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Four Conflicts – Four Mandates

Comparative Analysis of the Conflicts and Mandates of United Nations Peacekeeping Missions in Western Sahara, Angola, Namibia and Central African Republic

HARKAI István¹

During the 20th century, the United Nations led several peacekeeping missions into Africa, where civil wars and armed conflicts among states have followed each other. These conflicts differed in many aspects from each other, and the UN tried to give several answers to heal the conflicts. This essay attempts to present and compare these conflicts and the UN missions through the case of three states and a colony, Angola, Namibia, the Central African Republic, and Western Sahara.

Keywords: *Uti possidetis, Angola, Namibia, Central African Republic, Western Sahara, UN mandate, peacekeeping, human rights*

Introduction

If we are observing the countries and conflicts of Africa, the first typical particularity is, that the nations of Africa reached the highest level of self-determination relatively late, only in the 20th century. The second characteristic is that after the end of the colonial era, in most of the countries, dictatorships were formed, and later on civil wars exploded. The reasons for these phenomenon are arborescent, mainly caused by the deep poverty, the underdeveloped economy and the disadvantageous borderlines enclosing different ethnic groups, religious denominations, tribes and clans into one country. [1: 65] In this essay I am going to investigate four conflicts in four African countries and the mandates of those peacekeeping missions which were adopted to resolve the situations in the analyzed conflicts.

Possession of Africa and the “Uti Possidetis”

Before I start to analyze the four conflicts, we have to discuss one of the important rules of international law, and a document which is considered to be the written manifestation of the division of Africa by the imperialist powers. To understand the crises burdening Africa, first we have to check the borders separating African nations from each others, since the inherited conditions from the colonial times influence adversely the relationships among states in Africa.

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As many others, in my first paper about Western Sahara I also believed that Africa was divided at the Berlin Conference by the great powers, although this is not completely true. [2] The scramble for Africa began hundreds of years ago, when Portuguese and later Dutch, English and French sailors visited the coasts of Western, Southern and Eastern Africa, then established bases and started to trade for slaves and other goods. The great powers in the 19th century followed the borders of the sphere of influence, which were already stabilized. In this process the Berlin Conference was only an episode.

In Berlin, the contracting parties settled six main questions: facilitate the free trade in the basin of the Congo River, prohibition and persecution of the slave-trade, military neutrality of the Congo basin, free navigation on the Congo and the Niger rivers and their affluents, establishing effective military-administrative institutions for the sake of good governance of newly conquered provinces. [3]

However it is true, the *General Act of the Congress of Berlin* has pronounced that under the *principle of continuity* those powers who conquer a seashore region have the right to demand territories in the inner part of the continent, they are allowed to establish administration, but they have to announce this to the other colonizing powers, and last but not least, it has to grant free transit and trade. [4]

Gaining possession over internal territories usually happens by occupation or protectorate treaties. [5] In case of Spanish Sahara, the Spanish king made a contract for a protectorate with the chieftains of Saharawies. [6] After the sphere of interest emerged, the great powers drew the internal borders in bilateral settlements, later on these lines became the borders of the independent states. In case of Western Sahara, the border-line separating the Spanish lands from the French, was drawn on the 27th of June in 1900 with a bilateral treaty between the Spanish Kingdom and France. [7]

Treaties related to African internal border-lines are numerous; to give only a few examples we can mention the following agreements. During colonial times the Central African Republic was a part of a greater, contiguous French colony, named French Equatorial Africa. The borders of this entity were settled in different treaties among the neighboring powers and France in 1894 and 1899. The boundaries of Angola were also drawn up in bilateral treaties. The British Empire and Portugal came to an agreement in 1893 about the separation of neighboring lands and the zone of influence in the Zambezi region. [8] The competing powers established the borders of Namibia in several agreements. The famous one was the Heligoland-Zanzibar Treaty between the German and the British Empires. [9]

As we have seen above, drawing border-lines in the 19th century was done according to the interest of great powers, deprived of all the aspects of ethnic interests. But why should they have to pay attention to the ethnic factors, when in the second half of the 19th century, the people of the “black continent” – apart from a couple of independent entities – were so far from the right to self-determination or independence. After World War II, disintegration of the European colonial empires sped up, as a result, the new independent states inherited the former provincial borders with all of their problems. To avoid the debates and conflicts over border-lines, the international community accepted an obligatory and pretty inelastic rule, the so called *principle of “uti possidetis, ita possideatis”*, which declared, that the entity becoming newly independent has to “possess its own territory, as it always did”, so they have to keep the borders inherited from the colonial era. [10] The principle was created in the times of ancient Rome by Roman civil law, but it used to be used in private legal relations, not in

the affairs of states. 1810 was the first time, when it was applied in the relations of states, when the Spanish colonies of Latin America earned their independence. [11]

In Africa as a principle, the *uti possidetis* was used firstly in the Sixties. Based on this principle the International Court of Justice adjudged in the case of the border-dispute of Burkina Faso and Mali in 1986, that the essence of the principle is to keep the borders in the condition they were in the moment of earning self-determination. [11] The ICJ² emphasized, the principle of *uti possidetis* not only as a regional norm of international law, but a general one, closely linked to the independence of states, wherever on Earth. [11] The ICJ also pointed to the use of the principle as a mandatory rule of customary international law, which needs to be respected by all the parties of international affairs. This is the only way to maintain the independence and stability of the newly emerged states, and this is the only opportunity to protect them from the successionist movements. [4] Although the principle of *uti possidetis* is quite strict, deviations are possible, if both of the disputing parties agree on the modification of border-lines. [12]

The Four Conflicts

The fact that many of African states have to face civil wars springs from the colonial heritage and underdevelopment of states on the continent. There are places, where people are still living under colonial rule, we can find some where ethnic or religious clashes led to civil war, but also there are states with relatively thriving economies and more or less well operating political and administrating systems.

Western Sahara

Our first example demonstrates a short history of a territory, where the citizens are still under colonial rule, they have not reached the phase of complete self-determination yet, they are still waiting for the time, when they finally can vote and decide about their future. The Spanish sailors appeared in the region during the 15th century. After conquering the Canary Islands, Spain entered into a relationship with the inhabitants of Sahara. [7] Since the Sahara-region did not have valuable trading goods for the merchants of the 16–18th centuries, the establishment of the sphere of interest in the Sahara-region took place only in the first half of the 18th century, when the Spanish crown and the sultan of Morocco settled it in 1727. [3]

After 1884 Spain extended its influence over the internal territories, but first drawing the border-lines to separate the Spanish and the neighboring French zones from each other was necessary. The question was solved in Paris in 1900. [7] The complete pacification of the region was a slow process, it took until 1938. [13]

According to the status of international law in the 19th century, Spain undoubtedly had the right to gain rule over the province, which was conquered mainly by military force. The ICJ adjudged in 1975, the first step in the conquest of Río de Oro was taken by the Spanish king, when he declared he would take under his protection the land of Río de Oro in the name of the Spanish crown, with a settlement with the local chieftains. [6]

2 International Court of Justice

Since the rules of international law are, albeit it slowly, changing, in the middle of the 20th century all the colonizing powers had to face the fact, that their colonies would like to gain and practice the right to self-determination. It was the same situation in the case of Western Sahara. Nonetheless, while the neighboring and other African countries stepped on the road of independence, in Western Sahara a special “pending legal situation” was created due to the invalid Madrid Accords and the following Moroccan and Mauritanian invasion and occupation. The intruders stepped into a situation, where the Saharawies had already stepped onto the road to self-determination, but after the invasion there was no chance to hold the promised referendum about independence. The referendum, which should not have been postponed, is still delayed, while the struggle of the Polisario Front³ and the Moroccan army resulted in a humanitarian crisis and serious and sequential abuses of human rights. The civil war held up until 1991, when the parties declared a cease-fire after long preparations, and the UN adopted the resolution of the peacekeeping mission called *MINURSO*.⁴ [14]

Angola

The Portuguese colonized the coast of Angola in the 15th century and entered into relations with the state of Bakongo, which ruled the Northern part of what is nowadays Angola; later on Portuguese merchants started to trade with slaves. Luanda, the first European headquarters, was established in 1575, later it became the capital city of Angola. Under colonial rule many tribes and ethnic groups lived there. The settlements of Mbundus was located on the seashore region, south from the borders of Congolese conquest. The main territories of the Ovimbundus were located in the inner lands and on the southern and southeast part of Angola. European settlers moved in the new Portuguese domains relatively late, but in the second half of the 20th century, their population reached 300 thousand and a new, influential *mestiço* class was formed, which adopted the Portuguese culture and latched onto colonial trade and got involved into the administration of the overseas province. [15]

Colonial independence movements of the fifties swept through Africa, and Angola also made an attempt to earn the right to self-determination. The first movements were started in the northern region of the country with the leadership of Holden Roberto. His organization, the FNLA⁵ built foreign relations and gained support and weapons. Despite the support of China and the CIA for a while, the movement slowly ended. [15] In the central regions of Angola, the clerisy, which governed the country at that time, formed a quite mixed movement with a membership which followed Marxist ideology – the MLPA.⁶ The third faction was based on a territory inhabited by the people of Ovimbundus. The UNITA⁷ was fairly nationalistic and bore marks of chauvinism. [15]

When the Portuguese started the negotiations for independence and the evacuation of Angola in 1974 there were three main group of people, two distinct ethnic groups and one with European origins, and each of them had a different point of view about the future of Angola. In 1975 a bloody civil war started in order to take total control over the state. FNLA units

3 Frente Popular de Liberación de Saguía el Hamra y Río de Oro – Popular Front for the Liberation of Saguia el Hamra and Rio de Oro

4 United Nations Mission for the Referendum in Western Sahara (United Nations Security Council Resolution 690)

5 Frente Nacional de Libertação de Angola – National Front for the Liberation of Angola

6 Movimento Popular de Libertação de Angola – People’s Movement for the Liberation of Angola

7 União Nacional para a Independência Total de Angola – National Union for the Total Independence of Angola

came into action and started to march southwards, while the UNITA established strong positions on its own area, on the southern and south-eastern part of the country and entered into relations with the government of South Africa. The third party was supported by the Soviet Union and Cuba who sent weapons, military advisors, and later fighting troops. The MPLA supported by Cuban soldiers threw back the attacks of FNLA and made a “king” of Agostinho Neto, then they formed a new government. [15] As the FNLA not only suffered defeat but ran out of its money, it was not able to pay the wage of mercenaries and retreated from the battlefield, but still continued to be active in public life. [16]

The war proceeded intermittently until 1987 between the two biggest struggling parties, the MPLA and UNITA, when the MPLA started a military campaign supported by an actively fighting Cuban division. It was the Operation *Saludando Octubre* which was stopped by the UNITA and its South African allies, but after the fall of the Apartheid regime in South Africa, the Government defeated the enemy, which ruled the southern regions of the country and was supported by South African troops, in the battle of Cuito Cuanavale. South Africa was indirectly interested in the conflict through Namibia. When the parties admitted, neither of them was able to defeat the other, they started to negotiate, in 1990 and in 1991, they finally came to an agreement. The parties agreed on the hold a free election, form a joint army and introduce a market economy. All this was however in vain, there was no definite winner of the 1992 elections. José Eduardo Dos Santos collected the majority of the votes, but his win was not absolute and it was discredited by the opposition. The two big sides stayed strong in their own hinterlands. The standoff turned into armed conflict again, UNITA, which secretly postponed the disarmament, achieved quick success in a surprising offensive, conquering two third parts of the country. [17] The government forces braced themselves and struck back, while the international community pressured UNITA, then turned away from the leader of UNITA, Jonas Savimbi. [17]

The rebels continued the struggle in spite of the international pressure and embargo due to the rich diamond mines located on their territories. The “blood diamonds” exploited by UNITA gave 10% of the world diamond production at that time. Not only the UNITA, but the MPLA were able to count on the rich mineral resources of Angola, the MPLA acquired income from the selling of fossil oil, which was more than enough to spend on military expenditures, since in the nineties Angola has been the second biggest oil exporter in Africa after Nigeria with 750 thousands of barrels per day. [16]

In spite of the new peace plan, called *Lusaca Treaty* and several UN missions the struggling parties were not able to create peace, the struggle continued, even though the sanctions of the international community made the rebels weaker, who lost their leader in 2002 which finally forced them to sign the peace. [16]

Namibia

The third conflict is about the calvary of Namibia, which – at least in some ways – imitates the situation of Western Sahara. Both are really interesting in the scope of international law, consisting of a lot to think about. The similarity is that Western Sahara and Namibia were former colonies of a European power, which abandoned its colony, later a neighboring power arrived into the vacuum. However, in the case of Western Sahara it has happened in a troubling fashion, in case of Namibia South Africa gained the territory legally. Let us see, how!

The coast of South-West Africa was approached by the Portuguese first, but – as it happened in Western Sahara – the desert region did not arouse their interest. English and Dutch sailors, sailing towards the Cape of Good Hope, established settlements in South Africa. [18] In the 19th century, German missionaries arrived into South-West Africa, where they used the rivalry of indigenous Hereros and Namas and established German South-West Africa. [19]

After unification, the German Empire achieved spectacular economic growth and created several new and retrograde concepts. There appeared not only the so-called living-space theory – according to the first plans, they wanted to create it by building up a colonial empire [19] – there were also such pseudo-scientific thoughts like social Darwinism and eugenics allowing their users to create the genetically perfect, disease resistance Aryan genus, which would have a soul above all the other human races.

After German settlers got involved in a clash with the native Hereros – the uprising aborigines were defeated in 1904 – the “Herero-genocide” started. Germans massacred the native inhabitants of the colony or enclosed them into concentration camps. After the horrible atrocity – which was regrettably only the first attempt at genocide in the 20th century – the number of the Hereros decreased to 15 thousand. [20]

During World War I Africa also became a battle-field where European powers fought against each other. The troops of the Union of South Africa – which unified as a British dominion in 1910 – marched into the territory of German South-West Africa in 1915, where they deported the German citizens into concentration camps. [21] The region was no longer a German colony, it fell under South-African occupation. In the Treaty of Versailles Germany gave up and surrendered its former colonial territories, Namibia as Mandate territory fell under the influence of South African administration. The new possessor, South Africa gradually tried to annex the province and went beyond the power delegated by the League of Nations again and again. [21]

The situation is more or less similar to Western Sahara. Here and there a new occupying power arrived substituting the former colonizer, but though the case of Western Sahara and the Moroccan invasion was based on an invalid international agreement, the South African administration was based on a completely legal mandate given by the League of Nations. Yet it is also a parallel, if we pull the cloak of international law from both of the cases, we can see the fact, either in Western Sahara or in Namibia that there was a simple aspiration to conquer a territory, because as Morocco and Mauritania divided Western Sahara was evacuated by Spain according to the Treaty of Madrid, the victorious great powers of World War I shared the colonies of the Central Powers among each other in different type of pacts. The only difference was the newly established League of Nations observed and controlled the occupation and administration. [22]

Mandate areas are divided into three types according to the development index of their population, how mature they are to practice self-determination. Namibia was a Class C mandate, so the administrating power, Union of South Africa, was allowed to consider in principle the territory as its own integrant part, but the mandatory power had to protect the province from the external attacks, and it was obliged to facilitate the advance of development and self-determination. [22]

After the end of World War II, the role of the League of Nations was taken over by the United Nations, the mandates became *United Nations Trust Territories*. The main principle was the same, the UN tried to give an acceptable formula for the division of former colonies

and to transform and reorganize the mandate territories. Namibia stayed under South African administration, moreover the South African government conceived, with the end of the League of Nations, the obligations of mandatory powers were automatically repealed, so South Africa was not obliged to make a contract in case of Namibia, as it had already been annexed. [22] As a matter of course, the international community did not accept this point of view. A long struggle was started, the International Court of Justice announced, it is not possible to force South Africa to make a trust agreement against its will, later, when Ethiopia and Liberia took action against South Africa the ICJ assessed, neither Ethiopia nor Liberia had the legal privilege for litigation. After the court's decision the UN took solving the problem in hand. In 1966 it revoked the mandate and rights of trusteeship from South Africa in Resolution 264 (1969), then the ICJ declared, after revoking the mandate of trusteeship, South Africa possesses Namibia without a legal basis, so it has to give it up and evacuate. [22]

About the status of Namibia not only the international community and South Africa, but its population also had a point of view, and they did not wait for things to take a turn for the better. In the sixties the first resistance movements were formed against the apartheid regime. The strongest one was the SWAPO,⁸ which founded its armed wing of resistance in 1966, it was the People's Liberation Army of Namibia. [18] Until 1970 the rebels re-enforced their army with international support, while the occupying power created a "counter-army" relying on the white people – mainly the Germans – of the Namibian population. With this reaction the South African regime sowed the core of civil war, since then the people of Namibia fought not only against the South African army, but the struggle began between the armed wing of SWAPO and the opposite army, the South-West African Territorial Force. [18] In the meantime the Namibian civil war intensified into an international conflict, because South Africa got involved in the civil war in the neighboring country, Angola, moreover, suffered defeat, which forced the South African regime to start negotiations in order to solve the Namibian crisis. The war in Namibia ended contemporaneously with the fall of the apartheid regime, when Namibia declared its independence on the 21st of March in 1990. [18]

Central African Republic

During its history, the Central African region was quite busy. Several people chose to live in, the area, especially Muslim powers tried to extend their influence over it. Since the 16th century, European and Arab slave-traders deported around 2 million people. [23] In the 19th century French gained a foothold at the frontier of Islam, later on they integrated the region rich in minerals and unified it into a greater entity, so-called *French Equatorial Africa* with the name *Ubangi-Sari*. [23]

At the beginning of this essay it was described how the great powers drew the internal border-lines in Africa. The *Treaty of Fez* from 1912 fits well into the row of bilateral treaties mentioned above. In this agreement France gave up around 290 thousands square kilometers and gave it over to the German Empire. This territory was integrated into the colonial empire of the German emperor until the end of World War I. During the Great War French troops recaptured the ceded territory, moreover they conquered the neighboring German New Cameroon. [23]

8 South West Africa People's Organization

When Ubangi-Sari became independent in 1960, the possibility of creating a Central African Union, a sort of United States of Africa, emerged, which would have united not only the former French colonies but the neighboring Belgian and Portuguese territories as well. The creation of such a prestigious confederation was ended by the mysterious and sudden death of Barthélemy Boganda. [23]

Instead of becoming a democracy, after five years the country transformed into a military dictatorship, since Captain Jean-Bédél Bokassa seized power, then he arbitrarily crowned himself emperor. The dictator was removed by the French in 1979, his place was taken by the former president, David Dacko. [23] In spite of the regime-change, political tension remained, which was followed by another military coup in 1981. The ethnically diverse country continued to crumble, although in 1993 an election was held and they tried to bring into practice the multi-party system again. This instability was due in no small part to the intrigue of French diplomacy. [23] The civil war inspired the neighboring countries to reconcile and make peace, which resulted in several peace-making interventions, but unfortunately these missions were not able to provide peace, however the UN also adopted a peacekeeping-mandate, the so-called *MINURCA*. [23] The peace-aspirations did not reach their goals, the civil war continued, it even spread over and infected the neighboring Darfur and Chad, and hence the UN sent a new humanitarian mission to Central Africa. Later on the European Union followed the example. In the chaos general François Bozizé, who was in power since 2003, won the *Bush War* lasting until 2008 and remained in power. [24] In 2012 the president had to confront a new group of insurgents, it was the so-called *Séléka* led by Michel Am-Nondokro Djotodia. [23] The *Séléka* was an allied assembling of rebel militia factions, which consists of not only the Central African *Alliance for Revival and Rebuilding*, the *Patriotic Convention for Saving the Country* rebel groups, but the *Popular Front for Recovery* from Chad as well. [24] Their activity is financed by the income coming from illegal diamond and ivory-trade. [25]

Séléka consists of mainly Muslims, while the population of the country is more than 70% Christian or belong to different tribal religions, this directly led to atrocities based on religion after *Séléka* took power. As an answer, Christians created the *anti-Balaka* voluntary militia, it exceeded its scope of duties and attacked and sacked Muslim villages. [25]

President Djotodia was not able to overcome the situation, while the UN gave authorization to the African Union to lead a new peacemaking mission⁹ which was adopted by the Security Council in the Resolution 2127. [25] Djotodia was banished by the international community, he escaped to Benin, and his place was taken by the mayor of Bangui, Cathrine Samba-Panza on 23th of January in 2014. [25]

The Four Mandates

The international community has made several efforts in order to solve the crises mentioned above. In case of the four conflicts numerous missions were started by the United Nations as well. Hereinafter we are going to survey, where and what exactly did the UN do in order to arrange the conflicts, what is missing from the mandates and why?

9 MISCA-African-led International Support Mission in the CAR

MINURSO

As we can see in the name of this particular mission – *United Nations Mission for the Referendum in Western Sahara* [26] – the UN created this mission as a part of a bigger settlement¹⁰ to give the Saharawi people a chance to practice their right to self-determination. The Security Council Resolution 690, which was adopted on 29th of April 1991, declared, that the promised referendum would be transected in co-operation with the UN and the Organization of African Unity. Technical execution would be brought into effect by a peacekeeping mission, which was mandated to accomplish the following tasks:

- organizing and ensuring the promised free and fair referendum, which is going to be transected by the UN and the Organization of African Unity,
- observing the negotiated cease-fire,
- verifying the reduction of Moroccan troops,
- monitoring the confinement of Moroccan and Polisario troops to designated locations,
- taking steps in order to release all Western Saharan political prisoners or detainees,
- observing the exchange of the prisoners of war in co-operation with the International Committee of the Red Cross,
- executing the program adopted by the UNHCR¹¹ in order to facilitate the repatriation programme,
- identify and register all citizens in Western Sahara who are qualified and entitled to vote. [26]

As we can see, there is a missing part, a very important mechanism is absent from the settlement of such conflict where a “legendary” amount of abuses of human rights were committed. Indirectly there are some of rules protecting human rights. The referendum, which is the main intention of the mission, could be the only way to guarantee the materialization of one of the most elemental human rights, namely the right to self-determination. It is also indirect, but releasing the prisoners of war and other political captives it is protecting the right to personal freedom. However the protection of human rights is not mentioned expressly its regularization has been postponed, while the mandate of Minurso has been renewed several times, not to mention the fact, since the beginning of the mission, numerous reports about human rights abuses were issued by human rights organizations.

Since 1991 the mandate of MINURSO was renewed or extended 44 times, [27] the monitoring system of human rights is still missing in spite of the initiations and attempts. In 2014 the Human Rights Watch made a request in its letter to the UN Security Council to extend the mandate of MINURSO with a mechanism in order to protect and observe the situation of human rights, but it was cancelled at the time. [28] In April 2015 the mandate was renewed again, the issue of the monitoring system was in the agenda, which was supported among others by Norway, [29] but it was declined again. [30]

In an armed conflict human rights are regrettably one of the last aspects being respected by the parties, which is a small wonder, as a violation of human dignity, taking lives and every other similar atrocity is attached to human conflicts. Arranging such clashes depends on the will of high politics. As a matter of course both parties have supporters who are capable of setting a bar against the aspiration of the others if necessary.

10 The settlement was adopted by the Kingdom of Morocco and the Polisario Front on 30th of August in 1988.

11 United Nations High Commissioner for Refugees

UNAVEM I–III and MONUA

The missions of the UN were never built following a united schema. They are oriented to the specialties of the given conflict, many times only one mission is not enough to solve the problem. In the Angolan Civil War several missions were started. First was the UNAVEM,¹² which was adopted by the Security Council Resolution 626. (1988). [31] This time the object was to secure and observe the withdrawal of Cuban troops from the country according to the schedule which was adopted by the Angolan and Cuban governments. Because the operation came to an end before the deadline, the UNAVEM I mission successfully reached its purpose in 1991. [32]

Comparing MINURSO to UNAVEM II is truly interesting for us. In the longest armed conflict of Africa, the parties, who endeavored to make peace, adopted the so-called *Peace Accords for Angola (Bicesse Accords)* which consist of similar terms to the peace plan of Western Sahara. First and most importantly the belligerents concluded a ceasefire and agreed on the condition, that the truce will be verified by the peacekeepers of international community. In the ceasefire agreement disbanding of paramilitary units was implied and the parties settled about a mechanism in order to investigate the existence and use of biological weapons. [33] The peace plan dealt with a joint Angolan army which would have been merged from the two hostile armies. [33] The plan regarded not only the capitulation, but aimed to ensure the peaceful political transition with the participation of UNITA. [33]

In the practical implementation of the peace plane the parties called for the help of the UN, which established the second UNAVEM Mission on 30th of May 1991. [34] The new mandate held up until 1995, its function was to keep up and observe the negotiated peace, help the reorganization of the Angolan army, deliver the humanitarian aid and to execute some administrative tasks. [35] Making peace was a very slow process, UNITA did not accept the results of the election in 1992. The mandate of the Mission was renewed five times until 1995, when because of difficulties, it was overruled by the mandate of UNAVEM III in 1995. [36]

Because the conflict continued in the first half of the nineties, the former settlement was not really respected and observed by the parties, although an election was held, as I referred to it before, UNITA did not accept the result. The number of the peacekeepers of UNAVEM II was too few, to make peace in the civil war which had lasted for decades, and it was also an unrealistic expectation to unite opposite hostile soldiers in the same army. [17]

In 1994 under the pressure of international community the parties reopened the negotiations, which resulted in the so-called *Lusaka Protocol* with a cease-fire similar to the former peace-settlement. The issue of the army was a neuralgic point again. According to the Protocol, from the force of UNITA 5500 soldiers would have been enrolled in the force of the Angolan police, further 1200 soldiers would have been integrated in the Rapid Reaction Police. For the senior officers of UNITA the Protocol offered high ranking positions in the Angolan army. Furthermore for the members of UNITA the Protocol granted higher and more influential political and economical positions than the former settlement. In reforming the government, they sought balance, the two great rivals should have entered a coalition to govern Angola in that way. [37]

12 United Nations Angola Verification Mission

The task of UNAVEM III Mission, [38] which was established in order to execute the Lusaka Protocol, was to observe the cease-fire, to facilitate building up a nation-wide administration, to promote the recovery of the economy, to follow with attention the neutrality of the new Angolan police, participation in mine clearing, and last but not least to support and oversee the second round of elections. [39]

The Angolan Civil War was a complete failure for the peace-makers in the nineties, in spite of their aspirations. They created two peace plans in vain, they established three UN Missions, and they had to adopt a third mandate in 1997. The mandate of MONUA¹³ [40] was adopted on 30th of June 1997, its function was diversified. Likewise in the previous mandates, in MONUA there was also a priority to reconcile the rival enemies, integrate them in a common government, set in order the issue of Angolan army and police, ease the humanitarian crisis. The necessity of the protection of human rights, the revelation of abuses, and promotion of the activity of human rights agencies were firstly mentioned. [41] The mandate of MONUA ended in 1999. The conflict was too deep and complicated, it held until the first half of the Millennium years. It “outlasted” several UN Missions in spite of all the efforts made by the international community.

