unnecessary risks. Nevertheless, developing some level of legitimacy and engagement with the local community is important in the ‘gaining and maintaining of popular support’, which in turn is critical to the generation of local community intelligence.”<sup>9</sup>*

## COMMUNITY & CULTURE

The engagement of police and the military with local communities, and the resultant opportunities to generate local intelligence, are clearly enhanced with linguistic, cultural, religious and historical understanding of the ‘human terrain’ they are operating amongst. This is particularly the case when they have serving officers or operators that can speak the language

<sup>7</sup> Details based on author’s interviews and personal knowledge.

<sup>8</sup> Kilcullen, D. *The Accidental Guerrilla: Fighting small wars in the midst of a big one*. London: Hurst & Co, 2009. 124.

<sup>9</sup> *British Army Field Manual: Volume 1 Part 10: Countering Insurgency: Army Code 71876*. October 2009. [http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/16\\_11\\_09\\_army\\_manual.pdf](http://news.bbc.co.uk/2/shared/bsp/hi/pdfs/16_11_09_army_manual.pdf), Accessed on

or are even from the relevant community itself. Despite intensive training and study no one will ever understand a community like an insider. Examples include Irish *Garda* (Police) understanding of dissident republican groups due to shared Catholic cultural and religious backgrounds and Turkish police understanding of religiously motivated terrorists. Likewise, similar shared cultural, religious and linguistic backgrounds made it easier for Israeli police and security forces dealing with Jewish extremism to counter such groups following the assassination of Prime Minister Rabin, while after the 1995 Oklahoma Bombing by Timothy McVeigh and Terry Nichols, the Federal Bureau of Investigation (FBI) broke up the militia movement through infiltration and undercover work. As an FBI official pointed out, “*We also recruit powerfully built guys who play football from rural farming communities*”.<sup>10</sup> Such infiltration and undercover work, particularly when dealing with extremists or terrorists from a minority community is clearly dependent on having officers with the right cultural and linguistic backgrounds previously discussed, as well as the necessary psychological aptitudes and skills to conduct such difficult and dangerous roles.

Likewise, there are examples of the military use of cultural understanding (and deception) to gain advantages in gathering intelligence amongst communities, such as the use of ‘pseudo’ operations. Here teams comprising operators disguised as terrorists and sometimes ‘turned’ terrorists, with the right linguistic and cultural knowledge, have blended into the ‘target community’ to conduct covert surveillance, intelligence gathering and sometimes interdiction operations. Historical examples include the Kenyan Police Reserve ‘Pseudo Gangs’ countering the *Mau Mau* during the 1950s, the French in Algeria with their *Commandos de Chasse* comprising selected local indigenous forces and ‘turned’ terrorists, Rhodesia with its Selous Scouts and South Africa with Angolan elements of 32 Battalion and their Reconnaissance Commandos; All of which relied on a mixture of black and white operators combining both tactical and technical skills with an indigenous knowledge of the local languages and communities they operated amongst.<sup>11</sup> Although many of these skills have been utilised in overseas counter-insurgency operations, in a more domestic context the alleged Turkish *Jandarma* ‘Intelligence and Counter-Terrorism’ (JITEM) has apparently used such mixed teams of disguised intelligence specialists and ‘turned’ terrorist ‘*Shrivers*’ to counter the PKK in the South East of the Country, utilising a combination of HUMINT and surveillance.<sup>12</sup> Likewise, in Israel Police and Army *Mista’aravim* (‘disguised as an Arab’) are often recruited from *Sephardic* Jewish communities, often 2<sup>nd</sup> or 3<sup>rd</sup> generation immigrants from historic communities in Yemen, Morocco, Iraq and Egypt. Consequently as well as having Arabic features, they often speak Arabic fluently and can be trained to pass themselves off as Palestinians in order to operate in that community to obtain intelligence and conduct Close Target Reconnaissance (CTR) and interdiction.<sup>13</sup> France also uses a similar ‘military-cultural pool’ from within the Foreign Legion, where as well as highly trained elite light infantry and para-commandos they have genuine representatives from most nations in the world, with the right languages, demographics, cultural knowledge and passports. Once loyalty to France has been ensured, these can be recruited for specialist intelligence roles. Spain also has an

<sup>10</sup> Author’s conversation with FBI official in 2007.

<sup>11</sup> Cline, L. *Pseudo Operations and Counterinsurgency: Lessons from other countries*. Carlisle PA: Strategic Studies Institute (SSI) US Army War College, 2005.

<sup>12</sup> Aktan, G. and Koknar, A. “Turkey”. In Alexander, Y. (ed.), *Combating Terrorism: Strategies of Ten Countries*. Michigan: University of Michigan Press, 2002. 261–298.

<sup>13</sup> Cohen, A. *Brotherhood of Warriors*. New York: Harper Collins, 2008.

extensive ‘military cultural pool’ in the Spanish Legion and *Regulares*, where the majority of the highly trained troops are North African Muslims of Moroccan origin.

## UNLIKELY COUNTER-TERRORISTS

One other key factor in the generation of local community intelligence is harnessing the support of members of the local community, particularly those in positions of access or authority, who can provide additional ‘eyes and ears’ for the police and security forces. Former Metropolitan Police Assistant Commissioner Specialist Operations (ACSO), Sir David Veness has referred to these non-state actors from communities, commerce and business as ‘Unlikely counter-terrorists’.<sup>14</sup> In a number of recorded cases, some of which were mentioned earlier, members of the public with a good local knowledge and understanding, have reported concerns to the authorities, resulting in arrests and the disruption or thwarting of terrorist attack plans. One aspect of this is close coordination with local security guards, such as through the Los Angeles Police Department (LAPD) Security Officer Terrorism Awareness Course (SOTAC) and the Israeli National Police liaison with local security guards as part of their ‘Third Circle’ of security. In Spain, following the 2004 Atocha Bombings against the rail network, legislation was introduced to allow the police at critical incidents to co-opt local security guards to provide additional personnel.

A different type of community support comes in the understanding and awareness of local businesses, particularly when their personnel are involved in the sale and provision of ‘dual purpose’ technology, which could be used for terrorist purposes. This liaison can be seen in the New York Police Department’s (NYPD) Operation Nexus and Project Griffin, introduced by the City of London Police and adopted by the Metropolitan Police, which seeks to educate businesses in the private sector and local authorities to become additional ‘eyes and ears’.<sup>15</sup> In a far more hostile environment, and in more of a counter-insurgency context, following the increasing level of attacks by the PKK in the rural South East of Turkey, in 1985 the authorities passed Law 3175. This allowed the formation, training and arming of *Gecici Koy Koruculugu* (GKK) or ‘temporary village guards’ from local residents in those areas. These GKK have helped defend rural communities and supported the security forces to mount operations against the PKK, where their local knowledge and contacts have proved critical.<sup>16</sup>

## HUMINT, SURVEILLANCE & THE DEVELOPMENT OF LOCAL COMMUNITY INTELLIGENCE

Going beyond the mobilisation of local community members to provide additional ‘eyes and ears’, such community support can also benefit the more covert intelligence methodologies of source led HUMINT and visual intelligence from surveillance. While great care must be taken to ‘firewall’ these methodologies, particularly in relation to source protection, such

<sup>14</sup> Veness, D. “The Role of the Police.” In Briggs, R. (ed), *The Unlikely Counter-Terrorists*. London: Foreign Policy Centre, 2002. 52–58.

<sup>15</sup> National Counter Terrorism Security Office. “Project Griffin: Guidance”. 1 March 2016. <https://www.gov.uk/government/publications/project-griffin/project-griffin>, Accessed on

<sup>16</sup> Bese, E. “Temporary Village Guards”. In Cizre, U. (ed), *Almanac Turkey: Security Sector and Democratic Oversight*. Istanbul: Turkish Economic and Social Studies Foundation (TESEV), 2006. 134–143.

human centric intelligence can prove critical to developing an effective understanding of the 'human terrain' within a community and subsequent collecting of 'bottom up' local intelligence, both domestically and overseas. Despite the recent focus on Technical Intelligence (TECHINT) from signals or electronic means, much local community intelligence is developed through skilled 'handlers' running sources for the generation of HUMINT within the community and the associated visual intelligence through surveillance.

Consequently, applying an 'asymmetric response to an asymmetric threat', many policing, military and intelligence organisations have developed counter-terrorist HUMINT through the identification, recruitment, cultivation and longer term development of human sources from within the community. The success of this type of intelligence development was amply demonstrated by both the Royal Ulster Constabulary (RUC) Special Branch and the British Army Force Research Unit (FRU) which ran sources within the PIRA. These significantly weakened the terrorist organisation's external capabilities, undermining its internal cohesion and trust to a point where it strongly impacted on its ability to conduct operations.<sup>17</sup> Other countries have also made extensive use of HUMINT networks to counter terrorism; the French intelligence services' identification of Islamist extremist cells in urban communities, Spanish recruitment of sources in the Basque Region to counter ETA, Israeli recruitment of Palestinian sources<sup>18</sup> and Turkish police and intelligence organisations development of HUMINT to counter the PKK in the rural South East and urban areas. Even with the recruitment, 'handling' and development of human sources from within, or closely associated with a terrorist or insurgent group, due to the regular use by such organisations of cell networks to firewall information and their adherence to Operational Security (OPSEC) measures, any intelligence is likely to be 'single strand', such as a who, what, where, when, why or how in isolation, rather than a detailed combination of these intelligence 'strands'.

The other operational intelligence capability regularly used to develop local community intelligence is developed through the various countries' specialist surveillance units. While the 'handling' of human sources helps 'find' terrorists, the use of surveillance allows the police and security forces to 'fix' terrorists, identifying their lifestyles, movements and contacts, before going executive through arrest or tactical intervention to 'finish'.<sup>19</sup> This surveillance can be in the form of either mobile surveillance by teams on foot or in vehicles, or through the use of static 'Observation Posts' (OPs) to monitor a venue, such as the subject's home address or a meeting place. With rural locations, this often requires additional specialist skills in the construction of 'Covert Rural Observation Posts' (CROPs) or camouflaged hides. As with source handling, both the RUC Special Branch with its E4A unit and the British Army's 14<sup>th</sup> Intelligence Company were very actively involved in 'watching' the PIRA during the terrorist organisation's campaign of violence in Northern Ireland, playing critical roles in countering their plans and operations.<sup>20</sup> In possibly one of the best examples of inter-state counter-terrorist operational cooperation, joint Franco-Spanish surveillance teams, with a level of extra-territoriality on both sides of the border, played an important role as part of their countries' joint efforts to mitigate the threat posed by the Basque separatist group ETA,

<sup>17</sup> Urban, M. *Big Boys' Rules: The Secret Struggle against the IRA*. London: Faber & Faber, 1992.

<sup>18</sup> Ganor, B. *The Counter-Terrorism Puzzle: A Guide for Decision Makers*. Herzliya: International Policy Institute for Counter Terrorism / Transaction, 2005.

<sup>19</sup> Peritz, A. and Rosenbach, E. *Find, Fix, Finish: Inside the counterterrorism campaigns that killed bin Laden and devastated al-Qaeda*. New York: Public Affairs, 2012.

<sup>20</sup> Taylor, P. *Brits: The War Against the IRA*. London: Bloomsbury, 2002.

through the identification and arrest of its leadership. Likewise, the Irish *Garda* National Surveillance Unit (NSU) has been particularly active in operations across the whole country against both Irish Republican terrorism and organised crime, which often overlap, while the effectiveness of the Israeli *Mista'aravim* and alleged Turkish JITEM have already been raised.<sup>21</sup>

Consequently, because of their nature and the type of 'bottom up' community intelligence they can generate, both HUMINT and surveillance methodologies can prove critical to establishing the 'ground truth' in both domestic community based counter-terrorism or overseas counter-insurgency environments. Additionally, as well as helping understand the 'human terrain' both methodologies are intrinsically linked to the type of personal relationships, local community knowledge and cultural understanding previously discussed. While the recruitment of sources is clearly dependant on a good understanding of key individuals within an organisation and/or community, surveillance operations benefit from not only having a good understanding of the local 'human terrain', but can also operate more flexibly in a more permissive environment.

## CONCLUSION

Given the changing nature of the terrorist threat from larger spectacular attacks to small self-contained cells and lone actors, using explosives or weaponry when available, but willing to utilise vehicles and 'cold weapons', the development of 'bottom up' local community intelligence has become increasingly critical. In order to effectively counter or disrupt such terrorism, this type of intelligence must be generated and developed through engagement with the same local communities that the terrorists and insurgents exploit, hide amongst and often originate from. Such communities often provide them (willingly or unwillingly) with a source of recruitment, subsistence, shelter and concealment. Although the processes previously detailed can ultimately lead to the development of actionable local community intelligence, the starting point is with the building of personal relationships and treating people from within that community fairly and with respect. In this way, efforts can be made to develop a level of trust, legitimacy and institutional authority, which can ultimately provide a basis for the longer term development of effective local community intelligence to counter terrorism.

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<sup>21</sup> Bese, E. "Intelligence Activities of the Gendarmerie Corps JITEM and JIT". In Cizre, U. *Almanac Turkey: Security Sector and Democratic Oversight*. Istanbul: Turkish Economic and Social Studies Foundation (TESEV), 2006. 172–189.

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Gordon Woo:

## THE USE OF THE MEDIA AS A TERRORIST WEAPON

*ABSTRACT: The use of violence to advance a political agenda is the hallmark of terrorism. Violence is not an end in itself, but a means to achieve specific political objectives. According to the military wisdom of Sun Tzu, the supreme art of war is to subdue the enemy without fighting. Apart from knives, guns, fire and explosives, and improvised weapons, terrorists can minimize actual fighting and the resort to violence by using the media as a terrorist weapon. Remarkable media success has been achieved by terrorists, who have become as adept and proficient at using the media as a terrorist weapon as they have at using the AK-47. Terrorist use of the media as a weapon is reviewed in this paper.*

*The introductory section of this paper reviews the basic features of media coverage associated with terrorist violence. The constant striving for media attention serves to explain much of terrorist targeting in the western alliance. The media influence on terrorist targeting is thus an important topic for review. A psychological perspective is offered next, including a discussion of the link between narcissism and aggression. This linkage is one explanation for the widespread use of media as a terrorist weapon. This section is followed by a conclusion, which stresses the need for enhanced media skills in countering the terrorist narrative used in recruitment.*

*KEYWORDS: media, psychology, terrorism, violence*

### INTRODUCTION

The international media responds to all notable events, including terrorism, that help fill the continuous 24-hour news cycle. The relationship between the media and terrorism is not one way. In fact, there is a deeply symbiotic relationship between terrorism and the media: terrorists depend on the media in crucial ways, and the choice of terrorist attacks is strongly influenced by the consequent media coverage. But also, the media are ever hungry for news stories of global interest, such as terrorist attacks. This symbiosis has important implications for terrorism risk assessment.

Risk analysts seek to define a utility function to quantify the reward associated with any risky human endeavour. Utility is a value assigned to an outcome, which may be based on a range of possible metrics. For terrorists engaged in political violence, inflicting wanton harm and economic damage on their adversaries may be rewarded by the satisfaction of revenge and fulfilment of their own sense of justice. A terrorist attack may also be substantially rewarded by the political impact achieved. Rather like television programme ratings, media coverage is a key measure of this political impact. Such coverage serves as free propaganda and recruitment advertising for the terrorist cause.



Political activists may not receive media attention, nor have their ideas publicized, without terrorist action. As the writer Don DeLillo observed<sup>1</sup>, ‘*Terrorism is the language of being noticed*’. If a peaceful protest goes unnoticed, ordinary law-abiding citizens may feel obliged to resort to political violence. Unabomber Ted Kaczynski, a highly intelligent mathematician with a Harvard education,<sup>2</sup> wanted his thoughts published in *The New York Times* and *The Washington Post*. Before this happened in September 1995, he racked up 13 counts of murder and bombing. Hardly anybody would have noticed, let alone read Anders Breivik’s 1,500-page manifesto published online, entitled ‘2083: A European Declaration of Independence’. Part of the tract<sup>3</sup> details the author’s personal reflections prior to his vehicle bombing of government buildings in Oslo, and the mass killing of 69 at an island summer camp on 22 July 2011. Eight died in the vehicle blast, but the tragic loss of so many promising young lives at the summer camp inevitably became the prime focus of Norwegian public grief and international media coverage.

Terrorists like Kaczynski and Breivik can be brought to justice. But even when terrorists are convicted and jailed, they can continue to attract media attention to their political agenda. Over the course of the years 1980 and 1981, Irish republican prisoners in the Maze Prison outside of Belfast, Northern Ireland, launched two hunger strikes<sup>4</sup> for what they regarded as restoration of their status as political prisoners rather than criminals. However, major news outlets such as the *Irish Times* and the *New York Times* refrained from presenting the strikers’ demands for political status as legitimate. But in terms of public impact, hunger striking may have conveyed as strong a political message as any written demand for political status.

The hunger strikes confronted the British government with a public relations crisis. There were disturbing news stories of the hunger strikers withering away, thus allowing the group to gain sympathy and recruitment. The media’s role in the hunger strike was important in influencing public opinion. The most celebrated hunger striker was Bobby Sands, who died a martyr to the republican cause on 5 May 1981, after 66 days on hunger strike. Over a hundred thousand attended his funeral, the largest in Belfast, and there was global news coverage of the funeral.

Acutely aware of the strategic consequences of terrorist publicity, it was the British Prime Minister, Margaret Thatcher, who insisted in July 1985 that: ‘*We must try to find ways to starve the terrorist and the hijacker of the oxygen of publicity on which they depend*’<sup>5</sup>. At that time, publicity outlets were limited to newspapers, print journals, radio and television. Three decades later, a terrorist statement can be disseminated around the world via social media, and a terrorist video uploaded instantly on YouTube. This new technology has transformed the balance of media power between the opposing forces of terrorism and counter-terrorism. Terrorists can now self-publicize their own political agenda. There is some censorship of

<sup>1</sup> Juergensmeyer, M. *Terror in the mind of God: Global Rise of Religious Violence*. Berkeley: University of California Press, 2000. 139.

<sup>2</sup> Chase, A. “Harvard and the making of the Unabomber”. *The Atlantic*, June 2000. <https://www.theatlantic.com/magazine/archive/2000/06/harvard-and-the-making-of-the-unabomber/378239/>, Accessed on 5 May 2018

<sup>3</sup> Breivik, A. “2083: a European declaration of independence.” *De Laude Novae Militiae*, 2011. [https://archive.org/stream/2083\\_A\\_European\\_Declaration\\_of\\_Independence/2083\\_A\\_European\\_Declaration\\_of\\_Independence\\_djvu.txt](https://archive.org/stream/2083_A_European_Declaration_of_Independence/2083_A_European_Declaration_of_Independence_djvu.txt), Accessed on 16 May 2018.

<sup>4</sup> Scull, M. “Timeline of 1981 hunger strike”. *Irish Times*, 1 March, 2016. <https://www.irishtimes.com/culture/books/timeline-of-1981-hunger-strike-1.2555682>, Accessed on 5 May 2018.

<sup>5</sup> Edgerton, G. “Quelling the ‘Oxygen of Publicity’: British broadcasting and the troubles during the Thatcher years.” *J. Pop. Culture* 30/1. 1996. 115–132.



websites that espouse and incite political violence, but such websites may pop up and close down quite regularly.

In his book on religious terrorism, Mark Juergensmeyer<sup>6</sup> reflected, '*Terrorism without its horrified witnesses would be as pointless as a play without an audience.*' Attraction of a large audience requires publicity. Even comparatively modest terrorist organizations have established professional media departments to manage their publicity. For example, Al Shabab's media department focuses on attracting regional foreign fighters to Somalia from around East Africa, particularly Swahili-speakers, as well as establishing ties with local militant groups<sup>7</sup>. They have featured prominently in the group's propaganda films, including a 2010 recruitment film subtitled in Swahili, Arabic, and English. In West Africa, Boko Haram have created their own audio and video contents<sup>8</sup> and distributed them discreetly to journalists on CDs and memory sticks. This is their most potent propaganda tool, with videos including brutal executions and images of the schoolgirls kidnapped in 2014.

Just as with Hollywood action movies, terrorist videos must have dynamic visual action contents: shootings, fires and explosions. Most terrorist attacks deliver this kind of visual action, which can be filmed and put to good propaganda effect. Rural attacks in the middle of nowhere would be lowly ranked in attack priority compared with attacks in crowded urban places.

Furthermore, there are many possible types of terrorist attack modes that are not particularly visual, and would not lend themselves so well to video. Radiological dispersal devices, i.e. dirty bombs, are in this category. The small amount of radioactive material released would lead to low levels of contamination. This would lead to formidable decontamination problems, but the radioactivity would be unlikely to cause any serious health problems or fatalities. Substantial resources would be required to acquire enough quantity of radioactive material, and there is a high interdiction risk associated with its procurement. On 29 June 2007, there was an attempted car bomb attack on the Tiger Tiger nightclub in Haymarket, central London<sup>9</sup>. One of the terrorists was a hospital doctor, with access to radiological equipment. Although the police had dirty bomb concerns, it turned out that the bombers' focus was on causing a massive propane fire and explosion that might have killed large numbers in the night club.

More than contaminating or vandalizing property, killing people generates newspaper headlines, in accord with the classic editorial adage for selling newspapers: if it bleeds, it leads. On 2 November 2011, the Paris office of the satirical magazine, Charlie Hebdo, was petrol-bombed by a Molotov cocktail at 1 am, the day after Charlie Hebdo had named the Prophet Mohammed as its editor-in-chief for the week's issue. There was only modest international publicity for this terrorist attack that caused some property damage and publication disruption, but no personal harm to anybody. However, a few years later, on 7 January 2015, the editorial committee of Charlie Hebdo was assassinated in their Paris office by the Kouachi brothers, armed with AK-47s. A million people, including many government leaders from

<sup>6</sup> Juergensmeyer. *Terror in the mind of God...* 139.

<sup>7</sup> Hodge, N. "How Somalia's al-Shabab militants hone their image." BBC News. 6 June 2014. <http://www.bbc.co.uk/news/world-africa-27633367/>, Accessed on 9 November 2017.

<sup>8</sup> Abubakar, A. T. "The media, politics and Boko blitz". *Journal of African Media Studies* 4/1. 2012. 97–110. doi: 10.1386/jams.4.1.97\_7, 2012.

<sup>9</sup> Croft, S. *Securitizing Islam: identity and the search for security*. Cambridge: Cambridge University Press, 2012. 222.

across the world, thronged La Place de la République in Paris the following weekend, in solidarity against this terrorist outrage. ‘Je Suis Charlie’ was tweeted all over the world<sup>10</sup>. 24-hour cable news was dominated by these killings, which were perceived as an attack on French liberty itself. A lesson to be learned by terrorist organizations and terrorism risk analysts is that high-profile assassinations leverage the highest media exposure for a given outlay of terrorist resources. This lesson helps explain the terrorist logic of the lone-wolf.

With the massive media attention gained, the benefit-cost ratio for terrorist killings is high. The media outrage against the mass murder of civilians far exceeds the media coverage of infrastructure damage. On 10 October 2015, two bombs were detonated outside Ankara railway station, in Turkey, killing as many as 103 civilians<sup>11</sup>. Counterfactually, the bombs might instead have been detonated on the tracks at night, with few people around. This would have shut down the station, and disrupted the busy railway line to Istanbul. But rail damage can be repaired; lives lost cannot.

Under some circumstances, bombing can be the attack mode of choice if killing civilians is perceived as having too many negative moral repercussions. The IRA had serious qualms about killing civilians because this alienated their key nationalist Irish Catholic constituency. Instead, the IRA provided coded bomb warnings, many of which were disruptive hoaxes, and mastered the development of the fertiliser vehicle bomb to cause massive property loss. Except for such close community support circumstances, the media terrorist payoff for murder and executions far exceeds that of large scale criminal vandalism.

Executions can be by shooting, burning, crucifixion, decapitation etc.. The more gruesome and barbaric the killings, the bigger and brasher are the headlines. So it was that a UK morning newspaper front page<sup>12</sup> following the brutal killing of fusilier Lee Rigby outside Woolwich barracks on 22 May 2013 had the shocking banner headline ‘Beheaded’. The UK media regulator highlighted concerns over a regional news bulletin showing a graphic mobile phone sequence of one of the murderers with a machete and bloodied hands. This was repeated on a loop without audio and without being preceded by a specific warning. Like horror movies, this video nasty was compulsive viewing. Another vile offence against human sensibility that could not be kept off the front pages in February 2016 was the detonation by a 4 year-old small boy of a car bomb killing 4 alleged spies against ISIS<sup>13</sup>. Dressed in a military outfit, he might otherwise have been playing with toy pistols. This episode provides graphic support for the criticism that ISIS uses children like firewood.

In the asymmetric war with nation states, the power of a terrorist group, such as Islamic State, can be projected worldwide by ruthless graphic acts of violence committed against even a modest number of individuals. Disseminated rapidly and amplified globally over the broadcast and social media, such attacks demonstrate a degree of offensive capability

<sup>10</sup> Bilevsky, D. and Baume M. de la. "Terrorists strike Charlie Hebdo newspaper in Paris, leaving 12 dead". *The New York Times*, 10 Jan 2015. <https://www.nytimes.com/2015/01/08/world/europe/charlie-hebdo-paris-shooting.html>, Accessed on 7 May 2018.

<sup>11</sup> Letsch, C. and Khomami N. "Turkey terror attack: mourning after scores killed in Ankara blasts". *The Guardian*, 11 October 2015. <https://www.theguardian.com/world/2015/oct/10/turkey-suicide-bomb-killed-in-ankara> Accessed on 7 May 2018.

<sup>12</sup> "Beheaded: Jihad attack in broad daylight". *Daily News*, 23 May 2013. 1.

<sup>13</sup> Dearden, L. "ISIS propaganda video shows British four-year-old Isa Dare 'blowing up car' with prisoners inside Syria". *The Independent*, 11 February 2016. <https://www.independent.co.uk/news/world/middle-east/isis-execution-video-shows-british-four-year-old-isa-dare-blowing-up-car-with-prisoners-inside-a6866626.html>, Accessed on 7 May 2018.

that both shocks and terrifies the general population, whilst encouraging its own body of supporters and aspiring recruits. Terrorist organizations are generally keen to claim credit for successful attacks, including those perpetrated by non-members and others peripheral to the organization, who were just inspired to commit their brutal crimes, but had no direct contact with any members.

The senseless slaughter of pedestrians by truck ramming would be sure to make headline news. On 14 July 2016, a 19 ton refrigerated truck ploughed into the crowd on the Promenade des Anglais in Nice, killing 86<sup>14</sup>. If the truck had been allowed to carry on its rampage for a few hundred metres further, the casualty rate/metre would have been much higher in the most crowded part of the beach zone, close to the site of the Bastille Day fireworks display.

The media had an indirect unwitting role in instigating this bizarre mode of terrorist attack. In December 2015, a car driver apparently under the influence of drink lost control, left the road and hit a restaurant terrace in Nice. This accident was reported in the local Nice *Matin* newspaper. The driver of the truck on 14 July 2016, Mohamed Lahouaiej-Bouhlel, originally from Tunisia, had kept on his cell phone a photo of this six month old Nice *Matin* story. What happened by chance can also be copied by those with malicious intent.

A spiral of copycat terrorist attacks can be generated by a whirlwind of media publicity. A few months after the Nice truck ramming, another Tunisian, 24 year-old Anis Amri, killed 12 people and injured 48 others when he rammed a 40 ton truck into a Christmas market in the German capital on 19 December 2016<sup>15</sup>. The truck was fortunately halted by the modern automatic braking system, bringing it to a standstill after about 80 metres. Christmas markets have been targeted by terrorists before: they are open crowded public spaces linked to the religion of the Crusaders. Calls were made afterwards for Christmas markets to be given barrier protection. This would only have deflected an attack to a mass transit or other crowded public space.

Since the Christmas market attack, there have been other vehicle ramming attacks in London (see below), Stockholm (7 April), Barcelona (17 August) and New York (31 October). Sayfullo Saipov<sup>16</sup>, an Uzbek like Rakhmat Akilov who perpetrated the ramming attack in Stockholm, told police interrogators that he had chosen Halloween because the Manhattan streets would have been more crowded. With terrorists copying the actions of their compatriots, the terrorist vehicle ramming spiral is still in the early stages of unwinding. Whereas the novelty of vehicle ramming will wear off, the fear of such attacks, and the appalling consequences for pedestrians, will ensure the media publicity which terrorists crave.

<sup>14</sup> Leclerc, G. "Lahouaiej-Bouhlel, maître dans l'art de la dissimulation". *Nice Matin*. 23 July 2016. <http://www.nicematin.com/justice/lahouaiej-bouhlel-maitre-dans-l-art-de-la-dissimulation-66680>, Accessed on 7 May 2018.

<sup>15</sup> Munoz, C. and Waters, A. "At least 12 dead, 48 injured in terror attack on Berlin Christmas market". *Washington Post*, 19 December 2016. [https://www.washingtonpost.com/world/europe/at-least-9-dead-as-truck-rams-crowd-in-christmas-market/2016/12/19/a01c4968-c629-11e6-acda-59924caa2450\\_story.html?noredirect=on&utm\\_term=.10c9301d6a61](https://www.washingtonpost.com/world/europe/at-least-9-dead-as-truck-rams-crowd-in-christmas-market/2016/12/19/a01c4968-c629-11e6-acda-59924caa2450_story.html?noredirect=on&utm_term=.10c9301d6a61), Accessed on 7 May 2018.

<sup>16</sup> Kilgannon, C. and Goldstein, J. "Sayfullo Saipov, the suspect in the New York terror attack, and his past". *The New York Times*, 31 October 2017. <https://www.nytimes.com/2017/10/31/nyregion/sayfullo-saipov-manhattan-truck-attack.html>, Accessed on 7 May 2018.

## MEDIA INFLUENCE ON TERRORIST TARGETING

What counts as a successful terrorist operation in a target-rich society has its own geographical political context. In territories, such as Pakistan, where terrorist attack frequency is expressed in events per day, an attack would gain little media attention unless it generated a sufficiently large number of fatalities. In countries of the western alliance, the extent of national surveillance and the diligence of counter-terrorism forces shorten the terrorist attack horizon, and make it difficult for terrorists to execute ambitious plots. Accordingly, in these countries, the attack threshold for gaining media attention is much lower.

Within the western alliance, the utility of a terrorist attack will depend significantly on the media coverage. Crucially, a carefully planned attack with a moderate amount of logistical resources can saturate headline news for days. The Charlie Hebdo committee assassination on 7 January 2015, an attack using simple off-the-shelf military weapons (namely a couple of AK-47s), created an international media storm<sup>17</sup>. Terrorists advertise and promote themselves effectively through their deeds. Indeed, ever since the French anarchist revolutionaries of the nineteenth century, actual terrorist attacks have been referred to as propaganda by the deed.

The maximum expected utility can be achieved by attacks on comparatively soft but high-profile targets. The paramount example is the Charlie Hebdo office in Paris, which was protected only by a single security guard, and had open street access. By contrast, any plot to assassinate a senior political figure would have been much more difficult, because the security would have been tighter.

In 2002, Osama Bin Laden wrote in a letter addressed to Taliban leader Mullah Omar: *'The media war in this century is obviously one of the strongest methods; in fact, its ratio may reach 90% of the total preparation for the battles'*<sup>18</sup>. Three years later, his successor Ayman Al Zawahiri repeated this sentiment, reiterating that Al-Qaeda is in a media battle in a race for the hearts and minds of the Umma. This is echoed in the more recent pronouncement of Islamic State that *'half of Jihad is media'*<sup>19</sup>. Terrorists are learning to achieve mastery of the media. In particular, the accomplished multilingual skills of terrorist organizations have made for more effective communication with their diverse international target audience spread across the continents.

The professionalism of ISIS in producing slick professional videos of Hollywood quality is evidenced in the documentary 'City of Ghosts', produced by citizen journalists in Raqqa, Syria<sup>20</sup>. This documentary features a number of powerful and professional ISIS recruitment videos, which ordinarily are not seen on western media. These citizen journalists spread counter-propaganda against ISIS, and so were aggressively targeted by ISIS, and forced to leave for Germany.

In the field of public relations, extensive media publicity about successful terrorist attacks serves as propaganda that can reach the general public automatically and instantaneously, and also manage to influence the policies of democratic governments. The terrorist

<sup>17</sup> Bilevsky and Baume. "Terrorists strike...".

<sup>18</sup> bin Laden, O. "Letter to Mullah Mohammed Omar". Combating Terrorism Center. 2005. <https://ctc.usma.edu/harmony-program/>, Accessed on 7 May 2018.

<sup>19</sup> Silverman, J. "Paris is on fire". *Il Politico*, 14 November 2015. <https://www.politico.com/magazine/story/2015/11/paris-is-on-fire-213359>, Accessed on 7 May 2018.

<sup>20</sup> Heineman, M. *City of Ghosts*. 2017. <https://www.imdb.com/title/tt6333056/>, Accessed on 18 April 2018.

aspiration might be to persuade or coerce governments to change their policies, through pressure of fearful citizens.

The media can also be used as a means of communicating with governments. An Al-Qaeda tape broadcast on Al Jazeera in January 2006 said Al-Qaeda was open to a truce with the US if it withdrew from Iraq and Afghanistan<sup>21</sup>. The tape did not say what the conditions for a peace deal were, only that it would be "*a long term truce based on fair conditions ... so both sides can enjoy security and stability under this truce so we can build Iraq and Afghanistan*". It is not the first time Al-Qaeda has offered a truce to the West. Following the killing of 191 people in the March 2004 Madrid railway bombings, a tape recording of Bin Laden offered peace to any European country that stopped "*attacking Muslims or interfering in their affairs*"<sup>22</sup>.

The striving for media attention serves to explain much of terrorist targeting in the western alliance. Terrorist organizations are engaged in an asymmetric war with nation states, which cannot be defeated militarily or economically. The financial cost of terrorism is not measured merely in terms of the loss inflicted by successful attacks, but also by the burgeoning cost of heightened counter-terrorism security. This involves a competitive race between corporations to avoid being the softest target in a class, and hence the lowest hanging fruit to be taken by terrorists following the strategic path of least resistance.

The cost of security may well be more than an order of magnitude larger than the expected economic loss. Public fear and apprehension over terrorism, which are fuelled by alarmist media coverage, drive up the popular demand for ever higher counter-terrorism security expenditure. Ayman Al Zawahiri has cited the escalating cost of homeland security as a circuitous way in which USA can be bled dry economically through terrorism, even if ambitious plots are mostly interdicted.

The intrinsic utility to a terrorist organization of inflicting economic loss through damaging property may not be so significant. But if a terrorist attack fails to gain much media attention, then it would have contributed little to the terrorist cause. Denying terrorists the oxygen of publicity would be beneficial to counter-terrorism initiatives, if this could be achieved. David Broder of the Washington Post<sup>23</sup> has emphasized that, '*The essential ingredient of any effective anti-terrorist policy must be the denial to the terrorist of access to mass media outlets.*' However, basic democratic rights cannot be infringed, and any step towards restricting editorial authority to headline terrorist attacks would have to be ruled out as unacceptable in a society that values freedom of the press. However, legislation can be introduced to ban propaganda inciting terrorism, as it was done in the aftermath of the 7 July 2005 London Transport bombings. In particular, radical imams can be prevented from publicly broadcasting their views on the justification for Jihad – or else they face arrest, as happened to Abu Hamza<sup>24</sup>, the notorious imam of the Finsbury Park mosque in North London, a safe haven for numerous Jihadis.

The importance of media exposure to the terrorist cause naturally influences their operational decision-making. Given a choice between a speculative vehicle bomb plot on a major

<sup>21</sup> "Messages from bin Laden". Al Jazeera. 2 May 2011. <https://www.aljazeera.com/news/middleeast/2011/05/20115272955828212.html>, Accessed on 18 April 2018.

<sup>22</sup> Richburg, K. B. "Madrid attacks may have targeted election". *Washington Post*, 17 October, 2004. 16.

<sup>23</sup> Felling, M. "Terrorists' visual warfare uses the media as a weapon". *Christian Science Monitor*. 4 August 2004. <https://www.csmonitor.com/2004/0804/p09s02-coop.html>, Accessed on 18 April 2018.

<sup>24</sup> Hamza, A. *Allah's governance on Earth*. London: Deluxe printers, 2001. 12–17.

urban building with good street security, and a suicide IED plot against a popular crowded public space in a capital city, the latter would be more reliable and appealing. It would be easier to organize and perpetrate, involve fewer operatives and have a smaller chance of interdiction, and might cause more fatalities which would generate greater media coverage.

Since 9/11, there have been numerous attacks of the latter type: Madrid (2004); London (2005); Boston (2013) and Paris (2015). By contrast, there have been no successful vehicle bomb attacks in the following countries in the western alliance: USA, Canada, Australia, UK, France, Germany, Spain, Belgium or Netherlands. In Norway, there has been a successful vehicle bomb attack, perpetrated by Anders Breivik in Oslo. But his day of terrorist mayhem, 22 July 2011, is mainly remembered not for this, but for the mindless and brutal slaughter of dozens of young political activists at a summer camp. The media focus afterwards was on this act of mass murder rather than on the vehicle bomb<sup>25</sup>.

The allocation of resources for counter-terrorism protection should be informed by understanding the importance of the media in terrorist plots. Terrorist targets are more attractive if they have international name recognition, and are well known locally. Terrorist attack modes are more attractive if, like IEDs, they have a distinctive newsworthy kinetic sound and visual impact. Prioritized are locations in which media may already have correspondents and camera crews, and to which media can gain access rapidly. On October 2016, a suspected IED was found on a London subway train. A 19 year-old student was tasered and arrested the following day. If this incident had occurred in a suburban district, it may have gone unreported. The front page headline in the London Evening Standard<sup>26</sup>, '*Armed police on tube to fight terror*', amplified the impact of this rather minor terrorist incident. Capital cities, and other centres of political, economic and tourist activity, are favoured targets for many reasons, including media coverage.

The following year, 2017, was an extremely active period for Islamist attacks in England. According to Andrew Parker, the director-general of the UK security service, MI5, this has been the most active in decades<sup>27</sup>. There was the Westminster Bridge vehicle ramming and stabbing attack on 22 March 2017; the backpack bomb in Manchester on 22 May 2017; the London Bridge vehicle ramming and stabbing attack on 3 June 2017; and the Parsons Green London tube attack on 15 September 2017.

All of these attacks gained massive media coverage, especially the attack in Manchester, which targeted the concert given at the Manchester Arena by Ariana Grande, who has a massive following amongst girls who want to be like her. The lone back-pack TATP bomber was Salman Abedi, the son of Libyan refugees. Having evaded the attention of the intelligence and law enforcement services in making his bomb and preparing the attack, he sought out the optimal target for his suicide attack. The target had to be the best possible: a suicide bomber can only die once. One of the criteria for optimal targeting is the level of media publicity attainable. By killing 22, mostly young, people at a pop concert given by an

<sup>25</sup> Pidd, H. "Anders Behring Breivik spent years training and plotting for massacre". *The Guardian*, 24 August 2012. <https://www.theguardian.com/world/2012/aug/24/anders-behring-breivik-profile-oslo>, Accessed on 7 May 2018.

<sup>26</sup> Davenport, J. "Armed police on tube after North Greenwich bomb alert". *Evening Standard*, 26 October 2016. <https://www.standard.co.uk/news/london/armed-police-to-travel-from-job-to-job-on-tube-after-north-greenwich-bomb-alert-a3379016.html>, Accessed on 7 May 2018.

<sup>27</sup> Parker, A. "Director General Andrew Parker: 2017 Speech". Security Service MI5. 17 October 2017. <https://www.mi5.gov.uk/news/director-general-andrew-parker-2017-speech>, Accessed on 16 April 2018.



American superstar with 100 million Instagram followers, Salman Abedi knew that he had maximized the global media publicity. We know that he had considered other targets, such as the main railway station in Manchester. Cable news channels covered the suicide attack continuously<sup>28</sup>. A lesson for security services is to allocate police resources on a daily basis so as to give extra attention to events that would attract massive media coverage.

## PSYCHOLOGICAL PERSPECTIVE

In his book on the psychology of terrorism, Horgan<sup>29</sup> has pointed out that *'whenever we read or hear about a terrorist attack, what is almost always focused on is the drama of the event, often at a personal level with emphasis on the scale of destruction and property damage'*. The media focus on drama is an inevitable consequence of a terrorist attack, thus meriting the use of the media to be described as a terrorist weapon in itself.

Horgan discusses the portrayal of some terrorists as narcissists<sup>30</sup>, who have grandiose views of themselves and seek attention. Narcissists have a sense of entitlement, a willingness to mistreat others, a need to be admired, and a lack of empathy. Whilst there is no specific psychological profile of a terrorist, leaving an individual mark in history, and being a target of international media attention, appeals to many people – including terrorists. A narcissistic personality trait of terrorists is exemplified by Haron Monis, a self-styled Islamic cleric, who took 18 hostages in a Sydney cafe in December 2014. In his trial, his lawyer told the court that his constant goal in life appears to have been achieving significance.

There is an important psychological link between narcissism and aggression. According to Bushman and Baumeister<sup>31</sup>, *'Narcissists mainly want to punish or defeat someone who has threatened their highly favourable views of themselves. People who are preoccupied with validating a grandiose self-image apparently find criticism highly upsetting and lash out against the source of it.'* The coupling of terrorist violence and media coverage of terrorism would be a natural reflection of the underlying deep psychological link between narcissism and aggression.

Just as military weapons are used by terrorists to take out their aggression on their adversaries, so the use of the media is a weapon that elevates and promotes their self-image. Extensive international coverage would be perceived as a rewarding part of the outcome of an aggressive act of violence. Like many psychological disorders, narcissism varies widely in its degree of behavioural manifestation. So, while the incidence of narcissism (as a formal psychological personality disorder with childhood origins) may not necessarily be higher amongst terrorists than within the general population, it is intuitively plausible that a sense of identity deficit may be linked with narcissistic rage somewhere along the development path of those who turn to terrorism<sup>32</sup>.

<sup>28</sup> Smith-Spark, L., Said-Moorhouse, L. and Almasry, S. "Salman Abedi: bomber in Ariana Grande concert". CNN. 24 May 2017. <https://edition.cnn.com/2017/05/23/europe/manchester-bombing-salman-abedi/index.html>. Accessed on 18 April 2018.

<sup>29</sup> Horgan, J. *The psychology of terrorism*. Abingdon: Routledge, 2005. 23.

<sup>30</sup> Horgan. *The psychology...* 59.

<sup>31</sup> Bushman, B. J. and Baumeister, R. F. "Threatened Egotism, Narcissism, Self-Esteem, and Direct and Misplaced Aggression". *Journal of Personality and Social Psychology* 75/1. 1998. 219–229.

<sup>32</sup> Victoroff, J. "The mind of the terrorist". *Journal of Conflict Resolution* 49/1. 2005. 3–42.

## CONCLUSIONS

A terrorist action is not all about coercion through violence. Another softer aspect of terrorist strategy is persuasion through the media. It is unsurprising that violence and media publicity should be connected. Aggression and a grandiose self-image of a terrorist organization are linked together psychologically. Terrorists seek publicity and media outlets for their aggressive actions. Psychologists warn that invisibility is a central fear of the narcissist. Their response to exclusion and marginalisation is violence, which lifts the terrorist out of oblivion<sup>33</sup>.

Terrorism is a thinking man's game – terrorists know that they have to be very smart over their public profile and messaging. Indeed, in their use of slick advertising techniques for strategic persuasion<sup>34</sup>, terrorists have often surpassed the media skills of the forces of counter-terrorism.

In recruitment, there are social push factors which drive disillusioned alienated members of society towards extremism, but there are also pull factors that attract recruits and entice them towards joining a terrorist organization. More media-savvy counter-terrorism effort is required to resist these strong pull factors, which are especially powerful because of the media attention paid by terrorist organizations.

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<sup>33</sup> Manne, A. "Narcissism and terrorism: how the personality disorder leads to deadly violence". *The Guardian*, 8 June 2015. <https://www.theguardian.com/world/2015/jun/08/narcissism-terrorism-violence-monis-breivik-lubitz-jihadi-john>, Accessed on 7 May 2018.

<sup>34</sup> Shell, G. R. and Moussa, M. *The art of Woo: using strategic persuasion to sell your ideas*. New York: Portfolio, 2007. 16–17.



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Fabio Vanorio:

## REFORMING THE COMMITTEE ON FOREIGN INVESTMENTS OF THE UNITED STATES (CFIUS): THE CHALLENGE OF TECHNOLOGY

*ABSTRACT: In 1988 the United States Congress approved the Exon-Florio Amendment to strengthen the Defense Production Act (DPA) of 1950, previously passed at the outset of the Korean War to ensure that United States (US) industrial resources would be made available to meet national security needs. The DPA permits the President to legally compel industry to prioritize the delivery of goods and services to military and civilian agencies, and provides the legal basis for Executive (Presidential) government review of foreign investments in US companies.<sup>1</sup> Ultimately, the review-maker for a major provision of the DPA became the Committee on Foreign Investment of the United States (CFIUS).*

*Today, the CFIUS is facing the challenge of simultaneously protecting US national security focusing on inward investment and technology acquisition while maintaining an open investment climate. However, the traditional CFIUS assessment mechanism has not been designed to oversee early-stage technology, or to check transactions involving Artificial Intelligence, Machine Learning and other emerging, dual-use technologies. The imperative of restoration of the National Security Innovation Base (NISB), requested in the 2017 US National Security Strategy, may suffice to address that critical strategic challenge even though new and more detailed legislative instruments must be introduced soon.*

*The paper is organized as follows. Section I briefly describes the history and role of the CFIUS in the National Security Assessment Process. Section II presents an overview of the reform proposals of the CFIUS mechanism aimed at strengthening CFIUS' protective capabilities. Section III introduces the core subject in the CFIUS reforming process, the technological challenge. In that section, the most relevant developments in the technological competition, particularly raised by the Artificial Intelligence, in China and in the United States are also briefly analyzed. Section IV gives some conclusions.*

*KEYWORDS: CFIUS, reform, technology*

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<sup>1</sup> Else, D. H. "Defense Production Act: Purpose and Scope". Congressional Research Service. 14 May 2009. <https://fas.org/sgp/crs/natsec/RS20587.pdf>, Accessed on 26 May 2018.

## Disclaimer

All ideas, conclusions and opinions expressed in this paper are solely those of the author, and do not necessarily reflect any policy or opinion of the author's employer, the Ministry of Foreign Affairs and International Cooperation of the Republic of Italy.

## HISTORY AND ROLE OF THE CFIUS IN THE NATIONAL SECURITY ASSESSMENT PROCESS

As changes in the global security environment warrant, the Executive Branch of the US government issues a National Security Strategy Report (hereafter NSS). President Donald J. Trump released the first NSS of his administration in December 2017.<sup>2</sup> This NSS identifies four major areas of vital national interest, and departs from precedent by raising the priority of domestic economic risks to national security. Economic interests, under the label "promotion of American prosperity," are superseded only by the physical defense of the territory, which itself includes fighting of terrorism and defense of cyberspace.

The "promotion of American prosperity" emphasizes among other things the restoration of fairness in trade practices, enhancement of the National Security Innovation Base (hereafter NSIB)<sup>3</sup> and maintenance of competitive advantage in outer space and cyberspace. The NSS calls for strengthening the protection of Intellectual Property; and advising the Administration about the risks of "illicit appropriation of US public and private sector technology and technical knowledge by hostile foreign competitors"<sup>4</sup>.

Since 1988, the US has maintained a system to assess the national security implications of proposed foreign investments (in particular, Foreign Direct Investments<sup>5</sup>, or "FDI" or "Covered Transaction"). In a climate of growth for cross-border investments, and particularly in response to concern over impending sizable Japanese investment in US technology companies, Congress enacted the Exon-Florio Amendment to Section 721 of the Defense Production Act of 1950. Exon-Florio provided broad statutory authority to the Executive

<sup>2</sup> "National Security Strategy of the United States of America". White House. 2017. <https://www.whitehouse.gov/wp-content/uploads/2017/12/NSS-Final-12-18-2017-0905-1.pdf>, Accessed on 16 May 2018.

<sup>3</sup> The NSIB is a term coined by the White House National Trade Council Director, Peter Navarro, to describe what gives the US a strategic, technological and economic advantage in the world. The definition of NSIB in the NSS is as follows, "*the American network of knowledge, capabilities, and people - including academia, National Laboratories, and the private sector - that turns ideas into innovations, transforms discoveries into successful commercial products and companies, and protects and enhances the American way of life. The genius of creative Americans, and the free system that enables them, is critical to American security and prosperity.*" "National Security Strategy...". 21. The NSIB is a broader institutional conceptualization of the Executive Action signed by President Trump in August 2017, a commitment to defend American Intellectual Property (IP), innovation and technology by foreign countries. With that Executive Action, President Trump directed the United States Trade Representative (USTR), Robert Lighthizer, to investigate, when necessary, China's acts, policies or practices that may be harming the IP, innovation and technology by encouraging or requiring the transfer of American technology to China.

<sup>4</sup> "National Security Strategy...". 21.

<sup>5</sup> In the US, a foreign investment is deemed to be as (1) establishment (or control) of firms, or enlargement of holdings in firms that are already controlled; (2) acquisition of domestic firms, or spin-offs of such firms. Graham, E. M. and Marchick, D. M. *U.S. National Security and Foreign Direct Investment*. Washington D.C.: Institute for International Economics, 2006. Direct investment is made by a resident in one economy to establish a "lasting interest" in an enterprise resident in a different economy. The "lasting interest", evidenced by an ownership at least 10% of the voting power of the direct investment enterprise, creates a strategic long-term relationship to ensure a significant degree of influence in the management of the direct investment enterprise.

Branch of the US Government to review and, as necessary, block or place conditions on proposed FDI (i.e. acquisition of minority or majority interest) in critical infrastructure or technology. President Reagan immediately delegated the investigation and review functions to the CFIUS (Committee on Foreign Investment in the United States), an interagency group that had been, since its founding in 1975, mostly a monitoring and reporting body without significant advisory or control authority.<sup>6</sup> National Security reviews of FDI thus became known as CFIUS reviews.<sup>7</sup> In 2007, the Foreign Investment and National Security Act (FINSA)<sup>8</sup>, signed by President G.W. Bush, ameliorated the CFIUS process enabling greater surveillance by Congress, broadening the definition of National Security for CFIUS purposes and introducing greater scrutiny by CFIUS of certain types of FDI.<sup>9</sup>

Today, CFIUS is a governmental body to contain the National Security threats inside FDIs in the US, as well as an important gatherer and processor of Economic Intelligence<sup>10</sup> (Box 1). Chaired by the

#### BOX 1: Voting Members of CFIUS

SECRETARY of Treasury (Chair)  
 SECRETARY of State  
 SECRETARY of Defense  
 SECRETARY of Commerce  
 SECRETARY of Homeland Security  
 ATTORNEY General  
 DIRECTOR of the Office of Management and Budget  
 U.S. Trade Representative  
 CHAIRMAN of the Council of Economic Advisers  
 DIRECTOR of the Office of Science and Technology Policy  
 ASSISTANT to the President for National Security Affairs  
 ASSISTANT to the President for National Economic Policy

<sup>6</sup> Heifetz, S. *A Brief History of the Committee on Foreign Investment in the United States*. Washington D.C.: Steptoe and Johnson LLP, 2011.

<sup>7</sup> Graham and Marchick. U.S. *National Security*...

<sup>8</sup> "One Hundred Tenth Congress of the United States of America". Government Publishing Office. 2007. <https://www.gpo.gov/fdsys/pkg/BILLS-110hr556enr/pdf/BILLS-110hr556enr.pdf>, Accessed on 17 May 2018.

<sup>9</sup> Jackson, J. K. "The Committee on Foreign Investment in the United States (CFIUS)". 2017. [http://bic-us.org/imagens\\_bic/bic/arquivos/20170508/6b43a133020248fcac6188017655946b.pdf](http://bic-us.org/imagens_bic/bic/arquivos/20170508/6b43a133020248fcac6188017655946b.pdf), Accessed on 17 May 2018.

<sup>10</sup> According to the "Committee on Foreign Investment in the United States Annual Report to Congress" (December 2008), "The Treasury Department and the other CFIUS agencies addressed the requirements of Section 721(m)(3) by:

*Assessing attempts by governments of major economic competitors to obtain commercial and dual-use critical technologies, recognizing the distinction between espionage and legal economic intelligence gathering."*

The comprehension of the distinction between espionage and legal economic intelligence requires a definition of Economic Intelligence. Potter recalls a definition that includes "any relevant economic information related to a national technological, financial, corporate and government asset, whose acquisition by foreign interests could negatively affect the national competitive stance". In an Economic Intelligence strategy, Potter combines (1) the traditional raw data gathering techniques (HUMINT, SIGINT, TECHINT) with (2) confidential documentation notes (also coming from outside the intelligence community) about, for example science and technology issues, competition strategies, or ongoing evolutions in the global financial regulation. The distinction between espionage and legal economic intelligence gathering belongs to the difference between Intelligence Agencies and other Government or Corporate collectors of Economic Intelligence. Potter, *E. H. Economic Intelligence & National Security*. Ottawa: Carleton University Press, 1998. According to Gregory, S., "For the United States, (...) only the intelligence community, (...) has the right to conduct clandestine collection and analysis of the categories of economic information (...)." Gregory, S. "Economic Intelligence in the Post-Cold War Era: Issues for Reform". In Cheng, E. and Snyder, D. C. (eds.) *The Final Report of the Snyder Commission*. Princeton: Princeton University, 1997.

Secretary of the Treasury<sup>11</sup>, CFIUS is composed by 12 voting members, plus the Director of National Intelligence (DNI) and the Secretary of Labor as non-voting members<sup>12</sup>.

The formal CFIUS process begins when parties to a proposed or pending transaction (“covered transaction”<sup>13</sup>) jointly file a notice with the Committee. Even though CFIUS review is not mandatory, if the cross-border deal can be considered as sensitive, foreign investors can voluntarily<sup>14</sup> notify CFIUS in anticipation of placement of conditions on (or a possible Presidential blocking of) the transaction. The CFIUS procedure is in three stages:

1. Initial 30-day<sup>15</sup> review of the “covered transaction”, following receipt of notice;
2. Up to 45-day<sup>16</sup> investigation period for “covered transactions” that need additional review (due to, for example, the complexity of the transactions, concerns raised by a lead agency, additional time required by the due diligence, or the involvement of foreign government-controlled entities or critical infrastructure in the transaction);
3. Presidential Review with decision within 15 calendar days of receiving the formal report.<sup>17</sup>

CFIUS can autonomously decide whether a transaction poses a national security concern sufficient to require an investigation or whether, during or after an investigation, the President should be advised about the transaction itself.

During the review or the investigation, the investing parties can withdraw the notice if they perceive that otherwise the transaction will be blocked. The withdrawal may entail conditions on the parties, such as an obligation to keep the CFIUS informed of the future status of the transaction or to re-file the notice to the CFIUS.

<sup>11</sup> The Office of Investment Security of the Treasury Department fulfills the statutory responsibilities as chair of the CFIUS.

<sup>12</sup> “Process overview”. U.S. Department of the Treasury. 2010. [www.treasury.gov/resource-center/international/foreign-investment/Pages/cfius-overview.aspx](http://www.treasury.gov/resource-center/international/foreign-investment/Pages/cfius-overview.aspx), Accessed on 18 May 2018.

<sup>13</sup> According to the FINSA, a “covered transaction” is “any merger, acquisition, or takeover that is proposed or pending after August 23, 1988, by or with any foreign person which could result in foreign control of any person engaged in interstate commerce in the United States.”

<sup>14</sup> Voluntarily filing avoids the appearance of misconduct. On the other hand, transforming the “voluntary” element in “mandatory” would create congestion in CFIUS work. According to the Treasury, in 2016, CFIUS determined that 172 notices of transactions filed were covered transactions under Section 721. CFIUS also conducted a subsequent “investigation” with respect to 79 of those 172 notices. Twenty-seven of the 172 notices were withdrawn. Leaving the decision to the parties if filing or not a transaction means that if a filing is not made and CFIUS later determines that that transaction adversely affects national security or critical infrastructure, the judgement of the transaction will be worse, and competitors may use political muscle to successfully request that their Congress members urge CFIUS to open its own investigation following the signing or closing of that transaction. Vogel, M. C. “A CFIUS Primer: Important Considerations for Foreign Investors and U.S. Companies”. Quarles & Brady LLP. 3 November 2009. <https://www.quarles.com/publications/a-cfius-primer-important-considerations-for-foreign-investors-and-u-s-companies/>, Accessed on 18 May 2018.

<sup>15</sup> Calendar days. In the Pre-FINSA years (2005–2007), CFIUS cleared within the review period roughly 95 percent of all covered transactions. In the Post-FINSA years (2008–2014), CFIUS’ clearance rate in the review phase fell to approximately 65 percent. The rise in transactions moving into an investigation phase suggests that (i) CFIUS is being overwhelmed by the increased case load, or (ii) CFIUS is investigating an expanding set of perceived national security concerns. “Delays in Annual Reporting: Is CFIUS Buckling Under Pressure?”. Freshfields, Bruckhaus, Deringer. 1 June 2017. [http://knowledge.freshfields.com/h/Global/r/3500/delays\\_in\\_annual\\_reporting\\_\\_is\\_cfius\\_buckling\\_under](http://knowledge.freshfields.com/h/Global/r/3500/delays_in_annual_reporting__is_cfius_buckling_under), Accessed on 18 May 2018. However, both hypotheses bring to think about an insufficient timetable available.

<sup>16</sup> Calendar days.

<sup>17</sup> Graham and Marchick. *U.S. National Security...*

It is uncommon for the President to have to make a decision. There was one such case during the G.W. Bush's administration, two during the Obama administration and one so far during the Trump administration (see Box 2).

The issue before CFIUS is to detect, eliminate, or mitigate any perceived threat from the investment and make any necessary recommendation to the President. Where the CFIUS has elected not to refer a transaction to the President, or where the President has decided not to block it, the transaction is in "safe harbor"<sup>18</sup> and may remain.

## STRENGTHENING CFIUS' PROTECTIVE CAPABILITY

CFIUS assessment mechanism represents a whole-of-government approach. Every filed transaction is analyzed by experts at each of the CFIUS member departments according to each department's own competence. Other departments may be called upon case-by-case, depending on circumstances. For example, CFIUS may have to involve other federal government agencies, such as the Departments of Transportation, Health and Human Services, Agriculture, Interior, Veterans Affairs, the Environmental Protection Agency (EPA) or the National Aeronautics and Space Administration (NASA).

Among the CFIUS members, the role of reviewer for national security issues has been assumed, though informally, by the Department of Defense (DoD). Both the NSS, that stated the need of a major focus on national security in CFIUS assessments, and the National Defense Authorization Act ("NDAA")<sup>19</sup>, released in December 2017 for Fiscal Year 2018, emphasize the roles of the DoD and the intelligence community (via the Office of the Director of National Intelligence) as dominant in the interagency screening of foreign investments. According to Section 1069 of the NDAA<sup>20</sup>, "the Secretary of Defense, in concurrence with the Secretary of State, the Secretary of Treasury, and the Director of National Intelligence, shall assess and develop a plan and recommendations for agencies of the US Government, other than the Department of Defense, to improve the effectiveness of the interagency vetting of foreign

### BOX 2. Transactions Blocked by Presidents

1990: President Bush directed the CATIC (China National Aero-Technology Import and Export Corporation) to divest its acquisition of MAMCO Manufacturing.

2012: President Obama directed the Ralls Corporation to divest itself of an Oregon wind farm project.

2016: President Obama blocked the Chinese firm Fujian Grand Chip Investment Fund from acquiring Aixtron, a German-based semiconductor firm with U.S. assets.

2017: President Trump blocked the acquisition of the Oregon-based Lattice Semiconductor Corporation by the Chinese Canyon Bridge Capital Partners.

SOURCE: Jackson. "The Committee on Foreign Investment in the United States (CFIUS)".

<sup>18</sup> In Law, the term "safe harbor" means a legal provision to reduce or eliminate liabilities in transactions if certain conditions are met.

<sup>19</sup> "H.R. 2810: National Defense Authorization Act for Fiscal Year 2018" congress.gov. 12 December 2017. www.congress.gov/bill/115th-congress/house-bill/2810/text, Accessed on 18 May 2018.

<sup>20</sup> "Recommendations for Interagency Vetting of Foreign Investments affecting National Security".



investments that could potentially impair the national security of the US".<sup>21</sup> The recommendations required shall be based, among other things, upon analysis of "whether and to what extent industrial espionage is occurring against private US companies to obtain commercial secrets related to critical or foundational technologies" and "whether and to what extent foreseeable foreign investments have the potential to reduce any technological or industrial advantage of the US". The emphasis on safeguarding the technological competitiveness is the same recalled in the NISB definition. Through the activities requested by the NDAA to the DoD, the Congress is willing to make the collaboration with the CFIUS closer. This aspect will undoubtedly improve the strength of the overall foreign investment screening.

In June 2017 US Secretary of Defense Gen. James N. Mattis, testified to the US Senate Armed Services Committee, affirming that CFIUS was to be considered "clearly outdated", and that change was "warranted". In this regard, more recently, DoD recommended to Congress that CFIUS consider the following actions<sup>22</sup>:

- adding certain military-critical technologies to those requiring protection<sup>23</sup>;
- making improvements to military counterintelligence;
- retaining high-skilled foreign graduate students, allowing them to stay in the US after completing their studies.

**BOX4: United States foreign Investment Review Act (FIRA)  
(BROWN - Grassley Bill, S. 1983)**

The bill directs the Secretary of Commerce to consider "any relevant economic factor," such as:

- the "long-term strategic economic interests of the US";
- the "history of distortive trade practices in each country in which a foreign party to the transaction is domiciled";
- the "control and ownership of each foreign person that is a party to the transaction";
- the "impact on the domestic industry, considering any pattern of foreign investment in the domestic industry";
- "any other factors the Secretary considers appropriate."

SOURCE:

"THE Elephant in the Room...".

<sup>21</sup> The Secretary of Defense shall submit not later than March 2018 to the appropriate committees of Congress a report on the progress of the Secretary in developing the recommendations, and not later than September 2018 to the appropriate committees of Congress a report setting forth the recommendations developed. The term "appropriate committees of Congress" means the Committees on Armed Services of the Senate and the House of Representatives; the Committee on Foreign Affairs of the House of Representatives; the Committee on Foreign Relations of the Senate; the Committee on Financial Services of the House of Representatives; the Committee on Finance of the Senate; the Permanent Select Committee on Intelligence of the House of Representatives; and the Select Committee on Intelligence of the Senate.

<sup>22</sup> Stewart, P. "U.S. weighs restricting Chinese investment in artificial intelligence". Reuters. 13 June 2017. <https://www.reuters.com/article/us-usa-china-artificialintelligence-idUSKBN1942OX>, Accessed on 18 May 2018.

<sup>23</sup> That list was delivered – privately for national security reasons – from the Secretary of Defense, Gen. Mattis, to Senator Peters (D-Michigan) after an Hearing about the DoD Budget after the Senate Committee on Armed Services. "Hearing to Receive Testimony on the Department of Defense Budget Posture in Review of the Defense Authorization Request for Fiscal Year 2018 and the Future Years Defense Program". U. S. Senate Committee on Armed Services. 13 June 2017. <https://www.armed-services.senate.gov/hearings/17-06-13-department-of-defense-budget-posture>, Accessed on 23 May 2018.

The DoD's recommendations to Congress have received an encouraging response.

In October 2017, Senators Sherrod Brown (D-Ohio) and Charles (Chuck) Grassley (R-Iowa) introduced the Foreign Investment Review Act ("FIRA")<sup>24</sup> (Box 4).

FIRA proposes to give the Secretary of Commerce the power to review FDIs for their "economic effect."<sup>25</sup> It is proposed that Commerce Department reviews be pursued together with CFIUS but, unlike CFIUS reviews, the Commerce Department assessments would be mandatory<sup>26</sup>, and subject to minimum notification thresholds<sup>27</sup>. The Commerce Department reviews would cover foreign investments that create de novo entities or take over an existing US "legal person" (CFIUS, differently, scrutinizes acquisitions related to a US "business" which may or may not be a legal person).<sup>28</sup>

Similarly, on November 2017, Senator John Cornyn (R-Texas) with a bi-partisan group of co-sponsors, has proposed the Foreign Investment Risk Review Modernization Act ("FIRRMA")<sup>29</sup> in the Senate (Box 5.) while a companion bill (H.R. 4311<sup>30</sup>) has been proposed at the House by Representatives Robert Pittenger (R-North Carolina) with a bi-partisan group of co-sponsors.