UNTAG

In contrast with Angola the conflict in Namibia finished quickly due to the fall of the apartheid regime in South Africa. The Namibian mission of the UN was widely empowered by Resolution 632 of the Security Council. [42] Not only the situation of Namibia, but the mandate of the UN Mission takes after the case and the peace plan of Western Sahara, because in the first place the mandate of UNTAG was to organize and transact a free and fair referendum. To effectively hold elections, South African troops had to leave the country first, the rebels needed to be disarmed, while the peacekeepers of UNTAG observed the procedure. [43] The mandate also rules over the activity and monitoring of the new Namibian police, declares that the racial discriminating acts passed by the occupying regime to be annulled, also declares amnesty and prescribes the release of prisoners of war and the repatriation of South-West African refugees, and disposes the registration of qualified voters. [21]

The mission of UNTAG led to success in a short time due to, not only the wide entitlement, but the advantageous geopolitical situation and the co-operation of the parties as well.

MINUSCA

On 10th of April 2014, the UN undertook to solve the civil war in the Central African Republic with a multidimensional peacekeeping mission. MINUSCA,¹⁴ it incorporated a previous peacekeeping mission led by the African Union, the so-called MISCA. The mandate of the mission launched by Resolution 2149 of UN Security Council [44] consisted of the following: first and most important the unprejudiced protection of civilians from violence, with special emphasis of women and children, close co-operation with the humanitarian and human rights organizations. Further function of the mandate to assist the peaceful political transition, maintain the territorial integrity of the Central African Republic. It is important to

13 United Nations Observer Mission in Angola

14 United Nations Multidimensional Integrated Stabilization Mission in the Central African Republic

emphasize, the mandate of MINUSCA expressly deals with the protection and monitoring of human rights. The peacekeepers were authorized to explore and report the human rights abuses committed by the soldiers of Seleka and anti-Balaka, to expose the reveal the offenders in order to call them to account. Further aspiration to help the disarmament of rival militias, the reintegration of the rebel soldiers into society, and to assist the repatriation of the persecuted citizens. [45]

Summary

The analyzed four conflicts and the answers given by the international community draw attention to several factors. On one hand the historical heritage of Africa is too heavy a burden on the underdeveloped social, economic and political systems, the African states are hardly able to cope with the difficulties on their own. In every, or at least in most of the cases the international community tries to give an answer to the emerging conflicts, but the effectiveness of these depend on several factors. It depends for example on the money which is intended to be paid by the UN on peacekeeping mission, or – what is more important because the question of money depends on the political intention – how interested the decision-makers are in resolving the conflicts. The South-West African situation was ended fast with the fall of the South African apartheid regime, though it is true, until the regime was in power, South Africa artfully avoided giving up the occupied province. In the Angolan crisis many peacekeeping missions were launched, for the lack of results not only the great powers were responsible, but it is a fact and beyond dispute, that behind the UNITA and the MPLA, the powers of the two poles aligned. Their intervention did not resolve the conflict but made it longer.

From the analysis it has turned out, that the conflict management of the UN is following a kind of schema, but adjusted to the specialities of the given situation. In a war-time situation it is irrelevant to expect from the struggling parties to pay attention to the protection of human rights, hence in every conflict the first step has to be to make peace. As we saw, to agree on the terms of peace is the responsibility of the parties, the international community only can help to organize or host the peace negotiations, or to realize and observe the particular terms.

It was interesting to see, the mandates of UN missions dealt expressly with the human rights and the protection of the civilian population only one time, in the case of Central African Republic, while in the case of Western Sahara and Namibia the mandates attached the problem only indirectly. In Western Sahara it was the promotion of the Sahrawi people to practice the right to self-determination, while in Namibia repealing the racial discriminatory acts. It is also a useful and interesting experience, that in Central Africa – which is under strong French influence – the UN established a mechanism dealing with human rights in the first mandate, at the same time the same mechanism has been a missing part for a long while in the case of Western Sahara, due to the diplomatic maneuvers of Morocco, which is also enjoying the support of French diplomacy. Of course protection of human rights in war-time can only be the first priority, when the clashes are finished and the peace restored, a more or less effective administrative system is working, which is able to detect and reveal abuses and act against the offenders.

References

- [1] ASONGAZOH ALEMAZUNK, J.: Post-Colonial Colonialism: An Analysis of International Factors and Actors Marring African Socio-Economic and Political Development. *The Journal of Pan African Studies*, 3 10 (2010), 62–84. www.jpanafrican.org/docs/vol3no10/3.10Post-Colonial.pdf (downloaded: 25 05 2015)
- [2] SZABÓ L.: Tévhitek és tények a Kongói Demokratikus Köztársaság előtti Kongóról egy történeti áttekintés ürügyén. *Afrika Tanulmányok Folyóirat*, II 4 (2008), 10–19.
- [3] SZABÓ L., ÖLBEI T., WILHELM Z.: *Anyországok és (volt) gyarmataik I.* Pécs: PTE Afrika – Amerika – Ázsia Universitas Munkacsoport, 2002.
- [4] KENDE T., NAGY B., SONNEVEND P., VALKI L.: *Nemzetközi jog*. Budapest: Complex Publisher, 2014.
- [5] van der LINDEN, M.: *The Acquisition of Africa (1870–1914): the Nature of Nineteenth-Century International Law*. Heidelberg: Max Plank Institute, 2015. www.mpil.de/en/pub/research/details/projects/public_int_law/sovereignty_property_and_trea.cfm (downloaded: 28 05 2015)
- [6] INTERNATIONAL COURT OF JUSTICE: *Western Sahara. Advisory Opinion of 16 October 1975*. www.icj-cij.org/docket/files/61/6197.pdf (downloaded: 26 05 2015)
- [7] BESENYŐ J.: A nyugat-szaharai spanyol népszámlálás és az ENSZ. *Afrika Tanulmányok Folyóirat*, II 2 (2008), 18–29.
- [8] *1893 Agreement between Great Britain and Portugal Relative to Spheres of Influence North of the Zambesi*. <http://treaties.fco.gov.uk/docs/pdf/1893/TS0010.pdf> (downloaded: 29 05 2015)
- [9] *1890 Heligoland-Zanzibar Treaty*. http://germanhistorydocs.ghi-dc.org/pdf/eng/606_Anglo-German%20Treaty_110.pdf (downloaded: 25 05 2015)
- [10] SZALAI A.: *Az államhatár és a nemzetközi jog*. <http://drszaianiko.hu/2014/03/19/az-allamhatar-es-a-nemzetkozi-jog/> (downloaded: 30 05 2015)
- [11] PETERS, A.: The Principle of Uti Possidetis Juris – How Relevant is it for Issues of Secession? In: *Self-Determination and Secession in International Law*, Oxford: Oxford University Press, 2014. 95–137.
- [12] SHAW, M. N.: *Nemzetközi jog*. Budapest: Komplex Publisher, 2008.
- [13] BESENYŐ J.: *Western Sahara*. Pécs: Publikon Publisher, 2009.
- [14] BESENYŐ J.: Hungarian logistics specialist working for the UN's Western Sahara mission. *AARMS*, 7 1 (2008), 155–165.
- [15] KOVÁCSY T.: Angola magánya. *Beszélő*, 5 4 (2000). <http://beszelo.c3.hu/00/04/09kova.htm> (downloaded: 01 06 2015)
- [16] HORVÁT S.: UNAVEM Misszió – Angola. A békéig vezető út az UNAVEM missziókon keresztül dióhéjban. *Nemzetbiztonsági Szemle*, 2 Special Issue 2 (2014), 77–87.
- [17] BESENYŐ J.: Magyar katonák tevékenysége az angolai ENSZ-békeműveletekben. *Hadtudomány*, XXIV 3–4 (2014), 63–77.
- [18] BESENYŐ J., MOLNÁR E.: A namíbiai haderő. *Sereg Szemle*, X 3 (2012), 121–133.
- [19] MOLNÁR E.: A namíbiai történelem sötét foltja: a herero népirtás. *Sereg Szemle*, XI 2–3 (2013), 212–220.
- [20] FERGUSON, N.: *Civilizáció – A Nyugat és a többiek*. Budapest: Scholar Publisher, 2011.

- [21] BESENYŐ J., MOLNÁR E.: ENSZ békefenntartás magyar részvétellel: Namíbia. *Sereg Szemle*, X 1 (2012), 133–144.
- [22] KOVÁCS P.: *Nemzetközi közjog*. Budapest: Osiris Publisher, 2011.
- [23] BALOGH A., BESENYŐ J., MILETICS P., VOGEL D.: *Országismertető – Közép-afrikai Köztársaság*. Budapest: Honvéd Vezérkar Tudományos Kutatóhely, Magyar Honvédség Geoinformációs Szolgálat, 2015.
- [24] TOMOLYA J.: Közép-afrikai Köztársaság: Mi lesz veled? *Szakmai Szemle*, 1 (2014), 5–26.
- [25] MARSAI V.: Válságok Közép-Afrikában II. Polgárháború a Közép-afrikai Köztársaságban. *NKE Stratégiai Védelmi Kutatóközpont Elemzések*, 4 (2014). http://nit.uni-nke.hu/downloads/Elemzesek/2014/SVKK_Elemzesek_2014_4.pdf (downloaded: 05 06 2015)
- [26] *United Nations Mission for the Referendum in Western Sahara (United Nations Security Council Resolution 690)*. www.securitycouncilreport.org/atf/cf/%7B65BFCF9B-6D27-4E9C-8CD3-CF6E4FF96FF9%7D/MINURSO%20SRES690.pdf (downloaded: 05 06 2015)
- [27] *United Nations Documents on Minurso*. www.un.org/en/peacekeeping/missions/minurso/resolutions.shtml (downloaded: 06 06 2015)
- [28] *Letter to Members of the UN Security Council: Extend MINURSO Mandate to Human Rights*. www.hrw.org/news/2014/04/14/letter-members-un-security-council-extend-minurso-mandate-human-rights (downloaded: 07 06 2015)
- [29] Norway supports extension of MINURSO mandate to include human rights monitoring. *Sahara Press Service*, 03 19 2015. www.spsrasd.info/en/content/norway-supports-extension-minurso-mandate-include-human-rights-monitoring (downloaded: 07 06 2015)
- [30] BETRIÁN, G. R.: Spain and Morocco welcome the extension of MINURSO's mandate. *The Diplomat*, s.d. <http://thediplomatinspain.com/en/spain-and-morocco-welcome-the-extension-of-minursos-mandate/> (downloaded: 07 06 2015)
- [31] *UNAVEM I Resolution 626 (1988)*. <http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/541/53/IMG/NR054153.pdf?OpenElement> (downloaded: 09 06 2015)
- [32] *Angola – UNAVEM I Mandate*. www.un.org/Depts/DPKO/Missions/unavem1/UnavemIM.htm (downloaded: 09 06 2015)
- [33] *Peace Accords for Angola*. http://peacemaker.un.org/sites/peacemaker.un.org/files/AO_910521_PeaceAccordsforAngola%28en%29.pdf (downloaded: 10 06 2015)
- [34] *UNAVEM II Resolution 695 (1991)*. <http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/596/32/IMG/NR059632.pdf?OpenElement> (downloaded: 10 06 2015)
- [35] BESENYŐ J.: Magyar békefenntartók afrikai tapasztalatai: Angola és Uganda. *Afrika Tanulmányok Folyóirat*, V 4 (2011), 112–125.
- [36] *Angola – UNAVEM II Mandate*. www.un.org/Depts/DPKO/Missions/Unavem2/UnavemIIM.htm (downloaded: 10 06 2015)
- [37] US INSTITUTE OF PEACE: *Lusaka Protocol 1994*. Lusaka, 1994. www.usip.org/sites/default/files/file/resources/collections/peace_agreements/lusaka_11151994.pdf (downloaded: 10 06 2015)
- [38] *UNAVEM III Resolution 976 (1995)*. <http://daccess-dds-ny.un.org/doc/UNDOC/GEN/N95/038/14/PDF/N9503814.pdf?OpenElement> (downloaded: 11 06 2015)
- [39] *Angola – UNAVEM III Mandate*. www.un.org/en/peacekeeping/missions/past/unavem_p.htm (downloaded: 11 06 2015)
- [40] *MONUA Resolution 1118 (1997)*. [www.un.org/ga/search/view_doc.asp?symbol=S/RES/1118\(1997\)](http://www.un.org/ga/search/view_doc.asp?symbol=S/RES/1118(1997)) (downloaded: 11 06 2015)

- [41] *Angola – MONUA Mandate*. www.un.org/en/peacekeeping/missions/past/monua/monuam.htm (downloaded: 11 06 2015)
- [42] *UNTAG Resolution 632 (1989)*. www.worldlii.org/int/other/UNSC/1989/6.pdf) (downloaded: 12 06 2015)
- [43] *Namibia – UNTAG Background*. www.un.org/en/peacekeeping/missions/past/untagFT.htm (downloaded: 12 06 2015)
- [44] *MINUSCA Resolution 2149 (2014)*. [www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/2149\(2014\)](http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/2149(2014)) (downloaded: 13 06 2015)
- [45] *CAR – MINUSCA Mandate*. www.un.org/en/peacekeeping/missions/minusca/mandate.shtml (downloaded: 15 06 2015)

Information Security Law and Strategy in Hungary

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Information security has an emerging importance, even in people's daily life, even in country-level policymaking, but these two are inseparable. National information security strategy, applied legal regulation and the actual awareness of citizens are interconnected. The article shows the legal regulation of the last decades in Hungary, the relevant laws and their impact on information security, based on the legal aspects of cybersecurity and cyberterrorism. The focal points in the legislation are the Act on Electronic Public Service of 2009 and the Information Security Act of 2013. The paper points to the advancing interest on the cybersecurity by the side of the government and therefore the more and more detailed legal regulation implied by that.

Keywords: information security act, cyber strategy

Introduction

In the last seven decades there was a huge advance in information technology. From the time Konrad Zuse made the first Turing complete computer in 1941 and the building of Electronic Numerical Integrator and Computer (ENIAC), the first really universal computer in 1946, information security continuously has been a part of information technology. [1: 206] In the beginning it had a narrow joint focus, but it has been gradually widened.

We should notice that computers have been processing sensitive data from their early application, for example ENIAC was used to solve numerical problems regarding US military operations like the calculation of artillery firing tables. At that time physical security measures were enough to prevent unauthorized access. The general use of computers began with the implementation of multi-user mainframe computers from the 1950s mostly by IBM. Due to the fact, that multiple users were accessing those mainframe systems, access control measures had to be implemented. Universities were real playgrounds for hackers, who were testing the boundaries of those systems. Soon, interconnecting of standalone systems became a usual solution to increase efficiency and collaboration. The first point-to-point serial cable-based connections were inefficient, thus the Advanced Research Projects Agency (ARPA) started the “Intergalactic Network” initiative to use the existing telex network for computer communication in 1962. [2: 65] Later ARPA started the ARPANET network in 1969 which connected University of California, Los Angeles (UCLA), Stanford Research Institute's Augmentation Research Center, University of California, Santa Barbara (UCSB), University of Utah's Computer Science Department in the beginning, but later it was broadened and its name changed to Internet. Networking technologies have implied the development of a new branch of information security: network security.

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Network security had to deal with phenomena like eavesdropping and man-in-the-middle attacks, and at the same time the importance of cryptographic measures has become more important than in the case of the defense of a standalone computer.

Recently with the usage of portable computers, notebooks, mobile phones, smartphones and tablets and especially with bring your own device (BYOD) phenomenon the integration and secure connection to protected networks and security of data on the move have become new issues. Cloud computing technologies solved some problems of reliability and business continuity, while at the same time they also generated new issues in outsourcing security, data portability and segregation.

A whole virtual world or cyberspace has emerged on the basis of the technologies. No matter how strange but real world phenomena occur in this virtual world with more or less the same symptoms as in “off-line crimes”. Criminologists and lawyers can debate that the perpetration of certain crimes in the virtual world and real world differ or not, but the method of protection and security technology is unanimously thought to differ from the real world, because you do not have to set up firewall rules or Access Control Lists (ACLs) in real life. Information security absorbs elements from the traditional security areas such as military defense, burglar alarm or fire prevention, but it also has new attributes.

New technologies appearing each year. Most of them cause new problems, open new vulnerabilities which should be solved by information security indicating a major professional problem. That is, information security solutions are always following controls by nature, because there is a natural delay between the implementation of the technology and the implementation of the effective and adequate security control. One of the main reasons for this is that at the time of development the developers found some security issues and implemented some security controls against them, but more problems and vulnerabilities are visible afterwards, when hackers challenge systems. At this point we have to implement newer and newer controls to protect systems. This is a never-ending story which needs continuous awareness on the part of security. According to recent empirical research, the information security awareness level in the Hungarian business sector needs further improvement. [3]

Intensive improvement of technology, high business demands and low time-to-market times do not urge application development industry to enhance security controls with the same speed as functional features, so security of network-based activities did not reach a reassuring level. Improvement and legal application of public key cryptography and strong secret key algorithms gave way to computer users for secure communications, but it is still not enough. Security of computer hardware elements, computer systems or networks depend on the full architecture, thus the weakest link determines the security level of the overall system.

In those early decades the security profession fought for the legitimacy of cyber security, and attention from high level management, which more or less knew the importance of this field. The question at the beginning of the twenty-first century is not the *why* but the *how* and *how much*. In the business sector, especially in times of economic crisis, cost constraint cannot be severe and we cannot imagine any compulsory expenditure from which managers do not want to cut off a bit. Management’s objective is to devote usually minimal effort to IT security elements, systems and networks. Goals for citizens, shareholders, stakeholders and the government are the same: adequate information security level should be established and maintained. Every day we find that the decrease in IT budget implying much greater decreases in security budgets, and while in the case of a major telecom company it is hard to find

serious deficiencies, home computer users often do not install minimum preventions such as free security tools. Obviously this happens for many reasons: for example lack of technical knowledge, experience, information, money, or interest. But the most important thing is that most users do not draw enough attention to this area, despite the fact that later they might be liable for consequences.

The legislator's point of view, everything can be improved and the main goal is to reach a hundred percent perfection in the area. Therefore the field of information security also deals with this more general problem of security awareness.

The aim of this research was to analyze the change of the Hungarian legal regulation of information security in a chronologic manner in order to define categories of government strategies.

The Beginning

Technology development, as we described above, made local system security improvements indispensable. In case of e-government systems a higher level of problem also exists: attack against multiple systems or against a full infrastructure. This can be part of a conventional war, as cyberwar may be an unconventional event, and called cyberterrorist attack.

Cyberterrorism is a rather debated term and more scientific papers are analyzing this topic, so we should make an important note on the issue. According to Gorge [4: 9] the word cyberterrorism should be interpreted by its syllables, where cyberspace is the mass of computer communication networks. The term was created by William Gibson and was first used in the science fiction novel *Neuromancer*, which was written in 1984, describing a collective hallucination by billions of people. The term cyberspace emphasizes the close relationship between networks, relationships between people and networks, and social networks, in contrast to the earlier concept of network which has had primarily a technical meaning. According to Benjamin Netanyahu "Terrorism is the deliberate and systematic murder, maiming, and menacing of the innocent to inspire fear for political ends." [5: 20] According to the U.S. Federal Bureau of Investigation, cyberterrorism is any "premeditated, politically motivated attack against information, computer systems, computer programs, and data which results in violence against non-combatant targets by sub-national groups or clandestine agents." [6: 371]

But what kind of technical steps can a cyber-terrorist take?

On one hand the traditional way of using terrorism and information technology range from "soft" to propaganda methods. On the other hand they may apply "hard" methods, which are cyber warfare or hacking methods. [7] The same, or very similar, to what an "ordinary" online criminal does, and the differences are only in the impact and the effort. This is why we have to defend all individual systems in order to protect the entire infrastructure.

From the government's viewpoint generally we have to plan and prepare the national defense system against such actions. The first comprehensive security and defense policy system of Hungary after the political change in 1989 did not recognize cyber threats. Neither the National Assembly resolution no. 94/1998. (XII. 29.) on the security- and defense policy principles of the Republic of Hungary, nor the Government resolution no. 2073/2004. (IV. 15.) on the National Security Strategy of the Republic of Hungary, nor the Government res-

olution no. 1009/2009. (I. 30.) on the National Military Strategy of the Republic of Hungary included cyber defense as an objective. According to these policies and strategies defense against cyber-attacks are treated individually, even in the legal regulation.

We may find, however, an example of information security regulation in Hungary in the field of personal data protection (privacy or personally identifiable information protection in US law). [8]

As a general obligation all institutions managing and processing personal data, except private users have fallen under Act LXIII of 1992 on the Protection of Personal Data and the Disclosure of Information of Public Interest or later Act CXII of 2011 on informational self-determination and freedom of information. The security requirements were almost the same.

Section 7 (2) about data security requirements says that “data managers, and within their sphere of competence, data processors must implement adequate safeguards and appropriate technical and organizational measures to protect personal data, as well as adequate procedural rules to enforce the provisions of this Act and other regulations concerning confidentiality and security of data processing.” [9] Relying on the analysis by András Jóri in his handbook [10] it can be claimed that data security and so a slice of informational security falls under the scope of the statutory regulation pertaining to data protection. According to subsection (3) “data must be protected by means of suitable measures against unauthorized access, alteration, transmission, public disclosure, deletion or destruction, as well as damage and accidental loss, and to ensure that stored data cannot be corrupted and rendered inaccessible due to any changes in or modification of the applied technique.” [10: 258] The legislator gives examples of threats which in general correspond to standards. It is recommended to make a risk analysis about risks threatening the system and process of handling and processing data and about their occurrence. It is not required by the act on data protection, but normally it is required by all standards, so it is also a professional expectation.

This codification is not detailed, nor it is explanatory, and there are no controls built into it. Parliamentary Commissioner for Data Protection and Freedom of Information (later the Hungarian National Authority for Data Protection and Freedom of Information) supervised data management and data processing, but has no coercive measures; despite a part of data security being subject of personal data regulation. [10] The publicity is effective only in governmental cases.

Before the Act on Electronic Public Service (before 29 June 2009) there were no acts dealing with information security in public or governmental networks. [11: 4]

Only the following Government decrees regulated the field:

- 195/2005. (IX. 22.) Government Decree on security, interoperability and uniform use of electronic administration systems;
- 84/2007. (IV. 25.) Government Decree on security requirements of the Central Electronic Service System and related systems;
- 193/2005. (IX. 22.) Government Decree on Detailed rules for electronic filing;
- 194/2005. (IX. 22.) Government Decree on requirements for electronic signatures and the associated certificates used in the administrative proceedings, as well as requirements for certification service providers issuing the certificates;
- 182/2007. (VII. 10.) on the regulation of the central electronic service provider system.

These provided security rules sporadically to some systems, without any general framework. As a result we may say that relatively low awareness of the legislator and the business is observable in usage of international IT security standards, despite its significance and the high risk in some areas. No obligations found in acts of the Hungarian Parliament for enforcement of standards in IT security. There have been built-in self-control procedures in some acts, but in practice those procedures actually have not worked efficiently.

Transition

In 2009 a small change commenced with the adoption of Act LX of 2009 on electronic public services (abbreviated as Ekszt.). It has highlighted the requirement of security as a basic principle.

Organizations providing *Information and Communications Technology* (ICT) based public services ensure the publicity of data of public interest (according to the Act on data protection and freedom of information) and protection of personal and any other data during the provision of services. [12]

During the provision of services particular attention must be also be paid to the fulfilment of realization of information rights, protection of classified information, business secrets and other protected data groups. Service providers ensure IT security, including the integrity of electronic records, and applicability of electronic signature technology. The legislator refers to the application of electronic signature technology and the importance of compliance with the relevant security requirements.

The use of electronic signatures, according to the Act on electronic signature (hereinafter Eat.) can greatly assist in maintaining the integrity of data. However, a huge discrepancy is noticeable between theoretical principles and practice. Despite the above rules, electronic signatures are still not widely adopted and rarely usable in such systems.

Service providers shall also ensure the operation continuity and enforcement of information system collaboration requirements. As we have shown in chapter 4 and chapter 5 interoperability, i.e. cooperation between the various systems has particular importance in government information technology, as island-like systems have been developed, and over time the demand of integration has increased fairly. Negative impact of island-like development is still being felt in the area of interoperation. The continuity of operation, as one of the main requirements for IT security, including disaster and business continuity planning, is an important feature for large government databases, where data loss could and would be catastrophic.

Data transmitted to the central system profiling (analysis of user habits, personal information and direct access to meaningful case data) is not allowed according to these regulations. Compliance is ensured with the central system operator by means of technical solution. Profiling, one of the most challenging privacy issues in recent years is declared to be prohibited by a principle in Ekszt., and the information system must ensure this technically (e.g. through Privacy by Design technologies).

Use of remote services requires a face-to-face pre-registration or an equivalent measure and given that a significant number of electronic public services are administrative procedures, they need proper identification. Personal appearance and identification means a registration in governmental offices or registration by electronic signature.

Authenticity, quality, operational security and confidentiality of the data processed in electronic public services operate under the Central System must comply with defined rules. Here the act refers to Government decree no. 223/2009. (X. 14.) about the security of electronic public services. In that the requirements and procedures were determined in sections from 11 to 32. Requirements set out in the Act are detailed in the following regulations:

- Government decree 223/2009. (X. 14.) on the security of electronic public services;
- Government decree 224/2009. (X. 14.) on the central electronic system service's recipient identification and authentication services;
- Government decree 225/2009. (X. 14.) on electronic public services and their use;
- Government decree 78/2010. (III. 25.) on requirements of electronic signatures in administration and certain rules for electronic communication.

There was a bill on information security in 2009, which never came into force, but had a remarkable impact on the area. [13] The proposal was a draft legislation framework, a so called *lex specialis*.

The bill's scope was all IT systems and services in the Republic of Hungary, including private computers. It was applied to the operators and users, also.

According to this information systems are to be divided into 5 separate security levels. One of the factors of the grouping was storage of personal data. The groups were as follows:

- Level 1: home computer networks and individual computers connected to the Internet;
- Level 2: information systems used by every legal relationship between employer and employee, internal IT network, limited internal access non-public electronic communications services or internal network or individual computer capable to use public electronic services;
- Level 3: any public electronic services that do not handle, store, process or transfer personal identifiable information, including anonymous registration service;
- Level 4: organization providing public electronic services, application service provider and its public electronic services, regardless to personal data processing; any public electronic services that handle, store, process or transfer personal identifiable information;
- Level 5: critical infrastructure sector's computer system, closed-circuit, and public electronic network or services and information technology.

One of the most interesting questions is the mandatory audit required at level 4–5 as a means of control. According to the original intention this control would have been conducted by audit firms which are accredited previously by the National Accreditation Body for Certification Activity. Creators of the legislation could not specify whether that responsibility belongs to management systems or product certification.

Most importantly, the social impact of the law would have been significant, at least because of its wide scope. Critics had said there was lack of audit control in level 1 to 3, which made it a redundant regulation. In contrast to that, the legislation could have set the level of security requirements under other laws, because of its *lex specialis* character. For example, in Criminal Code Section 423 *adequate protection* is required in the case of hacking, but it was not defined earlier. The new law might have given meaningful content to it, and by doing so increasing legal certainty.

Developed Stage

Government Decision 1035/2012. (II. 21.) on Hungary's National Security Strategy requires the strengthening of the security of electronic information systems to enhance the protection of critical national information infrastructure, and the development of adequate cyber defense.

Stemming from this statement of the National Security Strategy, the Government adopted a National Cyber Security Strategy of Hungary as well. [14] The legislator took the view that recently experienced cyber wars worldwide justify the coding of a modern Hungarian Information Security Act and on 25th April 2013 a huge milestone was passed for the administrative control of information, when Act L of 2013 on electronic security of state and local government organizations was published.

The scope of the act, despite its title and scope definition in Section 2, is significantly wider than it seems to be, [15] mainly because of the following extensions: data processors of national data assets, European critical infrastructure system elements, national critical infrastructure system elements, as defined by law. These bodies can significantly extend the scope (even with private companies), so typically the public utility providers, electronic communications services, financial organizations could be included. An itemized list has not been published at the time of writing this manuscript. However, this broadening of scope might increase security in other sectors: financial security and payment transactions are also high risk areas. [16: 331]

The law prescribes the essential items known as the CIA triad in information security field: [17] confidentiality, integrity and availability as information security requirements in electronic information systems and data. The Act requires the integrity and the availability of information systems in a closed, complete, consistent way, proportionate to the risks for the electronic system and components. It is important to explicitly include the security control implementation's proportionality to risks and usage of risk assessment in the state information security requirements, because security measures are typically implemented in an ad hoc manner, to minimize security budgets.

In order to protect electronic information systems and data, proportionally to the risks, the Act states that the electronic information systems must be allocated to particular security classes. This classification is based on confidentiality, integrity and availability properties in a scale of 1 to 5 where 5 is the highest security level. From this section of the Act it seems that each part of CIA factors (confidentiality, integrity and availability) has to be evaluated separately, but in other parts of the Act we do not find this distinction.

Although the security classification depends primarily on the security classification of information, the law, in contrast to the earlier bill, does not specify what minimal security controls should be applied to data. In contrast, in Section 9 (2) it determines the minimum security level classification for a variety of organizations. This probably will have the consequence that the security needs of data will not be evaluated, instead it will be adjusted to the security levels according to the minimum-list, since the public sector tries to invest as little as possible in security. According to the Act Section 7 para 5, in *exceptional circumstances*, the manager of the organization may set a lower security class, which is another easier way to avoid spending on security. The only thing that can stop this expected downward bidding

is the strictness of National Electronic Information Security Authority based on Section 9 para 4. The authority is formed by Act Section 14 para 1.

The minimum grades in the Act per organizations according to Section 9 para 2:

- Level 1: no organizations (no requirements at this level);
- Level 2: Office of the President, Office of the National Assembly, the Constitutional Court's Office, Office of the Commissioner for Fundamental Rights, local and national self-governmental bodies, the administrative authority associations;
- Level 3: central state administration bodies, the National Judicial Office, courts, prosecutors' offices, the State Audit Office, National Bank of Hungary, the capital city and county government offices;
- Level 4: Hungarian Defense Forces;
- Level 5: data processors of national data assets, European critical infrastructure system elements, and national critical infrastructure system elements, as defined by law.

As we mentioned earlier the law does not define what these security levels are, or how should the classification be conducted and what the detailed rules for the levels are.

According to Section 11 para 1 (c), the head of the organization is obliged to appoint a person in charge of the electronic information system security, who is responsible for tasks related to the protection of electronic information systems. The list of tasks includes responsibilities of a conventional chief information security officer (CISO). Its name and definition suggesting that this person exempts the head of the organization and its employees from their security related task, but this must not be the case.

The Act set up the National Electronic Information Security Authority under the Ministry of National Development. As a specialized authority, National Security Authority deals with forensic log analysis and vulnerability testing. The existing Government Computer Emergency Response Team (GovCERT) responsibilities were handed over to different authorities. According to Section 23 the National University of Public Service develops training for those responsible for the security of electronic information systems and staff organizations.

In 2015 the legislator made a revision of the act. [18] Multiple terms and the scoping were corrected, the assignment of the security level, rules regarding authority and incident management procedure were changed. However the largest change was the unification of incident handling authority, so the Government Incident Response Team under the Special Service for National Security has taken back the event handling responsibilities.

Consequences

The article showed the major issues of information security with historical background. It also showed the trend of more definite legal regulation, even with inception of technical standards in legal regulations. Due to the wide range of important legislation in the long-term wide social effects and improvement of information security awareness are expected. Probably the standard-based (e.g. ISO 27001 or COBIT) systems will multiply, given the fact that the organizations will already comply with the security rules. This trend is also perceptible in Hungarian legislation, which was also detailed in the article with the alignment of national cybersecurity strategy. This had three phases until now: early strategies and legislation of 1989–2008, Interim transition strategy of 2009–2012, and the latest, developed information security strategy from 2012. This last one passed a huge milestone in 2013, when the

Hungarian Act L of 2013 on Electronic Security of State and Local Government Bodies was introduced, which is already being applied and revised.

This change in strategy and regulations will result in greater security and the national security risk in the area of information and communication technologies will decrease in the long term. The Act is a good step in the direction of the appropriate level of government information security, but it still provides loopholes from the application of the rules.

References

- [1] KÖPECZI B. (Ed.) et al.: *Az embergéptől a gépemberig*. Budapest: Minerva, 1974.
- [2] KITA, C. I.: J.C.R. Licklider's Vision for the IPTO. *IEEE Annals of the History of Computing*, 25 3 (2003), 62–77.
- [3] SASVÁRI P., NEMESLAKI A., RAUCH, W.: Old Monarchy in the New Cyberspace: Empirical Examination of Information Security Awareness among Austrian and Hungarian Enterprises, *AARMS*, 14 1 (2015), 63–78.
- [4] GORGE, M.: Cyberterrorism: hype or reality? *Computer Fraud and Security*, 2 (2007).
- [5] NETANJAHU, B.: *Harc a terrorizmus ellen*. Budapest: Alexandra, 1995.
- [6] TIEFENBRUN, S.: A semiotic approach to a legal definition of terrorism. *ILSA Journal of International and Comparative Law*, 9 2 (2003), 358–402.
- [7] HAIG ZS., KOVÁCS L.: New way of terrorism: Internet- and cyber-terrorism. *AARMS*, 6 4 (2007), 659–671.
- [8] SZÁDECZKY T.: IT Security Regulation and Practice in Hungary. In. POROSZLAI Á. (Ed.), *Proceedings of the New challenges in the field of military sciences 2010*. Budapest: ZMNE, 2010.
- [9] *Hungarian Act CXII of 2011 on informational self-determination and freedom of information*.
- [10] JÓRI A.: *Adatvédelmi kézikönyv. Elmélet, történet, kommentár*. Budapest: Osiris Kiadó, 2005.
- [11] DEDINSZKY F.: *Informatikai biztonsági elvárások*. Budapest: MeH-EKK, 2008.
- [12] *Hungarian Act LX of 2009 on electronic public services*.
- [13] MEH: *Draft of act on information security*, Budapest: MeH, 2009.
- [14] *Hungarian Government decision 1139/2013. (III. 21.)*.
- [15] MUHA L., KRASZNAY Cs.: Kibervédelem Magyarországon: áldás vagy átok? *HWSW online*, 5026 (2013).
- [16] CSER O.: The Role and Security of Money from the Aspect of Cyber Warfare. *AARMS*, 14 3 (2015), 331–342.
- [17] *Hungarian Act L of 2013 on Electronic Security of State and Local Government Bodies*.
- [18] *Amended by Hungarian Act CXXX of 2013*.

Military Application of Multi-Criteria Decision Making

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Which is the most appropriate military device for the army based on user interest? This is a frequently asked question. In this paper I will show two methods that can help to select the best one based on the Decision Maker or the user interest and point of view.

Keywords: *military device, decision theory*

Introduction

In this paper I will show an application of a special class of the Decision Theory, this is the Multi-Criteria Decision Making (MCDM). [1] [2] The aim of this study is to describe how the MCDM functions in the military field. The application of MCDM is shown by a case study.

I selected five types of Anti-Tank Missiles (ATM) for the evaluation, and I also selected two MCDM approaches that seemed to be applicable. Using these two models two comparisons were carried out and two rankings were achieved.

I show the appropriate application of MCDM through these case studies, including the criteria hierarchy, the weighting and the calculating of the overall scores.

The MCDM is a special class of the Decision Theory and it has special properties. The most important characteristic of MCDM is the multiple point of view of the Decision Maker. The Decision Maker has a special aim to achieve, but there are many modes of achievement. This is the basis of the decision problem. The task of the decision maker is to choose the best way to achieve his aim but the decision maker's aim is complex. He not only wants the best solution but he wants an optimal solution where the advantages and the disadvantages of the course of actions are balanced. Let me take the example of buying a car. A car has many properties, for instance speed, fuel consumption, size, trunk, ergonomics, aesthetics, safety and so on. The decision maker not only wants the speediest car but he wants a car that has optimal characteristics based on the decision maker's interest. The optimal solution can fulfil the decision maker's complex aims with better quality than the others.

The process of the MCDM consists of the following steps:

1. Identification of the decision problem;
2. Identification of the Decision Maker's aims;
3. Gathering the alternatives;
4. Definition of criteria;
5. Weighting of criteria;
6. Selection of the proper MCDM model;
7. Application of the selected MCDM model;
8. Estimation of results.

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Identification of the Decision Problem

On one hand, the ATM with Infrared Homing (IH) guidance system was applied successfully and effectively in the last decade in Iraq and in Afghanistan. On the other hand, there are great numbers of Anti-Tank missiles with Wire guided Semi-Automatic Command to Line Of Sight (WSACLOS) guidance systems in service in the European armies and its manufacturers have upgraded many WSACLOS ATM systems.

There is a huge difference between these systems. The IH ATMs have great effectiveness at very high cost; the WSACLOS ATMs have a lower cost but they also have a relatively medium or unknown effectiveness in comparison with the IH ATMs.

Identification of the Decision Maker's Aims

The Decision Maker wants to know which is the most appropriate solution including the effectiveness and the cost together. Therefore he wants to compare the following systems:

- Infrared Homing Anti-Tank Missiles;
- Upgraded WSACLOS Anti-Tank Missiles;
- Conventional WSACLOS Anti-Tank Missile.

Gathering the Alternatives

Five ATMs were selected for the comparison. In order to avoid the impression of commercial advertising, the manufacturers of the ATMs and the types cannot be named. Two IHs and two upgraded WSACLOSs and a conventional WSACLOS system were selected, they are: IH 1; IH 2; UW 1; UW 2; CW 1.

Definition of Criteria

The main criteria are always complex and may be broken down into lower levels called sub-criteria, and if it is necessary the sub-criteria may be broken down too until the sub-criterion can be measured objectively or subjectively. Therefore these criteria always form a hierarchy. Building up this hierarchy is a complex task and it takes a lot of time and experience. Therefore I selected a finished one that contains the [3] source. Figure 1 shows the criteria hierarchy.

Weighting of Criteria

There exist two kinds of models for the weight calculation: the objective and the subjective. The objective methods based on the dispersion of the alternative's values which belong to the same criterion but they need a lot of data. The subjective methods are based on a pairwise-comparison and they need experienced experts, therefore I use [3] source's weight, that is shown by Figure 1.

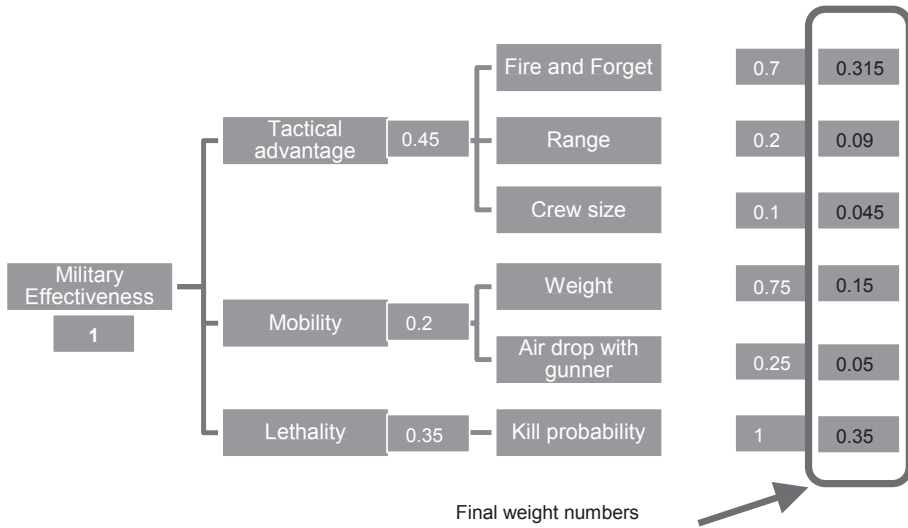


Figure 1. Criteria hierarchy. [3]

Selection of the Proper MCDM Model

The MCDM models have different characteristics, therefore to select from them is a MCDM problem too. The most important points of view in the selection are the following:

- laws;
- goals of the Decision Maker;
- properties of alternatives;
- available sources (founding, experts);
- available data.

The most important aim of this paper is to show how the MCDM functions in the military field, therefore I have selected two models for the comparison, the PROMETHEE [4] and the TOPSIS. [1]

Application of the Selected MCDM Model

Application of PROMETHEE

Computation of Preferences Degrees for Every Pair of Alternatives on Each Criterion

The PROMETHEE uses preference functions but the function's variables are not the alternative's value but the difference between two alternative's value based on the same criterion, therefore this model scores the differences. Equation 1 shows the preference function and Table 2 shows the ATMs' weight and Table 3 shows the calculated preferences among the alternatives based on the Weight criterion.

$$p(a, b) = \begin{cases} 0 & |d \leq q \\ d - q / p - q & |q < d < p \\ 1 & |d \geq p \end{cases} \quad \text{Eq 1}$$

where p : preference degree; p, q thresholds; d : differences between the alternative's value.
Source: [1]

Table 1. Weight of the ATMs (to be minimized). [Source: author's own work]

IH 1	UW 1	CW 1	UW 2	IH 1
22,3 kg	36,7 kg	28 kg	35 kg	26 kg

Table 2. Preference degrees of weight criterion. [Source: author's own work]

	IH 1	IH 2	UW 1	CW 1	UW 2
IH 1		0.26	1	0.4	0.88
IH 2	0		0.74	0.14	0.38
UW 1	0	0		0	0
CW 1	0	0	0.6		0.49
UW 2	0	0	0.12	0	

The preference degrees are calculated with the Equation (1) using the data of Table 1. The threshold are 0 and 14.8 kg, and the differences are calculated with $d = -(a-b)$ because the weight is a minimized criterion where the smaller is the better.

Computation of Unicriterion Flows

Matrixes containing the preference degree are multiplied by their weight and these matrixes are added together. The positive flows are calculated by the sum of the aggregated matrix element of rows and the negative flows are calculated by the sum of element of columns. These are shown by Table 3. A rank can be interpreted by the positive and the negative flows. An alternative solution is better than the other, if the positive flow is better and the negative flow is smaller than the other.

Computation of Global Flow

The global flow is calculated by the positive flow minus the negative flow. It is shown by Figure 2 and Table 3 which is the result of the calculation.

Table 3. Unicriterion and Global flows. [Source: author's own work]

	Φ^+	Φ^-	Φ
IH 1	0.556	0.011	0.545
IH 2	0.518	0.021	0.497
UW 1	0.186	0.306	- 0.121
UW 2	0.053	0.438	- 0.536
CW 1	0.041	0.576	- 0.385

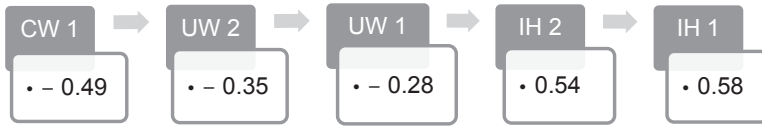


Figure 2. The result of PROMETHEE. [Source: author's own work]

Application of TOPSIS

Normalization of the decision matrix

There exist a lot of normalization methods, for instance: vector normalization, linear and non-linear normalization techniques. The TOPSIS method's most frequently used normalization technique is the following based on [5].

$$a_{ij} = \frac{|v_{ij} - T_j|}{\max\{\max_i v_{ij}; T_j\} - \min\{\min_i v_{ij}; T_j\}} \quad \text{Eq 2}$$

where: i^{th} alternative's normalized value based on j^{th} criterion

: a j^{th} criterion's target values

: i^{th} alternative's value based on j^{th} criterion

$i = 1 \dots 5; j = 1 \dots 6$

The normalized decision matrix is shown by Table 4.

Table 4. Normalized decision matrix. [Source: author's own work]

	FF i/n	Range [m]	Crew	Kill probability	Weight [kg]	Air drop y/n
IH 1	0.315	0.045	0.045	0.35	0.15	0.05
IH 2	0.315	0.045	0.045	0.35	0.111458	0.05
UW 1	0	0.09	0	0.291667	0	0
CW 1	0	0	0	0	0.090625	0
UW 2	0	0.018	0	0.291667	0.017708	0
PIS	0.315	0.09	0.045	0.35	0.15	0.05
NIS	0	0	0	0	0	0

Computation of positive and negative ideal solution

The TOPSIS defines a positive ideal solution (PIS) and the negative ideal solution (NIS) and both of them are virtual alternatives. The PIS contains the maximum element of each column of the normalized decision matrix and the NIS contains the minimum element of the normalized decision matrixes based on Table 4.

Computation of Distances

The TOPSIS uses Euclidean distances to measure the overall effectiveness of the alternative solutions with the following notes:

$$C_i = \frac{D_i^-}{D_i^+ + D_i^-} \quad \text{Eq 3}$$

where D_i^- distance between the i^{th} alternative and the NIS

D_i^+ distance between the i^{th} alternative and the PIS

The results are shown by Figure 3.

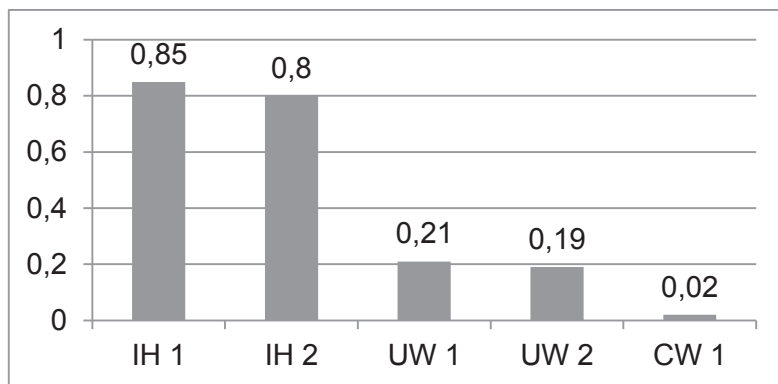


Figure 3. Result of TOPSIS. [Source: author's own work]

Summary

I got two results with the two different MCDM modes. The preference rankings are same on Figure 2 and Figure 3, but the differences between the UW1 and the UW 2 alternative solutions are small on Figure 3.

If we examine the processes of the solutions we can deduce the following:

- the models of MCDM are applicable in the military field, and the preference order among the military devices can be calculated;
- there exist numerous MCDM models with different characteristics and the different models need different decisions and estimations by the Decision Maker;
- in this case the two rankings were the same, but it does not mean that it is true in all cases;
- using different models can give different results with different information.

References

- [1] ISHIZAKA, A., NEMERY, P.: *Multi-Criteria Decision Analysis Methods and Software*. London: Wiley, 2013.
- [2] GYARMATI J., ZENTAY P.: Comparing Military Technology Devices With Multi-Criteria Decision Making and Solving Group Decision Problems. *Economics and Management*, 2 (2013), 30–36.
- [3] DRMEC: *The interim anti-tank missile*. Monterey: Navy Postgraduate School, 1992.
- [4] BRANS, J. P., VINCKE, P. H.: A preference ranking organization method. *Management Science*, 31 6 (1985), 647–656.
- [5] JAHAN, A., EDWARDS, K. L.: *Multi-criteria Decision Analysis for Supporting the Selection of Engineering Materials in Product Design*. London: Elsevier, 2013.

Weather Extremities, Challenges and Risks in Hungary

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Extreme weather events are demonstrating their effects more and more increasingly in Hungary due to global climate change. To be able to lessen damages and implement effective preventive measures, or eventually perform defense and a fast, complete relief project, we need to study these phenomena and explore their effects. Another important task is the scientific investigation of direct impact on environmental factors and humans, analysis of the results, using gained experience for preventative or if needed, remedial activities. With this article our aim is to draw attention to the importance of being aware of the extreme weather events and its effects. With this comprehensive knowledge, disaster management can elaborate appropriate responses for preventive and rescue challenges.

Keywords: global warming, climate change, extreme weather events, preventive action, remediation

Introduction

Negative impacts caused by global warming occur more and more, year by year in Hungary as well. Climate change in our country led to more frequent extreme weather conditions, causing more cases of destructive, stormy wind, deluging rain, snow storms and major temperature fluctuations. [1] However, these sudden weather changes cannot always be predicted, therefore it is difficult to prepare for the protection and mitigation of losses, thus damage prevention poses new challenges for professionals. Recently, these events have caused serious damage in several inhabited areas of Hungary, and tackling these consequences was a difficult, complex and expensive project. [2]

By analyzing the impact of weather extremities on natural and artificial environment and remediation efforts taken to mediate their consequences, we can conclude that more precise knowledge of these phenomena, preparation for damage elimination, and experience of organizations involved in loss prevention can provide useful basic information by different types of catastrophes.

The Consequences of Global Warming

Global warming is the increase in Earth's average temperature, consequently causing temperature increase of the oceans and air near the surface. In the past decades, our planet's climate has changed significantly, but even today the role of human interference is debated.

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Global temperature increase leads to environmental changes, rise of sea level, changes in quantity and geographical distribution of precipitation and extremities of weather conditions.

These phenomena have a significant impact on the productivity of agriculture. It has a major influence on the economy, reduces the gross domestic product of the countries concerned, and could affect its quality. [3] We should reckon upon drying of natural waters, melting glaciers, with floods, hurricanes and typhoons becoming more frequent, bigger and more devastating. Extinction rate of animal and plant species increases, while certain invasive species thrive that upsets ecological balance. Certain diseases spread more easily, more maladies thought to be “tamed” can reappear also as mutant variations. These changes might vary in different geographical areas. [4]

Data collected by the United Nations Intergovernmental Panel on Climate Change (IPPC) shows, that the average temperature of air near the surface has increased between 1905 and 2005 by 0.74 ± 0.18 °C. According to the Panel the main reason is the emission of greenhouse gases into the atmosphere from the middle of the 19th century onwards. These gases cause the warming of the troposphere, the lowest layer of the atmosphere. Researchers debate fiercely to what extent warming is caused by natural influence (increasing solar radiation, volcanic activity, changes in the Earth’s orbit), or by human activities. The most accepted studies, scientific consensus papers agree that global warming is due to human-induced changes.

This is supported by calculations, showing that solar and volcanic activities are presently working against global warming. Climate models adopted by IPCC show that the Earth’s surface temperature will increase approximately by 1.1–6.4 °C between 1990 and 2100. Although most of the studies calculate until 2100, warming can continue afterwards, sea levels can keep increasing even when emission of greenhouse gases stops, as carbon dioxide (CO₂) remains in the atmosphere for a long time. [5]

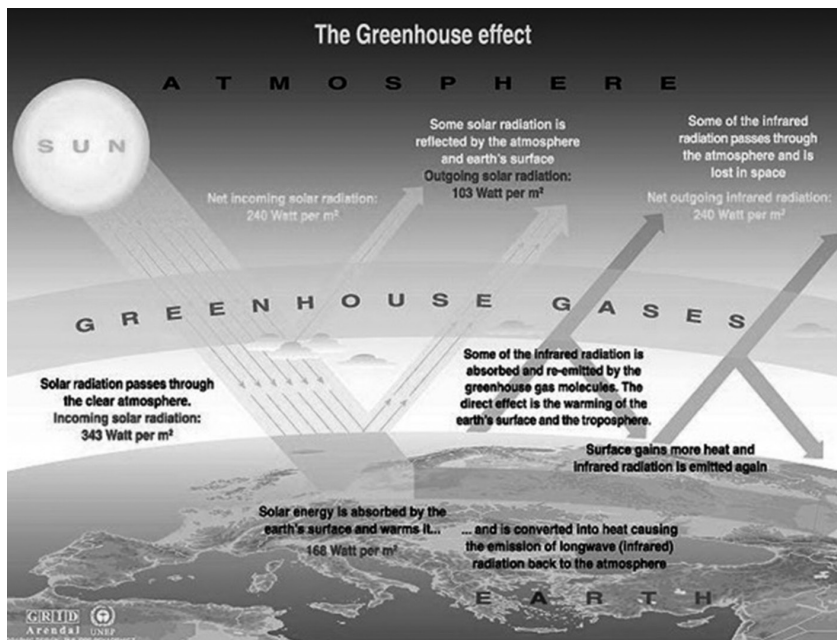


Figure 1. Overview of the Greenhouse effect. [5]

Manifestations of Extreme Weather in Hungary

Deluge

Meteorological forecast of weather extremities is not an easy task, so preparation for defensive actions is not simple. [6] As Hungary was flooded several times in the past years, we could study experience gained during fending off possible damages, which are the most important steps of remediation.

Violent rain is characterized by a huge amount of precipitation in a short period of time, when volumes overload the drainage system, and accumulating water inundates the grounds. Drainage can be facilitated and solved in most places by trenches and suction pumps, but in some low-lying areas the use of sandbags might be necessary. In most cases remediation is performed by units of professional organizations, but shortage of capacity and resources might need involvement of local governments in protective activities. [7]

Windstorm

In most cases windstorms can be predicted, therefore the public should be informed about preventive measures to decrease casualties. As windstorms have caused serious damage several times in the past few years in Hungary, experiences gained from the removal of damage, practical information and descriptions provide specific clues for future defensive actions.