The bill addresses transactions that currently lie outside CFIUS jurisdiction, such as investments involving sensitive technology but not entailing "control" of a US business. Cornyn's legislation does not single out specific technologies to be scrutinized by the CFIUS, but it provides a mechanism for the DoD to lead that identification effort.<sup>31</sup> Senator Cornyn's bill has garnered significant support outside of Congress, notably from the

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<sup>24</sup> "S. 1983: United States Foreign Investment Review Act of 2017". congress.gov. 12 December 2017. <https://www.congress.gov/bill/115th-congress/senate-bill/1983/text>, Accessed on 23 May 2018.

<sup>25</sup> "Four Things You Need to Know About the CFIUS Reform Legislation". Stroock & Stroock & Lavan LLP. 8 November 2017. <https://www.stroock.com/siteFiles/Publications/FourThingsToKnowCFIUSReformBill.pdf>, Accessed on 23 May 2018.

<sup>26</sup> The Secretary of Commerce initiates an economic review if the Chairman and Ranking Member of the Senate Finance Committee or of the House Ways & Means Committee request such review. Initial reviews last 15 days, but if not resolved, could be extended for an additional 45-60 days. "The Elephant in the Room: Senate Legislation Would Make "Economic Security" a Factor in Foreign Investment Reviews". Stroock & Stroock & Lavan LLP. 4 December 2017. <https://www.stroock.com/siteFiles/Publications/TheElephantInTheRoom.pdf>, Accessed on 23 May 2018.

<sup>27</sup> The Secretary of Commerce must be notified of every transaction (a) resulting in "foreign control" of U.S. businesses and (b) meeting specific value thresholds: \$50 million or more (if the foreign buyer is a state-owned enterprise); \$1 billion or more (for any other foreign buyer). Hunter, R. "The Grassley-Brown Bill, a New Approach to Foreign Investment Reviews". 25 October 2017. <http://tradedblog.bakermckenzie.com/the-grassley-brown-bill-a-new-approach-to-foreign-investment-reviews/> Accessed on 23 May 2018.

<sup>28</sup> "The Elephant in the Room...".

<sup>29</sup> "S. 2098: Foreign Investment Risk Review Modernization At of 2017". congress.gov. 11 August 2017. <https://www.congress.gov/bill/115th-congress/senate-bill/2098/text>, Accessed on 23 May 2018.

<sup>30</sup> "H.R. 4311: Foreign Investment Risk Review Modernization Act of 2017". congress.gov. 11 August 2017. <https://www.congress.gov/bill/115th-congress/house-bill/4311/text>, Accessed on 23 May 2018.

<sup>31</sup> Stewart. "U.S. weighs restricting...".

### **BOX 5. United States Foreign Investment Risk Review Modernization Act” (FIRMA) (CORNYN Bill, S. 2098)**

#### Key Highlights

##### 1. Expansion of the CFIUS jurisdiction

MORE transactions subject to CFIUS review (Joint ventures involving technology transfers to a foreign entity; Minority position investments; Real estate transactions near military bases or other sensitive national security facilities; and any non-passive foreign investment in a “United States critical technology company” or “United States critical infrastructure company.”)

##### 2. Consideration of additional risk factors in the CFIUS analysis

INTRODUCTION of the “Frequent Filers” (expedited reviews of notices deemed routine or low-risk); mandatory filings for (i) acquisitions of a 25% or greater voting interest in a U.S. business by a foreign person in which a foreign government owns, directly or indirectly, at least a 25% voting interest, and (ii) select transactions (as determined by the Committee) based on certain factors, including “technology, industry, economic sector, or economic subsector.”

##### 3. More information shared

SHARING information with domestic and foreign governmental entities “to the extent necessary for national security purposes and pursuant to appropriate confidentiality and classification arrangements.”

##### 4. Increase of the review period

EXTENSION of the first review period from 30 to 45 days, allowance for a further 30-day extension for “extraordinary circumstances”, enabling the review to last up to 120 days.

##### 5. Authorize exemptions

AUTHORIZATION to CFIUS to exempt certain transactions to reduce the burden on CFIUS’ resources.

#### SOURCES:

MAYS, L. C. and Whitten, R. “The Future of CFIUS...”  
“Four Things You Need to Know...”

Secretaries of Treasury, Commerce, Defense, and the Attorney General.<sup>32</sup> Secretary Mattis in his endorsement<sup>33</sup> noted that the bill if enacted “would help close related gaps that exist in both the CFIUS and export control processes, which are not presently keeping pace with today’s rapid technological changes”.

<sup>32</sup> Support the legislation also has lent from the business community, such as Oracle Corporation (“*FIRMA strikes a balance of protecting national security while not chilling the benefits of foreign investment in the United States.*”) and from leading former government officials, such as the former Director of National Intelligence and Commander of U.S. Pacific Command, Adm. Dennis C. Blair (“*by expanding the scope of CFIUS reviews, FIRMA provides better tools to analyze foreign investments and thus will strengthen the protection of American intellectual property from theft by foreign actors.*”). “Update: CFIUS Reform Bill Proposed by U.S. Senator Cornyn and U.S. Rep. Pittenger Has Garnered Significant Support Outside of Congress”. 20 December 2017. [https://www.wileyrein.com/newsroom-articles-Trade\\_Alert-UPDATE-CFIUS\\_Reform\\_Bill\\_Proposed\\_by\\_US\\_Senator\\_Cornyn\\_and\\_US\\_Rep\\_Pittenger\\_Has\\_Garnered\\_Significant\\_Support\\_Outside\\_of\\_Congress.html](https://www.wileyrein.com/newsroom-articles-Trade_Alert-UPDATE-CFIUS_Reform_Bill_Proposed_by_US_Senator_Cornyn_and_US_Rep_Pittenger_Has_Garnered_Significant_Support_Outside_of_Congress.html), Accessed on: 26 May 2018.

<sup>33</sup> Mattis, J. N. “Letter to John Cornyn”. 15 Dec 2017. <https://comms.wileyrein.com/8/1873/uploads/sec-mattis-cfius-bill-support-letter.pdf>, Accessed on 26 May 2018.

## THE CHALLENGE OF TECHNOLOGY IN REFORMING CFIUS

During its risk assessment of the covered transaction, CFIUS considers two kind of threats strictly connected to “technological risk”: a possible leak of sensitive technology to a foreign company or government that might deploy it so as to be harmful to US national interests; and the potential that the acquisition of a US company might allow a foreign company or a government to penetrate the US company’ systems so as to monitor, conduct surveillance, or place destructive malware within those systems. The relevance of Cornyn’s bill is to bring up other new “technological risks”, such as, for example losing technologies critical to national security because of “countries of special concern”;<sup>34</sup> exposing biological DNA data; and aggravating existing weaknesses in cybersecurity<sup>35</sup>.

In assessing transactions, the DoD considers, among other things, the nature of the technologies and products involved<sup>36</sup>, particularly critical technologies, like Artificial Intelligence (AI) and Robotics that represent the breakthrough in military research. The Secretary of Defense, General Mattis, recognized the strategic challenge of China’s advances in such technologies during his testimony to the Armed Services Committee, and undertook a commitment to pose a more vigorous response.<sup>37</sup>

A similar emphasis was given by the Congress to the problem. During a previous hearing, Senator Peters (D-MI) had already affirmed how “the intelligence community CFIUS workload (...) is marked by increased Chinese investment in the very technologies that are the key to U.S. innovation and military advantage, including autonomous vehicles, Artificial Intelligence, robotics, Virtual Reality, as well as gene editing.”<sup>38</sup>

China’s emergence as the main geopolitical and economic competitor to the US, together with a series of high-profile breaches of US export controls by Chinese companies in the late 1990s and early 2000s, had already raised the CFIUS’s concern.<sup>39</sup>

<sup>34</sup> A concern, acknowledged in Senator Cornyn’s press release, is “*the perception that China is degrading the United States’ military edge by acquiring and investing in U.S. companies*”. “New CFIUS legislation introduced in Congress” 2016. [www.lexology.com](http://www.lexology.com). Although China is not singled out in the bill as a “country of special concern,” the increase in information requirements to file transactions involving foreign government interests would impact many Chinese acquisitions subjecting them to mandatory reviews. “Four Things You need to Know...”.

<sup>35</sup> Describing the use of cyberattacks against the US, the NSS made an explicit connection between cybersecurity and economic prosperity that is worth noting. “National Security Strategy...”. 18. and Sulmeyer, M. “Cybersecurity in the 2017 National Security Strategy”. Lawfare. 19 December 2017. <https://www.lawfareblog.com/cybersecurity-2017-national-security-strategy>, Accessed on 26 May 2018.

<sup>36</sup> Other factors are whether the firm being acquired is a DoD supplier and the existence of classified contracts between the US company and the US government. “Issues in Acquisitions of Defense Industry Contractors”. FindLaw. <http://corporate.findlaw.com/corporate-governance/issues-in-acquisitions-of-defense-industry-contractors.html>, Accessed on 26 May 2018.

<sup>37</sup> Kania, E. “Beyond CFIUS: The Strategic Challenge of China’s Rise in Artificial Intelligence”. Lawfare. 20 June 2017. <https://www.lawfareblog.com/beyond-cfius-strategic-challenge-chinas-rise-artificial-intelligence>, Accessed on 26. May 2018.

<sup>38</sup> “Hearing to Receive Testimony on the Department of Defense Budget Posture in Review of the Defense Authorization Request for Fiscal Year 2018 and the Future Years Defense Program”.

<sup>39</sup> Although China may be a concern, the U.S. also considers the importance of Beijing as a domestic direct investor. In 2016, China made the US the top destination for its FDI with \$45.6 billion in acquisitions and greenfield investments. In the first five months of 2017, investments amounted to \$22 billion, a 100 percent increase against the same period in 2016. Stewart. “U.S. weighs restricting...”.

**BOX 3. Case Study: AppLovin - OHC transaction**

Palo Alto, California-based AppLovin is a mobile marketing platform, ranked #10 on the 2016 Deloitte Technology Fast 500 North America list.

1. September 2016: AppLovin agreed to be acquired by the Shanghai-based buyout firm Orient Hontai Capital (OHC), for \$1.42 billion. CFIUS expressed concerns about the security of the company's data under a foreign owner.
2. January 2017: AppLovin abandoned plans to sell a majority stake in OHC. Instead, OHC completed a 9.98 percent investment in AppLovin for \$140 million. The \$140 million equity investment implies a valuation for AppLovin of about \$1.4 billion, the same price as the deal it struck with OHC more than a year ago.
3. November 2017: AppLovin got \$841 million from OHC in a debt financing agreement.

AppLovin turned a \$1.4 billion agreement to sell itself to OHC into a debt financing. Parties have notified CFIUS the new arrangement as a follow-up of a withdrawn transaction, but the new deal shouldn't be scrutinized because OHC doesn't gain control of the AppLovin capital.

SOURCES: Baker. "Exclusive: AppLovin tweaks...".

Among the latest issues, also emerged in a recent White Paper commissioned by the DoD<sup>40</sup>, there are the investments of Chinese companies – with close government ties – in American start-ups specializing in Artificial Intelligence (hereafter AI) and Machine Learning to advance China's military capacity as well as its economy. According to the same White Paper, US government controls, that are supposed to protect potentially critical technologies, are falling short.

Concerns posed by the DoD also related to the access of Chinese firms to sensitive U.S. technology, misusing specific contract structures that do not trigger a CFIUS review, for example in joint ventures, or early-stage investments in startups. Box 3 offers a case study about the AppLovin – Orient Hontai Capital (OHC) transaction, an example about how to bypass the CFIUS procedure.<sup>41</sup> Basically, CFIUS do not review any debt agreements. This should be an issue. Without a scrutiny in the AppLovin – OHC transaction some specific questions remain without an answer regarding, for example, the access to any sensitive information by OHC (putting up \$841 million and being involved for a 9.98 percent holding or potentially more if the bonds are convertible).

It can be of interest to have a brief overview of two among the major advanced military projects of Beijing and Washington that may have consequences in the future work of the CFIUS.

## China: The Civil-Military Fusion Concept

China is showing a strong will to become the premier global developer of AI technology. In July 2017, the Chinese government launched the "New Generation Artificial Intelligence

<sup>40</sup> Mozur, P. and Perlez, J. "China Bets on Sensitive U.S. Start-Ups, Worrying the Pentagon". *The New York Times*, 22 March 2017. <https://www.nytimes.com/2017/03/22/technology/china-defense-start-ups.html>, Accessed on 26 May 2018.

<sup>41</sup> Stewart. "U.S. weighs restricting...".

Development Plan,” focusing on independent innovation in emerging technologies with the long-term goal to become a global leader in AI by 2030<sup>42</sup>.

According to the guidelines issued by the Chinese State Council, the trajectory planned for the total output value of AI industries expects a growth over \$22 billion by 2020, \$59 billion by 2025 and \$150 billion by 2030. Key development areas include AI software and hardware, quantum communications and computing, intelligent robotics and vehicles, virtual and augmented reality. China’s strategy is designed to drive progress in cracking key topics such as big data, swarm intelligence<sup>43</sup> and human-machine hybrid intelligence, and ingenerating an advanced range of paradigm-shifting AI technologies, such as brain-inspired neural network architectures and quantum-accelerated machine learning<sup>44</sup>.

The Chinese political leadership is willing to accomplish a “military-civil fusion”, pairing civilian advances in AI to a corresponding military use. To oversee the strategy, the Chinese government established a Civil-Military Integration Development Commission (the “C-M Commission”) in 2017, under the leadership of President Xi Jinping<sup>45</sup> and involving the Chinese intelligence community. People’s Liberation Army (PLA) could leverage civilian advances in AI in its evolution from the current informatized warfare<sup>46</sup> into an “intelligentized warfare”<sup>47</sup>, increasing the use of AI in command decision-making, war-simulation, and training<sup>48</sup>.

In civilian society, Beijing has taken important steps in the AI sector through Baidu, the Chinese search engine giant. Examples can be the AI Lab that Baidu launched in collaboration with the National Development and Reform Commission, the acquisition of xPerception, a US developer of vision perception software and hardware with applications in robotics and virtual reality and the establishment, under Baidu’s leadership, of the National Deep Learning Lab (deep learning<sup>49</sup>, computer vision and sensing, computer-listening, biometric identification, and forms of human-computer interaction).<sup>50</sup>

<sup>42</sup> Kania. “Beyond CFIUS...”.

<sup>43</sup> Rosenberg, L. “New Hope for Humans in an A.I. world”. YouTube. 17 September 2017. [https://www.youtube.com/watch?v=Eu-RyZt\\_Uas](https://www.youtube.com/watch?v=Eu-RyZt_Uas), Accessed on 26 May 2018.

<sup>44</sup> Kania, E. “Battlefield Singularity: Artificial Revolution, and China’s Future Military Power”. Center for a New American Security” 28 November 2017. <https://www.cnas.org/publications/reports/battlefield-singularity-artificial-intelligence-military-revolution-and-chinas-future-military-power>, Accessed on 26. May 2018.

<sup>45</sup> Kania. “Beyond CFIUS...”.

<sup>46</sup> The Revolution in Military Affairs (RMA) were studied and converted for use by Andy Marshall at the Pentagon in the 1970s, ‘80s, and ‘90s. RMA served as a basis for many of the US advanced technology achievements. The Chinese drew on (and are currently drawing on) the work of Andy Marshall and other Americans to develop their “informatized warfare” construct and strategy. Rybeck, C., Cornwell, L. and Sagan, P. “A National Security Enterprise Response: Digital Dimension Disruption”. Prism 7/2. 2017. 40–51.

<sup>47</sup> Kania, E. “Battlefield Singularity...”. According to Lt. General Liu Guozhi, director of the Science and Technology Commission of the Central Military Commission, the current era of “intelligentization” is due to rapid advances in AI and its impactful military applications, with fundamental changes to military programming, operational modes, and models of combat power generation. Kania, E. “AlphaGo and Beyond: The Chinese Military Looks to Future “Intelligentized” Warfare”. Lawfare. 5 June 2017. <https://www.lawfareblog.com/alphago-and-beyond-chinese-military-looks-future-intelligentized-warfare>, Accessed on 26. May 2018.

<sup>48</sup> Kania. “Beyond CFIUS...”.

<sup>49</sup> Deep learning is an advanced form of AI and a dynamic form of computerized decision-making.

<sup>50</sup> Stewart. “U.S. weighs restricting...”.

Aside from building its own capacity for innovation, China is also leveraging foreign expertise.<sup>51</sup> Chinese tech giants such as Baidu, Tencent and Didi Chuxing have opened AI labs in Silicon Valley, and launched their own startups.<sup>52</sup> According to the DoD, over the past six years, Chinese investors helped finance 51 American A.I. companies, contributing to the \$700 million raised. Further, in November 2017, Yitu Tech, a Chinese facial recognition start-up, took first place in the Facial Recognition Prize Challenge hosted by the Intelligence Advanced Projects Agency (IARPA), an agency under the US Office of the Director of National Intelligence.<sup>53</sup>

## United States: Project Maven

In response to the Chinese challenge to US technological dominance, branches of the US military are collaborating with the private sector to aggressively invest in new hi-tech capabilities. Specifically in the AI sector, the DoD is directing investment to learning and intelligence, advanced computing, and AI systems (grown in average during last five years by 13.7 percent, 11.6 percent and 16.4 percent, respectively)<sup>54</sup>.

### BOX 6. Stages of AWCFT (Project MAVEN)

- Integration of machine learning and computer vision algorithms (1) to augment and assist U.S. Special Operation Command intelligence capacity to identify objects in Full-Motion Video data collected by small DoD's Unmanned Aerial Vehicles; (2) to go through the millions of data points collected by airborne, ground, maritime and overhead intelligence, reconnaissance and surveillance platforms sensors;
- Expansion to larger class Unmanned Aerial Vehicles such as MQ- 1 Predators and MQ- 9 Reapers as instruments of data collection;
- Establishment of a DoD Machine Learning Center.

#### SOURCES:

- Caulfield. "AI and Machine Learning to Revolutionize U.S. Intelligence Community..."
- Magnuson. "DoD making..."

<sup>51</sup> Recently, China has started to issue long-term (between five and 10 years) multi-entry visas to attract highly skilled people from abroad to work in the country. Visa holders will be allowed to remain in the country for up to 180 days at a time, and will be eligible to bring partners and children. "China offers 10-year visas to 'high end talent'". BBC. 5 January 2018. <http://www.bbc.com/news/business-42575436>, Accessed on 26 May 2018.

<sup>52</sup> Robert Kimmitt (previously Deputy Secretary of the Treasury under President G.W. Bush), before the House Financial Services Committee in December 2017, affirmed the importance to better educate tech startups on CFIUS oversight issues raised by their early stage investments. While tech startups are seeking venture financing, they may not always be aware of the potential threat by foreign companies. According to Kimmitt, Silicon Valley still has not well understood how closely CFIUS looks at investments in startups and how many issues in equity ownership and governance rights (board seats, observer status, accumulation rights, special voting rights) can easily trigger a CFIUS-covered transaction rule. Stanley, C. "Startups Need Education On CFIUS Triggers, House Panel Told". Law360. 14 December 2017. <https://www.law360.com/articles/994522/startups-need-education-on-cfius-triggers-house-panel-told>, Accessed on 26 May 2018.

<sup>53</sup> Kania. "Battlefield Singularity..."

<sup>54</sup> "DoD AI, Big Data and Cloud Taxonomy". 2018. [http://www.govini.com/research-form/?post\\_title=DoD+ARTIFICIAL+INTELLIGENCE%2C+BIG+DATA+AND+CLOUD+TAXONOMY&post\\_link\\_redirect=http%3A%2F%2Fwww.govini.com%2Fresearch-item%2Fdod-artificial-intelligence-and-big-data-taxonomy%2F&post\\_id=4026](http://www.govini.com/research-form/?post_title=DoD+ARTIFICIAL+INTELLIGENCE%2C+BIG+DATA+AND+CLOUD+TAXONOMY&post_link_redirect=http%3A%2F%2Fwww.govini.com%2Fresearch-item%2Fdod-artificial-intelligence-and-big-data-taxonomy%2F&post_id=4026), Accessed on 26 May 2018.



According to the military's quest for a combination of new technologies to maintain America's military supremacy for the 21<sup>st</sup> century, designed in 2014 by Defense Secretary Chuck Hagel<sup>55</sup> and known as "Third Offset"<sup>56</sup>, the focus on human-machine teaming<sup>57</sup> and the strong demand of acquiring an algorithmic aptitude in Defense issues has given birth to the Algorithmic Warfare Cross-Functional Team (AWCFT), also known as Project Maven<sup>58</sup> (Box 6).

Project Maven has been established, under the oversight of the Under Secretary of Defense for Intelligence, in April 2017<sup>59</sup>:

- to automate Processing, Exploitation, and Dissemination (PED) for tactical Unmanned Aerial System (UAS) and Mid-Altitude Full-Motion Video (FMV)<sup>60</sup>;
- to provide computer vision technology for object detection, classification, and alerts for FMV PED.

Inside the US Intelligence community, one of the main beneficiaries of that Project is the National Geospatial-Intelligence Agency (NGA), whose goal is to automate about 75

<sup>55</sup> Hagel, C. "Memorandum for Deputy Secretary of Defence Secretaries of the Military Department". Scribd. 15 November 2014. <https://www.scribd.com/document/246766701/SecDef-Hagel-Innovation-Memo-2014-11-15-OSD013411-14>, Accessed on 26 May 2018.

<sup>56</sup> Work, B. "The Third U.S. Offset Strategy and its Implications for Partners and Allies". Defense.gov. 28 January 2015. <https://www.defense.gov/News/Speeches/Speech-View/Article/606641/the-third-us-offset-strategy-and-its-implications-for-partners-and-allies/>, Accessed on 26 May 2018. Inside the Pentagon, the "Offset Strategy," is a military-industrial term of art for a cluster of technological breakthroughs that can give the US its edge over potential enemies. In the 1970s the term described a situation where the US couldn't match Soviet numbers, so it would have to "offset" them with superior quality and technology. The idea was then applied retroactively to President Eisenhower's "New Look," which offset Communist numerical superiority not by building up conventional forces but by threatening to nuke any aggressor to oblivion — at a time when America's atomic arsenal far outweighed any competitor's. Freedberg, S. J. "We'll Unveil Third Offset Details In FY17 Budget, Except The Black Part: Bob Work". Breaking Defense. 3 November 2015. <https://breakingdefense.com/2015/11/well-unveil-third-offset-strategy-in-fy17-budget-except-the-black-part-bob-work/>, Accessed on 26 May 2018. The "First Offset" was the US military's use of nuclear weapons to counter Soviet numerical superiority during the Cold War. The "Second Offset" involved the use of long-range guided weapons, stealth and new intelligence, surveillance and reconnaissance technology as demonstrated during the Gulf War. When the Soviets caught up on nukes, the US turned to conventional but precision-guided weapons. The "Third Offset", as described in 2014 by US Secretary of Defense Charles Hagel, is focusing on "*the fields of robotics, autonomous systems, miniaturization, big data, and advanced manufacturing, including 3D printing.*" AI is included among the potential technologies that may offer the US military its third offset. Gunnar, U. "The US and the Global "Artificial Intelligence" Arms Race". Neo. 3 December 2017. <https://journal-neo.org/2017/12/03/the-us-and-the-global-artificial-intelligence-arms-race/>, Accessed on 26 May 2018.

<sup>57</sup> Kania. "Beyond CFIUS...".

<sup>58</sup> "Maven" is a Yiddish word used in American English as a lighthearted term for a particularly smart, capable person. A "maven" is someone who knows everything in his area of expertise, be it art, economics, or, in the case of DoD's Algorithmic Warfare Cross-Functional Team (AWCFT), machine learning algorithms.

<sup>59</sup> "Memorandum for Establishment of an Algorithmic Warfare Cross-Functional Team (Project Maven)". 26 April 2017. [http://www.govexec.com/media/gbc/docs/pdfs/edit/establishment\\_of\\_the\\_awcft\\_project\\_maven.pdf](http://www.govexec.com/media/gbc/docs/pdfs/edit/establishment_of_the_awcft_project_maven.pdf), Accessed on 26 May 2018.

<sup>60</sup> Full-motion video (FMV) is the next frontier for intelligence analysis. With UAVs, wireless webcams, 24x7 security cameras and a host of other sensors gathering thousands of hours of video a day, the challenge is turning terabytes of footage into real-time tactical knowledge. ScanEagle is a clear example of FMV collector being able to carry several types of electro-optical or infrared cameras to take photographs or full-motion video. ScanEagle has been successful as a portable Unmanned Aerial System (UAS) for autonomous surveillance in the battlefield, and it was deployed since August 2004 in the Iraq War. "Boeing Insitu ScanEagle". Wikipedia. [https://en.wikipedia.org/wiki/Boeing\\_Insitu\\_ScanEagle](https://en.wikipedia.org/wiki/Boeing_Insitu_ScanEagle), Accessed on 26 May 2018.

percent of the analytical tasks<sup>61</sup>, making data collection times, warnings and information management more efficient in order to manage the critical flood of FMV data effectively.

## CONCLUSIONS

Technological innovation, and in particular AI, is going to be vital in the race for hegemony in the next global order. The NSS acknowledges this assessment by recommending protecting American advantages in research and technology, what it calls the National Security Innovation Base (NISB).

The NISB concept is also subtly recalled in the National Defense Strategy, released in January 2018 by the Secretary of Defense, where the DoD's commitment is to provide the defense industry long-term investments with critical skills, infrastructure, research and development. Changes to industry culture, investment sources, and protection across the NISB are vital, according to the sense of the document, for maintaining the DoD's technological advantage.

The new definition of "critical technology" is encompassing far more transactions than under current institutional practice, less effective for AI and other emerging, dual-use technologies, and traditional CFIUS assessments to secure technological dominance were not designed to handle the complexities of rapidly developing early-stage sensitive technology.

Several initiatives have already been undertaken with the NSS, the NDAA and the NDS, seeking the broadest involvement of influential CFIUS members (Pentagon, Treasury, intelligence community), other government agencies involved in the CFIUS decision making and selected committees of the Congress with the purpose of providing an enhanced review authority to the CFIUS. Bill proposals are also on the Congress' plate aiming to significantly alter the regulatory landscape for future inbound foreign investment. Despite the path forward for CFIUS, reforms could be uncertain in an election year, every institution involved in this process is aware of how much an update of the CFIUS competencies would be a helpful step to enable the Committee to catch technology transfers that could harm national security and deteriorate domestic economic growth.

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<sup>61</sup> Magnuson, S. "DoD Making Big Push to Catch Up on Artificial Intelligence". *National Defense Magazine*. 13 June 2017. <http://www.nationaldefensemagazine.org/articles/2017/6/13/dod-making-big-push-to-catch-up-on-artificial-intelligence>, Accessed on 26 May 2018. While the National Reconnaissance Office (NRO) is responsible for the satellites that collect earth imagery and data, NGA makes imagery analysis plotting the information on maps for military use, even about places where it is near-impossible to send in human sources. For example, currently NGA is one of the biggest contributors of intelligence on North Korea. McLaughlin, J. "Shake-Up at Pentagon Intelligence Agency Sparks Concern". *Foreign Policy*. 12 January 2018. <http://foreignpolicy.com/2018/01/12/shake-up-at-pentagon-intelligence-agency-sparks-concern/>, Accessed on 26 May 2018.

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István Tarrósy:

## CHANGING US FOREIGN POLICY TOWARDS CHINA AND AFRICA<sup>1</sup>

*“More than 150 years ago, Alexis de Tocqueville famously predicted that the relationship between Russia and America would shape the destiny of the world. I suspect, if he had returned to earth as the new millennium dawned, he wouldn’t ignore Russia, but he would write first about China.” (Madeleine Albright)*

ABSTRACT: *The present-day international arena has been witnessing the rise of China as the leading emerging economy. This offers several policy-related challenges to the lone super-power, the United States of America. Not long ago, the “birth of a Pacific World Order”<sup>2</sup> was heralded, especially as the Chinese and American economies are heavily intertwined, forming a unique ‘Chimerican’ conglomerate of interests.<sup>3</sup> Today, President Trump’s ‘America First’ approach, however, seems to put this option aside with a clear accent on American national interests. This study will compare US and Chinese approaches, interests and involvement in African development up until the incumbent president’s administration. It will look at what the motives of the two powers were on African soil until the end of President Obama’s second term, and to what extent they were acting differently in developing and managing bi- and multilateral relations. Is it merely their current foreign policy rhetoric that the US and China want to cooperate (also) in African development, or can we imagine a realistic scenario of their joint efforts and involvement resulting in positive and long-lasting, “society-wide repercussions”<sup>4</sup> across African countries? Related to this question, the paper offers a focus on US foreign policy towards China and Africa up until 2017.*

KEYWORDS: *Africa, China, foreign policy, USA*

### INTRODUCTORY THEORETICAL CONSIDERATIONS – REALISM MATTERS BUT THE WORLD HAS BEEN CHANGING

John Mearsheimer’s critical stance on the ‘(tragic) nature of international politics’ has been underpinned by two factors: systemic anarchy and “uncertainty about the intentions of other

<sup>1</sup> Most of this study was written by the author as Fulbright Visiting Research Scholar (2013–2014) at the Center for African Studies of the University of Florida in Gainesville, FL. It is based upon the article “Chimerican Interests, Africa Policies and Changing US-China Relations”. *BizPol Affairs* 1/1. 2013. 11–28.

<sup>2</sup> Mendis, P. “Birth of a Pacific World Order: America’s First Pacific President and Sino-US Relations”. *Harvard International Review* 34/4. 2013. 22–27.

<sup>3</sup> Ferguson, N. and Schularick, M. “‘Chimerica’ and the Global Asset Market Boom”. *International Finance* 10/3. 2017. 215–239. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1468-2362.2007.00210.x>, Accessed on 12 Apr 2013.

<sup>4</sup> Hyden, G. “Local Governance and Economic-Demographic Transition in Rural Africa”. *Population and Development Review* 15. Supplement: Rural Development and Population: Institutions and Policy. 1989. 193–211.

states”<sup>5</sup>. In an age of global uncertainties it is not only the intention of others, but the nature of the global processes which overarch and intertwine all the various actors that contribute to even more uncertainties. Furthermore, it is not only the states that matter in terms of behaviour, action and intent, but the abundance of non-state entities and their complex interactions with others that challenge the state system in the international arena. The world has been changing as far as relations of its players are concerned, and still, realism matters.

In an interconnected transnational system “globalization is transforming rather than superseding the state”<sup>6</sup>. Although the ‘network state’<sup>7</sup> differs from the nation-state of the Westphalian order as it needs to position itself in a setting with a multitude of various other types of power-holding entities (or those aspiring to gain power) – the international policy-making arena has become crowded –, its tasks “have not changed. [States] still have to manage, with respect to their domestic constituencies, the dual relationship between domination and legitimation, and between development and redistribution.”<sup>8</sup> If survival is still the greatest task – though not in a purely ‘self-help world’ as thought by the realists but rather in a more complex and interdependent one – to be able to survive states “have no choice but to compete for power”<sup>9</sup>. Is it, however, only competition and seeking “to gain advantage at each other’s expense” (Ibid), or is there any motivation to cooperate for the sake of the betterment of all parties involved in a ‘collaborative project’? As “globalization makes us more vulnerable because we are more interdependent with one another”<sup>10</sup>, and as – in particular – “great powers are rational actors”<sup>11</sup>, collaboration is encoded in the world. Simply because in certain issues and instances there is no other way but to cooperate so that states do not ‘get hurt’, which is their ultimate national goal at the same time. Having said that, national survival, and consequently national interest, will determine state behaviour, strategy and action – both for cooperation and competition.

<sup>5</sup> “Conversations in International Relations: Interview with John J. Mearsheimer: Part I”. *International Relations* 20/1. 2006. 105–124. <http://mearsheimer.uchicago.edu/pdfs/A0039.pdf>, Accessed on 12 Apr 2013.

<sup>6</sup> Lawson, S. *International Relations*. Second Edition. Cambridge: Polity Press, 2012. 142.

<sup>7</sup> Castells, M. *The Power of Identity: The Information Age: Economy, Society, and Culture: Volume II*. Malden: Blackwell, 1997.

<sup>8</sup> Stalder, F. *Manuel Castells and the Theory of the Network Society*. Polity Press, 2006. 122.

<sup>9</sup> “Conversations in International Relations: Interview with John J. Mearsheimer: Part II”. *International Relations* 20/2 2006. 231–243. <http://mearsheimer.uchicago.edu/pdfs/A0041.pdf>, Accessed on 12 Apr 2013.

<sup>10</sup> Li, Y. et al. “Democracy, Globalization and the Future of History: A Chinese Interview with Francis Fukuyama”. *International Journal of China Studies* 3/1. 2012. 104.

<sup>11</sup> Lieber, R. J. “The Tragedy of Great Power Politics by Jonh J. Mearsheimer”. *Political Science Quarterly* 117/2. 2002. 321. <https://onlinelibrary.wiley.com/doi/pdf/10.2307/798192>, Accessed on 12 Apr 2013.



In terms of power, in recent times, the rise of emerging actors has caught the attention of numerous scholars and policy-makers. Not as hegemon<sup>12</sup> any longer, but the “United States is [still] by far the most powerful state on the face of the earth”<sup>13</sup>, and if we are cautious enough with “today’s multipolar mania”, as William Wohlforth<sup>14</sup> warns us in his clear power analysis, we can profoundly relate the position of the ‘new actors’ to that of the US and foresee the potential redistribution of power in the international system in a gradually more multipolar environment. There are scholars who argue that in such an arena “many nations will possess military and economic might sufficient to be recognized as great-power states”<sup>15</sup>. Yet “multipolarity’s *rapid*”<sup>16</sup> return”<sup>17</sup> after the collapse of the Soviet Union, in the post-Cold War era, is not a realistic scenario in the short term, however, and time is needed before great power status is achieved by some of the emerging entities.

Different actors may possess different types of power, ranging from economic to military might, and cultural to political influence. “The United States [...] is the sole state with pre-eminence in every domain of power – economic, military, diplomatic, ideological, technological, and cultural – with the reach and capabilities to promote its interests in virtually every part of the world.”<sup>18</sup> However, from an economic-financial point of view, the US is certainly not the only ‘super influence’, as long as it is rivalled by the second largest economy of the world, continuously rising China. In addition, the European Union of yet 28 member states (the United Kingdom will leave the community in 2017–18 after the so-called Brexit referendum in June 2016) with all its internal challenges as well as potential, too, together with Japan, Brazil and the BRICS<sup>19</sup> states, possesses major capabilities and strengths. All of them “would prefer a multipolar system in which they could pursue their interests, unilaterally and collectively, without being subject to constraints, coercion, and pressure by the stronger superpower.”<sup>20</sup> A complex economic rivalry is inevitable, especially if we think of ‘Chimerica’, “the combination of the Chinese and American economies, which together

<sup>12</sup> The Greek word *hegemon* means leader, paramount power, dominant actor. According to the realist ‘hegemonic stability theory’, “stability results not from a balance among the great powers, but from unipolarity, in which one state is clearly more powerful and able to act to ensure some degree of order in the system.” D’Anieri, P. *International Politics. Power and Purpose in Global Affairs*. Belmont: Wadsworth, 2010. 69. According to Huntington, the “hegemon in a unipolar system, lacking any major powers challenging it, is normally able to maintain its dominance [...] The United States would clearly prefer a unipolar system in which it would be the hegemon”. Huntington, S. P. “The lonely superpower”. *Foreign Affairs* 78/2. 1999. 36. Mearsheimer, however, underlines that being the most powerful state in the world, the US is “not the only great power in the system, which is by definition what is necessary to have unipolarity or global hegemony.” He thinks that “we live in a multipolar world that has three great powers – China, Russia, and the United States, the mightiest of them all.” “Conversations in International Relations...: Part I.”. 113. Today, there is a debate over if the US is a hegemonic superpower or not, or at least, a number of scholars still attribute hegemony to the US. I prefer Mearsheimer’s stance on this.

<sup>13</sup> “Conversations in International Relations...: Part I.”. 105–124.

<sup>14</sup> Wohlforth, W. “Unipolar Stability: The Rules of Power Analysis”. *Harvard International Review* 29/1. 2007. 44–48.

<sup>15</sup> Yeisley, M. O. “Bipolarity, Proxy Wars, and the Rise of China”. *Strategic Studies Quarterly* 5/4. 2011. 75.

<sup>16</sup> Italics added by the author.

<sup>17</sup> Wohlforth. “Unipolar Stability...”. 44.

<sup>18</sup> Huntington. “The lonely superpower...”. 35.

<sup>19</sup> Acronym standing for the intercontinental group of Brazil, Russia, India, China and South Africa.

<sup>20</sup> Huntington. “The lonely superpower...”. 36.

had become the key driver of the global economy”<sup>21</sup>. In this way a new type of bipolarity may configure between the West and the Far East. From other angles – except for American military dominance, which cannot at this point be superseded – major powers pierce into the centre of gravity, and so the international system today may reflect “a mixture of both unipolar and multipolar system in which [more] powers [...] dominate international affairs.”<sup>22</sup>

China is the likely the number one challenger of the ‘lonely superpower’. Since Deng Xiaoping’s policy of opening at the end of the 1970s China has become more assertive on the international stage. “Beijing has demonstrated an impressive capacity to learn and adapt”<sup>23</sup>, and with her pragmatic foreign policy this “reflects a new flexibility and sophistication”<sup>24</sup> in the management of her relations across the globe. Reflecting her national interests (as in the case of any of the states in the system), China has been diligent in developing an understanding of both the external context and her internal set of issues to deal with in the long run. Strategic thinking about both has always been embedded in Chinese policy-making to “defend [Chinese] national development interests while also maintaining [sufficient] openness to the outside world”<sup>25</sup>. China wants to succeed in both dimensions, and therefore her objective is a relaxed geopolitical context – this has become its priority. As former US Secretary of State Madeline Albright pointed out, “Beijing’s leaders seek a stable international environment so that they can concentrate on addressing their domestic needs”<sup>26</sup>, and as a consequence of this ‘peaceful’ approach, but also deriving from how deeply the US and China are interconnected in the economic domain, a future military conflict between the two is highly unlikely. Nevertheless, there is potential for competition as well, especially for resources that can feed their respective national economies. At the heart of future competition “access to strategic resources rather than ideology” is more likely to lie, and “the new »great game« will most likely be played in Africa”<sup>27</sup>.

## ANY POSSIBILITY FOR A PACIFIC WORLD ORDER?

It is not surprising that “Asia’s economy is becoming ever more important for that of the United States and the world”<sup>28</sup>, as the American economy has become more interdependent. This may turn detrimental or at least disadvantageous for the sovereignty and ‘action independence’ of the US<sup>29</sup>. Drawing upon the work of Paul Kennedy<sup>30</sup>, it is of strategic importance for the US to understand what America’s strengths and weaknesses are, and how well the country

<sup>21</sup> Ferguson, N. “The G-2: Are America and China Headed for Divoce?”. *New Perspectives Quarterly* 27/1. 2010. 35–38. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1540-5842.2010.01130.x>, Accessed on 12 Apr 2013.

<sup>22</sup> Yilmaz, M. E. “The New World Order: An Outline of the Post-Cold War Era”. *Alternatives: Turkish Journal of International Relations* 7/4. 2008. 46.

<sup>23</sup> Chin, G. and Thakur R. “Will China Change the Rules of Global Order?”. *The Washington Quarterly* 33/4. 2010. 119.

<sup>24</sup> Medeiros, E. S. and Fravel, M. T. “China’s New Diplomacy”. *Foreign Affairs* 82/6. 2003. 25.

<sup>25</sup> Chin and Thakur. “Will China...”. 121.

<sup>26</sup> Albright, M. *Madam Secretary*. New York: Miramax Books, 2003. 435–436.

<sup>27</sup> Yeisley. “Bipolarity...”. 83.

<sup>28</sup> Kissinger, H. *Does American Need a Foreign Policy? Toward a Diplomacy for the 21st Century*. New York: Simon & Schuster, 2001. 111.

<sup>29</sup> Magyarics, T. “Állandóság és változás az Egyesült Államok külpolitikai identitásában és eszköztárában”. *MKI-Tanulmányok* 3. 2012. 16. [http://kki.hu/assets/upload/Tanulmányok\\_2012\\_03\\_ellandeseg\\_ees\\_veltozes\\_az\\_.pdf](http://kki.hu/assets/upload/Tanulmányok_2012_03_ellandeseg_ees_veltozes_az_.pdf), Accessed on 12 Apr 2013.

<sup>30</sup> Kennedy, P. *Preparing for the Twenty-first Century*. New York: Random House, 1993.

is prepared to meet the global challenges, in general, and the political ‘pressure’ from the emerging countries, coupled with the above-mentioned economic interconnectedness that ties the US to China, in particular. The ‘Chimerican symbiosis’<sup>31</sup> also offers “an opportune moment for the two Pacific nations to initiate steps to frame a new »Pacific« order through trade and commerce”<sup>32</sup>. Who is in need of this transformation more? If finding sufficient mutual interests in the formation of such an order, can the new global arena be accentuated along this Pacific alliance? How will other actors of regional weight in East Asia react upon such developments?

In a sharp analysis of the relations of a rising China and the West, John Ikenberry makes us think about the hardest issue: security; “as China’s military power grows – which is inevitably the most salient domain for the US and the rest of the world – it will better be able to contest the American security presence in the region. Countries in the region that are growing more economically dependent on China will discover incentives to tie their security to China”<sup>33</sup>. From this perspective it re-affirms our view that it was not surprising at all that the US seemed to encourage a new “Pacific Century” with enhanced Sino–US relations in its center prior to the beginning of the administration of Donald Trump. In a short memo – as part of his article in *The Washington Post* – Ferguson urged then President-elect Barack Obama not to “wait until April [2009] for the next G-20 summit [in London],” but to “call a meeting of the Chimerican G-2 for the day after [his] inaugural.”<sup>34</sup> As he continued with his warning, he addressed directly President Obama, “Don’t wait for China to call its own meeting of a new »G-1« in Beijing.”<sup>35</sup> But what about Japan in this envisioned new setting? Can we think of an already frustrated Japan not reacting by getting her claws out? Both the US and China (or other states in the region) most probably underestimate the strength of Japanese frustration – not to mention the capability of her Self Defence Forces (SDF) which, as far as its equipment is concerned, may be the most modern military force in Asia.

“China is not rising in a vacuum. It is rising on a continent in which there are many, many competitors.”<sup>36</sup> In a pragmatic and strategic way China fosters a “peaceful rise”, and her “economic integration into East Asia has [already] contributed to the shaping of an East Asian community that may rise in peace as a whole. And it would not be in China’s interest to exclude the United States from the process.”<sup>37</sup> From both sides of the Pacific Ocean there seems to be a mutually shared target: to jointly build a peaceful (pacific in this respect, too) framework of collaborative behaviour and relations. On the US side the preference is clearly not to see a rising China with her old-new allies in her direct vicinity (an important sphere of American influence at the same time) forming an alternative set of relations along an alternative set of values. We can agree with Ikenberry in saying that there are clear implica-

<sup>31</sup> Ferguson. “The G-2...”. 35–38.

<sup>32</sup> Mendis. “Birth of a...”. 24.

<sup>33</sup> Ikenberry, G. J. “The Rise of China: Power, Institutions, and the Western Order”. In Ross, R. S. and Feng, Z. (eds), *China’s Ascent. Power, Security, and the Future of International Politics*. Ithaca, London: Cornell University Press, 2008. 107.

<sup>34</sup> Ferguson, N. “Team ‘Chimerica’”. *The Washington Post*, 17 Nov 2008. <https://www.washingtonpost.com/>, Accessed on 8 May 2013.

<sup>35</sup> Ferguson. “Team ‘Chimerica’”.

<sup>36</sup> Griffiths, R. and Luciani, P. (eds), *Does the 21st Century Belong to China? Kissinger and Zakaria vs. Ferguson and Li*. Toronto: Anasi, 2011. 14.

<sup>37</sup> Zheng, B. “China’s “Peaceful Rise” to Great-Power Status”. *Foreign Affairs* 84/5. 2005. 24. <https://www.foreignaffairs.com/issues/2005/84/5>, Accessed on 12 Apr 2013.

tions for the US, as “the more deeply institutionalized the Western order is, the greater the likelihood that China will rise up inside this order”<sup>38</sup>. The US therefore needs to work along a strategy which attempts to avoid the rise of an ‘alternative or even rival order’ driven by China, and thus to “continue to uphold its multilateral commitments, maintain and even expand its alliance partnerships [...] to perpetuate the existing international order”<sup>39</sup>.

Together with many foreign policy experts and scholars, Zbigniew Brzezinski wrote that the US “can find ways of living together [with China],” but much depends on how the US approaches the rising Asian giant; “how we deal with the Chinese,” said the late the former National Security Advisor of President Carter<sup>40</sup>. It cannot be a successful method to “lecture the Chinese about the Tibetans and tell them what to do”<sup>41</sup>, but to contribute to a shared “new focus on international relations in which China is looking for peace and collaboration”<sup>42</sup>, as much as the US herself. “As a global nation, the United States must be humble [...] and patient”<sup>43</sup>, and learn more about the Chinese way of thinking and rise, especially because the US “has few precedents in its national experience of relating to a country of comparable size, self-confidence, economic achievement, and international scope and of such a different culture and political system as China.”<sup>44</sup> The Middle Kingdom is also challenged greatly to be able to “accommodate itself to a world in which it is not hegemonial as it has been for eighteen of the last twenty centuries”<sup>45</sup>, coupled with the ‘new’ situation in her ‘own’ region, in which there is a “fellow great power with a permanent presence [...] representing] a vision of universal ideals not geared toward Chinese conceptions and alliances with several of China’s neighbors.”<sup>46</sup> How far can the reality of the concept of a “Pacific Community” or “Pacific World Order” be stretched in such a region and beyond? How can cooperation, or any closer form of coexistence, or at least – as mentioned by Kissinger<sup>47</sup> – “coevolution of two societies progressing on parallel tracks” be imagined during the coming decades of the twenty-first century? Is there a real likelihood of a ‘new bipolar international regime’, as suggested by Yeisley<sup>48</sup>, or the momentum arises so that the two great powers push the arena towards multipolarity with their leading positions secured? What is easy to recognize at present is that energy hunger and energy security are major driving forces behind geopolitico-strategic intentions. From this perspective one ought to direct one’s attention to the African continent, where both powers foster their respective plans to succeed. Collaboration may be a possibility, but seems to be improbable for a while (and for some time).

<sup>38</sup> Ikenberry. “The Rise of China...”. 114.

<sup>39</sup> Ikenberry. “The Rise of China...”. 114.

<sup>40</sup> Brzezinski Z. and Scowcroft B., moderated by Ignatius, D. *America and the World. Conversations on the Future of American Foreign Policy*. New York: Basic Books. 2008. 121.

<sup>41</sup> Brzezinski and Scowcroft. *America and the World...* 121.

<sup>42</sup> Griffiths and Luciani. *Does the 21st Century...* 17.

<sup>43</sup> Mendis. “Birth of a...”. 27.

<sup>44</sup> Kissinger, H. *On China*. London: Penguin Books, 2012. 539.

<sup>45</sup> Griffiths and Luciani. *Does the 21st Century...* 19.

<sup>46</sup> Griffiths and Luciani. *Does the 21st Century...* 540.

<sup>47</sup> Griffiths and Luciani. *Does the 21st Century...*

<sup>48</sup> Yeisley. “Bipolarity...”.

## AFRICA IN POLICIES SEEN FROM THE TWO SIDES OF THE PACIFIC OCEAN – ANY CHANCE FOR COOPERATION?

Deriving from differences in philosophies, the United States and China have been articulating and communicating different approaches towards sub-Saharan Africa. However, regardless of how much they have “emphasized different policies for their engagement” (GAO, 2013), looking at the composition of trade figures, the basic underlying similarity is evident: in the case of both China and the U.S. it is all about natural resources.

According to a Report to Congressional Requesters by the United States Government Accountability Office, “petroleum imports constitute the majority of U.S. and Chinese imports from sub-Saharan Africa, [and] both the United States and China chiefly import natural resources from [the region]”.<sup>49</sup> Crude oil is certainly a ‘centrepiece’ of any relations with the continent in general terms. The rapidly increasing trade and investment trends from both great powers are indication of strategies that “have moved Africa to the center stage in global oil and security politics”<sup>50</sup>. Securing such resources has been a top priority issue for both countries: as part of national security considerations for the US and as the basis of energy security considerations for China. In his speech on national security on May 23, 2013, when talking about how foreign aid has been seen as “one of the least popular expenditures” by basically everybody in the US – even as it does not exceed 1 percent of the total federal budget – President Obama made it explicitly clear that “foreign assistance cannot be viewed as charity. It is fundamental to our national security, and it’s fundamental to any sensible long-term strategy [and so] *has to be part of our strategy*.”<sup>51</sup> Any American engagement on the continent, therefore, needs to serve national security, and at the same time, promote global values America believes in.

The scholarly community seems to share the view that not only China pushes development in Africa along a strategy based on self-interest. “As far as the West was concerned, there was no sign that the politics of self-interest was going to give way to something more altruistic. In 2003, the administration of George W. Bush courted a number of governments in Africa with extremely poor track records, such as Cameroun and Equatorial Guinea, with a view to protecting American oil interests.”<sup>52</sup> China is explicit about mutually economic benefits, and the results of Chinese African projects and involvement in general have factually been contributing to African development. Ferguson is right, and I share this view myself, that “it’s a really big misrepresentation to suggest that [all] this is a rerun of 19<sup>th</sup>-century colonialism”<sup>53</sup>. As far as the Chinese state has created a long-term geo-economic strategy for basically all corners of the world, it possesses a long-term vision, coupled with a concrete policy scheme along such lines for Africa separately. One of the major tools to execute her Africa policy is the Forum on China–Africa Cooperation (FOCAC) established

<sup>49</sup> “Sub-Saharan Africa: Trends in U.S. and Chinese Economic Engagement: Report to Congressional Requesters”. U.S. Government Accountability Office. Febr 2013. <https://www.gao.gov>, Accessed on 25 May 2013.

<sup>50</sup> Carmody, P. R. and Owusu, F. Y. “Competing hegemons? Chinese versus American geo-economic strategies in Africa”. *Political Geography* 26. 2007. 505.

<sup>51</sup> Obama, B. “Text of President Obama’s May 23 speech on national security”. Speech delivered at National Defense University in Washington D.C. <https://www.washingtonpost.com>, Accessed on 25 May 2013. Italics added by the author.

<sup>52</sup> Nugent, P. *Africa Since Independence: A Comparative History*. Houndmills, New York: Palgrave Macmillan, 2004. 433.

<sup>53</sup> Griffiths and Luciani. *Does the 21st Century...* 31.

in 2000 – most probably “encouraged by” the Tokyo International Conference on African Development (TICAD) of Japan first held in 1993, and the latest version, TICAD VI hosted by Kenya at the end of August 2016 – and some additional decisive soft power ‘agents’, including frequent high-level visits, regular bi- and multilateral meetings, together with an efficient apparatus in the Ministry for Foreign Affairs in Beijing, in charge of a constant flow of information and coherent communication back and forth. In contrast to this highly successful ‘machinery’, having been built and continuously refined since the 1990s, for much of the same decade “the United States favoured a policy of benign neglect towards Africa,”<sup>54</sup>. This changed with 9/11 which also brought along the “imperative [...] to find an alternative to Middle Eastern oil which was potentially at risk from so-called Muslim fundamentalism”<sup>55</sup>. Since the first Clinton administration starting in 1993, Africa has been “important” for the US – exactly how much is something many experts have debated. The second Obama administration is “committed to Africa’s future” and “prioritized” Africa among the “top foreign policy concerns.” However, Nicolas van de Walle’s 2009 critical remarks do hold, as an “overall strategic framework for the region” still needs to be defined or refined, together with sufficient and “significant organizational reform” in the administration to be able to “implement an effective strategy in Africa”<sup>56</sup>. This view was confirmed by the Center for Strategic and International Studies (CSIS) in Washington in its 2009 publication pointing out the “powerful legacy of the Bush era” in a number of domains and sectors, and suggesting to the Obama administration that to be successful “a strategic approach” will be required, and the administration “must give highest priority to selecting the very best, the most competent and respected policy leadership both in Washington and in U.S. missions in Africa”<sup>57</sup>. *The U.S. Strategy Toward Sub-Saharan Africa* document of June 14, 2012 intends to signal that the administration *has* a strategy needed for further steps.

To continue with our line of thoughts and be able to come to a summary of arguments, it may be better to reformulate our question posed in the title of this part of the study: instead of ‘chance’ perhaps we should ask if there is any *need* for cooperation? Who wants collaboration with the other on African soil bearing in mind the context of competition for agreements and contracts, and especially influence and presence? Is it China or rather the US that may wish to foster cooperation – perhaps in a triangular way, as the Japanese do, for instance in the case of the Nacala Corridor Project involving Brazil and Mozambique?

The word ‘competition’ in diplomatic rhetoric seems something to be avoided by both parties. However, former Secretary of State Hillary Clinton was strongly pointing out before the U.S. Senate Foreign Relations Committee that the United States is in “a competition for influence with China. Let’s put aside humanitarian, do-good side of what we believe in. Let’s just talk straight realpolitik. We are in competition with China.” As Matthew Pennington reported for the Associated Press on March 2, 2011, “Clinton [also] said that the U.S. would pursue »positive, cooperative, and comprehensive relationship,« and she welcomed China as

<sup>54</sup> Carmody and Owusu. “Competing...”. 515.

<sup>55</sup> Nugent. *Africa Since Independence...* 433.

<sup>56</sup> Van de Walle, N. “US Policy Toward Africa: The Bush Legacy and the Obama Administration”. *African Affairs* 109/434. 2009. 18–19.

<sup>57</sup> Cooke, J. G. and Morrison, J. S. “A Smarter U.S. Approach to Africa”. In Cooke, J. G. and Morrison, J. S. (eds), *U.S. Africa Policy beyond the Bush Years: Critical Challenges for the Obama Administration*. Washington, D.C.: The CSIS Press, 2009. 5.



a rising power”<sup>58</sup>. Some analysts in the US reject this approach. Morgan Roach, for instance, at the Heritage Foundation, said, “the Obama administration largely continued the Africa strategy of the past administration,” and stressed that “there is a common misperception that the US and China are in competition in Africa,” as that suggests “that they have the same interests.” “They don’t,” she stated firmly<sup>59</sup>. Others, such as Reginald Ntomba, were arguing for just the opposite, echoing what Mrs. Clinton said, namely that the US government did not see “the Chinese interest as inherently incompatible” with the American interest. Ntomba underlines that the “real anxiety [for the US] is about economic supremacy.” The two powers are in a ‘fight’ (not competition) for such economic supremacy in Africa<sup>60</sup>.

Given a competition, which is intrinsically part of the system of power politics, the question arises: how to compete in a more creative way? Also, how to work together with your competitor? Hillary Clinton was clear about this, too: “We want to work more closely with China and other countries to make sure that, when we are engaged with Africa, we are doing it in a sustainable manner that will benefit the nations and people of Africa. And therefore we have begun a dialogue with China about its activities in Africa.”<sup>61</sup>

There is no need to (over)emphasize how extensive strategic ambitions Beijing has for Africa – it is one of the most vivid phenomena in the global arena. Africa has become one of the focus areas of pragmatic Chinese foreign policy, opposed to which, as an editorial in *Allafrica.com* of January 16, 2013 points out, “US strategy for Africa has not changed as much as [President Obama’s] rhetoric might have suggested”<sup>62</sup>. Obviously, to stay fair in our analysis, former deputy assistant Secretary of State for African Affairs Witney Schneidman got the point saying that “the environment Obama inherited – such as unwinding the wars in Afghanistan and Iraq and facing the worst financial situation since the Great Depression in the 1930s – mitigated against undertaking a lot of initiatives which were not first tier”<sup>63</sup>. However, until August 2014 it seemed that Africa as a continent – an entity in political terms as a whole already for the European Union – did not grow in “weight” within the United States, as far as policies are concerned. China in the meantime surpassed the US in trade terms, and “overtook America as the world’s largest net importer of oil”<sup>64</sup> a huge part of which comes from Africa. But it is a myth to state that it is only about the natural resources that matter for China. “Sino-African links have broadened in the past years [and the] relationship is now almost as diverse as Africa itself.”<sup>65</sup> “Where others only see discomfort or chaos, the Chinese see opportunities. They are willing to make long-term investments in infrastructure projects and industry where Western investors would want quick returns. China has a lasting vision for Africa”<sup>66</sup>.

<sup>58</sup> Pennington, M. “Clinton says US in direct competition with China”. *The Washington Post*, 2 March 2011. <https://www.washingtonpost.com>, Accessed on 15 March 2013.

<sup>59</sup> Cheng, G. and Yingzi, T. “Clinton’s Africa visit fuels debate on competition between US and China”. *China Daily USA*, 13 Aug 2012. <https://usa.chinadaily.com.cn/>, Accessed on 15 March 2013.

<sup>60</sup> Ntomba, R. “US and China: The fight for economic supremacy in Africa”. *African Business* 2011. 72–73.

<sup>61</sup> Ntomba. “US and China...”. 73.

<sup>62</sup> “Africa: Where Next? U.S.–Africa Relations Under a Second Term”. All Africa. 16 Jan 2013. <http://allafrica.com/stories/201301161369.html>, Accessed on 26 May 2013.

<sup>63</sup> “Africa: Where Next?...”.

<sup>64</sup> “Africa and China: More than minerals”. *The Economist*, 23 March 2013. <https://www.economist.com/middle-east-and-africa/2013/03/23/more-than-minerals>, Accessed on 26 May 2013.

<sup>65</sup> “Africa and China...”.

<sup>66</sup> Michel, S. and Beuret, M. *China Safari. On the Trail of Beijing’s Expansion in Africa*. New York: Nation Books, 2009. 7.



Why the picture has been changing in such a dramatic way is not only to do with the “no-strings-attached policy” of the Chinese government when it comes to aid or any kind of assistance. China is less interested in the aid industry as policy approach, but rather focuses on business, which – if managed well enough, strategically speaking, on the African side – can be mutually productive. As Deborah Brautigam underlines, first of all, the US needs to make an effort to get “behind the headlines and see what China is actually doing. [They] have six decades of experience with aid in Africa. They’ve spent time analyzing their own past failed aid projects, and they’ve come up with a different model of engagement, much of which does not actually involve official development aid”<sup>67</sup>. This is the first step to be taken to be able to improve cooperation with China. This seems to be at least useful for the US, which has been “losing the economic ground” – “and not just to China”<sup>68</sup>. Other emerging actors, such as the other BRICS countries, and certainly Turkey, Indonesia and South Korea also push into the direction of a long-term refined American strategic approach toward Africa.

## CAN THE US ALSO HAVE A ‘CHARM OFFENSIVE’?

The idea that the *president* pays a visit is undoubtedly an important element of any successful strategy toward Africa (or any other corner of the world) – be that the Chinese or the American top leader. The Chinese have been applying this ‘tool’ for decades in a very convincing way. The visit of President Obama at the end of June 2013 will be needed to catch up, and can turn out to affirm a re-emerging American engagement across the continent. It is definitely a “positive step in the right direction for America in Africa, [and] it is time for Obama to [...] set foot on the continent.”<sup>69</sup> To be able to do this, the US can start thinking of how to develop innovative means of soft power to become more convincing. With her “economic miracle” “Beijing began to realize [at the right moment] that China has an image it can sell to the world. At the same time, America’s international image was slipping”<sup>70</sup>. Since the early 2000s China’s grand “charm strategy” has been decisively contributing to the country’s “Peaceful Rise”<sup>71</sup>.

We can agree with Mearsheimer that “states seek to maximize their power”<sup>72</sup>, and we may argue that they do not only look for hard, but increasingly soft power strategies to become more sophisticated about how to behave more assertively in the system. It is always a privilege to meet the president of the United States, and we know that in diplomatic terms, an official lunch with the president is important; however, in such a competitive environment to dine with African leaders at the United Nations may not be sufficiently convincing. The presidential lunch held in September 2009 was “designed to broaden and expand the vision for US partnership with the continent”, and was said to be a “start of a dialogue between

<sup>67</sup> Brautigam, D. “China’s Role in Africa: Implications for U.S. Policy” Hearing before the Subcommittee on African Affairs of the Committee on Foreign Relations, US Senate. 1 Nov 2011. <http://www.gpo.gov/fdsys/>, Accessed on 15 March 2013.

<sup>68</sup> Firsing, S. “Obama’s 2013 Africa Visit: Commentary”. *International Policy Digest*. 10 April 2013. <https://intpolicydigest.org/>, Accessed on 28 May 2013.

<sup>69</sup> Firsing. “Obama’s 2013 Africa Visit...”.

<sup>70</sup> Kurlantzick, J. *Charm Offensive: How China’s Soft Power Is Transforming the World*. New Haven, London: Yale University Press, 2007. 32.

<sup>71</sup> Kurlantzick. *Charm Offensive...* 37.

<sup>72</sup> “Conversations in International Relations...: Part II.”. 239.

[the first Obama] administration and African leaders.”<sup>73</sup> Then senior White House adviser for African Affairs Michelle Gavin said at a press briefing that the US was “trying to think about how to move this partnership forward and achieve some real transformation in terms of the nature of opportunity available to Africans.”<sup>74</sup> A very intensive dialogue has been going on and managed basically on a daily basis on the Chinese side. FOCAC is not (only) a ‘diplomatic festival’, but rather a major soft power tool to maintain and develop Sino-African cooperation. China has done much more since 2000 to engage with Africa in a deep and continuous dialogue and in a Confucian pragmatic style which has been achieving transformation all across Africa. How can the US catch up at all, especially when we talk about winning the ‘hearts and minds’ of the populations, so that other policies are implemented?

The United States should also establish a summit, which it holds every three-four years. Japan has such a ‘tradition’ since the launch of TICAD in 1993, held every five years, India holds her Africa–India Forum, Singapore has her business summit with Africa, Turkey organizes the Turkey - Africa Cooperation Summit, and each and every emerging entity comes up with a similar method to “get hold of Africa”.<sup>75</sup> Even Hungary, a middle-sized Central European country initiated such an event under the name “Budapest Africa Forum” (BAF). Organized the third time in June 2018, the BAF seems worth the attempt to draw (more) attention to potentially competitive advantages of the host country. The United States had been lacking this foreign policy tool for some time. Naturally, not only the event itself is important, but also what must come in the aftermath: follow-up meetings at ministerial/departmental level, civil society activities, business fora (for example, partnership building or investment opportunity workshops), and many more. The tenth biennial US - Africa Business Summit was held in Addis Ababa, Ethiopia, between 1 and 4 February, 2016, which is a good sign of commitment, but for a long time a strategic umbrella or framework was missing. After the twelfth event in May 2018, however, a re-affirmed economic engagement looks evident.

## US–AFRICA LEADERS SUMMIT: CREATING A NEW IMAGE OF AFRICA?

Finally, the first ever summit with African leaders on American soil came into reality: President Obama invited most of the African countries to Washington, D.C., between August 4 and 6, 2014. This summit certainly had the potential to make the international community think about the African continent yet again as the place where abundant opportunities may rise if mutual (African and other) interests are met. At the same time, for obvious reasons, which had always been connected to its own national interests, the US wanted heavy security-related issues to be discussed during the high-level meeting.

The US commitment to human security including civil society, women, food, education and health has always been high on any US concept/strategy toward Africa for decades. In

<sup>73</sup> Tarrósy I. “‘Chimerican’ Interests...”. 11–28.

<sup>74</sup> Tarrósy I. “‘Chimerican’ Interests...”. 11–28.

<sup>75</sup> Some American experts (for example, Scott Firsing – see in References) have already recognized the opportunity such an event may offer. However, not much of political discourse has been devoted to it – maybe because policy-makers do not think it is relevant for the US. At the time of writing this paper, the author has been conducting a series of interviews, and some questions he asks experts and scholars are focussed on the issue: “Can you imagine the relevance of an American-African Forum Summit, held every 3-4 years, similarly to Japan’s TICAD, China’s FOCAC? Does the US need such a diplomatic tool to strengthen its positions in Africa?”

addition, American national security does not only focus on military involvement in terms of reducing terrorist threats, but also energy security both for the US and increasingly, within African countries – as Power Africa, one of the programs announced by President Obama after his 2013 Africa Tour wishes to address.