The windstorm is characterized by longer or shorter periods of exerting its impact, it twists trees, breaks branches, tears off roofs, damages electric and telephone networks, can cause accidents on roads and railways. In most cases remediation is performed by units of professional organizations in full accordance with the required safety measures. [8]

Wind speed can be categorized as seen in the chart below.

1. Table: Wind speed. [8]

Category	Wind speed	
	m/s	Km/h
Doldrums	0	0
Light wind	1–3	4–11
Moderate wind	4–7	15–25
Brisk wind	8–11	29–40
Gale wind	12–16	43–58
Stormy wind	17–24	61–86
Strong stormy wind	25–32	90–115
Gale force winds	33<	119<

Heatwave

The European Commission's Green Paper, among many other factors, draws attention to the health-damaging effects of heatwaves. For protection of the citizens it is therefore extremely important to have a scenario in place for measures to be taken during heat alert.

Hungary's population includes a large number of highly endangered (vulnerable) groups who spend extended periods of time or stay permanently outdoors during heatwaves. During the summer season a lot of sporting events are organized in the larger cities of our country. We must take into consideration how outdoor sports events and other programs taking place during heatwaves can be managed without hazards to our health, how to protect those working in the open air, their fluid replenishment, relaxation in shadowed area, or attire during work. [9]

According to environment and environmental health considerations, those public utility and residential services will be prioritized, which influence not only the quality of the environment but also people's living conditions for the better or for the worse during heat.

Especially protected are drinking water bases, strategic drinking water reservoirs and pipeline systems, where operating companies provide good quality drinking water for the population. In case of power blackout during a heatwave, there is an average 2–3 hours shut-down, but still all customers are supplied. Prolonged heat can increase demand for energy, which might possibly lead to the implementation of restrictive measures.

As our country is a transit country, it is important during heat, that the threats to the transportation sector should not be overlooked. Even an emerging minor malfunction of railways can result in major disruption. Excessive heat can cause deformation of the trails, dilapidation of overhead wires and supporting columns. In case of temporary cessation of rail transport, train stations must accept travelers, while their onward journey is not warranted. During this time, their uninterrupted supply must be ensured. Several municipalities are affected by the highways and main roads as well. Persistently elevated daily average temperature can lead to higher incidence of accidents on the road sections concerned. Fluid supply for travelers trapped because of developing traffic jams should be provided. Public transportation company vehicles operate continuously even in prolonged high average daily temperatures. On newer vehicles air conditioning, on older models continuous ventilation and fans provide protection from the heat for the passengers. [10]

In most cases heatwaves can be predicted, therefore the public should be informed about preventive measures to preserve health.

Heat alert is a warning issued by meteorological services and the competent authorities because of above average temperature measurements and expected higher mean values. In Hungary, heat alert was introduced by the National Institute of Environmental Health and the Office of the Chief Medical Officer in 2005, and is part of the weather warning and forecasting system. [11] The heat alarm temperature values may differ from country to country.

- *Stage 1. (Information stage):* The condition of ordainment is that forecast, and daily mean temperature must exceed 25 °C for at least one day. At this stage, the National Public Health Service sends their information to county organizations. In this case local and regional authorities may inform the public about expected weather conditions through their own media channels.

- *Stage 2. (1st grade alarm)*: The condition of ordainment is that the daily mean temperature must exceed 25 °C at least on 3 consecutive days. For second-stage heat alert the National Public Health Service informs health institutions, ambulance services, GPs and local authorities about the extent and duration of the heat alarm. Thereafter it is the municipalities' task to warn the population and prepare protective action against heat-caused damages.
- *Stage 3 (2nd grade alarm)*: Its criterion is that the daily mean temperature must exceed 27 °C for 3 consecutive days. In this case, besides all second stage alarm measures, the public must be informed through the media about expected weather extremities and potential methods of preventing heat hazards.

National Weather Service codes for high temperature alarms:

- *Yellow alert*: Temperatures above 33 °C expected over larger areas
- *Orange alert*: Temperatures above 36 °C expected over larger areas
- *Red alert*: Temperatures above 40 °C expected over larger areas

Extreme Cold, Snow Storm

In most cases snow storms can be predicted, therefore the public should be informed about preventive measures to preserve health and mitigate damages. The blizzard is characterized by exerting intensity over shorter-longer time intervals and if coupled with long-term exposure to cold, it damages electric and telephone cables, is likely to create disturbances in district heating and drinking water services, can cause disruption, accidents on roads and railways. In most cases, damage repair is done by professional liquidator units, in cooperation with the law-enforcement bodies and military forces.

Prevention, Preparedness Related Tasks

Great emphasis should be placed on prevention, however there are disasters, which cannot be prevented (meteorological disasters), but fast, efficient and complex damage recovery can be prepared for, with planning of defense tasks for the sake of the cause. It is advisable to draw up an inventory of municipality owned machinery, tools needed for defense, which are available for local use. The lists are managed by local governments, and should be revised on an annual basis. Preparation can be facilitated by practical advice and assistance from professional disaster protection organizations. It is advisable to be prepared for damaged areas affecting several villages or large expansions, or when damage repair will be a long-term process. Effective defense is based on fast and comprehensive assessment of the nature of the damage, determining the extent and the sequence of actions needed in order to ensure effective remediation. It is important to prepare the members of the defense committees, as they have to take part in the defense. Inventory lists of existing forces and tools should be updated, so they can be made available in the shortest possible time.

General Defense Tasks

In some extreme cases, when rapid intervention is unavoidable (large areas, multiple zones are affected by catastrophic situations, the professional units cannot begin salvaging within

a short time frame), the control process should be conducted, arrangements for transporting listed forces and tools to the location and summoning the defense committee should be done. Planning and implementing a complex remedial operation is a compound task. [12]

When issuing alarm for protective actions, it is reasonable to include replacement resources, as staff shortage due to a variety of causes could occur and should be calculated with. Alarmed forces and tools should be directed to the appointed assembly point, a place preferably in the vicinity of an actual worksite. They should be briefed about all aspects of the job to be done, expected duration, and an on-the-spot manager should be appointed, whose name, telephone number should be recorded, and this person should have all important details needed for continuous contact. In case of need, relevant institutions, neighboring municipalities should be contacted about relocation, reception and accommodation issues. Those in need of constant medical care should be reviewed, medical coverage and per chance transfer should be provided for. Public utility providers should be notified. The president of the Defense Committee and disaster management organizations should be kept informed about all events at all times.

Communication Issues

During protective actions emphasis must be placed on correct information to the public, on appropriate communication. Crisis communication is the process when a security manager or designated person informs the concerned, the defined target groups in a timely, factual and well-suited form about the current situation.

This may take the form of written communication or personal speech. It could be a statement, a press conference, an announcement, briefing and interactive communication. The priority is media management. Media distorts. It is important to complete these distortions with relevant data, real and evidence-based information. [13]

Recommendations

In this article we collected, systematized and analyzed the most commonly occurring extreme weather events in Hungary, also the remedial experiences thus allowing formulating useful recommendations for future generations. Speaking as regards all phenomena, it is indispensable to comply with the statements in the official information and publications. It is also important to take place in remediation as a citizen, and to help the professional damage removal organizations, local government's activities. Furthermore, continuous assessment of the situation, analysis of the experience is as well a major task as a result to increase the effectiveness of protection work in the future.

Conclusion

Common feature of catastrophes is that they affect large areas and large number of people. Thus preventing them, preparing for remediation of the damages they cause, saving human lives and material matters, implementing the must-be-done immediate reconstruction works should be followed with raised attentiveness. Local governmental institutes play an important role in defensive actions against consequences of catastrophic events.

We have chosen the discussed topic as how the efficacy of actions to be taken against the damages caused by extreme weather conditions could be increased, that is an important current issue. We have highlighted the importance of prevention and preparation, and described situations of meteorological catastrophes occurring most frequently in our country, in a practical manner.

We hope to draw attention to elaborate preparation needed for protection from damaging effects of extreme weather conditions, the importance of informing the public, which are essential for effective remediation.

References

- [1] FÖLDI L., HALÁSZ L.: *Környezetbiztonság*. Budapest: Complex Kiadó, 2009.
- [2] KUTI R.: Extrém időjárási jelenségek kockázatai, a védekezéssel kapcsolatos önkormányzati feladatok. In: *Önkormányzati megoldások a hatékony működés jegyében, Complex-Figyelő Önkormányzati Konferencia*. Budapest, 2011. 11. 23., 1–25.
- [3] HALÁSZ L., FÖLDI L., PADÁNYI J.: Climate change and CBRN defense. *Hadmérnök*, VII 3 (2012), http://hadmernok.hu/2012_3_halasz_padanyi_foldi.pdf 42–49. (downloaded: 13 03 2015)
- [4] PADÁNYI J.: National defense research on the effects of climate change. *Hadtudomány*, 1 (2013), 30–40.
- [5] *IPCC Working Group 1 contribution, Science of Climate Change, Second Assessment Report*, 1996.
- [6] *Országos Meteorológiai Szolgálat honlapja*. (downloaded: 15 12 2014)
- [7] KUTI R.: Intézkedési program belvív-védekezési munkálatokhoz, *Védelem Online, Tűz-és Katasztrófavédelmi Szakkönyvtár*, 67 (2007), 1–12. (downloaded: 13 03 2015)
- [8] KUTI R., FÖLDI L.: Extreme weather phenomena, improvement of preparedness. *Hadmérnök*, VII 3 (2012), 60–65. http://hadmernok.hu/2012_3_kuti_foldi.pdf (downloaded: 13 03 2015)
- [9] KUTI R., FÖLDI L.: Extreme weather phenomena 2. The Process of Remediation. *Hadmérnök*, IX 2 (2014), 250–256. http://hadmernok.hu/142_23_foldil_kr.pdf (downloaded: 13 03 2015)
- [10] KUTI R.: Extrém hőség hatásai elleni védekezés önkormányzati feladatai. *Védelem Online: Tűz-és Katasztrófavédelmi Szakkönyvtár*, 495 (2014), 1–4. (downloaded: 13 03 2015)
- [11] *Állami Népegészségügyi és Tisztiorvosi Szolgálat honlapja*. www.antsz.hu/hoseghullam (downloaded: 20 03 2015)
- [12] KUTI R.: Komplex műszaki mentések tervezésének lehetőségei. *Védelem Online: Tűz-és Katasztrófavédelmi Szakkönyvtár*, 233 (2010), 1–7. (downloaded: 20 03 2015)
- [13] FÖLDI L.: Impacts of climate change to disaster management tasks with special emphasis on critical infrastructures. *Hadmérnök*, VI 3 (2011), 50–57. (downloaded: 20 03 2015)

Analysis of the Legal and Institution-Building Experiences Related to the Supervision of Dangerous Shipment

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The development of the Hungarian system for industrial safety has a history of 15 years. The aim of this article is to overview the measures related to the development of the legislative area for industrial safety in the field of dangerous goods transportation and draw upon the potential experiences of this progress.

Keywords: industrial safety; transport accidents; transportation of dangerous goods; disaster management.

Introduction – a Historical Overview

Hungary's geographical location is rather favourable, it plays an important role in the transportation to and from countries in the East and South. Transportation of a significant amount of dangerous goods takes place mainly by road, by rail, and increasingly by manageable waterways and by air.

International European Union legislation on the various modes of transportation are adopted into the legal system of Hungary. Around the turn of the millennium, EU legislation based on the international agreements on the transportation of dangerous goods (administered by UN European Economic Commission) were adapted in the national legal system. [1]

Even when the first disaster management act came into force in 2000, the prevention of transport accidents involving dangerous goods together with the quick and professional response to them in order to protect the citizens and the environment were considered significant tasks. Professional bodies of disaster management paid special attention to the constant development of human and technical conditions of prevention, preparedness and responses. [2]

The need for traffic safety and decreasing environmental impact despite the growing volume of dangerous goods transport is a justified social need. Therefore, regular and consistent inspections of related establishments, investigation of incidents as well as penalties for deficiencies and failures have become the main preventive tasks of the authorities.

Following the 2001 modification of the decree on the designation of the route of vehicles transporting dangerous goods by road, [3] disaster management bodies have been involved in the authority checks of dangerous goods transport by road. By adapting the EU legislation coming into force in 2002, the professional bodies of disaster management in cooperation with the supervisory authorities were provided with the power to check dangerous goods transport by road and the related establishments. In 2004 – after assessing 3 years of experi-

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ence – the need emerged to extend the power to check, which already included independent inspections and penalties as well. Disaster management requested for an extended power to check other modes of transport as well.

Disaster management has taken substantial steps to establish authority and enforcement institutions, to create the necessary human and technical conditions and to ensure unitary and effective application of law. Internal procedures, methodological guides and databases were created. Instruments of checks were developed. The personnel underwent training.

After its proposals for law modifications were approved, disaster management gained independent right to check and fine on 1st May, 2007. Development of this field gained momentum between 2007–2009, greatly supported by the income from penalties. By the end of 2009, disaster management had become a decisive element of checks on road transport of dangerous goods, recognised by other cooperating authorities. Extensive professional experience accumulated and excellent working relations were established with the partner authorities, consultant and interest organisations.

After the income from penalties came to a halt in 2010, the volume of checks slightly decreased until in 2011 it started to continue steadily. A system of cooperation between inspection authorities was established, coordinated by the transport authority. A crucial element of the development concept of disaster management was the extension of the right to check and fine dangerous goods transport by road to all modes of transport as part of industrial safety. By the end of 2011, the legislation was approved, the institution system of industrial safety was created, and the methodological, human and technical conditions were available.

After 1st January 2012, with the second disaster management act coming into force, the modifications in the acts on transport and the new inspection regulation created the legal background for disaster management to act as an independent authority in the following activities: check dangerous goods transported by rail, inland waterway and air, impose fines, investigate incidents and take measures to prevent emergencies.

Dangerous goods transported by rail and inland waterway have been checked by disaster management since 2012, while air transport since 2015. Keeping track of dangerous consignments is realised through the introduction of notification obligation.

The goal of this paper is to present a brief historical overview and a professional analysis on the legal changes regarding the disaster management supervision on dangerous goods transport, as well as the steady strengthening of the institution system. The experience related to the introduction of the implementing measures on the power of check and fine dangerous goods transport will be detailed in another paper.

Assessment of the Risks of Dangerous Shipments in Hungary

Dangerous goods transport is attracting more and more attention from the decision makers both in Hungary and in the European Union. Thus, the prevention of transport accidents involving dangerous goods and quick and professional response to them have emerged as a new challenge in order to protect the citizens and the environment. According to the figures of Ministry of the Interior National Directorate General for Disaster Management (MoI NDGDM), in 2012, in Hungary the volume of goods transported by road was 20 million tonne-kilometres, by rail 10 million tonne-kilometres, while by air 300–400 flights a year. [4]

Regarding the destination of the goods, we can differentiate between domestic and international transportation. Dangerous goods are present in road traffic (transported by road), on the railways, at freight stations, at border inspection posts, at railway facilities (transported by rail), on national and international waterways, at ports, at berths (transported by waterways) and at other related premises. When transported by air, dangerous goods are present in facilities where they are prepared for the flight.

Dangerous goods account for 19–20% of goods transported by rail. Compared to road transport, its great advantage is being more economical when goods are transported in bigger quantities for longer distances, while weather conditions and traffic risks do not have such a major influence as road transport. One of the crucial points of the EU railway policy is the gradual shift from road to railway transport because of environmental reasons. The majority of goods transported by rail are flammable liquids and gases and corrosive materials.

Experts' opinions differ on whether road or rail transport poses higher vulnerability on the local population. Rail transport is preferred on longer distances (over 200 km), whereas by road the transportation of the following materials is significant: flammable liquids and gases in tanks, pyrotechnic articles, medical waste, hazardous waste, industrial and LPG cylinders. Transportation of radioactive materials cannot be neglected either because of the special care they require. [5]

Transportation of highly flammable liquids accounts for the bulk of inland waterway transport.

Premises and establishments related to the transportation of dangerous goods can be divided into the following five groups in line with the methods of transport: road transport establishments; rail transport establishments; inland waterway transport establishments; air transport establishments; pipeline transportation establishments. [6]

Road transport establishments include warehouses storing dangerous goods in ADR² packages. Warehouses of major logistics importance can all be found in the agglomeration of Budapest. From this area any part of the country can be reached within 2–3 hours. Some of the warehouses require a licence of industrial safety, except combi terminals handling containers. Currently, there are 6 upper tier and 5 lower tier dangerous establishments in Hungary. [7]

Rail transport establishments are primarily the marshalling yards, which do not belong in dangerous establishments. According to the information of MoI NDGDM, altogether 14 stations were identified by MÁV (Hungarian State Railways) Ltd., the most important ones being in Ferencváros, Miskolc, Szolnok and Záhony. The other major type of rail transport establishments is the marshalling yards and rail sidings of establishments producing, processing and storing hazardous materials. Marshalling yards and rail sidings in the vicinity of dangerous establishments or below tier establishments pose a high risk. Rail sidings present a unique and considerable danger, as a great number of wagons are present without any physical protection or industrial safety supervision.

Road-rail intermodal terminals are either dangerous establishments or non-classified plants. When the containers are transferred, it is a common problem that safety is dependent

2 Formally, the European Agreement Concerning the International Carriage of Dangerous Goods by Road; is a United Nations treaty (1957) that governs transnational transport of hazardous materials. The abridgement ADR derived from the French name for the treaty: Accord européen relatif au transport international des marchandises Dangereuses par Route.

on the changing attitude of the foreign or Hungarian senders and the mechanical condition of the containers and the railway wagons.

Inland waterway establishments include loading and unloading establishments and ports handling dangerous goods.

As regards air transportation, dangerous goods warehouses on the territory or in the vicinity of the airports are considered by the disaster management authority, which do not present a major threat – compared with other methods of transport – given the relatively small quantity of goods.

Pipeline transportation establishments are subject to the legislation on the protection against major incidents involving hazardous materials.

The transportation of hazardous waste is given special attention from the viewpoint of dangerous goods transportation. In Hungary 4 hazardous waste disposal sites and 9 waste incineration plants are identified. [8]

Loading and unloading hazardous materials onto vehicles may be included among the dangerous activities, given the risk of spills. Vehicles transporting dangerous goods may stop or park in the vicinity of residential and frequented areas, which increases vulnerability. Damaged packaging may result in a release into the environment, which may happen by accident, but intentional acts cannot be excluded either. Serious risk is presented by any accidents that may occur during the transportation of dangerous goods. Equipment necessary for the response might not be readily available at the site, which leads to increased vulnerability of the environment. [9]

Development of the Legal Regulations on Dangerous Goods Transport

Special safety conditions of dangerous goods transport are laid down in the Hungarian legislation. Interstate (international) agreements bind us to observe them in international transport. The international standards are strict, yet very up-to-date. Rail, road, inland waterway (not sea) as well as sea and air transport have their own regulations regarding the transport of dangerous goods. Legislation adopted by the EU member states are based on international legislation.

The Committee of Experts on the Transport of Dangerous Goods of the United Nations Economic and Social Council (ECOSOC) sets the safety requirements for the transportation of the most common dangerous materials by every mode of transport. The requirements are updated and published every two years under the title of *Recommendations on the Transport of Dangerous Goods — Model Regulations*, also called as *Orange Book*. [10]

The first issue, published in 1957, included the criteria for identifying dangerous goods, packaging, labelling and accompanying documents. The UN Recommendations are not legally binding, but they provide a basis to develop requirements specific to the modes of transport. The UN Recommendations consist of two volumes: model regulations and criteria for tests.

The Committee of Experts recommends the up-to-date safety requirements for the governments and international organisations in charge of regulating the various modes of transport. These organisations are the following: United Nations Economic Commission for Europe (UN ECE) in road and inland waterway transport, Intergovernmental Organisation for

International Carriage by Rail (OTIF) in rail transport, International Maritime Organisation (IMO) in sea transport, and International Civil Aviation Organization (ICAO) in air transport.

International agreements on the transportation of dangerous goods have been concluded on each mode of transport on the basis of the UN recommendations:

- The European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) was done on 30 September, 1957, in Geneva, reviewed every two years. Hungary joined the agreement in 1979.
- Regulation concerning International Carriage by Rail (RID), appearing as Appendix C of the Convention concerning International Carriage by Rail (COTIF), was signed on 3 June 1999 in Vilnius, modified later. Its counterpart in Eastern-Europe is the Agreement on International Freight Transportation by Railways, currently in effect.
- Carriage of Dangerous Goods by Inland Waterways (ADN) was concluded on 26th May, 2000, in Geneva, modified later.
- Annex 18 of the Convention on International Civil Aviation is the Technical Instructions for the Safe Transport of Dangerous Goods by Air (ICAO TI). The agreement was proclaimed in Hungary by the Legislative Decree 25 of 1971, while the annexes by the Decree 20/1997. (X. 21.) of the Minister of Water, Transport and Communications. International Air Transport Association Dangerous Goods Regulations (IATA DGR) is widely used by airlines.
- International Maritime Dangerous Goods Code (IMDG Code) is in Chapter VII, Part A of the international agreement called International Convention for the Safety of Life at Sea (SOLAS). [11]

Based on legal experiences, in order to deal with practical difficulties encountered, legislation is repeatedly reviewed and periodically (usually every two years) modified in line with technical committee recommendations.

Directive 2008/68/EC of the European Parliament and of the Council on the inland transport of dangerous goods is adopted regarding the transport of dangerous goods by road, rail and inland waterway. Directive 95/50/EC on uniform procedures for checks on the transport of dangerous goods by road sets out requirements for the checks on road transport of dangerous goods.

National legislation is based on the adaptation of the regulations on the checks laid down in international agreements, in line with EU requirements. The authority's power to check is included in the laws specific to each mode of transport and their implementing regulations.

Between 1990 and 2007 the regulation on the designation of dangerous goods routes were applied, which made it possible for the affected authorities to monitor the movement of dangerous goods.

In 2005 public safety measures were added to the international agreements on the transport of dangerous goods (Chapter 1.10 of ADR, RID and ADN). Companies producing, dispatching, delivering or storing dangerous goods – along with other participants of the transportation – present a considerable risk to public safety, so they are obliged to prepare a security plan.

In line with the Ministry of National Development Decree 25/2014. (IV. 30.) on the safety advisor for the transport of dangerous goods, heads of companies engaged in the transport of dangerous goods by road, rail or inland waterway are entitled to appoint a minimum of one safety advisor in writing.

According to the road transport law, the transport authority, police, disaster management and customs authorities are entitled to check and impose fines regarding the transport of dangerous goods, the carrier, the road vehicle and its crew, the dispatcher of the goods, the temporary storage, the packager, the loader, the recipient and the appointment and qualification of the safety advisor.

The decree on the uniform procedures for checks on the transport of dangerous goods by road, coming into effect on 1st March, 2002, is considered a basic implementing regulation. In disaster management, its local authority is entitled to conduct checks. The local authority of disaster management may conduct independent checks on the area of another disaster management authority, with the prior consent of the central organ of the disaster management authority.

The checklist for inspections is specified in the annex to the decree. The authority may take samples of goods for laboratory examination. In the case of infringement, the authority imposes sanctions and immobilizes the vehicle, in line with a separate decree of fine.

The Act of 2011 concerning disaster management and amending certain related acts (Disaster Management Act), by modifying the laws on transport, created the legal background for disaster management to carry out independent checks on the transport of dangerous goods by rail, inland waterway and air as well, together with imposing fines and inspecting accidents. The implementing decree of transport laws was introduced in 2011 as well. [12] Companies involved in rail transport are subject to notification requirement to disaster management concerning their transport activities.

Based on the act on air transport, the implementing decree concerning the air transport of dangerous goods entered into force on 1st January, 2015. It covers the rules of authority checks and fines imposed by disaster management, empowering it with the licence to check, fine and to carry out on-the-spot actions related to air transport.

The local or regional bodies of disaster management may carry out independent checks on air transport of dangerous goods. The checks can be performed by them on the area of other disaster management authorities as well, with the consent of the central organ of disaster management.

Inbound dangerous goods shipment must be reported in writing to the regional body of disaster management by the handling personnel within three hours after the arrival. Dangerous goods to be dispatched must be reported by either the sender or the handling personnel three hours before forwarding the goods.

Inspection of incidents involving the transport of dangerous goods as well as assessing the related experience are of utmost importance. Inspection of incidents involving the transport of dangerous goods are primarily performed by disaster management mobile laboratories (DMML).

Constant Analysis of the Results of Institutional Development

The Department for Industrial Accident Response (DIAR – National Centre for Industrial Accident Prevention), subordinated to the MoI NDGDM founded on 1st January, 2000, was in charge of the tasks related to the establishment of the legal system, institution system, procedures and set of instruments connected to dangerous goods transport in Hungary.

County and capital directorates of disaster management (altogether 20) employed desk officers dealing with dangerous goods transport, who were in charge of organising and performing inspections and fines. Civil protection branch offices of local disaster management bodies were also involved in checks. Desk officers and employees appointed to conduct checks (2–5 persons/directorate) took courses run by MoI NDGDM, which qualified them as administrators for dangerous goods transport. Specialists from MoI NDGDM and regional bodies gained qualifications as safety advisors for the transport of dangerous goods. Desk officers took part in regular trainings and workshops once or twice a year in Balatonföldvár. Moreover, supervisors had to participate in centrally organised regional trainings – in response to the changing regulations.

Procedures for checks and fines were described in the internal regulations (provisions) of MoI NDGDM and regional bodies, modified every 2–3 years. Methodological guides on checks were annexed to these provisions.

MoI NDGDM provides specialists with several additional materials and publications to facilitate checks.

MoI NDGDM has good relations not only with other authorities, but it also cooperates with the operators' representative bodies.

An autonomous department for industry and transport, the Department for Industrial Accident Response and Supervision was created within MoI NDGDM on 15th September, 2003.

A database was developed by MoI NDGDM, called “Dangerous Goods Transport Information System”, in order to keep record of procedures. “ADR Statinfo” CD contributed to quicker, more simple, accurate and effective checks.

Ensuring the financial and technical conditions for the independent checks was a constant issue until the incomes from fines became available.

Annual reports were made and also published online on the activities of the disaster management authority until 2011. Since 2010, annual check plans were developed, coordinated by the National Transport Authority (NTA). The methodological guide for the authorities performing checks are based on the check manual of MoI NDGDM.

The relevant department was named the Department for Industrial Safety in 2010. In 2012, once the National Inspectorate General for Industrial Safety came into being, the Department for Dangerous Goods was established.