From a global aspect, the summit had the chance to create a new image of Africa advocating that the continent can also be an integral part of the interdependent world order in terms of trade and investments abound. According to Paul O. Folorunso, lecturer of Philosophy at Ekiti State University in Nigeria, with the Washington event “the US could initiate a re-branding of Africa, which also defines the future of the continent with the outside world. However, positive change can only occur if genuine and mutually beneficial cooperation is ensured.”<sup>76</sup>

Whether or not the US tries to (or should) “copy” China as far as such summits are concerned, many agree that with the event and its follow-up actions the US wants to reduce the influence of China over Africa.

Former Tanzanian Ambassador to the US Liberata Mulamula emphasized in an interview that the “unique part of the Summit was the engagement of the business sector from both the US and Africa with the full participation of the Heads of State and President Obama himself.”<sup>77</sup> The summit also gave Tanzania the rare platform to promote its business and investment opportunities by organizing a country-specific business forum as signature event. The “Doing Business in Tanzania” forum attracted more than 500 participants from various US businesses. The sectors that attracted many on doing business in Tanzania were offering agriculture, energy, infrastructure and tourism opportunities.

Some of the major Tanzanian sectors that easily attract Foreign Direct Investment include agriculture (in need of modernization), the gas and oil industries, as well as health infrastructure and services. Tanzania has the great momentum to make use of the recently discovered fields off its shores. According to an official announcement of October 14, 2014 by Statoil and its co-venturer Exxon Mobil, a new exploration (the so-called Giligiliani-1) resulted in a new natural gas discovery of “an additional 1.2 trillion cubic feet (tcf) of natural gas in place in the Giligiliani-1 well bringing the total of in-place volumes up to approximately 21 tcf in block 2.”<sup>78</sup>

Ambassador Mulamula was determined that her country needed to “keep up the momentum generated by the Summit and to effectively follow up on the commitments made.” Tanzania is among the few countries of Africa, which has been selected as beneficiaries of such presidential initiatives as the Millennium Challenge Compact (MCC), which was created by the US Congress in January 2004 with strong bipartisan support. “These programs have helped Tanzania significantly in terms of development of the country’s infrastructure and implementing the rural electrification program.” In all, with the Summit there have been good prospects for scaling up US investments in Tanzania and promote trade through President Obama’s initiatives on Trade Africa and Power Africa, as well AGOA, the African Growth and Opportunity Act, which was renewed 2015. “AGOA has had a considerable impact on sub-Saharan Africa’s clothing industry and is a key part of the reason that

<sup>76</sup> Interview by the author in July 2014.

<sup>77</sup> Interview by the author in August 2014.

<sup>78</sup> See “Statoil makes seventh discovery offshore Tanzania”. Statoil. [http://www.statoil.com/en/NewsAndMedia/News/2014/Pages/14Oct\\_Tanzania.aspx](http://www.statoil.com/en/NewsAndMedia/News/2014/Pages/14Oct_Tanzania.aspx)

textile plants have popped up across the region. It also explains why the trousers Americans buy at Walmart are increasingly from countries such as Ghana.”<sup>79</sup>

As part of the ‘charm offensive’ the range of activities can also be extended. Although China has taken enormous steps to come up with the best offer – in most of the cases as part of complex ‘packages’<sup>80</sup> – the US “can compete with China in supporting higher education for Africans through scholarships and assistance to African universities. [America] can win friends at the grass roots by fulfilling [her] promise to eliminate trade barriers [...], scale up legislative, technical and medical exchanges and support infrastructure projects where there would be direct benefit to Africa’s poor”<sup>81</sup>. In courting Africa these days by strengthening this soft ‘package’ of the strategy the US stands a better chance of regaining the momentum.

In this process, the brand new (since July 2018) Assistant Secretary of State for Africa in the Trump Administration, Hungarian-born Tibor P. Nagy emphasizes that young people and especially possible young leaders stay important for the continent – and the US involvement there. As AllAfrica reported: “*In one of his first public engagements as the Trump administration's top State Department person on Africa policy, Tibor Nagy addressed the African Diaspora Youth Leaders Summit. The gathering joined Mandela Washinton Fellows – a centerpiece of the Young African Leaders Initiative (Yali) – with counterparts from the Diaspora. Yali was launched by President Obama in 2010. The Mandela fellowship includes six weeks at a U.S. academic or training institute and networking with American leaders in the public and private sector.*”<sup>82</sup>

## CONCLUDING REMARKS

Perhaps, as Ferguson, the mastermind behind the concept, says, “the Chimerican era is drawing to a close,”<sup>83</sup> and perhaps a new chapter of Sino-American relations may be imagined at a certain point in the foreseeable future in under a Pacific World Order or in a different framework. Closely connected actors and notions are inevitable – with or without their strive for more emphasis on national interests. The Chinese in Africa are not worse than the Americans or the Europeans – they are different, and have a unique and seemingly highly successful approach toward the continent, which others, including the ‘lonely superpower’ can and should learn from. As managing director for Tata Africa, Raman Dhawan said in an interview, “the China model is appropriate because Africa needs investment”<sup>84</sup>. The opportune moment for enhancing cooperation in Africa is there. Both the US and China needs a politically stable and economically reliable environment, and seeking more of this

<sup>79</sup> See Hinshaw, D. “US-Africa Trade Gets a Boost With Renewal of AGOA”. The *Wall Street Journal*, 25 June 2015. <http://blogs.wsj.com/frontiers/2015/06/25/us-africa-trade-gets-a-boost-with-renewal-of-agoa/>, Accessed on 25 June 2015.

<sup>80</sup> See more about this from the interview made by Péter Galambos for origo.hu with the author on July 1, 2011. Galambos, P. “Tipikus kínai csomagot kapott Magyarország”. *origo.hu*. 1 July 2011. <http://origo.hu/>, Accessed on 28 May 2013.

<sup>81</sup> Copson, R. W. “China branches out. Beijing’s aggressive courting of African states is a direct challenge to U.S. interests”. *Los Angeles Times*, 13 Apr 2006. <http://latimes.com>, Accessed on 19 May 2013.

<sup>82</sup> “Africa: ‘Absolute Confidence’ Youth Will Bring Change – Senior U.S. Africa Official Tibor Nagy”. *AllAfrica*, 14 Aug 2018. <https://allafrica.com/stories/201808140588.html> (Accessed on 18 August 2018)

<sup>83</sup> Ferguson, “Team ‘Chimerica’”.

<sup>84</sup> Wonacott, P. “In Africa, U.S. Watches China’s Rise”. The *Wall Street Journal*, 2 Sept 2011. <https://online.wsj.com>, Accessed on 15 March 2013.

kind of stability can help achieve the goal of the ‘collaborative project’<sup>85</sup>. There are numerous areas for cooperation ranging from peacekeeping to agricultural development, climate change to the development of energy resources, to name but a few. What should be discussed and placed high on any potential joint agenda is that “the United States and China need to focus on identifying areas where they can [and really want to] cooperate in ways that will also benefit Africa. This is not part of the world where China and the United States find themselves in conflict or where competition should loom large in the relationship”<sup>86</sup>. But, as Wickham underlines, “African nations would be wise to not let others have a heavy hand in defining what is in their best interest”<sup>87</sup>. African governments should stay mature enough in their decisions as to who to cooperate with, and for what purposes, for the sake of their own societies.

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<sup>85</sup> Tarrósy I. “‘Chimerican’ Interests...”. 11–28.

<sup>86</sup> Tarrósy I. “‘Chimerican’ Interests...”. 11–28.

<sup>87</sup> Wickham, D. “African nations need to pave their own roads”. *USA Today*, 2 Apr 2013. 6A.

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Cpt. Mariann Vecsey:

## MIGRATION TRENDS IN AFRICA

*ABSTRACT: The article reveals the most popular migration routes of the African continent, and Europe's share from the migration wave. It examines the five regions of the continent, their push and pull factors, and the movement dynamics between them, with paying a special attention to Libya, and its important role in the recent crisis.*

*KEYWORDS: Migration trends, Africa, Libya, South-Africa, intracontinental migration*

In recent years the European Union had to face an unprecedented wave of migration, which staggered the organisation in its foundations. Especially the southern states experienced a demanding situation, because the Mediterranean Sea is not an irreconcilable obstacle between Africa and Europe, and closing it is impossible.

Most migrants are coming through the non-existing Libyan state to the Italian shores in the first place. Most of these people however started the journey from a different country.<sup>1</sup>

The European migration crisis, regarding the figures, shrinks into insignificance besides the migration in Africa, where not only the interstate but the inside state migration is at large scale. Although the African countries are less developed and more instable than the European ones most of them must handle migrants up to million people.

How are these routes leading through on the conflict rich continent to the target countries? Are there clear patterns to draw the directions of the intra continental migration? Which are the push factors of these movements? Is Europe a dominant destination from every region of Africa, or the stable South African countries are also experiencing a migration crisis? This article seeks the answer to these questions.

### THE PUSH FACTORS

To define the directions of African migration we must analyse those circumstances which have an impact on the process. Because these push factors have distinctive characteristics we will introduce them in groups starting with the most unimpressable factor.

In the environmental factor Africa is struggling with a large variety of problems. The climate change is an important indicator on the continent, especially in the Sahel region, which is largely affected by desertification. Severe droughts are also common in the area which makes it even more difficult to the countries mostly depending on agriculture to support their population. The upkeep of the farming in these countries indicates additional problems, since over-fertilization leads to the decrease of the productivity of the soil accelerating the process of soil erosion.<sup>2</sup>

<sup>1</sup> Molnár, A. "Menekült- és migrációs kérdés Olaszországban" ("Refugee and Migratory Discourse in Italy"). *Nemzet és Biztonság* 8/3. 2015. 3–16. [http://www.nemzetesbiztonsag.hu/cikkek/nb\\_2015\\_3\\_03\\_molnar\\_anna\\_-\\_menekult\\_es\\_migracios\\_kerdes\\_olaszorszagban.pdf](http://www.nemzetesbiztonsag.hu/cikkek/nb_2015_3_03_molnar_anna_-_menekult_es_migracios_kerdes_olaszorszagban.pdf), Accessed on 01 May 2017.

<sup>2</sup> Kerekes, S. *A környezetgazdaságtan alapjai*. Budapest: Aula Kiadó, 1998. <http://mek.oszk.hu/01400/01452/>, Accessed on 06 May 2017.

Besides desertification water shortage is also an important problem which is the consequence of climate change, droughts, and dam constructions on the existing water bodies, but irrigation is also affecting it. The most vulnerable water bodies are Lake Chad and the River Nile, of which the first one has shrunk seriously during the past decades and come to the edge of drying out entirely<sup>3</sup> and on the second one Ethiopia is building a dam despite the opposition of Sudan and Egypt, since the dam will affect the rate of flow on the lower reaches of the Nile dramatically endangering the food security in the area.<sup>4</sup>

We have to think about the economic sector in close connection with the environmental factors because, as we have seen, the two factors are interrelated. The most affected agriculture provides jobs for even fewer people on the continent which alone is a severe push factor for the African population. Besides this we must mention the human responsibility as well since the overfishing of coastal waters is also an existing problem.

Retaining qualified workforce is also difficult in the underdeveloped African countries.<sup>5</sup>

Despite these hardships, environmental factors could be pull factors as well. Africa is full of mineral resources, as we can find raw material needed for the 21<sup>st</sup> century technologies besides the fossil energy sources, precious metal and precious gemstones on the continent. Mining and refining these mineral resources means considerable number of jobs in the countries.<sup>6</sup>

The economic factor is also affected by demography. In Africa, the dynamic growth of the population and the demand of feeding large families are the most important in this aspect. The rapidly growing young and mostly uneducated population of Africa needs more and more jobs on the continent, which only exists in the more developed countries. The lack of work in the poorer countries will be a push factor and the developed countries of Africa will evolve to target countries on the continent.

The above introduced interrelated factors have connection also to the political factor. Since more than half of the African countries can be found somewhere in the last 40 places of the Fragile State Index,<sup>7</sup> almost every country on the most vulnerable continent suffers from some kind of political instability. There are dictatorships, instable democracies, oppressive regimes represented, but non-state actors are also active on the continent. These are mostly radical groups which are either regional or just country specific. Therefore, the political factor can also be a push factor for the population.

There are multiple wars, limited wars or other low-intensity conflicts in Africa which can all be connected to the above mentioned interrelated factors with the flavour of the

<sup>3</sup> Biedermann, Zs. "Migráció Szubzaharai Afrikából Magyarországra és Európába" ("Migration from the Sub-Saharan Africa to Hungary and Europe"). 6. [http://old.mta.hu/data/cikk/13/70/8/cikk\\_137008/\\_Biedermann.pdf](http://old.mta.hu/data/cikk/13/70/8/cikk_137008/_Biedermann.pdf), Accessed on 06 November 2016.

<sup>4</sup> Conniff, R. "The Vanishing Nile: A Great River Faces a Multitude of Threats". Yale Environment 360. <http://e360.yale.edu/features/vanishing-nile-a-great-river-faces-a-multitude-of-threats-egypt-dam>, Accessed on 06 May 2017.

<sup>5</sup> Tarrósy, I. "Afrikai migránsok a fejlett világban és Magyarországon: migrációs trendek, integráció, tapasztalatok" ("African Migrants in the Developed World and in Hungary"). *OKRI Szemle* 2. 2012. 111–112. [http://www.okri.hu/images/stories/OKRISzemle2009/OKRISzemle\\_2011/009\\_tarrosy.pdf](http://www.okri.hu/images/stories/OKRISzemle2009/OKRISzemle_2011/009_tarrosy.pdf), Accessed on 29 February 2016.

<sup>6</sup> "Mixed Migration: Libya at the Crossroads. Mapping of Migration Routes and Drivers of Migration in Post-revolution Libya." Altai Consulting and UNHCR. 72. <http://www.refworld.org/pdfid/52b43f594.pdf>, Accessed on: 27 February 2016.

<sup>7</sup> "Fragile State Index 2016". 6–7. <http://reliefweb.int/sites/reliefweb.int/files/resources/fragilestatesindex-2016.pdf>, Accessed on 06 May 2017.

ethnic and religious heterogeneity of the continent.<sup>8</sup> Because of this the countries in which only low-intensity conflicts exist will be desired target countries for the population of a more severely affected country.

## THE PRINCIPLES OF MIGRATION ANALYSIS

To make the understanding of the complex migratory processes easier some principles are needed. It is necessary because both the push and pull factors affect the population of all countries in diverse ways, generating minor or major migration.

In the case of Africa, where all the states have difficulties, we have to study the regional complexes to be able to draw the migration patterns within the continent. In this article, the regions will be defined in accordance with the UN regions and by the membership of different international organizations. The countries which are in the same region, however, can be even more interrelated than just connected by supranational organisations. Being in the same region sometimes means the same problems which can be related to the geographical location or to the regionally active radical groups.

According to this, the Maghreb, West Africa, East Africa, Central Africa and South Africa will be examined separately. In addition, the inter-regional migration will be studied closely in the section of the region of origin. In order to keep the article in a reasonable length only the most significant conflicts of the regions will be highlighted.

## MIGRATION TRENDS IN THE MAGHREB

The North African countries do not form a monolithic bloc by means of international organisations. The Arab Maghreb Union has only five members of the seven countries, which are Algeria, Libya, Mauritania, Morocco and Tunisia.<sup>9</sup> The remaining two countries are Egypt and Western-Sahara.

The intra-regional migration is heavily affected by the ethnicity in Northern Africa. The population of Arab or Berber origins prefers target countries with similar descendants. Consequently, the greatest amount of migration occurs among the Maghreb countries and just a little slice of it goes to the more developed South African region.<sup>10</sup>

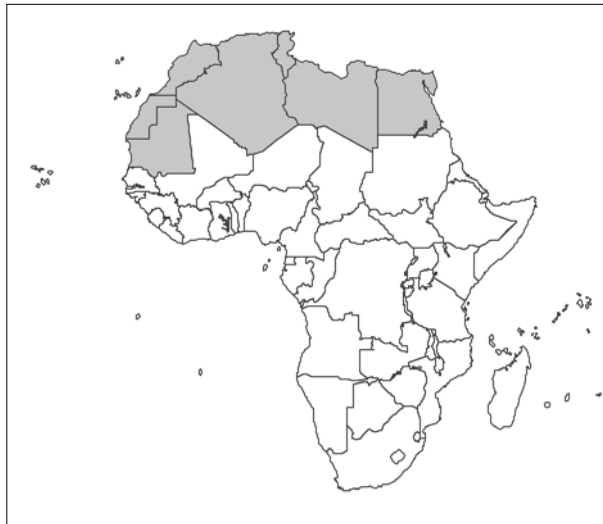


Figure 1. *Maghreb countries* (Edited by the author)

<sup>8</sup> "Conflict Barometer 2015". 9–14. [https://www.hiik.de/en/konfliktbarometer/pdf/ConflictBarometer\\_2015.pdf](https://www.hiik.de/en/konfliktbarometer/pdf/ConflictBarometer_2015.pdf), Accessed on 04 April 2017.

<sup>9</sup> "Arab Maghreb Union". <http://www.maghrebarabe.org/en/>, Accessed on 26 June 2017.

<sup>10</sup> "Middle East and North Africa". <https://www.iom.int/middle-east-and-north-africa>, Accessed on 06 May 2017.

The population of the Maghreb countries mainly chooses the countries in the region if it comes to migration, but Libyans and Egyptians are not that picky, they can be found in the Sub-Saharan region, in Gabon, or Central Africa. Besides this, migrants originated from the region are also largely represented in the Republic of South Africa, and Namibia.<sup>11</sup> The two above mentioned countries can only be desirable destinations because of their economy.

The region's closeness to Europe, and the historical ties define fundamentally the direction of the intercontinental migration. The busiest route leads to Europe from the western Maghreb countries, but the eastern bloc, especially Egypt, prefers the Middle Eastern target countries.

The intra-regional migratory movements are fuelled by the effects of the climate change, by the events of the 2011 Arab spring and its aftermath but the presence of the different radical groups, like the AQIM,<sup>12</sup> are also representing an impact. Besides these we must include economic migration. The phenomenon affects mainly the youngest employee group, the 18-25 years old, and is caused by the saturated labour market.<sup>13</sup>

Accordingly, the Maghreb region is not remarkable as a region of origin, but it is a desired destination for the Sub-Saharan population, especially to economic migrants who are choosing these states for bigger salaries.<sup>14</sup>

## THE SPECIAL CASE OF LIBYA

Until 2011 Libya was a popular target country of African economic migration because the 1998 labour force policy of the Gaddafi regime opened the country for the Sub-Saharan labourers. When the dictator fell, almost 2 million migrants of Sub-Saharan origin worked in the country's construction or petroleum refining sector.<sup>15</sup>

The Arab spring and the following fights however changed Libya's role in migration. Qaddafi's policy and his idea of pan-Africanism planted racism into Libyan Arab population, which deepened in the society during the fights of 2011, when tribalism started to strengthen again.<sup>16</sup> The emerging hostile environment and the non-existing legal regulations on refugees had their impacts on migration, and instead of staying in Libya the asylum seekers started to use it as a transit country to Europe,<sup>17</sup> to which role the state is more than perfect with its 1,700 km long Mediterranean coastline.<sup>18</sup>

<sup>11</sup> "Global Migration Flows". <https://www.iom.int/countries/algeria>, Accessed on 06 May 2017.

<sup>12</sup> al-Qaeda in Maghreb.

<sup>13</sup> "2015 Situation Report on International Migration: Migration, Displacement and Development in a Changing Arab Region". UN, IOM. 16–18. [https://publications.iom.int/system/files/pdf/sit\\_rep\\_en.pdf](https://publications.iom.int/system/files/pdf/sit_rep_en.pdf), Accessed on 06 May 2017.

<sup>14</sup> Búr G. and Tarrósy I. "Az afrikai vándorlás hátteréről és jellemzőiről". In Tarrósy, I., Glied, V. and Keserű, D. (eds), *Új népvándorlás: migráció a 21. században Afrika és Európa között (New Migration, Migration in the 21st Century Between Africa and Europe)*. Pécs: IDResearch Kft, Publikon Kiadó, 2011. 108.

<sup>15</sup> Biedermann. "Migráció Szubszaharai...". 3.

<sup>16</sup> Marsai, V. "A migrációs diskurzus margójára III.: A líbiai válság az európai migráció tükrében" ("To the Margin of the Discours about Migration III.: The Crisis in Libya form European Perspective"). 2. [http://netk.uni-nke.hu/uploads/media\\_items/svkk-elemzesek-2017-1-a-migracios-diskurzus-margojara-iii-a-lib.original.pdf](http://netk.uni-nke.hu/uploads/media_items/svkk-elemzesek-2017-1-a-migracios-diskurzus-margojara-iii-a-lib.original.pdf), Accessed on 06 May 2017.

<sup>17</sup> „Mixed Migration...”. 73.

<sup>18</sup> "Libya." <https://www.cia.gov/library/publications/the-world-factbook/geos/ly.html>, Accessed on 06 November 2016.

After these years, in 2017 Libya is still a warzone, and there is no sign of consolidation. All the political actors in the country accepted international help to fight against ISIL, which has a strong presence in the country, but rejected every initiative to suppress the migration flows, or to allow European countries to send migrants back to the country. There are multiple reasons for this oppression, including formerly mentioned racism, but also there is a financial and a public security aspect of it.<sup>19</sup> The success of the ongoing European Union missions and operations in the area is in question under these conditions, since even if their goal, to train the Libyan coastguard is fulfilled, its effectiveness relating to migration still remains a concern.

## THE MIGRATION TRENDS OF WEST AFRICA

The umbrella organisation of the region is the Economic Community of West African States<sup>20</sup> with 15 countries, Benin, Burkina Faso, Ivory Coast, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo, including also Cape Verde.<sup>21</sup> The most common problems in the region are extremely weak economy, political instability and overpopulation. The political instability does not only mean dictatorships, like in Gambia, but also the coups, and the questioning of the outcome of democratic elections, which can lead to an armed conflict. In addition, every



Figure 2. *West African countries (Edited by the author)*

country has its own burden, like the Casamance separatists in Senegal, Boko Haram in Nigeria and the wider region, and AQIM is also present. Because of the wide variety of conflicts, political unrests, and inter-ethnic violence, the internally displaced person (IDP) is a rather common phenomenon in these countries. Most of the people who seek refuge just go to the nearest safe place in order to make the return for themselves easier. Another aspect is the extreme poverty in the region which only allows the people to stay in the close vicinity of their country of origin, or even inside it. The figures of refugees and IDPs increase dramatically when a new armed conflict starts, like in 2012, when the Tuareg insurgency started in Mali, in eight months the number of refugees reached 400,000.<sup>22</sup>

<sup>19</sup> Marsai. "A migrációs...". 12.

<sup>20</sup> ECOWAS.

<sup>21</sup> "What is the Economic Community of West African States (ECOWAS)?" ThoughtCo. <https://www.thoughtco.com/economic-community-west-african-states-ecowas-43900>, Accessed on 27 June 2017.

<sup>22</sup> Irish, J. "U.N. members divided over response to Mali crisis". Reuters. 27 September 2012. <http://www.reuters.com/article/2012/09/27/us-un-assembly-mali-idUSBRE88Q02H20120927>, Accessed on 23 September 2013.

The biggest chunk of the African migration occurs in West Africa. Most migrants prefer to stay in the region and different regional agreements support this practice as well,<sup>23</sup> but there are traditional reasons too, like in Mali and Burkina Faso. Additionally, in the recent years, brain drain became also a widespread problem, mostly relating to Nigeria, where petroleum refining attracts qualified workforce from the entire continent.<sup>24</sup> Besides the constant pull factors, there are some temporary ones, when a labour-intensive sector, like coffee and cocoa producing in Ivory Coast during the '60s started to bloom and pull the migrants from the region.<sup>25</sup>

The interregional movement occurs mainly towards the states in the Central African region, with which agreements make the flow of workforce between the regions easier. The most preferred target country in the region is Chad, which although started to have the symptoms of a dictatorship, still maintains a rather stable political system.<sup>26</sup>

A considerable number of migrants from the region chooses one of the Maghreb states as well, where the biggest pull factor is the relatively large salary. Besides this an unqualified labourer can also find a job easily in the North African countries, and the region can be used as a stopover on the journey to Europe.<sup>27</sup>

The West African region gives shelter to a significant amount of migrants from the Central African region, which movement is supported by the above mentioned international agreements.<sup>28</sup>

## THE MIGRATION TRENDS OF EAST AFRICA

East Africa is the most fragmented region of the continent. There is no single international organisation which covers all the countries in the region, however, there exist three different ones. Besides this, the UN state list for geographical regions does not include Sudan,<sup>29</sup> while two economic communities do.<sup>30</sup> In this case, because the economic and historical ties are strong, Sudan will be included in Eastern Africa. Accordingly, the following countries form the region: Burundi, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mozambique, Rwanda, Somalia, South Sudan, Sudan, Uganda, United Republic of Tanzania, Zambia and Zimbabwe.<sup>31</sup>

The largest region of the continent, East Africa is also rich of conflicts, which makes it an ideal soil for migration. Here we can find the World's most fragile state, Somalia, and four more is in the last 20.<sup>32</sup> The Somalian clan state is still not showing any sign of consolidation.

<sup>23</sup> "West and Central Africa". IOM. <https://www.iom.int/west-and-central-africa>, Accessed on 06 May 2017.

<sup>24</sup> "Nigeria". Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/geos/ni.html>, Accessed on 17 November 2016.

<sup>25</sup> "Cote d'Ivoire". Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/geos/iv.html>, Accessed on 06 May 2017.

<sup>26</sup> "Chad". Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/geos/cd.html>, Accessed on 06 May 2017.

<sup>27</sup> „Mixed Migration...”. 72.

<sup>28</sup> "West and Central Africa".

<sup>29</sup> "Geographic Regions". <https://unstats.un.org/unsd/methodology/m49/>, Accessed on 29 June 2017.

<sup>30</sup> "The Regional Economic Communities (RECs) of the African Union". United Nations. <http://www.un.org/en/africa/osaa/peace/recs.shtml>, Accessed on 27 June 2017.

<sup>31</sup> "Geographic Regions".

<sup>32</sup> "Fragile State Index 2016." 7.

Different militias fighting with the government and each other to gain autonomy or even independence, in addition, the radical Islamist group al-Shabaab is also active in the country.<sup>33</sup> Furthermore, we can find here the youngest country of the continent, South Sudan, which became independent from Sudan in 2011. The secession, however, did not solve the conflict between the two countries; on the contrary, it just deepened the problems, which caused a new wave of migration from the countries.<sup>34</sup>



Figure 3. *East African countries (Edited by the author)*

The infamous country of the region, the military dictatorship of Eritrea, is also a major country of origin, because in comparison with its relatively small population, the number of migrants is high. The country experienced a 30 years long war with Ethiopia before it became independent in 1993, but the borderlines between the two countries are still unsettled. Besides this, to destabilize Ethiopia and keep the region instable, Eritrea uses proxies as well, among which al-Shabaab is the most infamous.<sup>35</sup>

The situation is not friendlier in the south either. In Mozambique, after the 2014 elections led the country to the edge of a civil war, when opposition party RENAMO questioned the results and its militia started to fight against the winner FRELIMO's militia.<sup>36</sup>

In addition to the internal conflict of the different countries, the region suffers from the presence of a variety of radical groups, like the Ugandan Lord's Resistance Army (LRA) and Somalian al-Shabaab.

East African refugees typically flee to the closest countries, primarily to Ethiopia, Uganda and Kenya, where the number of the refugees was between 480,000 and 740,000 in 2015,<sup>37</sup> or to Chad in Central Africa, where the countries are maintain refugee camps for hundreds of thousands in need with the help of international organisations and NGOs. In these camps the South-Sudanese, Somalians and Eritreans are top nationalities represented.<sup>38</sup>

<sup>33</sup> "Somalia". <https://www.crisisgroup.org/crisiswatch/may-2017#somalia>, Accessed on 06 May 2017.

<sup>34</sup> "South Sudan". Central Intelligence Agency. <https://www.cia.gov/library/publications/the-world-factbook/geos/od.html>, Accessed on 17 November 2016.

<sup>35</sup> Marsai, V. and Hettyey, A. *Szomália: állami összeomlás és konszolidációs kísérletek Afrika szarván (Somalia: Crushing State and Consolidation Experiments on the Horn of Africa)*. Pécs: Publikon Kiadó, 2013. 150–151.

<sup>36</sup> "Mozambique profile – Timeline". BBC. <http://www.bbc.com/news/world-africa-13890720>, Accessed on 07 May 2017.

<sup>37</sup> "Top 10 Refugee Hosting Countries in 2015". United Nations. <https://www.un.org/development/desa/publications/graphic/top-10-refugee-hosting-countries-in-2015>, Accessed on 07 May 2017.

<sup>38</sup> "Ethiopia overtakes Kenya as Africa's biggest refugee-hosting country". <http://www.unhcr.org/news/latest/2014/8/53f31ebd9/ethiopia-overtakes-kenya-africas-biggest-refugee-hosting-country.html>, Accessed on 07 May 2017.



The consolidated states, like Rwanda and Burundi experience large waves of the repatriating population.<sup>39</sup>

East African labourers use three main routes, which are the Northern route via the Sahel countries, the Gulf or Aden route via the Horn of Africa, and the most popular is the Southern route to South Africa via Zambia.<sup>40</sup> The rapidly developing economies of the southern countries attract most of the region's labourers,<sup>41</sup> so Zimbabwe is represented by half a million migrants in South Africa while Malawi by around 80,000.<sup>42</sup> Besides this the traditional pastoral migration is present in the region, between Kenya and Tanzania.<sup>43</sup>

The stable countries of the South African region and Gabon attract the qualified, young East African workers, whom the countries of origin with weak economy and underdeveloped technology cannot retain. After recognising the brain drain phenomenon, the East African states are trying to find regional solutions to keep knowledge and expertise in the area, to support the closing up of the weaker states.<sup>44</sup>

In addition to the intra-regional migration, refugees from the neighbouring conflict zones can also be found in East Africa, especially from the Central African Republic and the Democratic Republic of the Congo.<sup>45</sup>

## MIGRATION IN CENTRAL AFRICA

Identifying the region, we must use the UN list of geographic regions of Africa, which contains Angola, Cameroon, the Central African Republic, Chad, the Republic of the Congo, Democratic Republic of the Congo, Equatorial Guinea, Gabon and Sao Tome and Principe. In this case, there is also a regional organisation, the Economic Community of Central African States, which covers all the above-mentioned countries completed with Burundi and Rwanda. Despite the geostrategic cohesion of the region it suffers from a large variety of conflicts, including the presence of radical groups, oppressive regimes, and even climate change is taking its toll in the northern countries. These woes formed the region into a very active participant in migratory movements.

The most vulnerable countries of the region are the Central African Republic, Chad and the Democratic Republic of the Congo. The Central African Republic has been dealing with an inter-religious, inter-ethnic conflict for years now, with the real objective to gain control over the diamond mines of the country. This conflict forced one quarter of the population to flee.<sup>46</sup> Chad is suffering from climate change, since Lake Chad has shrunk significantly in the

<sup>39</sup> "East Africa and the Horn of Africa". IOM. <https://www.iom.int/east-africa-and-horn-africa.>, Accessed on 07 May 2017.

<sup>40</sup> Black, J., Dearden, K. and Montes, A. "Migrant deaths and disappearances worldwide: 2016 analysis". IOM Global Migration Data Analysis Centre. *GMDAC Data Briefing Series* 8. 2017. [https://publications.iom.int/system/files/pdf/gmdac\\_data\\_briefing\\_series\\_issue\\_8.pdf](https://publications.iom.int/system/files/pdf/gmdac_data_briefing_series_issue_8.pdf), Accessed on 06 May 2017.

<sup>41</sup> "Southern Africa". IOM. <https://www.iom.int/southern-africa>, Accessed on 07 May 2017.

<sup>42</sup> "Factsheet: Where do South Africa's international migrants come from?". <https://africacheck.org/factsheets/geography-migration/>, Accessed on 07 May 2017.

<sup>43</sup> "East Africa and the Horn of Africa".

<sup>44</sup> Tarrósy, I. "Afrikai migránsok a fejlett világban ...". 112.

<sup>45</sup> "Global Migration Flows".

<sup>46</sup> Ngoupana, P.-M. "Central African Republic's capital tense as ex-leader heads into exile". Reuters. 11 January 2014. <http://www.reuters.com/article/2014/01/11/us-centralafrican-idUSBREA0A01L20140111>, Accessed on 13 January 2014.

past decade. Moreover, the country is used by radical group Boko Haram as a safe haven and in addition the country's democracy is turning slowly into dictatorship. These factors are fuelling migration from the country,<sup>47</sup> but its figures are shrinking into insignificance besides the migration flows of the Democratic Republic of the Congo. The Central African country is trying to put an end to the decades of long inter-ethnic violence within its borders without success.<sup>48</sup>

The usual pattern of migration is observable in this region as well. Those, who flee from a conflict stay in their country of origin as IDPs, or leave for a neighbouring country. This phenomenon allows Chad and the Democratic Republic of the Congo to be the main countries of origin and the most popular target countries as well, both hosted almost 400,000 refugees in 2015.<sup>49</sup> Besides the two Central African countries, the East African neighbours, like Ethiopia, Kenya and Uganda, also have their share of refugees from the region.<sup>50</sup>

The workforce migration is also at a large scale within the region, mainly because of the international cooperation and the agreements to prevent brain drain. Regarding economical migration, the most attractive countries in the region are Angola, Equatorial Guinea, Gabon and Guinea, because of their mineral resources and the connected industrial branches. These states receive migrants not only from the region itself, but from the whole continent. Regarding to the outward migration, West Africa is the most preferred region, because of Nigeria's immense labour market. East Africa takes the second place with another oil-rich state, South-Sudan, and South Africa is just the third on the place.<sup>51</sup>



Figure 4. *Central African countries (Edited by the author)*

## MIGRATION IN SOUTH AFRICA

The countries of the region are members in multiple international organisations, which include East African and Central African states as well. Here we must apply the UN's perception, according to which the South African region consists of Botswana, Lesotho, Namibia, the Republic of South Africa and Swaziland. These five countries form the most stable and secure region of the continent, coupled with strong economies. These factors make the region the most attractive to incoming migration, however the workforce flows are also immense among

<sup>47</sup> Biedermann. "Migráció...". 6.

<sup>48</sup> "Congo, Democratic Republic of The". <https://www.cia.gov/library/publications/the-world-factbook/geos/cg.html>, Accessed on 07 May 2017.

<sup>49</sup> "Top 10 Refugee Hosting Countries in 2015".

<sup>50</sup> "West and Central Africa".

<sup>51</sup> "West and Central Africa".

the five countries.<sup>52</sup> The incoming migration flows are mainly fuelled by economical reasons rather than fleeing from an armed conflict, but both types are represented in the region. The region of origin of these migration flows are primarily East Africa, followed by Central and West Africa, but we can find migrants from the Maghreb as well.<sup>53</sup> The most popular target country in the region is South Africa, which attracts a significant majority of the intra- and interregional migration with its rapidly growing economy. The country now deals with 2.4 million migrants.<sup>54</sup>



Figure 5. *South African countries (Edited by the author)*

The outward migration from the region goes mainly to the dynamically developing East African counties, principally Zambia, or to Angola in the Central African region because of its mineral resources.<sup>55</sup>

## SUMMARY

The African internal migration is highly influenced by the different conflicts which produce hundreds of thousands of refugees who either stay in the country or just flee to one of the neighbouring states. Accordingly, they can be found mainly in the close vicinity of their country of origin and just a few of them will leave the continent. For example, the biggest refugee camps in Africa can be found in Chad, Ethiopia Kenya and Uganda. All of them are located near a conflict zone, or has a crisis in itself.

The traditions in Africa allow the pasturing tribes to maintain their migration even across country borders. The migration flows of the workforce are more interesting, because most of them remains close to the country of origin mostly choosing an area with similar ethnic groups and the same language. Besides this, both for the qualified and unqualified labourers the dynamically developing economies are serious pull factors within the region, or not. In Africa, this usually means the countries rich in mineral resources will become popular target countries. Accordingly, the Republic of South Africa, Zambia, Angola, Gabon, Equatorial Guinea and Nigeria are the common target countries, in which we can recognise a significant South-South migration flow.

<sup>52</sup> "Southern Africa."

<sup>53</sup> "Factsheet: How many international migrants are there in SA?". <https://africacheck.org/factsheets/data-migrants-numbers/>, Accessed on 07 May 2017.

<sup>54</sup> "Global Migration Flows".

<sup>55</sup> "Southern Africa".

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## SCENARIOS FOR KOREA

*ABSTRACT: After a series of missile tests in 2017, 2018 brought along direct negotiations between the US and North Korea as well as between the two Koreas. Are we at the doorstep of a peace process? The outcome of the negotiations so far is highly uncertain. This paper tries to model the possible scenarios in case of failure, as well as in case of success of the upcoming negotiation. Could negotiations reach an end for the crisis? Would a peace treaty with South Korea and the US really serve the best interest of the North Korean regime? Is the continued existence of the present regime in North Korea really in the best interest of China? Who would be the main beneficiary of a Korean reunification? And what if negotiations fail, and the military option is back on the table? Would the Northern artillery really flatten Seoul as retaliation for a surgical strike? Could North Korea wage a nuclear strike without the consequence of being annihilated? These and similar questions are attempted to be answered by this paper.*

*KEYWORDS: nuclear, crisis, Korea*

### INTRODUCTION

Before the US announced its willingness to directly negotiate with North Korea, the crisis around the nuclear arms buildup of Pyongyang already reached a critical stage, as the country tested intercontinental ballistic missiles that have the capability of hitting the continental United States, and US intelligence sources confirmed that it has miniaturized its nuclear weapons to a size that they can be mounted into intercontinental ballistic missiles, and also solved the problem of safe re-entry.<sup>1</sup> It is still unclear whether North Korea yet possesses these capabilities only on experimental stage yet or already on full operational stage. Tensions were further increased by North Korea claiming to have detonated a hydrogen bomb, and firing two missiles over Japan.

Then 2018 seemed to have brought a new beginning. In April 2018, presidents of the two Koreas, Kim Jong-un and Moon Jae-in met twice at the Panmunjom peace village, and issued a joint declaration about aiming to reach a peace treaty between the two countries. Then in June, US president Donald Trump met with Kim Jong-un in Singapore, and they too issued a joint statement aiming the denuclearization of the Korean Peninsula. So far, these declarations gave little more than words, however, and there are several factors in the equation that give us a good reason to be skeptical regarding the future of these negotiations.

This paper aims to take an overview on the possible scenarios, how this long lasting crisis could end. At first, we will take a look on possible outcomes of the recently started negotiated process, and after that we will take an overview on scenarios involving military options, in case the negotiations fail. As we will see, the issue of North Korea's nuclear program is made

<sup>1</sup> Lewis, J. "The game is over and North Korea has won". Foreign Policy. 9 August 2017. <http://foreignpolicy.com/2017/08/09/the-game-is-over-and-north-korea-has-won/>, Accessed on 28 September 2017.

especially complicated by certain external and internal factors. External factors, such as the conflicting interests of the two great powers involved in the situation the most, China and the US with South Korea, as well as the Sino-Japanese rivalry playing a special role, and internal factors, mainly the internal discourse of the North Korean regime, struggling to maintain its legitimacy in the eyes of at least a sufficient proportion of its people, while it borders a much more populous and much wealthier South Korea. As we will see, in this comparison it is far from clear, which scenario is in fact in the interest of which neighboring power, and what really is North Korea's motivation in pursuing its nuclear program the way it does.

## THE DRIVE BEHIND NORTH KOREA'S NUCLEAR PROGRAM – EXTERNAL SECURITY OR SOMETHING MORE?

To decide whether a negotiated settlement could really be reached, or the present round of negotiations would break down the same way as they did in the past two decades, and whether the North would pursue its present track anyway, first we have to find out what the main driving forces behind its nuclear program are.

The main reason usually cited behind the nuclear buildup of the North is the aim of the regime's survival; its fear of the fate of Saddam Hussein, and Muammar Gaddafi, a similar regime change orchestrated by the US. This reasoning however, may not be as justified, as it seems at the first look. The US, in fact did perform several examples of ill-fated "export of democracy" in the past decades, but if we look at the geopolitics of such events, we can see, that no such case has happened in East or Southeast Asia since the end of the Cold War. (Perhaps with the only exception of forcing Indonesia to grant independence to East Timor in 1998.) Vietnam and Myanmar were also anti-Western authoritarian regimes, they did not build nuclear weapons, yet they were not invaded by the US. Some reforms took place in both countries, which did not challenge the rule of the Communist Party in Vietnam, and the generals of Myanmar also did maintain determinative political influence as well as personal immunity during the country's democratic transition. What North Korea, Vietnam and Myanmar have in common is that they all share a border with China, and China regards all three of them as crucial for its own security. Obviously, if the US tried to invade any of them in order to "export democracy", China would be likely to step in. Sharing land borders with all three countries, there is no barrier to prevent China from deploying its enormous ground army, and the US could not have taken any use of its overwhelming naval power to prevent that. Of course, Vietnam did take a pro-US turn in its foreign policy due to geopolitical reasons, regarding China as the greater threat, but obviously, it would not have seen the US as a lesser threat if the US had threatened it with an "export of democracy".

In this respect, North Korea could feel even more secure than Myanmar or Vietnam, as unlike those two, it even has a security treaty with China. Even in the present situation, that is becoming increasingly uneasy even for China, Beijing still maintains that if the US attacked North Korea unprovoked, it would intervene on the side of the North. And as a "democracy export" to North Korea would obviously not be worth a war with China to the US, Washington would be likely to avoid it. So the notion that for North Korea the main reason for developing nuclear weapons is a realistic fear that otherwise the US would invade it, does not seem to be well founded. In fact the US not only did not attempt to "export democracy" to North Korea when it was not yet a nuclear power between 1994 and 2006, but even regarding North Korea's nuclear program, the US paid way less attention, than it did to similar developments in Iraq or Iran.



So, can we find another motivation that can be strong enough to pursue this program? Factors in the internal policies of North Korea may possibly be the key. There are factors that can lead us to sinister conclusions that the internal logic of the North Korean regime makes war rhetoric and nuclear buildup a march that can never end.

One such factor is that as early as the 1990s analysts concluded that North Korea appears to use a preemptive logic of aggression and provocations not to eliminate a direct threat, but as a preemptive tool of changing an unfavorable status quo in a favorable way. There were even conclusions, that in the early 1990s only the appeasing attitude of the US and South Korea prevented North Korea from possibly starting even a major war to change the deteriorating status quo.<sup>2</sup>

We can extend this logic with the recognition that deep internal reforms, peace with South Korea and the USA may not be an option for North Korea because of the very same reason: They would undermine the legitimacy of the regime. We can discuss these two options as one because one would result in the other: Chinese-style reforms in North Korea would necessarily lead to some kind of normalization of relations with the South and the US, while the normalization of relations with the South and the US would inevitably lead to at least some reforms. If reforms come first, then a reformed North Korea with Chinese-style market economy could not isolate itself from the South, the US forever, and not even from Japan as it does now. Barely economic ties would demand at least some degree of normalization of relations. If a peace treaty with the US and the South comes first, and instead of viewing it as a hostile “puppet-state” of the US, South Korea is officially recognized as a decent neighbor and a legitimate representative of Korea nationhood, the hermetic isolation of Northern citizens and Northern economy from the South will no longer be justifiable.

The Kim regime however, has a good reason to calculate that any kind of normalization of relations between North Korea and South Korea would lead to its imminent collapse. The legitimacy of the North Korean regime is based on the narrative that it is the sole legitimate representative of Korean nationhood. The North Korean state propaganda is in fact a strong advocate of Korean unity. The North Korean constitution names Seoul as the capital of Korea and Pyongyang only as a provisional capital, until unification is achieved. According to the official North Korean point of view, the key obstacle of unification is that the USA – as they view it – keeps South Korea under occupation, and maintains a “puppet government” there. If ties with South Korea are normalized, that also means that the North Korean regime has to declare that its southern neighbor is no longer an enemy. The DMZ would become a regular international border. Instead of the existing hermetic isolation at least some border traffic would start. Even if it starts only at a small scale, that is still more than nothing. An example of how a border of North Korea functions with a state that it does not regard as its enemy, can be seen on the Sino-Korean border. With the recognition of South Korea as a non-hostile, legitimate representative of Korean nationhood, information on Southern living standards sneaking in, and Korean unity having been the core of Northern propaganda for decades, such changes would deeply jeopardize the legitimacy of the North Korean regime. It is highly doubtful whether reforms, as well as peace with the South and the US, are acceptable for the Kim dynasty.

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<sup>2</sup> Cha, V. D. and Kang, D. C. *Nuclear North Korea: A debate on engagement strategies*. Columbia University Press, 2003. 17–40.

As an alternate option we can also ask the question, whether this course of avoiding reforms and following a saber-rattling rhetoric could not be followed by North Korea without developing nuclear weapons. There are at least two reasons, why this would not be easily feasible.

One reason is that although North Korea's security agreement is a guarantee to deter the US from trying to "export democracy" there, in fact for an unreformed, non-nuclear North Korea, with reliance on China could become too overwhelming. With no reforms, and no nuclear weapons either, North Korea would be nothing but an impoverished country of 25 million people not only facing South Korea with the double of its population and a GDP several times higher than its own, but also located among enormous neighbors, such as China, Japan and Russia. With no major reforms to boost its economy and no nuclear weapons to maintain its military might, North Korea would fade into insignificance. Even the large numbers of conscripts in its army would not be able to maintain its military might as the development of a conventional arsenal to a level where its deterring effect is close to equal of having nuclear weapons is much more expensive than nuclear weapons themselves, thus it can be unaffordable in a situation where the latter is still affordable. With no sufficient military capabilities to deter South Korea on its own, such a North Korea would be forced to increasingly rely on China. Such an increasing reliance would be an increasing dependence as well. Under such circumstances, North Korea would likely to fade into a mere vassal of China.

Of course, we can ask the question whether the US can make such an offer at the upcoming negotiations that would eliminate this risk for North Korea. The answer seems to be negative. Even if the US completely abandoned South Korea as a military ally (an option that the US certainly will not choose) in exchange for North Korea's disarming its nuclear arsenal, it still would not essentially change this perspective. South Korea would still continue to be so much stronger in conventional arsenal, and without large scale economic reforms and deprived of its nuclear arsenal the North would soon become weaker than the South to such an extent that it would sooner or later face the choice of either submitting to the South or becoming a satellite of China. The dismantling its nuclear arsenal, major economic reforms, and normalization of relations with the South, however, would still likely to cause a massive loss of legitimacy for the Northern regime.

The other reason is similar, it also comes from the fact, that with no reforms and no nuclear weapons either, North Korea is a relatively small, impoverished country compared to its neighbors. If we talk about the internal legitimacy of the regime, such a country can rarely offer the sense of success for its public. Of course, there are several small and impoverished countries on our planet, but most of them are not forced to be in a constant state of war-psychosis. If such a country is also in that state, then developing nuclear weapons is a rare show of success for its people.

So, it seems that internal reforms and a peace with the South and the US are hardly an option for the Northern regime, but without internal reforms or peace with the South and the US, saber-rattling and nuclear buildup cannot stop. This, however, means that North Korea cannot stop to follow this course, because it would lead to conditions that jeopardize the legitimacy of the regime. However, it also seems to be obvious, that warmongering, nuclear buildup, and a practice of deliberate provocations cannot be infinitely intensified.

## THE PROSPECT OF CONTINUED NEGOTIATIONS

The recent summits indeed seem to bear the potential of a peace deal and denuclearization of the Korean peninsula. The best scenario would be a peace treaty between the two Koreas, with the complete denuclearization of North Korea, and possibly with the US pulling out its forces from the South in exchange, and the two Koreas merging in some kind of a confederate structure, occupying a neutral position in the super power game between the USA and China. There are, however, several factors that can raise doubts over this prospect. The first major problem is that so far, North Korea has not taken any major steps to reduce its nuclear arsenal, and even in its promises avoided to state anything specific. The other one is that so far the tangible outcomes of the summits have rather suggested an asymmetric trend, with North Korea seemingly successfully using its nuclear arsenal to extract concessions from the US and South Korea, without having to give anything special in exchange. While the conventional arsenal of South Korea is, without a doubt, more modern and sophisticated the North with its nuclear arms has got a blackmailing potential that the South would be unlikely willing to withstand, if it was not backed by the US. In this case, the greatest danger to the South is a slippery slope where the South and the US gives newer and newer concessions to the North, without Pyongyang's reducing its nuclear arsenal. The conclusion of the Kim-Trump meeting, with Trump announcing the end of joint exercises between the US and the South without receiving anything but words from North Korea. As suggested above, this technically means that by developing nuclear arms, North Korea achieved significant military concessions, without having to give anything in exchange. What makes this asymmetry look even more sinister is that it fits in two decades of negotiations with North Korea, a trend that in itself, already shows signs of a slippery slope.

Since the first time when the situation got heated over North Korea's nuclear program for the first time back in 1994, the attempts to resolve the issue by negotiations have failed each and every single time. North Korea seemingly always used negotiations and achieved agreements to gain time to continue pursuing its nuclear program. The first phase of this story was when North Korea first announced its withdrawal from the Non-Proliferation Treaty, but suspended this when reaching the framework agreement in 1994,<sup>3</sup> and maintained this position until 2003. The second phase started when North Korea did at last indeed withdraw from the Non-Proliferation Treaty in 2003, and the subsequent six-party talks of 2006-2009, that ended in failure despite temporary achievements.<sup>4</sup>

So as repeated attempts of negotiations and agreements went on in a country merely pursuing research to reach the ability to produce one single nuclear bomb in 1994, by now North Korea has become a country that, according to the most recent information of the US intelligence, is already capable of reaching the continental US with its intercontinental ballistic missiles, also successfully solved the task of miniaturizing its nuclear weapons to a size where they are suitable to arm missiles, and was likely successful in detonating a hydrogen bomb in September 2017. Also, the number of its nuclear warheads is closer to 60 instead of being around a dozen as believed earlier in 2017.

<sup>3</sup> Pritchard, Ch. L. *Failed diplomacy: the tragic story of how North Korea got the bomb*. Brookings Institution Press, 2007. 25–57.

<sup>4</sup> Chinoy, M. *Meltdown: the inside story of the North Korean nuclear crisis*. St. Martin's Press, 2010.

Thus right now North Korea is likely to be able to reach the continental United States with an intercontinental ballistic missile with a nuclear warhead, and reached this capability through years of negotiations and agreements, repeatedly breached.

What deterred the USA and South Korea from surgical strikes against the North was that although a conflict would otherwise been a certain victory for them, their casualties would have been so massive (especially in case of an artillery attack on Seoul) which the South Korean and American public would have seen as unacceptable. Therefore, the main reason why North Korea was able to pursue its nuclear program without disruption was that the USA, South Korea and Japan were deterred by the foreseeable casualties. These potential casualties have been increasing year by year throughout the last two decades though: While 20 years ago, the greatest possible threat posed by North Korea was an artillery attack on Seoul, 10 years ago it increased to the level of a non-nuclear missile attack on Japan, one year ago to a non-nuclear missile attack on Guam, and now, a nuclear missile attack on the continental United States.

In summary, North Korea is again and again playing chicken with the South and the US, and it was always the South and the US that backed down at the end. The announcement by Trump about ending US-South Korean joint exercises, and the announcement by South Korea after the inter-Korean summit about the easing of economic sanctions if substantive steps towards denuclearization are taken, can be interpreted as the next episode of this trend. However a major difference is that while until now North Korea could simply get away with the next step of its nuclear program without the US and the South doing anything, now it practically is even awarded by significant concessions.

This raises sinister questions about the future trends: how far can North Korea develop its nuclear weapons, and how many concessions can it bargain from South Korea and the US? And how about the future? A North Korea with a large arsenal of hydrogen bombs? A North Korea with a nuclear arsenal large and sophisticated enough to display the MAD-doctrine against the US? A North Korea possessing cobalt bombs, or similar unconventional, devastating nuclear weapons? The US abandoning its military alliance with South Korea? South Korea submitting into Finlandization? The long-lasting trend of North Korea getting further and further without any real consequence may result not only in such options but also in breaking down the negotiations once again if the US and/or South Korea finds their expectations unfulfilled.

## IF NORTH KOREA'S NUCLEAR BUILDUP CONTINUES – IMPACTS ON THE REGION

After having taken an overview on both the military and diplomatic options for the issue, we can discuss what consequences of the continuation of North Korea's ongoing nuclear buildup can be for the region. Surprisingly, as we will see, they can hurt China the most, the very country that has so far been the only ally of North Korea.

Nuclear tests are a suitable tool to ensure the security of a country but no such actions suggest a deliberate intention of provocation better than the missiles flown over Japan, the threats of missiles fired to the waters around Guam, and the threats of an atmospheric nuclear test over the Pacific Ocean. It seems that North Korea follows another aim as well. This aim seems to be to deliberately undermine the credibility of threats by the US, by deliberately crossing every single red line set by the US and its allies (except for a direct attack against their soil) in order to demonstrate that they can do it, and the US does not dare to react.

Why would North Korea follow such a track of deliberately crossing red lines? (Except for the case it really follows a suicide mission – what it most likely does not.) A rational explanation can be if this is a deliberate program by North Korea that aims to undermine the Northeast Asian alliance system of the USA, the alliance between South Korea and the US, and Japan and the US. If South Korea and Japan face permanent threats by North Korea, and at the same time see that threats by the US to North Korea have no credibility, this can alienate them from the US in the long run. The Kim-Trump meeting and the inter-Korean summit suggest first signs of success of such an attempt. After the inter-Korean summit, South Korea offered significant economic concessions to the North without the consent of the US. After the Kim-Trump summit, the US made significant military concessions to North Korea without the consent of South Korea. The first cracks on the US-South Korea military alliance have already appeared.

How could such a scenario continue? What has happened now is practically the *de facto* implementation of the “freeze for freeze” proposal already, supported by China and Russia before. What was freeze for freeze about? In exchange for North Korea’s halting further development of its nuclear arsenal, the South and the US would stop military exercises that North Korea views as offensive. That exactly is what practically happened now. This, however, technically means that albeit on a very small scale, the US tunes down the military support that it gives to South Korea, in exchange for the North to slow its nuclear armament. If once the US starts going down that road, the end can be an abandonment of South Korea. The problem with “freeze for freeze” is that the stronger the nuclear arsenal of North Korea is, the more it can demand from the US in that manner, i.e. reduction of US military backing to South Korea. Thus, “freeze for freeze” is potentially is a first step down a road through which the US is technically blackmailed by North Korea into abandoning South Korea.

The case is somewhat different for Japan. Although it is also possible that North Korea would use such a bargain technique to achieve the US abandonment of Japan, such thing is way much less likely to happen. As part of the first island chain, cutting off China from the open territories of the Pacific Ocean, Japan is much more important for the US, than South Korea is, and much less important for North Korea, than South Korea is. Japan, an island nation shielded by seas, and having a large overall GDP but a relatively low military spending relative to it right now due to traditions linked to its “peace constitution”, the country is theoretically able to multiply its military spending as well as the arsenal of its armed forces without significantly burdening its economy. As an island nation, it can also afford focusing these improvements on its navy and air force (as it has done so far on smaller scales), and that way, it can become a great power on its own right in the region compared not only to North Korea, but to China and Russia as well. Of course, not one that could actively challenge China or Russia on the Asian continent, but one that could stand up to any offensive action by them on the seas, by using the edge that as an island nation, it can afford to focus its spending on its navy and air force, while China and Russia have to spend most of their military budget on their large ground forces, with relatively less funds remaining for air force, and especially less for navy. This is especially true, if Japan, in a changed strategic environment opts to become a nuclear power on its own.

The positions of South Korea are much weaker in this respect. While the alliance with the US is such a luxury for Japan, which allows it to keep its military spending low relative to its economic performance and thus to have a convenient space to expand or even multiply its defense budget, South Korea already has a pretty high military spending, burdening a much smaller GDP. While Japan as an island nation, and as such, unlike China and Russia, is free

of the burden of having to maintain a large ground force, and thus free to use its resources to build an air force and a navy disproportionately large and strong compared to the size of the country, South Korea does need to maintain a major ground force, and has no natural line of defense against North Korea.

Thus Japan is not only much more important for the US than South Korea but it also has much more room to enhance its defenses, with or without US assistance. To put it in a simple way, if times get tough, Japan is capable to build up a conventional arsenal several times stronger than it has now, but South Korea is not. Thus, in a changed strategic environment, Japan can transform into a much stronger military power than it is now while South Korea's positions can only weaken.

North Korea may view such a scenario as a favorable one. With no ambitions regarding Japan, and Japan having nothing besides defensive interests towards it, North Korea would perhaps be not bothered too much by Japan becoming a stronger regional power. A South Korea abandoned by the US, however, could be something where Pyongyang would possibly see certain opportunities. Of course, a full scale invasion, or an outright unification by the North are not realistic options, given the Southern population twice the size of that of the North, hostile, and greatly militarized. But using its nuclear might to blackmail an abandoned South Korea into cooperation or perhaps even into Finlandization is something where there are no major factors that would make it impossible for the North.

The only way an abandoned South Korea can defend itself from such blackmail is to decide to become a nuclear power as well. If South Korea opts to build nuclear weapons, North Korea could not do much. That however, with a nuclear-armed Japan and North Korea would make Northeast Asia the region with the highest concentration of nuclear powers in the world.

## WHEN NORTH KOREA'S NUCLEAR PROGRAM STARTS HURTING CHINA

In the short term, the US abandoning South Korea as a military ally, and South Korea stepping on the way of Finlandization in relation to the North could seem as a scenario in the best interest of China. In the longer term however, there are some possible long-term consequences of such a scenario. Such a future Northeast Asia, with nuclear-armed Japan and nuclear-armed South Korea facing nuclear-armed North Korea, and with Japan at the same time becoming a military power several times stronger than it is now, would be a nightmare for China.

A North Korea which does continue to pursue its nuclear program in the same assertive and provocative manner can, in the long run, hurt China's interests in several other ways as well.

Another issue is that South Korea is one of the most significant trade partners of China, and also the South Korean population has a considerably friendly attitude to China, and hostile attitude to China's key regional adversary, Japan.<sup>5</sup> This means that South Korea has several attributes that would make it a likely major regional ally of China in the future. The only factor preventing it from becoming one is its concerns with North Korea, and its military alliance with the US, something rather unpopular in the country, but justified by the

<sup>5</sup> "How Asians Rate China, India, Pakistan, Japan and the U.S.". Pew Research Center. 11 July 2014. <http://www.pewglobal.org/2014/07/14/global-opposition-to-u-s-surveillance-and-drones-but-limited-harm-to-americas-image/pg-2014-07-14-balance-of-power-4-01/>, Accessed on 28 September 2017.

Northern threat. Besides possibly becoming a nuclear power on its own, the further North Korea intensifies its assertiveness the more South Korea could be alienated from China.

Also, at one point, the assertiveness of a nuclear North Korea can increase to a level, where its policies become even reckless towards China. What if, in a case where its nuclear program became inconvenient for China as well, in exchange to limit its nuclear program North Korea attempts to bargain economic concessions, in a similar manner as it does from South Korea? But this time, from China. What if, in exchange, it tries to pressure China to loosen its ties with South Korea? What if, in case of any trouble in Sino-Russian relations, (something that is unlikely to happen right now, but cannot be excluded in the future) it decides to side with Russia against China, with all its nuclear arsenal?

## RISK OF A PEACE TREATY FOR NORTH KOREA

One more reason why we can be skeptical towards the present negotiations is that – as we discussed above – a peace treaty with an even restricted opening of inter-Korean border, and with even limited recognition of South Korea as a legitimate state, could push the mere legitimacy of the North Korean regime to a breaking point. As the North Korean discourse builds the legitimacy of the regime on the claim that South Korea is an impoverished puppet-state, and the North is the sole legitimate representative of the Korean nation and culture, the recognition – even an implicit one – of the fact that South Korea is a more populous, incomparably wealthier, and technologically incomparably more advanced, more democratic, independent, and legitimate nation-state of the Korean people, may undermine the very basis of this discourse. If this discourse collapsed, then even if the Kim-regime offered a broad range of deep reforms after such a peace agreement, even then it is highly doubtful whether it could offer a new discourse to give a proper reason why the North Korean population should continue to support its tyrannical and incompetent rule any longer. Thus while on behalf of the USA and South Korea, the factor that can result in the breakdown of negotiations is increasing frustration of granting more and more concessions to North Korea without receiving anything in exchange except for further advancement of North Korea's nuclear arsenal, in North Korea a factor for that can be the fear of its discourse being undermined if the peace process goes too far.

## IF NEGOTIATIONS FAIL – THE MILITARY OPTION

After discussing possible outcomes of the continuation of the present trend of negotiations, we also have to take into account the military option, the option that made South Korea and the USA weary enough to make these concessions to the North. If after a certain point, the US and South Korea stopped giving concessions to the North, or if the Northern regime destabilized, the military option could still once again be on the table. Before we turn our attention on the actual arsenal, first we have to take a look at the possible role the Sino-US great power rivalry can play in such a conflict. Regarding even the possibility of any kind of armed conflict between North Korea and the US and its allies, everything would depend on China. China does have a security agreement with North Korea, according to which it theoretically guarantees defending it in the case of an attack by the US. Although relations between China and North Korea were far from ideal throughout the last decades, recent statements from China do confirm that Beijing would nevertheless intervene in defense of North Korea, albeit only if the US and its allies attacked unprovoked. If North Korea attacked first, however, it would stay neutral.



## THE SIGNIFICANCE OF CHINA

A war aimed at a regime change in the classical manner, as often depicted in Western media, with the US and South Korea taking over the entire territory of North Korea and absorbing it into a South-led democratic, US-allied, unified Korea would only be possible, if China somehow oversaw this to happen without taking any action. This however, is extremely unlikely to happen, as North Korea serves as a buffer for China between itself and the US bases in South Korea.

Since the US obviously does not want a third world war, if China does not agree to stay neutral, then an overall US invasion can be excluded, but this does not mean that there are no options. In this case, the only possibility could be a kind of undeclared agreement between the US and China. Perhaps such an option could be a limited strike, where the US and South Korea declares a clear restraint in that no ground troops whatsoever cross the DMZ into North Korean territory, and also make clear that they do not raise any opposition to Chinese intervention into the internal affairs of North Korea. In such a case, it would be more convenient for China to stay neutral for several reasons. First, such an attack would not endanger the geopolitical role of North Korea as a buffer state, and even if internal unrest occurs in the country due to the casualties suffered from US and South Korean air and artillery attacks, with US and South Korean troops not crossing the DMZ, China would be free to move in with its own army and take control over North Korea. In such a case it would make not much sense to get engaged in a military conflict with the US. Also, with no US and South Korean ground troops entering North Korea, a Chinese intervention could practically mean nothing but a Sino-US air and naval confrontation in the skies over and waters around North Korea, engagements with navy and air forces, both in which the US has superiority, and also engagements in which China can gain little if none of the sides cross the DMZ. Also, such a limited US strike would probably end swiftly so by the time, after diplomatic protests and ultimatums, China reaches the time when it could actually intervene, the US operations would have already been finished, making a Chinese intervention meaningless.

So the US can likely to exclude Chinese intervention if it assures China that it

Will not cross the DMZ into North Korea with ground troops.

Will not intervene if China moves into North Korea, and will cease any military action against North Korea at the latest when China moved in.

## NORTH KOREA'S OUTDATED CONVENTIONAL ARSENAL

In any case, North Korea would be unlikely to have much chance in a conventional war. Although in terms of conventional arsenal, North Korea still had the upper hand during the Cold War the obsolescence of its weaponry had already become clear by the 1990s.<sup>6</sup> The conventional arsenal of North Korea, although impressive in absolute numbers, is critically outdated on the basis of technological standards. In the absolute number of jet fighter aircraft, North Korea seems to be pretty strongly equipped compared to its two regional key rivals, South Korea and Japan. As Japan in fact shows the most concerned attitude among North Korea's adversaries, it would be a mistake to exclude it from such calculations.<sup>7</sup> As of 2016,

<sup>6</sup> Cha and Kang. *Nuclear North Korea...* 46–54.

<sup>7</sup> Bae, J. H. and Kim, S. Ch. "Japan's North Korea Policy: The Dilemma of Coercion". In Kim, S. Ch. and Kang, D. C. (eds), *Engagement with North Korea: A viable alternative*. SUNY Press, 2010. 73–98.

North Korea had 572 pieces, while South Korea only 448, and Japan just 287. However out of North Korea's 572 jet fighter aircrafts, 301 represented second generation types with the technology of the 1950s, (no other countries on Earth use second generation jet fighters any longer) 202 third generation types with the technology of the 1960s, and only as few as 69 fourth generation aircraft of the kind. Out of South Korea's 448 pieces however, 219 represented fourth generation technology, 229 third generation, and no pieces of second generation were in service any longer. In case of Japan, out of its 287 pieces, 216 represented fourth generation, and only 71 third generation technology.<sup>8</sup>

The case is similar if we compare North Korea and South Korea in the number of main battle tanks. (Japan, as an island nation is physically safe from a war fought by ground troops on land with North Korea, so there is no reason to include it in this comparison.) In absolute numbers North Korea has 4,500 main battle tanks, while South Korea has only 2,300, the North outnumbering the South close to two to one. If we look at the technology, however, out of the 4,500 MBTs of the North, 2,500 represents first generation models, 1,800 second generation models, and only 200 third generation models. On the side of the South however, out of its 2,300 MBT-s, only 800 are first generation models, none are second generation, and 1,500 are of third generation.<sup>9</sup> If we look at the precedent of the Gulf War in 1991, it shows that it is not only in the case of aircraft, but also in the case of main battle tanks, that outdated models are no match to more advanced ones, with the MBT arsenal of the Iraqi army being even somewhat less outdated back in 1991, than that of North Korea is now.

In these numbers the US forces are not even included so a conventional war would likely to be similar to the Gulf War of 1991, with conventional offensive capabilities of the North swiftly annihilated by coalition aircraft, and by technologically superior Southern tanks along the DMZ.

## POSSIBLE ASYMMETRIC WARFARE BY THE NORTH

There are, however, three conventional ways, where North Korea could make a victory by the US and its allies extremely costly.

The first is an artillery attack on Seoul. Seoul, an agglomeration of more than 20 million people, is within the range of North Korea's artillery and in the media one could read sensational estimates about possible casualties, often talking about millions of victims. Reality would likely to be somewhat less apocalyptic but still grim. An analysis by Nautilus Institute concluded that the number of fatalities in case of an artillery attack on Seoul would most likely to be around 30 thousand, before coalition air force would annihilate the artillery positions that have Seoul within their range.<sup>10</sup> 30 thousand South Korean civilian casualties, although far from the "flattening of Seoul" that is often depicted in the media, still means extremely high casualties, something that for example US allies, such as Saudi Arabia and Israel during the Gulf War did not suffer, not even remotely to this extent, despite being hit by the Scud missiles of Saddam Hussein. This alone would make such a war much

<sup>8</sup> *World Air Forces 2016*. Zürich: Ruag AG, 2016.

<sup>9</sup> "North Korea Military Guide". Global Security. <https://www.globalsecurity.org/military/world/dprk/>, Accessed on 28 September 2017.

<sup>10</sup> Cavazos, R. "Mind the Gap Between Rhetoric and Reality". Nautilus Institute. 26 June 2012. <https://nautilus.org/napsnet/napsnet-special-reports/mind-the-gap-between-rhetoric-and-reality/>, Accessed on 28 September 2017.

more painful, and a whole different category for the US than its previous campaigns were in Afghanistan, Iraq, or Serbia.

The second is sabotage by Special Forces of the North in the South. North Korea has Special Forces with the strength of 200,000 soldiers. These Special Forces are notorious of covert operations in the south. On one occasion, a North Korean special unit was caught only 100 meters from the Blue House, the South Korean presidential palace.<sup>11</sup> The South Korean authorities so far detected and neutralized four tunnels running beneath the DMZ from the North to the South, to provide passage for Special Forces of the North. Nobody knows, how many tunnels lie in the deep still undetected.<sup>12</sup> In case of a conventional war, despite the overall superiority of US and Southern forces, North Korean Special Forces, dressed in Southern uniforms, appearing behind Southern lines through tunnels or by other covert means can cause a lot of damage before being detected and annihilated.

The third option is a defensive war that Northern armed forces can wage on North Korean soil in the rather unlikely case if China would somehow stay neutral and allow coalition troops to wage a full scale invasion of the North, and complete a regime change there. Although such passivity on behalf of China is extremely unlikely, we still have to discuss this option as well in order to take all possible options into consideration. It has also been argued, that there can be hope for the Northern population to welcome such a regime change only if the occupying force looks nothing but Korean, thus not hurting Korean patriotic sentiments of the Northern population, and convincing it that what is going on is not a foreign occupation but a Korean unification. Thus the occupying force has to be almost entirely South Korean, with the US and its other allies playing only supporting roles, as invisible as possible.<sup>13</sup> This would put a great burden on South Korea, since it would have to solely provide all the ground troops for an occupation. Even if all these conditions are met and the coalition wins the war, China somehow stays neutral, and the occupying ground troops are composed entirely of South Koreans, the occupation can be an extremely difficult task. The terrain of North Korea is rugged and mountainous, covered with temperate and subarctic woodlands, thus providing an ideal background for guerilla warfare. Since up to 40% of North Korea's population is involved in reserve service of one or another armed force of the country, even in the rather uncertain case if a majority of the population is convinced of the benevolence of the Southern occupying forces, even if only a fraction of these reservists decides to go on a guerilla war, that can still possibly mean hundreds of thousands of armed guerillas. If we take the number of North Korea's Special Forces as a reference, that are the best trained, and probably the most indoctrinated part of the North's forces, that number alone makes up 200,000 individuals.<sup>14</sup> To make things worse, hidden bunkers and arms depots are believed

<sup>11</sup> "The Blue House Raid – North Korea's Failed Commando Assault on Seoul". *Military History Now*, 3 December 2014. <http://militaryhistorynow.com/2014/12/03/the-blue-house-raid-north-koreas-failed-commando-assault-on-seoul/>, Accessed on 28 September 2017.

<sup>12</sup> Szoldra P. "South Korean 'Tunnel Hunters' Fear Surprise Attack By North Korea". *Business Insider*, 11 March 2013. <http://www.businessinsider.com/war-north-and-south-korea-underground-2013-3>, Accessed on 28 September 2017.

<sup>13</sup> Reid, J. "The Day After the Second Korean War". *The Diplomat*, 17 May 2017. <http://thediplomat.com/2017/05/the-day-after-the-second-korean-war/>, Accessed on 28 September 2017.

<sup>14</sup> "N. Korea Boosts Special Forces, Conventional Arms". *The Chosun Ilbo*, 31 December 2010. [http://english.chosun.com/site/data/html\\_dir/2010/12/31/2010123100850.html](http://english.chosun.com/site/data/html_dir/2010/12/31/2010123100850.html), Accessed on 28 September 2017.

to be scattered in the mountains and woodlands of North Korea.<sup>15</sup> A guerilla force of 200,000 people, waging guerilla war on a mountainous, wooded terrain, using a network of prebuilt covert bunkers and arms depots scattered there, would be a guerilla war of unprecedented efficiency. Especially that even if China somehow stays neutral, it can still provide supplies and shelter for the North Korean guerillas across the long and porous border between the two countries, thus expanding the war to an unpredictable duration. This could make the occupation of North Korea for the South Korean forces something like Vietnam was for the US, or Afghanistan was for the Soviet Union, unless they manage to convince a vast majority of the Northern population that a Southern-led unification is in their best interest, and socially isolate supporters of the guerilla war. A task they would be highly uncertain to achieve.

We can conclude that a war, even if North Korea does not use its nuclear weapons, would be extremely painful for the US and South Korea, and offer relatively little to gain. South Korea would almost for sure suffer tens of thousands of civilian casualties. At the same time, such an attack could not happen without some kind of agreement with China, and even if such agreement is somehow reached, the price that China would ask for, would almost certainly be the control over the future of North Korea. As we will discuss later, this could result in a situation that could be favorable for South Korea in the long run, but still in the short term, this would mean that the South had to suffer such tremendous casualties, but despite winning a war over the North, it would still not be allowed to unite the country on its own terms. The situation becomes even grimmer, if we take into consideration the use of nuclear weapons by the North. A nuclear attack on South Korea, Japan or the US would be so devastating, that it would make the costs of such a war unacceptable for the US and its allies.

## NORTH KOREA'S DILEMMA ON RETALIATION

What makes the situation peculiar, however, is that it is not only the US and its allies that could face unforeseeable risk. In fact, for North Korea the question of retaliation bears a major risk. The basic problem for North Korea is that if it opts for significant retaliation, nuclear or conventional, the retaliation-for-retaliation by the US and South Korea will likely be fatal for the regime. There are options, where a US attack alone may not be fatal for the regime, if North Korea does not retaliate. For example, in case of a surgical strike, albeit weakened, the regime could theoretically survive – for the time being at least. So in case of a surgical strike, a nuclear retaliation by North Korea would be suicidal, as it would bring annihilation on the regime by the US, while it could otherwise continue its existence. But there is a trap: no retaliation would be a viable option either since it would give a green light for the US and its allies to deliver limited strikes on North Korea in the future, sooner or later weakening Pyongyang's capabilities to a point where it loses its capability of nuclear retaliation, and then, its whole nuclear program was in vain.

Conventional retaliation may look more easily calculable but in reality it is not likely to. North Korea can obviously play its trump card of an artillery attack on Seoul in case of an all-out attack by the USA and South Korea. But what would it do in case of a limited strike against its nuclear facilities? If it does start a full-scale artillery bombardment of Seoul, South Korea and the US will obviously strike back in a manner that exceeds the scales of

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<sup>15</sup> Mizokami, K. "North Korea's Secret Strategy in a War with America: Go Underground". *The National Interest*, 6 May 2017. <http://nationalinterest.org/blog/the-buzz/north-koreas-secret-strategy-war-america-go-underground-20525>, Accessed on 28 September 2017.

the original surgical operation. A massive artillery attack on Seoul can only be responded to by an air campaign destroying those North Korean artillery positions that have Seoul within their range and this would also bring the necessity of destroying North Korean air defense positions covering these artillery positions. Since much of North Korea's conventional arsenal is concentrated in these areas along the DMZ, this would mean a great proportion of its entire arsenal. Also, to make sure that North Korea's air force will not challenge them during such an extensive bombing campaign, the coalition forces would also likely to target the most significant air bases all over the country.

For North Korea the problem with this option is that if we summarize it, the result that we can see is that a US and South Korean retaliation would annihilate the Northern forces stationed along the DMZ as well as the entire air force of the country, virtually leaving it defenseless, and the road to Pyongyang open for South Korean troops. Will South Korea and the US show such restraint in that case that despite North Korea being virtually disarmed, and the road to its capital open, they do not attempt a march on Pyongyang and a unification of Korea? If China steps in and threatens with intervention in case Southern and US ground troops cross the DMZ, that would likely to deter them from doing so. But even in that case, North Korea disarmed to that degree, would leave it to the mercy of China to defend it from the South and the US in the future. In such a case, after such losses, could the Northern regime exclude the possibility of internal unrest, or a Chinese takeover? Or even both of them happening simultaneously? These would be possible fatal consequences for the regime, which could otherwise be avoided simply by not displaying any significant military reaction to a limited or surgical US strike.

If Pyongyang does not respond, however, then this again would send the message to the US and South Korea that they are free to deliver limited strikes on the North without having to fear retaliation. Quite a trap.

Basically, in both cases, the main dilemma for North Korea is that although, in the case of any other attack against its soil, it is capable of retaliation causing massive casualties in the South, and possibly in Japan and the US as well, any significant retaliation by the North would most likely result in its annihilation as a counter-reaction. So while we usually talk about what retaliation the US and South Korea would risk with a surgical strike against North Korea, the dilemma of North Korea is no lesser, regarding how to, or how not to respond, if such an attack does occur.

We can still speculate, whether there is any option for North Korea, to somehow trick the United States in a way that could enable it to use its nuclear weapons without being annihilated. North Korea could, theoretically follow a logic, that it delivers a nuclear strike on Guam, or US bases in Japan, in the hope that the US would not dare to use nuclear weapons to retaliate, in fear of a North Korean nuclear attack on the US mainland. This however, may still trigger a conventional US retaliation of annihilating scale, and would make it politically impossible for China to protest against a full scale US invasion of the North, possibly resulting in the otherwise unlikely case of a US invasion without China openly stepping in. So to decide about nuclear retaliation would be impossible for the Kim regime, but at the same time, the US cannot rule out the option of it being done. The main problem with any kind of military option is that we already reached a stage where a North Korean nuclear strike cannot be ruled out as a form of retaliation.

## REGIME COLLAPSE AS AN INTEREST OF CHINA?

Discussing these matters we reach our next question: Is preserving the present regime in North Korea really the lesser evil for China compared to what a regime collapse could bring along?

North Korea has been seen by many as an annoyance in China for almost two decades now.<sup>16</sup> The Chinese analyst community has long been divided on the issue of North Korea into two main groups, the “Strategists” being of the opinion of a tougher policy on North Korea, increasingly viewing it as a threat on China’s national interests; and the “Traditionalists” continuing to view Pyongyang as an ally. On the one hand, in this debate the “Traditionalists” still seem to have the upper hand. On the other hand, it is apparent that North Korea fits less and less into the picture of a peaceful and prosperous Asia, which China envisions in its OBOR initiative.<sup>17</sup> With its economy closed, its policies being hostile to international transit routes running through the country, its increasing trend of repeatedly and recklessly damaging China’s otherwise growing influence in, and flourishing relations with South Korea, and the risk of igniting a war with the US right at the doorstep of China.

China already has plans to occupy North Korea, should things run out of control.<sup>18</sup> If we think further a regime collapse could offer opportunities for China, which it could in fact use to reshape the regional power balance for its own benefit. First of all, in case of a regime-collapse it would most likely be the Chinese Peoples’ Liberation Army that would be able to move in, and take control of the situation. The US has only 30 thousand troops in South Korea, and has no major ground forces in the region. To build up a ground force of several hundred thousand strong it would need such a long time frame that by then Chinese troops could already be able to move in and take control.

## A CHINESE-CONTROLLED NORTH KOREA AS BEIJING’S BARGAIN CHIP FOR A FAVORABLE REUNIFICATION – THE AUSTRIAN STATE TREATY AS AN EXAMPLE

By taking control China could turn North Korea, a reckless nuclear power, into a controllable satellite state. This would also provide China the opportunity to achieve a favorable unification of Korea by using its control over the North as a bargain chip. This would enable China to achieve a Korean unification that would follow the example of the Austrian State Treaty of 1955. From the end of the Second World War in 1945, Austria was under Allied occupation of the USA, the USSR, the UK and France. By 1955, the Allies had reached an agreement in accordance with which the three Western powers as well as the Soviet Union would pull out their troops, and the Soviet Union would agree for Austria becoming a Western style market economy and multiparty democracy, in exchange for the guarantee, that it will remain a neutral county, and will not join NATO. The Treaty successfully founded Austria’s international role as a neutral state for the next three decades throughout the Cold War.

Regarding Korea, if China took control over North Korea, this pattern could be followed. China would pull out its troops and accept unification under Southern domination only if in

<sup>16</sup> Pritchard. *Failed diplomacy...* 89–93.

<sup>17</sup> “Shades of Red: China’s Debate over North Korea”. International Crisis Group. 2. November 2009. <https://d2071andvip0wj.cloudfront.net/179-shades-of-red-china-s-debate-over-north-korea.pdf>, Accessed on 28 September 2017.

<sup>18</sup> Csoma, M. “Észak-Korea a kínai szatellitállammá válás útján”. *Külügyi Szemle* 7/1. 2008. 73–83.



exchange, the US also pulled out its forces from South Korea, and the unified Korea became a neutral country through annulling the US-South Korea security treaty. Such an arrangement would be extremely beneficial for China for several reasons. First of all, even if such unification would pose a great burden for Seoul due to the enormous social and economic differences between the North and the South, the Southern public opinion would hardly allow the Southern leadership to do anything but accept such an offer from China. Opinion polls show that foreign policy attitudes of the South Korean population are slightly more pro-China than pro-US, and are considerably anti-Japanese. This, combined with the fact that the Northern population is staunchly anti-Japanese and anti-US, means that in such a hypothetical situation a unified, neutral Korea, even if its constitutional system follows the traditions of South Korea, would most likely to be rather pro-Chinese, anti-Japanese, and keeping a certain distance from the US. This China-leaning trend of a unified neutral Korea would be further enhanced by the fact that China would be its greatest trading partner as it is already the greatest trading partner of not only North Korea, but South Korea as well.<sup>19</sup>

Such a unified Korea, albeit formally neutral, would be a China-leaning state. In East Asia after China and Japan it would possess the third largest economy and also a significant military force. With such a country on its side, the regional influence of China would expand considerably. US influence would retreat to Japan, and Japan would have to face China and the China-leaning unified Korea without any pro-US buffer state between itself and them.

If China wanted, it seemingly would have the capability to initiate such a scenario. It could cut supplies on its border with North Korea, then (as 90% of North Korea's foreign trade is with China<sup>20</sup>) wait for the collapse of the Kim regime and as soon as the collapse started move in with its army, take control of North Korea, set up a puppet-government there, and then make the "Austrian State Treaty-offer" to South Korea. If South Korea accepts the offer, China will get a friendly, neutral, unified Korea, and US troops out of the Korean peninsula. If South Korea rejects it, China can still maintain a reformed North Korea as its vassal, with strategic advantages such as access to the Sea of Japan for its navy. If China decides to follow such a scenario, there will not be much that North Korea could do. If things go wrong, it can turn out that the North Korean regime is more resilient than anyone would think, and it can turn out, that it can even survive such a total economic embargo. But as China would not act with its military before the regime collapses, it would not need to fear a North Korean nuclear response, as so far North Korea seems to keep its nuclear weapons as a deterrent against possible military attack but not as a tool of retaliation against any kind of economic embargo. The risk of this scenario is, instead of one of a military nature, in the internal politics of China. If China implements a total embargo against North Korea with the hope that the regime will collapse but then the regime somehow still manages to stay in power, then such a failure, alienating North Korea but failing to take over it as a satellite state, would be a major embarrassment for the Chinese leadership that actually took this step.

China could also use a US attack on North Korea as the opportunity to take over the county, and play out such a scenario: it can make clear to the US, that it approves an attack on the North without intervening, only if the US and South Korea do not move ground troops across the DMZ into the country. By doing so, China would also gain much easier access to

<sup>19</sup> "South Korea". The Observatory of Economic Complexity. <http://atlas.media.mit.edu/en/profile/country/kor/> Accessed on 28 September 2017.

<sup>20</sup> "North Korea". The Observatory of Economic Complexity. <http://atlas.media.mit.edu/en/profile/country/prk/> Accessed on 28 September 2017.



taking control over North Korea. As we could see, the air campaign by the US and its allies would likely to eliminate virtually all nuclear facilities, the entire air force, air defense system, and command and control system of the North Korean military, as well as much if not most of its artillery. That would greatly reduce the capability of the North Korean military to resist a Chinese invasion. Besides that, China could even use a pretext to move in, stating that it is only doing so as a pre-emptive measure to prevent an American-South-Korean invasion, possibly even gaining support from some of the Northern elite, who could possibly see the involvement in a China-controlled, reformist puppet government a lesser evil compared to the uncertainty of continuing under the Kim regime with North Korea being deprived from most of its military capabilities under the looming threat of a future full scale invasion by South Korea and the US (a situation that would be similar to that of Iraq between 1991 and 2003). This, however, would be a much riskier version since, as in all other scenarios for a direct military option, North Korea could still deliver a nuclear strike at the US and its allies before the air campaign knocks out its nuclear facilities (a North Korean nuclear attack on China would be less likely even in the case of this scenario, as China would only act after the US and its allies have already completed their air campaign disabling North Korea's nuclear capabilities.) In such a scenario China can try to pressure the North Korean elite not to use nuclear weapons in exchange of granting asylum for them, but the success of such persuasion is highly uncertain. Also, since in such a scenario the US, South Korea, and their allies would have to face the entire risk of North Korean retaliation with Pyongyang still having the full capacity of its arsenal, while China would get most of the gains by taking North Korea as a satellite, we can highly doubt, whether they would be willing to launch an air campaign along such an agreement, merely to get rid of the North Korean nuclear threat. Thus the other option for a Chinese takeover, trying to trigger a North Korean regime collapse by an economic embargo and taking military steps only after the regime has already collapsed, without involving the US, seems to be a much less risky, thus much more realistic scenario.

## CONCLUSION

As we can see, the situation is so complicated that the interests of the US, China, Japan and the two Koreas, regarding which option would be the best for them, are far from clear. So far China has granted its support to North Korea in order to maintain it as a buffer state between itself and the US troops based in South Korea. A peace process, where North Korea denuclearizes and US troops leave South Korea would be a dream scenario for China. With a peace process gone wrong, however, where North Korea refuses to denuclearize at the end and in response South Korea and Japan, feeling abandoned by the US, establish their own nuclear arsenals, this dream could turn into a nightmare. On the other hand however, given how the South Korean population views China, Japan, and the US, China would be the main beneficiary of a South-dominated but neutral and unified Korea, pushing back the US influence in the region to the border of Japan, and gaining a strong, wealthy, and China-leaning neighbor at the same time. So, if the peace process fails, a regime change in North Korea can surprisingly be in the interest even of China. On the other hand, it also raises the issue of interests of the US and Japan. While being the main adversaries of North Korea, the existence of the regime so far was in a way helpful for them, by keeping South Korea as a US ally and preventing it from drifting towards China, their main strategic rival in the region. North Korea's nuclear arsenal is, however, reaching a level where it is increasingly becoming such a threat for the US and Japan that removing that threat is likely to overrule

such considerations. For South Korea unification only seems to be a viable scenario under an agreement with China, which would likely mean neutrality for the unified Korea, and an end of its security agreement with the US. As we discussed, even in the unlikely case of a US-allied Seoul-lead unified Korea, formed without China taking direct action, with the Northern regime having amassed vast resources suitable for a guerilla war, and with a hostile China in the neighborhood, willing to indefinitely supply Northern guerillas, could for the South turn the absorption of the North into something like Vietnam was for the US or Afghanistan was for a USSR. In the case of unification South Korea can only be sure about cooperative behavior by Chinese authorities along the long and porous Sino-Korean border if that unification takes place with the approval of China, the price of which would most likely be neutrality. We also reached a conclusion, that if the US wants to avoid a war with China, a military move against North Korea can be an air campaign at most as any move that would suggest the US taking control over the northern half of the Korean peninsula, such as US and South Korean ground troops crossing into Northern territory across the DMZ, would hurt the vital interest of China in keeping the northern half of the peninsula as a buffer between itself and US troops. Last but not least, while for North Korea, blackmailing the US into abandoning South Korea and blackmailing South Korea into finlandization would be a dream scenario at first sight, even limited opening of the borders and recognition of South Korea as a peaceful neighbor and legitimate Korean nation state would bear the risk of fatally undermining the legitimacy of the North Korean regime.

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Lt. Col. Karim Boudadi:

## SECURITY COOPERATION IN THE AFRICAN SAHEL REGION

*ABSTRACT: The Sahara Coast region is one of the geo-strategic areas that have jumped to the forefront of global security concerns in recent times due to the region's ongoing crises and security disturbances. It has become the focus of regional and international concerns because of public and hidden dimensions. This focused attention to the region requires analysis of the backgrounds and dimensions to be aware of what is the reality, to adopt appropriate strategies and alternatives to contain the fuse of the growing crisis within this region.*

*To dismantle the ongoing security disturbances in the region, the following questions must be answered: What is the geo-strategic importance of the Sahel? What is the conflict in the region? What are the dimensions of this conflict and its background? Who benefits from the geopolitical crisis of the region? Is there any serious international cooperation to contain the security threats and what lies in the field?*

*KEYWORDS: Africa, Sahel region, security*

### I. GEOSTRATEGIC IMPORTANCE OF THE SAHEL REGION

For the United States<sup>1</sup> and other international powers the African Sahel has recently become a source of interest, having long been a marginalized region at all levels, strategic, economic and political. The justification of this concern, however, is that the United States is interested in the security situation in the African Sahel and the threat it poses to international security as a whole, but a very important question must be asked: Has the security situation on the African coast actually reached a crisis stage that could expand outside the region and harm the interests and national security of the United States in particular and international security in general? Or is this American-French interest in the region not only due to the security dimensions, but also to other dimensions?<sup>2</sup>

<sup>1</sup> Boumediene, A. "African coast within the American security architecture". *Journal of African Readings*, January 2014. 26.

<sup>2</sup> Zarif, S. "The Crisis of the State in the African Sahel and the Sahara, A Study of Causes and Implications". *Arab Journal of Political Science* 11/41-42. 2014. 93-94.

## 1.1. The geopolitical approach to the Sahel region

### 1.1.1. The geographical area of the African coast:

The African Sahel region<sup>3</sup> is the geographical area between North Africa and sub-Saharan Africa, the world's largest deserts, with several names such as the Coastal Seaboard, the African Coast, and the Shore. Regardless of the differences in these labels, this geographical area, including the sub-arid subtropical region of the African continent, the problem is the transitional phase between the Sahara Desert to the north and the most fertile region to the south. This is a buffer zone between two regions, North Africa on the Mediterranean, the southern wing of European security, and black Africa.

The coastline of the Sahara coast, as shown on the geopolitical map below, an area of 2,400 miles in length from the Atlantic Ocean in the west to the Red Sea in the east, lies in a political belt of several hundred to 1,000 kilometers in width. Geographically the Sahel region extends horizontally 4,830 km from the Atlantic Ocean in the west to the Red Sea, along the Sahara and perpendicular to the south at a depth of 1,930 km including the following countries: from Senegal through Mauritania, Mali, Burkina Faso, Niger, North Nigeria, Chad Ethiopia and there are those who enter as far as Cape Verde, 500 kilometers west of the Senegalese coast of the Atlantic Ocean.



Figure 1. *The Arab World*. Source: <http://atlantislc.com/maps-arabic/maps-arabic-download-map-the-world-in-arabic/>, Accessed on 04 April 2018.

<sup>3</sup> The African coast is a term of Arab origin, referring to the shore and the southern edge of the desert. Also, the first sign of this concept was the desert strip separating southern Africa from the North Africa. The concept then evolved until it became reflected by the arc or crescent that begins from the Atlantic Ocean in the west and the Sahara is often seen as a buffer zone between two fields of black Africa. In the Arabic texts in the «white» geopolitics are different, North Africa or Africa. Thus, the «Sahel» Medieval, the coast was intended for the space between the Maghreb and the coastline, is an area extending from the Red Sea east to the Atlantic Ocean to the west, and includes the following countries: Sudan, Chad, Niger, Mali, Mauritania and Senegal. This region is often expanding according to geo-economic calculations to include Burkina Faso from the “arc of crises” and Nigeria, and even the Cape Verde Islands. See: Taje, M. “Sécurité et stabilité dans le Sahel africain”. NATO Defence College, Academic Research Branch, Rome. December 2006. 6. <http://www.ndc.nato.int/download/downloads.php?icode=127>, and Taje, M. “West African Challenges: Vulnerabilities and Insecurity in the Sahel”. OECD, SWAC. August 2010. 02. <https://www.oecd.org/swac/publications/45830109.pdf>, Accessed on 04 April 2018.

The African coast is also known for its ethnic problems and crises. It includes Sudan, Mali, Niger, Chad and Mauritania. In reference to the total number of states included by the Inter-State Committee to Combat Drought, which was established in 1971, the Sahel states are Senegal, Gambia, Mauritania, Mali, Niger, Chad and Burkina Faso, Guinea-Bissau and Cape Verde, Saharan Sudan, Ethiopia, Somalia and Kenya.

### 1.1.2. *The nature of society on the African coast:*

What distinguishes the society in the African Sahel is the multiplicity of ethnicities, which weakens social cohesion and creates problems within one state and among the countries of the region, which contributed greatly to the colonial division.<sup>4</sup>

### 1.1.3. *The nature of the state on the African coast:*

Politically, the new countries that inherited their borders after the colonial division, which did not respect their borders, failed to realize their authority on their territory and to create a modern combination of states based on equal rights and duties and guarantees of equality for all. The forced separation and disintegration of ethnic groups led to permanent tensions in the region and the weakening of the sovereignty of states in the Sahel.<sup>5</sup>

Economically, the failure of the Sahel states shows that the economies of these countries are deteriorating, and increasing poverty and unemployment are sources of hopelessness, creating fertile ground for insurgency and extremism and militarization, which is an unfavorable environment for foreign direct investment.<sup>6</sup> However, as indicators of oil explorations and energy sources have begun to emerge, international attention to the region is beginning to show signs.

## 1.2. GEO-SECURITY APPROACH:

Many factors have been highlighted, including the nature of the climate in the Sahel and the resulting recurrent droughts that have led to severe famine that has caused more than 2 million deaths in the past 30 years. Moreover, the governments' failure to create a system that guarantees equality for all, especially in the light of the multiple traditions in the Sahel countries, these factors and others resulted in poverty and the spread of epidemics.

The humanitarian disasters stemming from internal wars have made the security situation in the African Sahel unstable and in constant tension. These factors have created a set of basic security dilemmas that will be exacerbated in the coming years by the persistence of these causal movements. These dilemmas are mainly about terrorism, organized crime and internal crises.

<sup>4</sup> Al-Nuwaini, H. "The Post-Colonial State Crisis in Africa: The State of the Failed State". Center for Arab Unity Studies. 65–67.

<sup>5</sup> Abu Farha, A. "The distortions of the African reality ... Implications of the importation of the state and the continuation of the tribe". *Journal of African Readings*, April 2014. 25.

<sup>6</sup> Abu Farha, A. "The Future of the African State between the Military Stability and the Viability of Democracy". *Journal of African Readings*, 13 September 2012. 51.

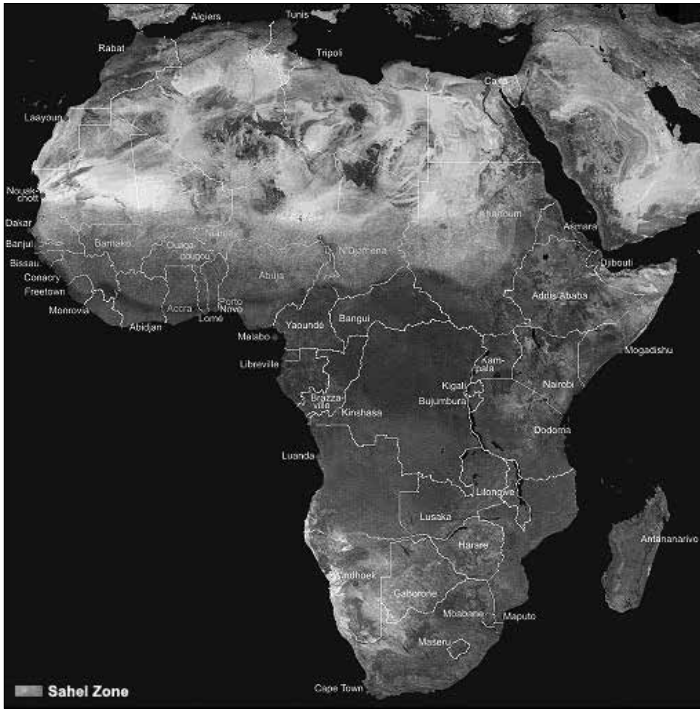


Figure 2. *The Sahel Zone.*  
 Source: <http://ddc.arte.tv/karten/74>, Accessed on 04 April 2018.

### 1.2.1. Terrorism:

The influence of religious extremists such as the Salafist Group for Preaching and Combat (GSPC)<sup>7</sup>, which has become known as AQIM, has also emerged in the Sahel. These networks and terrorist organizations have been able to benefit from the insecurity in the Sahel region and the failure of states to provide safe haven. Their cooperation with Touareg<sup>8</sup> and other tribes helped them to work in the region, especially because their interest in the lack of interference of the state security services, as well as the expansion of the coast of Africa and the fragility of its borders and the inability of States to monitor contributed greatly to the presence of terrorists in the region and eased their movement across the coastal desert region.<sup>9</sup>

Although security instability in the Sahel is not new and terrorism is not the first problem in the region which suffers from corruption, civil strife, smuggling, drug and arms trafficking. Recent terrorist incidents, however, have drawn more attention to this region. The coast

<sup>7</sup> The Salafist Group for Preaching and Combat, or GSPC, is a Salafist jihadist organization in Algeria. The organization is on the official list of terrorist organizations in Canada, the United Kingdom and the United States. Leaders: Hassan Hattab (1998-2003), Nabil Sahraoui (2003-2004), Abdelmalek Droukdel (2004). Salafist Group for Preaching and Combat. Wikipedia. [https://en.wikipedia.org/wiki/Salafist\\_Group\\_for\\_Preaching\\_and\\_Combat](https://en.wikipedia.org/wiki/Salafist_Group_for_Preaching_and_Combat), Accessed on 04 April 2018.

<sup>8</sup> The Tuaregs, who call themselves the Kel Tamasheq, (in Berber: Kel Tamaceq) are inhabitants of the central Sahara and its borders (Algeria, Libya, Niger, Mali, Mauritania and Burkina Faso). They speak a Berber language, Tamasheq, and use an alphabet called Tifinagh. Regions of origin: Sahara Languages: Tuareg (Tamasheq, Tamajeq, Tamarezit) related Ethnic Groups: Berbers. Religions: Islam.

<sup>9</sup> Boumediene, A. "The reality of human security in the African coast and its impact on national security". University of Oran, Faculty of Law and Political Science. 2014. 98.



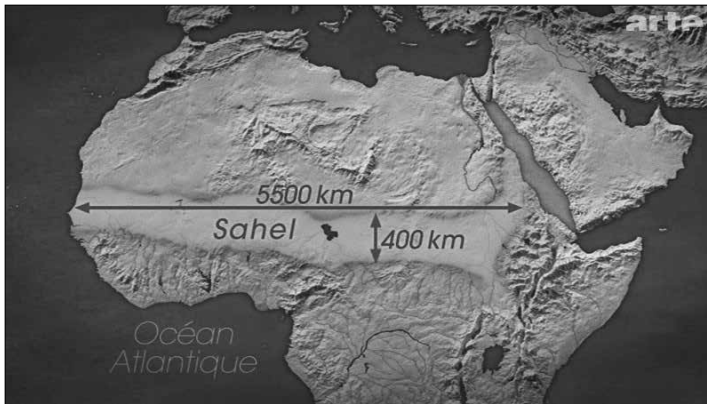


Figure 3. *The Sahel Zone*. Source: <http://studylibfr.com/doc/4283438/jgst.-8-le-sahel--zone-%C3%A9cologique-fragile>, Accessed on 04 April 2018.

has become popular among the terrorist groups because it is an extended area that can provide asylum for terrorists fleeing Afghanistan and Iraq.<sup>10</sup>

#### 1.2.2. *Organized crime:*

Organized crime is one of the most serious security threats in the African Sahel.<sup>11</sup> In recent years, this phenomenon has become a major problem, threatening not only Sahel countries, but even neighboring countries such as Algeria and Tunisia, or even Europe. The risk of drug trafficking is not only a form of organized crime that threatens state security and social security in particular, but also the risk that it has become a major financier of terrorist groups in the African Sahel region; in fact, the Sahel region is almost devoid of most organized crime including drug trafficking, turning the coast into a transit point for hard drugs such as “heroin, cocaine and crack” from Latin America to Europe through West Africa, the African coast and across the Maghreb.

#### 1.2.3. *Internal crises:*

As a result of ethnic diversity in the African Sahel region, the region is known for many tensions and unrests, as well as interference of external parties in internal crises, making the situation more difficult. A clear example is Darfur, which has received focused media coverage without denying its humanitarian dimension. It is located on one of the major oil lakes in the coast, with fierce Chinese-Western competition. Chad, and the Touareg crisis are also the most important internal crises in the Sahel.

#### 1.2.4. *External ambitions:*

The external interest in the region has increased as a result of the abundant resources of some of them, including the presence of uranium (Niger in particular), oil and gas discoveries,

<sup>10</sup> “Algeria in front of major military and security challenges and threats”. Algerian Army Magazine. June 2015. [http://www.mdn.dz/site\\_principal/sommaire/revue/images/EldjeichJuin2015Ar.pdf](http://www.mdn.dz/site_principal/sommaire/revue/images/EldjeichJuin2015Ar.pdf), Accessed on 04 April 2018.

<sup>11</sup> Lacher, W. “Organized Crime and Conflict in the Sahel and Sahara Region”. Carnegie Endowment for International Peace. 13 September 2012. 21. [https://carnegieendowment.org/files/sahel\\_sahara.pdf](https://carnegieendowment.org/files/sahel_sahara.pdf), Accessed on 04 April 2018.

which is the fundamental objective of these forces in their struggle for the region. Especially, as reports indicate that the sub-continent of Africa sleeps on 80 billion cubic meters of light crude oil of high quality.

Such ambitions are the explanation for the exploitation by France, the former colonizer of the region with the security problems of the Sahel region, which occupies a very important position in the geopolitical concerns of the French security strategy for the struggle over the spheres of influence. In fact, the essence of French security policy in the region is governed by the question of protecting its colonial areas rich in resources and markets in order to give France additional strength in the context of the fierce economic competition among the major Powers.

As for the United States of America, its economic ambitions in the Sahel desert region fall within the framework of geo-strategic directions towards the African continent as a whole, within the policy of “continental regimes” of all continents, within the logic of gaining new areas of influence in the war for resources and markets existing among the major international powers.

### 1.3. Geo-economic approach:

The geo-economic approach to the Sahel gives us a number of problems which we summarize as follows:

1. The Problem of the Moderation of Economic Security and the Adoption of the Economies of the States of the Region on the One-Hand Product (Agriculture, Mining).
2. The problem of widespread poverty.
3. The problematic distribution of distributive justice in some countries of the region that generated the dynamics of rebellion, violence and crime.
4. The problem of the economic deficit of the States of the region, given the humanitarian consequences of the transnational movement of refugees.
5. The problem of the geopolitical conflict between the major Powers and the treasures of the region.

What distinguishes the economic reality in the Sahel is the fragility and deterioration of its economies so that most of the Sahel countries are classified as the least developed countries, in addition to the large external debt they suffer from. However, with the discovery of significant oil wealth indicators in the Sahel, and possible good governance by the governments of the region, may allow the improvement of the living conditions of the population in the African Sahel. In addition to oil there are other substances richly available in the Sahel countries.

Figure 4. *Number of people in risk of food insecurity in Sahel.* Source: [https://www.wmaker.net/saharifr/Mauritanie-Plus-de-635-000-personnes-sont-en-situation-d-insecurite-alimentaire\\_a4225.html](https://www.wmaker.net/saharifr/Mauritanie-Plus-de-635-000-personnes-sont-en-situation-d-insecurite-alimentaire_a4225.html), Accessed on 04 April 2018.

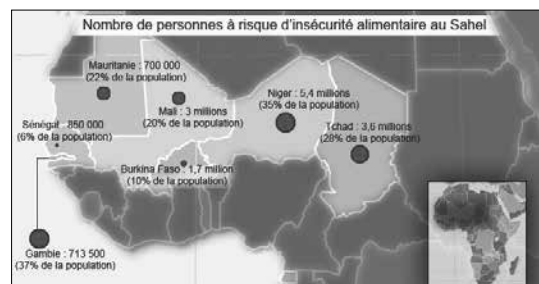




Figure 5. *Activity of Al-Qaida in Sahel.*  
 Source: [https://www.lexpress.fr/actualite/monde/un-raid-mauritanien-contre-aqmi-au-mali-fait-17-morts\\_1006530.html](https://www.lexpress.fr/actualite/monde/un-raid-mauritanien-contre-aqmi-au-mali-fait-17-morts_1006530.html),  
 Accessed on 04 April 2018.

Niger ranks first in Africa in the production of uranium (3,434 tons in 2011), an increase of 11% over the previous year and ranked fourth in the world after Canada, Australia and Kazakhstan. The presence of uranium was also discovered in the Nuba Mountains and the copper hole in Sudan.

These energy resources, which are available to the Sahel countries, are important for the implementation of development programs in these countries. However, the political and economic failures and administrative corruption that dominate the state organs in the African Sahel prevent this. These energy materials become more important for the major countries, especially China, France and the United States of America. These countries have been racing for the African Sahel region's unexploited raw materials to take the largest share of them and to secure their future participation.

## II. ALGERIAN INVOLVEMENT IN THE AFRICAN COAST

The Algerian role in the Sahel is linked mainly to the nature of the security threats in the latter and their impact on the southern borders of Algeria.<sup>12</sup> Algerian efforts to combat the existing threats in the region together with other countries of the area challenge the American goals from the following two main points.<sup>13</sup>

- Because Algerian and regional efforts to reduce American influence and to combat the security threats in the Sahel, if successful in eliminating or merely reducing the severity and spread of these threats, will create a kind of security and stability in the region, thus the United States will lose its justification to achieve its strategic objectives in the African Sahel.
- Because if the African Sahel countries, in cooperation with Algeria, bring positive results and improve the security situation in their countries and achieve stability, they will not need to cooperate with the United States of America. These countries are concerned about the increasing American influence in their region.

<sup>12</sup> Bouhaniyeh, K. "Algeria's strategy towards the security developments in the African Coast". Aljazeera Centre for Studies. <http://studies.aljazeera.net/ar/reports/2012/06/20126310429208904.html>, Accessed on 04 April 2018.

<sup>13</sup> Bourib, K. "Algerian Security Diplomacy in the African Sahel, Reality and Bets". *Arab Journal of Political Science* 11/41-42. 2014. 26.

The military intervention as happened in Afghanistan has increased these concerns in particular after the establishment of AFRICOM, a military headquarters for Africa.<sup>14</sup>

Algeria has always refused to have any foreign interference in its internal affairs, it has also been one of the most prominent countries rejecting the establishment of the American military presence in Algeria, and conducts its activities in the Sahel and strengthen its cooperation with the Sahel countries to avoid any foreign interference in these countries may be reflected on them. The security threat in the Sahel on the Algerian southern border continues, especially with regard to threats under general law, notably: illegal immigration, smuggling, and epidemics.<sup>15</sup>

In April 2009, Algeria rejected a request by France and Britain to use its airspace to monitor and strike the terrorist group that kidnapped six European hostages in northern Mali and Niger. Algeria was also able to be behind the UN charter, which criminalizes the payment of ransom to terrorists on 17 December 2009 for the release of the hostages, in order to dry the financial sources that support the activities of terrorist organizations in the region.

### III. SECURITY COOPERATION IN THE SAHEL

The countries of the region (Algeria, Mali, Mauritania and Niger) have confirmed their intention to jointly confront the new security challenges in the Sahel.<sup>16</sup> The political classes of these four countries, during their successive meetings, emphasized the recent challenges in the region, considering that it was more important than ever to strengthen their joint actions to meet those challenges.

They also stressed the need to strengthen and activate the mechanisms that have been developed for this purpose and are ready to support cooperation and consultation with partners from outside the region to confront terrorist threat, which constitutes a “challenge to the entire group” as the region “is gradually facing threats that pawn all development efforts in the region.”

In this regard we recall the chaotic movement of arms, transnational crime, and al-Qaida-linked terrorism in the Islamic Maghreb and its “branches of the Boko Haram Group”<sup>17</sup> in Nigeria. Poverty also “provides an environment conducive to the activities of terrorist organizations that feed on illegal acts, especially drug trafficking and ransom obtained from hostage-taking.

<sup>14</sup> Qalaa, S. “Algerian approach to building security in the Sahel African region”. University of Algeria 2., Faculty of Political Science and International Relations. 2012. 162.

<sup>15</sup> Ben Aisha, M. “The crisis of the coast and engineering Algerian diplomacy”. <http://www.maqalaty.com/43553.html>, Accessed on 04 April 2018.

<sup>16</sup> Bourib. “Algerian Security Diplomacy... “. 34.

<sup>17</sup> The Islamic State in West Africa (abbreviated as ISWA or ISWAP), formerly known as Jamā'at Ahl as-Sunnah lid-Da'wah wa'l-Jihād (Arabic: جماعة الدعوة والدعوة، “Group of the People of Sunnah for Preaching and Jihad”) and commonly known as Boko Haram] until March 2015, is a Jihadist militant organization based in northeastern Nigeria, also active in Chad, Niger and northern Cameroon. Founded by Mohammed Yusuf in 2002, the group has been led by Abubakar Shekau since 2009. From March 2015 to August 2016, the group was briefly aligned with the Islamic State of Iraq and the Levant.

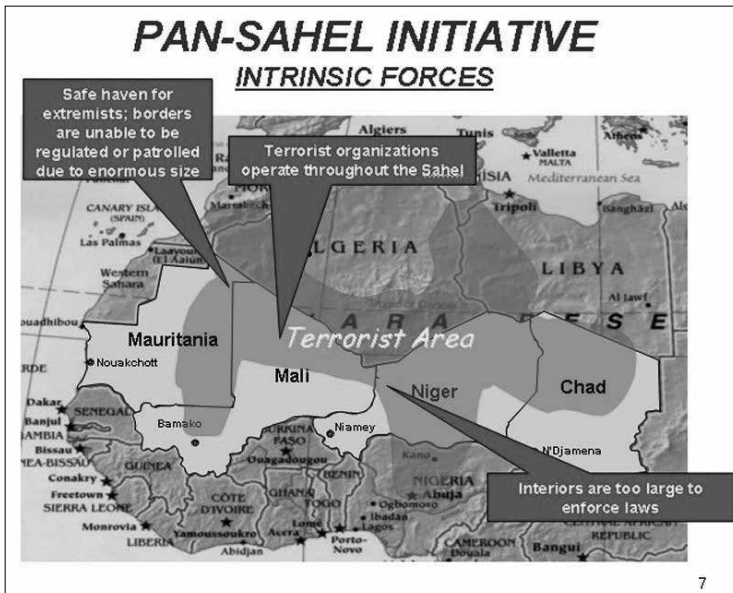


Figure 6. *The Pan-Sahel Initiative.* Source: <http://r-sistons.over-blog.com/article-pan-sahel-algerie-france-us-israel-vers-la-partition-coullisses-d-un-assassinat-64954220.html>, Accessed on 04 April 2018.

In this regard the representatives of the countries in the field stated that “they are required to develop a joint strategy for combating at bilateral and multilateral levels, as well as legal, institutional and operational levels, and this strategy should constitute a multifaceted, joint and collective response within the framework of regional cooperation.”<sup>18</sup>

They also proposed providing assistance to populations in the areas bordering the four countries and strengthening legal cooperation through border agreements and training programs, travel control and counter-terrorism. Especially, because of the growing challenges through the intensive flow of weapons and the return of ex-combatants after the Libyan crisis, as the rate of violence increased, due to the increasing number of networks and exploitation of demands, particularly in northern Mali.

It allows the states of the region to assess the cooperation that has been in place for almost two years and to provide an outcome of the mechanisms used as instruments and frameworks for such cooperation, in particular the Command-based Operational Command Committee based in Tamanrasset, and the Integration and Communication Unit, also based in Algeria.<sup>19</sup>

There will also be an opportunity to assess the development of the terrorist threat and to take decisions on the new mechanisms to be developed in order to enhance security and development cooperation.

<sup>18</sup> Ali, M. “Algeria and neighboring countries... Exhaustive security challenges”. *El-Badil*. 07 May 2015. <https://elbadil.com/2013/07/173662/>, Accessed on 04 April 2018.

<sup>19</sup> Ammour, A. “La nouvelle diplomatie algérienne face à la complexité des défis de sécurité régionaux”. *Econostrum*. 30 January 2015. [https://www.econostrum.info/La-nouvelle-diplomatie-algerienne-face-a-la-complexite-des-defis-de-securite-regionaux\\_a19695.html](https://www.econostrum.info/La-nouvelle-diplomatie-algerienne-face-a-la-complexite-des-defis-de-securite-regionaux_a19695.html), Accessed on 04 April 2018.

## IV. REQUIREMENTS TO ADDRESS SECURITY THREATS IN THE SAHEL

There is no doubt that the African Sahel region is a crisis zone because of the region's destructive impact both on regional and international security as a whole. "The region is witnessing various criminal activities, committed by terrorist organizations or organized crime in all its forms, in addition to minorities, ethnicities and conflicts. 'This is causing them to achieve some narrow interests, especially the separatist demands, while all these threats made the Sahel and the Sahara' a hotbed of tension and an incubator for terrorism.

Algeria adopted the regional security approach based on the activation of military and diplomatic cooperation between the countries of the region concerned, and the adoption of Algeria's regional security approach to:

1. Paving the way for international competition for the presence in the Sahel and the Sahara because of the wealth as well as the geostrategic location it occupies.
2. Eliminating the activities that could pose a threat to Algerian national security by several parties.
3. Blocking any direct foreign intervention in the region under the pretext of combating terrorism, which remains one of the constants of the security policy towards the African coast, where Algeria refused to establish military bases such as the military base „AFRICOM” in southern Algeria as well as to address and pressure any Sahel States that may wish to allow foreign interference.<sup>20</sup>

Consultative meetings among officials of the region were focused on six points that served as a security approach:

1. Establish a unified database containing all available information on AI-QA'IDAH in the Islamic Maghreb.
2. Allow the staff of its five armies to pursue the terrorist groups within the Sahara and allow the borders between the States concerned to be traced.
3. Agreement on military cooperation between the regular unified forces and the Tuareg tribes and the tribes of Arabs.
4. Provide material incentives for the provision of intelligence on terrorist groups.
5. Diligence of sources of financing terrorism, dealing with smugglers and supporting development by establishing development projects in northern Mali and Niger.
6. Intensifying the control of the Sahara region.

### 1. At regional level:

The regional system is defined as a group of countries belonging to a single region, which are linked by factors of interest and loyalty to assess the basis of their regional treatment for a sense of excellence, cooperation and integration in the areas of security and economy.<sup>21</sup>

- Regional Neighborhood.
- The existence of common interests contribute to the establishment of the bloc and cooperation.

<sup>20</sup> These principles are based on the principle of good neighborly relations based on contributing to the efforts to end regional conflicts, strengthen regional cooperation frameworks, the principle of non-interference in the internal affairs of countries, the Principle of non-infringement of borders and respect for the territorial integrity of States.

<sup>21</sup> Ammour. "La nouvelle...".

- The sense of excellence and privacy stemming from the recognition of the existence of the factors of the regional system by the member states, but only to initiate integration in other areas.

2. At international level:

1. The mobilization of the coastal states: The Sahel countries suffer from a lack of material and human resources, which makes their role weak in the fight against terrorism and organized crime. Therefore, the EU and the USA must support these countries and try to overcome the shortcomings especially in the military sphere.

2. Supporting initiatives to enhance dialogue and increase the capacity of local communities to confront and resist the attractiveness of terrorism.

3. The need for continued international support to the coastal states to strengthen their capacity to protect and control their borders by providing them with material and logistic support and enhancing their security capabilities.<sup>22</sup>

4. Encourage major states and international organizations to undertake the political, economic, social and cultural development of the coastal States and provide them with the necessary support in order to achieve political and security stability.

5. The need for the United Nations to intensify its efforts to mobilize material for the social and economic reintegration of the population in the Sahel region, especially in the midst of the food crisis that is threatening the region.

6. Reducing formalities in the field of cooperation and activating the mechanisms of international cooperation.

## V. CONCLUSION

The security challenges of the region in its internal dimension fall within the framework of the security problems of the national state entity in Africa, which face, with some exceptions, the security challenges of the state-building, the weakness of its distributive justice and the fragility of the security administration. Growing tensions in the Sahel region, and the exacerbation of internal crises, are all indicators that will be nominated in the future as a field of conflict between regional and international powers. There are internal contradictions that enhance the potential for Maghreb terrorism to threaten the region as a whole.

There are growing offshore accounts, which are looking for an outlet to achieve their interests in the region (Resources + Markets). The prospects of the failure of the Sahel countries to contain the security disturbances of the region are high due to the weakness of social integration, the economic deficit and political construction suffered by the countries of the region, all of which threaten the security and stability of the Sahel.

These risks are compounded by the suspicious movements of some obscurantist forces, which are working to sink these states into a quagmire of chaos, with the intention of dooming them for intervention.

This requires careful and constant security vigilance from Algeria, to monitor the regional movements of the region and to be careful to drag it into the quagmire, unless it undermines the vital interests of Algerian national security in its African regional dimensions.

<sup>22</sup> Algerian Radio, in the presence of the Prime Minister representing the President of the Republic ... Launch of the Elysee Summit on Peace and Security in Africa. December 2014. <http://www.radioalgerie.dz/player/ar/live/cha%C3%A9ne-1>, Accessed on 04 April 2018.



Perhaps the most important feature to be emphasized is that cross-time intervals have formed an important area for understanding Algerian behavior. There are also security doctrines and procedural, constitutional constants that are based on the concepts of non-interference in the affairs of others and the control of the pace of diplomatic action within the Arab or African community, taking into account the policy of good neighborliness as an important resource in understanding the Algerian diplomatic relations.

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Lt. Col. Zoltán Pozderka:

## COMMANDER'S CRITICAL INFORMATION REQUIREMENTS

**ABSTRACT:** *The Commander's Critical Information Requirements (CCIRs) support the commander's situational understanding and help to describe the commander's vision to the staff. CCIRs – among other information requirements – are identified during the mission analysis phase of a planning process. Depending on the type of CCIRs, different staff functions are responsible for developing, managing, updating and disseminating CCIRs. The aim of this paper – in line with the main trends of military scientific research in Hungary<sup>1</sup> – is to highlight the latest changes in NATO and US doctrines and share the best practices learned during NATO planning exercises. To describe the concept of CCIRs, the author provides an overview on the commander's role in the operation process that drives the development of CCIRs and on the roles of different staff functions in creating and managing CCIRs during the planning and execution of an operation.*

**KEYWORDS:** *Information requirements, CCIRs, PIRs, FFIRs, planning process*

## COMMANDER'S ROLE IN THE OPERATIONS PROCESS

The commander is the most important participant of the operations process and drives it through *understanding, visualizing, describing, directing, leading, and assessing* operations.<sup>2</sup> The Commander's Critical Information Requirements (CCIRs) are key information and knowledge management tools that assist the commander during the operations process and contribute mostly to the *understanding* and *describing* actions of the commander.

In order to *visualize* the desired outcome of an operation and to make the right decisions in the right time, the commander needs to form a clear *understanding* of the operational environment using the operational variables (PMESII)<sup>3</sup> or the mission variables (METT-TC).<sup>4</sup> A better Situational Awareness provides a significant advantage over the enemy and acting faster than the opponent will grant initiative. Situational Awareness may support initiative and timely actions, but the right decisions depend on the commander's understanding of the situation. In order to develop a clear situational understanding and to frame the problem,

<sup>1</sup> Boda, J. et. al. "Fókusz és együttműködés: A hadtudomány kutatási feladatai". *Honvédségi Szemle* 144/3. 2016. 3–19.

<sup>2</sup> *Army Doctrine Reference Publication 5-0: The Operations Process*. Washington: Department of the Army, 2012. 1–3.

<sup>3</sup> PMESII: Political, Military, Economic, Social, Infrastructure and Infrastructure domains at the operational level.

<sup>4</sup> METT-TC: Mission, Enemy, Terrain and Weather, Troops and Support available, Time available and Civilian considerations variables at the tactical level.

the commander uses his personal experience, observation, view of the mission, the higher commander's intent and other inputs from the staff.

Following the *understanding* step, the commander *visualizes* the desired end state and the broad concept of how the force will achieve the end state in relation with time and space. The commander *describes* the mission and the achievement of the overall operation to the staff through the *Commander's Intent*, the *Planning Guidance* and the *Commander's Critical Information Requirements* (CCIRs).<sup>5</sup> The commander has to make sure that subordinates and the staff understand his vision, so he uses doctrinal terms when describing his vision, formulating his information requirements and updating his guidance during the planning process and execution of the operation.

The staff helps the commander to develop his situational understanding by providing information and by filtering what is important to mission accomplishment. The key question is, "*What does the commander need to know in a specific situation to make a particular decision in a timely manner?*"<sup>6</sup> Planners must consider the following criteria when proposing information requirements to the commander as CCIR: in connection with a CCIR, there must be a decision that is critical to the success of the overall mission and the decision must be made by the commander, not by the staff.

Assessment is an important process that provides feedback on the operation, evaluates changes in the environment and measures the accomplishment of the mission. "*Commanders continuously assess the operational environment and the progress of the operation, compare them to their initial visualization, understanding and intent, and adjust operations based on this analysis.*"<sup>7</sup> The CCIR process and assessment process are linked as both support the commander's timely decision making.

## CCIR AND INFORMATION REQUIREMENT CATEGORIES

CCIRs are elements of information that are critical for timely decision making of the commander and they belong exclusively to him. All staff sections can suggest potential CCIRs they think meet the commander's guidance. The CCIR list is short and should normally be limited to ten items so that the force can prioritize its efforts and allocate resources. The staffs add, delete, modify, and update CCIRs during the operation based on the information the commander needs for decision making. CCIRs fall doctrinally into the following categories and are developed and managed by different staff functions: *Priority Intelligence Requirements*-PIRs and *Friendly Forces Information Requirements*-FFIRs. *Essential Elements of Friendly Information*-EEFI are not CCIRs, but another type of information requirement which are at the same level as CCIRs. Older doctrinal publications may still consider EEFI as type of CCIRs.

*Priority Intelligence Requirements* (PIRs) are developed and managed by the J2-Intelligence staff, but any other staff function can contribute with recommendations during the planning process and the execution of the operation. The PIRs that are approved by the commander automatically become CCIRs. PIRs normally focus on the enemy/adversary and other aspects of the operational environment that the commander considers most important for his timely decision making.

<sup>5</sup> NATO Standardization Office (NSO). "ATP-3.2.2: Allied Tactical Publication for Command and Control of Allied Land Forces". 2015. 2-14.

<sup>6</sup> *Field Manual 101-5: Staff Organization and Operations*. Washington: Department of the Army, 1997. 5-7.

<sup>7</sup> "JP 3-0: Joint Operations". 11 Aug 2011. II-9.

*Friendly Forces Information Requirements (FFIRs)* focus on information the commander and staff must know about the status and availability of the friendly force and supporting capabilities. Approved FFIRs turn automatically into CCIRs. In coordination with the staff, the J5-Plans or J3-Operations branch manages FFIRs for the commander. *Host Nation Information Requirements (HNIR)* are those FFIRs the commander needs to know about the Host Nation capabilities and the situation of its forces.

*Essential Elements of Friendly Information (EEFI)* are not CCIRs, but they have the same priority as CCIRs and need the same approval of the commander. An EEFI represent an element of information that must be protected against enemy influence or intelligence collection. EEFIs are those elements of friendly force information that may risk the mission or the achievement of an objective if the enemy manages to exploit them. In simple words, EEFIs are those pieces of information that need to be hidden from the enemy. Like CCIRs, EEFIs can change during the whole operation.

*Request for Information-RFI* is not a CCIR either, but plays an important role in planning process as planners develop multiple information requirements about the enemy, the operational environment, own forces and the host nation. Staff members review the existing database for possible solutions to information requirements. If the information does not exist, the staff member issues an RFI. An RFI leads to a production requirement, if the request can be answered inside the organization from an existing database, or a collection requirement, if it requires a new information collection.<sup>8</sup>

## CCIR DEVELOPMENT IN THE PLANNING PROCESS

During the planning process the staff develops information requirements and recommends the commander to designate some of them as CCIRs. Information and knowledge gaps are identified normally during Mission Analysis, and are updated during the following phases like developments of Course of Action, Concept of Operations and the Operation Plan. For information and knowledge gaps identification and CCIR development the most significant Mission Analysis steps are the *Factor Analysis*, *Center of Gravity Analysis*, building the *Operational Design* and *Determining Critical Operational Requirements*.

The J2-Intelligence staff leads the development of the Joint Intelligence Preparation of the Operational Environment (JIPOE), using the operational variables – the PMESII domains, or the mission variables – the METT-TC framework. The results of JIPOE and the higher level strategic and operational documents – like the Strategic Planning Guidance – are analyzed by the (Joint) Operational Planning Group-(J)OPG during *Factor Analysis* and *Center of Gravity Analysis*. The *Operational Design* consists of several items of operational art, and CCIRs play an important role in supporting the whole concept, especially the commander's Decision Points. The Information, Knowledge and Intelligence Requirements are identified among other *Critical Operational Requirements* during Mission Analysis.

## Factor Analysis

*Factor Analysis* is a mental process when the (J)OPG examines the operational environment and main actors, identifies *factors* and develops *deductions* and *conclusions*. Factors are

<sup>8</sup> “JP 2-0: Joint Intelligence”. 22 Oct 2013. I-9.

significant factual statements of information known to be true that have operational implications. Deductions are the implications, issues or considerations, derived from facts that have operational significance. Conclusions are the outcomes or results reached that require action in planning or further analysis.<sup>9</sup>

Factor (What is the current state of affairs or trends?)	Deduction (So what is the significance of the factor?)	Conclusion (So what can or should be done?)
101. The enemy reserve Armor Brigade has not been committed; it is still in Assembly Area.	101.1. According G2 estimate, the reserve will most likely be committed in the Western Sector in the next four days.	101.1.1. <b>RFI</b> What is the composition and Combat Effectiveness level of the enemy reserve Armor Brigade?
		101.1.2. <b>CCIR (PIR)</b> When and where the enemy reserve Armor Brigade will be committed?
	101.2. If the reserve is committed in the Central Sector, 1st Infantry Brigade may need reinforcements to successfully defend in their Area of Operations.	101.2.1. Same as 101.1.2.
		101.2.2. <b>CCIR (FFIR)</b> What is the Combat Effectiveness level of 1st Infantry Brigade?

Figure 1. *Factor Analysis table (created by the author based on COPD. 4-44.)*

The results are captured in the Conclusion column. As staff members are looking for the “so what” answers they try to find the best options based on their experience and field of expertise. They also need to meet two other requirements: the conclusions need to be stand-alone statements, so the (J)OPG can use them later during the following steps of planning process; and they need to label the Conclusion as one of the categories used in the planning process, like Decisive Condition, Force Capability, Precondition for Success, etc. Knowledge and Information gaps, CCIRs and RFIs are identified as well during the process, as it can be seen in Figure 1.

## Center of Gravity Analysis

*Center of Gravity (COG) Analysis* is conducted on all the main actors, like the enemy, ourselves, allied partners and if applicable, the host nation. It can assist the development of design concept. “Centers of Gravity are characteristics, capabilities or localities from which a nation, an alliance, a military force or other grouping derives its freedom of action, physical strength or will to fight. Operational COGs are typically a dominant capability which allows the actor to actually achieve operational objectives.”<sup>10</sup> The significance of COG Analysis is the identification of the COG, and more importantly the critical vulnerabilities (how the COG can be attacked or influenced). Critical vulnerabilities of the enemy’s COG must be exploited and the vulnerability must be protected in case of friendly actors.

<sup>9</sup> NATO SHAPE. “Allied Command Operations Comprehensive Planning Directive: COPD Interim v2.0.”. 4 Oct 2013. 4–44.

<sup>10</sup> NATO SHAPE. “Allied Command Operations...”. 4–45.

In order to reach the critical vulnerabilities of the COG, the critical capabilities (which provide its strength) and the critical requirements (which are necessary for the COG to be effective) are identified as well during the process. Just like in the case of Factor Analysis, the conclusions should be stand-alone statements and may be labeled as different elements of operational art and categories of the planning process, e. g. Decisive Condition, Rules of Engagement, Conditions to be Established, etc. The conclusions can be information requirements for further planning, targeting, operation assessment, or even CCIRs. Not all the findings in the conclusions will be implied and incorporated into the concept and the plan. Many of them are filtered out by the planners of (J)OPG. The more experienced the staff members are, the better conclusions are developed with better information requirements and CCIRs. The final, filtered and approved CCIRs are included in the Coordinating Instructions of the Operation Plan.