Within the structure of MoI NDGDM, the National Inspectorate General for Industrial Safety is subordinated to the Deputy General. Each field of speciality is controlled by the relevant department. At the regional level, the Disaster Management Authority Departments (20) are integrated into the capital and county disaster manager directorates, subordinated to the deputy director. They act in the first and second instance in official matters. Capital and county inspectorate generals for industrial safety are also present at the regional level. At the local level, disaster management authority departments of the Disaster Management Branch Offices (65) act in the first instance. At each Branch Office, an inspectorate is responsible for performing and coordinating tasks related to industrial safety. [13]

The regulation coming into effect in 2012 was preceded by two years of preparatory work, when the Disaster Management Act and its implementing decrees, together with the acts on road, rail and air transport were formulated thanks to the Department for Industrial Safety. Internal regulations of MoI NDGDM were also drawn up, containing the authority procedures and flowcharts, specimen documents and methodological guides. Specialists working

in disaster management or transport participated in trainings for inspectors of dangerous goods transport to familiarise themselves with the related legislation and internal regulations.

The National Inspectorate General for Industrial Safety, MoI NDGDM receives professional support from the Industrial Safety Advisory Council, MoI NDGDM as well as the Institute of Disaster Management (IDM), of the National University of Public Service (NUPS). The IDM of the NUPS was founded on 1st January, 2012. The new disaster management course was launched in the school year of 2013–2014, one of its specialisations being industrial safety for full-time and correspondent students. Industrial safety course material was included in the defence administration MSc. Starting from the school year 2016–2017, subjects will be available with their curricula focusing on actual industrial safety. At the Doctoral School of Military Engineering of the NUPS industrial safety specialists may launch research topics or subjects. [14] [15]

The courses on dangerous goods transport run by MoI NDGDM cover all modes of transport. The training for administrators for dangerous goods transport was launched in 2004, organised by MoI NDGDM. Training for other modes of transport were developed in 2011. The training plans of courses for inspectors of dangerous goods transport held at the Disaster Management Training Centre were based on the syllabus of MoI NDGDM courses. Authorities also employ supervisors qualified as safety advisors for the transport of dangerous goods. [16]

Until the end of 2011, regional Emergency Reconnaissance Teams were responsible for performing inspections on transport accidents involving dangerous goods. Since 2012, Disaster Management Mobile Laboratories (DMML), supervised by the National Inspectorate for Industrial Safety, MoI NDGDM, have been responsible for collecting, systematising and analysing data to assess the emergency and for identifying toxic or radioactive materials on the spot. Moreover, if needed, they participate in the coordination of decontamination. [17]

Conclusion

Regarding the transport of dangerous goods, it can be said that the presence of disaster management authorities in each mode of transport will continue to be a significant task, greatly contributing to increasing transport safety, thus public safety. Check results and also feedback from the society justify the need for disaster management to continue to act as an independent authority in checks on dangerous goods transport.

The activities of the disaster management authority connected to checks and fines on road underwent continuous progress between 2001 and 2012 and became a recognised field within industrial safety. Its supervision over dangerous establishments and shipments in 2010, demonstrating a high level of expertise, provided a basis for developing a new system of tasks and instruments of industrial safety.

Due to the legislation preparatory work and institutional development between 2010 and 2012, the industrial safety authority became more dynamic and stronger after 1st January, 2012. Since this date, coordinating the activities related to dangerous shipments is incorporated into industrial safety, empowered with more authority. Since early 2015, its activities extend to all modes of transport.

Developing the system of checks and sanctions covering every mode of transport was supported by experience gathered between 2001 and 2012, on legislation preparatory work and law application connected to road transport.

It can be concluded that the enforcement institutions are effective, and most of the personnel and technical conditions are granted. Industrial safety courses run by the Institute of Disaster Management, NUPS and trainings for inspectors run by the DMTC have become significant. Disaster management has a balanced relationship with partner authorities, interest organisations and safety consultant associations. Since 2012 the Safety Advisory Council, MoI NDGDM have been offering professional support to scientific activities, accompanied by the relevant department of IDM of the NUPS.

Currently, in Hungary checks on dangerous goods transport are performed by local bodies of disaster management in the total areas of regional bodies. Checks may be expected in road traffic (road transport), on the railways, at freight stations, at border inspection posts, at railway facilities (rail transport), on national and international waterways, at ports, at berths (waterway transport) and at other related premises. When transported by air, dangerous goods listed in the legislation can be checked when they are prepared for the flight. Moreover, local and regional bodies of disaster management are also entitled to act as an independent authority when checking dangerous goods that arrived by air but not forwarded directly by air.

Based on the assessment of road accidents, it can be concluded that the major cause of accidents are basically traffic violations or inattention, but occasionally infringements in goods handling also occur. Rail incidents reveal that their primary cause is leaking in loading and unloading fittings as well as the unsatisfactory technical conditions of tank wagons and the lack of their maintenance.

The overall conclusion is that, in accordance with the requirements of the EU, international organisations and the Hungarian government, the supervision of dangerous shipments in Hungary ensures the protection of human life and health, the environment and material property, thus contributing to public safety in Hungary as set out in the Constitution.

References

- [1] KÁTAI-URBÁN L.: Establishment and Operation of the System for Industrial Safety within the Hungarian Disaster Management. *Ecoterra: Journal of Environmental Research and Protection*, 11 2 (2014), 27–45.
- [2] KÁTAI-URBÁN L., VASS Gy.: *Kézikönyv a veszélyes üzemek biztonságsszervezésével kapcsolatos alapfeladatok teljesítéséhez. (Handbook for Implementation of Basic Tasks related to the Safety Management of Dangerous Establishments.)* Budapest: Nemzeti Közszoigálati Egyetem, 2014.
- [3] Council of Ministers decree No 122/1989. (XII. 5.) on the designation of the route of vehicles transporting dangerous goods by road.
- [4] KÁTAI-URBÁN L., VASS Gy.: *Kézikönyv: Veszélyes üzemek, tevékenységek és technológiák az iparban. (Dangerous Industrial Establishments, Activities and Technology.)* Budapest: Nemzeti Közszoigálati Egyetem, 2014.
- [5] HORVÁTH H., KÁTAI-URBÁN L.: Assessment of the Implementation Practice of Emergency Planning Regulations Dedicated to the Rail Transportation of Dangerous Goods. *AARMS*, 12 1 (2013), 73–82.
- [6] KÁTAI-URBÁN L., KISS E.: Inspection of the Transportation of Dangerous Goods by Inland Waterways in Hungary. *AARMS*, 13 2 (2014), 261–266.

- [7] KÁTAI-URBÁN L., SZABÓ Á.: Veszélyes áru raktárlogisztika iparbiztonsági szabályozási környezetének értékelése. (Analyses of the legal regulation on industrial Safety used in Dangerous Goods Logistics.) *Hadtudomány*, XXIV 1 (2014), 115–125.
- [8] KÁTAI-URBÁN L.: *Veszélyes üzemekkel kapcsolatos iparbiztonsági jog-, intézmény és eszközrendszer fejlesztése Magyarországon. (Development of Legal, institution and Implementation System related to the Dangerous Establishments.)* Budapest: Nemzeti Közszerológati Egyetem, 2015.
- [9] KÁTAI-URBÁN L.: *Handbook for the Implementation of the Basic Tasks of the Hungarian Regulation on "Industrial Safety".* Budapest: Nemzeti Közszerológati Egyetem, 2014.
- [10] FERENCZ M., KÁTAI-URBÁN L., KÖRTVÉLYESSY Gy., NEMESKEY K., SÁROSI Gy., SULCZ Á., SZENTES E., VASS Gy.: *Veszélyes áruk szállítása és tárolása. (Transportation and Storage of Dangerous Goods.)* Budapest: Verlag Dashöfer Szakkiaó, 2010.
- [11] SZAKÁL B., CIMER Zs., KÁTAI-URBÁN L., SÁROSI Gy., VASS Gy.: *Iparbiztonság I.: Veszélyes anyagok és súlyos baleseteik az iparban és a közlekedésben. (Industrial Safety I.: Dangerous Substances and Accidents in the Industry and Transportation.)* Budapest: SZIE Ybl Miklós Építéstudományi Kar, Tűzvédelmi és Biztonságtechnikai Intézet, 2012.
- [12] BOGNÁR B., VASS Gy., KOZMA S.: A BM OKF Országos Iparbiztonsági Főfelügyelőség szakterületeinek bemutatása. (Introduction of the Professional Fields of National General Inspectorate for Industrial Safety.) *Új Magyar Közigazgatás*, 5 6 (2012), 19–27.
- [13] KÁTAI-URBÁN L., VASS Gy., LÉVAI Z., HOFFMANN I.: Iparbiztonság Magyarországon. (Industrial Safety in Hungary.) *Védelem Online: Tűz- És Katasztrófavédelmi Szakkönyvtár*, 22 1 (2015), 549.
- [14] BLESZITY J., GRÓSZ Z., PÁNTYA P., KRIZSÁN Z.: A katasztrófavédelem szak oktatásának aktuális kérdései. (Actual Issues of Disaster Management Education.) *Bolyai Szemle*, 23 3 (2014), 7–13.
- [15] BLESZITY J., GRÓSZ Z.: Egyetemi képzések a katasztrófavédelem számára. (University Education of Disaster Management.) *Bolyai Szemle*, 22 3 (2013), 9–16.
- [16] ENDRŐDI I.: *Polgári Védelmi Szakismeret 1. (Civil Protection Special Knowledge 1.)* Budapest: Nemzeti Közszerológati és Tankönyv Kiadó Zrt., 2015.
- [17] ENDRŐDI I.: *A katasztrófavédelem feladat- és szervezetrendszere. (Task and Organisational System of Disaster Management.)* Budapest: Nemzeti Közszerológati Egyetem Vezető- és Továbbképzési Intézet, 2013.

Austrian Security Policy Documents – a Walk on a Tightrope between Neutrality and International Solidarity

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After achieving the Vienna State Treaty, Austria had to develop its security policy missing fundamental documents. The first main document was the constitutional law on neutrality, which was passed by the Austrian parliament on 26th October, 1955. Even before that, the Austrian defence law was approved on 5th September, 1955. Although Austria promised in the Moscow Memorandum to pursue a neutrality policy like Switzerland, the Austrian policy left this line by becoming a member of the UN in 1955. So the Austrian security policy started to walk a tightrope between neutrality and international solidarity because of her UN membership and membership in other organisations like EU or NATO Partnership for Peace (PfP) later on. This essay emphasizes the steps of amendments, which were made in the Austrian constitution and her policy during almost 60 years with respect to international security policy and Austrian participation in international operations. The aim of this essay is to point out the new understanding of international solidarity of “neutral” Austrian policy.

But it is necessary to stress the main points of neutrality and what that meant in international security policy from a legal point of view.

Keywords: Austria, neutral Austrian Security Policy, Austrian contribution to peacekeeping

Introduction

The status of neutrality was defined within the “Land Warfare Regulations” which were signed during the Conference of The Hague 1899, and confirmed in the Conference of The Hague 1907. Therefore neutrality in general exists only in wartime and the practice of neutrality policy was formulated following the policy Switzerland had practised since the end of the Napoleonic Wars and that kind of practise was granted by the Treaty of Versailles 1919. Following the Land Warfare Regulations of 1899 the main points of neutrality policy are:

1. A neutral country cannot take part in war.
2. A neutral country cannot allow foreign troops to use its territory in any case.
3. A neutral country cannot help any parties in a conflict.
4. A neutral country has to defend its own territory. [1: 14]

Pursuing those principles, neutrality policy means to make sure, that on the one hand a state has to avoid any act, which could lead to an involvement in a conflict. On the other hand,

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a neutral state can act in a conflict, but it has to make sure that all parties to a conflict or even a war have to be handled equally. Therefore, it is impossible for a neutral state to be part of a defence or common security organisation.

Another difference, which has to be pointed out at the beginning is the difference between neutrality and neutrality policy. *Neutrality means a general behaviour of a country towards any possible situation in security threats.* Neutrality policy on the other hand emphasises concrete acting in a certain security environment and/or situations relevant to security issues.

This essay deals with Austrian neutrality policy with respect to its membership in international organisations, the amendments of its legal framework pursuing the consequences of its membership in international organisations dealing with security issues, and the Austrian policy taking part in international operations.

Originally, there was only one type of neutrality, *neutrality in wartime*. Within the last 90 years rules and types of neutrality developed and therefore today there exist the following types of neutral countries: [2: 23]

- a) permanent neutral countries like Switzerland or Austria;
- b) traditional neutral countries related to international law or non-alignment; that non-alignment can be practised also in peacetime, being neutral in war time, like Sweden or Finland did after 1955;
- c) neutralistic, non-alignment, or active peace-making countries like India, Egypt, Ghana, Yugoslavia did in the 1950s.

But during the last 60 years, some additional types of neutrality like “active” or “realistic” neutrality were introduced. But in general, a neutral country has to stand aside from all wars and to make sure that it does not support one side in a conflict. But there is no international written law on how to practise permanent neutrality policy, but a permanently neutral country should practise a policy in advance like a neutral country does during a current conflict. [3: 55] Therefore permanently neutral countries like Austria and Switzerland have to pursue a security policy in peacetime in a way so they can withstand a conflict in the neighbourhood or anywhere in the world without being involved. If a country undertakes the obligation to be neutral in all future conflicts, then that country has to make it clear that it will not fight against anybody or support any party to the conflict. That obligation ends if a country is attacked and has to defend itself. [4: 93]

The article is structured into four parts:

1. Austrian neutrality policy from 1955 to the end of the 1960s.
2. Active neutrality policy during the 1970s up to the end of the “Cold War”.
3. Struggling for Integration: Austrian EU-membership and membership in NATO PfP.
4. Muddling Through: Austrian Security Policy after the Financial Crisis.

In the end, results and recommendations will be formulated.

Austrian Neutrality Policy from 1955 to the End of the 1960s

As it was mentioned above, Austria left the path pursuing the Swiss model by becoming a member of the UN at the end of 1955. The UN Charter describes the UN as an *all-inclusive Organisation* “...to maintain international peace and security, and to that end: to take effective collective measures for the prevention and removal of threats to peace, and for the suppression of acts of aggression or other breaches of the peace...” [5: 8] Therefore, the

articles of the UN Charter allow taking compulsory measures towards any “peace breaker”. All member countries have to co-operate in preventing and suppressing threats to the peace and acts of aggression. Nobody is allowed to be neutral towards a country, which is a “peace breaker” in the eyes of the Security Council (SC) or the General Assembly (GA).

At that time, a debate started in Austria (and internationally) whether or not the UN and its bodies have to be aware of the neutrality policy of certain members and act according to this status. The Austrian member of the international court at The Hague, Alfred Verdross, presented the following thesis:

“Austria has become a UN member as a neutral country, so the UN and its bodies have to be aware of this status. In other words, neutrality law beats UN law.” [6: 90]

Later on, this thesis was called “Verdross Doctrine”. Pursuing that thesis, even each measure, passed by the UN SC, had to be passed autonomously by the parliament of a neutral country. During the Rhodesian crisis that policy was pursued by all European neutral countries.²

The Austrian defence law, passed by the Austrian parliament on 5th September, 1955, listed only three tasks for the Austrian Armed Forces:

- a) protection of the borders;
- b) protection of constitutional institutions and maintenance of order and security in general;
- c) assistance in the case of natural disasters or accidents of extraordinary dimension. [7]

No assignment for international operations was foreseen at that time. Some main principles followed this practice, and were laid down as the Austrian Neutrality Policy by Foreign Minister Leopold Figl in 1959. He listed the following points of Austrian neutrality policy:

- a) supporting the right of self-determination for peoples, understanding among nations, law and justice, civil and human rights, basic liberties, and the practical implementation of these principles;
- b) hosting international organisations and agencies;
- c) strengthening international co-operation;
- d) cultural exchange. [8: 293–303]

There was no intention of participating in or conducting international operations, despite the fact that such operations had been going on in Korea, Kashmir, or Palestine since 1948. Looking back from today, the only kind for such an amendment of Austrian neutrality policy could have been the point “strengthening international co-operation” in Figl’s principles of 1959.

But in August, 1960, the Secretary General (SG) of the UN, Dag Hammarskjöld, made a request to the Austrian government for a contribution of Austria to the UN operation in the Congo. Foreign Minister Kreisky was aware of the fact that there was no legal background to participate in international operations. He was convinced that a positive feedback to the UN request will have a positive impact on the international reputation of Austrian policy. A week later the request was approved by the Austrian Council of Ministers (ACM). It is remarkable that a main argument in favour of participation in the mission was a foreseeable reduction of the Austrian membership fee to the UN. [9] When Austria started to take part in international operations, *no governing Austrian Acts of Parliament existed*. Austrian soldiers had to sign

² Austria, Finland, Ireland, Switzerland, and Sweden

a special contract to participate in the international operation in the Congo (1960–1962). It is remarkable that there was no discussion on the accordance to neutrality in Austria. The reason maybe was that Switzerland had taken part in an international operation following the Korean War in 1953, so it was a proven practise for neutral countries.

In 1964, Austria participated in a second international operation on Cyprus. Therefore, it became necessary to establish a national law for conducting international operations. That need was supported or even urged by a verbal note of the SG of the UN. This note said that it would be helpful to have a national legislative procedure to conduct international operations. [10: 181] On 30th June, 1965, the Austrian Parliament passed a constitutional law [11] to conduct international operations. Following this constitutional law, the Austrian government was only allowed to conduct international operations with the approval of the Main Committee of the Austrian National Council. Secondly, a request of an international organisation was necessary and the Austrian government had to respect the requirements of permanent neutrality. A remarkable feature of this law was that any international organisation could request a contribution to its operation. In the law neither the type of aid nor the type of international organisation (neither NATO nor the Warsaw Pact could have done that) was fixed.

In Austria, the government also worked on a general Defence Doctrine. By a decision of the ACM on 11th May, 1965, the cases of threat were defined as:

1. *Crisis as a result of international tensions and threat of conflict;*
2. *Neutrality in case of war in the region;*
3. *Defence after an attack on Austria.*³

It was remarkable that “international operations” were not mentioned in that doctrine, despite Austria having taken part in at least two international operations before 1965. After defining the threats, it took an additional ten years to pass the Security doctrine.

During this period, Austria participated in two international operations, the operations in Congo (ONUC) from 1960–1962 and the operations in Cyprus (UNFICYP) from 1964 to 1972⁴ only with medical personnel. In 1960 and 1964, armed troops were denied by the government for neutrality reasons.⁵

For a neutral country another major problem is how to handle sanctions, mandates or measures passed by the SC. The first time this happened was during the South Rhodesian crisis in the 1960s. In the year 1966 the SC imposed economic measures following the unilateral declaration of independence of South Rhodesia. [6: 61] The SC informed all countries, whether or not they were members of the UN that they had to obey the measures towards South Rhodesia. Austria answered that it would examine each decision of the SC or GA on its own to decide whether or not to follow the measures. The Austrian parliament passed, some days later, a move by the government to implement measures towards South Rhodesia which

3 1. Krisenfall als Zustand internationaler Spannungen und Konfliktgefahr, 2. Neutralitätsfall mit einem Krieg in der Nachbarschaft und 3. Verteidigungsfall bei einem Angriff auf Österreich, in Bayer Richard, Die Geschichte der Umfassenden Landesverteidigung, Vom Staatsvertrag bis zur Wende, *Schriftenreihe der Landesverteidigungsakademie*, 2 (2008)S, 12–13. (Sonderpublikation)

4 In 1972, the contingent was extended to an armed battalion. The medical centre was withdrawn in 1976. The battalion was opened to other nations in the 1990s: Today, Austria participates in that operation with four staff officers.

5 In both cases Austria was asked to send armed troops by the UN SG, but for neutrality reasons only medical and postal personnel was granted.

were like the measures passed by the SC – it was a move to show independence, but at the same time to act in solidarity with and according to the Verdross doctrine. Austria mentioned in its reply to the UN that Austria would conduct the same measures as the SC but only under a national law because of its neutrality.

To summarize, Austria conducted a policy of solidarity within the UN by participating in UN operations (with unarmed contingents) and pursuing UN SC measures by autonomous decisions. It is remarkable that in 1964, Sweden insisted that at least one additional neutral country should take part in the operation for it to send her troops also. So this mode of neutrality policy has also been handled by the other European neutral countries until the end of the Cold War.

Active Neutrality Policy during the 1970s up to the End of the “Cold War”

After Bruno Kreisky became Chancellor in Austria he started to develop a new kind of neutrality policy, he called it “active neutrality policy”. Even though the concept of this kind of policy had been thought of in 1955, Bruno Kreisky defined it as a concept. The main instruments of this policy were: [12: 807–808]

- a) active policy within international organisations;
- b) foreign policy initiatives;
- c) offering “good duties”;
- d) offering diplomatic negotiations and conferences;
- e) offering as a site of international organisations;
- f) strengthening of international law;
- g) blaming violations of international law.

It was a fact that the active neutrality policy of Bruno Kreisky was favoured by the international policy of détente during the 1970s, which brought a window of opportunity for small and neutral countries. As a first step in the direction of active neutrality policy Austria extended her contingent to UN Cyprus operations (UNFICYP) by armed troops on 3rd May, 1972. Previously, the Austrian diplomat Kurt Waldheim was elected UN SG and took over this post on 1st January, 1972. In 1972, Austria applied, and was elected, as a non-permanent member to UN Security Council (UN SC) for a first period, 1973/74. During those two years, Austria went, additionally, into UNEF II⁶ operations, which were transferred to UN Disengagement Observer Force (UNDOF)⁷ operations in 1974.

During his chancellorship, Bruno Kreisky started a lot of diplomatic initiatives like the diplomatic offensive towards Eastern Europe, the “fact finding missions” to Israel and the Palestine Liberation Organisation, or the initiative towards the Arab Countries and the OPEC (Organization of the Petroleum Exporting Countries), the last one decided to install its site in Vienna. Austria was one of the founding nations of the CSCE/OCSE (Conference on Security and Cooperation in Europe/Organisation on Security and Cooperation in Europe) and Vienna has been also one of the cites of CSCE/OCSE from the very beginning.

6 UN Expeditionary Force to separate Israeli and Egypt armed forces after the Yom-Kippur-War.

7 Austria withdrew her troops in 2013 as a result of the Syrian civil war and because of the imprecise mandate to handle this situation.

But during that phase, the domestic affairs also developed. For instance, the National Defence Plan was written and brought to a decision in that time. To write a comprehensive defence plan or doctrine started shortly after the independence of Austria. Originally the Swiss model was pursued and in 1965 the threats for Austrian security were defined as follows: [13: 6–8]

1. Crisis as a result of international tensions and threats of conflict.
2. Neutrality in case of war in the region.
3. Defence after an attack on Austria.⁸

A working group was installed and ten years later, in 1975, the Austrian constitution was amended by article 9a, which contemplated “comprehensive national defence”. But although the Austrian Armed Forces (and also Forces of the Ministry of Interior) had participated in international operations for approximately 15 years, the Austrian legislative had not thought about an additional article to legalize international operations at that time. Late in 1977, the Constitution was amended again, integrating international operations as a task for the Austrian Armed Forces. So 17 years after the first Austrian participation in an international operation – and 12 years after a law to conduct international operations, such tasks were formally legalized for the Austrian Armed Forces by the Austrian parliament, amending the Austrian Constitution

In 1983, the Comprehensive National Defence Concept was passed by the Austrian Parliament and it is still in force in Austria, supplemented by the *Security Doctrine* 2001, the Comprehensive Security Provisions 2006, and the *Security Strategy* 2013.

Again, the legal basis in Austria followed her proven practise: Austria went into international operations – and a certain number of years later, the responding laws were passed by the parliament. From the point of view of Austrian neutrality policy practice, there were the following changes during the period of “active neutrality” policy:

- a) participating in international operations by armed troops;
- b) making policy to achieve armistices, even in more dangerous operations;
- c) extending international policy by achieving a high post in international organisations (e.g. UN SG, etc.);
- d) extending to UN cite in Vienna;
- e) applying for a domicile of other or new international operations (UN, Organization for Security and Co-operation in Europe [OSCE], IAA, OPEC, etc.);
- f) starting negotiations with “outlaws” of the international community (Palestine Liberation Organization [PLO], Muamar al Gaddafi, etc.);
- g) extending good duties “all over the world”.

To summarize that period, Austria went into different international operations, legalized her participation in international operations on a constitutional level, was member of the UN SC, nominated for the UN SG for two periods, started a certain number of diplomatic initiatives and extended the international site of Vienna.

8 1. Krisenfall als Zustand internationaler Spannungen und Konfliktgefahr, 2. Neutralitätsfall mit einem Krieg in der Nachbarschaft und 3. Verteidigungsfall bei einem Angriff auf Österreich. [13: 12–13] (Sonderpublikation)

Struggling for Integration: Austrian EU-Membership and Membership in NATO PfP

After the Austrian 1986 elections the internal situation changed. The “Era Kreisky and his active neutrality policy” was definitely finished. The new Foreign Minister, Alois Mock, chair of the Austrian Peoples Party (APP), *reoriented the security and foreign policy back to European affairs*. [13: 822–823] He promoted “realistic” neutrality policy that meant from his point of view: to stay away from international conflicts, if possible. On the other hand, the new Minister of Defence, Werner Fasslabend, orientated *the Austrian Armed Forces towards international operations* by forcing e.g. language training. The Austrian economy got more and more interwoven with the European Economic Community (EEC), which was developing dynamically in that time. Simultaneously, the Austrian economy suffered from the crisis, which aimed especially at the industrial sector of Austrian economy. Therefore, especially the APP, favoured a membership in the later European Union and NATO as well. Consequently, the Austrian Ministerial Council decided to apply for membership on 29th June, 1989, and Foreign Minister Alois Mock handed over the application for membership to the EEC to the French Presidency of the European Council, Foreign Minister Roland Dumas on 17th July, 1989; only a few days before the historical 1989 change happened in Europe. The member states of the EEC were worried about the neutral status of the new applicants (Austria, Finland, and Sweden) and so they urged for a clear statement from these countries concerning their security and defence policy in the future. During the negotiations from 1993 to 1994 the three countries had to abandon the reservation of neutrality. The EEC demanded from the three countries assurances that after their accession to the EEC these states would execute a future Common Foreign and Security policy (CFSP), which appeared only as a thought in the Treaty of Maastricht in 1992. [14: 87] Therefore, in the accession treaty Austrian neutrality was not mentioned any more. This development meant a clear departure from the previous line of Austrian neutrality policy back to the route of a core neutrality policy, which meant neutrality in case of war. Sweden and Finland decided to declare that they would not be neutral any more. They explained that they will act for the future like non-aligned States.