Step 1. Desired aim and outcome	
Step 5. Centre of Gravity Enemy Land Component	Step 2. Critical Capabilities 1. <b>The ability to conduct offensive operation</b> 2. The ability to occupy and defend territory
Step 4. Critical Vulnerabilities <b>1.2.1. Reserve Armor Brigade is exposed to air interdiction during movement from Assembly Area to the Forward Line of Enemy Troops.</b>	Step 3. Critical Requirements 1.1. Combined arms brigades <b>1.2. Reserve Armor Brigade</b> 1.3. Air defense units
Step 6. Conclusions <b>Information Requirement/RFI:</b> What is the composition, disposition and Combat Effectiveness level of enemy reserve Armor Brigade? ( <i>RFI for planning, intelligence production, or collection requirement</i> ) <b>Information Requirement/RFI:</b> When will the enemy reserve Armor Brigade start moving and along which route? ( <i>RFI for targeting, intelligence collection requirement</i> ) <b>CCIR:</b> When and where the enemy reserve Armor Brigade will be committed? ( <i>for the commander's Decision Point to commit the reserve brigade in the Western or Central Sectors</i> )	

Figure 2. Center of Gravity Analysis Matrix in NATO operations planning process (created by the author based on COPD. 4-45.)

## Operational Design

In NATO's operations planning process the *Operational Design* consists of two parts, the operational framework (the actual operational design in the US) and the commander's initial intent. The operational framework provides a conceptual overview and it is the most important tool for the commander to visualize the entire campaign or operation. As a result of the factor analysis, systems analysis, COG analysis, the analysis of the mission with the objectives, the staff prepares the operational framework, using operational design concepts such as objectives, Decisive Conditions, effects, etc.

As different lines of operations are being developed, the (J)OPG identifies possible branches and sequels to alter the original lines at certain Decision Points, or insert new sections in it. The commander's Decision Points are always linked to CCIRs, which will drive the intelligence collection efforts. Even though CCIRs are not shown in the operational framework, the Decisive Points mark the points along a line of operation where the commander needs to make a decision, normally executing a new course of action which is already planned in a Contingency Plan as a branch or sequel. One Decision Point can be supported by multiple CCIRs (PIRs and FFIRs).



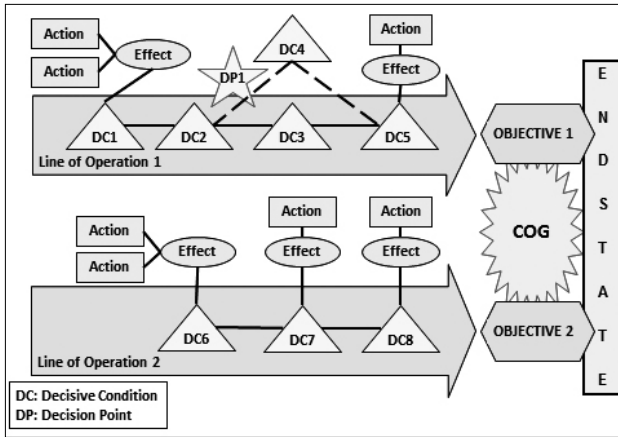


Figure 3: Operational Design (created by the author)

### Determine Critical Operational Requirements

As part of the Mission Analysis the staff identifies critical operational requirements like Information, Knowledge and Intelligence Requirements, Critical Operational Support and Resources Requirements, Preconditions for Success, Rules of Engagement, Risks, etc.<sup>11</sup> As a result of Factor Analysis and Center of Gravity Analysis information, knowledge and intelligence gaps are identified in regard of the enemy, own forces and the operational environment that will drive the planning process and execution of the operation for the staff members and Subject Matter Experts (SMEs) like targeting, or operation assessment. The identified and commander approved Information, Knowledge and Intelligence Requirements will support the development of RFIs, CCIRs and the intelligence collection plan.

DP	Time	Decision	Conditions	PIRs/FFIRs		COM Options
				Purpose	Resp	
1	ENY dependent	Employ Reserve Brigade in Central Sector to reinforce 1st Infantry Brigade	Criteria: Enemy reserve Armor Brigade is committed against 1st Infantry Brigade in Central Sector.	CCIR 1. When and where the enemy reserve Armor Brigade will be committed?	LCC	Commander of Land Component Command (LCC) employs Reserve Brigade in Central Sector. Execute CONPLAN 001.

<sup>11</sup> NATO Standardization Agency (NSA). "AJP-5: Allied Joint Doctrine for Operational-level Planning". 2013. 3-17.

DP	Time	Decision	Conditions	PIRs/FFIRs		COM Options
				Purpose	Resp	
2	ENY dependent	Employ Reserve Brigade against enemy Maritime Incursion	Criteria: Enemy approaches southern shore with battalion or larger landing force. Location: Southern coastal flank of LCC.	CCIR 2. When and where will the enemy fleet conduct an amphibious landing?	LCC	Employ Reserve Brigade against Maritime Incursion. Execute CONPLAN 002.
3	Condition based	Counter attack in Western Sector	Criteria: Enemy reserve Armor Brigade's attack halted, no other reinforcement available, C2 disrupted, enemy culminated. Location: Western Sector.	CCIR 1. When and where the enemy reserve Armor Brigade will be committed?	LCC	Employ Reserve Brigade in Western Sector to counterattack. Execute CONPLAN 003.

Figure 4. Example of Decision Support Matrix (created by the author)

## CCIR MANAGEMENT

Different staff functions have different roles in developing, managing, updating and disseminating CCIRs. J5-Plans and Policy branch has the overall responsibility for consolidating FFIR nominations and providing recommendation to the commander during planning. Normally staffs have a CCIR working group run by J5 (or J3) to manage the CCIR list, modify it, add new and delete the obsolete ones. During the execution of the operation J5 – or according to US doctrines – J3-Operations branch is responsible for managing and updating the FFIRs of the current operations.

J3 and the operation center are in charge of the running operation, tracking all the activities that may be related to CCIRs. Staff members on duty in the operation center need to know what information is critical for the commander to make timely decisions, what needs to be briefed immediately, what can be reported during the next shift change, or at the next scheduled commander's update briefing. The Decision Support Matrix (Figure 4.) is developed during the planning process and is a very useful tool for the commander to execute pre-planned courses of action.

There can be other information, knowledge and intelligence requirements that are not CCIRs, not linked to Decision Points, alternative courses of action and Contingency Plans, but the commander considers important. These are called Notification Criteria (or wake-up criteria) and listed in the Notification Matrix (Figure 5.) Notification Criteria should not be confused with CCIRs. They tend to be items that are expected to create intense media attention, higher level political interest and questions, but can be anything that is required for the commander's Situational Awareness.

Event	Notification of key personnel				Actions
	COM	DCOM	COS	OPSCEN DIR	
Civilian casualties due to collateral damage	1	2	2	1	INFOOPS/PAO messaging to maintain public support
Green-on-blue incident	1	2	2	1	Increase Force Protection measures level
Use of weapons not in accordance with the Rules of Engagement	1	2	3	1	ROE training, INFOOPS/PAO messaging to maintain public support
Cross border incidents	1	2	2	1	Increase reconnaissance and surveillance
Remarks: COM-commander, DCOM-deputy commander, COS-Chief of Staff, OPSCEN DIR-operations center director	1: immediate 2: same shift 3: next COM update brief				INFOOPS: information operations PAO: public affairs office

Figure 5. Example of Commander's Immediate Notification Criteria Matrix (created by the author)

The commander organizes the staff in a way they can support his information, intelligence and operational requirements. The commander should be familiar with the intelligence process and it is his “*responsibility to provide direction and guidance, to define priorities, to resource intelligence collection and analysis effectively, to demand the highest standard of products and to review the effects of his chosen actions.*”<sup>12</sup> The J2-Intelligence branch leads the Intelligence Requirements Management and Collection Management Process, which is the new NATO term for CCIRM.<sup>13</sup> Basically it is a “*set of integrated management process and services to satisfy the intelligence requirements by making best use of the available collection capabilities.*”<sup>14</sup>

As part of the intelligence requirements, J2 manages PIRs, Specific Intelligence Requirements (SIRs) and Essential Elements of Information (EEI). SIRs are managed in the same way as PIRs and they provide a more detailed description of the requirement. “*SIRs are used by the intelligence staff to determine what intelligence asset, collection capability or discipline can best satisfy the requirement.*”<sup>15</sup> SIRs are broken down into more detailed EEIs creating basis of the intelligence collection plan.

<sup>12</sup> NATO Standardization Office (NSO). “AJP-2: Allied Joint Doctrine for Intelligence, Counterintelligence and Security”. 22 February 2016. 2–6.

<sup>13</sup> CCIRM: Collection, Coordination, Intelligence Requirement Management.

<sup>14</sup> NATO Standardization Office (NSO). “AJP-2.1: Allied Joint Doctrine for Intelligence Procedures (B)”. 6 June 2016. 1–5.

<sup>15</sup> NATO Standardization Office (NSO). “AJP-2.1...”. 3–3.

PIR	SIR	EEI	Activity	NAI*	Reporting	Unit A	Unit B	Unit C
PIR 1	SIR 1.1	EEI 1.1.1	What?	Where?	When?	x		
		EEI 1.1.2					x	
	SIR 1.2	EEI 1.2.1					x	
		EEI 1.2.2						x
*NAI: Named Area of Interest								

Figure 6. Example of an intelligence collection plan (created by the author based on AJP-2.1 3-8)

According to the US approach, EEIs are sub-entities of PIRs, not SIRs. SIRs are developed in connection with RFIs. RFIs can lead both to production or collection requirement. In case of collection requirement, the requestor should provide specific information requirements (SIRs) to allow the formulation of collection requirements and the allocation of collection capabilities. If SIRs are not provided by the requestor, the collection manager will determine the indicators of activity the collection capabilities should focus on.<sup>16</sup>

## SUMMARY

It is still a common mistake to call EEFI CCIRs while the latest NATO and US doctrinal publications consider them as another type of information that must be protected against enemy intelligence. EEFI-Essential Elements of Friendly Information are not to be mistaken with EEI-Essential Elements of Information, which are intelligence requirements and sub-entity of SIRs-Specific Intelligence Requirements. As a result of changes in NATO doctrines the definition of CCIRM-Collection, Coordination, Intelligence Requirement Management is not in use, it has been replaced with the term of Intelligence Requirements Management and Collection Management Process.

The lack of time or the staff's lack of experience can lead to several mistakes during planning like the followings:

The conclusions of Factor and COG Analyses are not formed as stand-alone statements and the planners cannot use them later.

The staff develops information requirements (RFIs) without checking the existing database.

Information requirements are mistaken with CCIRs, and the staff identifies too many CCIRs in order to support their own understanding instead of the commander's.

Decision Points are developed, but not linked with CCIRs.

Factor Analysis and Center of Gravity Analysis are conducted before Operational Design development and the staff often jumps to premature conclusions about CCIRs without knowing the lines of operations, Decisive Conditions and Decision Points.

Due to the time pressure the staff tends to accept the CCIRs identified during Factor and COG Analyses without filtering, adjusting or adding new ones to the CCIR list.

CCIRs are time-sensitive and always established by an order or plan. They depend on

<sup>16</sup> "JP 2-0: Joint Intelligence". 1-10.

situations, predictable events or activities and the commander needs them to make the right decision in time.<sup>17</sup> There are only two types of CCIRs, the PIRs and FFIRs. The staff's role is to develop, filter, manage and disseminate CCIRs in support of the commander. PIRs are managed by J2 and drive the intelligence collection process. FFIRs are managed by J5 or in some cases J3. Both can be found in the Commander's Decision Support Matrix, which is a useful tool for the commander to execute pre-planned courses of actions and contingency plans. CCIRs and the Decision Support Matrix are not to be confused with the Commander's Immediate Notification Matrix, which is another tool for the commander to raise Situational Awareness especially in cases with potential interest of higher level decision makers and the media.

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<sup>17</sup> "JP 5-0: Joint Operation Planning". 11 Aug 2011. IV-11.

Lt. Col. Győző Csanádi:

## INFORMATION MANAGEMENT IN NATO (PART ONE)

### How NATO Defines and Organizes Information Management, Strategies and its Point of View

*ABSTRACT: As the level of technology is developing, more and more organizations realize that information is a critical resource. The special resource management where information itself is the resource, is called Information Management. Organizational level management systems can be tremendously complex and must be based on massive scientific and leadership pillars. That is why it is useful to have a closer look at what a multinational organization, namely the North Atlantic Treaty Organization (NATO), thinks about its own information management using accessible unclassified information. Thus, this paper aims at providing an overview of the information management system in NATO. The author is currently carrying out broader research and this paper is part of the scientific work titled "Possibilities and technics of the information management in the Hungarian Defence Forces supported by information technologies". This study is a small but important piece that must be put into the puzzle of the aforementioned research. Since information management is a huge and important topic within NATO, one single paper is unable to give a sufficiently detailed description of the subject. Hence, the publication has been divided into two parts. The first part – this paper – concentrates on the theoretical background and the strategic level of thinking. The second part will provide details about how rules and regulations work in practice.*

*KEYWORDS: information management, NATO*

## INTRODUCTION

### Information is a resource

As the level of technology is developing, more and more organizations realize that information is a critical resource. Comparing a classical resource, like money, energy, natural, etc. and information it is obvious that information is different from them. A long list can be made about differences but one thing is clear: a resource needs to be managed<sup>1</sup>.

With the continuous need for information and various ways of delivery, all organizations or individuals have the same issues to face: it is necessary to organize or create some management of information otherwise to fulfil the personal or organizational goals can become provisional or only a matter of luck. The special resource management where

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<sup>1</sup> Munk, S. *Katonai informatika a XXI. század elején*. Budapest: Zrínyi Kiadó, 2007. 28–29.

information itself is the resource is called Information Management (IM), which is a very simple definition. This paper aims at defining this multi-layered notion of information.

Meanwhile an organization operates with several activities, some of them work with information and all processes have information aspects. It is really difficult to distinguish between information activities and information management activities, since IM itself is also a kind of information activity.

Obviously, several ways and strategies can exist in order to provide appropriate answers to the same question, the system of information management can be different.

When an individual thinks about the “atomic” level of IM or a great multinational organization wants to build up a complex information management, the outcome is definitely different. Organizational level management systems can be really complex and must be based on massive scientific and organizational pillars. That is why it is useful to have a closer look at what a multinational organization – in this case the North Atlantic Treaty Organization – thinks about information management.

## Why this publication was written

This paper aims at providing an overview about information management system in NATO. The author is working on a broader research titled “Possibilities and technics of the information management in the Hungarian Defence Forces supported by information technologies”. This paper is part of the aforementioned research. The same analysis of other organizations will create the basic knowledge how to tailor a good, working information management system.

Studying the subject, it becomes clear immediately that the chosen topic has a huge amount of far-reaching sub-questions with difficult interrelationships. Thus, the publication has been divided into two parts. The first part (this paper) concentrates more on the strategic level of the questions rather than the points of view at high level. The next publication will have a closer look at the practical level examining certain tools and technics advised by NATO-wide conduct of IM activities.

## Some words about NATO

The North Atlantic Treaty Organization (NATO) is a political and military alliance based on the North Atlantic Treaty signed on 4th April 1949. Being a multinational organization based on consensus, it is controlled by multinational committee boards and military commands. Currently 28 member states have an organized political and military representation. In NATO, the principal political decision-making body<sup>2</sup> is the North Atlantic Council (NAC). Concerning specific issues, there is a network of committees responsible for various aspects of the alliance work. All committees have a certain scope of their assigned issues. Since NATO has a political or military point of view about control measures, in NATO phraseology the word “consultation” always refers to political co-operation and the word “command and control” refers to the co-operation of multinational military organizations. The Consultation,

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<sup>2</sup> The North Atlantic Council (NAC) is the principal political decision-making body of NATO. Each member country has a seat in the NAC. It meets at least once a week or whenever the need arises, at different levels. It is chaired by the Secretary General who helps members reach agreement on key issues. “What is NATO”. 26 December 2016. <http://www.nato.int/nato-welcome/index.html#>, Accessed on 26 December 2016.



Command & Control Board is one of the senior multinational policy bodies advising the NAC and the Defence Planning Committee<sup>3</sup>.

## SOURCES

### Sources are not easy to find

Because of the “need to know<sup>4</sup>” policy, NATO issues are not widely discussed by civilian authors, therefore this research is mainly based on NATO publications.

NATO publications have a certain hierarchy<sup>5</sup> at strategic level but the operational or tactical questions are published by the main headquarters or other organizations. Concerning NATO information management, STANAGs and other written policies and handbooks have been used as the main sources of secondary research. Despite the fact that the only sources available are NATO documents, all of them are unclassified, so the reader should not expect any revelation of secrets in this paper.

### NATO framework of Information Management

NATO has a declared aim to achieve Information Superiority<sup>6</sup>. This effort has brought the information and its management into an even sharper focus. In order to establish a coherent and coordinated way of NATO-wide information management processes, the North Atlantic Council has established a policy on Information Management in NATO, called “NATO Information Management Policy” (NIMP). NIMP highlights the importance of two NATO-wide capabilities in the area of sharing information and services. The two capabilities are the NATO and national Consultation, Command and Control (C3) and Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR). The framework of NATO IM is manifested in the system of various regulatory documents. A good description can be found about the framework of the information management in the document titled “The Primary Directive on Information Management (PDIM)<sup>7</sup>.”

<sup>3</sup> “NORTH ATLANTIC TREATY ORGANIZATION NATO HQ Consultation, Command & Control Staff”. NATO NC3 Staff. 26 December 2016. <https://nhqc3s.hq.nato.int/Default.aspx>, Accessed on 26 December 2016.

<sup>4</sup> “Need-to-know” is a principle of sharing NATO information in order to deliver information to whom it concerns regardless of the classification. This method of information delivery is a defensive measure.

<sup>5</sup> In this context, the word „hierarchy” means a specific order of creation and reference of documents and a hierarchy among the committees that are responsible for the promulgation of different papers.

<sup>6</sup> “Information Superiority” in this context means a relative advantage concerning possessed information. This is a capability to deliver the right information to the right people at the right time meanwhile decreasing the same capabilities of adversaries.

<sup>7</sup> North Atlantic Council. “C-M(2008)0113(INV): The Primary Directive on Information Management”. 18 December 2008.

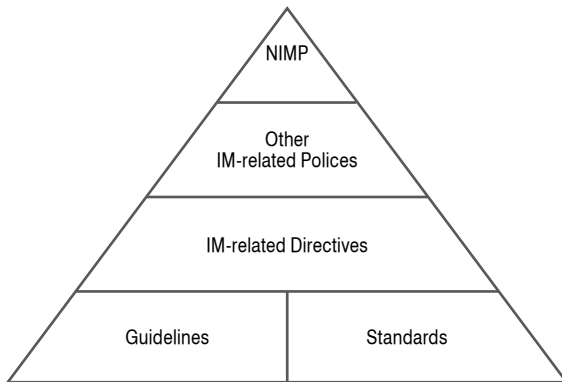


Figure 1: *NATO Framework of Information Management*<sup>8</sup>

## Processed Documents

The **highest level** document about NATO information management is the document of the North Atlantic Council, (C-M(2007)0118), titled “The NATO Information Management Policy (NIMP). The previous version of this document was PO(99)47.

After the master policy, several referring documents have been written and in order to create this publication the following relevant documents have been processed:

*“Other IM-related Policies” include the following documents:*

Security Within The North Atlantic Treaty Organisation (NATO) (C-M(2002)49)<sup>9</sup>:

North Atlantic Council publication. Establishes the basic principles of security to be applied by NATO including security programs in order to protect classified information.

The management of Non-classified Information (C-M(2002)60)<sup>10</sup>:

North Atlantic Council publication that establishes principles of protection and handling of non-classified NATO information<sup>11</sup>. This document supported the previous version of NATO Information Management Policy (NIMP) (PO(99)47)

NATO Public Disclosure Policy and Directive (C-M(2008)0116)<sup>12</sup>:

North Atlantic Council publication. Sets principles of the policy on the public disclosure of NATO information and establishes procedures, also roles and responsibilities.<sup>13</sup>

Policy on the retention and disposition of NATO Information (C-M(2009)0021)<sup>14</sup>:

North Atlantic Council publication. Sets policy of the retention and disposition of NATO information.<sup>15</sup>

<sup>8</sup> North Atlantic Council. “C-M(2008)0113(INV)”. ANNEX B: NATO IM Framework.

<sup>9</sup> “NATO UNCLASSIFIED” document, published by North Atlantic Council on 17 June 2002.

<sup>10</sup> “NATO UNCLASSIFIED” document, published by North Atlantic Council on 23 July 2002.

<sup>11</sup> North Atlantic Council. “C-M(2002)60: The Management of Non-classified NATO Information”. 23 July 2002. 1-1.

<sup>12</sup> “NATO UNCLASSIFIED” document, published by North Atlantic Council on 20 November 2008.

<sup>13</sup> North Atlantic Council. “C-M(2008)0116: Public Disclosure of NATO Information”. 20 November 2008. 3. 3.

<sup>14</sup> “NATO UNCLASSIFIED” document, published by North Atlantic Council on 2 March 2009.

<sup>15</sup> North Atlantic Council. “C-M(2009)0021: Policy on the Retention and Disposition of NATO Information”. 2 March 2009. 1. 1-1.

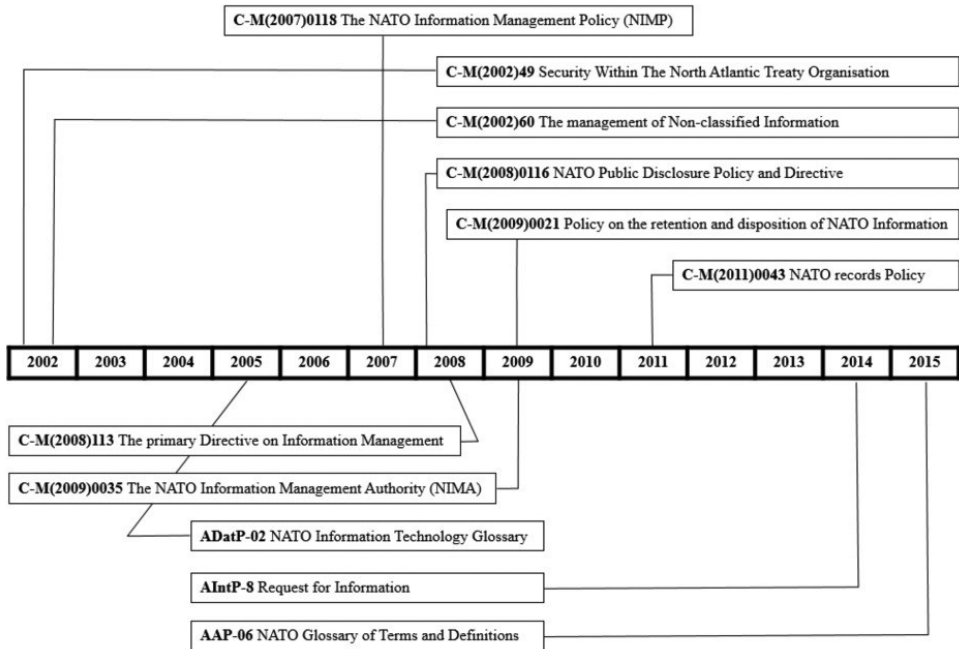


Figure 2: Years of publications processed in this paper.

NATO Records Policy (C-M(2011)0043)<sup>16</sup>:

Publication of North Atlantic Council. This policy “Establishes a framework to ensure that NATO records are handled effectively, efficiently and securely in order to serve the interests of NATO.”<sup>17</sup>

*IM-related Directives include the following:*

The primary Directive on Information Management (C-M(2008)113)

A directive of North Atlantic Council to support implementation of NIMP focusing on Information Superiority, roles and responsibilities and to enable development directives and guidance documents.<sup>18</sup>

The NATO Information Management Authority (NIMA) (C-M(2009)0035)<sup>19</sup>

North Atlantic Council’s organizational arrangements for IM within NATO containing establishment of NATO Information Management Authority and sets specific organization roles and responsibilities and relationship with other actors of IM.

<sup>16</sup> “NATO UNCLASSIFIED” document, published by North Atlantic Council on 28 June 2011.

<sup>17</sup> North Atlantic Council. “C-M(2011)0043: NATO Records Policy”. 28 June 2011. 6. 1-1.

<sup>18</sup> North Atlantic Council. “C-M(2008)0113(INV)”. 18 December 2008. 2. 1.

<sup>19</sup> “NATO UNCLASSIFIED” document, published by North Atlantic Council on 3 March 2009.

*Guidelines will be the subject of the future publication.*

*Standards include the following:*

Standards<sup>20</sup> are represented by Standardization Agreements (STANAG). All STANAGs have to be developed and implemented by NATO bodies and national authorities. The management of standardization is carried out by NATO Standardization Organization (NSO).

The following standards must be quoted and used in both publications:

NATO Information Technology Glossary (ADatP-02)<sup>21</sup>:

A bilingual<sup>22</sup> standard on the terminology of Information Technology.

Request for Information (AIntP-8)<sup>23</sup>:

An allied Intelligence Publication that standardizes the method how and who passes Requests for Information. This standard is connected to intelligence information processes, which differs from the IM principles in process and aim but the subject of the standard is also an information activity.

NATO Glossary of Terms and Definitions (AAP-06)<sup>24</sup>:

Contains NATO-agreed terms and definitions in order to have NATO-wide standardized terminology.

Joint Publications is discussed in an independent chapter of this paper that is why these sources are not in the table.

## DEFINITIONS AND BASICS

In order to understand strategic or any level concept of the Information Management, it is necessary to clarify exactly what is meant by the term “information” and “information management” in NATO.

The term “information” embodies the multitude of concepts, which depend on its role.

In the official NATO Glossary of terms and definitions (AAP-06), the definition of the term “information” is the same<sup>25</sup> as AJP-2<sup>26</sup> formulates. In accordance with this approach, information should be “any unprocessed data”. However, NIMP gives another definition<sup>27</sup> that states that information is “any communication or representation of knowledge”. Furthermore, to give illustration to the accurate quotations are as follows:

<sup>20</sup> To lay down and elaborate principles to guide actions of military forces. In support of objectives, NATO has a top-down standardization process. This process is to enhance interoperability of organizations.

<sup>21</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Agency on March 2005.

<sup>22</sup> English and French are the official languages of NATO. The text appears on two sides of the page in different languages: in English on the left hand side and in French on the right.

<sup>23</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Office (NSO) on 28 August 2014.

<sup>24</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Office (NSO) on 17 November 2015.

<sup>25</sup> Unprocessed data of every description, which may be used in the production of intelligence.

<sup>26</sup> “AJP-2: Allied Joint Doctrine for Intelligence, Counterintelligence and Security”. NATO Standardization Office (NSO). 22 February 2016. All important strategic level doctrines will be introduced later in the text.

<sup>27</sup> Any communications or representation of knowledge such as facts, data, or opinions in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audio-visual forms.

## Definitions of information from the point of view of intelligence:

“information is merely an assemblage of collected data”<sup>28</sup>

information is defined as “Unprocessed data of every description, which may be used in the production of intelligence.”<sup>29</sup>

## Definition of information in the NIMP:

“Any communications or representation of knowledge such as facts, data, or opinions in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audio-visual forms”<sup>30</sup>.

### *Analysis*

The first case is the “intelligence style” definition. Here the noun “information” means a kind of “special fuel” of a specific system described in the intelligence doctrine. From this point of view, the focus is on the content and the purport of the information. In other words, what the information contains or carries. Both these definitions emphasize how important resource the information is.

In the second case, when the management of information is the subject of the inquiry, information as a phenomenon becomes the subject. This approach concentrates on the role of information without regard to the accurate content or meanings that information carries or conveys.

However, the two points of view are different but one identical moment is shared in both definitions. Namely, information is something important that builds some kind of knowledge. The first approach deals with the certain knowledge, while the second one is more general and does not concentrate on what the purpose of the information is, but tries to define how to deal with any kind of information.

### *Definitions of IM*

Hence, these different points of view impact on the notion of Information Management. The intelligence gives a long definition and description of IM:

“Information management is the **supervision, administration, regulation** and timely **dissemination** of information. All personnel within the management **process** must understand the context of the information that they are handling, in order to manage it effectively. Simply processing it is insufficient. While software applications allow the staff to **receive, store, manipulate** and **disseminate** information, human interaction provides the ability to identify opportunities to **exploit** it. Information management should not be regarded as a separate process in its own right, but part of an overall approach that includes exploitation and assurance, providing the highest possible quality of information efficiently and on time.”<sup>31</sup>

This definition considers IM as a process. The most characteristic words in the text are nouns and verbs expressing activities. A process is a serial of basic activities. That is

<sup>28</sup> “AJP-2”. 2.6/1. 2-5.

<sup>29</sup> “AJP-2”. B-4.

<sup>30</sup> North Atlantic Council. “C-M(2007)0118: The NATO Information Management Policy (NIMP)”. 11 December 2007. 1-4.

<sup>31</sup> “AJP-2”.

why the text sets sequences that are made up of activities like “supervision; administration; regulation; dissemination” or “receive; store; manipulate; disseminate”. These sequences of activities are the steps of the information process.

It is also important to note that the publication highlights the fact that information management is not an “art of art” separate process<sup>32</sup> but is a part of an effort to provide proper information in time.

On the other hand, the concept of NIMP defines the term IM as follows:

**“A discipline that directs and supports the handling of information thorough its life-cycle ensuring it becomes the right information in the right form and adequate quality to satisfy the demands of an organization”<sup>33</sup>**

The main statement of this definition is that IM is a discipline. Moreover, information has a life-cycle like a living creature. Meanwhile verbs ergo activities appear in the definition like “direct”; “support”; “ensure”; “satisfy”. However, these activities refer to the role of the “discipline”, as IM is defined. The second part puts the emphasis on the results that a good working IM must achieve: the information must be the “right information” in the “right form” and in the “adequate quality”. The definition does not explicitly mention specific series of activities but it does not mean the definition does not care about information processes. The process appears in the notion of “life-cycle of information”.

### *Differences are superficial*

Along with the fact that both definitions refer somehow to series of activities either with explicit listing or referring to a cyclic process, later in the text it will be important to put information processes under the objective lens of science.

In conclusion of the comparison of IM definitions, I must say that the main goals of the two definitions are identical, that is to provide the right information according to the demands of an organization.

Hence, in the two definitions there is no significant difference between the aims but in the “NIMP version” activities about information are organized in a cyclic way meanwhile the other approach does not make any effort to systemize activities. The reason is the same as mentioned above relating to the notion of information. The main purposes are different; NIMP concentrates on the generalization of IM while the intelligence-style thinking considers IM as a tool to serve intelligence process. In other words, NIMP has a resource-management point of view where information itself is a resource meanwhile “intelligence” definition is part of a specific information process, where the “protagonist” is not the information but the intelligence and the information is just one of the important factors. This difference is a good example illustrating how Information Management differs from other information processes.

## Flows and cycles, sunrise-sunset

Nowadays the modern – rather post-modern – person considers the flow of time as linear progress, starts with a forgotten enigmatic point and keeps going into the far, unthinkable future. But this was not the same in the past and we still have remains of cyclic time vision. In the natural environment of the Earth, life has a repetition of events: continuous cycles

<sup>32</sup> In the text expressed as follows „Information management should not be regarded as a separate process in its own right”.

<sup>33</sup> North Atlantic Council. “C-M(2007)0118”. 1-4.

of days and nights, cycles of seasons and the repeating life stages from childhood through maturity until hoariness.

This was the most fundamental experience of mankind for thousands of years, from generation to generation. That is the reason why repetitive acts are worth describing in a cyclic way. When the order and time are important factors of the arrangement of activities, we can distinguish two basic types:

- serial arrangement – flow
- repetitive arrangement – cycle

All other difficult structures of order of activities derive from these two basic elements<sup>34</sup>.

Moreover, the examination of information processes and their repetitive or serial nature can provide significant takeaway concerning the understanding of IM strategies.

## The information life-cycle

As it was shown in the definition of IM, in NIMP the concept of information life-cycle was introduced:

“The life-cycle of information encompasses the stages of planning, collection, creation or generation of information; its organization, retrieval, use, accessibility and transmission; its storage and protection; and, finally, its disposition.”<sup>35</sup>

Later, in the document PDIM the life-cycle has further elaboration as well as a graphical interpretation.

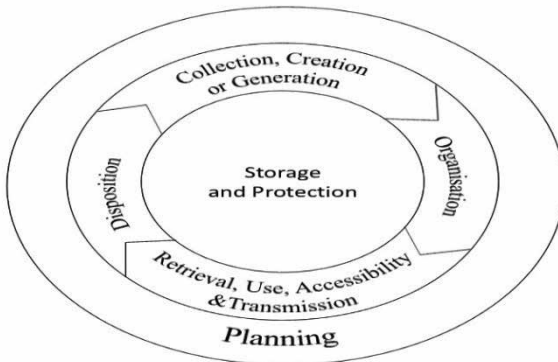


Figure 3: *the information life-cycle*<sup>36</sup>

Analysing the graphical abstraction it becomes clear that not all the activities are part of the repetitive serial only “Collection, Creation or Generation”; “Organization”; “Retrieval, Use, Accessibility and Transmission”; and “Disposition”. The two others, namely: “Planning”; and “Storage and Protection” are necessary to embrace all cycles. That means that all other four have their own connection or phase of “Planning”, and “Storage and Protection”. In other words, storage and protection are continuously necessary pillars of the cycle while all repetitive phases must have their own phases in planning.

<sup>34</sup> For example a “spiral”, which is a combination of cyclic but continuously developing processes.

<sup>35</sup> North Atlantic Council. “C-M(2007)0118”. 1-5.

<sup>36</sup> North Atlantic Council. “C-M(2008)0113(INV)”. ANNEX-A 1-A-1.



Later, in the document titled “NATO Information Management Manual”<sup>37</sup> the model has a short description where it is highlighted that stages in the model can overlap and may occur in increments and in different order.

According to this notice, a lifecycle owns a great flexibility. Although the cyclic approach is a good general description but it is not compulsory to insist on the order of all elements.

The summary of the aforementioned phases of the information lifecycle is as follows:

The **storage and protection** ensures the persistence of the information regardless of the medium or format. It may be classical paper, or other electronic ways of storing. On the other hand, the protection of the information handler ensures confidentiality.

The **collection, creation or generation** are ways how information is born. All individuals or organizations within NATO can conduct this activity as part of normal business processes in accordance with IM framework.

**Organization** is a stage for the preparation of information to be accessible, exploitable and capable of disposition. The organization must find a standardized way to ease discoverability and accessibility of the information parallel with the application of the necessary protection.

**Retrieval, use, accessibility and transmission** comprise the phase when the information is used. It ensures the discoverability and provides the exploitation of information.

**Disposition** means transfer the information to archives or destroy it.

**Planning** is the activity to prepare efficient plans about all phases of the information lifecycle considering the mission requirements.

## OBJECTIVES, PRINCIPLES, AND IMPLEMENTATIONS

### Establishment of leading

As it was shown, the NATO Information Management Policy is the top of the NATO IM framework pyramid. In the background of this document is the main initiator, the Riga Summit<sup>38</sup> at the end of 2006. The Heads of State and Government agreed among others on the support Information Superiority. The North Atlantic Council (NAC) approved the NIMP in 2007 and assigned the NATO Consultation Command and Control Board (NC3B) as the lead Council Committee in NATO for IM.

Furthermore, it is important to notice that the NC3B is not the only committee related to IM. The NAC named the following other committees to be coordinated:

- NATO Military Committee
- Political Committee
- NATO Security Committee
- NATO Archives Committee

<sup>37</sup> North Atlantic Council Archives Committee. “AC/324-D(2013)0001: NATO Information Management Manual”. 7 March 2013.

<sup>38</sup> “Riga Summit Declaration”. 29 November 2006. 1. <http://www.nato.int/docu/pr/2006/p06-150e.htm>, Accessed on 29 November 2006.

## Three key objectives

The NIMP lays down the three key objectives of Information Management to support:

- 1.) the achievement of Information Superiority primarily within an information sharing networked environment;
- 2.) effective and efficient use of information resources;
- 3.) identification and preservation of information of permanent value to NATO.

## Seven principles

The document sets out principles<sup>39</sup>. These principles are explained in one or two sentences.

**Information is a Corporate Resource:** Information shall be managed as a corporate (NATO) resource in all processes, regardless of the medium or format in which the information is held.

**Information Ownership and Custodianship:** Means, that all information shall have an originator and clearly defined ownership and custodianship.

**Leadership and Organizational Structure:** This principle regards IM as a fundamental responsibility, which requires executive leadership and organizational structure.

**Information Sharing** is one of the most important principles and indicates a significant turn in the thinking about information sharing. On the contrary of earlier stranglehold of restrictions, “information sharing” means moving emphasis to the “responsibility to share” balanced by the old preference “need-to-know”

**Information Standardization:** in order to promote interoperability and co-operation, information shall have standardized structures.

**Information Assurance** is a principle of protection as the set of measures of Defence with respect to confidentiality, integrity, availability, non- repudiation and authentication.

**Information Needs** is a principle about planning and architecture processes through information needs shall be determined.

To sum up the principles, we can state:

Information is a corporate resource that needs to have a defined owner, a custodian, tasks assigned to the leaders as well an organized structure responsible for the management of information.

Information shall be handled in standardized structures to enhance interoperability by the aforementioned personnel in the structure through its lifecycle in a protected way but all information shall be shared according to responsibility to share. In order to know the requirements, leaders must plan their information needs.

## How to implement

The PDIM defines IM implementation in three big groups according to the NIMP key objectives of NATO IM.

<sup>39</sup> Principles are the following: Information is a Corporate Resource; Information Ownership and Custodianship; Leadership and Organizational Structure; Information Sharing; Information Standardization; Information Assurance; Information Needs.

## Support of information superiority

In this section, PDIM highlights the importance of planning and follow-on plans, and gives guidance how to identify key elements of planning such as when, what format and to whom the information must be provided.

In order to keep operations continuous, NATO bodies must identify and develop procedures to ensure mission-critical IM activities.

## Effective and efficient use of information resources

The use of information resources must be organized in a standardized way. In accordance with the PDIM, using metadata is titled as a key enabler for effective and efficient information sharing. Metadata describe and categorize information. They contain data about ownership and custodianship, protection and access control, retention and disposition, re-usability and comprehensibility, discoverability, and permissible values. Permissible values refer to the content of the information with controlled vocabularies, taxonomies, ontologies and topic maps. This bunch of categories helps users to categorize and find information. All in all, metadata give information about information, help to find and use information. Since metadata must have a collective value, all bodies have to co-ordinate with the IM authority.

Networking and Information Infrastructure (NII) is considered as a key enabler of sharing and re-using information. In order to have an appropriate system, the PDIM emphasizes the importance of NATO standards.

As for systems and services in general, the PDIM gives some overall advice on the easy access of information, e.g. timing, availability etc.

The organizational culture is also considered a key enabler of efficient IM. The importance of training is highlighted as well. In order to build greater organizational culture, individuals must be trained, and awareness of IM must be built.

## Identification and preservation of information of permanent value

This expression contains the obligation of classification of information in the aspect of preservation. All information must be classified as permanent or temporary value and must assign a proper retention period. Information classified as having permanent value must be archived.

## ROLES AND RESPONSIBILITIES

The most important message in the documentation about IM is that information management is not a specific issue for specific IM organizations, but all individuals in NATO working with information must consider information as a corporate resource and recognize that IM is an integral element of work.

The North Atlantic Committee (NAC) is the body that shoulders the responsibility for setting the policy of NATO-wide information management. As it was mentioned before, the NATO C3 board is accountable to the NAC for the coherent implementation of IM. Nations are to agree about policies (NIMP) and encouraged to adopt and execute related policies.

**Individuals and information Originators**<sup>40</sup> and national authorities are addressed to follow the aforementioned principles and must apply and follow relevant rules and standards.

**Information owners** are responsible for setting rules of handling data and possible transferring of ownership.

**The North Atlantic Council** is addressed to monitor and ensure coordinated implementation of the policy and must coordinate among all NAC Policy bodies<sup>41</sup>.

**The NC3 Board and subordinates' tasks.**

The NC3B has three layers<sup>42</sup>

- decider;
- adviser;
- provider.

The decider is the NC3B itself.

The adviser layer consists of four so-called Capability Packages (CaP). A specific capability, like “network and security” or “data management” is a Capability Target (CaT). In other words, a CaT is a specific issue that builds a capability for NATO. CaT-s are grouped according to their characteristic values. The name of this group is Capability Package.

Providers are Capability Targets (CaT) themselves. Although there are some CaTs not put into Packages, they remain under the direct control of the Board.

Information Management has an independent organization within the NC3B as it will be elaborated below.

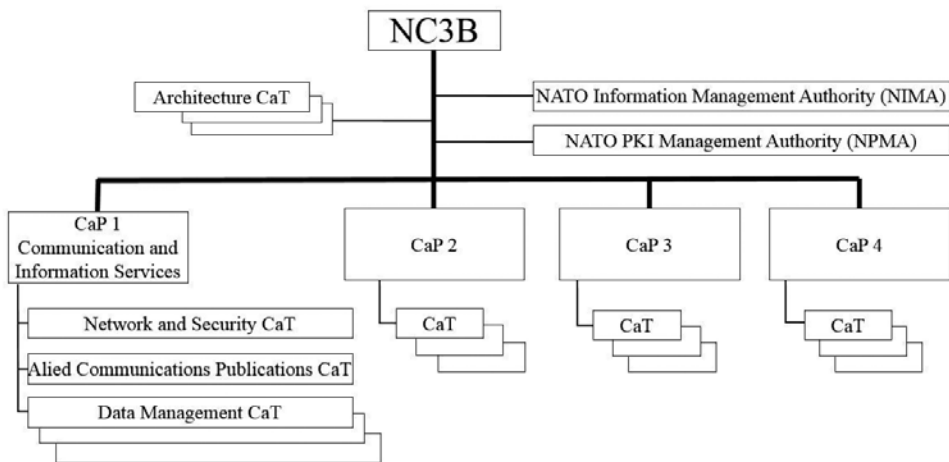


Figure 4: Overall structure of NATO's C3 Board<sup>43</sup>

<sup>40</sup> Originator is the nation or international organisation under whose authority the information has been produced or introduced into NATO. Information Owner in the NATO context means same entity to Originator.

<sup>41</sup> NAC policy bodies: NATO Military Committee; Political Committee; NATO Security Committee; NATO C3 Board; NATO Archives Committee.

<sup>42</sup> NATO NC3 Staff.

<sup>43</sup> Extraction and simplification of NC3 Board published figure. NATO NC3 Staff.

In 2009, to foster the Primary Directive (2008) and based on the principle of “**Leadership and Organizational Structure**”, a coordinated and synchronized approach was introduced. The IM lead council committee, the NC3B proposed a decentralized system of responsibilities with the establishment of NATO Information Management Authority (NIMA). The organizational arrangement for IM within NATO was published by the North Atlantic Council in document C-M(2009)0035(INV) – The NATO Information Management Authority (NIMA).

The Authority was created in a similar pattern to NATO Public Key Infrastructure Management Authority (NPMA) and the Cyber Defence Management Authority (CDMA). The NC3B retains the primary responsibility for assessing the IM capabilities of the Alliance. Consequently, NIMA has become the authority implementing NIMP and PDIM within NATO.

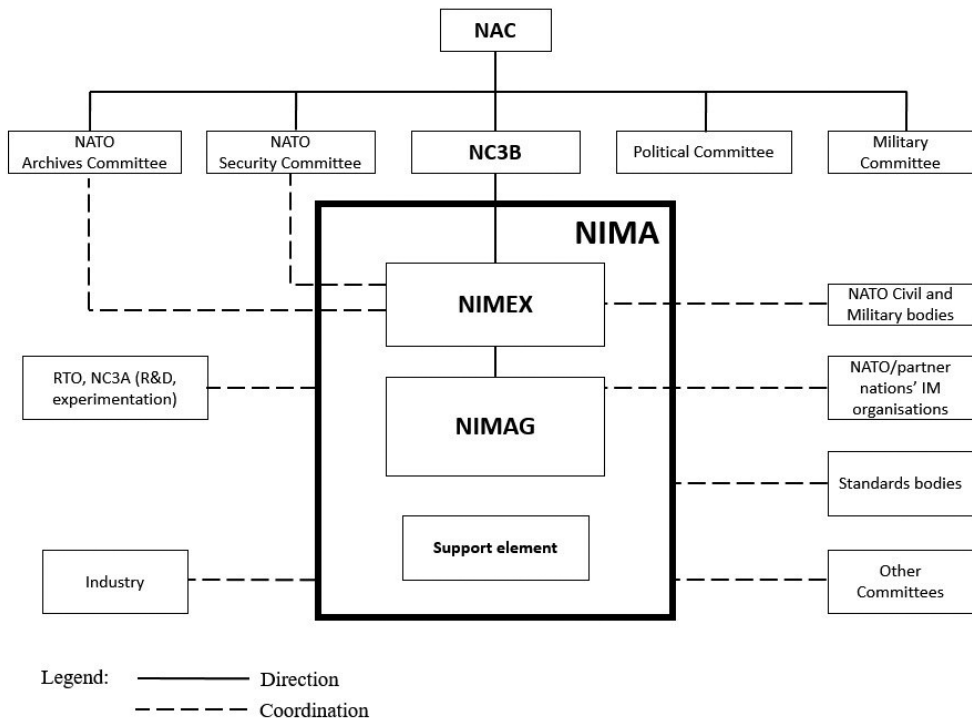


Figure 5: The structure of NATO Information Management Authority<sup>44</sup>

As shown above in Figure 4, NIMA is comprised of the following components:

**NATO IM Executive body (NIMEX)** This body is constituted for consultation at strategic and political levels. NIMEX is chaired by Director NHQC3S<sup>45</sup> and the members are the Senior IM officials of NATO bodies and representatives of relevant Committees.

<sup>44</sup> North Atlantic Council. “C-M(2009)0035 (INV): The NATO Information Management Authority (NIMA)”. 03 March 2009. ANNEX 1 ENCLOSURE. 1-1-3.

<sup>45</sup> NHQC3S: NATO HQ Consultation, Command & Control Staff. NATO staff organization for analysis, advice and actionable recommendations to Nations and NATO Bodies that will lead to the delivery of C4ISR capabilities needed to support Alliance operations and missions and enable Alliance transformation. NATO NC3 Staff.

**NATO IM Advisory Group (NIMAG)** This body is established for co-ordination at technical and operational levels. NIMAG is chaired by the Branch Chief of NATO HQ Information Services Branch, and the participants are Information Managers and other SME<sup>46</sup>-s from the NAC Council Committees. This body provides advice and support to NIMEX and is not a decision-making organization.

**NHQ3S Support Element** NHQ Information Services Branch that existed before NIMA created to support the new organization. Figure 5 describes the co-operation and direction of IM-relevant organizations and subsequent bodies.

**The NATO Archivist:** Appointed by the Secretary General and reports to the Archives Committee. The Archivist coordinates, develops, and ensures long-term preservation and accessibility of information with permanent value.

**The heads of NATO bodies** as leaders must ensure that the relevant policies should be effective. They support the processes with training and appointment of IM senior officials. Also, it is their responsibility to identify and protect essential information.

**Tasks of IM Senior Officials:** Appointed by and responsible to the head of NATO military or civilian body to ensure the implementation of IM and are supported by appropriate staff, IM Senior Officials will:

- establish IM Plan;
- ensure coordinated IM improvements;
- evaluate and report;
- provide proper environment of information across different management and security domains;
- ensure implementation of IM framework;
- implement and maintain IM education;
- liaise in order to define and develop IM;
- agree on service levels with information service providers.

The IM Senior Officials should minimum be supported by the following services to ensure that they could meet the specific obligations of PDIM:

- Security services in the area of information assurance;
- Archives services in the area of preservation of information;
- Registry services in the area of cataloguing and control and dissemination of information;
- Library services in the area of acquisition and availability of external information;
- Training services in the area of IM education;
- Communication and Information Systems (CIS) in the area of effective and interoperable working of CIS infrastructure.

**Tasks of information managers:** Information managers support the IM Senior Official in the execution of the IM Plan and help the staff in the execution of IM related tasks.

The information managers' tasks cover all tasks assigned to the IM Senior Official but Information managers directly contribute to tasks directed by the IM Senior official.

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<sup>46</sup> SME: Subject Matter Expert.

## HOW IM IS REFLECTED IN DOCTRINES

### Stones rolling

In order to lay down top level principles of NATO military operations, high-level conceptual papers called Allied Joint Doctrines (AJP) have been introduced. Among Allied Joint Doctrines, it is possible to recognize a certain hierarchy. On the top of the hierarchy a so-called "capstone" document can be found. The AJP-01(D) Allied Joint Doctrine contains the main principles of allied working and all other doctrines are derivatives of this capstone document. To cover a specific area, subordinated "keystone" documents have been created like AJP-3 Allied Joint Doctrine for the conduct of operations. The numbering of these documents more or less follows the logic of J-G-S structure of NATO-command HQs.

identifier	title	latest version	level
AJP-01	Allied Joint Doctrine	2017	capstone
AJP-2	Allied Joint Doctrine for Intelligence, Counter Intelligence and Security	2016	keystone
AJP-3	Allied Joint Doctrine for the Conduct of Operations	2011	
AJP-4	Allied Joint Logistic Doctrine	2003	
AJP-5	Allied Joint Doctrine for Operational-level Planning	2013	
AJP-6	Allied Joint Doctrine for Communication and Information Systems	2011	

Figure 6: table of the most important AJPs processed in this paper

The current structure of Allied Joint Doctrines including subordinated and derived publications is well described in a chart named Allied Joint Doctrine Architecture (AJDA). The AJDA including all NATO unclassified STANAGs can be reached for registered<sup>47</sup> users on the webpage of NATO Standardization Office<sup>48</sup>.

NATO High level STANAGs are not to deal with information management directly but contain important factors and requirements.

### Allied Joint Doctrine

The capstone document, **Allied Joint Doctrine AJP-01(D)**<sup>49</sup> denominates information as the "fourth corner"<sup>50</sup> of the instruments of national power"<sup>51</sup>. This so-called "corner" receives

<sup>47</sup> Registration is available for any NATO members' official organizational e-mail address after a short period of authorization process. <https://nso.nato.int/nso/sosite/requestmember.html>, Accessed on 28 May 2018.

<sup>48</sup> NATO Standardization Office (NSO) webpage. <https://nso.nato.int/protected/index.htm>, Accessed on 28 May 2018.

<sup>49</sup> "NATO UNCLASSIFIED" document, published by NATO Standardization Agency on 21 December 2010.

<sup>50</sup> According to the AJP-1 the three corner of countries power are the diplomacy, economic power, and the military power.

<sup>51</sup> "AJP-01(D): Allied Joint Doctrine". NATO Standardization Agency (NSA). 21 December 2010. 0106. 1-2.



the name of “information instrument”<sup>52</sup>. The word “information” in the context of AJP-01 is mainly to express the importance and a key factor of interoperability. This point of view refers to and enforces the NIMP principles of “Corporate Resource” and “Information needs”. Another aspect of the usage of information is mentioned in the publication named Information Operations<sup>53</sup>. AJP-01(D) does not explicitly mention or regulate IM.

As the summary of AJP-01(D), it can be stated that this doctrine highlights the importance of information and its essential role in interoperability but directly does not interfere in the matters of IM.

## Allied Joint Doctrine for Intelligence, Counter Intelligence and Security (AJP-2)<sup>54</sup>

This doctrine is deeply involved in the topic of information and information management.

In Chapter 2.1 of AJP-2 as part of the “Contemporary Intelligence engages relationship of data and information”, the document gives a special definition of the information that slightly differs from the definition given in NIMP as it was explained in Chapter “DEFINITIONS AND BASICS” of this paper. This point of view is based on a process named Intelligence Cycle.



Figure 7: *The Intelligence Cycle*<sup>55</sup>

The Intelligence Cycle is “the sequence of activities whereby information is obtained, assembled, converted into intelligence and made available for users”,<sup>56</sup> and it has four stages:

- 1.) **Direction** – the determination of collection;
- 2.) **Collection** - the exploitation of (information) sources;

<sup>52</sup> The information instrument is „adjacent to, and supporting the three instruments of national power” (diplomacy, economic, military) “focused on countering adversarial information and information systems, while defending the Alliance’s own, and is therefore largely coordinated by Information Operations (Info Ops)”. “AJP-01(D)”. 0110. 1-3.

<sup>53</sup> Information Operation is “a staff function to analyse, plan, assess and integrate information activities to create desired effects on the will, understanding and capability of adversaries, potential adversaries and NAC approved audiences in support of Alliance mission objectives.” “AJP-3.10: Allied Joint Doctrine for Information Operations”. November 2009. 0108. 1-5.

<sup>54</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Office (NSO) on 22 February 2016.

<sup>55</sup> Based on “AJP-2”. Figure 2 (4-2), reprocessed by author in order to be similar to the information life-cycle.

<sup>56</sup> “AJP-2”. B-5.

**3.) Processing** - the conversion of information meaningful for intelligence;

**4.) Dissemination** - the timely conveyance of intelligence to those who need it.

The Intelligence Requirement Management and Collection Management (IRM&CM) process monitors and coordinates the four stages of the Intelligence Cycle.

Altogether, this cycle is an information process where information is the object and aim of a specific (intelligence) activity. In this way this approach and definition derived is not a competitive or alternative definition of IM but as a specific process, it is a particular part of the IM as a whole.

Also, an important and frequently used notion concerning IM is the “Request for Information (RFI)”. The RFI is part of a bigger category called Intelligence Requirements Management (IRM), which is similar to IM as both control processes and the information is in the centre of processes.

The commander’s task is to determine the type of required information in the Intelligence Requirements Management. The IRM should contain details of the nature of information required, with priority. IRM considers availability of information and whether it is necessary to collect.

The RFI is a term that describes an intelligence requirement. It is used when the commander wants to use intelligence resources that are not available. In practice it means that the answer will be provided by a superior or adjacent organization.

As a summary of AJP-2, information and data have been treated as coherent notions IM is a process that serves the information process cycle of intelligence.

### Allied Joint Doctrine for the Conduct of Operations, AJP-3(B)<sup>57</sup>

AJP-3 is to describe fundamental principles of joint operations at operation level. In the chapter where this doctrine deals with execution, transition and termination<sup>58</sup>, two IM related notions are introduced: the Commander’s Critical Information Requirements and the Information Management itself as a technique to organize the Battle Rhythm.

#### Commander’s Critical Information Requirements (CCIR):

“Properly developed information requirements ensure that subordinate and staff effort is focused, scarce resources are employed efficiently, and decisions can be made in a timely manner. Information requirements focus on friendly forces, the operational environment or the adversary. The commander will identify only those information requirements, which are particularly important to him. Therefore CCIRs are limited since they must be linked to the critical decisions the commander anticipates making. This focuses the commander’s subordinate commanders’ and staff’s planning and collection efforts”<sup>59</sup>

According to the doctrine, in the centre of the effort of an effective IM are the CCIRs, and IM directs the processing, flow and use of information.

The notion of Battle Rhythm is introduced as a 24-hour repetitive routine of meetings, briefings and miscellaneous gatherings. This time-controlled work intends to reach

<sup>57</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Agency (NSA) on 16 March 2011.

<sup>58</sup> “Chapter 4 – Execution, Transition and Termination”. In NATO Standardization Agency (NSA). “AJP-3(B): Allied Joint Doctrine for the Conduct of Operations”. 16 March 2011. 1-23.

<sup>59</sup> “AJP-3(B)”. 0415. 4-5.

an optimal performance of the staff. At the meetings several tools are used to present and make a common understanding of the information collected. One of them, the Situational Awareness is to understand operating environment in the context of the ongoing mission. This geospatial representation of force and other supporting information is essential to a common understanding of the situation and decision-making.

Information Management is introduced as a technique used to aid shared Situational Awareness among Synchronization Matrix<sup>60</sup>, Mission Rehearsal<sup>61</sup>, Mission Essential Checklists<sup>62</sup> and War-gaming<sup>63</sup>.

**“Information Management (IM).** JFCs make decisions based on their understanding of the operational environment. The role of IM, then, is to provide a timely flow of relevant information that supports all aspects of planning, decision-making, and execution; to include all activities involved in the identification, collection, filtering, fusing, processing, focusing, disseminating, and using information. Information management officers (IMOs) assemble information that promotes understanding of the information environment and enable the JFC to better formulate and analyse COAs<sup>64</sup>, make decisions, execute those decisions, and understand results from previous decisions.”<sup>65</sup>

As the summary of AJP-3, the main factor of the various aspects of the information is the critical importance (CCIR), and IM has a supporting role as a technique to facilitate information activities. In this doctrine, Information Management Officers (IMOs) are named explicitly and specific tasks are assigned to them. It is important that IM is considered as an activity that provides timely delivery of information and IMOs are responsible for supporting this activity.

**Allied Joint Logistic Doctrine, AJP-4(A)**<sup>66</sup> does not really deal with information and its management.

Information as an important entity appears among principles as part of the principle “simplicity”: “simple reporting mechanisms ensure the accurate and efficient dissemination of information to all those who require it”<sup>67</sup>. In this manner, the text harmonizes with NIMP principle of “Information Sharing” and “Information Standardization”.

In AJP-4(A), the word “information” later appears mainly in the context of Information and Logistic Information Systems.

**Allied Joint Doctrine for Operational-level Planning (AJP-5).**<sup>68</sup> To the contrary of AJP-3B, this doctrine concentrates on planning joint operations instead of principles of conduct of operations.

<sup>60</sup> Synchronization Matrix is a matrix showing broad order activities. “AJP-3(B)”. 0441/b. 4-15.

<sup>61</sup> Mission Rehearsal is a technique to conduct walk-through activities in the mission. “AJP-3(B)”. 0441/c. 4-15.

<sup>62</sup> Mission Essential Checklists are matrixes containing actions and sequences including anticipated outcome concerning the mission success. “AJP-3(B)”. 0441/d. 4-16.

<sup>63</sup> War-gaming is an activity when the planned activities are modelled in a mathematically abstracted way in order to estimate success of plans. “AJP-3(B)”. 0441/e. 4-16.

<sup>64</sup> COA: Course of Action, an important element of planning process.

<sup>65</sup> “AJP-3(B)”. 0441/a. 4-15.

<sup>66</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Agency on December 2003.

<sup>67</sup> “AJP-4(A): Allied Joint Logistic Doctrine”. NATO Standardization Agency (NSA). December 2003. 0105/h. 1-4.

<sup>68</sup> “NATO UNCLASSIFIED” document, published by NATO Standardization Agency (NSA) on 26 June 2013.

In this doctrine information is considered as one of the operational level factors among time, space and forces.<sup>69</sup> Information as an operational factor must be considered through the whole planning process. Time, space and forces as traditional operational factors are linked with the fourth factor: the sphere of information. An interesting notification can be found about the importance of information that says that in today's operation instead of the quantity the orientation of information is important. That aspect of "orientation" reflects the basic role of information management.

Meanwhile, the doctrine does not explicitly defines or cares about IM as defined in PDIM but the emphasis on the importance of the correct information process and flow of information is a repetitive part of the document. The notion of information appears in the text in the connotation of critical information, information operations, and information systems and Strategic Communication<sup>70</sup> as well.

As a summary, AJP-5 introduces a new expression about information, the "information sphere" and although it expresses the importance of managed information flows, IM as defined in PDIM does not explicitly appear in the text.

**Allied Joint Doctrine for Communication and Information Systems (AJP-6).**<sup>71</sup> The declared purpose of this Doctrine is to provide guidance of integration, Communication and Information Systems (CIS) for allied joint operations including a set of roles and responsibilities and desirable characteristics of CIS in order to support operational commander's command and control (C2).

This doctrine approaches the information and its management from the point of view of CIS. AJP-6 clearly defines the term "communication system"<sup>72</sup> and "information system"<sup>73</sup>

According to its text, "an information system is an assembly of equipment, methods, and procedures and, if necessary, personnel, organized to accomplish information processing functions"<sup>74</sup>

Among the terms, information is called a "vital corporate resource" and with the direct quotation of NIMP, six key principles of IM are included in the text. NIMP contains seven principles (see: Chapter 3).

Information management as a notion appears as Communication and Information Systems Principle in the company of "Communication and Information Systems Structure" Economy of CIS Employment, Interoperability, Flexibility, Information Assurance, Spectrum Management, Data Security, Timeliness, Information Sharing, Prioritization, Resilience, and Capacity.

According to AJP-6, the Communication and Information Systems Information Management is defined as a discipline referring to the flow of information. Activities named in connection with IM are the following:

- gathering;
- storing;
- processing;
- directing;
- reporting.

<sup>69</sup> "AJP-5: Allied Joint Doctrine for Operational-level Planning". NATO Standardization Agency (NSA). 26 June 2013. 0225. 2-21.

<sup>70</sup> Strategic Communication: "Militarily it is the coordination of communications and information activities and products to support the creation of desired effects and the achievement of the commander's objectives". "AJP-5: Allied Joint Doctrine for Operational-level Planning". 26 June 2013. 0107/1. 1-7.

<sup>71</sup> "NATO UNCLASSIFIED" document, published by NATO Standardization Agency (NSA) on 6 April 2011.

<sup>72</sup> Communication system is "an assembly of equipment, methods, and procedures and, if necessary, personnel, organized to accomplish information transfer functions." "AJP-6: Allied Joint Doctrine for Communication and Information Systems". NATO Standardization Agency (NSA). 6 April 2011. 0102/a. 1-1.

<sup>73</sup> "AJP-6". 0102/b. 1-1.

<sup>74</sup> "AJP-6". 0102/b. 1-1.

The list of these five information activities does not match fully either the stages of information life-cycle defined in PDIM or the phases of the intelligence-cycle.

Here is the combination of categories of both cycles

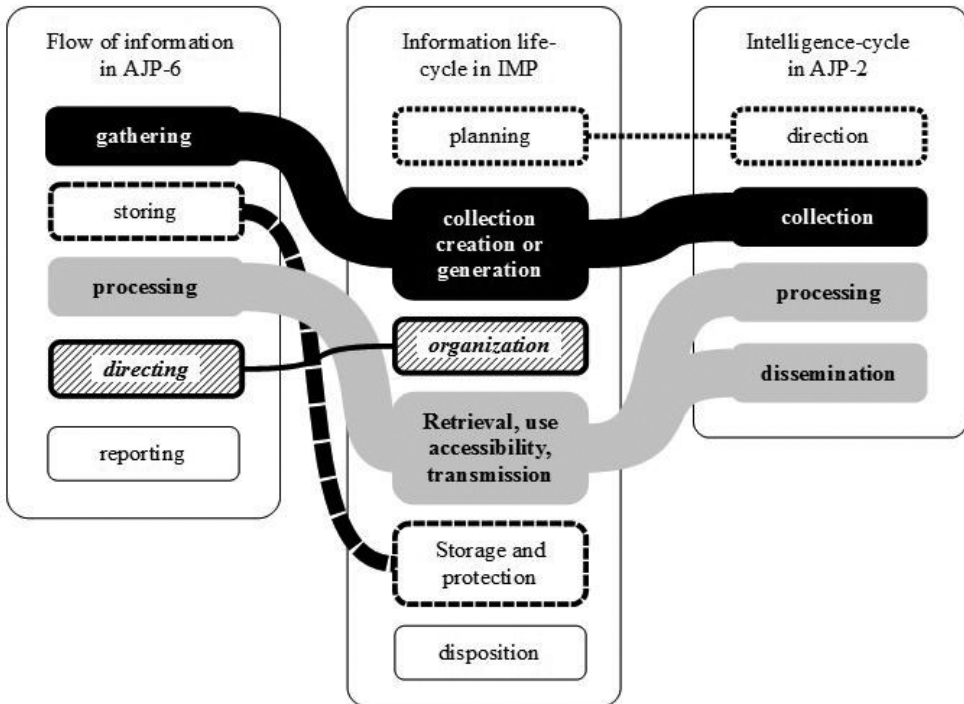


Figure 8: *relations between elements of information processing in various sources*<sup>75</sup>

After analysing logical connections between notions, it can be said, that AJP-6 and AJP-2 do not regulate the disposition of information by definition. That is a consequence of the aforementioned CIS and intelligence technological point of view. Reporting is a unique activity in AJP-6, which approaches information from the technical aspects of its processing. The basic AJP-6 point of view about information flow is linear contrary to NIMP and AJP-2 cyclic approach.

## SUMMARY

According to NATO, information is a critical resource. It has a specific life-cycle. In order to treat information well, a defined discipline, named Information Management is necessary.