The change of 1989, the fall of the Berlin Wall and the Iron Curtain, brought a window of opportunity to a lot of European countries. The breakdown of the Soviet Union in 1991, gave freedom to the Eastern European countries under former USSR overlay, and to some of its former republics. The implication on Austrian security policy was an orientation to European integration and a change of neutrality practise. Later on, the later Austrian chancellor Wolfgang Schüssel described the Austrian neutrality policy after 1995 with the following proverb: “*Austrian foreign policy will be solidarity within the European Union (EU) and neutrality outside of it.*”

But there was another change in Austrian neutrality policy in those days. On 2nd August, 1990, the Iraqi Armed Forces invaded neighbouring Kuwait. Because Kuwait had only a weak army, the Iraqi Armed Forces occupied the “19th province of Iraq” within days. The day the occupation started, the UN SC – including the neutral member Finland – passed resolution 660 condemning the occupation, and called for immediate withdrawal and negotiations. On 29th November, 1990, the UN SC authorized all nations co-operating with the Kuwaiti government to use all means to implement Resolution 660, unless Iraq implemented

the resolution fully on or before 15th January, 1991 (Resolution 678).⁹ Austria granted over-flight rights following Resolution 678 for all airplanes of the coalition, again together with a reservation of neutrality. Switzerland closed its air space for military planes for reasons of neutrality, an important difference to Austria's position. [6: 70–72] On 16th January, 1991, the air strikes started, and on 24th February, 1991, the ground attacks began from Saudi territory. The attacks were so successful that the Iraqi government surrendered on 3rd March, 1991.

The implication of the liberation war in Kuwait was for Austrian neutrality policy: Austria left the Verdross Doctrine and moved to a new policy concerning UN SC measures, the later so-called “*Ermacora Doctrine*”:¹⁰ “UN SC measures are to be implemented because they can be seen as police actions and therefore they have no impact on the Austrian neutrality law.” [6: 92–94]

With other words: *UN law beats (Austrian) neutrality law*. Additionally, the Austrian Federal Government decided on 6th November, 1990, to annul articles 12 to 16 and article 22 paragraph 13 of the Vienna State Treaty,¹¹ and to notify thereof the signatory states. France agreed, the US signalled their approval for the Austrian point of view and Great Britain and Russia¹² did not have any objections to it either.

As a result of the end of the Cold War and the liquidation of the Warsaw Pact, NATO enlarged its organisation and founded NATO Partnership for Peace in 1994. It is a bilateral co-operation programme between NATO and individual states to enhance cooperation peace and humanitarian operations. After an internal discussion the Austrian Foreign Minister Mock signed membership to NATO PfP on 10th February, 1995. Following this treaties, Austria participated for the first time in NATO-led UN operations, the Implementation Force (IFOR)/ Stabilisation Force (SFOR) operations with a logistics contingent in 1996.

After the accession to EU and NATO PfP, it was necessary to pass an Austrian constitutional law to deal with the new situation. 1997, the Austrian parliament passed the law on solidarity and co-operation, which legalized operations and training together with other countries in Austria and abroad. The Treaty of Amsterdam was signed by the Heads of States and Governments on 2nd October, 1997. [15] After the ratification procedure it came into force on 1st May, 1999. By that treaty the WEU became a core part of the EU. Also the Petersberg Tasks, which were developed and passed by the Heads of States and Government of the WEU in June, 1992, were integrated into the European Common Foreign and Security Policy (CFSP) and European Security and Defence Policy (ESDP). In view of that integration the Austrian Constitutional Law had to be amended by inserting a new article (Article 23f). This article was necessary to make sure that Austria could conduct all operations included in the Petersberg Tasks. The Petersberg Tasks [3: 35] covered:

- a) humanitarian operations;
- b) search and rescue operations;

9 „Bundesregierung sich dabei von der wachsenden internationalen Solidarität und Mitverantwortung unter Wahrung der Verpflichtungen und Grundsätze leiten lassen wird, die sich aus dem Bundesverfassungsgesetz über die immerwährende Neutralität und der Neutralitätspolitik als stabilisierendem Element der europäischen Ordnung ergeben.“ <http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/575/28/IMG/NR057528.pdf?OpenElement> (downloaded: 02 04 2011)

10 Felix Ermacora was an Austrian expert on international law and the first expert in Austria to state the supremacy of the UN Charter.

11 These articles concerned restrictions on military weapons (e.g. rockets) and certain relations to Germany.

12 Russia stepped into the rights of the USSR with respect to the Vienna State Treaty.

- c) peace-support operations;
- d) peace-making operations including peace-enforcing operations.

During that time, a big debate started in Austria between the leading political parties (the Social Democrats and the People's Party) on the future security policy. The People's Party favoured a possible NATO membership as a further option. The Social Democrats strictly opposed that option. In 1998, an options report concerning the future security policy failed caused by that antagonism.

As we know, the UN had always suffered a lack of troops which could be deployed within a short time. Early in the 1960s the UN SG U'Thant asked the neutral countries to earmark troops for that purpose. Upon that demand the Nordic battalion, composed of Sweden, Denmark and Norway was founded and earmarked. In Austria, in 1966, a battalion was raised. It was called and designated a UN training battalion, but it was never deployed. In 1994, the time had come to raise a force in accordance with the recommendation of the UN SG Kofi Annan. The UN created a data base for all troops that could be deployed on a mandate of UN SC, the "United Nations Standby Arrangement System" (UNSAS). [16] On 15th December, 1996, Austria, Canada, Denmark, The Netherlands, Norway, Poland and Sweden founded SHIRBRIG – Standby High Readiness Brigade, which had its headquarters near Copenhagen. The Nordic battalion was integrated into that brigade. It is remarkable, how far neutral countries went, earmarking own troops for international (peace support) operations. Austria contributed to SHIRBRIG mainly by deploying Officers and NCOs for the headquarters. SHIRBRIG was dissolved by 30th June, 2009, mainly caused by the new EU Battle Group Concept and the NATO Response Forces Concept.

The next step in international operations was to participate in a *UN peace-making operation*. It was also NATO-led and started in 1999. Yugoslavia had been constituted by Josip Broz Tito, the founder of the state after WWII, in 1974, by uniting five republics (Croatia, Macedonia, Montenegro, Slovenia, and Serbia) and two autonomous regions of Serbia (Kosovo and Vojvodina). The idea to establish these two regions was to strike a balance between the nations of Yugoslavia. That was based on experience after WWI. There had been strong tensions between the Serbs and the Albanian population during the 1980s, but after suspension of the autonomy by Slobodan Milosevic the Albanians of Kosovo organised an underground movement and wrote their own constitution in 1992. On 24th May, 1992, elections were held in Kosovo but Serbs did not recognize them. Because of the ongoing suppression of the Albanians in Kosovo an underground army (Ushtria Clirimtare e Kosoves – UCK) was established and began a resistance struggle. The Serbian counter-insurgency operations led to more fighting and after some heavy clashes in autumn 1998, the Serbian police and military forces began to expel the Albanian people.¹³ On 10th January, 1999, the Serbian forces were accused of perpetrating a massacre at Racak. The negotiations of Rambouillet¹⁴ failed in February, 1999, and in the aftermath the expulsion of the Albanian people intensified, NATO decided to start air attacks on the Serbian Forces and Belgrade. After two months of bombing, Belgrade withdrew its troops from Kosovo and a NATO-led UN-mandated protection Kosovo Force (KFOR) were established. [17: 417–420] The genesis of the KFOR operations was

13 The Serbian politicians argued that the situation in Kosovo was an inner-state problem of Serbia. UN SC resolution 1199 spoke of violence towards the Albanian people in Kosovo.

14 Between the US, Great Britain, Germany, France, Italy, and Russia on the one side and Serbia on the other side.

as follows: Early on 15th February, 1999, Austria was asked if it would participate in a UN operation. There was a decision by the AMC on 9th March, 1999, and after the formal request of the UN SG on 9th June, 1999, the decision was immediately implemented. On 14th June, 1999, it was decided to send an infantry battalion with an approximate strength of 450–500 troops. The Austrian Contingent had certain difficulties to integrate and to fulfil all tasks. The first contingent had certain restrictions in the mandate given by the Austrian government because of Austrian neutrality. The second contingent's mandate was extended, so the contingent could at last fulfil all necessary tasks. The Austrian contingent is still a mechanized battalion with APC and even some long range weapons, but no tanks at all. It was the first time, an Austria contingent had to fulfil combat tasks as well as peace support tasks.

After the Austrian 1999 elections, the political situation changed gravely. The Austrian Peoples Party formed a coalition with the Austrian Freedom Party. One result was that the options report was transferred into a security doctrine, which was passed by the Austrian parliament on 12nd December, 2001. [18] The main points were:

- a) Key-role of the UN concerning peace and international security; Austria participates in Peace Support Operations up to brigade-level;
- b) Full support of the CFSP;
- c) Enhanced cooperation with NATO PfP;
- d) UN-Charter beats neutrality law;
- e) Full participation in European CFSP.

In 2001, the US and the coalition forces attacked the Taliban regime in Afghanistan. The region was secured by the troops of the winning coalition, partly based on a UN mandate. The force was called the International Security Assistance Force (ISAF) in Afghanistan. After the European Council's meeting in Copenhagen in December, 2001, it was clear that every country of the EU would participate in the operation. The Austrian Council of Ministers decided on 10th December, 2001, to contribute a contingent of approximately 70 troops. The mission was passed by the main committee of the National Council in consensus with all parties and there were no discussions at all. It was a NATO-led operation. In the following year, Austria reduced her troops, remaining only some staff officers until the end of the operation in 2014.

To summarize, this period was characterized by major changes in the Austrian security and neutrality policy:

- a) Membership in the European Union with full participation in the CFSP;
- b) Cooperation in the NATO PfP concerning the full range of Petersberg operations;
- c) Full participation in SHIRBRIG;
- d) Conducting measures of the UN SC automatically;
- e) Neutrality only in cases, if there were no EU or UN decisions;
- f) Offering good duties with respect to EU interests;
- g) Intensifying domicile-policy for international organisations.

Austria went her way from "active" neutrality to a certain kind of "limited" neutrality and enhanced solidarity.

Muddling Through: Austrian Security Policy after the Financial Crisis

After the Austrian 2006 elections the coalition was formed again by Austrian Social Democrats and the Austrian Peoples Party. The majorities in the Austrian National Council for the coalitions decreased caused by new parties like Alliance Future Austria, Team Stronach or NEOS. For a long time, the coalition had quarrels concerning security and defence policy; at the moment these differences seem to be clarified, but on a low level caused by the budget restrictions.

But let us start in the year 2008. The government decided to participate in a new operation, led by the EU. The operation was connected with the situation in Darfur, the western part of Sudan. Because of intertribal rivalries and religious differences, thousands of people fled from Darfur across the green border into Chad and the Republic of Central Africa (RCA). But even there the refugees were not safe, because paramilitary troops, for instance the Janjaweed, persecuted them. Additionally, drought and crop failures led to starvation among the refugees. The situation escalated in 2007 and even the NGOs could not work without being threatened. To improve that situation the UN SC passed a resolution following chapter VII UN-Charter on 25th September, 2007, concerning the permission to the EU to deploy troops to avoid violence and help against starvation of the people. [19] On 23rd October, 2007, the European Council of the EU passed the decision to conduct the operation European Union Force (EUFOR) Chad/RCA under the mandate of the UN SC. That procedure was according to the *European Security Strategy* (ESS) of December, 2003. On 7th November, 2007, the Austrian Council of Ministers passed a decision to participate in EUFOR Chad/RCA with up to 160 troops for a limited time. In January, 2008, the troops mainly consisting of Special Forces were deployed and came under fire immediately. After the rebels were driven back by French Forces, the international force took over the tasks. Within a year, the operations had calmed the situation and the EUFOR was transformed into the United Nations Mission in the Central African Republic and Chad (MINURCAT). The Austrian contingent was transferred from Special Forces to Logistics. It was the first time, Austria went into an international operation with Special Forces. The EUFOR was a big success, both coalition partners agreed on.

The next on the agenda was to rewrite the Austrian security doctrine, under the new name Austrian Security strategy. The process started in 2010, but it was stopped by a debate on the conscript system, which started in Austria shortly before the day of election of the Vienna Provincial Parliament in October, 2010. From that day on, the coalition partners were in discussion whether or not professional armed forces should be introduced in Austria. Because the coalition partners could not find a solution, there was a vote on 20th January, 2013. The results were 59.7% conscript army and civil service versus 40.3% professional armed forces. [20] The new MoD, Gerald Klug, got the task, to improve the conscript system and to make it more attractive for the young soldiers. On the other hand, the armed forces had to suffer budget restrictions caused by the new regulations after the financial crisis. In July, 2013, the Austrian security strategy [21] was passed by the Austrian parliament. The Austrian security policy was subdivided into three levels:

1. the national level;
2. the European level;
3. the international level.

The national level includes comprehensive security provisions, domestic security, defence policy; civil-military co-operation, diplomacy and international site policy. The European level encompasses Justice and Interior, CFSP, policy related to the results of the Councils of European Union. The international level comprises security of interior, foreign security including UN policy, NATO PfP, OSCE, and international operations. It also stresses the new cyber threats and cyber defence.

The main tasks of the Austrian Armed Forces are:

- a) guarantee full state sovereignty and integrity;
- b) protect the constitutional institutions and the critical infrastructure;
- c) protect the population, also in the area of disaster relief;
- d) support the national capacity to act in strategic crisis situations;
- e) contribute to the management of crises as an expression of solidarity;
- f) make a military contribution to EU security endeavours in the spirit of solidarity.

In the end of the strategy, the criteria for a participation in international operations are defined as follows for a first time:

- a) the extent to which the particular situation affects the security of Austria;
- b) European solidarity and the importance of the respective activity for the security of the EU or Europe;
- c) international solidarity and the importance of the respective activity for global security;
- d) the impact participation will have in terms of Austria's position in the organisation in question;
- e) the geographical location of the mission in question;
- f) the availability of suitable Austrian forces in the civil and military sectors;
- g) the financial burdens resulting from participation.

Working on that, in 2014 the Austrian Defence Strategy [22] was passed by the Austrian parliament on.

It defines the Austrian Armed Forces tasks. They have to be able to fulfil tasks to stabilize situations up to robust operations for a certain time frame. Besides that, the Austrian Armed Forces participate in a certain number of peace operations with a maximum of 1200 troops. Also the regions for operations are defined, namely the Balkans, The Black Sea Region, The Middle East, and Northern Africa down to the Sahel Region. Pursuing those tasks the Austrian Armed Forces support EU, UN, OSCE, and NATO operations by troops and staff personnel. But on the other hand, Austria had to reduce her international ambitions from brigade to battalion level.

In the meantime, the Austrian Armed Forces have participated in the United Nations Interim Force in Lebanon (UNIFIL) operations in Lebanon, and ended UNDOF operations caused by the implications of the civil war in Syria.

Within the approximately last five years, Austria tried to make a policy concerning the CFSP. There was only little room for neutrality policy. The financial crisis brought budget restrictions also for security policy and the Austrian Armed Forces. The Arab spring crisis and the Ukrainian crisis had big implications on the Austrian neutrality and solidarity policy. There is only less room for neutrality policy any more. So Austria backed the sanctions of the EU towards Russia. Austrian Foreign Minister Kurz mentioned at the height of the IS crisis that Austria will join the alliance against IS supporting the Kurds in their struggle to survive. [23]

Results and Recommendations

Today this dynamic point of view describes how, usually, in security affairs a (strictly) neutral country acts like someone who jumps on the bandwagon. [24: 121] During the 60 years of Austrian independency after WWII, Austria (and almost all other European neutral countries) developed her neutrality policy to “*limited*” *neutrality*, which means:

- a) Neutral countries can be members of all UN organisations and sub-organisations, but UN-Charter beats neutrality law. If there are measures against “peace breakers” the neutral country also has to conduct them.
- b) Neutral countries can take part in international operations up to robust peace enforcement fulfilling an UN SC mandate.
- c) Austria (as Finland, Ireland, and Sweden) is a member of the European Union and takes part in the whole scale of CFSP, but pursuing EU decisions Austria is not neutral any more.
- d) Neutral countries can take part in NATO PfP in the full scale of trainings and operations.

In 1955, there was no legal framework in Austria (or elsewhere) on how to live neutrality and solidarity within the UN. Austria developed her legal framework usually after practical steps. The constitution was amended several times, new constitutional laws to participate in international operations had to be passed, and strategic documents had to be written and to be passed by the parliament. Today the security and the defence strategy are documents to give a framework for decision makers whether or not Austria should conduct international measures or operations.

Caused by the Austrian memberships in EU and UN, there is only a very small corridor for neutrality policy any more. So it would be more honest for Austria to make clear that her policy is now *more a militarily nonaligned than neutral*. But that decision suffers from internal reasons.

References

- [1] VERDROSS, A.: *Die immerwährende Neutralität der Republik Österreich*. 2. wesentlich erweiterte Auflage, Wien: Österreichischer Bundesverlag, 1966.
- [2] ORVIK, N.: *Sicherheit auf Finnisch, Finnland und die Sowjetunion*. Stuttgart: Seewald Verlag, 1972.
- [3] HAUSER, G.: *Das europäische Sicherheits- und Verteidigungssystem und seine Akteure*. 4. völlig überarbeitete und wesentlich erweiterte Auflage, Wien: BMLV, Landesverteidigungsakademie, 2008.
- [4] STOURZH, G.: *Geschichte des Staatsvertrages 1945–1955, Österreichs Weg zur Neutralität*. 3. Auflage, Graz, Wien, Köln: Styria, Staatsvertrag, 1985.
- [5] INTERNATIONAL COURT OF JUSTICE, UN: *Die Charta der Vereinten Nationen mit Völkerbundsatzung IGH-Statut und zwei UNO-Resolutionen*. 7. neu bearbeitete Auflage. München: Verlag C. H. Beck, 1979.
- [6] HANDL, M.: *Die immerwährende Neutralität Österreichs*. Wien, 2001.

- [7] *Federal Law Gazette*, 181 (1955), 21st September, 1955.
- [8] FIGL, L.: Die Diplomatie der Neutralität. In: BRAUNIAS K., STOURZH, G.: *Diplomatie unserer Zeit*, Graz, Wien, Köln: Styria, 1959.
- [9] ZECHA, W.: Der Einsatz des Österreichischen Bundesheeres im Tschad, Reflexion zur Einsatzentscheidung. *ÖMZ*, 1 (2010), 64–68.
- [10] SCHMIDL, A. E.: *Blaue Helme – Rotes Kreuz*. Innsbruck, Wien, 1995.
- [11] *Federal Law Gazette*, 173 (1965), 933–934.
- [12] KRAMER, H.: *Strukturentwicklung der Außenpolitik (1945–2005)*. <http://homepage.univie.ac.at/vedran.dzihic/kramer-10.pdf> (downloaded: 26 12 2014)
- [13] BAYER, R.: “Landesverteidigungsplan”. *Die Geschichte der Umfassenden Landesverteidigung. Vom Staatsvertrag bis zur Wende*. Wien: Landesverteidigungsakademie, 2008. (Sonderpublikation 2/2008/S.)
- [14] LUIF, P.: *On the Road to Brussels, The political Dimension of Austria's, Finland's and Sweden's Accession to the European Union*. Braumüller, Laxenburg: Austrian Institute for International Affairs, 1995.
- [15] <http://eur-lex.europa.eu/de/treaties/dat/11997D/htm/11997D.html#0092010003> (downloaded: 23 08 2011)
- [16] ROSENZOPF, G.: *Das war SHIRBRIG*. www.shirbrig.dk (downloaded: 17 10 2010)
- [17] TRUPPENDIENST: *Militäroperationen und Partisanenkampf in Südosteuropa. Vom Berliner Kongress zum Ende Jugoslawiens*. Wien: Astoria, 2009.
- [18] www.parlament.gv.at/PAKT/VHG/XXI/NRSITZ/NRSITZ_0087/fnameOrig_114529.htm (downloaded: 27 04 2009)
- [19] UN SECURITY COUNCIL: *Resolution 1778 (200)*. 25 September, 2007.
- [20] www.wien-konkret.at/politik/direkte-demokratie/volksbefragungen/wehrpflicht (downloaded: 05 01 2015)
- [21] www.bundesheer.at/wissen-forschung/publikationen/beitrag.php?id=2506 (downloaded: 05 01 2015)
- [22] www.bundesheer.at/wissen-forschung/publikationen/publikation.php?id=710 (downloaded: 05 01 2015)
- [23] www.parlament.gv.at/PAKT/PR/JAHR_2014/PK0891 (downloaded: 05 01 2015)
- [24] KERNIC, F., HAUSER G. (Hrsg.): *Handbuch zur europäischen Sicherheit*. Frankfurt am Main, Berlin, Bern, Bruxelles, New York, Oxford, Wien: Peter Lang Frankfurt, 2005.

One of the Basic Questions of Warfare: The Levels of Control of Airspace

CSENGERI János¹

In my essay I present the conceptual appearance of the levels of the control of the air, from the early 2000s until present day. As a result, from present day on we can be familiar with some new ideas about the possession of the airspace and we may use new concepts. I submit the framework of fighting and achieving control of the air and demonstrate through some questions the problematic ideas and thoughts about air dominance.

Keywords: *control of the air, air dominance, air superiority, air supremacy, counter-air operations*

Introduction

During my work at the university, at the presentations about the air force operations of military officers who return to the school bench in order to finish their qualifications (besides many other things) the question of the dominance over the airspace continuously arises, which topic results in many debates. Due to only the wide-spread world view of these days, nota bene, that the fight for the dominance of the airspace means the first phase of warfare, it (falsely) entails the conclusion in the presenters that the corps of the air force is above the ground forces or the navy. In my opinion, this conclusion is not correct. In the following paper it will turn out that this activity is accomplished indirectly in the interest of ground and other operations, for the development of further successes, that is, we speak about a supporting task of protective final result that we execute in a defensive manner.

In my paper, that is, the levels of the dominance over the airspace will be the protagonists. The new investigation of the topic is not only justified by the above mentioned debates, but also by the renewal of the air force doctrines of the past (2–3) few years. The current American, British, American and NATO doctrines are all new editions in which new concepts and somewhat different approaches from earlier appear. Learning from the experiences of my further research, I would like to present aspects that have been dealt with less up to now.

In the article I tangentially must mention some details of air operations, since this is the activity within the framework of which we fight for the possession of the airspace.

The Basics

Similarly to general practice, I also begin with the presentation of earlier writings and pieces of literature. We can find a considerable quantity of works by both Hungarian and foreign authors on the topic. Several of them are relevant parts of different wars, and less of them deal with the theory itself. I myself chose the last topic to speak about.

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For example, in the Hungarian literature I would like to mention the work by the authors Ruttai, Kálmán, Krajnc entitled “A légtér feletti ellenőrzés képességének szintjei” (The levels of control of the airspace) [11: 125–131] from 2002, and among others, also by the above authors the “Légierő Hadművelet Elmélet I. kötet (egyetemi tankönyv)” [1] from 2000, and as a foreign source, my starting point is the work entitled “AJP 3.3 Joint Air and Space Operations Doctrine” published in 2000.

Several foreign writings (journal articles) do not diversify the levels of dominance over the airspace and apply the different degrees as synonyms of each other. Oddly enough, some of them mix the levels of the possession of the airspace with the concept of air operation, concretely the concept of “air superiority” with the “*offensive and defensive counter-air operations*”, creating confused concepts with it. Like this the expression “*offensive air superiority*” and “*defensive air superiority*” came into existence [13: 969–975] [14: 82–96] these fortunately (according to my experience up to now) are not very wide-spread.

The earlier doctrines (Air Force Basic Doctrine – USA; [16] AP-3000 Air Power Doctrine – GBR; [21] AJP-3.3 Joint Air and Space Operations Doctrine – NATO [19]) and the Hungarian pieces of literature define three levels of the degree of the possession of the airspace:

Table 1. The conceptual appearance of the dominance over the airspace in the technical literature at the very beginning of the 2000s. [11] [1] [19]

	Ruttai, Krajnc, Dudás [11: 130]	“Légierő Hadművelet Elmélet” (Air Force Operation) [11: 48] [11: 58]	AJP 3.3 [19: 4–1] [19: 4–2]
Favourable air situation	<i>“It means the state when the air force of the opposite party at a certain part of the battlefield is not able to limit the activity of the other party with effective counter-activity.”</i>	<i>“The opposite air endeavours are not enough to unfavourably influence our own success.”</i>	<i>“A favourable air situation is one in which the extent of the air effort applied by the opponent’s air assets is insufficient to prejudice the success of friendly maritime, land or air operations.”</i>
Air superiority	<i>“When the air force of the opposite party is not able to limit the activity of the other party with effective counter-activity at any part of the battlefield.”</i>	<i>“In a given time or in a defined territory of the operational area the opposite air force is not able to continuously and persistently have effects and its freedom of actions is also limited.”</i>	<i>“Air superiority is that degree of dominance in the air battle of one force over another which permits the conduct of operations by the former and its related land, sea and air forces at a given place and time without prohibitive interference by the opposing force.”</i>

Air supremacy	<i>“When the air force of the opposite party is already unable to effectively resist or influence the results of operations.”</i>	<i>“Our own air force is capable of activity against the enemy without an obstacle, and the offensive air force is not able to considerably endanger our own potential any longer.”</i>	<i>“Air supremacy is that degree of air superiority wherein the opposing air force is incapable of effective interference.”</i>
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We can establish that the appearing concepts as for the possession of the airspace (Table 1) are essentially the same. We can observe one difference: between the concepts *“favourable air situation”* and *“air superiority”* appearing in the work by the authors Ruttai, Krajnc, Dudás, compared to the textbook and the AJP 3.3. Namely, in the journal article the favourable air situation appears as a state that, according to the definition of the two other sources, is the definition of air superiority.

In the diagram below (Figure 1) I did my best to portray the levels of the dominance over the airspace. First we have to notice that, any level of air dominance expresses how (in a certain degree) the activities of the countering air force can influence our own air, land or maritime efforts.

On the left side we can see the favourable air situation: since the concept does not define any temporal or spatial frame here, we have to interpret it onto the whole area of operation, that is, the blue colour symbolizes that our own troops or the effects of our activity can be present at the whole concerned territory. The red contour expresses that we can be reached by enemy effects at any place, but they are unable to obstruct our operations solely with the help of their air force. In the middle I portrayed air superiority where we in a given time and space (blue squares) possess the airspace, but in these parts of space we can also count on air strike or influences (smaller red squares). Finally, on the right side, we can see the schematic portrayal of air supremacy where we dominate the whole airspace, but with time we can encounter the movement of the enemy air force, their disturbing activity, perhaps its attack. Furthermore, we can also establish that none of the levels guarantees the complete victory, they only describe in what degree the attack of the enemy air force will have (a decreasing) effect on our activities.