Information management, as defined in the NATO policy and subordinated directives, has three key objectives: achievement of Information Superiority, effectiveness, and preservation of valued information. To reach the aforementioned aims, well-defined principles have been identified. In order to achieve the desirable requirements, IM has a specific organizational structure consisting of a Management Authority (NC3B) and various systems of responsibilities in NATO bodies at national level.

<sup>75</sup> Author's drawing.

All heads and members of NATO bodies have extra responsibilities to support IM among other tasks connected to their positions.

In order to treat information as a set in the alliance policies, new roles have been defined referring to the information and IM, such as originator, owner and custodian. New organizational positions are named in order to support IM with specific tasks, namely IM Senior Official and Information Manager. The IM Senior Officer must be supported by existing services dealing with information, such as Security, Archives, Registry, Library, Training and CIS services.

In conclusion, this approach of NATO builds a solid fundament of effective work, since information is treated as organic and part of a system, with no regard to the different formats of information, such as traditional paper, audio-visual, or electronic ways of information representation.

In this paper, it was possible to recognize the difference between IM and other information processes. IM supports the treatment of information generally through its lifecycle while in other information processes, like intelligence process the objective is to support a specific area of military work having information as only one of the important tools.

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Lt. János Csengeri:

## REMOTE TOWERS II.<sup>1</sup>

*ABSTRACT: In the present article the author demonstrates the process of the formulation of remote tower as a concept and technology and interprets the general layout of the system. The advantageous attributes and added values are summarized and compared with the ordinary tower control. The manufacturers and international experiences and instances are shown as well as the utilization and the research and development activity in Hungary regarding the remote tower control.*

*KEYWORDS: remote control, ATC tower, remote tower control, virtual ATC tower.*

### INTRODUCTION

It is the air traffic/airport remote controlling that seems to be the main direction in the air traffic controlling sector, which determines the interests of the sector and carries promising innovative possibilities. Air traffic control, as a type of service, and military air traffic control, within the defence public service sector, are facing a wide range spread of technology which represents significant added values concerning the topic. In the present series of articles, consisting of three parts, I examine this type of technology, namely the Remote Towers (r-TWR), and its connections to other areas.

In the first part<sup>2</sup> I presented the development and use of remote control technology, furthermore, I dealt with remote sensing, too. I specifically emphasized the development, spread, capabilities and opportunities of services and technology of remote airport tower control. I also represented the solutions of atypical air traffic control towers, the mobile air traffic control tower, as well as the remote virtual control tower.

In this, second part of the series, I will demonstrate the process leading to the present technological concept, and I will outline the construction of the system. As a matter of course, the advantageous features and added values of the system will also be presented, compared to the traditional tower control. I will mention the international experience gained so far, the availability of research and development activity in our country, and the possible places to apply the solutions.

### THE FORMATION OF THE TECHNOLOGY<sup>3</sup>

As I have mentioned above, in the first part of the series I presented the appearance of remote controlling in the air traffic control sector in detail. In that certain case, it is a radar-based

<sup>1</sup> The work was created in commission of the National University of Public Service in the Győző Concha Doctoral Program.

<sup>2</sup> Csengeri, J. "Remote Towers I." *Hadtudományi Szemle* X/3. 2017. 8–25.

<sup>3</sup> Fürstenau, N. "Introduction and Overview". In Fürstenau, N. (ed), *Virtual and Remote Control Tower: Research, Design, Development and Validation*. Cham: Springer International Publishing, 2016. 5–12.

control we talk about, which means signals on a screen, provided by radars, which result in the abstraction/image of a given airspace. In this case, it is not enough to simply present the working site, but it should be indicated in its reality with motion picture, in close to real-time, with the correspondent Frame Per Second (FPS) rate, and afterwards, supplementary functions enhancing effectiveness may be adjusted to it. All this is going to be dealt with later on.

One very early proposal for a revolutionary new virtual control tower work environment was put forward in 1996. A virtual reality (VR) concept was proposed for air traffic control which was called virtual holography. Nowadays VR projection systems of this type are commercially available but the actual research towards remote tower operation (RTO) took a more conservative course.

Another initial experimental research was the retinal laser scanning display for the support of tower controllers. One motivation for investigation in the so-called optical see-through technology was the perspective to reduce head-down times in the tower so that controllers can read display information without losing visual contact to the traffic situation on the movement areas.

Another example is the transparent head up display in the form of the holographic projection screen which was investigated by means of laboratory experiments and tested under operational conditions at Dresden tower. Here the idea was investigated to augment air traffic controller's direct view out of the control tower windows, for example by weather data, approach radar and flight data information superimposed on the far view without additional head-worn gear.

During that time the DLR team decided to drop the original idea of augmenting the controller's view out of the real-tower windows by means of the optical see-through technology and to follow the video see-through paradigm instead, for example, using the video reconstruction of the environment as a background for superposed additional information. This solution illuminates latency problem, for example, the information delay superimposed by real world. Many discussions among domain experts at that time led to the question if the virtual tower idea could provide solution for a rather urgent requirement: cost reduction in providing aerodrome control service to small, low-traffic airports. Such a requirement for cost reduction and increase of efficiency leads to our main topic: the remote tower as a paradigm change for low-traffic airport surveillance from a distant location and perspective of a single remote tower center (RTC) for aerodrome traffic management of several small airports.

The corresponding high-quality video reconstruction of the far view became the main technical research topic for the next eight years (2005-2013). In 2008 experimental or initial human-in-the-loop simulations started at the remote airport traffic control centre. The above mentioned process had been carried out at DLR (Deutsches Zentrum für Luft- und Raumfahrt – German Aerospace Center) at Braunschweig Research Airport. The first phase of the experiments with virtual reality technology lasted from 1996 until 2002, the second phase has been lasting since 2002 until present. In the meantime, experiments and related research activity had been carried out in several countries like the United States, Sweden and Hungary as well.

## LAYOUT OF REMOTE TOWER CONTROL SYSTEMS

### Camera

Generally fix and PTZ high resolution cameras are deployed at remotely controlled airfields in order to provide adequate visualization of the aerodrome.

PTZ stands for pan, tilt and zoom. The two terms which should be explained are pan and tilt. In cinematography and photography panning means swivelling a still or video camera horizontally from a fixed position. This motion is similar to the motion of a person when they turn their head on their neck from left to right. Tilting is a cinematographic technique in which the camera stays in a fixed position but rotates up/down in a vertical plane. Tilting the camera results in a motion similar to someone raising or lowering their head to look up or down.

Nowadays two layouts of camera deployment are utilized. At small sized airports the visualization (place of the cameras) is realised from one single spot and this is the way how a 360° panorama is provided (Figure no. 1.). At a medium sized airport (like Liszt Ferenc International Airport) cameras have to be deployed differently in order to reduce the distortion and to provide proper visualization opportunities from all over the aerodrome (Figure no. 2.). Furthermore, it is general (and recommended) to deploy cameras at places which are considered as „hotspots”, such as main intersections and junctions, thresholds or touchdown zones, heliports, etc.



Figure 1. *Camera system at a small sized airport*

Source: “Remote Technologies in Air Traffic Management (ATM) RPSA demo”. <https://www.youtube.com/watch?v=qQy6cXYx43M>, Accessed on 15 November 2017.

## Data Link

Properties of data links vary on a quite wide scale. In general we can state that the high resolution and high-dynamic range camera picture and often audio data (the noises at the airport) are put through a wide bandwidth fibre optic ethernet (for example 100 Mbit/sec) connection. It is advisable to split the data flow into two directions: one should feed the data compression and encryption computers for data storage (for the capability of replay) and the other one drives the simultaneous real-time image processing for movement detection.<sup>4</sup>

<sup>4</sup> Fürstenau, N. and Schmidt, M. “Remote Tower Experimental System with Augmented Vision Videopanorama”. In Fürstenau, N. (ed), *Virtual and Remote Control Tower: Research, Design, Development and Validation*. Cham: Springer International Publishing, 2016. 172–174.



Figure 2. Camera spots' layout at a medium sized airport

Source: HungaroControl. "Remote Tower video". <https://www.youtube.com/watch?v=DWCRpyCi2i8>, Accessed on 15 Nov 2017.

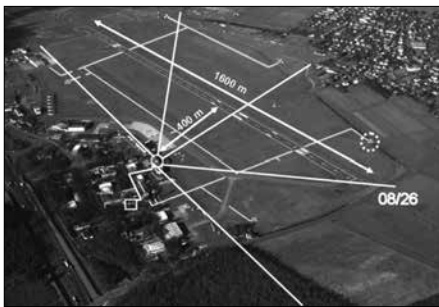


Figure 3.: Data Link of rTWR System of Braunschweig Research Airport (yellow lines)

Source: Fürstenau, N. and Schmidt, M. "Remote Tower Experimental System with Augmented Vision Videopanorama" In Fürstenau, N. (ed), *Virtual and Remote Control Tower: Research, Design, Development and Validation*. Cham: Springer International Publishing, 2016. 174.

## Control Room

As for the control rooms, they consist of two major parts: the visualization and the controller working positions. There are two solutions regarding the visualization. One utilizes projectors which are mounted onto the ceiling of the room and projects the camera picture onto a white screen. This version of presentation is getting to be discontinued, just to mention one reason: the projected image is disturbed when an object (or human for instance) gets between the projector and the white screen. Furthermore, a projector is much more sensitive and fragile device than a modern LED/LCD (Light-Emitting Diode/Liquid Crystal Display) television.

So the other solution is the creation of a flat video wall like on Figure 3, where an 8x4 55" LCD television has been built in front of the CWP (Controller Working Position) to provide common visual reference for all ATCOs (Air Traffic Controller) and SV (SuperVisor).

All the fix and PTZ views are combined into one LCD screen which is presented at every ATCO CWP. The control of the PTZ camera can be linked to one CWP to control the PTZ and the other CWP can follow the presented picture. A control can be requested and shall be released by the "owner" (controller) of the PTZ. On the top of Figure 3 the allocation and distribution of camera images can be seen.

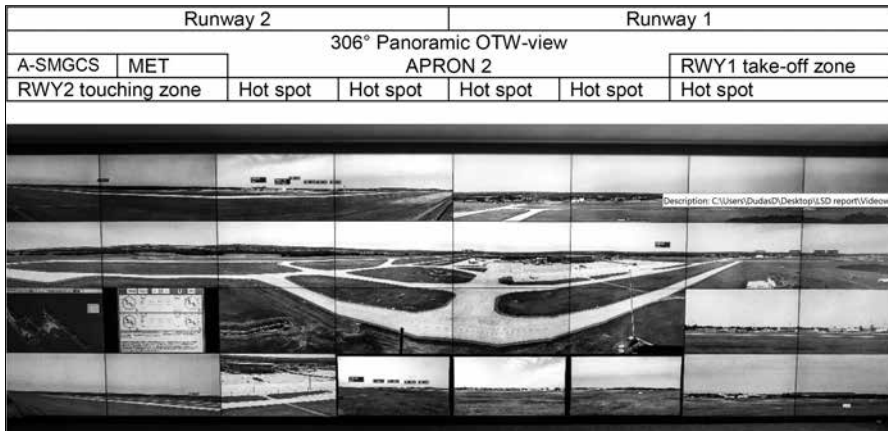


Figure 4: Combined rTWR video image wall

Source: Corte, L. and Füredi, E. *Demonstration Report. Project title: Budapest 2.0. Budapest: Pildo Labs, 2017. 81.*

The Controller Working Positions consist of integrated air traffic control systems and other supportive measures as it can be seen on Figure 4. The complexity of such a working position can also be observed. The different elements of the working station are labelled, where:

- MET is the required meteorological information provider display;
- A-SMGCS (Advanced-Surface Movement Guidance and Control System) is the tool for monitoring and controlling ground movements;
- MATIAS (Magyar Automated and Integrated Air Traffic System) is an ATM (Air Traffic Management) system including radar screen, handling flight plans etc. Indicates Mode S data, searches and detects possible traffic conflicts, provides the possibility to exchange data among neighbouring air traffic service providers, etc.;
- EAVD (Enhanced Airport Vision Display) is for individual video processing and presentation in CWP and at video wall;
- AGL (Airfield Ground Lighting) provides information about automated light control system's status;
- ILS (Instrumental Landing System) provides information about the operability and status of the landing system;
- VCS (Voice Communication System) makes both the radio and telephone based communication possible;
- AFTN (Aeronautical Fixed Telecommunication Network) is a worldwide system of aeronautical fixed circuits provided, as part of the Aeronautical Fixed Service, for the exchange of messages and/or digital data between aeronautical fixed stations having the same or compatible communications characteristics.

These working positions are complete and totally suitable to perform a professional air traffic controlling activity. In a single virtual tower control room there might be several working positions which may be differentiated by tower functions, like clearance delivery, ground control, local controller, etc. Up to now there has been no instance for that, but working positions may be equipped with their own video walls and small airfields may be controlled by one single controller as the conceptual footage of SAAB<sup>5</sup> envisions this.

<sup>5</sup> "SAAB Remote Tower". <https://www.youtube.com/watch?v=Gqv8EECMXJM>, Accessed on 01 March 2018.



Figure 5.: *Controller Working Position in a rTWR*

Source: *Corte, L. and Füredi, E. Demonstration Report. Project title: Budapest 2.0. Budapest: Pildo Labs, 2017. 80.*

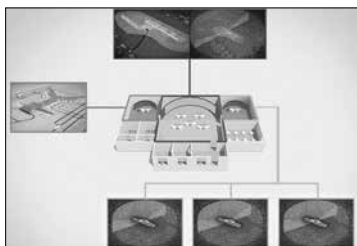


Figure 6. *System of Remote Tower Controlling*

Source: *"Multi-Remote Tower Concept of Operation". Searidge Technologies. <https://searidgetech.com/media/Remote-Tower-Centrel.jpg>. Accessed on 11 Nov 2017.*

## The Overall Result

Thus out of these elements several variations can be worked out concerning the remote, virtual towers, adequately to the actual needs. The basic solution is the one, where air traffic controlling of one airport is carried out from one control room. The next level is when controlling of two or more airports happens from one control room. We may accept it as the same level, when several working positions are installed in one control room, but only one is active, and this single one controls the traffic of several airports. The most complex solution is when several control positions are installed in one control room, many of them are active, and each working station is responsible for controlling the traffic of more than one airport.

As it is seen, very complex systems and control networks can be constructed, but most of them exist on conceptual basis; only the first, the simplest variation has been put into real operation so far. It took a long time's planning to allow carrying this out, and likewise, we will need many years' experience and the sector's trust to be able to apply complex and reliable systems.



## ADDED VALUES – LESSONS LEARNED FROM A HUNGARIAN EXPERIMENT<sup>6</sup>

*Setting up a remote tower needs less capital investment than setting up a new conventional tower.*

High level financial analysis shows that the implementation costs of a remote tower facility are considerably lower than those of a conventional tower. The model builds on the assumption that the ATM systems are similar in both cases. Another important assumption is that remote tower can be set up in an already existing (even office like) environment. What makes the difference is the deployment of camera sites, video system, and the necessary network elements on one hand, and the investment needed for building a new tower building and basic infrastructure on the other hand.

In order to make a detailed assessment for specific cases, the basic assumptions need to be validated in the first place. Then, the model should be adjusted with local characteristics like available network, visualization needs, state of the current tower, and other relevant elements of the concept of operation.

*There is no significant difference in operational expenditures related to remote tower and conventional tower.*

In the case of a single medium traffic airport operation, the basic assumption was that the remote solution does not cause any changes in ATCO staffing. The main elements of the comparison are the maintenance costs of conventional and remote tower infrastructures. In our specific case, these costs elements are at similar level, so the concept does not cause a significant difference.

Actual comparison is dependent on the concept of operation, local environment, and the validity of basic assumptions.

*An rTWR working environment can provide the same level of comfort and ease for ATCOs as the CWP's at a conventional tower.*

ATCO feedback suggests that the rTWR facility is appropriate for its purpose and it can be a comfortable working environment even for longer durations. ATCOs reported a mild increase in their stress levels that can be attributed to the 'first-time' effect during the demonstration. After a short customization period their behaviour implied the same level of comfort as in the conventional tower.

The importance of this subject should be assessed according to the purpose of the rTWR solution: contingency facility, temporary operation or full-time operation centre.

*ATCO workload does not change significantly as a result of the extra controlling needs of the new equipment.*

After the mandatory learning period ATCOs were able to control the elements of the visualization in a way that did not effect their workload considerably. ATCO feedback was collected about the necessary adjustments to the video control system that would decrease their workload and frustration, therefore potentially increase capacity.

In a medium size airport environment with several ATCO positions the controlling of the visualization system can be a cause of extra workload. In order to avoid this effect, visualization system should be configured to support work by multiple people (ie. position specific presets, easy PTZ control, effective target tracking).

<sup>6</sup> Corte, L. and Füredi, E. *Demonstration Report. Project title: Budapest 2.0.* Budapest: Pildo Labs, 2017. 87–89.



*Video wall provides reliable visual information to build up a mental image of the traffic situation.*

The result of the analysis shows that ATCOs have different patterns in using the elements of the ATM system (MATIAS, ASMGCS, video wall) when it comes to building up a mental image of the traffic. Some of them claim to rely mainly on the radar screens, others say they use the visual representation for that. Both ATCO preferences were represented during the demonstration and none of them reported major issues regarding maintaining the mental picture of the traffic.

If there is adequate radar coverage (air and ground), it might not be necessary to provide a video image of the entire area of responsibility. The area displayed on the video wall should be divided based on the concept of operation, specific traffic characteristics, and local procedures.

*ATCOs are able to handle the normal traffic from the rTWR facility during limited visibility conditions.*

Live operation was demonstrated during limited visibility conditions (heavy rain and mist) without any issues. Visualization provided adequate support for maintaining the required capacity.

In a further stage of development, IMC and LVP capacity could be revised on the basis of the enhancement potential of the visualization.

*A video wall provides enough visual information to build up a mental image of the traffic situation.*

As stated above, the video wall together with the other relevant ATM systems provides sufficient information to support the level of situational awareness required by ATCOs. However, ATCOs claimed occasional confusion that can be attributed to the small amount of experience with this specific visual representation.

Adequate time should be allocated to customization with the visualization during ATCO training. This is not equal to the time that it takes to learn the functionalities, it takes longer to gain confidence to handle the system with the necessary routine, and mainly to get used to working with a different image of the movement area.

## SWOT ANALYSIS

The chart below (Table 1.) aims to summarize the characteristics of remote tower control technology with the help of a popular methodology, the SWOT analysis (SWOT analysis – Strengths, Weaknesses, Opportunities and Threats). Applying this method makes it possible to see not only the advantageous perspectives of the given subject, but also the weak ones, and at the same time it gives the opportunity to highlight the occurrent threats.

Strengths	Weaknesses
It is not necessary to build a remote tower building at the aeroport at high costs; Application of advanced sensors in various periods of the day and all weather conditions; Solutions helping the work of the air traffic controller.	Errors are not acceptable; Distrust of the sector; Early stage of the technology and the methodology.
Opportunities	Threats
Cost-effectiveness; Neglecting the lack of building site; Controlling several airports from one spot; Traffic can be controlled from a safe center on operating site; Limits of human sight/attention may be exceeded; Application of virtual reality; More effective investigation in flight disaster cases.	Dependence on technology; Vulnerability; Virtual threats; Loss of capabilities concerning the acquired controlling capabilities.

Table 1: SWOT Analysis of Remote Tower Control Technology

Source: collected and edited by the author.

## Strengths

- *It is not necessary to build a remote tower building at the aeroport at high costs:* as I have already mentioned above, among the added values, the significant advantage of rTWR technology is its low cost of implementation. The new control tower at MH Pápa Bázisrepülőtér (military airfield at the town of Pápa, Hungary) was inaugurated a short time ago, the positioning and height of which caused a lot of troubles, because a new hangar serving the C17 airplanes was built close to the end of the runway, which disturbed the view of the imaginery extension of the runway (which is extremely important in air traffic controlling, furthermore the standards also cover this area). This aspect influenced the size and the location of the tower to a great extent. It is a well-known fact in the Hungarian Defence Forces that the building (and not exclusively the devices) of the tower control at Szolnok military airfield should be restored. Certainly, with the utilization of the remote tower control, the tower building in use is being amortized, and in the course of time its renovation will be needed, but with the use of this possible solution, the (nearly) same expenditures are not to be paid after each operated airport. The tower control facility of Liszt Ferenc International Airport is also facing a renovation, which means far higher investment than it is in the case of military airports. It is not surprising that rTWR technology is being introduced at the airport at full blast, reducing the high costs.
- *Application of advanced sensors in various periods of the day and all weather conditions:* we all know the limits of human eyesight; at night, or under rainy, foggy weather conditions eyesight sensing abilities significantly reduce. As a resolution, night vision cameras can be installed, furthermore, the ability of these cameras to see through the fog is also much better than that of the human eye.
- *Solutions helping the work of the air traffic controller:* referring to the previous point, several functions simplifying the air controller's work can be added to the represented

camera image. The borders of the runways and taxiways can be marked with coloured lines (these borders are very difficult to define from a big distance even in the case of good visibility). The data of the radar can be assigned to the camera images, where the basic information is indicated (e.g.: call sign, code number of S-mode, height, speed, etc.) in a label box, furthermore these labels would appear at the time when the airplane is not visible, nor displayed by the camera image, but the radar data are already available. Over the working sites, the certain zones out of use could be indicated, therefore the controller is not likely to direct an airplane there. Binocular function is also available, which simplifies the examination of the particular terrain compared to the traditional telescope function. The following one is just an idea, but with the help of virtual reality glasses (that was the starting point of technological research) and proper cameras installed at the important spots of the airport, the controller may reach an even better view on the situation, as if being in the position of the perspectives of the scene. Trying to save the space, I am not going to present pictures depicting these solutions, but in the quoted videos the mentioned functions are well observable.

## Weaknesses

- *Errors are not acceptable*: this statement is certainly true for the whole of the air traffic sector, however, here I am referring to the fact, that the camera-datalink-display triplet should operate with a very low error-level to make the technology reliable for the experts, for the profession itself, and for the public opinion. It is, after all, not likely to happen that the human eye loses its contact with the human brain all of a sudden; something similar would happen in the case of losing visualization, consequently, this is that certain minimum level that must continuously work. This can be achieved with the proper defence of the airport<sup>7</sup>, with data encryption, with the installation of spare components, with multiplying etc.
- *Distrust of the sector*: I have already mentioned the matter of trust/reliability before, now I am going into details. Fortunately, reliability is not denied because of any kind of accident or harmful event that would have happened earlier in the course of applying the technology. Simply, there are few people having close experiences with rTWR technology or spending enough time in the meantime of operation. It is a general human feature to be afraid of the unknown, or at least keeping distance with it. In time, however, with increasing application, and growing experience with the operation in the controller working position without hazards or accidents, reliability will also grow.
- *Early stage of the technology and the methodology*: at present we are talking about a young and constantly developing technology, the errors of which should be under constant repair. As I have already mentioned, for the time being, this technology has been applied in simple forms. Its operation under difficult circumstances, such as controlling several airports from one center, or controlling several airports from one controlling working position, has not been tested yet. I consider this the most significant weakness of the technology at the moment, compared to the traditional air traffic controlling. Visualization (out of conflict situation) seems to be stable, trust is growing, and human curiosity

<sup>7</sup> Csengeri, J. "Repülőterek távoli környezetének megfigyelési lehetőségei". *Honvédségi Szemle* 143/6. 2015. 63–74.

is even increasing it. However, risks deriving from the young age of the technology are considerably higher than those of a conventional system, and, from this aspect, the Hungarian Defence Forces are not compelled to take any risks. It is acceptable to wait a few years until the technology is introduced, and in case the expectations are met, and further steps are taken successfully, the introduction of the technology will be highly advisable.

## Opportunities

- *Cost-effectiveness*: this aspect has been referred to several times before. It is a very important factor from the point of view of an enterprise or an organization but it should not result in a lower level of general security in this case: the security of the airplane, what is more, the level should desirably be higher. Cost effectiveness, compared to the traditional tower controlling, is mentioned at several places<sup>8</sup> as the advantage of the system, but in the lack of tested multiple systems, it cannot be accepted clearly as strength, so for the time being, it remains an opportunity.
- *Neglecting the lack of building site*: compared to the traditional tower controlling, this aspect is considered also to be an important advantage, but there has been no case where it could mean a real advantage. That is, introduction of remote controlling instead of building a new tower on the territory of an operating airport, or applying rTWR instead of a tower facility at a new airport has not been the case so far. Still, the possibility is at hand.<sup>9</sup>
- *Controlling several airports from one spot*: as it has also been mentioned before, it remains merely an opportunity, too, as there has been no realization yet, but the tests and experiments are taking the technology to this direction continuously. To reach a real high cost-effectiveness, this feature should be applicable in practice. This is the point where the Hungarian Defence Forces and the HungaroControl Hungarian Air Navigation Services Pte. Ltd. Co. are striving, that is to control the airports of Budapest, Debrecen, and Pápa from one spot.<sup>10</sup>
- *Traffic can be controlled from a safe centre on operating site*: personal safety in a conflict, on operating site is a factor of high importance<sup>11</sup>, and it can be significantly increased with the technology in focus. Airports during conflicts, from technical point of view or because of the number of people present, are accepted as highly endangered facilities in

<sup>8</sup> Corte, L. and Füredi, E. *Demonstration Report. Project title: Budapest 2.0*. Budapest: Pildo Labs, 2017. 87.; Avinor. "Air Navigation Services-Remote Towers". Avinor. <https://avinor.no/en/avinor-air-navigations-services/services/remote-towers/>, Accessed on 01 April 2018.

<sup>9</sup> Vas, T. "The Remote and Mobile Air Traffic Control Tower and its Possible Application to the Operational Area". *Journal of Defence Resources Management* 5/2. 2014. 147–152.

<sup>10</sup> "Stratégiai partnerségi megállapodás a korszerű polgári-katonai léginavigációs szolgáltatásért". Honvédelmi Minisztérium, Hungarocontrol Magyar Légiforgalmi Szolgálat Zrt. Budapest, 22 March 2016.; Paulov, A. "Feljegyzés-A Hungarocontrol Magyar Légiforgalmi Szolgálat Zrt. kutatás-fejlesztési projekttel összefüggő megkeresésről". Honvédelmi Minisztérium Hatósági Hivatal. 19-34/2016. 21 April 2016.

<sup>11</sup> Horváth, T. "Az IED hálózat, mint korunk egyik aszimmetrikus kihívása". In Csengeri, J. and Krajnc, Z. (eds), *Humánvédelem: békeműveleti és veszélyhelyzet-kezelési eljárások fejlesztése*. Budapest: Nemzeti Közszolgálati Egyetem, 2016. 275–298.; Horváth, T. and Padányi, J. "Műszaki eszközök a békétámogató műveletekben és a fejlesztés lehetőségei I.". *Katonai Logisztika* 14/4. 2006. 96–130.; Horváth, T. and Padányi, J. "Műszaki eszközök a békétámogató műveletekben és a fejlesztés lehetőségei II.". *Katonai Logisztika* 15/1. 2007. 68–86.

the case of asymmetric warfare (e.g.: in Afghanistan<sup>12</sup>) and even for powers at war possessing considerable air power. In order to be more effective in defending the “nerve center”, the controlling staff should be placed in a safer facility<sup>13</sup>, applying such a technology. To execute this solution, there are several possible options:

- air traffic controlling is carried out from the traditional tower, until some kind of air raid warning comes into action; as a result, the personnel are placed in the safe, possibly faraway facility;
- the controlling personnel ensure the control services continuously from the safe, and possibly faraway building (on the operating area);
- air traffic controlling is ensured from the traditional tower until air raid warning comes into action, and from then on, another controlling personnel ensure the services from a faraway safe facility (settled in the hinterland, as far as the operating land and the hinterland are not the same);
- without reference to the level of threat, certain personnel carry out the air traffic controlling, settled continuously in the hinterland, or maybe in a safe object.

To make air traffic controlling service safe and continuous with rTWR technology on operating site, it should be ensured that it is intensely protected and resistant against external impacts. It should be multiplied and protected not exclusively against the impacts of weather conditions or animals, but mainly against hostile actions<sup>14</sup>. To make the discussed technology applicable under such circumstances, we need even longer time than in case of civilian application opportunities.

- *Limits of human eyesight/attention may be exceeded:* the necessary solutions making the controller’s work easier were discussed above at the strength section, but its effects should be mentioned here as opportunities. So, in case the conditions are given and they can be accepted as capabilities of the system, their effects should be interpreted merely as opportunities. As far as it is known, there was no case when an accident or an emergency had been prevented specifically by these devices. As long as such an event takes place, we may talk about this aspect just as an opportunity. However, it is a fact that the human eye cannot perceive aircraft in a distance, where radar data are already available and the system is able to display the arriving airplane (with the help of a label containing its data) on the screen, furthermore, with the help of advanced computer programs conflict survey can be carried out, calling the attention to situations or intersections, where aircraft may cross each other’s courses.
- *Application of virtual reality:* rTWR technology started its way with these head-mounted devices, but later the direction of development changed because of the difficulties and restrictions appearing. However, it would be useful in the application of rTWR technology if the cameras installed at the important spots of the airport could create even better situational awareness for the controller, virtually simulating the perspectives of the given space.

<sup>12</sup> Horváth, T. “Az ISAF Északi Regionális Parancsnokság felépítése, törzse és működése”. In Boldizsár, G. and Wagner, P. (eds), *A Magyar Honvédség befejezett szárazföldi műveletei Afganisztánban: tapasztalatgyűjtemény*. Budapest: Nemzeti Közszolgálati Egyetem, 2014. 67–72.

<sup>13</sup> Csengeri, J. „Operation Allied Force – A NATO légi háborúja a dél-szláv válság megoldása érdekében 1.”. *Repüléstudományi Közlemények XXV/1*. 2013. 114–125.

<sup>14</sup> Krajnc, Z., Ruttai, L. and Tóth, S. *A légi szembenállás alapjai*. Budapest: Zrínyi Miklós Nemzetvédelmi Egyetem, 1999.; Krajnc, Z., Ruttai, L. and Dudás, Z. “A légtér feletti ellenőrzés képességének szintjei”. *Repüléstudományi Közlemények XIV/2*. 2002. 125–131.

- *More effective investigation in flight disaster cases:* while in case of traditional tower control it is merely the control and navigating stuff and the witnesses that can be interrogated regarding air emergencies or accidents, or some data (radio transmission, radar detection of movement, radar data on air space observation, meteorological circumstances, etc.) can be analyzed, in the case of a remote tower control motion picture is also available for analysis, which makes an investigation much easier.

## Threats

- *Dependence on technology:* we can even refer to this point as dependence on maintenance, or defencelessness, because, as I have already stated a little jovially, visualization has been overcomplicated, thus it is not the human eye that gets the priority in the perception of the airport events but the cameras, and later on the visual data displayed on the screens arriving through the data link help the controller to get information about the events. This system, and also the supplementary servicing subsystems need continuous maintenance. Furthermore, we all know the everlasting commonplace saying: “If anything can go wrong, it will.” All this creates a continuous real source of risk on air traffic controlling, as a service, and as a consequence, on air transport<sup>15</sup>, too.
- *Vulnerability:* here, first of all, I refer to the physical vulnerability. This is quite an extended area with numerous directions of threat, which is too difficult to define exactly in detail for the time being. What is more, it is not necessary to damage the cameras to disable air traffic control; it is enough to cover the lenses. Cameras can be damaged by kinetic impacts, by bomb hits (direct or indirect), or by projectiles<sup>16</sup>, even by direct abuse with manual tools, etc. Data cables can be cut, computers, and devices can be damaged after someone getting into the control centre. This sensitive system requires a very carefully developed, effective defence mechanism, to be reliably protected.
- *Virtual threats:* as we are talking about computer networks, it is inevitable to mention the dangers of cyber attacks, too. An rTWR system creates a closed network, and the connected services are also closed and encrypted, which is reassuring to a certain extent. But many proven IT devices (last time millions of Intel processors<sup>17</sup>) turned out to be carrying defence hazards, so the operators and users should be aware of the problems, must carry out continuous test and carry out progressive expansion.
- *Loss of capabilities concerning the acquired controlling capabilities:* this threat concerns the controlling staff. What I mean here is that the use of new solutions helping the controllers in their work makes previously evident professional skills incomplete<sup>18</sup>. I can share my personal experience concerning the topic: during the simulations of air traffic

<sup>15</sup> Csengeri, J. “Material Management and Transportation Procedures in Air Force Logistic Operations”. Paper presented at Manažment – teória, výučba a prax, Liptovski Mikulas, 24–26. 09. 2014.

<sup>16</sup> Zentai, K. “Beszámoló ‘A mesterlövész képességek új alapokra helyezése a Magyar Honvédségben’ című kutatási téma keretében választott és kidolgozásra tervezett értekezésről”. *Hadtudományi Szemle* X/2. 2017. 71.; Zentai, K. “Az információs művelési képességek vizsgálata mesterlövészek alkalmazása során”. *Honvédségi Szemle* 144/4. 2016. 80.

<sup>17</sup> “Súlyos sebezhetőség az Intel újabb processzoraiban”. Origo. 22 November 2017. <http://www.origo.hu/techbazis/20171122-intel-processzor-sebezhetoseg-frissites.html>, Accessed on 01 April 2018.

<sup>18</sup> Csengeri, J. “A légiérő specifikus vezetői kompetenciái, kialakításuk lehetséges metodikái, fejlesztésének javasolt módszerei a vezetői képzésben”. In Krajnc, Z. (ed), *A katonai vezetői-parancsnoki (harcászati vezetői) kompetenciák fejlesztésének lehetséges stratégiája*. Budapest: Nemzeti Köszolgálati Egyetem, 2014. 83–94.

controller training, on the plotting board representing the Kabul airport in Afghanistan, over the maquettes of aircrafts small flags showed the call signs, this way it was needless to remember them each, we just had to read them. After completing the training, when I started to work at Szolnok airport, first it was difficult for me to remember the call signs and associating them with the proper helicopter.

Similar cases may happen unless the controller candidate is “forced” to acquire this skill; watching continuously labelled aircrafts on the screens may reduce or abort the skills even of those who work with many years’ experience in the profession, as well. Controllers should know the spatial restrictions in force on the working area of the airport without their being displayed on the screen and the same is true for the dimensions of runways and taxiways, their networks (their names, their junctions, how the aircraft can approach them onland, etc.) as well. Also, the controller should be able to perceive the irregular movement of vehicles on the working site, and the movement of animals, etc, as well. During the training and work, these aspects should be dealt with in detail, enough attention must be paid to them, and we should remember to elaborate and maintain the traditional skills with the proper methods, too.<sup>19</sup>

## SUMMARY

In the present article I shortly outlined the history of remote tower control technology. I demonstrated in detail the construction of remote tower control systems, the characteristics of certain elements, and I used several pictures as visual aids. I also introduced the conclusions of HungaroControl Hungarian Air Navigation Services, concerning rTWR, which allowed to review the main advantageous attributes and added values. Finally, with the help of SWOT analysis, I summarized the strengths, weaknesses, opportunities and threats of the technology in a chart, and I explained all the aspects, underpinning the written concepts with examples and with my own experiences.

The basic conclusion of the remote tower demonstration exercises is that the current level of technology is generally capable of providing the background for safe ATC service provision. However, to secure the continuous and safe operation from a remote tower facility, the visualization needs to be carefully fine-tuned to the local environment and the well-defined concept of operations.

As a medium size airport environment is considerably different from small airports where the benefits of the remote tower solution were first validated, the implementation has its special challenges. It should also be kept in consideration that the implementation at medium size airports has other motivations than that of small airports which shifts the emphasis from pure cost-efficiency motives to capacity considerations. Naturally, as the size and complexity of the airport environment grows, the implemented solution needs more customization to local characteristics. The implementation is highly dependent on local procedures and safety barriers and the deployed visualization should not be expected to make up for the weaknesses of those. The adaptation process is the key to the acceptance and success of the remote tower solution at such a scale.

<sup>19</sup> Szelei, I. “Hogyan motiváljuk beosztottjainkat?”. *Humánpolitikai Szemle* 14/4. 2003. 34–45.; Szelei, I. “Motiváció, tudatosság, vezetés”. *Hadtudományi Szemle* VIII/3. 2015. 204–211.



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Maj. Sándor Farkas:

## AIRPOWER IN COUNTERINSURGENCY

**ABSTRACT:** *The idea of a more air centric counterinsurgency (COIN) approach is being proposed by many airpower theorists, claiming that the extended use of air capabilities would lead to lower costs in money, lives and resources with equal or better result than using large ground forces. In this study, I am searching for the answer whether in counterinsurgency operations air forces can play a strategic role or they are limited to accomplish tactical success and act as a force multiplier.*

**KEYWORDS:** *airpower, counter insurgency, rapid mobility, intertheater lift, intratheater lift, precision attack*

### INTRODUCTION

All throughout history there were conflicts and small wars that were conducted not between two states, but between a state and a non-state actor. Since during these conflicts there are significant differences between the tactics and strategies that the belligerents use because there is a huge inequality between the warring parties relative military and combat power, these conflicts are asymmetric in nature. If we have a look at the proportion of symmetric and asymmetric wars of all armed struggles in the second half of the 20<sup>th</sup> century and in the first seventeen years of the 21<sup>st</sup> century we can clearly identify that most of the conflicts are asymmetric (Vietnam, Cuba, Afghanistan, Iraq, Syria, Nigeria).<sup>1</sup> If we analyze the asymmetric conflicts throughout the last 200 years, the following tendency can be seen. For the entire 200 years we can state that 70.8 percent of the asymmetric conflicts were won by the stronger (the state) warring party. But by dividing the era into 50-year intervals the result is a lot more diversified. Between 1800 and 1849 88.2 percent, between 1850 and 1899 79.5 percent during the 1900-1949 period 65.1 percent and between 1950 and 1998 only 45 percent of the asymmetric conflicts were won by the stronger party.<sup>2</sup>

We can clearly state that the closer we are to our current day, the more successful the weaker party has been in asymmetric conflicts. This makes it very important to pay close attention to this type of armed conflicts, to constantly analyze them, to draw new conclusions and to come up with new ideas and theories how regular armies can efficiently combat this irregular enemy. Most of the theories and doctrines only deal with how we can use ground forces to defeat the enemy that uses insurgency, terrorism, and guerilla methods as their primary tactics. The leading doctrine for the US Military on how to operate against an insurgent force – the *2007 United States Army and Marine Corps Field Manual (FM) 3-24*

<sup>1</sup> Read, D. "Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?". *Defence Studies* 10/1-2. 2010. 126. <https://doi.org/10.1080/14702430903392828>, Accessed on 20 December 2010.

<sup>2</sup> Arreguin-Toft, I. "How the Weak Win Wars: A Theory of Asymmetric Conflict". *International Security* 26/1. 2001. 96–97. <https://web.stanford.edu/class/polisci211z/2.2/Arreguin-Toft%20IS%202001.pdf>, Accessed on 04 January 2018.

*Counterinsurgency* – whose compilation was coordinated and overlooked by General David Petraeus and Dr. David Kilcullen barely touches the use of airpower. On the other hand, there are many airpower theorists who foster a more airpower-centric counterinsurgency approach to be created.<sup>3</sup> They claim that the central element of modern military strategies should be built around the use of airpower. To back up their theory they point to successes in Bosnia in 1995, in Kosovo in 1998, and the air policing conducted over Iraq from 1991 to 2003.<sup>4</sup>

## CLARIFYING CONCEPTS

Before examining the use of airpower in COIN operations it is essential to briefly outline the nature of insurgency and COIN warfare. Field Manual 3-24 defines insurgency as “*an organized, protracted politico-military struggle designed to weaken the control or legitimacy of an established government, occupying power, or other political authority while increasing insurgent control.*”<sup>5</sup> Joint Publication 1-02 Department of Defense Dictionary of Military and Associated Terms defines COIN as “*military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency*”. Though conventional conflicts and COIN operations have common attributes and the same basic principles of war apply for both, they also differ in many aspects. COIN requires a different mindset and a different military strategy – it should concentrate less on the use of the military instrument and focus more on diplomatic, informational, and economic instruments and to counter the ideological message that makes the rise of insurgents possible in order to gain or retain the support of the population.

First Louis Hubert Gonzalve Lyautey used the term “*hearts and minds*” in 1895 during the Black Flags rebellion along the Indochina-Chinese border, whose basic goal was to bring the subjugated population on side.<sup>6</sup> David Galula basically redefined Lyautey’s theory when stating that the center of gravity in counterinsurgency operations is the indigenous population.<sup>7</sup> Thus to be successful the key tasks for a COIN force are providing security for the population, guarantee order, observe and act in accordance with the law. All this should be done in a way that ensures that the number of civilian casualties and collateral damage is close to zero or at least as low as possible. Besides conducting civic actions and trying to build the host nation’s capability to combat insurgency the third-party military force can only accomplish minimal collateral damage by operating an intelligence system that can provide accurate and timely information to the decision makers, by understanding the cultures, people, and environment, and using minimum and discriminate force. But is it possible to accomplish all these goals from the air or by using extensive airpower? Or how could airpower successfully contribute to COIN operations?

<sup>3</sup> Maguinness, M. A. “Counterinsurgency: Is »Air Control« the Answer?”. *Small Wars Journal*, 18 June 2009. <http://smallwarsjournal.com/jrnl/art/coin-is-air-control-the-answer>, Accessed on 25 December 2017.

<sup>4</sup> Meilinger, P. S. “Counterinsurgency from above”. *Air Force Magazine*, July 2008. <http://www.airforcemag.com/MagazineArchive/Pages/2008/July%202008/0708COIN.aspx>, Accessed on 18 December 2017.

<sup>5</sup> “Counterinsurgency: FM 3-24”. US Dept. of the Army. December 2006. 1. <http://usacac.army.mil/cac2/Repository/Materials/COIN-FM3-24.pdf>, Accessed on 16 December 2017.

<sup>6</sup> Porch, D. “Bugeaud, Gallieni, Lyautey: The Development of French Colonial Warfare”. In Paret, P. (ed), *Makers of Modern Strategy: From Machiavelli to the Nuclear Age*. New York: Oxford University Press, 1986. 394.

<sup>7</sup> Galula, D. *Counterinsurgency Warfare: Theory and Practice*. Westport: Praeger Security International, 2006. 4.

## SHORT HISTORICAL OVERVIEW

Soon after the invention of the airplanes they were already used in COIN operations. They first appeared in 1913 when France was fighting to repress the uprising in Morocco. The United States first used air assets for COIN in 1916 when General John Pershing led an expedition to capture Pancho Villa, the leader of the Mexican insurgency.<sup>8</sup> After World War I, due to economic constraints Britain was struggling to station large ground forces in its colonies. To reduce costs a new theory – mainly embraced by the Royal Air Force (RAF) – was implemented emphasizing the extended use of airpower over ground forces. One good example is Iraq in 1922 when the RAF took over the COIN campaign from the British Army to make the fight against the insurgency conducted by the Arabs and Kurds cheaper. The RAF-led COIN campaign resulted in indiscriminate bombing campaigns against villages that supposedly supported insurgent forces. The brutality of these bombardments – besides further alienating the indigenous population – eventually led to the opposition and condemnation by British society which forced the military leaders to revise their strategy. Though it was said that the RAF played the decisive role in this COIN operation thus RAF could substitute ground units the reality was the complete opposite. The RAF made numerous punitive air campaigns but most of the air sorties were utilized in support of the significant amount of Indian and Iraqi ground forces that replaced the British soldiers after they had been withdrawn from theater.<sup>9</sup> The RAF primarily conducted reconnaissance and surveillance missions to support the ground forces and it unambiguously unraveled the fact that airpower is not able to substitute ground forces in COIN operations, but it can be an extremely effective force multiplier.<sup>10</sup> So, if airpower cannot be the core element of COIN operations then how can it contribute to the overall success of the mission?

In numerous other struggles airpower was used to exploit its advantageous capabilities such as rapid mobility, intertheater airlift, intratheater airlift, intelligence, surveillance and reconnaissance, and precision attack. Even in the ongoing conflicts by controlling the air and having air superiority over Afghanistan and Iraq, air component was able to transport hundreds of thousands of soldiers, thousands of tons of supply, to drop supply to isolated units, to evacuate the wounded from the battlefield and from the theater back to their home countries, to gather real-time intelligence, and to conduct precision strikes.<sup>11</sup>

## HOW AIRPOWER CAN CONTRIBUTE TO THE SUCCESS OF COUNTERINSURGENCY OPERATIONS

### Rapid mobility and intratheater lift

In Malaya over 110,000 troops were airlifted by helicopters to a mission in 1950. This ten-minute flight over the jungle would have taken ten hours to cover on foot which is a significant differ-

<sup>8</sup> Schwartz, N. A. "Airpower in Counterinsurgency and Stability Operations". *PRISM* 2/2. 2012. 127–128. [http://cco.ndu.edu/Portals/96/Documents/prism/prism\\_2-2/Prism\\_127-134\\_Schwartz.pdf](http://cco.ndu.edu/Portals/96/Documents/prism/prism_2-2/Prism_127-134_Schwartz.pdf), Accessed on 17 December 2017.

<sup>9</sup> Maguinness. "Counterinsurgency...". 2–4.

<sup>10</sup> Corum, S. J. and Johnson, W. R. *Airpower in Small Wars: Fighting Insurgents and Terrorist*. Lawrence, Kansas: University Press of Kansas, 2003. 51–66.

<sup>11</sup> Schwartz. "Airpower...". 127.

ence especially considering the element of surprise and fatigue of the units. One of the tactics special operation forces apply in Afghanistan and Iraq to capture or eliminate insurgent key leaders is surprise attacks, which are done most of the times by using helicopters.<sup>12</sup> As per my personal experience the road system in Afghanistan is extremely poor. The base of the Hungarian Provincial Reconstruction Team (PRT) was in Pol-e Khomri city in Baghlan province. To get to some of the districts that are located on the periphery of the province – about 50-70km from our base – it took us a little over twelve hours.<sup>13</sup> It did not take so much time because we had to fight all the way to get to our destination, it took so much time simply because of the lack of a developed road system. Deploying by helicopters not only helps to keep the element of surprise but it also helps avoiding rugged terrain, mitigate the threat of improvised explosive devices (IEDs) and surprise attacks (ambushes) carried out by the insurgent force.

We should not forget about the benefits of swift casualty evacuation by air. Knowing that a soldier can get the best possible treatment in the shortest possible time – which increases the chance of survival – does not only boosts the morale of the soldiers, but also contributes to mission success by being able to continue with the mission after the injured personnel had been evacuated. Moreover the sooner a wounded soldier gets his or her treatment the more likely that he or she is going to have a swift and full recovery, which means that he or she can get back to the fight sooner.<sup>14</sup>

Airlift is also a critical enabler providing sustainment. In accordance with what U.S. General Robert H. Barrow (Commandant of the Marine Corps) stated in 1980 – “*Amateurs talk about tactics, but professionals study logistics*”<sup>15</sup> – COIN missions cannot be successful without a well-organized logistical service. To supply remote and isolated forward operating bases like Restrepo<sup>16</sup> – which is famous from the movie *Korangal* – would not be possible without a massive fleet of rotary wing aircraft. From 2010 to 2014 the United States Air Force airdropped over 87,000 tons of cargo and they provided constant transportation for Afghan government and military personnel to numerous locations to expand government power to remote areas and facilitate troop movements.<sup>17</sup> In sum, we can state that tactical mobility and vertical maneuver accomplished by helicopters give a great advantage for coalition forces in all theaters facing asymmetric, irregular warfare.

## Intertheater lift

Deployment from home bases into a theater of operation by air also has its great advantages. Transporting a massive number of troops and a huge amount of logistic supplies by sea is

<sup>12</sup> Read, “Airpower in COIN...”. 128.

<sup>13</sup> Over 85 percent of the Afghan road system is damaged.

<sup>14</sup> Besenyó, J. “Logistic Experiences: The Case of Darfur”. In Koivula, T. and Kauppinen, H. (eds), *Promoting Peace and Security in Africa*. Helsinki: National Defence College Finnish Department of Strategic and Defence Studies, 2006. 41–58. [http://www.doria.fi/bitstream/handle/10024/77169/StratL2\\_35.pdf?sequence=1](http://www.doria.fi/bitstream/handle/10024/77169/StratL2_35.pdf?sequence=1), Accessed on 17 December 2017.

<sup>15</sup> O’Rourke, R. *The Fighting Instructions BRd 4487 Vol 2/10: Maritime Operational Logistics*. Fareham: MWC Publication and Graphics Office Maritime Warfare Center, 2017. 2.

<sup>16</sup> Shadix, D. *To Quell the Korengal*. DTV Press, 2015.

<sup>17</sup> “Combined Forces Air Component Commander 2010–2015 Airpower Statistics”. USAF Central Command Combined Air and Space Operations Center. 31 December 2015. <http://www.afcent.af.mil/Portals/82/Documents/Airpower%20summary/31%20December%202015%20Airpower%20Summary%20corrected.pdf?ver=2016-01-26-170116-533>, Accessed on 17 December 2017.

very cost effective, but transporting all these materials at a minimum time provides numerous advantages and it promotes success. In the first year of Operation Enduring Freedom 97 percent of all cargo was transported to the theater by air and since then tens of millions of passengers, millions of tons of cargo have been airlifted to Afghanistan.<sup>18</sup>

## INTELLIGENCE, SURVEILLANCE, RECONNAISSANCE

When airplanes appeared in the early 1900s, military leaders were uncertain on how to use the new technology.<sup>19</sup> At first aircraft were employed to gather intelligence and to observe artillery fire from the air. Although their primary task has shifted to being utilized as an offensive force, air assets kept their role and importance in collecting information about the battlefield and the enemy.<sup>20</sup> The live feeds they can provide to commanders has significantly raised the situational awareness which ultimately leads to better and faster decision making which is fundamental to success. Intelligence in COIN operations is cardinal that is why the need for unmanned or remotely piloted aircrafts<sup>21</sup> has grown significantly. Pilots sitting in the safety of their home countries flying these assets – besides giving real-time intelligence to the commander – can find, track and destroy high value targets.

Though surveillance from the air has the benefit of being less vulnerable than forces on the ground, but there is a limit that can be achieved by aerial platforms. There is a growing demand to extend the time on station<sup>22</sup> for ISR assets – some of them can spend hours or even days monitoring targets and conduct a precision strike afterwards, but they are still not able to provide information as detailed and spend as much time observing targets as human intelligence personnel can. One good example of this was during Operation Anaconda.<sup>23</sup> Weeks before the launch of the attack numerous ISR assets were committed to reconnaissance the area of operation and the possible landing sites. They were looking for lightly equipped soldiers and dug in, well camouflaged fighting positions dispersed throughout a mountainside which could pose a great threat for the landing helicopters. The commander of the operation and the intelligence cell quickly realized that they had to primarily rely on human source of intelligence to gain an understanding of what was going on in the valley<sup>24</sup>. As Major Lou Bello<sup>25</sup> stated about the use of ISR assets:

“It would have been great if we were looking at a Soviet motorized rifle regiment or some other large target set, but we were looking at a DShK on a hillside, in the middle of Afghanistan in the middle of the night ... It really is like trying to find a needle in a haystack.”<sup>26</sup>

<sup>18</sup> Read, “Airpower in COIN...”. 128.

<sup>19</sup> Jobbágy, Z. “From Effects-based Operations to Effects-based Force: On Causality, Complex Adaptive System and the Biology of War”. PhD thesis, Leiden University, 2009. 77–114.

<sup>20</sup> Besenyő, J: “Gerillaháború Nyugat-Szaharában – Polisario vs. Marokkó és Mauritánia”. *Hadtudomány* 25.2015. 48–58. [http://mhht.eu/hadtudomany/2015/2015\\_elektronikus/6\\_BESENYO\\_JANOS.pdf](http://mhht.eu/hadtudomany/2015/2015_elektronikus/6_BESENYO_JANOS.pdf), Accessed on 17 December 2017.

<sup>21</sup> Like: MQ-1 Predator, MQ-9 Reaper, RQ-4 Global Hawk, U-2 Dragon Lady, RQ-11 Raven, RQ-7 Shadows, RQ-20 Pumas, Skylark I, Milvércse, Meteor 3MA etc.

<sup>22</sup> The amount of time an air asset / sensor can be in its operating position.

<sup>23</sup> It was one of the biggest battles in Afghanistan, which took place in March 2002 in the Shahikot Valley.

<sup>24</sup> Naylor, S. *Not a Good Day to Die: The Untold Story of Operation Anaconda*. New York: Berkley Caliber Books, 2006. 74–82.

<sup>25</sup> An artillery officer with 10th Mountain Division.

<sup>26</sup> Naylor. *Not a Good Day to Die...* 135–136.



So while intelligence from air-platforms are without doubt very valuable, commanders should still stress the use of human source intelligence in COIN operations.

## PRECISION ATTACK

The current COIN doctrine used by coalition forces in Afghanistan and Iraq focuses on protecting the population and on providing good governance and economic development. Security can be provided by segregating the insurgents from the innocent people and the moment that insurgents are isolated<sup>27</sup> military force can be applied without the risk of committing fratricide. Once the ISR or human intelligence assets identified the possible targets the window of opportunity to act is often very limited. The fastest way of delivering the appropriate amount of firepower to an evasive enemy is through the air. With small diameter bombs, bombs with less explosive, laser- or GPS-guided missiles and special weapons systems – such as the ones that the AC-130, the A-10 Thunderbolt II (Warthog), or MQ-1 Predator have – counterinsurgency forces can bring a proportionate answer to the threat that insurgents pose.<sup>28</sup> Air strikes against insurgent bases and the use of close air support is vital for ground forces in COIN operations but commanders must always keep in mind that the political aim of a campaign should always be superior to the tactical success. This is where intelligence plays a decisive role – good intelligence is indispensable to ensure that the right force is used against the right target. The use of joint tactical air controllers (JTAC) can also contribute to the success and effective employment of airpower in COIN operations. By being there in close cooperation with ground forces and watching a live feed broadcast from the attacking air asset of the target area and the possible future target, JTACs can significantly mitigate the risk of fratricide or collateral damage. To sum it up we can state, that airpower provides a huge asymmetric advantage over the insurgents but to negate this advantage insurgents may use different tactics. As the Chechens phrased it by “*hugging the enemy*”<sup>29</sup> insurgents can force COIN forces to minimize the use of their air assets. Another tactic is moving insurgencies into the cities – currently about 50 percent of the world’s population resides in cities, in 2030 over 60 percent will do so, and this number will keep rising.<sup>30</sup> Congested areas attract insurgents because the dense population makes it easier for terrorists to hide, they can attract greater media attention, there is a great potential that government forces’ over reaction to insurgency will alienate large number of population,<sup>31</sup> and because the physical attributes of a city will likely to negate the effects of airpower to a certain extent. Though it will be a challenge to conduct ISR operations, running CAS sorties without collateral damage and without being easily shot down from rooftops, but all this is possible. ISR assets with their highly sensitive sensors will still be able to find, fix

<sup>27</sup> Bombing innocent civilians by COIN forces can have serious drawbacks. Showing videos on CNN about crying and bleeding children among the ruins of buildings could not only turn the indigenous population against COIN forces, but even their own. This might end up in forcing the ruling political party out of power if they do not comply with the will of their population to withdraw forces from the war theater.

<sup>28</sup> Schwartz. “Airpower...”. 131.

<sup>29</sup> West, B. *No True Glory: A Frontline Account of the Battle for Fallujah*. New York: Bantam Books, 2005. 66, 200, 209 and 281.

<sup>30</sup> “Urbanisation?”. 21stcenturychallenges. <https://21stcenturychallenges.org/urbanisation-2/>. Accessed on 22 December 2017.

<sup>31</sup> Marighella, C. “Minimanual of the Urban Guerilla”. In Mallin, J. (ed), *Terror and Urban Guerillas: A Study of Tactics and Documents*. Coral Gables: University of Miami Press, 1982. 111–112.

and follow targets, with the use of precision ammunition with reduced explosives and with utilizing more JTACs collateral damage could be avoided. By using fixed wing aircraft flying at high altitude at a high speed instead of the low flying rotary wing helicopters even the loss of air assets can be minimized.

## NON-KINETIC EFFECTS

The use of airpower can also have effects that do not go hand in hand with a lethal outcome. Show of presence or show of force flights may have great deterrent impact if used properly – they should be robust enough to make the enemy believe that the use of deadly force is imminent in case of need, while kinetic activities should not be used unless absolutely needed, in order to avoid unnecessary damage. During my rotations in the Hungarian PRT we often utilized fixed or rotary wing aircrafts to escort our patrols in areas where other coalition forces were often attacked. When we had US F-16s fighter jets, A-10 Thunderbolt II (Warthog) aircraft or AH-64 Apache helicopters flying in front or above our column of vehicles we were never attacked.

Though modern communication systems offer an excellent and very efficient way of delivering messages to the local population or to insurgent forces there are still areas where modern technology and Internet are still not part of everyday life. To deliver PSYOPS messages – with the purpose of convincing the insurgents about reconciliation or surrender, to ensure the local population of the support of COIN forces, and to encourage the indigenous population to cooperate with them – air platforms may still be an extremely useful tool. Dropping leaflets, broadcasting previously recorded or live messages may still prove to be effective. Such was the case in 1993 when during a raid in Mogadishu – with the objective to arrest Mohamed Farrah Hassan Aidid, the leader of one the opposition groups in Somalia – Michael Durant was captured by insurgent forces. The night when Durant was taken prisoner a US Black Hawk helicopter was hovering above the city of Mogadishu broadcasting messages with a dual purpose. First, to assure Durant that US forces were coming to free him and to help him keep his presence of mind, and second, to convince the insurgent forces that the entire US war machine will be utilized to free Durant. Because of the negotiations whose effects were reinforced by the PSYOPS messages, Durant was released by his captors after eleven days.<sup>32</sup>

## CONCLUSION

It is universally acknowledged that airpower can have a strategic effect in conventional warfare but due to the specific nature of insurgency air forces tend to play a supportive role and accomplish mainly tactical rather than strategic success in COIN operations. As Clausewitz says:

“The war of a community – of whole nations and particularly of civilized nations – always starts from a political condition, and is called forth by a political motive. It is therefore a political act. [...] We see, therefore, that war is not merely a political act, but also

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<sup>32</sup> Per the lecture given by Michael Durant on 9 November 2015 at the National University of Public Service in Budapest, Hungary.

a real political instrument, a continuation of political commerce, a carrying out of the same by other means.”<sup>33</sup>

This is especially true for COIN operations since government forces would be unable to defeat insurgents, counter their ideology and redress grievances that the population has, purely by military means. For western societies it is often alluring to use only airpower to solve crisis situations as the one in Afghanistan or Iraq since this way their countries do not have to send thousands of ground troops to a theater of war and they do not have to face their deaths. But gaining or retaining the support of the population, addressing their political, social and economic concerns, or training indigenous military security forces require a well-coordinated whole-of-government effort that cannot be accomplished from a couple of thousands of meters up in the air and cannot even be accomplished purely by military means either. Airpower is just one small military piece of a complex COIN puzzle.<sup>34</sup> The COIN principle of coordinated government mechanism makes it obvious that political and military actions must act in harmony; the integration of air and surface operations is equally important within the military line of operation.<sup>35</sup>

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## CURRENT CHALLENGES OF RISK ASSESSMENT IN LIGHT OF POPULATION PROTECTION

*ABSTRACT: The package of cardinal laws on Disaster Management, effective from 01 January 2012, has fundamentally transposed the procedures of population protection by introducing risk assessment of hazard sources concerning population protection. The system thus designed, has reliably functioned in the past six years and has ensured the hazard response planning of settlements based on real-life vulnerabilities, thus population protection planning. However, it was developed in a very different security environment. Thus, apart from natural and man-made hazard sources, it does not address the assessment of hazards concerning the population, bound to the armed defense of the country or armed operations. For the sake of the six-year operation, the changed security environment and the all-hazard approach, it is advisable to review the current system. The purpose of this study is, besides raising the problem and presenting the current "Fuzzy" logic process in Hungary, to propose a solution to expand it for the sake of an all-hazard approach.*

*KEYWORDS: hazard, risk, risk assessment, population protection*

### INTRODUCTION

An important milestone of hazard response planning in Hungary was the replacement of an old-fashioned emergency planning method, taking into account all hazards at the same level, by designing a hazard response planning process meeting the requirements of the present, based on risk assessment.

Prior to the entry into force of the current system, defense/protection planning was regulated by Gov. Decree 114/1995. (IX. 27) on the rules of civil protection classification of settlements and defense/protection requirements, however, with the entry into force of the new defense and disaster management acts and their implementation decrees, this decree was repealed. Although the former civil protection classification had taken into account the vulnerability of settlements, the direct impacts; as a consequence of the public administration, infrastructure and industry center characters, as well as their role in road and rail transportation, during armed conflicts; and it had prescribed planning tasks as well, while it had not assessed risks based on the probability of their occurrence and impacts.

It was a descriptive regulation, in which, for example, settlements within a 30-km zone measured from the border, in the territory of which a plant producing, using or storing hazardous materials operated, was classified in the highest category by default and also included a safety standard for this. The biggest mistake of the regulation was that the settlements were prepared on the basis of civil protection classification and not for real risks.

The currently functioning procedure, stipulated by law<sup>1</sup>, is a risk analysis based on the principle of the “Fuzzy” logic that I present in this article. The “Fuzzy” logic process, because of its ease of handling resulting from its matrix structure, is perfectly suited to be used without higher professional population protection qualifications, hence to group settlements in disaster management classes, but from the hazard sources relevant to population protection it does not deal with the analysis of population risks associated with armed conflicts or threats.

The security environment has considerably changed in the past three years. What shows it the best is that the NATO heads of state and government leaders at their Warsaw Conferences in July 2016 made a commitment<sup>2</sup> to strengthen civil preparedness, named as the central pillar of the resilience of the Alliance, and in this relation NATO determined seven baseline requirements.<sup>3</sup>

The current disaster risk assessment process is simple and works efficiently, however, the population and property are jeopardized not only by natural and industrial disasters. The need therefore arises, based on the all-hazard approach, to consider whether risk assessment, currently used for population protection, can be supplemented by a procedure that takes into account risks associated with armed threats. Is it possible to analyze at all the risks of various hazards in one system, including population risks associated with armed conflicts?

## THE PRACTICE OF DISASTER RISK ASSESSMENT IN HUNGARY

### Settlement level risk assessment

In the practice of risk assessments in Hungary, the legislation<sup>4</sup>, describing the disaster management classification of settlements, is the first legislation, in which the grouping of hazard sources is listed, relevant from the aspect of population protection. They are as follows:

#### 1. *Natural disasters and hazard sources*

- a) Flood,
- b) Inland water,
- c) Extreme weather,
- d) Geological hazard sources:
  - da) earthquake,
  - db) landslide,
  - dc) rupture,
  - de) soil subsidence,
  - df) wall collapse.

<sup>1</sup> Gov Decree 234/2011. (XI. 10.) on the Government implementing Act No. CXXVIII of 2011 concerning disaster management and amending certain related acts. [http://njt.hu/cgi\\_bin/njt\\_doc.cgi?docid=140039.349975\\_](http://njt.hu/cgi_bin/njt_doc.cgi?docid=140039.349975_), Accessed on 12 January 2018.

<sup>2</sup> “Fact Sheet of Warsaw Summit Key Decisions”. NATO. February 2017. [https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/pdf\\_2017\\_02/20170206\\_1702-factsheet-warsaw-summit-key-en.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2017_02/20170206_1702-factsheet-warsaw-summit-key-en.pdf), Accessed on 12 December 2017.

<sup>3</sup> NATO Seven Baseline Requirements. See: Shea, J. “Resilience: a core element of collective defence”. *NATO Review*. 2016. <https://www.nato.int/docu/Review/2016/Also-in-2016/nato-defence-cyber-resilience/EN/index.htm>, Accessed on 29 December 2017.

<sup>4</sup> Gov Decree 234/2011.

## 2. Industrial accidents and man-made hazards

- a) Plants under Chapter IV of the Act on Disaster Management,
- b) Impacts by other establishments (industrial, agricultural), the risk of release of hazardous materials,
- c) Distance from nuclear establishments:
  - ca) nuclear power plant,
  - cb) research reactor.
- d) Traffic routes and junctions:
  - da) transportation of hazardous materials,
  - db) considerable traffic.
- e) Plants and other establishments involving hazardous materials not under Chapter IV of the Act on Disaster Management, operated for military purposes.

## 3. Hazards of other origin

- a) The vulnerability of surface and subsurface water (mainly drinking water bases),
- b) Human epidemics or the danger of epidemics, and animal epidemics,
- c) Air pollution reaching the alert threshold.

## 4. Risks relating to critical infrastructures

- a) The vulnerability of infrastructures providing basic supply of the population,
- b) The vulnerability of transportation/traffic,
- c) The vulnerability of public administration and infrastructures indirectly providing the supply of the population.

The codification of the above listing was necessary to identify risks in a uniform way in Hungary, in 3,177 settlements or districts of the capital. In the settlement risk assessment procedure, risk identification is performed by checking the compliance according to a grouped list. Undoubtedly, non-definable risks concerning a particular settlement are excluded. For example, in the case of the vast majority of settlements in the southern part of the Great Hungarian Plain, items 1. d. db) – df) do not have to be included in the risk analysis as these hazard sources cannot be detected there.

Risk identification is performed on the basis of regulation; it means the examination of the related threat effect is possible if it appears in that particular settlement. The risks thus identified are analyzed in terms of the probability of occurrence and the severity of the triggered effect.

The probability of occurrence is the definition of the occurrence frequency of the hazard relevant to the given settlement, based on historical-statistical data, there is a formalized probability estimate. The other is the assessment of the consequences of the occurrence of a risk or risks, or the definition of the *severity* thereof. The frequency of occurrence and the impact assessed together, depicted on a so-called risk matrix that gives the result of the risk assessment method, that is, a disaster management classification. A hazard response plan is based on a disaster management classification, including the alert of the population, the method of population protection, the funds needed to initiate protection, as well as planning the involvement of special equipment and trained experts (voluntary rescue organizations). The establishment of civil protection organizations, forming the backbone of the self-defense capabilities of settlements, their organizational structure and their minimum number are also connected to classification.



We can see the structure of the risk matrix in the figure below:

Impact	Frequency of occurrence			
	Rare	Not frequent	Frequent	Very frequent
Very severe	Class II	Class II	Class I	Class I
Severe	Class III	Class II	Class II	Class I
Not severe	Class III	Class III	Class II	Class II
Low	Class III	Class III	Class III	Class III

Figure 1: Risk matrix

Source: Annex 2 of Gov. Decree 234/2011.

The logic used for compliance with dual conditions is the Fuzzy logic<sup>5</sup> therefore literature calls the relationship of severity and probability conditions in relation to each other as Fuzzy matrix, assessing the matrix as above.

In my opinion, the only weakness of this matrix is that it only distinguishes three risk classes. In a country where there are 3,177 settlements and districts of the capital, characterized by very different natural conditions, the scissors are very narrow, which shows the differences, so the inaccuracy of the risk assessment is higher.

Another feature of the Hungarian disaster risk assessment system is that it establishes a special regulation for industrial vulnerabilities, based on which settlements that are directly threatened in the 3-kilometer radius of the nuclear power plant and in the 1-kilometer radius of the research reactor shall be classified in Class I, or are threatened by a plant under the effect of Chapter IV of Act CXXVIII of 2011 on Disaster Management and on the amendment of certain acts in relation (Act on Disaster Management) and are bound to draft an off-site protection plan. Settlements that are indirectly threatened by the nuclear power plant (located in the 3 to 30-kilometer radius) shall be classified as Class II, or are threatened by a plant under the effect of Chapter IV of the Act on Disaster Management and are not bound to draft an off-site protection plan. Settlements whose territories are threatened in case of the release of hazardous materials from a plant not under the effect of Chapter IV of the Act on Disaster Management shall fall in Class III.

To be exhaustive, it should be noted that the regulation of the current industrial safety area, the general risk management factors may also be found, such as the definition of a hazard that means the identification of the possibility of a major accident determining the occurrence frequency and probability of a major accident involving potential hazardous materials; the assessment of the consequences of a major accident involving the identified hazardous materials; the presentation and evaluation of the possible domino effects, and their consequences.

For the purpose of defining individual and social risks, the regulation integrates the probability and the consequences of major accidents related to hazardous materials, affecting an area by their impacts. When calculating a social risk not only the population living in the vulnerable area, but people staying there periodically, in a significant number (e.g.,

<sup>5</sup> Chinho, L. and Hsieh, P. J. "A fuzzy decision support system for strategic portfolio management". *Decision Support Systems* 38/3. 2014. 383–398. <https://pdfs.semanticscholar.org/ca2e/921771ce61e84197b030b9034bcfc8b6e2bf.pdf>, Accessed on 18 December 2017.

workplace, shopping center, school, entertainments, etc.) are also taken into account. The more people can be affected by lethal impacts, the less acceptable a social risk is. Thus, contrary to the constant values of individual risk levels, the level of social risk can only be defined<sup>6</sup> as a function of the expected number of victims (deaths).

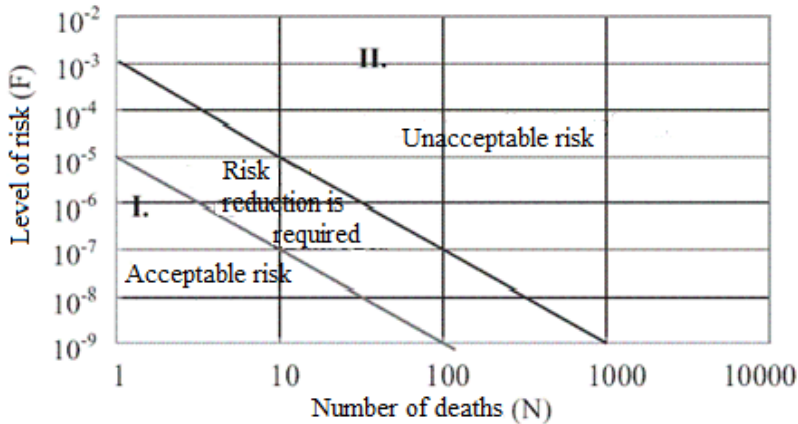


Figure 2: Industrial Safety Social Risk. Matrix Risk level (F) Acceptable risk Risk reduction necessary Unacceptable risk Number of deaths (N)

Source: Annex 7 of Gov. Decree 219/2011.

The X-axis of the F-N curve indicates the number of deaths (N). The number of deaths must be displayed on a logarithmic scale and the smallest displayed value is 1. The Y-axis of the F-N curve represents the aggregate frequency of accidents involving the death of N or more people. This accumulated frequency should be displayed on a logarithmic scale and the smallest displayed value is  $10^{-9}$  1/year.

The industrial safety risk analysis is a quantitative risk analysis process, a part of which is the definition and analysis<sup>7</sup> of possible accident series of incidents. To analyze the consequences of an incident software procedures or guidelines internationally accepted are available.

For population protection it is especially important that the consequences of a particular hazardous industrial accident stay within the establishment or affect the population living in its surroundings, directly or indirectly, via other intermediary means.

During an official authorization process, the above risk analysis procedures – which are prepared by the operator in a safety report and safety analysis – and during their review, the authority decides if the given plant is obliged or not to draft an off-site protection plan, due to its hazard impacts.

For the protection of the population it is especially important that the consequences of a particular hazardous industrial accident remain within the establishment or reach a population living in its surroundings, directly or indirectly via other intermediary medium.

<sup>6</sup> Gov. Decree 219/2011. (X. 20.) on the protection against major accidents involving dangerous substances. [http://njt.hu/cgi\\_bin/njt\\_doc.cgi?docid=139993.347708](http://njt.hu/cgi_bin/njt_doc.cgi?docid=139993.347708), Accessed on 02 January 2018.

<sup>7</sup> Kátai-Urbán, L. "Evaluation and development of the conditions of application of the protection measures against the transboundary effects of industrial accidents". Thesis presented for the degree of PhD. Miklós Zrínyi National Defense University, Military Technical Doctoral School, Budapest, 2006.

During the course of the official authorization, the above risk analysis procedures – which are prepared by the operator during the safety report and the safety analysis – and during their review, the authority decides whether the given plant is obliged or not to have a threatening effect to draft an off-site protection plan.

## Hungary's national level risk assessments

It is important to mention that besides the hazard source categorization used at settlement level, in practice, one can find other groupings as well. In 2011 and 2014, national level disaster risk assessments of Hungary were drafted.

The 2011 "*National Disaster Risk Assessment*"<sup>8</sup> was elaborated by six working groups. Separate working groups dealt with the analysis of (1) flood and inland water hazards, (2) effects of extreme weather, (3) social risks, (4) forest fires, (5) earthquakes, (6) industrial accidents and risks, identifying them as the "main disaster hazards". As a result, it was established that flood and inland water hazards are regarded as the highest vulnerabilities in Hungary under those circumstances.

The 2014 risk assessment, as opposed to the previous one, identified 12 risk areas broken down into 3 groups:

### 1. *Natural risk area*

- a) Extreme weather,
- b) Floods,
- c) Geological risks,
- d) Epidemics,
- e) Space weather.

### 2. *Major accidents risk area*

- a) Hazardous materials,
- b) Road accidents,
- c) Nuclear accident.

### 3. *Deliberate incidents*

- a) Terrorism,
- b) Cyber-attack,
- c) Security policy crisis,
- d) Energy supply crisis.

Compared to the previous national assessment, hazard sources originating in cosmic and solar sources have appeared as novelties, and the consideration<sup>9</sup> of the risks caused by deliberate human activity. Based on the assessment, in Hungary extreme weather; invasive, allergenic or toxic plants; migration (due to climate change); droughts; and severe storms are the greatest threat to the population in Hungary. However, according to the above described points based on the regulations in force, settlement classification is a decisive factor from the aspect of population protection.

<sup>8</sup> Gyenes, Zs. "Nemzeti Katasztrófa Kockázat Értékelés". Veszprém Megyei Katasztrófavédelmi Igazgatóság. 2011. <http://vmkatig.hu/KEK.pdf>, Accessed on 24 January 2017.

<sup>9</sup> Gov. Decree 1384/2014. (VII. 17.) Report of Hungary's national catastrophe risk assessment methodology and its results. 2014. <http://www.katasztrofavedelem.hu/letoltes/szervezet/20140718-katasztrofakockazat-ertekelesrol-jelentes.pdf>, Accessed on 28 December 2017.

## ALL-HAZARD APPROACH OF POPULATION AND PROPERTY PROTECTION

It is necessary to further develop the risk assessment procedure, first of all, to introduce an all-hazard assessment of hazard factors affecting the population and property. To this end, it is expedient to group the hazard sources by their origin. Considering the above, in my opinion, hazard impacts are expedient to be examined in the following three large groups:

1. Natural disasters (hydrological, geological, meteorological, biological, extraterrestrial, etc.).
2. Technological disasters (industrial, nuclear, traffic disasters, non-natural fires, etc.).
3. Social disasters (wars, riots, terrorist threats, etc.).

### A possible grouping of natural hazard sources of Hungary

Hazard sources that are obviously irrelevant of human activity or the absence thereof belong to this group. They have the peculiarity that we are inherently unable to prevent their development, but we can mitigate their effects. Natural hazard sources mainly affect safety and security in the field of society and the economy.

In Hungary, natural hazard sources may be:

#### *1. Hydrological*

- a) Flood,
- b) Inland water,
- c) Limnological,
- d) Hydrogeological,
- e) Hydro-chemical and hydro-biological.

#### *2. Meteorological*

- a) Extreme heat,
- b) Extreme cold,
- c) Effects of winds,
- d) Hydro-meteorological hazards (droughts, forest and vegetation fires, cloudbursts),
- e) Thunderstorms, supercells.

#### *3. Geological*

- a) Earthquake,
- b) Slope slide,
- c) Soil collapse,
- d) Subsidence,
- e) River bank, mountain and rock falls,
- f) Volcanic eruption.

#### *4. Biological*

- a) Human epidemics,
- b) Animal and plant health epidemics,
- c) Spread of invasive allergenic or toxic plants,
- d) Proliferation of invasive animal species.

### 5. *Cosmic*

- a) Solar radiation,
- b) Other cosmic radiations,
- c) Collision with asteroids, minor planets or comets, or with cosmic artificial objects,
- d) Supernova explosion,
- e) Black holes.

My classification proposal described above lists both cosmic and biological hazards as natural hazards, similarly to the 2014 national risk assessment, based on the principle that active or negligent human activities are not necessary for their appearance. With regard to human epidemics, long discussions could continue on the issue, but in my opinion, the natural classification of epidemics is also justified by pathogens that enter human body as viruses or bacteria. The emergence of these microorganisms is not exclusively related to humans even though, in most cases, they can only survive for longer time in other living organisms such as humans.

At geological hazards, I mention volcanic eruptions, the probability of which in Hungary is low, since the basaltic volcanoes in the Balaton Uplands usually only have one outbreak cycle. At the same time, the temperature of the mantle on the Great Hungarian Plain is 200°C, which warms the sediment layer above it, so basaltic magma could break into the surface in this area just in a few days. In addition, throughout the entire territory of the Carpathian Basin, the rock mantle is thin (about 70 km). Thus, the malleable material of the upper mantle of the Earth can easily flow here, which can lead<sup>10</sup> to the melting of the covering rocky substance. However, it must be seen that a volcanic eruption can have implications to everyday life even from a long distance. For example, during the eruption of the Eyjafjallajökull Volcano in 2010, aviation was interrupted in many countries, thus their impacts reached Hungary as well.

## A possible grouping of Hungary's technological hazards

Hazard sources that appear as a consequence of human activity or as that of the lack of human activity i.e. negligence have been included in this group. They have a peculiarity that their development could be prevented by authoritative rules.

### 1. *Originating in industry*

- a) Release of toxic, carcinogenic chemical/biological, flammable and explosive substances,
- b) Nuclear, radiological accidents,
- c) Air pollution,
- d) Extensive fires,
- e) Accidents originating in planning or implementation.

### 2. *Traffic, transportation hazards*

- a) By land
- b) By air
- c) By water

<sup>10</sup> Harangi, Sz. *Vulkánok: a Kárpát-Pannon térség tűzhányói*. Szeged: SZTE TTIK, 2011. 440.

### 3. Disruptions of essential systems

- a) Water supply,
- b) Electric energy supply,
- c) Info-communication systems,
- d) Defects of supply of fossil energy sources,
- e) Communal service providers.

## A possible grouping of Hungary's social hazards

Social hazard sources are mentioned together by several terms of references as technological hazard sources, a civilization-based hazard source. At the same time, if we start out that, in the case of natural hazard sources, human activity is irrelevant, while at the grouping of technological hazard sources described above, it was stated that they derive from active or negligent human activity. Thus, the social hazard sources group used in the article is distinct from these, since it is based on the typically deliberate human activity. Given the fact that harmful human behavior brings these hazard sources to life, their management is also different from the hazard sources discussed above. Sometimes, it involves the legitimate use of armed force as well. Due to this striking difference, I find it justified that social risks should form a separate large group.

Starting from this approach, we should first look at what social hazard sources can be identified in our legal system. Hungary's Fundamental Law distinguishes<sup>11</sup> six types of special legal orders in light of threats to the population:

1. State of national crisis in the event of the declaration of a state of war or an imminent danger of armed attack by a foreign power (danger of war);
2. State of emergency in the event of armed actions aimed at subverting the lawful order or at exclusively acquiring power, or in the event of serious acts of violence endangering life and property on a massive scale, committed with arms or with objects suitable to be used as arms;
3. State of preventive defense in the event of a danger of external armed attack or in order to meet an obligation arising from an alliance (NATO);
4. State of terrorist threat in the event of a significant and direct threat of a terrorist attack or in the event of a terrorist attack;
5. Unexpected attack to repel the attack of external armed groups penetrated into the territory of Hungary;
6. State of danger in the event of a natural disaster or industrial accident endangering life and property, or in order to mitigate the consequences thereof.

Based on the above listing, a triple grouping can be noticed. The scope of hazard sources originating in war or armed conflict (1), from which the danger of a terrorist attack is separated (2), however, a jeopardizing factor, supposing an internal social crisis, intended for the violent overthrow of the constitutional order (3) appears as well. These three hazards should be complemented by migration, based on international political relations and processes nowadays witnessed, and cyber security risks. Based on the above, social hazard sources, in my opinion, may include the following:

<sup>11</sup> The Fundamental Law of Hungary. Articles 48–54. [http://www.njt.hu/cgi\\_bin/njt\\_doc.cgi?docid=140968](http://www.njt.hu/cgi_bin/njt_doc.cgi?docid=140968), Accessed on 20 December 2017.

1. Internal political crisis
2. Migration, flow of refugees
3. Cyber security
4. Terrorism
5. War, armed conflict

## A POSSIBLE EXPANSION OF RISK ASSESSMENT

The assessment of risks of natural and technological hazard sources has already been integrated into the current procedure, so it is required to incorporate it in the social hazard sources listed in the previous subtitle.

The most obvious solution would be if the defense sector developed a special procedure similar to the industrial safety procedure. Paragraph (6) of Section 11 of Act CXIII of 2011 on national defense and the Hungarian Defense Forces and on the measures that may be taken in special legal order states that “...the detailed requirements for the preparation, execution and stock building tasks related to civil protection obligations during the period of an armed conflict are contained in the armed defense plan of the country.” Accordingly, critical infrastructures of paramount importance for defense purposes as well as strategically or operationally significant traffic junctions, traffic corridors, waterway crossing points, or, in the case of fulfillment of other aspects of armed defense required by the defense sector, such as the distance from the border, they all would be included in the classification of settlements on a descriptive basis. Before doing so, however, it is expedient to review the current matrix system as well, since I have mentioned it earlier that its three outcomes do not show significant alterations among settlements.

Another solution could be if, by reviewing the matrix, an integrated method were developed. As an example, I use the risk matrix<sup>12</sup> elaborated by the US Army, which I have complemented with a numbering system.

			Probability				
			Frequent	Likely	Occasional	Seldom	Unlikely
			A	B	C	D	E
Severity	Catastrophic	I	20	19	17	16	12
	Critical	II	18	15	14	11	7
	Moderate	III	13	10	9	6	5
	Negligible	IV	8	4	3	2	1

Figure 3: Risk assessment matrix

Source: Addition to DD Form 2977

A separate hazard source relevant to all settlements could be analyzed with this matrix. Based on the analysis, using the classification described above, the subgroups would get the number of the hazard source receiving the highest score, and the numbers of the subgroups would be accumulated.

<sup>12</sup> “DD Form 2977: Deliberate Risk Assessment Worksheet”. Department of Defense. January 2014. [http://www.benning.army.mil/RangeOps/content/blank\\_forms/DD2977\\_DeliberateRiskAssessmentWorksheet\\_Apr14.pdf](http://www.benning.army.mil/RangeOps/content/blank_forms/DD2977_DeliberateRiskAssessmentWorksheet_Apr14.pdf), Accessed on 17 December 2017.



For example, within natural hazard sources, in the subgroup of hydrological hazards, a settlement would receive 15 points for flood hazards and would receive less for all other threatening impacts. In this case, the metric of the hydrological subgroup would be 15. The metric of the other four natural hazard source subgroups (meteorological, geological, biological, cosmic) would be added to this. Thus, in extreme cases, a settlement could receive a maximum of 100 points for natural hazard sources, in the case of technological hazard sources, 60 points could be received, while in the case of social hazard sources, it could also receive 100 points; a minimum of 3 points in the reverse approach.

Of course, the probability of the two extremes is extremely low. The assessment of an armed threat could be supplemented by additional compensation procedures; for example, a city with a Tisza River crossing could receive a higher value than a settlement of the same parameter, but not as decisive in terms of freedom of movement of military force, based on a calculated multiplier, until reaching the maximum point. Resources necessary for the management of risks could be assigned to the cumulative numbers thus received.

For example, it could be the case that only municipal rescue teams could apply for support from the government to voluntary civil protection rescue organizations, in the case of which a settlement has received 120 or more points. For district and territorial rescue teams, the scores could be averaged. Another such source of support could be at the cost of increasing defense-related budget expenditures to the ratio of 2% of the GDP in order to meet the requirements of NATO's resilience. For example, in settlements having received 150 points at the assessment, an increase in the investment in resilience and civil preparedness would be possible.

Of course, the ratios given here only serve as examples; for the elaboration of the system detailed inter-ministerial consultations, impact assessments and expert analyzes are required.

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Col. Imre Porkoláb and Ben Zweibelson<sup>1</sup>:

## DESIGNING A NATO THAT THINKS DIFFERENTLY FOR 21<sup>ST</sup> CENTURY COMPLEX CHALLENGES

*„Allied Command Transformation is the only NATO headquarters on American soil. Not only does it play a crucial role in maintaining a strong transatlantic linkage between North America and Europe, its core business is to transform the military capacity of the Alliance. To do this, innovation is key.”*

General Denis Mercier, NATO-ACT Commander<sup>2</sup>

**ABSTRACT:** *The 21st century presents novel and increasingly complex security challenges for the international defense community and NATO in particular. Western armed forces as well as intergovernmental military alliances, such as NATO, appear increasingly unable to deal with these problems using traditional planning and organizing methodologies alone; what used to work effectively no longer seems to possess the same precision and control. Traditional military decision-making and problem-solving methodologies are insufficient tools for what is increasingly seen as a postmodern era of conflict and security challenges. The authors promote the relatively new and organizationally disruptive theory and practice known as ‘military design’ as an important area for NATO educational development and implementation into practice as well as doctrine. Many nations within the NATO alliance have already implemented their own unique military design methodologies, and eventually as a force for complex security challenges NATO will need to consider design within a NATO formation. The authors establish the distinctions between military design and military planning, how NATO can implement design in practice and education, and why NATO requires design and traditional planning together in the context of emergent 21st century challenges. The window for rapid innovation and organizational transformation using military design is now, with the call for a design framework that is flexible towards unique NATO requirements and possessing essential qualities indicative of appreciating and addressing many emergent and novel challenges confronting the alliance.*

**KEYWORDS:** *Design Thinking, Change, Adaptation, Transformation, Military Design, Planning, Education, NATO, Complexity*

In the 21<sup>st</sup> Century, the international defense community has largely struggled with how to organize, strategize, and act effectively in increasingly complex and emergent contexts where the previous distinctions between war and peace have blurred beyond comprehension.<sup>3</sup>

<sup>1</sup> The views of the authors are their own and do not represent the positions of the United States military, U.S. Special Operations Command, the Hungarian Defense Forces, or NATO.

<sup>2</sup> General Denis Mercier opening remarks at Industry engages NATO Symposium, Norfolk, 27 Apr 2017.

<sup>3</sup> Bousquet, A. “Chaoplex Warfare or the Future of Military Organization”. *International Affairs (Royal Institute of International Affairs 1944-)* 84/5. 2008. 915–929.; Bousquet, A. *The Scientific Way of Warfare: Order and Chaos on the Battlefields of Modernity*. London: HURST Publishers Ltd., 2009.

Governments and their militaries continue to experience radical and entirely unforeseen calamities that defy historical patterns and essentially rewrite the rulebooks. Popularly termed ‘black swan events,’<sup>4</sup> they continue to shatter any illusion of stability or extension of normalcy in foreign affairs.

Western Armed Forces as well as intergovernmental military alliances, such as NATO, appear increasingly unable to deal with these problems using traditional planning and organizing methodologies alone.<sup>5</sup> What had worked well previously no longer appears to possess the same precision and control. The formal operational-level military planning process, initially developed to cope with Cold War Era large-scale military activities in “a conventional, industrialised state vs industrialised state setting”<sup>6</sup> now is seemingly incapable of providing sufficient means of getting the organization unstuck.

Within this new and increasingly chaotic context, NATO has to fulfill all three core tasks at the same time, which requires new and noble approaches from policymakers, and military personnel alike. While Russia’s ‘little green men’ are not necessarily different from earlier applications in unconventional warfare, their inclusion in multiple domains supported by expansive technology, social media, propaganda, and the malicious activity in the cyberspace<sup>7</sup> provides a far more complex canvas upon which rivals can create never-before-seen complex problem-sets that defy previously accepted definitions for conflict and war.

Complex contexts require different ways of thinking and decision-making<sup>8</sup> and require a different awareness and appreciation. In simplistic settings, organizations see things they have previously experienced,<sup>9</sup> and for NATO, an organization with so much success in the past, these experiences can be an obstacle to change in today’s VUCA world.<sup>10</sup> Complex contexts often have only one repeating and predictable process: an organization

<sup>4</sup> The black swan event is referring to a phrase used in a book by the essayist, scholar, philosopher, and statistician Nassim Nicholas Taleb released on April 17, 2007. The book focuses on the extreme impact of certain kinds of rare and unpredictable events (outliers) and humans’ tendency to find simplistic explanations for these events retrospectively. This theory has since become known as the black swan theory. Taleb, N. N. *The Black Swan: The Impact of the Highly Improbable*. New York: Random House, 2007.

<sup>5</sup> Kupchan, C. “Is NATO Getting Too Big to Succeed?”. *The New York Times*, 25 May 2017.; Freedberg, S. Jr. “Fear of Russia Drives Sweden Closer to NATO”. *Breaking Defense*, 13 September 2016.

<sup>6</sup> Jackson, A. “Innovative within the Paradigm: The Evolution of the Australian Defence Force’s Joint Operational Art”. *Security Challenges* 13/1. 2017. 67–68.

<sup>7</sup> Cyber has been declared as a domain at NATO’s Warsaw Summit in July 2016.

<sup>8</sup> “Joint Doctrine Publication 04: Understanding and Decision-Making”. Second edition. 2016. 38. United Kingdom Ministry of Defence. <https://www.gov.uk/government/publications/jdp-04-understanding>, Accessed on 31 May 2017.

<sup>9</sup> Papparone, C. R. and Topic, G. L. Jr. “Training Is Déjà Vu; Education Is Vu Jade”. *Army Sustainment*, 2017. 15.

<sup>10</sup> VUCA is short for *volatility, uncertainty, complexity, and ambiguity*. It is meant to describe the highly dynamic chaotic environment. VUCA also conflates four distinct types of challenges that demand four distinct types of responses. The notion of VUCA was introduced by the U.S. Army War College in the 1990s. The deeper meaning of each element of VUCA: (1) Volatility. The nature and dynamics of change, and the nature and speed of change forces and change catalysts. (2) Uncertainty. The lack of predictability, the prospects for surprise, and the sense of awareness and understanding of issues and events. (3) Complexity (or variety) is measured by the number of distinguishable states it is capable of having and is beyond the control of any individual. The multiplex of forces, the confounding of issues, no cause-and-effect chain and confusion that surround an organization creates and entangled web of complexity. (4) Ambiguity occurs when there is no clear interpretation of a phenomenon or set of events. It can never be eliminated altogether and the haziness of reality, the potential for misreads, and the mixed meanings of conditions always cause-and-effect confusion. For a better understanding see: Berinato, S. “A Framework for Understanding VUCA”. *Harvard Business Review*

will continue to experience things they have never seen before that marginalize or defeat all established practices and favored tools.<sup>11</sup>

When an organization encounters things they have experienced previously in some format or context, they can reapply common terms and approved processes to solve these problems, often in an analytic and optimization-fixated approach to reducing risk and increasing stability.<sup>12</sup> Yet what does an organization do when it experiences something it has never seen before and lacks the language, processes, and history to make sense of?

In this article the authors suggest that as part of the response to the changes in a complex environment NATO should introduce ‘defense applied design thinking’ and use this approach to look for solutions to wicked problems. To prove our point we will look into NATO adaptation, will present a brief history of the evolution of defense applied thinking, and answer the question where NATO Allied Command Transformation should move concerning design application and education.

## NATO ADAPTATION FROM 2001 TO 2017: AN EVOLUTION OF CHANGE AND COLLABORATION

Today’s environment is inherently complex with an increase of key stakeholders as well as the exponential increase in the connections between these players. With the rise in technology and information exchange, NATO’s operational areas are increasingly complex and potentially chaotic. In some regions NATO is facing a broad range of threats simultaneously.<sup>13</sup> The Alliance has come to realize that what it was designed and optimized for, is no longer applicable to today’s VUCA battlefield. Complexity and uncertainty seems to be the norm<sup>14</sup> and for an international organization with much history, legacy and past success like NATO, it is a very difficult moment, which requires organizational transformation and adaptation.

Adaptation is certainly not new to the Alliance, which has a long history, and undergone several focus shifts before. In fact the Warsaw Summit acknowledged the fourth phase in NATO history, where “there is an arc of insecurity and instability along NATO’s periphery and beyond...Today, faced with an increasingly diverse, unpredictable, and demanding security environment, we have taken further action to defend our territory and protect our

<sup>10</sup> (cont.) 59/9. 2014. <https://hbr.org/2014/09/a-framework-for-understanding-vuca>, Accessed on 31 May 2017; Bennett, N. and Lemoine, G. J. “What VUCA Really means for You”. *Harvard Business Review* 59/1. 2014. <https://hbr.org/2014/01/what-vuca-really-means-for-you>, Accessed on 31 May 2017.

<sup>11</sup> Bousquet, A. and Curtis, S. “Beyond Models and Metaphors: Complexity Theory, Systems Thinking and International Relations”. *Cambridge Review of International Affairs* 24/1. 2011. 43–62.; Tsoukas, H. *Complex Knowledge: Studies in Organizational Epistemology*. New York: Oxford University Press. 2005.

<sup>12</sup> Ackoff, R. “Science in the Systems Age: Beyond IE, OR, and MS”. *Operations Research* 21/3. 1973. 661–671. Ackoff discusses the goals of analytic optimization for one approach to ‘solving’ particular problems, and the dangers of misapplication when dealing with complexity.

<sup>13</sup> The Balkans, for example, face political pressure from Russia, the rise of radical Islamic groups, but also organized crime and refugee flows – and all these challenges are interrelated. Eastern European states are also threatened by Russia’s rise, and also under internal pressures concerning refugee migration flows, organized crime, and cultural challenges for integrating with Western Europe within the EU as well as NATO.

<sup>14</sup> Pondy and Mitroff reminded organizational scientists 25 years ago that organizations have characteristics typical of level 8 on Boulding’s 9-level scale of system complexity. Boulding concluded that organizations are among the most complex systems imaginable. Boulding, K. E. “General Systems Theory: The skeleton of science”. *Management Science* 2/3. 1956. 197–208.; Pondy, L. R. and Mirtoff, I. I. “Beyond open systems models of organizations”. In Staw, B. M. (ed), *Research in organizational behavior*. Greenwich, Conn.: JAI Press, 1979. 3–39.

populations.”<sup>15</sup> This modern context of uncertainty and emergent developments places NATO within a new world where many of the traditional “tools” in the Alliance toolkit no longer work, or produce bizarre outcomes.

The Alliance since its creation in 1949 has mainly focused on collective defense, but after the fall of the Berlin Wall an era of cooperation began in 1991, where enlargement (especially from the former Warsaw Pact countries) and the development of partnerships (including Russia) became the primary focus. In 2001, NATO’s focus shifted again towards expeditionary operations and crisis management with a strong emphasis on Afghanistan after the terror attack on the United States.

Therefore, adaptation is not new; NATO has been doing this throughout its existence.<sup>16</sup> Yet the tempo and thrust of change have changed the game recently and since 2014, a new strategic focus has come into view.<sup>17</sup> Marked by the past two NATO summits as important milestones along the path for NATO’s future, the Alliance embarked on a journey of organizational transformation of an unprecedented pace. While NATO’s essential mission remains unchanged, goals in increased adaptation, ability to anticipate change, and increasing both efficiency and transparency were noted as new benchmarks in the Summit communiqués.<sup>18</sup>

Three years ago at the NATO Summit in Wales in 2014, NATO leaders were clear about the security challenges on the Alliance’s borders. In the East, Russia’s actions threatened Europe, while on the Alliance’s southeastern border the ISIL<sup>19</sup> terror campaign posed a threat. Across the Mediterranean, Libya was becoming increasingly unstable. The Alliance’s leadership took decisive steps to address these challenges and reaffirmed the central mission: *the shared responsibility of collective defense*.<sup>20</sup> Continuing this adaptive trend, the Allies agreed to an increase of NATO’s presence in Central and Eastern Europe with additional equipment, training, exercises,<sup>21</sup> and troop rotations.

Following the Wales Summit, at the *NATO Summit in Warsaw* in July 2016, the Alliance had even more emergent problems and challenges to grapple with.<sup>22</sup> At this time NATO was engaged in all areas of its core tasks simultaneously, and often in overlapping and confusing ways. To counter these challenges the United States quadrupled its funding for the European

<sup>15</sup> “Warsaw Summit Communiqué”. North Atlantic Treaty Organization. 9 July 2016. [http://www.nato.int/cps/en/natohq/official\\_texts\\_133169.htm](http://www.nato.int/cps/en/natohq/official_texts_133169.htm), Accessed on 12 June 2017.

<sup>16</sup> NATO Secretary General Jens Stoltenberg said that „one of our greatest strengths is our ability to adapt.” North Atlantic Treaty Organization. Stoltenberg, J. “Keynote speech by NATO Secretary General Jens Stoltenberg at the opening of the NATO Transformation Seminar”. NATO. 25 March 2015. [http://www.nato.int/cps/en/natohq/opinions\\_118435.htm](http://www.nato.int/cps/en/natohq/opinions_118435.htm), Accessed on 12 June 2017.

<sup>17</sup> Dunford, J. Jr. “From the Chairman: The Pace of Change”. *Joint Force Quarterly* 84/1. 2017. <http://ndupress.ndu.edu/JFQ/Joint-Force-Quarterly-84.aspx>, Accessed on 12 June 2017.

<sup>18</sup> “Warsaw Summit Communiqué”.

<sup>19</sup> Also referring to the Islamic State, or ISIS as used by various organizations, governments, and media outlets.

<sup>20</sup> “Wales Summit Declaration”. NATO. 5 September 2014. [http://www.europarl.europa.eu/meetdocs/2014\\_2019/documents/sede/dv/sede240914walessummit\\_/sede240914walessummit\\_en.pdf](http://www.europarl.europa.eu/meetdocs/2014_2019/documents/sede/dv/sede240914walessummit_/sede240914walessummit_en.pdf), Accessed on 12 June 2017.

<sup>21</sup> One of the most significant one of these exercises have been Trident Juncture 2015.

<sup>22</sup> The current political and security environment created in the wake of military and humanitarian crises in Syria, massive refugee influx to Europe, DAESH’s terror attacks, and the frozen conflicts in eastern Ukraine and the Caucasus, and cyber security challenges are all shape-shifting wicked-problems, which require constant transformation from the Alliance.

Reassurance Initiative<sup>23</sup> (ERI) and sent more troops to Europe, who were accompanied by other NATO Allies to serve as a deterrent force along NATO's eastern border.

NATO is moving ahead at a rapid pace for a large multinational bureaucratic organization, however, adaptation and transformation is never an easy process. Preparing for the future, and building *strategic foresight*, is becoming increasingly difficult. There are no blueprints, rules or best practices anymore, and frequently an organization's successful tools from yesterday actually work against it in discovering tomorrow's challenges. Today, when security challenges demand a different kind of force, agility is essential. Thus, *speed* is another problem that can be addressed through increasing operational agility and flexible thinking; NATO's adaptation measures introduced above have partially addressed this problem. A third issue is recognition of the fact that a major cornerstone of many of today's emergent security challenges is the pattern of power shifts toward networks. Since the number of key stakeholders in any operational setting has increased, *the Alliance has to think and act like a network as well*, and this requires institutional adaptation beyond what had previously been sufficient in education, professionalization, and organizational transformation.

NATO clearly has a high potential for adaptation and transformation but right now the Alliance leadership feels that they must choose between tackling complex challenges (adapting) or responding as a traditional bureaucratic organization and trying to give adequate responses to emerging challenges in an age of constant disruptions (operating). Many large military organizations face the same challenge; a tension between operational mindset and adaptive experimentation. The reality is that NATO is quite capable to do both at the same time. Allied Command Transformation has the potential to contribute to NATO's overall adaptation, while Allied Command Operations can focus on the more traditional (operational) end of the spectrum while also receiving facilitation and transformative abilities from ACT's adaptive efforts. NATO's command structure with the two strategic commands (and their different functions) enables the Alliance to operate and adapt at the same time, the question is how?

In order to thrive in a VUCA environment, when challenges are increasingly complex and interrelated, NATO *needs to use defense applied design thinking on an everyday basis* to engineer new solutions. Design is needed when the organization "needs what does not yet exist" so that it can gain or maintain relevance as well as advantage in emergent futures.<sup>24</sup>

## A BRIEF HISTORY OF DEFENSE APPLIED DESIGN IN VARIOUS ARMED FORCES

Over the past generation of international military professional developments in innovation and decision-making, the previously popular mechanistic methods that originated in the Industrial Era<sup>25</sup> have been challenged by new ways of thinking. A small community of theorists and practitioners have developed various versions of what is termed 'defense applied design' in order to encompass an expanding variety of international military design

<sup>23</sup> From \$800 million to \$3.4 billion and deploying an additional Brigade Combat Team to Europe in January 2017.

<sup>24</sup> Nelson, H. and Stolterman, E. *The Design Way*. Second ed. Cambridge, Massachusetts: The MIT Press, 2014. 12.

<sup>25</sup> Bousquet. *The Scientific...*; Gharajedaghi, J. and Ackoff, R. "Mechanisms, Organisms, and Social Systems". In Tsoukas, H. (ed), *New Thinking in Organizational Behaviour*. Oxford, United Kingdom: Butterworth-Heinemann Ltd, 1994. 25–49.



models.<sup>26</sup> While the first formal military design methodology came from the Israeli Defense Force at the turn of the 21<sup>st</sup> Century, the Israeli ‘Systemic Operational Design’ (SOD) model quickly inspired other variants across the globe.<sup>27</sup> Since the late 1990s, military design has quickly expanded into American, Australian, Canadian and other western militaries in various forms and applications.<sup>28</sup> Broadly, military design draws from multiple disciplines including Systems Theory, Complexity Theory, Postmodernism, Eastern Philosophy, and civilian design methodologies developed through the late 20<sup>th</sup> Century in multiple design programs across the fields of science, arts and humanities.

The Australian Army incorporated Systems Theory as well as some influences of the Israeli SOD into their planning doctrine, professional education and practice in the first decade of this century<sup>29</sup> and some design entered their doctrine by 2011-2012.<sup>30</sup> Simultaneously, the American Army devoted extensive intellectual emphasis on taking Israeli SOD elements and appropriating parts of it into what they would call ‘Army Design Methodology’ by 2010 in both doctrine and practice.<sup>31</sup> The Canadian Army first explored design concepts in 2008, and subsequently revisited it in 2013 by developing mixed design methods for education in

<sup>26</sup> Beaulieu-Brossard, P. and Dufort, P. “Introduction to the Conference: The Rise of Reflective Military Practitioners”. Paper presented at Hybrid Warfare: New Ontologies and Epistemologies in Armed Forces, Canadian Forces College, Toronto, Canada: University of Ottawa and the Canadian Forces College. 2016.; Zweibelson, B. “An Application of Theory: Second Generation Military Design on the Horizon”. *Small Wars Journal*. 19 February 2017. <http://smallwarsjournal.com/jrnl/art/an-application-of-theory-second-generation-military-design-on-the-horizon>. Accessed on 10 March 2017.

<sup>27</sup> “Interview with BG (Ret.) Shinom Naveh”. Digital transcript. 1 November 2007.; Ryan, A. “A Personal Reflection on Introducing Design to the U.S. Army”. Medium: The Overlap. 2016. <https://medium.com/the-overlap/a-personal-reflection-on-introducing-design-to-the-u-s-army-3f8bd76adcb2#.xhax76luo>, Accessed on 2 March 2016.; Gracier, O. “Self Disruption- Beyond the Stable State of SOD”. *Journal of Military and Strategic Studies* 17/4. 2017. <http://jmss.org/jmss/index.php/jmss/article/view/697/656>, Accessed on 12 June 2017.; Zweibelson, B. “An Application of Theory...”. All in Beaulieu-Brossard and Dufort. “Introduction to the Conference...”.

<sup>28</sup> Ryan, A. “A Personal Reflection...”; Naveh, S. “The Australian SOD Expedition: A Report on Operational Learning”. Manuscript. 2011.; Ryan, A. “The Foundation for an Adaptive Approach”. *Australian Army Journal for the Profession of Arms* 6/3. 2009. 69.; Lauder, M. “Systemic Operational Design: Freeing Operational Planning From the Shackles of Linearity”. *Canadian Military Journal, Operational Planning* 9/4. 2009. 41–49.; Mitchell, P. “Stumbling into Design: Teaching Operational Warfare for Small Militaries in Senior Professional Military Education”. Poster of the Canadian Forces College. Toronto, Canada. 2015. [https://www.doria.fi/bitstream/handle/10024/117634/MITCHELL%20Paul\\_poster\\_Designing%20Design,%20Teaching%20Strategy%20and%20Operations%20for%20Small%20Militaries.pdf?sequence=2](https://www.doria.fi/bitstream/handle/10024/117634/MITCHELL%20Paul_poster_Designing%20Design,%20Teaching%20Strategy%20and%20Operations%20for%20Small%20Militaries.pdf?sequence=2), Accessed on 12 June 2017.; Pazdziorek, P. *Wojskowa myśl operacyjna w konfliktach zbrojnych przełomu XX i XXI wieku*. Warsaw: Adam Marshal, 2016. \u0022 \i Australian Army Journal for the Profession of Arms \i0} 6, no. 3 (2009

<sup>29</sup> Jackson. “Innovative within the Paradigm...”. 63–64.

<sup>30</sup> Jackson, A. “A Tale of Two Designs: Developing the Australian Defence Force’s Latest Iteration of its Joint Operations Planning Doctrine”. *Journal of Military and Strategic Studies* 17/4. 2017. 179–180. <http://jmss.journalhosting.ucalgary.ca/jmss/index.php/jmss/article/view/705>, Accessed on 12 June 2017.; See also: Jackson. “Innovative within the Paradigm...”. 63–64.

<sup>31</sup> Ryan. “A Personal Reflection...”; Butler-Smith, A. “Operational Art to Systemic Thought: Unity of Military Thought”. Paper presented at Hybrid Warfare: New Ontologies and Epistemologies in Armed Forces, Canadian Forces College, Toronto, Canada: University of Ottawa and the Canadian Forces College. 2016. 1–5.; Banach, S. and Ryan, A. “The Art of Design: A Design Methodology”. *Military Review* 89/2. 2009. 105–15.; *Art of Design: Student Text*, Version 2.0. Fort Leavenworth, Kansas: U.S. Army School of Advanced Military Studies, 2010.

the Canadian Forces College's curriculum<sup>32</sup> including their Advanced Joint Warfighting Studies and the Joint Command and Staff Programme.<sup>33</sup>

Both within NATO and across the Anglosphere, western militaries quickly seized upon design thinking in largely service-specific interpretations as well as some limited Joint applications. Design became a battle of individual tribes with distinct disagreements on language, scale, scope, and content.

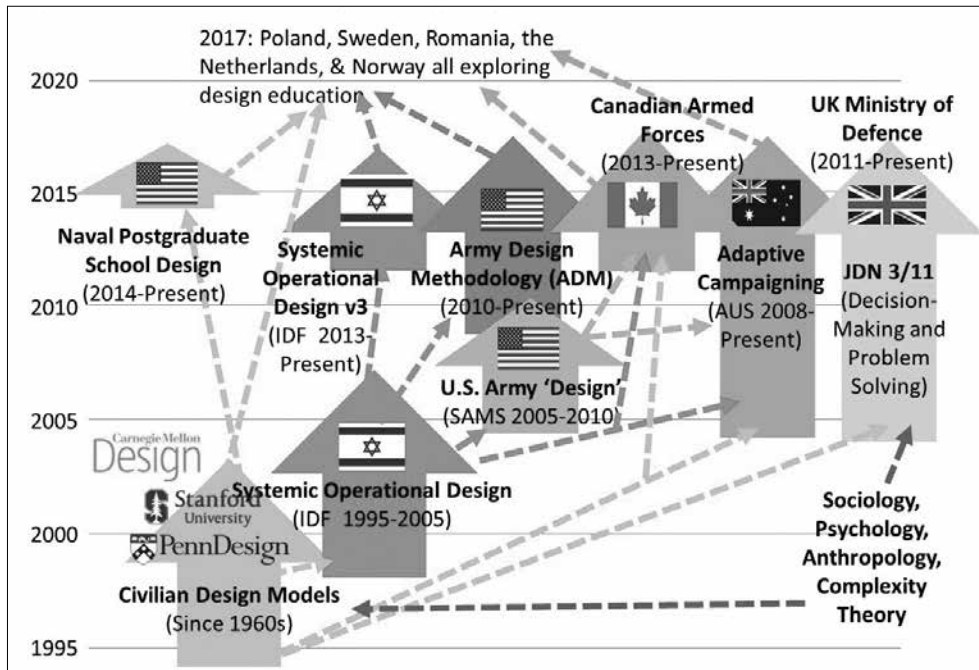


Figure 1: Broad Overview of Major Military Design Movements and Influences

In the last decade of persistent conflict and security challenges for NATO as well as individual American and European states, design developments have initiated across multiple Armed Forces. The Polish Army in 2016 initiated design education at their War Studies University in Warsaw (Akademia Sztuki Wojennej)<sup>34</sup> by partnering with the US Special Operations Command's (USSOCOM) Joint Special Operations University (JSOU) through their military design program. The Royal Netherlands Army incorporated design based largely on U.S. Army design methodology in 2013 for their field grade officer education and at their Land Warfare Centre.<sup>35</sup> In keeping with their typically subtle approach towards doctrine and training, the British Ministry of Defence published "Joint Doctrine Note 3/11,

<sup>32</sup> "Canadian Forces College 2013–2014 Joint Command and Staff Programme DS/CF 548 Lesson Plan: Advanced Joint Warfighting Studies". Unpublished internal document. March 2014. This document was provided to the authors in 2015 through personal correspondence with CFC faculty.

<sup>33</sup> Mitchell, P. "Stumbling into Design...".

<sup>34</sup> Pazdziorek. *Wojskowa myśl...*

<sup>35</sup> Zweibelson, B. "'Design' Goes Dutch: Royal Netherlands Army Consideration for Unconventional Planning and Sensemaking". *Atlantisch Perspectief* 29/6. 2015. 31–35.

Decision-Making and Problem Solving: Human and Organisational Factors” in 2013 that without using the term ‘design’ nonetheless bridged some elements of design thinking into core British doctrine and practice.<sup>36</sup> By 2016, the Ministry of Defence had archived JDN 3/11 and incorporated much of it into an updated “Joint Doctrine Publication 04: Understanding and Decision Making”.<sup>37</sup>

A pattern of Anglo-Saxon design development does seem to be leading the Armed Forces venture into synthetic thinking and systemic framing of complex, emergent problems. However, multiple design developments in Sweden, Colombia, Romania, and elsewhere demonstrate that many armed forces are keen to explore different ways of fostering organizational transformation, innovation, and synthetic thinking for ill-structured, emergent problems.<sup>38</sup> Meanwhile, clear indications exist that rivals, such as Russia, China, and Iran, in these emergent complex environments continue to apply ‘design-like’ methodologies in their published theory as well as practice.<sup>39</sup>

## A CONTEXT OF CHAOS: HOW DEFENSE APPLIED DESIGN ENABLES ARMED FORCES

There are multiple design methodologies that all tend to share several characteristics. Figure 2 illustrates some core patterns across most military design models including all of those illustrated in Figure 1. As this article frames all military design models and does not subscribe to any particular methodology, the term ‘defense applied design’ is used to promote an overarching and non-denominational perspective on existing military design methodologies.

Although different military applications for design rely on distinct terms as well as their own unique sequences of doing design, all of them start with vague guidance and a complex or ill-structured (even wicked) problem. Frequently the previously successful actions no longer work. If any of these conditions do not apply, the military organization would launch into the detailed planning process centered on analytic (rational) decision-making and problem-solving oriented towards optimization and greater efficiency of existing knowledge and practice.<sup>40</sup>

<sup>36</sup> “Joint Doctrine Note 3/11: Decision-Making and Problem Solving: Human and Organisational Factors”. United Kingdom Ministry of Defence. 18 January 2013. <https://www.gov.uk/government/publications/joint-doctrine-note-3-11-decision-making-and-problem-solving-human-and-organisational-factors>, Accessed on 31 May 2017.

<sup>37</sup> “Joint Doctrine Publication 04...”.

<sup>38</sup> Both authors have personally been involved in multiple design discussions, consultations, and program developments with these nations as well as others.

<sup>39</sup> For an example of recent Chinese military theory that reflects some design qualities, see: Liang, Q. and Xiangsui, W. *Unrestricted Warfare*. Beijing: People’s Liberation Army Literature and Arts Publishing House, 1999; Additional study of Eastern vs. Western military concepts can be found in Jullien, F. *A Treatise on Efficacy Between Western and Chinese Thinking*. Honolulu, Hawaii: University of Hawai’i Press, 2004.; See also: Lai, D. *Learning from the Stones: A GO Approach to Mastering China’s Strategic Concept, SHI*. Carlisle: Strategic Studies Institute, U.S. Army War College Press, May 2004. <https://ssi.armywarcollege.edu/pubs/display.cfm?pubID=378>, Accessed on 31 May 2017. For an example of novel Russian strategy concerning Cyber and Information, see: Ignatius, D. “Russia’s radical new strategy for information warfare”. *The Washington Post*, 18 January 2017.

<sup>40</sup> For examples of formal military efficiency-based planning, see: Reilly, J. *Operational Design: Shaping Decision Analysis through Cognitive Vision*. Second ed. Maxwell Air Force Base, Alabama: Department of Joint Warfare Studies, Air Command and Staff College, 2009.; Kem, J. *Campaign Planning: Tools of the Trade*. Third ed. Fort Leavenworth, Kansas: Department of Joint, Interagency, and Multinational Operations, 2009.

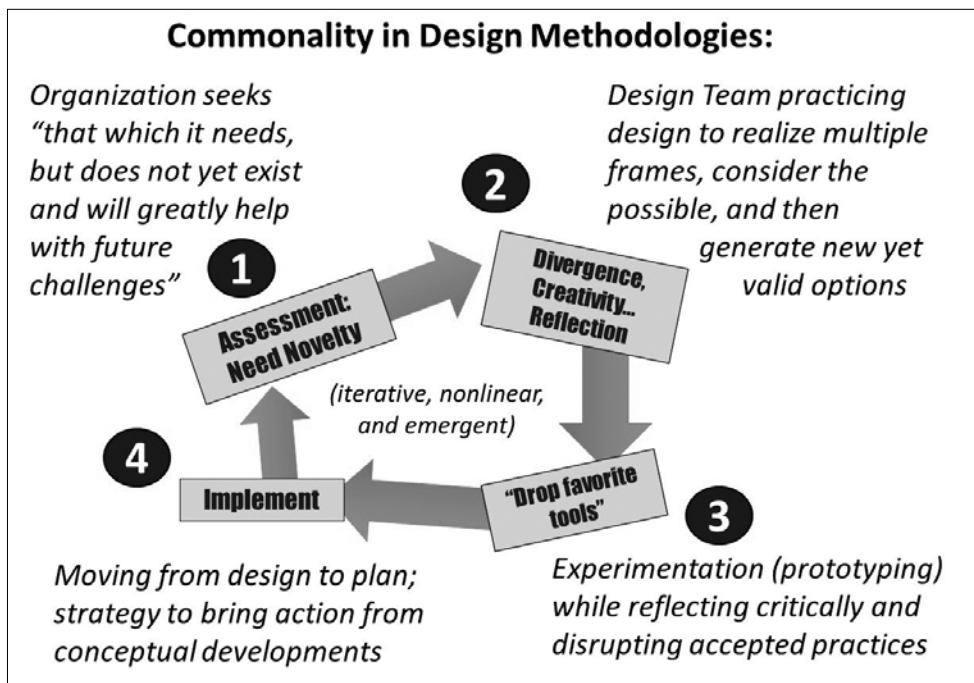


Figure 2: Framing Divergent and Convergent Organizational Processes

In Figure 2, the organization must "drop their favorite tools" as sociologist Karl Weick describes in studies of organizational change and innovation.<sup>41</sup> Militaries are quite famous for this behavior, where an organization tends to attempt to win the previous war in their preparation for the next one, much as France did in the Interwar period with the Maginot Line, or how the U.S. expected the second invasion of Iraq in 2003 to be similar to the Gulf War of 1990-1991. For an organization to critically think about their own thinking (reflection, critical inquiry),<sup>42</sup> they usually experience failure or outside pressure from the government or population to transform.

Thus, all design methodologies establish the design team as well as the designing context to be quite different from traditional military planning and routine problem-solving.<sup>43</sup> Designers are confronting not what an organization has seen before, but something unlike anything experienced and thus requiring divergent thinking as well as innovation.

As this article does not advocate any particular design methodology, all design models in general provide potential pathways toward divergent thinking and innovation for an or-

<sup>41</sup> Weick, K. "Drop Your Tools: An Allegory for Organizational Studies". *Administrative Science Quarterly* 41. 1996. 301-313.

<sup>42</sup> Visser, W. "Schön: Design as a Reflective Practice". *Collection, Art+Design & Psychology* 2. 2010. 21-25.; Beaulieu-Brossard and Dufort, "Introduction to the Conference..."; Schön, D. and Rein, M. *Frame Reflection: Towards the Resolution of Intractable Policy Controversies*. New York: Basic Books, 1994.

<sup>43</sup> Zweibelson, B. "An Awkward Tango: Pairing Traditional Military Planning to Design and Why It Currently Fails to Work". *The Journal of Military and Strategic Studies* 16/1. 2015. 11-41.; Paparone, C. R. "Design and the Prospects for Deviant Leadership". *Small Wars Journal*. 8 September 2010. 1-9. <http://smallwarsjournal.com/blog/journal/docs-temp/530-paparone.pdf>, Accessed on 31 May 2017.; Naveh, S., Schneider, J., and Chalhans, T. *The Structure of Operational Revolution: A Prolegomena*. Leavenworth: Booz Allen Hamilton. 2009.

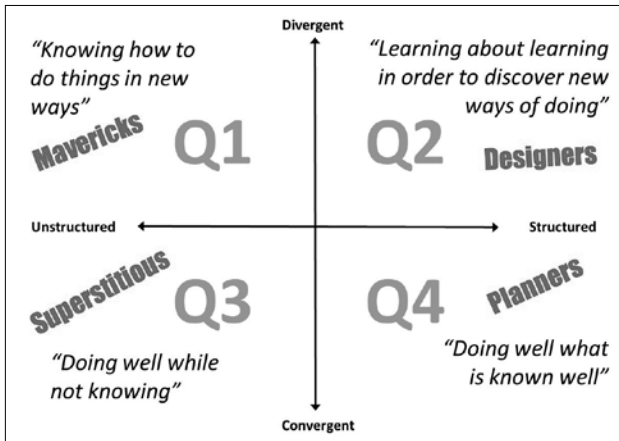


Figure 3: *Framing Divergent and Convergent Organizational Processes*

organization confronting complexity and something “never seen before” that requires entirely new tools. However, seeking divergence and innovation alone is insufficient to articulate how NATO would benefit from adapting design. There already are plenty of wildly creative and innovative professionals within the various armed forces comprising the NATO partnership. Usually, these forward thinkers and revolutionaries are considered mavericks and often are not recognized in their own times for how they move the profession forward.<sup>44</sup>

Yet, most of these maverick thinkers tend to be quite unstructured in how they go about transforming a military organization or producing exceptional insights into complexity. Many senior leaders today inquire whether “we have always done design” in that past creative military leaders must have been doing the essence of design thinking. In an unstructured manner, they likely were. If one were to visualize the tensions between ‘divergent thinking’ and ‘convergent thinking’ as well as ‘structured’ and ‘unstructured’ processes, we might consider how Figure 3 frames these into useful quadrants.

In Figure 3, the quadrant provides a heuristic aid for conceptualizing how an organization such as NATO likely has multiple ways of conceptualizing decisions and actions within conflict environments.<sup>45</sup> The quadrants are divided by a horizontal and vertical axis. The vertical axis reflects the distinction between convergent and divergent thinking. Convergent thinking provides the fundamental pillars of organizational uniformity, reliability, and predictability through analytic decision-making and problem solving within highly objective and stable conditions. Without convergence, an armed force could not train, organize or

<sup>44</sup> Visionaries such as Billy Mitchell, father of the U.S. Air Force, had to battle his own organization to promote the development of aircraft carriers, paratroop operations, and how airpower would sink battleships that were considered invulnerable to aircraft in the 1920s. T. E. Lawrence was an archeologist cast in what was otherwise a low-level military assignment where his initial recommendations were ignored or opposed (especially by the French) during WWI.

<sup>45</sup> This graphic was first drawn on a whiteboard at a design executive session between Zweibelson on behalf of Joint Special Operations University and the NATO-ACT in Norfolk, Virginia in May 2017. This three hour design discussion was between senior NATO-ACT leadership and Mr. Zweibelson.

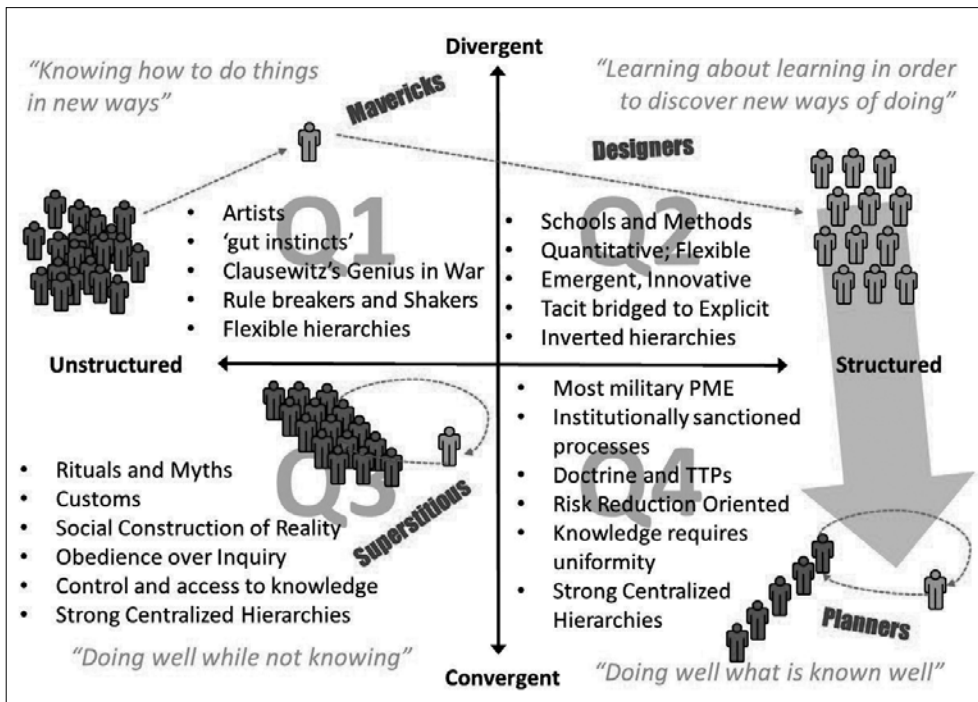


Figure 4: Filling NATO's design thinking gap' for Complex Security Contexts

equip for many of the simple<sup>46</sup> and complicated contexts associated with military missions. Divergence emphasizes subjectivity over objectivity, and contextualism (in the moment and non-repeating) where innovation and creativity make for novel discoveries.

Together the quadrants in Figure 3 provide a conceptual framework for NATO to consider how design thinking fills an essential organizational gap and it also provides several examples of what a military organization expects to find in each quadrant. Divergent thinkers that innovate using unstructured means are often the mavericks and rule-breakers that challenge the institution and pave the way for radical developments. Clausewitz refers to the state of 'genius' as those who can defy all of the principles of war that others must follow. Military planners follow a structured and convergent path where formal, analytic and rational processes help the organization reduce risk, gain predictability and control, and converge towards mission goals in a repeatable and reliable manner. Superstitious groups that attempt actions while basing it upon unstructured logic are frequently in complex military environments but are misunderstood or misinterpreted by most western militaries.

<sup>46</sup> 'Simple contexts' in military environments are not necessarily easy to understand and manage. They respond best to established practices and optimized solutions such as checklists, drills, and memorized solutions. However, a 'simple context' might be highly demanding despite being entirely managed by simple components. An Infantry Company sorting ammunition casings after a large training operation has many 'simple' tasks to clear the range, however the leadership must extensively manage these individual simple tasks in order to accomplish the mission.



Currently, NATO possesses a collection of maverick leaders and innovators that have previously been able to create and direct the organization through largely unstructured means. NATO also possesses substantial populations of effective military planners that work in the structured-convergent context and draw upon formal military schooling and practice to solve problems and manage decision-making for campaigns and operations. Critical thinking for these convergent planners is further enabled by the NATO 'Alternative Analysis' education and practice. However, NATO lacks formalized design education and implementation.

Therefore Figure 4 present the essential bridge that NATO must establish and nourish between formal designers and military planners. The design-planning bridge (illustrated in gold) is where NATO can apply defense applied design in formal education and practice.

By doing this, maverick leaders and innovators can continue to influence NATO in unstructured ways, yet within the organization a formal and school-educated group of designers can build and maintain an essential bridge for design deliverables to transfer to planning teams. This bridge also draws planning observations and feedback from the field back to the designers to enable design re-frames and new iterations.

Rituals, customs and myths will continue (including within NATO and all military organizations) while each of these groups of planners, designers and mavericks might reflect upon their own cognitive biases and tendencies. NATO already has manifestation of Q1, Q3, and Q4 in their organizations, decision-making, and reflection. Incorporating design education provides NATO with an enhanced organizational ability by introducing Q2. Bridging convergent planning practices with well-structured design education will provide NATO advantages over relying solely upon maverick leadership that manifests sporadically and only at senior leadership levels. Design education delivers an institution-wide transformation in how NATO thinks, as well as how NATO '*thinks about thinking*' in complex conflict environments.

## NATO'S BATTLE CRY FOR ORGANIZATIONAL TRANSFORMATION: DEFENSE APPLIED DESIGN

In the contemporary security environment those, who can get the latest technology to the war fighter faster tend to enjoy comparative advantage, unless that technology in turn blinds the organization to alternatives. There is a need to increase operational agility, the ability to sense, and to build a network, but it must be supported by a new design.

Building a platform, which is the goal of multiple technological solutions<sup>47</sup> a technological fix is only one side of the coin. There is a need for an organizational one as well which connects the different components together, hence the need for design application and education,

<sup>47</sup> Some examples are the *JICSPOC* experiment – a horizontal integration concept in operation, which helps us better understand how to stitch all of our stakeholders together horizontally as an enterprise to better defend and create effects in and from space. See: "New Joint Interagency Combined Space Operations Center to be established". U. S. Department of Defense. 11 September 2015. <http://www.defense.gov/News/News-Releases/News-Release-View/Article/616969/new-joint-interagency-combined-space-operations-center-to-be-established>, Accessed on 12 June 2017. Another one is the "*Combat Cloud*" *Data to decision experiment*, which aims to bridge the gap between different types of data and how that data is communicated across multiple platforms. Welsh, P. "Looking to a cloud to share data faster". U. S. Air Forces Central Command. 16 Nov 2016. <http://www.afcent.af.mil/News/tabid/4768/Article/1006428/looking-to-a-cloud-to-share-data-faster.aspx>, Accessed on 12 June 2017.



which is aimed at speeding up organizational learning while identifying and contemplating organizational rituals, patterns and socially constructed processes that have become harmful.

Practicing design requires a structured design education as well as a deliberate management of NATO designers within the organization. Design also requires extraordinary tolerance to critical reflection, where essentially nothing is off limits and disruptive thinking may radically alter some extremely rigid and cherished mind-sets.

Although it may seem counterintuitive, the investment in design education may require that selected NATO professionals go through a structured design schooling before their assignment begins. An approach like this can provide a significant return on NATO investment in the long-run.

Since NATO professionals typically rotate through assignments and back into their nation's armed forces, ACT has the opportunity to enable design development within selected individuals, who (upon returning to their nations) can be the backbone of the national design thinking cadre, thus NATO as an organization gains additional design depth.