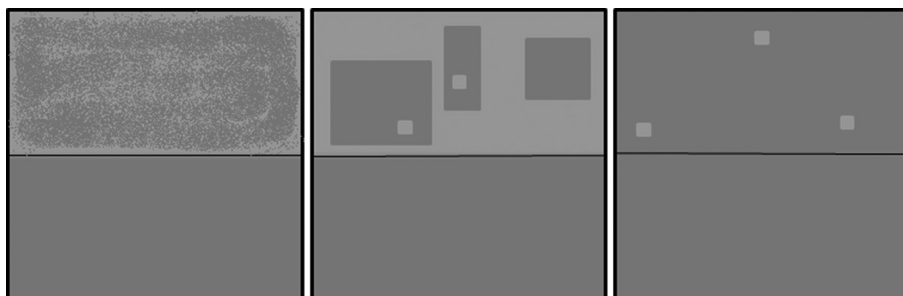


Figure 1. The portrayal of the levels of the dominance over the airspace – schematic diagram.
[Source: the author's own edition]

Several theoreticians who deal with air force – already in their theoretical works published in the early period of aviation – conceived the essential nature of air dominance in future armed conflict where already flying assets, that is, air force would be applied. Those whom we can mention (without the demand of completeness, selecting from among the authors of the beginning of the 20th century and later periods) are: the Italian general Giulio Douhet, [6: 11] the British Air Marshall Lord Hugh Trenchard, [3: 19] the American colonel of aviation Philippe F. Mellinger, [2: 750] the American colonel of aviation John A. Warden III, [10] etc.

If someone is interested in the topic more deeply and is curious how it is thought about in details, illustrated with historical examples, conflict analyses, the following pieces of literature can be useful:

- John C. Slessor: *Air Power and Armies*, [9: 1–60]
- Arthur W. Tedder: *Air Power in War*, [4: 29–52]
- Craig C. Hannah: *Striving for Air Superiority*, [5]
- John A. Olsen: *John Warden and the Renaissance of American Air Power*, [8: 64–82]
- John A. Olsen (Ed.): *A History of air Warfare*. [7: 127–155]

Thoughts about the Levels of the Possession of the Airspace

After presenting the essential pieces of literature, I would like to make some observations and statements, and I examine a few questions to which I will not be able to give exact answers in all of the cases.

In this part of the research paper, at least, I would like to explain some aspects of the terminology. As it was already outlined by the three authors Ruttai, Krajnc, Dudás, it is much more advised to use the expressions the “*levels of possession of the airspace*”, “*levels of airspace dominance*” or “*levels of control of the air*” because with the terminology or “*airspace control*” we can cause confusion, since the airspace control most of the times means the observation of the airspace with radio-location pieces (radars).

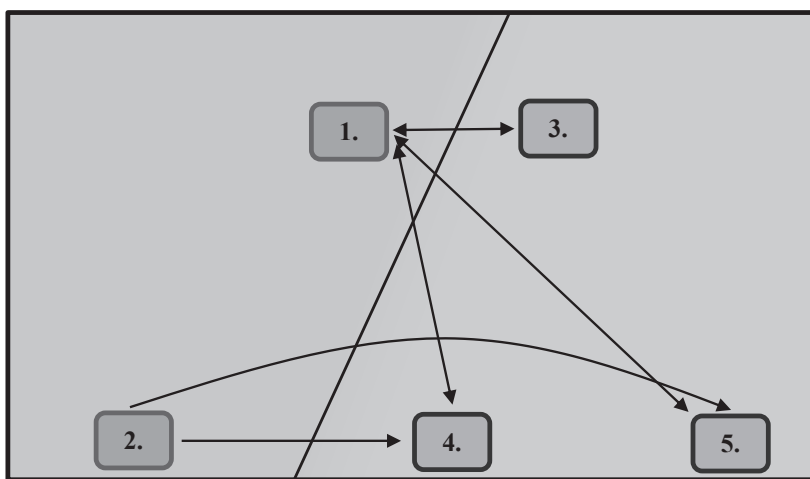


Figure 2. The relation of the participants of offensive air opposition – schematic diagram.
[Source: the author's own edition]

We do not only execute the fight for the dominance over the airspace for the sake of the support of own operations of the air force, but for both the provision of the freedom of manoeuvre of the land forces and the navy. [20: 0401] Consequently, the fight of any level of dominance in the airspace should be treated as a joint task and intent of all of the armed forces. In point 0403, paragraph “g” of the above referred, current NATO Allied Joint Doctrine for Counter-Air we can read that among the tool of offensive counter-air (the aim of which is some degree of possession of the airspace above the enemy area) is also the land and maritime fire support, including artillery, the support of the organic air force of the land and/or marine forces with controlled and non-controlled ground-to-ground missiles. Among the tasks of offensive counter-air, beside the “*fighter sweep*” and the “*escort*” we can find two types of task in which the troops of the land forces and the navy can definitely effectively cooperate. One of them is “*attack operations*”, the other is “*the suppression of enemy air defences*” whose targets are surface or underground objects that we can destroy with the help of the above mentioned sources with great effectivity, which contributes to the possession of the airspace to a large degree. These targets are the following: aircraft stationing on the ground, airports, aircraft carriers, tactical ballistic missiles, cruise missiles (certainly, in the state before their launch), rocket launching devices, electronic warfare systems, air command and control systems, and so on.

The other type of air warfare is “*defensive counter air operations*”, in this case the aim is to preserve dominance over the airspace above the own territories, that is, the prevention of the activity of the enemy that they should be able to obstruct any level of possession defined up to now. Characteristically, the targets will be the above enumerated, but our own vehicles, furthermore, we have to expect attacks arriving from other directions (enemy land and naval fire support).

On Figure 2 I schematically present the participants of the offensive counter-air operation. The arrows that can be found at the end of the lines connecting the elements symbolize the relations of impacts. The elements are the following:

1. Our own air assets: fixed- and rotary-wing air vehicles, aircrafts that are definitely suitable to suppress the enemy air defence, unnamed aerial vehicles (UAVs);
2. Own surface-to-surface guided missiles, cruise missiles, special operation forces, surface fire support (artillery, navy);
3. The adversary air assets: fixed- and rotary-wing aircraft, unnamed air vehicles;
4. Tactical ballistic missiles of the enemy, their surface-to-surface guided missiles, launching and control systems of unmanned air systems, their ground-based air defence;
5. The airports of the enemy with their essential infrastructural elements (runways, taxiways, navigation systems, logistical institutions), aircrafts stationing on the ground and finally command, control, communication elements. [20: 0403]

The greatest problem – in my opinion – with the definition of the level of dominance that there are no concrete measuring numbers or ratios with which we can express to which degree we possess the airspace. Mainly not in the mirror of the fact that in the NATO Allied Joint Doctrine for Counter-Air, we find a statement after the definition of the levels that conceives in the following way: “It should be understood that neither air superiority nor air supremacy implies that losses will not be inflicted by an enemy. It is the level of interference in relation to achieving the objective caused by the enemy’s air operations that is the focus.” [20: 0201]

Some questions that we can pose after all of this:

1. From where do we know that we have reached a certain level?
2. From where do we know which level we have reached?
3. If it seems that we have reached it, is it possible that the enemy simply does not employ their air and air defence vehicles, just protect them?
4. Is it necessary at all that we should fight for some level?
5. With what kind of system of assets do we fight for the possession of the airspace?

In the following parts of the paper I make an attempt to find the answers to the questions, although it seems that it is not possible to give an exact definition to all of them.

1. It is evident that before we start fighting against the enemy we will have information about them and we will do further reconnaissance and intelligence activities. As a basis for the air operations, in the first step we try to take control over the airspace. Based on our previous information (that will be refuted or specified during the operations) we will gain a fairly sharp image about the air force and air defence potentials of the opposite party. As we assess the results of the strikes and operations with it, we will already be able to calculate for the level that we gained, and for the fact that with the help of the rest how strong resistance we have to count on. In homeland airspace, at the beginning of the conflict we make an evaluation of what degree we possess and dominate our own airspace. In the future, following the chain of thoughts above, we continuously re-examine whether we maintain this dominance or our influence has decreased.
2. Together with the previous paragraph we have partly answered this question. Between the favourable air situation and the air superiority, the essential difference is that while in the case of favourable air situation, the enemy is able to disturb our activity to a larger degree, in the case of air superiority (true, only in relevant place and/or time) the enemy is unable to effectively obstruct our activities. That is, it can be concluded from the information and enemy sources how large the air danger is we have to operate in, and like this it can be decided whether we have already obtained the air superiority that has become the basic condition of several operations by today.
3. If we consider only the activities done by the enemy (and we do not consider the difference between the original and the destroyed air potentials), then in certain cases we can evaluate the evolved situation in a way that we dominate the airspace. It can take place if the enemy, in order to protect them, does not deploy their air force and air defence vehicles, as a “*passive defensive counter-air*” measure (moving, concealing, disguising) so that they could be able to apply them in a further period of the war. We can evaluate it as air superiority, since in a given time they do not operate against us effectively, but it is necessary to calculate with the fact that in the future the remaining weapon systems will mean further threat to us.
4. Perhaps the chain of thoughts should have been begun with this question. The possession of the airspace above the territory of the enemy must be fought for, but at least it must be possessed. Without any offensive counter-air activity we cannot state that we are the lord in a certain part of the space. However, we have to define the level of intensity of the operations, since against a weak or non-functioning air force it can be enough to apply only smaller force. As part of a composite air operations, the possession of the airspace can be realized with the help of certain aircraft selected for this task within the group, and it can be achieved with the help of “*fighter sweep*” or

“escort” aircrafts selected for the task. At first, we obtain the local air superiority, then we extend it to the whole operational area, realizing the dominance over the airspace. The definition of intensity is important, because if we mobilize too many sources to this aim, we superfluously occupy our aircraft that could also execute other (attacking) missions.

According to certain views, the disposition over the airspace is not a key task, if we possess a small number of air force. In this case, we have to apply the available forces for “strategic air operations” and “air interdiction operations”, and like this, we can achieve more serious results for the whole war. Namely, the small number of air vehicles cannot fight effectively against a more serious enemy. Still if we are selected for the execution of air warfare operations (during which, beside insignificant results, we would soon lose these of our forces), we can speak about wasted sources. [12: 55–63] If the Hungarian Air Force should face an air force that has a larger number than it does alone, then it would be appropriate for us to use this kind of warfare method.

5. In the first two points of the elements of Figure 2, I have already described most of the vehicles in the fight for dominance, however, all of it must be supplemented with an effective command-control systems and different electronic and information warfare vehicles.

The Conceptual Appearance of the Level of the Possession of the Airspace in Current Doctrines

United Kingdom of Great Britain and Northern Ireland – *UK Air and Space Doctrine 2013*.

In the newest British air and space force doctrine, the concept redefined as the “*control of the air*” that can be found at the role of “*control of the air*” is a new concept for the dominance over the airspace. No levels are separated from each other, only a general concept is conceived, but at the description of the aim of the role it is called the most important role, explained with the fact that the freedom of manoeuvre and action is provided by this. [22: 3-3–3-6]

Concept: “*Freedom, over a given period of time, to use a volume of airspace for our own purposes while, if necessary, denying or constraining its use by an opponent.*” [22: 3-3–3-6]

It is interesting to observe that the British do not classify the disposition over the airspace as the result of air warfare, but an earlier result has become a role today, and the air warfare has shifted into a kind of subordinated role. It serves for realization, so the aim, the possession of the airspace was highlighted. This tendency can later overwrite the logical system in the doctrine, and in a few years the effects may be highlighted, and the activities will be subordinated to them. For example: breaking the will of the enemy (as an expected effect) – the operations necessary to achieve it are: strategic air operations, air interdiction.

The United States of America – *Air Force Doctrine Document 1, 2011*.

Similarly to the British doctrine, the American one does not layer the levels of dominance either. The concept of air superiority has remained the same definition as in the edition of 2000 of AJP 3.3. Another similarity is that the air warfare operations appear in the subordination of air superiority as a central air force function. [17: 45]

What I would stress here – reinforcing what was described about the British doctrine – is that in this edition it is already established, at the chapter about the use of the doctrine, that

the expected effect is the significant factor, and not the way we achieve it or the asset by which it is realized. [17: 5]

North Atlantic Treaty Organization – *AJP 3.3 (a) Allied Joint Doctrine for Air and Space Operations*

From among the doctrines outlined as new in the present paper, it is the oldest, it was published in 2009, and at the moment a new version is being elaborated. [15: A-1] In the doctrine itself, the levels of the possession of the airspace do not appear, only as aims at the air warfare operations, [18: 1-6] they do appear in the in the NATO publication that outlines the counter-air operations themselves, in AJP 3.3.1. [20: 2-1] There is no difference in the definitions compared to the earlier AJP 3.3.

Commonwealth of Australia – *The Air Power Manual*

I deliberately left the Australian doctrine to the end, since we can encounter most novelities here. Not only do we find the levels, but also new definitions were published. They do not only interpret the question of dominance in a way as to how much we are above the enemy, but two further concepts that express what neutral or negative state has evolved to our disadvantage in the fight for the airspace were also defined.

Table 2. *The concepts of dominance over the airspace appearing in the Australian doctrine of air operations.* [Based on 23: 52]

The level of possession of the airspace	Air supremacy	Air superiority	Air parity	Unfavourable air situation
Definition	“Air supremacy exists when adversary air power and/or air defence capabilities are incapable of effective interference, unbounded by time and location.”	“Air superiority exists when operations can be conducted at a given location for the desired duration without effective interference by adversary air power and/or air defence capabilities.”	“Air parity exists when control of the air is being contested and no force has been able to obtain an air power advantage and/or air defence dominance over another.”	“An unfavourable air situation exists when operations can expect to encounter prohibitive interference from adversary air power and/or air defence capabilities.”

It can be seen also based on Table 2 that two new concepts were introduced. The content of air dominance and air superiority did not change, but favourable air situation left the terminology. The state in which the fight for the airspace is still in progress, or the parties cannot overwhelm each other in air dominance can be called “*air parity*” from here on. If we can count on considerable, even hindering counter-activities, in this case we can name this state with the definition “unfavourable air situation”.

That is, if two large-sized air forces with nearly equal potential fight against each other, where the fight for the airspace will not be decided in a few hours or days, air parity will evolve. Furthermore, in a case where a small air force is forced to face a larger one and applies the tactics outlined above, that is, they do not execute air warfare operations, but attack immediately in the depths of the enemy, then they will have to operate in unfavourable air situation, beside the air force and ground based air defence threat from the part of the enemy.

Summary

In my work I presented the interpretation of the levels of possession of the airspace at the beginning of the 2000s, and after the “wave” of the renewal of the doctrines that has taken place not long ago, it became necessary once again to outline these concepts, mainly because we can discover new concepts in them. As far as I know, the newest air and space power doctrine of NATO is being elaborated also at the moment, and not even a draft version is available of it, so it remains a question how the topic of the dominance over the air force will appear in it.

I did my best to, with the help of figures, make the differences between the levels observable, and I included the concepts in charts that help the reader to clearly distinguish them from each other.

I made an attempt to answer questions that often arise in this topic. I highlighted that the goal of the dominance over the airspace is to guarantee not only the freedom of action of the air force, but also the troops of the ground forces and the navy, not in a smaller degree than the first one. In accordance with all of this, in fighting for dominance (in two types of mission from among the four ones) the two last corps can also take their own part and must also take their own part. In the lack of that certain “defensive umbrella” it is not only the land forces that have to be patient when beginning their activity, but also the offensive troops of the air force, since without them there is vulnerability to a large degree.

References

- [1] KURTA G. (Ed.): *Légierő hadművelet-elmélet I. kötet*. Budapest: Zrínyi Miklós Nemzetvédelmi Egyetem, 2000.
- [2] KRAJNC Z., JENEI I.: „Tíz állítás a légierővel kapcsolatban” – Philippe S. Meilinger légierő értelmezése. *Repüléstudományi Közlemények*, XXV 2 (2013), 749–760.
- [3] SZŰCS P., KRAJNC Z.: Hugh Trenchard légierő értelmezése. *Repüléstudományi Közlemények*, XXVI 1 (2014), 18–24.
- [4] TEDDER, A. W.: *Air Power in War*. London: Hodder and Staughton, 1947.
- [5] HANNAH, C. C.: *Striving for Air Superiority*. Laredo: Texas A and M University Military History Series, 2002.
- [6] DOUHET, G.: *A légiuralom*. Budapest: Zrínyi Miklós Katonai Akadémia, 1971.
- [7] OLSEN, J. A. (Ed.): *A History of Air Warfare*. Dulles: Potomac Books, 2010.
- [8] OLSEN, J. A.: *John Warden and the Renaissance of American Air Power*. Dulles: Potomac Books, 2007.
- [9] SLESSOR, J. C.: *Air Power and Armies*. Oxford: Oxford University Press, 1936.

- [10] WARDEN III., J. A.: *The Air Campaign – Planning for Combat*. Washington D.C.: National Defense University Press Publication, 1988. (Air Superiority – The Concept)
- [11] RUTTAI L., KRAJNC Z., DUDÁS Z.: A légtér feletti ellenőrzés képességének szintjei. *Repüléstudományi Közlemények*, 2 (2002) Különszám, 125–131.
- [12] D’ODORICO, J. C.: Air superiority: A sine qua non? *Air and Space Power Journal*, 19 3 (2005), 55–63.
- [13] YILDIZ, K., BICIL, M., AKKAYA, S., İSTEK, Y.: Concepts for air supremacy & essential capabilities for modern air superiority assets. *Scientific Research & Education in the Air Force – AFASES*, 1 (2012), 969–977.
- [14] CONIGLIO, S.: Air supremacy options. *Military Technology*, 34 7 (2010), 82–96.
- [15] AAP-47, *Allied Joint Doctrine Development*. Edition A, Version 2. Brussels: NATO Standardization Agency, 2013.
- [16] *Air Force Basic Doctrine, Air Force Doctrine Document 1*. Alabama: Headquarters Air Force Doctrine Center, Maxwell AFB, Agency for Standardization, 1997.
- [17] *Air Force Doctrine Document 1*. Maxwell: LeMay Centre, 2011.
- [18] AJP 3.3 (a) *Allied Joint Doctrine for Air and Space Operations*. Brussels: NATO Standardization Agency, 2009.
- [19] AJP-3.3 *Joint Air and Space Operations Doctrine*. Brussels: NATO Military Agency for Standardization, 2000.
- [20] AJP-3.3.1 (B) *Allied Joint Doctrine for Counter – Air*. Brussels: NATO Standardization Agency, 2010.
- [21] AP 3000 *British Air and Space Power Doctrine*. 4th Edition, London: British Ministry of Defence, Air Staff, 2003.
- [22] *Joint Doctrine Publication 0-30 UK Air and Space Doctrine*. London: Ministry of Defence, The Development, Concepts and Doctrine Centre, 2013.
- [23] *The Air Power Manual*. 6th Edition, Canberra: Air Force Development Centre, 2013.

Derivation of the Fundamental Missile Guidance Equations

PAPP István,¹ SZILVÁSSY László,² ÓVÁRI Gyula³

In order to guide itself to a successful target intercept, the missile must obtain information about the target. The prelaunch and post launch information too, must be gathered. Before a missile is launched, that is, during the prelaunch phase, the missile needs to know where to go. It knows that it is supposed to go to the target, but it must be told where the target is. The missile is told where the target is by electrical signals entering through the umbilical from the launcher. These signals are head aimed (to point the missile head at the target), English bias (to point the missile at the intercept point), and an estimate of true target Doppler on the simulated Doppler line.

Keywords: missile, equations of motion, guidance, derivation

Introduction

Then missile then flies (according to the proportional navigation guidance law), senses a change in the line-of-sight angle between the missile velocity vector and the target. In addition, the missile is given certain conditioning signals, which let the missile adjust for variations. These conditioning signals are the autopilot commands to adjust autopilot responses, and auxiliary Doppler positioning signal (or signals). Furthermore, though the missile is designed to guide to impact, an actual impact may not occur, and the missile may miss the target by some finite distance. Specific circuits in the missile give an indication of closest missile approach to the target. These circuits then cause the warhead to be triggered so as to explode as close to the target as possible. In addition, other circuits in the missile are designed to provide indications of a total miss. All of this logic and information is built into the missile, so that the missile knows what to do before it is launched. [1]

Missile Guidance Types

Guidance systems can use any one of several methods or laws to coordinate a missile along a trajectory or flight-path to intercept a target (for example an aircraft). The specific target flight path information required by the guidance package depends on which law is used. In this section we will discuss the three types of pursuit courses, which are the following:

- pure pursuit;
- deviated pursuit;
- pure collision.

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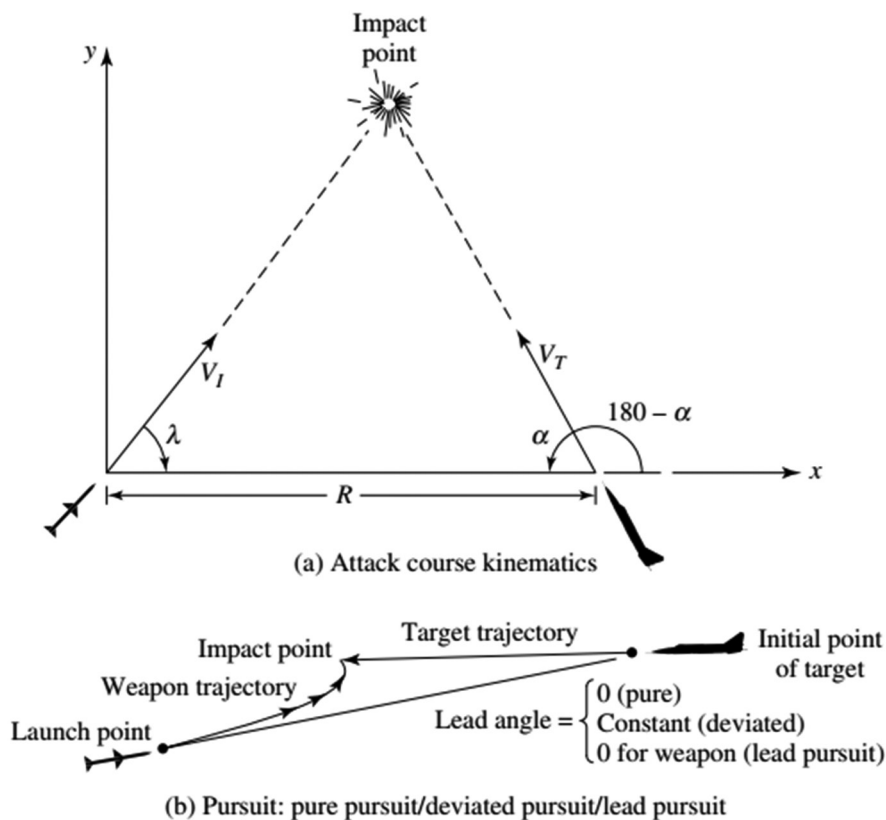


Figure 1. Types of the guidance. [1: 183]

After that, we develop the respective differential equations. The homing trajectory that a missile flies depends on the type of guidance law employed. The guidance law depends on the mathematical requirements or constraints of the engagement. Figure 1 will be used as the basis to derive these equations. In particular, the kinematics of an attack course, as illustrated in Figure 1, are based on the relationships between the:

- interceptor (or missile) velocity V_I ;
- the target velocity V_T ;
- the interceptor lead angle λ ;
- the target aspect angle α ;
- the interceptor to target range R .

The basic differential equations can be derived from considerations of the geometry. Referring to Figure 1, the range rate can be written in the form

$$\frac{dR}{dt} = V_I \cos \lambda + V_T \cos(180\alpha) = V_I \cos \lambda - V_T \cos \alpha \quad (1).$$

where the angle reference is the interceptor-to-target range vector. The velocity components orthogonal to R consist of two parts:

- (1) the translational component, and
- (2) the tangential (or turning) component.

Selecting the interceptor as the reference point for the tangential component, and taking $d\lambda/dt$ positive in the same sense as λ , the equations can be written:

$$R \left(\frac{d\lambda}{dx} \right) = V_I \sin \lambda + V_T \sin(180 - \alpha) = V_I \sin \lambda - V_T \sin \alpha \quad (2).$$

The conditions for the various types of trajectories result from holding constant one of the parameters in the equations. [1]

Pure Pursuit

In the pure pursuit trajectory, the interceptor missile flies directly toward the target at all times. Thus, the heading of the missile is maintained essentially along the line of sight between the missile and the target by the guidance system. Missiles flying a pure pursuit course usually end up in a tail-chase situation, similar to a dog chasing a rabbit. Furthermore, in pure pursuit the nose of the interceptor missile (note that the term interceptor is used to denote missiles as well as fighter aircraft) is pointed at the target aircraft. The interceptor missile directing its velocity vector toward the target flies a pure pursuit attack course. In such a case the interceptor's lead angle is zero. Examine now Figure 2.