Further, if NATO were to develop internal design education programs for the organization, such an enterprise could be used both within NATO as well as for collaboration and development activities across the various partnered and allied nations. As multiple NATO partner nations are already implementing and running design programs at national defense universities, COEs, service schools and other military programs, NATO already has some design networking and collaboration capabilities within the Alliance to leverage.<sup>48</sup>

Were NATO ACT to establish a formal design education program, it would likely require the ability to conduct courses at NATO ACT, as well as at the NATO School in Oberammergau as well as project design modules (through Mobile Education Teams) to overseas and even remote locations. Design education itself might take one of several forms, including a series of 5-day packages,<sup>49</sup> a more robust multi-week model,<sup>50</sup> or potentially some combination of distance learning and on-site design practical exercises.<sup>51</sup>

Additionally, as NATO gradually builds up a larger population of design educated professionals, the organization would subsequently be able to conduct internal real-world design inquiries that would address NATO challenges in unclassified as well as classified contexts. These inquiries as well as the educational modules will require access to design educational experts, subject matter experts for consultation, and select NATO professionals that might be utilized for select design inquiries based on skills, qualifications, or experience.

For design to be inculcated formally across the NATO organization, leaders will need to invest in the future. The upfront costs of establishing a design program are minimal when

<sup>48</sup> The Polish, Dutch, American, Canadian, and Australian militaries all have some sort of design or design-like education within their services or at a military university. This potentially offers a rich network of design educators, facilitators, and practitioners to draw upon.

<sup>49</sup> For example, the Joint Special Operations University offers several 5-day design education courses as part of the U.S. Special Operations Command.

<sup>50</sup> The Canadian Forces College, U.S. Air War College, and the U.S. Army School of Advanced Military Studies Program all feature multi-week design courses within their year-long programs. See: Mitchell. "Stumbling into Design..."; "Canadian Forces College ..."; *Art of Design...*

<sup>51</sup> The Royal Netherlands Land Warfare Centre and various Think Tanks such as the Hague Centre for Strategic Studies conduct design in non-standard applications. See: Zweibelson. "'Design' Goes Dutch..."; Spiegeleire, S. D. *Designing Future Stabilization Efforts*. The Hague: Hague Centre for Strategic Studies, 2014. [http://hcss.nl/sites/default/files/files/reports/HCSS\\_Designing\\_Future\\_Stabilisation\\_Efforts.pdf](http://hcss.nl/sites/default/files/files/reports/HCSS_Designing_Future_Stabilisation_Efforts.pdf), Accessed on 12 June 2017.

compared to the more costly programs involving new hardware, technology and other deep skillsets. NATO will need to make key design educational decisions on when to begin and advance design education within their organization.

## CONCLUSION: ENABLING TRANSFORMATION IN NATO THROUGH DESIGN

NATO has been adapting throughout its history, but the tempo and speed that is required to deal with potentially disruptive challenges pushes the Alliance to the edges of its capabilities. In this context organizational learning must be speeded up, and the mindset and culture must be changed. Alternative options and their rapid implementation throughout the organization is the way to maintain competitive advantage in today's complex context.

Design thinking has been developed within the international military community over the past generation in a variety of ways. Armed forces are adapting civilian design methodologies into defense applied ones in some instances, while other militaries are innovating with alternative methodologies that position design thinking within an armed forces and human conflict frame. While NATO as an organization has already executed design activities within various locations and for a variety of missions, those efforts were individually inspired and local with respect to the entire enterprise. As multiple nations now incorporate design in formal military education within services, war colleges,<sup>52</sup> as well as at universities,<sup>53</sup> NATO should do no different.

Design challenges an organization, and through disruptive and innovative thinking helps generate organizational development as well as potential transformation within complex contexts. Organizations utilizing design thinking are able to think divergently as well as reflectively in highly chaotic environments, particularly where an organization's preferred tools and methods no longer seem effective.

Today NATO faces the most complex challenges in its storied history, and as increased technology, information, and the impacts of globalization potentially drive more frequent and emergent conflicts across the globe, design thinking is even more needed. Analytic-based military planning alone is insufficient, and campaign plans continue to seem as relevant as annual rain dance rituals for the organization; action without critical reflection and novel creation appear inadequate. A change in how NATO thinks, and *thinks about thinking* is needed.

Yet, militaries appear to be more traditional and resistant-to-change centralized hierarchies. NATO is perhaps even less flexible in some ways, in that as a composition of military partnerships, and the Alliance cannot focus on developing and educating a single service or national defense force. Since any design education endeavor will reach across multiple militaries, and require significant consideration as well as collaboration within and across NATO, ACT have a leadership role to develop and grow the defense applied thinking cadre for NATO, supported by a deliberate education design.

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<sup>52</sup> The Canadian War College has provided design education in some form since 2013, while the U.S. Air War College began offering design education to their Grand Strategy cohorts in 2016. See: Mitchell. "Stumbling into Design...": 84–102.

<sup>53</sup> The National Defense University in Washington, DC has renewed interest in design as of 2017, while the Polish War Studies Academy in Warsaw is incorporating design into its 2017-2018 courses. The Swedish NDU is following suit for 2018, while the Marine Corps University and several other military universities have explored design for future education implementation.

In a recent speech at the NATO Transformation Seminar in Budapest, Hungary, General Mercier challenged NATO by stating that the greatest challenge to NATO is that we need to operate and adapt at the same time and it requires innovative approaches.<sup>54</sup> This reflects the ACT's understanding that NATO must act now, and incorporate formal design education as well as subsequent design practices for the highly complex challenges awaiting the organization today, tomorrow, and just beyond the horizon.

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<sup>54</sup> Mercier, D. "SACT's opening remarks at NATO Transformation Seminar 2017 <<Improving Today, Shaping Tomorrow, Keeping the Edge by Bridging the Two>> Budapest, 22 March 2017". 2017. [http://www.act.nato.int/images/stories/media/speeches/170322\\_nts2.pdf](http://www.act.nato.int/images/stories/media/speeches/170322_nts2.pdf), Accessed on 12 June 2017.

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## CIMIC OUTLOOK (2035 AND BEYOND...)

*ABSTRACT: Attempting to describe the future is always a risk stirring the pot. Having said that, when we have presented content from extensive and periodical foresight work done by NATO, supported by scholars, it offers an exceptional opportunity to take. This article is focusing only on the future of civil-military cooperation (CIMIC) as an institutionalised NATO capability. The short-term outlook is based on already evolving issues coming from practical experience. The ambitious long-term view is using the results of the above-mentioned NATO future project, resulting in effects of identified worldwide implications. As a conclusion, the author intends to detect the main patterns of future CIMIC, showing the possible way ahead in terms of capability development.*

*KEYWORDS: Civil-Military Cooperation, strategic foresight*

*“The future depends on what you do today.”*

### APPROPRIATE TIME FOR CONTEMPLATION

Dealing with the future is a tricky territory. You can be reckless about almost anything as in the imminent time there are no certainty, no facts. On the other hand, not paying attention to inevitable upcoming changes will put you in a wrong spot on the map of conceptual development as well as training and education eventually.

Civil-Military Cooperation (CIMIC)<sup>2</sup> is a very tiny and rather new capability within the military. That is being said, the time to look into CIMIC's prospects is more than adequate considering the stage of its evolution. Comparing it to the good old, traditional military capabilities CIMIC did not have the room for adjustment so far. Air defence, infantry, logistics, and others all have had the opportunity to prove themselves in different types of situations over decades. Based on that experience as well as taking into account future challenges they have been redesigned and fine-tuned many times. CIMIC though had only the chance to be born and gain some experience mainly in crisis response operations. The first adaptation of a capability, just like in case of CIMIC, obviously requires more futurology because the best practices cover only a short period of time regarding the scale of conceptual development. As time goes by, more lessons will be collected and learnt, which does not mean that outlooks for future would be less important, however, the room for vivid changes will be reasonably limited.

<sup>1</sup> Mohandas Karamchand 'Mahatma' Gandhi (1869–1948). <http://www.goodreads.com/quotes/16418-the-future-depends-on-what-you-do-today>, Accessed on 31 January 2018.

<sup>2</sup> “The coordination and cooperation, in support of the mission, between the NATO Commander and civil actors, including national population and local authorities, as well as international, national and non-governmental organizations and agencies”. NATO NSA. “NATO Standard AJP-3.4.9: Allied Joint Doctrine for Civil-Military Cooperation”. Ed A Ver 1. 2013. 2-1.

Nowadays CIMIC with the new NATO policy and the nationally processed experience from the Balkan as well as Afghanistan reached a position which offers a window of opportunity to stop for a moment and envisage its future look. A CIMIC-specific forecast is understandably not the main focus of military researchers. This pie will be undisputedly too small for the big NATO table. Nevertheless, future studies are available and can help to provide basis and steer possible conceptual thinking in the field of CIMIC outlook. The most current one is a persistent foresight and future studies project of NATO Allied Command Transformation (ACT). The initial phase of this effort is called Strategic Foresight Analysis (SFA)<sup>3</sup> and it is addressing opportunities and challenges of the future, from 2035 and beyond. The SFA report is based on national and international studies as well as comprehensive knowledge from practitioners and academic subject matter experts. SFA identifies trends within themes which will shape the future strategic context. The defence and security implications deriving from the above mentioned trends are providing the baseline for the next phase of Long-Term Military Transformation (LTMT), called Framework for Future Alliance Operations (FFAO). FFAO together with SFA intend to support the NATO Defence Planning Process (NDPP) in order to prepare for the required capability development of the Alliance.<sup>4</sup>

Utilizing the outcomes of ACT future project gives us possibility to increase interoperability among NATO nations and to avoid duplication of effort as a strong demonstration for Smart Defence<sup>5</sup> and Connected Forces Initiative.<sup>6</sup>

## CIMIC 'FUTUROLOGY'

Future is a broad abstraction which ranges from the next minute to abyss. As a matter of fact, futurology likes to partition the timeline smaller pieces for the sake of usability. In our case in connection with CIMIC the most plausible way is to investigate introducing two categories, like short- and long-term outlooks. This is a reasonable format because there is a forthcoming amendment from conceptual (policy, doctrine) side and the above mentioned SFA projecting at least 20 years in advance. These can be also interpreted as 'known knowns' (short-term) and 'known unknowns' (long-term).<sup>7</sup> We can already tell what is going to happen with the CIMIC capability in the next, upcoming years, as theory usually follows practice, especially in the field of doctrine development. The collection of bad and best practices is considered as comprehended experience which will be transformed into doctrines and training

<sup>3</sup> "Strategic Foresight Analysis: 2017 Report". NATO Headquarters Supreme Allied Commander Transformation. 2017. [http://www.act.nato.int/images/stories/media/doclibrary/171004\\_sfa\\_2017\\_report\\_hr.pdf](http://www.act.nato.int/images/stories/media/doclibrary/171004_sfa_2017_report_hr.pdf), Accessed on 31 January 2018.

<sup>4</sup> "Strategic Foresight Analysis: 2013 Report". NATO Headquarters Supreme Allied Commander Transformation. 2013. 1. [http://www.act.nato.int/images/stories/media/doclibrary/sfa\\_security\\_implications.pdf](http://www.act.nato.int/images/stories/media/doclibrary/sfa_security_implications.pdf), Accessed on 31 Jan 2018.

<sup>5</sup> "Smart Defence". NATO. 20 Feb 2017. [https://www.nato.int/cps/ua/natohq/topics\\_84268.htm](https://www.nato.int/cps/ua/natohq/topics_84268.htm), Accessed on 31 January 2018.

<sup>6</sup> "Connected Forces Initiative." NATO. 22 Jun 2016. [https://www.nato.int/cps/ic/natohq/topics\\_98527.htm](https://www.nato.int/cps/ic/natohq/topics_98527.htm), Accessed on 31 January 2018.

<sup>7</sup> "There are known knowns. These are things we know that we know. There are known unknowns. That is to say, there are things that we know we don't know. But there are also unknown unknowns. There are things we don't know we don't know." Donald Rumsfeld, 21st United States Secretary of Defense from a Press Conference at NATO Headquarters, Brussels, Belgium, June 6, 2002. [http://en.wikiquote.org/wiki/Donald\\_Rumsfeld](http://en.wikiquote.org/wiki/Donald_Rumsfeld), Accessed on 31 January 2018.



eventually ('known knowns'). Contrary to this, the long-term perspective requires assumptions to set up possible scenarios for 'unknowns' of which we are aware of ('known').

### Short-term outlook (2018 and beyond)

In regard of CIMIC, the proximate future (aka 'known knowns') is going to be shaped by the implementation of the recently introduced official NATO process, called Civil-Military Interaction (CMI)<sup>8</sup>. This track is rather straightforward concerning prospects as the practical experience is given to some extent. That is being said the development will be definitely demanding along its predictability. Beside the definition there is not much that we can find on CMI so far. To comprehend its tentative effects on CIMIC it is sensible to describe this new phenomenon a little bit. The features collected below are not coming from NATO official source (as there is none). These are notions from the author who was part of the group launching CMI effort within NATO:

- The military is an equal player in the interaction (CMI), particularly dealing with security issues;
- The military aims to understand the civil environment and based on that build relations and engage with civilians;
- Everybody needs to consider CMI to a certain extent. All those who have relations with the civilian environment carry responsibility. CIMIC has a significant task within;
- CMI requires more effort from CIMIC in enabling, advising and coordination within the military. CIMIC needs to be more involved across all levels of command, now permanently, not limited to the operations area;
- Properly established and maintained relations between civilians and the military lead to better understanding as well as more effective and efficient actions;
- The current military setting is sufficient to support CMI. No additional resources are foreseen. However procedures and training (mind-set change) need to be amended to have better results;
- Civil-military interactions are naturally existing activities. In order to handle CMI professionally (not ad-hoc) military recognized the necessity to adapt and change. But both sides should work on it;
- Comprehensive Approach (CA) and CMI are closely linked. CA is a mind-set on "how" should civil and military have a better response to challenges nowadays. CMI are activities which have to be managed effectively by both sides to contribute to a CA;
- If the civil and military sides are able to better understand and improve their shared interactions, meaning CMI, they can avoid possible conflicts between them which supports a CA and leads to better responses;
- CMI is not limited in time or space at all. CMI is a permanent strand (before, during and after operation), it should happen inside and outside the area of operations;
- The biggest challenge is being mutually effective and efficient because CMI is a shared responsibility between the military and civilians.

<sup>8</sup> "CMI is a group of activities, founded on communication, planning and coordination, that all NATO military bodies share and conduct with international and local non-military actors, both during NATO operations and in preparation for them, which mutually increases the effectiveness and efficiency of their respective actions in response to crises." "NATO Military Policy on Civil-Military Cooperation and Civil-Military Interaction: MC 0411/2". NATO Military Committee. 05 May 2014. 4.

CMI does not intend to wipe out CIMIC from the NATO capability catalogue, on the contrary, it has been established in order to give more emphasis on the relationships between civil and military as well as to revisit the intended role of CIMIC. In the past CIMIC has been misused many times, which is probably a natural consequence if a young capability is going to be launched in the field. Not enough experience, limited national training, restricted lessons learned resulted in fog of war in terms of national application of NATO CIMIC in operational environment. The misinterpretation of CIMIC project work has altered the whole capability in a wrong direction. Both military and civil people gave so high importance to this auxiliary tool within the capability (see projects) that CIMIC has found itself on a forced track, struggling with its position and role. The introduction and use of Provincial Reconstruction Teams (PRTs)<sup>9</sup> in Afghanistan resulted also in confusion on this topic, mixing up development and quick impact projects.

The capability itself will not change with the operationalisation of CMI. This is an opportunity, especially for the CIMIC practitioners on the military side, to use the given power in order to regain trust while getting closer to a comprehensive approach. What has been provided is a foundation from conceptual perspective at the highest military level. CIMIC professionals have to translate it into doctrine and procedures at all levels in order to exploit this new phenomenon. The change will not be visible on the area of CIMIC assets. There is no need for more resources to this predicted transformation. The CIMIC mentality has to differ from the past significantly and as such the training and education has to be revised. This is not just education for CIMIC professionals, it goes also to the direction of military decision makers (see capability owners). As all the changes related to mind-set this will be also very slow and demanding process. It could also fail, which failure will not do any harm to the CIMIC, but it will be definitely a missed opportunity.

Having a capability which is used only in mission areas and not employing it on homeland during peacetime is rather a lavish thing to do nowadays. Understandably, all the trends in accordance with capability development or anything else indeed, are mainly characterised by cost-effectiveness. That is being said, those ones not having any particular visible role on home soil will always be targets for ignorance of politicians and subsequently budget cuts, demolishing eventually. This is not a unique thing for Hungary. In reality, economically more stable and stronger countries have already started this new way of thinking in connection with 'domestic CIMIC'. Undoubtedly more experience in the field of capitalism. Currently this subject is still taking its shape and has not been finalised at all. There is no agreed definition (see domestic CIMIC, in-land CIMIC, homeland CIMIC etc.) and the narrative varies also per nations to some extent. The common recognition of the interested countries is the noticeable and valuable skillset of CIMIC beyond doubt. This means basic competencies of CIMIC (negotiation; relationship building; mediation; cooperation, organisation etc.) can be used directly without further technical development or extra training. Regarding Hungary there have already been several cases (just like potable water distribution; illegal migration) when this homeland application was adequate and very beneficial not just for the military but the whole country.

One does not have to be a fortune teller to see this sort of changes. Resources are getting less and less meanwhile effectiveness will always be a driver. Using military capabilities

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<sup>9</sup> Maley, W. "Provincial Reconstruction Teams in Afghanistan – how they arrived and where they are going". *NATO Review* 3. 2007. <https://www.nato.int/DOCU/review/2007/issue3/english/art2.html>, Accessed on 31 January 2018.

all the time in home country for whatever reasons is an imprudent thing to do. Not using available capabilities including competent personnel when it is needed is total waste and potential fraud. The biggest foreseeable change of CIMIC capability in this case is the conceptual background. A NATO doctrine does not recognise and elaborate domestic CIMIC as it is justifiably not the focus of the Alliance at all. This will not change in the future, either. However, national doctrines, manuals, procedures have to be revised and upgraded accordingly, as using CIMIC at home without any reflective itinerary can cause confusion as well as harm for the capability. This homeland CIMIC is a shining instance for 'known knows'. It has already been practiced recently and the only missing thing is the written authorisation by a national doctrine, which has to come in due time.

Another noticeable development in the area of CIMIC and on its halo is the willingness to open and collaborate with other disciplines. This will be really a paradigm change as capabilities are obviously reluctant to give up their identities. For this type of partnership a common denominator is needed utmost. In this particular case the key is the civil environment and the approach towards it. Based on hands-on experience from mission areas it is quite obvious that the civil environment is overwhelmed by military capabilities. Visiting civilians every other day and asking the same questions determined by different agendas does show dilettantism and amateur league. This unnecessary extra attention is resulting in confusion and annoyance on the civil side as well as duplication of effort on the military side. This leads to streamlining among military capabilities moreover combining resources. Nations (Denmark, Belgium, and the Netherlands) have already started to bring closer military capabilities just like CIMIC and psychological operations (PSYOPS)<sup>10</sup> or intelligence as they had realised the significant overlaps and mutual ambitions. It is also quite obvious that these rather small countries do not have unlimited military resources and their rationale is always driven by strict fiscal requirements. Having said that, the cheap solution is not always the worst one. In this case the concept has also solid practical justification coming from recent lessons learned.

What we can see so far, is that the potential capabilities are not vanishing as individual disciplines. They are applied just as in the past, however, the manpower is used in a coordinated manner. Assets are restructured accordingly in order to save resource as well as to multiply effects in the field. The information flow is going to be also more flawless and manageable. Structural changes and cross-functional training are expected mainly with reference to CIMIC, PSYOPS, and Key Leader Engagement (KLE)<sup>11</sup>.

## Long-term outlook (2035 and beyond)

Going away from near tangible future and entering in the area of long-term outlook needs more grip to draw any sort of conclusions. In this area you do not have best practices or hands-on experience. Based on this, giving any kind of description of future CIMIC requires some details about the envisaged environment it is going to be operating. As it has been already mentioned the foundation of the long-term outlook is provided by SFA.

<sup>10</sup> "Planned psychological activities using methods of communications and other means directed to approved audiences in order to influence perceptions, attitudes and behaviour, affecting the achievement of political and military objectives." NATO NSA. "NATO Standard AJP-3.10.1: Allied Joint Doctrine for Psychological Operations". Ed A. 2007. 1.

<sup>11</sup> NATO NSA. "NATO Standard AJP-3.10.: Allied Joint Doctrine for Information Operations". 2009. 1-10.

This study on future, dated 2017, introduces five themes: political; human; technology; economics/resources; and environment, is aimed to help to understand a whole picture as well as to describe future in a structured way. Themes are characterised by trends to give more flesh to the bones. The biggest help and most unambiguous part are certainly the implications paragraphs where we can find significant effects on the defence and security sector coming from one trend or mixture of tendencies.<sup>12</sup> As this article is focusing only on CIMIC outlook, the implications below are selected deliberately, taking into account their noticeable CIMIC relevance. The CIMIC related predictions, derived from implications, are articulated in a generic way to show more sorts of fashion and not the detailed portrait of CIMIC 2035. As the task is to describe ‘unknowns’ this seems also the right ambition level at this stage.

In the *political* arena global power shifts will continue to have significant effects on governmental and security landscapes.

Implications:<sup>13</sup>

- Answering to dynamic and complex threats demands extensive and close cooperation with others, comprehensive approach is more needed than ever;
- Long-lasting solution for crisis requires growing complexity which will bring wide-ranging number of non-state actors in the quotation;
- The role of Private Military and Security Companies (PMSC)<sup>14</sup> will be increased significantly;
- Support to civil actors will become an overarching military task from one of the three CIMIC core functions;
- Protection of Civilian (PoC)<sup>15</sup> as well as the different areas of Stabilisation and Reconstruction (S&R)<sup>16</sup> will be integral parts of NATO missions.

*Human* theme: population growth, demographic shifts, inequality, migration and urbanisation combine to characterise the future.

Implications:<sup>17</sup>

- Due to increasing urbanisation military interventions are more likely to take place in urban areas, with massive amount of civil entities, powerless authorities as well as riotous population;
- Large-scale migration not just in conflict zones but also alongside of NATO’s borders;
- Human networks become enormous and they will change character easily and very quickly from hostile to supportive via neutral;
- The decreasing birth rates will lead to deterioration of working population causing a shrinking pool of available intellectual manpower (for military as well).

<sup>12</sup> “Strategic Foresight Analysis: 2017 Report”. 13.

<sup>13</sup> “Strategic Foresight Analysis: 2017 Report”. 21–33.

<sup>14</sup> “International humanitarian law and private military/security companies – FAQ”. ICRC. 10 Dec 2013. <https://www.icrc.org/en/document/ihl-and-private-military-security-companies-faq>, Accessed on 31 January 2018.

<sup>15</sup> “UN Documents for Protection of Civilians”. Security Council Report. <http://www.securitycouncilreport.org/un-documents/protection-of-civilians/>, Accessed on 31 January 2018.

<sup>16</sup> “Key NATO policy on stabilisation and reconstruction released to the public”. NATO. 23 Sep 2011. [https://www.nato.int/cps/ic/natohq/news\\_78482.htm](https://www.nato.int/cps/ic/natohq/news_78482.htm), Accessed on 31 January 2018.

<sup>17</sup> “Strategic Foresight Analysis: 2017 Report”. 27–43.

*Technology*: the future will continue to be shaped by accelerating technological development.

Implications:<sup>18</sup>

- Increasing use of Internet, the growth of e-learning and virtual gaming creates enormous possibilities for the Alliance as well as other groups (including adversaries);
- Social media will become a parallel world including distinct society with different and sometimes unique individualities.

*Economics/Resource*: continuing globalisation will directly influence the world's society and economy.

Implications:<sup>19</sup>

- Declining defence expenditures results degradation of national capabilities which will reflect on Alliance's abilities.

*Environmental* changes have an impact across many global issues including economics, demographics, technology, resources and international relations.

Implications:<sup>20</sup>

- Disaster relief (humanitarian actions) will be part of military portfolio more than ever, requiring comprehensiveness and interoperability;
- Natural disasters cannot be solved at national or regional level, alliances as NATO will be always requested to provide full spectrum of assistance.

The required increased cooperation with civil actors is already challenging enough for military, especially CIMIC. This is coming basically from the cultural, institutional differences between civil and military. Speeding up this interaction calls for dramatic change in military culture. Only procedures and infrastructures in place will not be sufficient anymore. It is not likely to change a complete military culture but a certain part of the army, such as CIMIC, can pick up this duty. It is difficult to say what will be the icebreaker on this but the more civil personality of CIMIC seems the only way. This can include civilian clothes, extensive training in civil schools as well as joint endeavours even before crisis.

CIMIC is going to face a more complex operational environment concerning military presence. Because of the competition (and confusion) in the security sector it will be difficult to promote own troops and provide indirect force protection. PMSCs might introduce their own CIMIC functions as well, making the civil-military relations (especially with the local population) even more clouded.

PMSCs have had a very bad reputation in the past.<sup>21</sup> They are necessary and required although they can cause problems in terms of civil-military relations. The civil environment cannot always differentiate between uniforms or insignias. Actions with bad consequences done by PMSCs are going to hamper our CIMIC work. Working closer with these companies and raising their cultural awareness can ease a little bit of the pain, but it cannot reduce it to zero.

Supporting civil actors was only a CIMIC function so far. In this new setting when military is also responsible for stabilisation and reconstruction, and not just for providing

<sup>18</sup> "Strategic Foresight Analysis: 2017 Report". 47–55.

<sup>19</sup> "Strategic Foresight Analysis: 2017 Report". 59–65.

<sup>20</sup> "Strategic Foresight Analysis: 2017 Report". 69–72.

<sup>21</sup> Gomez del Prado, J. L. "Impact on Human Rights of Private Military and Security Companies' Activities". Global Research. 09 Apr 2016. <https://www.globalresearch.ca/impact-on-human-rights-of-private-military-and-security-companies-activities/10523>, Accessed on 31 January 2018.

safe and secure environment but participating in good governance, rule of law, humanitarian assistance do oblige the whole military to have knowledge and skills dealing with civilians. CIMIC crew most probably will remain the focal point for such issues, however, there will be more and more 'shadow CIMICers' in the units.

Being responsible also for S&R demands intense cooperation with others way before a conflict or crisis starts. This can fulfil the desired goal of comprehensive approach being preventive and well-coordinated, maybe even integrated. Without enhanced CIMIC responsibilities and more authority this not likely to occur.

Overpopulated areas will challenge CIMIC massively. It is not just about the numbers but also the diversity of urban population. Most likely CIMIC has to rely on local insiders. KLE will merge into CIMIC, spending more time in isolation together with civil counterparts will be foreseeable. CIMIC will redesign its posture to operate successfully and safely in crowded megacities. The presumed high-toned space/force/time/information factors will require also changes in competencies.

It is fascinating to see that researchers and scientists predict migration for the future, though it is already happening around us. Obviously this fact will not undermine this study, on the contrary, it can help us to predict the possible response to this challenge. As it has already been stated 'domestic CIMIC' is beyond doubt a reasonable reaction for this. It will not solve the problem, but supports the way how to best handle huge political, economic, social problem with capabilities in stock. CIMIC is going to be deployed and used within NATO territory as well. In this case its role will change from force protection more towards effective and efficient facilitation/coordination with national authorities. Relationship building, established procedures with those will be required already in peacetime.

Understanding human networks is paramount for CIMIC. The chaos and flexibility of future human networks which has been projected as an implication is one of the biggest challenges for the military in terms of planning and subsequent interaction with them. The high numbers of variables will bring information technology in the picture for sure. Without assistance of expert systems likely powered by artificial intelligence cannot be possible to manage the figures. A new sub-capability will evolve within CIMIC regarding structured interactions with advanced information technologies. The brand new component calls for tailored conceptual, educational and physical improvements. The knowledge reach back function will be assigned with new motive.

The human resource market will affect military massively. The limited but more importantly inappropriate CIMIC personnel will produce 'counter-CIMIC' (negative effects). Competition for the quality can motivate civil business interest and more civilian involvement as the required skills and competencies for CIMIC are convertible. It is difficult to find this kind of quality (CIMIC competencies) in the technology world as a replacement. The capability does need the human feature, so the information technology or robotics cannot be a stable solution for this issue.

As CIMIC still needs time to take steady roots compared with traditional military capabilities it will stand a chance of being set aside under defence reduction. The non-measurable, in many cases invisible aspects of CIMIC are also seconding this situation. In order to avoid this scenario CIMIC has to be transformed into basic military skills as the competence will be still needed in future operations.

Working together with other actors and being outside of the comfort zone in terms of specialisation is not new for CIMIC at all. In this new and more demanding setting CIMIC will rely on even more special expertise to provide an interface for coordination regarding

humanitarian crises including disasters. Functional Specialist (FS)<sup>22</sup> system has to be transformed and amended accordingly to support the required international response.

## SUMMARY

As it can be seen in the previous chapter, the chosen implications can delineate some future scenarios for CIMIC but they are not necessarily providing particular features of it. Without those characteristics the listed scenarios stay vague and ambiguous. In order to portray future CIMIC the referred findings have to be viewed in a holistic way whilst taking notice of already existing tried and tested CIMIC experience. Application of the ‘thinking out of the box’ principle is a must!

The foresight work is a little bit like being in a fashion show, or car show/exhibition, where new models, prototypes are introduced for the audience. One can hardly see complete solutions and final products on the stage. But the tendencies, small features, innovative interpretations will show the direction while triggering further intellectual work. After reading through the CIMIC futurology section of this article we will have the same confusion just like during the previously mentioned social events when we are going there for ultimate solution. The future workshop is not equivalent to a car dealer or a fashion boutique. That is being said it is also impossible to find a place where we can see or buy future CIMIC capability as such. What we can always do however is thinking. Taking into considerations the implications and concluded effects coming from scientific studies, just like SFA, CIMIC patterns can be identified in the following manner:

### *External patterns of future CIMIC:*

- Minimalized military posture;
- Non-military, unobtrusive equipment;
- More civilian personnel than military;
- Civilian attire;
- Civil type of deployments (earlier and longer presence / permanency);
- Working and living quarter among civilians (subsequently outside of military compound).

### *Internal patterns of future CIMIC:*

- Interaction with civilians as a basic educational/training subject for all military (like shooting or first aid etc.);
- Aptitude test is paramount (high standard entry requirements and selection criteria);
- More civil expertise and wide-ranging knowledge (experts hub);
- Customised skills (IT, urban, human network etc.) instead of ‘all-in-one’ package (segmentation).

The above listed predicted characteristics obviously do not give the spitting image of CIMIC in 2035 and beyond. Having said that, they can offer possible research topics in order to further specify them and validate their relevance or non-relevance. If we would like to be ready and prepare for the future of CIMIC, better to start exploring it in the present!

<sup>22</sup> “FS are deployed because a specific requirement for their expertise has been identified. They may come from a wide range of sources and are not necessarily military personnel. They may be required to assist in the planning process or to conduct CIMIC projects”, NATO NSA. “NATO Standard AJP-3.4.9: Allied Joint Doctrine for Civil-Military Cooperation.” Ed A Ver 1. 2013. 2-6.



As future work goes, SFA/FFAO is an iterative process which will be updated on a regular base. For that very reason, this CIMIC forecast should be also a living project recognizing changes from holistic studies describing generic trends and military implications as well as adjusting assumptions based on possible scenarios.

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Lt. Col. Erika Héregi:

## MILITARY ADMINISTRATION TASKS RELATED TO PERSONNEL AUGMENTATION IN THE PAST 20 YEARS IN LINE WITH THE CHANGES OF LEGISLATION

*ABSTRACT: Military troops and organizations are able to execute their tasks relying on their personnel of proper size. Ensuring of the number of soldiers for troops are the tasks of the military administration. These tasks have changed dramatically over the past two decades in line with social expectations and legislative changes. As a result of political-security and economic changes in 2004 Parliament decided to suspend the military service and to transform the Hungarian Defence Forces into a professional army. These changes have resulted in fundamental transformations in the structure of the Hungarian Defence Forces. Drafting was replaced by recruiting. At this time, the structure and tasks of the military administration also changed therefore, nowadays due to the lack of experience, the new members of the military administration staff would not be capable of performing every part of tasks related to the conscription at the same high level and speed as the personnel of the augmentation commands used to be before 2004. As these personnel are overwhelmed by the tasks of peacetime (such as recruitment and welfare service) they do not have as many opportunities to practice the tasks of conscription as they would like to. The purpose of this study is to present these changes, to analyse their results, highlight how to enhance the effectivity of the exercises whose aim is to practice the tasks of conscription, and last but not least, to point out that the importance of the role of military administration has not changed.*

*KEYWORDS: military administration, recruitment, mandatory military service, volunteer military service, conscript, conscription, augmentation command, recruitment*

## ABOUT MILITARY ADMINISTRATION

The home defence administration – as a key element of defence administration<sup>1</sup> – plays a decisive role in governing, organizing and coordinating the defence preparation of the country.<sup>2</sup>

Military administration, as the part of home defence administration, is involved in the implementation of the Hungarian Defence Forces' military capabilities to perform their military tasks. This includes – according to the needs of the military organizations – providing the appropriate number of persons who will be eligible to serve as soldiers. Military administration tasks are executed by military organizations based on laws and internal regulations. The number of these military organizations and their area of responsibility have changed several times due to the organizational changes in the army, but the providing of the military personnel for the troops basically is the task of the military administration organizations.

## ABOUT CONSCRIPTION

Before 2004 conscription included the obligations of supplying data, notification, appearance and service. Conscripts whose conscience beliefs were incompatible with the fulfilment of military service could choose civilian/unarmed<sup>3</sup> service, which was longer than military service. Only the augmentation commands were authorized to oblige conscripts to fulfil the obligation. The conscription and its above mentioned obligations will automatically enter into during a state of national crisis<sup>4</sup>, while in a state of preventive defence<sup>5</sup> it depends on the decision of the National Assembly.

<sup>1</sup> The legal definition of defence administration is determined in Government Decree 290/2011. (XII. 22.) on the implementation of certain regulations of Act CXIII of 2011 on the home defence, the Hungarian Defence Forces, and the measures to implement in special legal orders 1. § b): defence administration is a task- and structural system, which is part of public administration, and an executive, dispositive activity created for the implementation of the defensive duties of the government and implemented by public administration organizations assigned to this duty; it includes the preparation for special legal order and all of the government activities intended for the planning, organizing and implementing of the duties of home defence, civil protection, disaster management, defence economics and supplying the inhabitants during these periods and situations.

<sup>2</sup> Act CXIII. of 2011 on Home Defence and on the Hungarian Defence Forces, and on the measures to implement in special legal orders (Defence Act) 24. § (1) The territorial and local home defence administration is the scope of the territorial and local administrative organizations of national defence (county and local defence committees, and mayors) and the territorial organizations of military administration.

<sup>3</sup> Unarmed service: Perform the service in military units without use of arms and without participation in military activities, but participate in various auxiliary tasks (e.g. cooking, cleaning and maintenance of vehicles).

<sup>4</sup> Fundamental Law of Hungary Article, 48. (1) The National Assembly:

a) shall declare a state of national crisis and set up a National Defence Council in the event of the declaration of a state of war or an imminent danger of armed attack by a foreign power (danger of war);

b) shall declare a state of emergency in the event of armed actions aimed at subverting the lawful order or at exclusively acquiring power, or in the event of serious acts of violence endangering life and property on a massive scale, committed with arms or with objects suitable to be used as arms.

(2) For the declaration of a state of war, the conclusion of peace or the declaration of a special legal order referred to in Paragraph (1), the votes of two-thirds of the Members of the National Assembly shall be required.

<sup>5</sup> Fundamental Law of Hungary Article 51 (1) In the event of a danger of external armed attack or in order to meet an obligation arising from an alliance, the National Assembly shall declare a state of preventive defence for a fixed period of time, and shall simultaneously authorise the Government to introduce extraordinary measures laid down in a cardinal Act. The period of the state of preventive defence may be extended.

(2) The votes of two-thirds of the Members of the National Assembly present shall be required for a special legal order referred to in Paragraph (1) to be declared or to be extended.

## MILITARY PERSONNEL OF THE HDF BEFORE SUSPENDING OF CONSCRIPTION

Until 2004 the Hungarian Defence Forces was a regular force based on mandatory military service. The military personnel of the armed forces was composed of professional, contracted soldiers – based on volunteering – and conscripts<sup>6</sup> who served on the basis of statutory obligations. Contracted soldiers could not become professional soldiers unless they were given the permission by their commanders, while military school graduates were automatically assigned. No other measures had to be taken to recruit professional soldiers. Enlisted men could choose to stay in the army as contracted soldiers after finishing their mandatory military service. Besides, there appeared the rudimentary form of recruitment, the career orientation activity of the HR subunits: the HR offered the possibility of serving as contracts in accordance with the suggestions of subunit commanders. Tasks related to the preparation and planning of the mandatory service were carried out by augmentation commands. The main duties of the augmentation commands and the rules for the implementation were laid down in the Home Defence Act.

### TASKS OF AUGMENTATION COMMANDS

There were augmentation commands in every county seat, and they kept records of men who had permanent residency in that county and planned their mandatory military service. Those persons had to fulfil their obligation to provide data to the augmentation command if they had a change in their registered data or if they were called upon for data retrieval. They had to do it personally or via post. So the augmentation command had up-to-date data that was a great benefit for the planning of the military service.

- Registration

Every January the augmentation commands received the personal and address data from the competent central registry agency about Hungarian men who completed 18 years in that year and had permanent residency in that county, and also of men who were older than 18 and had become conscripts.

- Refining data

Every person who had a record in the registry got a form for refining data, and they had to fill in and send back by a certain deadline. The augmentation commands got data from civil agencies about criminal records, diseases and other data which could affect the planning of military service.

After the data processing the person was temporarily or permanently excluded from the planning or the augmentation command refined his planned positions on the basis of new data about his qualifications, language proficiency, and experience.

- Permission of deferment of military service

Conscripts could put in a request of deferment of military service for the following reasons:

Those who had permission because of their studies had to take part in reserve officer training after completing their higher education.

- Permission of civilian service

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<sup>6</sup> Conscript: Under Act CX. of 1993 on home defence 70. § (1), 100. § (3): all Hungarian male with permanent residence in Hungary could be obligated to military service from 17 years of age to 31 December of the year in which they reached the age of 50.

The Home Defence Act provided an opportunity for conscripts to apply for civilian service. The application was considered by the commander of the augmentation command. Those who got permission for civilian service, fulfilled the service in government agencies designated by the competent labour centre and the conscription came to an end for them.

- Assessment of medical eligibility

After the data processing, those who did not have exclusion data were requested by the augmentation command to appear on assessment of medical eligibility. It was carried out by a three-member committee. The conscripts who appeared were qualified after medical and psychologist examination: fit for service without any restrictions; fit for service with restrictions (physical or psychological); temporarily unfit for service; and unfit for service. Everyone got a decision about their medical fitness. The committee could plan for military service those who were fit for service. In the course of planning, the committee took into consideration the proposals and requests of the representative of the military organization. Those who did not meet the standards of medical fitness were referred to a further medical examination by the committee.

- Planning of call up

The augmentation command planned the conscripts for military service with determination of the positions, time and place of the call up and sent them call up orders with this information. Depending on the possibilities, the augmentation command took in account the military organizations' requests and needs.

- Delivering of conscripts for troops

Augmentation commands delivered conscripts to the training centres of military organizations for military service. At the same time they also gave these conscripts' paper-based data files to the military organizations. During the military service the authorized military organizations (where the conscripts were serving) refined their data.

- Date processing after discharge

After discharging the augmentation command got back the paper-based data files. The personnel of the command checked the changes and modified the electronic version of the registry of conscripts.

The registry of conscripts was managed by the Military Administration and Date Processing Centre with a scope of authority for the whole country. This organization got data services from civil agencies and after processing sent them to the augmentation command. In January of each year it handed over the data of those who turned 50 years old in the previous year to the central record office of the Ministry of Defence and helped the implementation of the statutory tasks of augmentation commands by developing computer applications.

## APPEARANCE OF RECRUITMENT

As a result of the changed occupational policy situation and the transforming labour market, the leadership of the Ministry of Defence established a recruiting network in 2001. It established the recruitment department in every augmentation command. This organization controlled and coordinated their work. In 2003, when the HDF Augmentation and Training Command was terminated, its tasks were taken over by the Hungarian General Staff Manpower and Personnel Directorate (J1).

## SUSPENDING OF CONSCRIPTION

The original 18-month military service was first reduced to 12, later to 9 months, and from 2002 to 6 months, after the change of regime. This time was not enough to deliver a military professional knowledge completely that could have been a serious basis for a mandatory reserve service after the completion of compulsory military service. The transformation of the reserve military service was made necessary by the continuous reduction of the regular number of forces.<sup>7</sup>

In 2004, the legislators radically reorganized the core activity of the augmentation commands therefore the tasks for peacetime and time of conscription diverged. In peacetime, recruitment was the most important task, they did not handle the registry of conscripts, they just prepared for the performance of tasks related to the conscription. At the time of conscription the recruitment tasks will be carried out to a lesser extent, the augmentation commands will concentrate their resources on the execution of conscription tasks.

Under the amended Constitution of the Republic of Hungary: adult male Hungarian citizens with residence in Hungary shall perform military service solely during a state of national crisis, or in a state of preventive defence. This military service could be armed or unarmed.

Similarly to the former regulation the conscription had an upper age limit but it decreased from 50 years to 40 years. In the case of call up the time of mandatory service in a state of preventive defence is 12 months or less while during a state of national crisis there is no limit. Potential conscripts<sup>8</sup> were not obliged to perform any tasks connected with military service by military administration organizations. The registry of conscripts was handled by the HDF Military Administration and Data Processing Centre and the refinement of data was based on central data services which were organizations with national scope of authority.

In 2007 the HDF East Hungarian Augmentation Command and the HDF West Hungarian Augmentation Command were established by the reorganization of the 20 county-level augmentation commands.

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<sup>7</sup> Kádár, P. and Vanyur, T. "Szemelvények a magyar önkéntes tartalékos rendszer múltjáról, jelenéről és jövőjéről". *Hadtudomány* 23/3-4. 2013. 82–83.

<sup>8</sup> The potential conscripts will become conscripts when the conscription is introduced.

### HDF West Hungarian Augmentation Command

**Centre:**  
Veszprém  
**Recruitment and Welfare Service Centres**  
Székesfehérvár  
Veszprém

**Military Administration and Welfare Service Offices**

Győr  
Kaposvár  
Pécs  
Tatabánya



### HDF East Hungarian Augmentation Command

**Centre:**  
Szolnok  
**Recruitment and Welfare Service Centres**  
Budapest  
Debrecen  
Szolnok  
**Military Administration and Welfare Service Offices**  
Nyíregyháza  
Salgótarján  
Miskolc  
Szeged



Figure 1. Structure of the Augmentation Commands (2007)<sup>9</sup>

## CHANGES IN 2011

The Home Defence Law introduced the term of trained reserves on 01.01.2011. Every conscript is a trained reservist, who used to serve as a professional, contract or volunteer reservist and was discharged from the Hungarian Defence Forces. Under Act CLXXVII. of 2011 and subsequent Act XCVII. of 2013 on the data processing of the Hungarian Defence Forces and tasks relating to fulfilling some home defence obligations the conscription has no upper age limit, but a new term appeared: the upper age limit of the call up. The upper age limit of the call up for potential conscripts is the year when they turn 40 years old, and for training reservists it is the upper age limit of the military service. Basically, the upper age limit of the military service is the same as the retirement age<sup>10</sup>.

The Act has to be interpreted in conjunction with the Fundamental Law because the restrictions for the introduction of the conscription which are set forth in the Fundamental Law are not in the Act, and this can easily deceive those persons who read only the law about the conscription.

With effect from November 14, 2011, the Hungarian General Staff Manpower and Personnel Directorate (J1) Military Administration Department, the HDF East Hungarian Augmentation Command, the HDF West Hungarian Augmentation Command and the HDF Military Administration and Data Processing Centre terminated and with effect from 15 November 2011, the HDF Augmentation and Central Registry Command was established

<sup>9</sup> "Hadkiegészítő parancsnokságok átalakítása". Honvedelem.hu. 1 Januar 2007. <https://honvedelem.hu/cikk/7381>, Accessed on 26 March 2018.

<sup>10</sup> According to Act LXXXI. of 1997 on the Social Security Pension Benefits 18. §, the retirement age is 65 years for those born in 1957 and thereafter. The age of 65 is gradually being introduced, so for those born before 1952, the retirement age is still 62 years.



from these organizations to perform their tasks jointly and centrally. Under Act CLXXVII of 2011 the HDF Augmentation and Central Registry Command (HDF ACRD) is the Military administration and central data processing organization of the Hungarian Defence Forces. This military organization carries out both the strategic and tactical level tasks of the military administration at the same time.<sup>11</sup>

## STRUCTURE OF REGIONAL MILITARY ADMINISTRATION

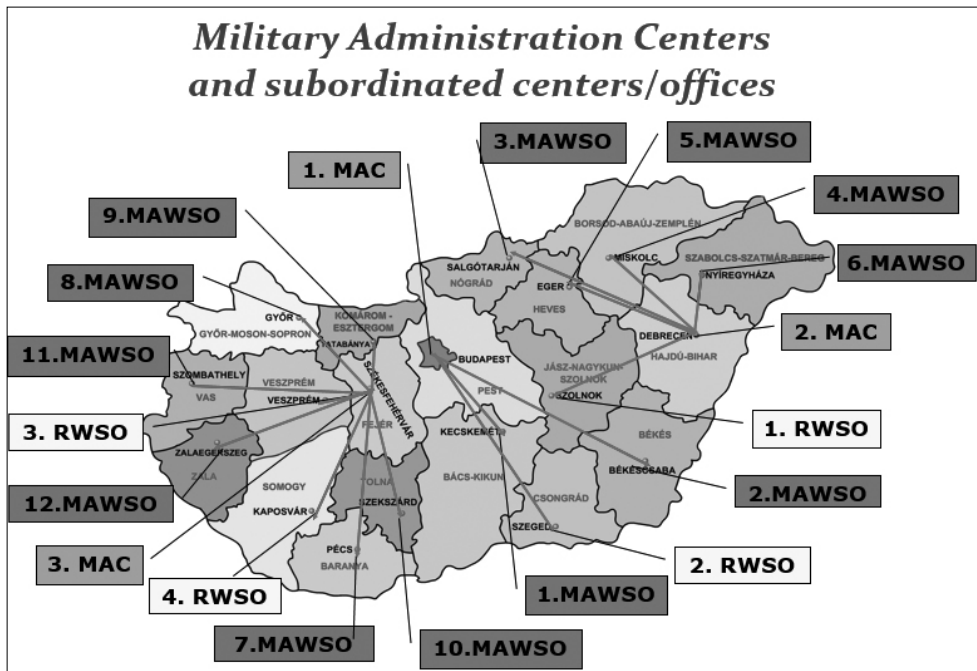


Figure 2. Structure of regional military administration<sup>12</sup>  
3 Military Administration Centers (MAC) - in 2 counties and Budapest (during the conscription: Draft Centers); 4 Recruitment and Social Care Centers (RPC) - in counties; 12 Military Administration and Social Care Offices (MAPO) - in counties

The recruitment and welfare service centres and the military administration and welfare service offices belong to the professional subordination of the military administration centres both in peacetime and the period using special legal orders. If conscription is reintroduced, the military administration centres will be transformed into draft centres, and will plan the compulsory military service of the conscripts as the augmentation commands carried out before 2004.

<sup>11</sup> "MH Katonai Igazgatási és Központi Nyilvántartó Parancsnokság". Hadkiegészites.hu. 24 June 2016. <http://www.hadkiegészites.hu/hknyp>, Accessed on 27 March 2018.

<sup>12</sup> Source: documents of the HDF Military Administration and Central Registry Command.

At the time of the existence of the conscription, within their jurisdiction the military administration centres' tasks are the keeping of the registry of the conscripts, the personnel augmentation of the Hungarian Defence Forces with conscripts. The tasks of the professional management, supervision and support of the activities of the recruitment and welfare service centres and the military administration and welfare service offices come under the jurisdiction of three Military Administration Centres:

a) the competence of the 1<sup>st</sup> Military Administration Centre covers the administrative area of Budapest, Bács-Kiskun, Békés, Csongrád and Pest counties,

b) the competence of the 2<sup>nd</sup> Military Administration Centre covers the administrative area of Borsod-Abaúj-Zemplén, Hajdú-Bihar, Heves, Jász-Nagykun-Szolnok, Nógrád and Szabolcs-Szatmár-Bereg counties,

c) the competence of the 3<sup>rd</sup> Military Administration Centre covers the administrative area of Baranya, Fejér, Győr-Moson-Sopron, Komárom-Esztergom, Somogy, Tolna, Vas, Veszprém and Zala counties<sup>13</sup>.

## LEGISLATION CHANGES IN 2012

The Fundamental Law of Hungary is the highest legal source in the Hungarian legal hierarchy, which entered into force on 1 January 2012, replacing Act XX of 1949 on the Constitution of the Republic of Hungary. Under the Fundamental Law of Hungary (like under the Constitution of the Republic of Hungary) during a state of national crisis, or if the National Assembly decides so in a state of preventive defence adult male Hungarian citizens with residence in Hungary shall perform military service<sup>14</sup>. This military service can be armed or unarmed. The duration of the compulsory military service may be up to 12 months in state of preventive defence, and unlimited during a state of national crisis. The recruitment of contracted and volunteer reserve soldiers is carried out by the HDF Augmentation and Central Registry Command (ACRC). The recruitment of these personnel types was possible only through the recruitment system till now.

## PRESENT TASKS OF MILITARY ADMINISTRATION RELATED TO THE RESERVE SYSTEM

In order to get into reserve personnel, everybody can apply and register in the military administration centres, which are located in every county town. After the application, the territorial military administration organization asks for a date of aptitude test from the competent military organization. An entrance examination includes medical, physical and psychological examinations. If the candidate applied for volunteer operational or defence reserve service and met the requirements, the commander of the military administration

<sup>13</sup> Government Decree 290/2011. on the implementation of some provisions of Act CXIII. of 2011 on Home Defence and on the Hungarian Defence Forces, and on the measures to implement in special legal orders 34. § (4)

<sup>14</sup> Fundamental Law of Hungary Article XXXI: (1) All Hungarian citizens shall be obliged to defend the country. (...)

<sup>(3)</sup> During a state of national crisis, or if the National Assembly decides so in a state of preventive defence, adult male Hungarian citizens with residence in Hungary shall perform military service. If military service involving the use of arms cannot be reconciled with the conscientious belief of the person obliged to perform military service, he shall perform unarmed service.

and central data processing organization of the Hungarian Defence Forces makes a contract with him or her.

All volunteer operational reservists are temporarily added to the personnel of this military organization. The purpose of the temporary period is to ensure the exact planning of the manning volunteer operational reserve positions of the military organizations, and to carry out the necessary investigations to fill the positions, and at the same time the volunteer reservist is already available and can be called for service. The volunteer operational reservist will be delivered to the permanent military organization during the probationary period or later. The volunteer defence reservists stay in the personnel of the military administration and central data processing organization of the Hungarian Defence Forces. As civilians they work for MoD Electronics, Logistic and Property Management Co. as guardians of designated military barracks.

## CALL UP OF THE VOLUNTEER RESERVISTS

In accordance with the needs of military organizations, the military administration and central data processing organization of the Hungarian Defence Forces has consistently provided the call up of volunteer reservists and delivered them to military organizations. Men can be called up exclusively by call up orders. If a volunteer reservist has already got a call up order, he or she can request the deferment of military service. The permission will be considered by the commander of the military administration and central data processing organization of the Hungarian Defence Forces.

As a result of organizational changes, with effect from 1 July 2016, the HDF ACRC's name changed to HDF Military Administrative and Central Registry Command, and the strategic level tasks of the Military Administration and the duties required for their provision were assigned to the Hungarian General Staff Manpower and Personnel Directorate (J1). At the same time HDF Military Administrative and Central Registry Command got out of the direct command of the Chief of Staff and have been placed under the command of the HDF Military Augmentation, Preparation and Training Command.

## OTHER TASKS IN SUPPORT OF THE PERSONNEL AUGMENTATION

The military administration and central registry organization of the Hungarian Defence Forces keeps a registry of casualties and, if necessary, it carries out the obligations set out in the international agreement. Casualty records may list those missing, taken prisoner, or killed in action.

This organization also keeps a record of organizations and firms who are indispensable for the administration of justice, public administration and the economy and the implementation of defence, law enforcement tasks, and those who are the most important for the supply of the population. During conscription, these firms and organizations send data of the conscripts working in essential positions. These conscripts are not available for obligatory military service while they are employed in one of these positions.

## TASKS RELATED TO CONSCRIPTION IN PEACETIME

After Act CLXXVI. of 2011 on the changes of some health-related acts entered into force, the draft doctors of the military administration centres establish the preliminary medical

eligibility of the potential conscripts and trained reservists who are over their upper age limit of the call up. This procedure is based on the data of the registry of conscripts: their medical eligibility is assessed by the draft boards (before 2005), medical eligibility when they discharged and data of their medical disability.

A part of the trained reservists – who have been discharged since 2011, served more than 6 months, and when they got discharged they were eligible for military service – can be planned preliminarily for wartime positions by the military augmentation centres. While carrying out this task, the military augmentation centres cooperate with the military organizations.

## MILITARY PERSONNEL OF THE HDF IN 2018

In 2017, the volunteer reserve system was extended with a new element. The volunteer territorial defence reservists basically serve in the towns where they live. In that case of volunteer territorial defence reservists the contracting military organization is the HDF Military Augmentation, Preparation and Training Command.

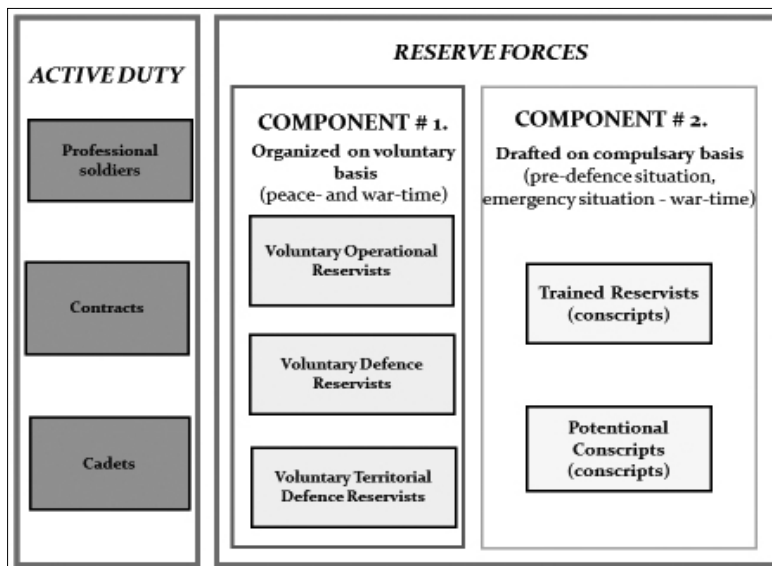


Figure 3. *Military Personnel of the HDF (2018)*<sup>15</sup>

## RECRUITMENT

As a result of the suspension of conscription, each soldier became a volunteer worker in the Hungarian Defence Forces, which means that the army had lost the kind of mass base of potential soldiers which consisted of the conscripts' relatives and friends. The recruitment and retention of contracted military personnel have become more and more challenging. This is always related to the labour market characteristics of the country, the position and perception of the army in society. The career orientation activity of the HR subunits was not sufficient at that time. In 2001, the Ministry of Defence established a recruiting network

<sup>15</sup> Source: documents of the HDF Military Administration and Central Registry Command.

which covered the entire armed forces. In order to transform the Hungarian Defence Forces into a professional army, the recruitment system of the Hungarian Defence Forces had been redesigned and upgraded in several steps, which reached its present structure in 2011.

The military recruitment is intended to meet the needs of the military and to obtain a number of qualified (job requirements), medically, psychologically, and physically capable candidates. Recruiting organizations can effectively perform their activities in close cooperation with civil society in civil environment. The recruiter is the first soldier civilians meet for the first time representing the Hungarian Defence Forces. That is why the first impression is important not only for the candidate, but it also affects the opinion about the Hungarian Defence Forces.

For efficiency, the recruitment has appeared in educational institutions, with recruiting tents at various local events, and cooperates with local and regional labour organizations. The recruitment system continuously adapts to labour market opportunities and the changed conditions and requirements system of the military personnel. Recruitment can be improved successfully on the current basis, with the necessary decisions and resources. As a new method, mobile recruiting groups have been set up, and the recruiters got to 460 settlements in 2017 this way. New types of recruiting events are organized, one of which was the “Toborzó Országfutás” in 2016, where more than 11,000 people participated, about 220 settlements were involved, and 50 First and Second World War memorials were wreathed within the framework of this event. Legislation has alleviated the conditions governing the return of formerly discharged soldiers, therefore their recruitment became easier and more successful.<sup>16</sup> With the development of the volunteer reserve system, the tasks of the recruitment have been further expanded. The activities of the military recruiters include conducting the recruitment procedure and preparing the contracts.<sup>17</sup>

The strengths of the recruiting system are as follows:

- professional qualifications and practical experience of the recruiting personnel;
- the establishment of relations with cooperating organizations;
- well-known recruitment organizations by the society;
- continuous presence in every county town.

The factors weakening the effectivity of the recruiting system are:

- personal and institutional losses (quantitative and qualitative) during the transformation of the military administration system;
- large-scale outflow of the military personnel;
- decreasing number of the potential soldiers due to the weak labour market.

Civil collaborators of the recruiting system: labour centres and their branch offices, municipalities, local governments, local, regional and national media, national and regional training and job creating organizations, institutions, social organizations, domestic public education institutions, non-governmental organizations (sports, traditional, retired, reserve and social care clubs and associations) supporting national defence, and any other organizations or enterprises that find it important to participate in its activities and help with the implementation of military recruitment tasks. Presently, the executive organizations of the recruitment are the territorial military administration organizations.

<sup>16</sup> Nyulas, Sz. “A katona a legjobb toborzó”. Honvedelem.hu. 01 March 2017. [https://honvedelem.hu/cikk/62131\\_a\\_katona\\_a\\_legjobb\\_toborzo](https://honvedelem.hu/cikk/62131_a_katona_a_legjobb_toborzo), Accessed on 30 March 2018.

<sup>17</sup> Smidróczki, R. “15 év a toborzás szolgálatában”. Hadkiegészites.hu. 3 October 2016. <http://www.hadkiegészites.hu/honvedseg.hu/cikk/3713>, Accessed on 30 March 2018.

As part of the territorial military administration, recruitment is present in all counties, even if no military organization operates there. Thus, the civil population will not forget about soldiers, and it is easier to have the idea of joining the Hungarian Defence Forces on their mind while searching for a job.

## SIMULATION AUGMENTATION EXERCISE „FELTÖLTÉS”

Since 2008 the strategic level organization of the military administration has been organizing the simulation augmentation Exercise „Feltöltés” on a yearly basis. Within the framework of this exercise, military administration organizations, in cooperation with other military and civil organizations (who are involved in defence administration), carry out tasks relating to conscription. Throughout the exercise, the military augmentation centres become draft centres, get the registry of conscripts and the draft centres in close cooperation with their subordinates (the recruitment and welfare service centres and the military administration and welfare service offices) form draft boards and carry out the assessment of the medical eligibility and the call up. Civil medical doctors also take part in the exercise, and these doctors work at health care institutions that have a cooperation contract with a military augmentation centre about the participation. Substituting conscripts, volunteer high school students and university students also participate in the exercise. Exercise „Feltöltés” can also be connected to another major exercise, for example in 2013, it was a part of “Active Guardian 2013”, a three-week international exercise.<sup>18</sup>

Before the suspension of conscription the cooperation between military organizations and augmentation commands was diurnal. Thanks to many years of practice, augmentation commands knew the needs of various military organizations. Simple examples: a tall conscript cannot be planned for a tanker because he does not fit into the car while for the position of a company clerk the augmentation command was looking for a man who could write correctly and legibly. This high level interoperability has almost entirely been lost by every military organization and the territorial military augmentation organizations by now. Knowing the regulations and carrying out the tasks locally and separately provide only the knowledge of the theoretical implementation of joint work. Only joint work can prepare for solving the everyday problems of cooperation and observe the specified time frames. The rules do not mention all the situations and opportunities that may occur during the execution of tasks. During the common work, the executing staff may face such situations and have to solve them.

The solution for this situation would be the organization of the above mentioned annual exercises where the military administration would collaborate in common tasks with other military organizations in several points. Not only during the execution of the assessment of the medical eligibility or planning the call up, but they could also practice the tasks of call up together, recording of casualties and replacement of casualties. Attaching Exercise „Feltöltés” to another exercise in this way would also be a great opportunity (both for military organizations and military augmentation organizations) to improve the knowledge of a newly recruited staff and to maintain the skills of experienced colleagues.

<sup>18</sup> Draveczi-Ury, Á. “A rendszer és az állomány is jól vizsgázott”. Honvedelem.hu. 19 October 2013. [https://honvedelem.hu/cikk/40592\\_a\\_rendszer\\_es\\_az\\_allomany\\_is\\_jol\\_vizsgazott](https://honvedelem.hu/cikk/40592_a_rendszer_es_az_allomany_is_jol_vizsgazott), Accessed on 30 March 2018.

It can be stated that the fundamental interest of the home defence and the Defence Forces is to maintain the territorial military administration. In fact, these tasks cannot be performed by military organizations established for the purpose of performing other tasks or by the territorial state administration organizations. Military Administration plays a crucial role in establishing the capabilities that military organizations need to possess in order to carry out their tasks both in peacetime and periods of special legal order.

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Footnote: Engelbrecht, L. "Analysts Welcome Defence Budget Boost". defenceWeb. 28 October 2009. [http://www.defenceweb.co.za/index.php?option=com\\_content&task=view&id=4918&Itemid=379](http://www.defenceweb.co.za/index.php?option=com_content&task=view&id=4918&Itemid=379), Accessed on 3 June 2010.

Subsequent reference: Engelbrecht. "Analysts Welcome Defence Budget Boost".

Reference list: Engelbrecht, L. "Analysts Welcome Defence Budget Boost". defenceWeb. 28 October 2009. [http://www.defenceweb.co.za/index.php?option=com\\_content&task=view&id=4918&Itemid=379](http://www.defenceweb.co.za/index.php?option=com_content&task=view&id=4918&Itemid=379), Accessed on 3 June 2010.

## Newspaper article

Last name, Initials. "Title of Article". *Name of Newspaper*, Date. Section. Page.

### Examples:

Footnote: Sefara, M. "Beast that instills only fear and loathing". *The Sunday Independent*, 30 May 2010. Sunday Dispatches. 14.

Subsequent reference: Sefara. "Beast that instills...". 14.

Reference list: Sefara, M. "Beast that instills only fear and loathing". *The Sunday Independent*, 30 May 2010. Sunday Dispatches. 14.

## Thesis

Last name, Initials. "Title of Thesis". Thesis presented for degree (stipulate in full). Name of university, year.

### Examples:

Footnote: Jordaan, E. "South African Defence since 1994: A Study in Policy-Making". Thesis presented in partial fulfilment of the MMil in Military Sciences. Stellenbosch University, 2005. 25.

Subsequent reference: Jordaan. "South African Defence since 1994..." 28.

Reference list: Jordaan, E. "South African Defence since 1994: A Study in Policy-Making". Thesis presented in partial fulfilment of the MMil in Military Sciences. Stellenbosch University, 2005.

## Conference paper

Last name, Initials. "Title of Paper". Paper presented at Name of Conference, Place, Date  
Examples:

Footnote: Heuser, B. "Strategy Making: The Theory vs. the Practice". Paper presented at the First South African Conference on Strategic Theory, Stellenbosch, 11 June 2009.

Subsequent reference: Heuser. "Strategy Making..."

Reference list: Heuser, B. "Strategy Making: The Theory vs. the Practice". Paper presented at the First South African Conference on Strategic Theory, Stellenbosch, 11 June 2009.

For further information and examples, please visit [http://www.chicagomanualof-style.org/tools\\_citationguide.html](http://www.chicagomanualof-style.org/tools_citationguide.html), [http://support.ebsco.com/knowledge\\_base/detail.php?topic=996&id=7029&page=1](http://support.ebsco.com/knowledge_base/detail.php?topic=996&id=7029&page=1)

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2. The submission file is in OpenOffice, Microsoft Word, RTF, or WordPerfect document file format.
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4. The text is single-spaced; uses a 12-point font; employs italics, rather than underlining (except with URL addresses); and all illustrations, figures, and tables are placed within the text at the appropriate points, rather than at the end.
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