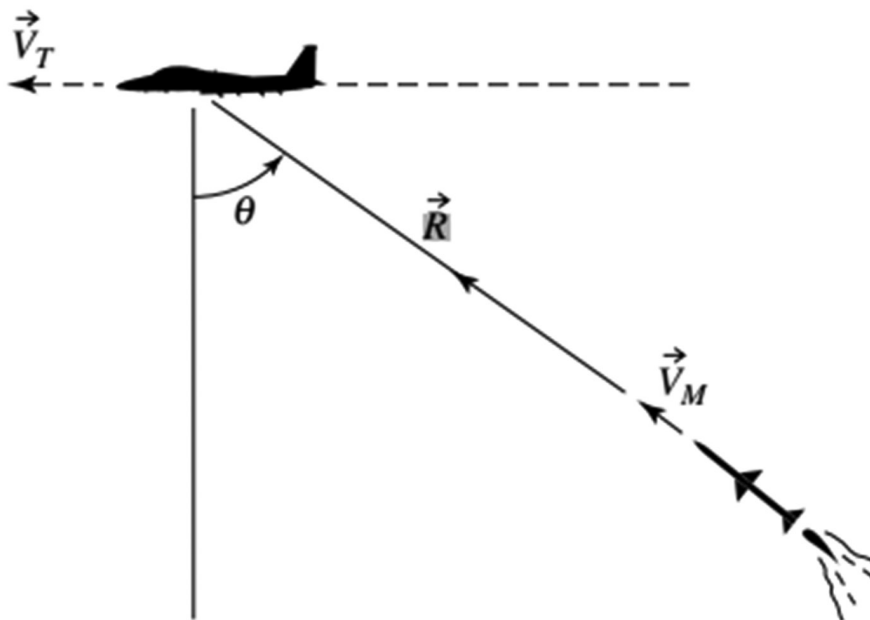


Figure 2. Pure pursuit guidance. [1: 184]

Based on the Figure 2, the following equations can be written:

$$\frac{dR}{dt} = V_M - V_T \cos \theta \quad (3a).$$

$$R \left(\frac{d\theta}{dt} \right) = -V_T \sin \theta \quad (3b).$$

Where R is the range magnitude, θ is the orientation of the line of sight to the target, V_M is the interceptor missile velocity component, and V_T is the target's velocity. For the special but nontrivial cases of a stationary target or head/tail chase ($\theta = \pm 90^\circ$), we have

$$\left(\frac{d\theta}{dt}\right) / R = \left\{ (\cos \theta) \left(\frac{V_M}{V_T}\right) + \tan \theta \right\} \left(\frac{d\theta}{dt}\right) = \left\{ \left(\frac{\kappa}{\cos \theta}\right) + \tan \theta \right\} \left(\frac{d\theta}{dt}\right) \quad (4).$$

where $\kappa = V_M/V_T$. For a constant speed ratio κ , the following expression results:

$$\int \left(\frac{dR}{R}\right) = \int \tan \theta d\theta + \kappa \int \left(\frac{d\theta}{\cos \theta}\right) \quad (5).$$

Letting C be the constant of integration, the general solution of (5) assumes the form $\ln(R/C) = -\ln \cos \theta + (\kappa/2) \ln[(1 + \sin \theta)/(1 - \sin \theta)]$

Therefore,

$$R/C = (1 / \cos \theta) [(1 + \sin \theta) / (1 - \sin \theta)]^{\kappa/2}$$

From the identity

$$1 / \cos \theta = 1 / (1 + \sin \theta)^{1/2} (1 - \sin \theta)^{1/2}$$

We have

$$R/C = \rho = [(1 + \sin \theta)^{(\kappa-1)/2}] / [(1 - \sin \theta)^{(\kappa+1)/2}] \quad (6).$$

The integration constant C can be determined from the initial conditions R_0 and $\theta_0 = \pm 90^\circ$. Thus from (6) we obtain

$$\lim_{\theta \rightarrow 90^\circ} R = \infty,$$

$$\theta = 0, \rho = 1, R = C.$$

$$\lim_{\theta \rightarrow 90^\circ} R = \begin{cases} 0, & \text{when } \kappa > 1, \\ \frac{R}{2}, & \text{when } \kappa = 1, \\ \infty, & \text{when } \kappa < 1. \end{cases}$$

From the above analysis, we note that the missile will intercept the target if its velocity is greater than that of the target. From (6), $\rho(\theta)$ can be plotted for different values of the parameter κ (i.e., $\kappa = 0.5, 1.0, 1.5, 2.0, 3.0$). [1] [2]

Deviated pursuit

Deviated pursuit points the nose of the intercepting missile (or aircraft) by a fixed angle in front of the target (see Figure 1). In other words, an interceptor directing its velocity vector at a constant angle ahead of the target flies a deviated pursuit attack course. Since the interceptor lead angle is constant for deviated pursuit, $\lambda = \lambda_0$. Therefore, from (1) and (2) we have the differential equations

$$\frac{dR}{dt} = V_I \cos \lambda_0 - V_T \cos \alpha \quad (7a).$$

$$R \left(\frac{d\lambda}{dt}\right) = V_I \cos \lambda_0 - V_T \cos \alpha \quad (7b).$$

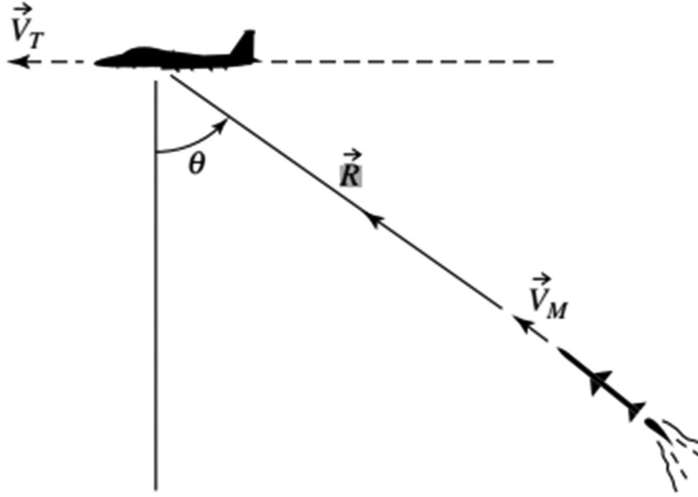


Figure 3. Deviated pursuit guidance. [1: 186]

In order to obtain the deviated pursuit algebraic equations, we will use Figure 3. The differential equations for the deviated pursuit case are ($\lambda = \text{constant}$)

$$\frac{dR}{dt} = -V_M \cos \lambda + V_T \cos \theta \quad (8a).$$

$$R \left(\frac{d\theta}{dt} \right) = V_M \sin \lambda - V_T \sin \theta \quad (8b).$$

Solution of the differential equations for R and θ requires a given V_M and V_T as well as initial values of R and θ . The normal acceleration for the deviated pursuit is obtained as

$$a_n = -V_M \theta / g = (V_M / gR) [V_T \sin \theta - V_M] \quad (9).$$

The angle off the target tail, at which θ is maximum, is obtained from the expression

$$\theta (\max g) = \cos^{-1} [V_M / 2V_T] \quad (10).$$

where $V_M > 2V_T$; note that a maximum does not occur on the course. The time required to intercept the target can be obtained from the expression

$$t = (1/V_T) \int R d\theta / [(V_M / V_T) \sin \lambda - \sin \theta] \quad (11).$$

Pure collision

A pure collision course is a straight-line course flown by an interceptor so as to collide with the target. Referring to Figure 4.9, the differential equation assumes the form

$$\frac{dR}{dt} = -V_M \cos \lambda + V_T \cos \theta \quad (12a).$$

$$\theta = \text{konstans}$$

$$\lambda = \sin^{-1} (V_T \sin \theta / V_M) \quad (12b).$$

$$R = R_0 + \left(\frac{dR}{dt} \right) t \quad (12c).$$

In addition to the three guidance courses just discussed, another course of interest is the lead collision course. A lead collision course is a straight-line course flown by the interceptor such that it will attain a single given firing position. For lead collision, the time of flight (a derived parameter) is constant. Generation of this course is begun by specifying V_M , V_0 , V_T , t_f and the initial angle θ_0 . The differential equations for lead collision can be obtained in a straightforward manner from Figure 3 as

$$\frac{dR}{dt} = -V_M \cos \lambda + V_T \cos \theta \quad (13a).$$

$$R \left(\frac{d\theta}{dt} \right) = V_M \sin \lambda - V_T \sin \theta \quad (13b).$$

where

$$\lambda = \sin^{-1} \left\{ -R \left(\frac{d\theta}{dt} \right) t_g / V_0 t_f \right\} \quad (13c).$$

$$t_g = (-R + V_0 t_f \cos \lambda) / \left(\frac{dR}{dt} \right), t_f = \text{konstans} \quad (13d).$$

Note that collision courses are flown so as to cause the interceptor missile or aircraft to collide with the target. [3]

From the guidance techniques discussed above, the two most popular techniques are pure pursuit and proportional navigation. However, proportional navigation is more complicated to mechanize in terms of hardware, whereas pure pursuit causes higher aerodynamic loading on the airframe. The basic difference between the two is that pursuit guidance causes the interceptor missile to home on the target itself, while proportional navigation guidance causes the missile to home on the expected impact point. No matter which method is selected by the missile designer, in order to achieve a target kill the missile must be able to pull sufficient g's to intercept the target within the lethal distance of the warhead. At lower altitudes, the airframe is not a limiting factor because the available g's are in excess of the autopilot limit (e.g. 25 g). At higher altitudes, especially in a snap-up attack, available g's are usually the parameter that determines the launch boundary. [3]

The maximum possible missile turn rate is a limiting factor at minimum range. This is because in a minimum-range situation, an air-to-air missile is usually required to turn rapidly to intercept the target within the short flight times. The maximum turn rate of the missile is limited by two factors:

1. autopilot saturation,
2. maximum wing deflection.

The pitch or yaw autopilot will saturate when the corresponding commanded lateral acceleration exceeds, for example, 25 g's. This is predominant at low altitudes, where the missile maneuver is not aerodynamically limited. At high altitudes, the wing deflection required for turning increases, and its maximum value becomes the limiting parameter. When either type of limiting occurs, miss distance increases very rapidly. [1] [3]

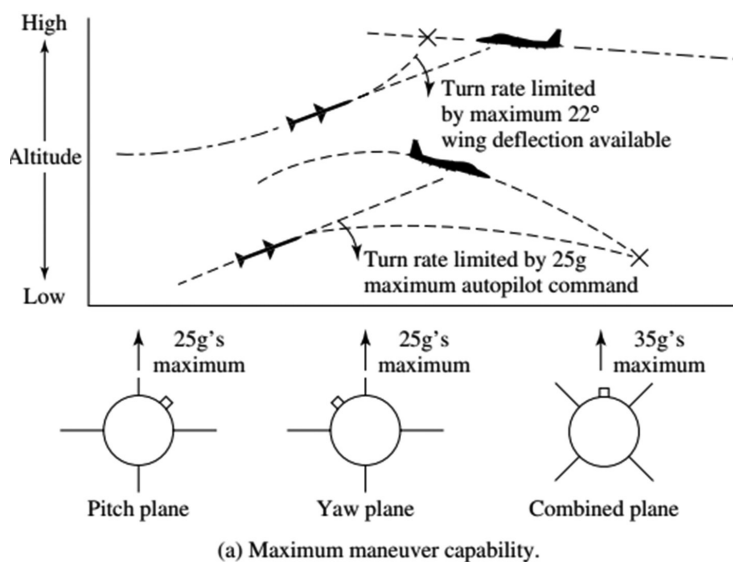


Figure 4. Maximum manoeuvre capability. [1: 190]

The other factor influencing maximum turn rate is the roll orientation of the missile with respect to the manoeuvre plane. If the direction of the turn is perpendicular to either the pitch or yaw plane, then the turn will be confined only to that plane, and the maximum acceleration will be limited by the autopilot to 25 g's. If the direction of the turn is halfway between the two planes, both autopilots will contribute, and the allowable turning acceleration is as high as $25\sqrt{2}$, i.e., about 35 g's. That the time for which the missile locks on the target can vary from about 0.6 to 1.0 second. Increased lock time can have a significant affect because of the rapidly changing geometry, and usually results in increased missile flight times to attain a successful intercept. Because lock time is an uncontrollable factor, a degree of uncertainty is introduced to the minimum-range zone. These relationship, we can see in Figure 4. [1] [4]

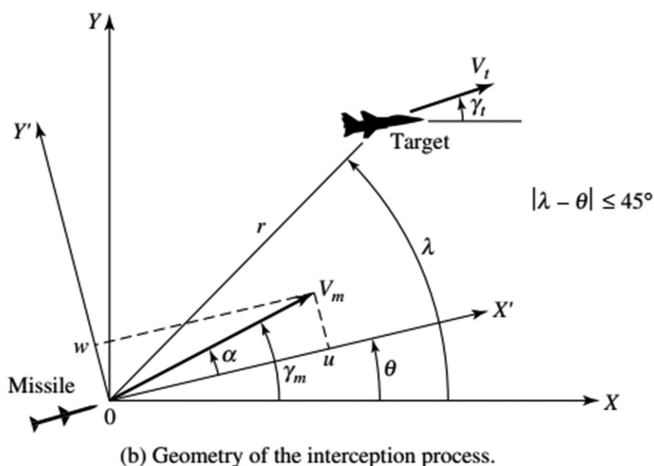


Figure 5. Geometry of the interception process. [1: 190]

At this point, simple interception model dynamics will be developed. Assuming that the target and the missile motions evolve in the same horizontal plane, the geometry of the interception process is shown in Figure 5. The interception is characterized by two variables, namely, the target range and the LOS angle. The kinematic equations are expressed by the following relations:

$$\frac{dr}{dt} = V_t \cos(\lambda - \gamma_t) - u \cos(\lambda - \theta) - w \sin(\lambda - \theta),$$

$$\frac{d\lambda}{dt} = -[V_t \sin(\lambda - \gamma_t) + u \sin(\lambda - \theta) - w \cos(\lambda - \theta)] / r,$$

where

r = missile - target range;

λ = LOS angle;

θ = pitch angle (or missile axis angle);

u = longitudinal velocity component of the missile;

w = normal velocity component of the missile.

The rate of variation of the LOS, $d\lambda/dt$, is measured by the seeker, and the tracking error related to the system of measurement is neglected. In other words, the axis of the seeker is assumed to lie always along the LOS. The seeker head will be limited to a cone with a maximum half-angle equal to 45° , which imposes the saturation constraint $|\lambda - \theta| \leq 45^\circ$. [1] [3] [4]

References

- [1] SIOURIS, G. M.: *Missile Guidance and Control Systems*. New York: Springer, 2003. http://cdn.preterhuman.net/texts/terrorism_and_pyrotechnics/rocketry/Missiles_and_Warheads/Missile%20Guidance%20&%20Control%20Systems.pdf (downloaded: 2015.07.15)
- [2] BALL, R. E.: *The Fundamentals of Aircraft Combat Survivability Analysis and Design*. Virginia: Virginia Polytechnic Institute and State University Blacksburg, 1985.
- [3] PALUMBO, N. F., BLAUWKAMP, R. A., LLOYD, J. M.: Modern Homing Missile Guidance Theory and Techniques. *Johns Hopkins APL Technical Digest*, 29 1 (2010).
- [4] LIN, C. M., HSU, C. F., CHANG, S. K., WAI, R. J.: Guidance – Law Evaluation for Missile Guidance Systems. *Asian Journal of Control*, 2 4 (2000), 243–250.

The European Union's First Support Operation on the African Continent: Darfur

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The Darfur Operation is much disputed, often times it is called unsuccessful. The operation started ten years ago, and in addition to other donors, the EU took an important role in the advocacy, not to mention the fact that it launched its own support operation. This was the second operation of the EU in Africa. It worked with less people than the Artemis Operation did, but it lasted for nearly three years. Although the operation had to face several challenges, it can be called effective from the perspective of the European Union and its member states. They could utilize the lessons learned from the mission related to further operations. However, several pieces of research have been made on the European Union's activity in Darfur, but the participants of the mission did not share their experiences except for one or two conferences and articles. I (the author) served for six months in the operation in 2005. After coming home, I followed the events in the area. This research is based on my subjective experiences, other peacekeeper's knowledge, archived and open sources.

Keywords: AMIS, African Union, European Union, Darfur, Arabian, African, Cease Fire Committee, EU Military Stock, observers, logistic advisors

On February, 2003, a revolution broke out in the western part of Sudan, Darfur. The insurgency was led by the Sudan Liberation Movement/Army (SLM/A). The SLM/A regarded itself as the representative of the majority population in Darfur. The rebellious organisation, and its ally, the Justice and Equality Movement (JEM), took up arms against the policies of the central government. Their major problem was that the black African farmers did not receive governmental protection against the attacks of the Arabian nomadic group, the Janjaweed. The government responded with military strikes. As part of the actions against the rebellions, the government forces committed ethnic cleansing among the innocent civilian population too. The Sudanese government forces and the Janjaweed units burnt down and destroyed hundreds of villages, causing the death of thousands, banishing millions of citizens, attacking and raping thousands of women. [1] The president of Chad, whose country was affected by the conflict too, summoned the opposing parties to the negotiating table in the summer of 2003. They set a cease-fire accord, however, it only lasted till 5th December – when the hostilities recrudescened. [2] Up to 30th September, 2004, thirty-thousand people became victims of the battles, and nearly one million people lost their homes. 2000 out of the one million displaced people fled to the neighbouring Chad. The African Union (AU) had to face the threat that the conflict was spreading to the neighbouring countries. Therefore, they put forward the launch of a peace operation. As a result of the international pressure the government and the

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insurgent forces on 8th April, 2004, set up a cease-fire agreement in N'djamena. The supervisor of the agreement was the African Union – supported by the USA, and the EU. The African Union took the role of the mediator during the peace talks.² However, due to the USA's pressure (whose government, according to the Swedish government, labelled the events in Darfur a genocide) the United Nations requested in a resolution the African Union to advance a peacekeeping mission. As a consequence of the pressure of the international community, the Sudanese government and the political opponents accepted establishing the mission. The AU sent a unit to Darfur between 7th and 20th May, 2005 to estimate the possibilities of setting up an observation mission. [3] After getting the report from the group, the AU Security Council made a resolution on 25th May 2005. In the resolution they put the peacekeeping operation into action, however, the Sudanese government, the rebels and the representatives of the AU reached the Addis Ababa agreement on 28th May 2005. It established the Cease-Fire Committee and agreed on sending military observers to Darfur. So it started the work of the African Mission in Sudan (AMIS) whose budget was estimated 26,605,432 USD. [4] As this amount of money was not at the AU's disposal, they immediately addressed a letter to the EU, because the European Union was supposed to take a great part of the financing. [5] However, the EU had been supporting the work of the AU with a significant amount of money since the establishment of the African Union on 23th June, 2005. The EU established its own operation to back up the AMIS (also known as the EU civilian-military action to support the African Union's enhanced Mission to Sudan/Darfur), which aims to hold the European support together and to co-ordinate the work of the observers/advisors sent to Darfur. The operation was financed by the ATHENA mechanism. [6] The evaluation of the total upkeep was 2 million Euros.³

The operation supported the AU's actions in Sudan with constabulary activities. [7] The operation was initiated at the same time when the EU leaders accredited a special representative (European Special Representative – EUSR), Pekka Haavisto⁴ to Darfur. He was responsible for the cooperative activity of the Union's political and operational actions; moreover, Mr. Haavisto was in charge of the co-ordination too, accordingly he controlled the actions of the mission. [8] Furthermore, he was consulting with the AU, the AMIS and the Sudanese government's leaders. Mr. Haavisto participated in the Abuja Peace Conferences, where he expressed the interests of the EU. The Addis Co-ordination Cell helped the

2 The AU was unwilling to leave room for other regional organisations to consolidate the situation in Darfur. Since the African leaders thought that the problems of the African continent can only be solved by the Africans. The AU recons Darfur its own trial-field for their peace-making and sustaining ability, therefore they showed increased sensibility toward all international intervention attempts.

3 The total is so small because the EU leaders thought that the mission will end by the end of 2005. They expected that after the enlargement of the AMIS II, it will be able to operate alone.

4 Pekka Haavisto was member of the Finnish Parliament (1987–1996), then he was the Environment Minister in the Government of Pavaoo Lipponen between 1995–1999. Later on he became a member of the Helsinki Council, a representative of the Greens, and he was a leader of several economic organisations as well (for instance World Bank). During programs of the UN, he served in a number of crises areas, for example in the Balkans (Kosovo), he participated in the Palestinian-Israeli peace talks as a mediator. He is a member of several scientific, economic and environmental protectionist organisations. He is a professor of the Finnish University as well as he is a guest tutor in the University of Bristol, in the University of Helsinki, and in Oberammergau as well, at the NATO Academy. He was nominated for the position of the EU's Special Representative in Darfur in 2005, and he held that position until 2007. Between 2007 and 2011 he was commissioned to different positions in Helsinki, then in 2012 he was the nominee of the Greens in the presidential elections, where he won second place.

work of the police and the political, military work of the special representative regarding the following points:

- Daily contact with the EU member states which participate in the mission, as well as keeping in touch with the professionals of the Administrative Control and Management Centre (ACMC) which supervises the Europeans supports for the AMIS.
- Daily contact with Brussels, supplying information to the leaders of the EU, asking for intervention if necessary related to issues out of the competence of the special representative.
- Contacting the ambassador in Addis (delegated by European states), other representatives and the European military/police officers serving in the operation
- Collaboration with the supporters of the AMIS (USA, NATO, UN, etc.) to help coordinate the mission, and to avoid the duplication of certain contributions.

The EU struggled to uphold their interests not only in the political, but in the military and police areas too, hence on 18th July, 2005, the EU Council in its resolution (2005/557/CFSP) delegated a leading military advisor (Colonel Philippe Mendez, France) and a leading police advisor (Superintendent Douglas Brand, Great Britain) into the centre of the AU, Addis Ababa.⁵ [9] After that the EU's military and police advisors sent their reports directly to the EU headquarters. They could request help from the EU concerning any other issue. [10]

By September, 2005, the organisation of the EU's new support operation evolved with a proper reporting system. Considering the previous experiences, it took a great part in the assistance and actuation of the AMIS II.

The new organisational structure of the European operation: [11]

- Brussels Coordination Group/EU Military Body – Operational Group of Darfur;
- EU Combined Office at the AU's command;
- EU Special Representative and its organisation body (military and police advisors);
- European advisors of the Darfur Integrated Task Force, including the groups of the Administrative Control and Management Centre/ACMC, as well as the stock of the air-bridge actuation. (Forward Based Movement Cell);
- European members of the Cease-Fire Committee;
- The European general and police advisors, served in the mission's command in Karthoum;
- European general and police advisors served in the mission's operational command (El Fasher) and in the Combined Logistic Operational Centre;
- EU military observers in Darfur, and police advisors in external sectors.

The EU took an active part in the new operation, especially in the training and equipping of the police officers sent to the AMIS II. As the African states were not able to send enough well-trained police officers to Darfur, the declared aim of the mission, which was to protect refugees, became a risk. Their protection mainly needed police constables, not only military personnel. The police had an important role in ensuring the legality, and in building up trust between the refugees and the Sudanese police, but the police component was struggling with headcount deficiency. It could hardly arrange its own functioning, not to mention the

5 The leading military position was completed by France (Colonel Philippe Mendez), Holland (Colonel Eric Burmeister) and Hungary. The Hungarian candidate Colonel Károly Nyitrai lost against the French candidate with a small difference. [9]

tasks that were delegated to them. The police component struggled with the following problems: [12]

- There was no clear idea about the relocation of the policemen, the related plans were incomplete.
- The African states were unable to mobilise enough police officers for the mission, so the police forces were not able to reach the proper level of their functional ability.
- The police officers sent to the mission were lacking the right capabilities. They did not speak English and they were poorly trained. These deficits diminished the possible opportunities of the police component.
- The Command and Control system of the police forces had problems too. The emulation between the soldiers and police officers created serious problems too. It lessened not only the effectiveness of the police officers, but also the efficiency of the mission.
- The logistic system of the AU was not able to ensure the proper provision of equipment, lodging, and working circumstances for the police officers, who were supposed to ensure 24 hours presence in 40 refugee camps and 25 important settlements according to the mission's objectives.

These facts were highlighted by a committee in Darfur, in 2005. They made a motion to extend the number of the policemen and to improve their training. Henceforth, the EU offered a "supporting pocket" on 26th May, in 2005. In this pocket they handled the assistance of the police component accentuated, and they offered help in the following areas:

- Supporting the command system of the police component: For this the EU offered well qualified, high ranked police officers to the AMIS. They functioned as personal advisors of the African police leaders. Twenty-four police advisors (offered by the EU) got positions at the AMIS, and at the higher commands of the Sudanese police agencies (Addis, Khartoum, El-Fasher, and the sector commands). The EU sent the advisors for a six month-period of time. By the way, there were some people who extended the serving period more than one time. The service superior of the European policemen was the police officer delegated to the Darfur Integrated Task Force (DITF) stock.
- Participation in the training of the police staff: Generally the training of the staff was made by the EU's two mobile training groups with ten people. Another group (consisting of five members) trained those African policemen, who became later drill sergeants in the police component. In this way they could improve the effectiveness of the training comparatively fast.
- Giving assistance and advice how to implement a police operation efficiently. For this purpose the EU sent a high ranking police officer to the AU's command in Addis, who had both political and planning experience.

According to the previous plans, the EU planned to send 49 police officers and 3 administrators to the operation. Although the EU provided all of the necessary equipment for the policemen, they expected lodging, as well as health and personal security from the AU.⁶ [12] In return for an allowance of course. As the mission was not able to ensure the proper equipment for the advisors, they used the computers and satellite phones financed by the EU. [13] These positions were difficult to fill, because the member states were not willing to send

6 But the EU leaders anticipated that the AMIS (which was struggling with a great source deficit) will be not able to assure proper logistic insurance to the EU advisors. Therefore they planned a separate budget to assure the needs. This was a right measurement in the light of the further events. [12]

further advisors. They could fill only 22 positions till August, 2005. Therefore Pedro Serrano, the director of the police operations, asked the EU member states to fill the vacant positions with advisors from their own countries. [14]

In order to achieve the EU's aim, to send soldiers and police officers to the AMIS II, both the EU and AU leaders had to change the rules of the mission's operation documents, because of the Sudanese government organisation's demands. They just let the European advisors into the country when they were participants of the AMIS, despite the fact that the Addis Ababa Agreement (28 May, 2004) enabled the participation of non-African states and organisations too. Nevertheless, people sent by the EU constantly faced the fact, that neither the Sudanese people, nor the leaders of the mission were happy with their presence. The EU even increased the support for the AMIS, but the situation was getting worse. The leaders of the negotiations saw less and less possibilities for a political settlement. The insurgent groups divided into smaller bunches, fighting not only agents of the Sudanese Government, but against each other too. The Sudanese Government and the Janjaweds militias burned down more and more settlements, they killed people, they committed brutality and they looted. The number of the refugees multiplied. Unequivocally, it was impossible to close the conflict with military solutions. But for the measurement of the political solution the success of the AMIS was indispensable. The peacekeepers were to be able to ballast the region. In order to achieve this, the European Union's Council sent an expert group to survey the real state of the AMIS II between 16th and 22nd September, 2005. They analysed the logistic problems, their effects on the function of the mission and they wanted to make moves to the EU leaders about the directions of further collaboration. [15] The members of the working groups met with the leaders of the AU and the AMIS, as well as the EU advisors and observers in Addis, Khartoum, and El-Fasher. Furthermore, they visited several sectors and camps. It can be said that they got a complete picture of the mission's actions and of the current state. Ambassador Kidoulaye and the head of the DITF claimed that because of the AU's political decision the mission could not fail, and they want to continue the support measures and the actuation. According to them, the exporting of the African troops cannot be suspended because of the logistical deficiencies. The member states refused to send further soldiers and the Aid Organisations demanded more and more military groups from the AMIS so that they could maintain their undisturbed humanitarian actions. According to the ambassador, there were not many logistical problems, except that there was a lack of air-fuel and the partners (for example the EU) were not able to support the mission appropriately in accordance with its needs. Other African leaders did not know that their missions struggled with logistic problems. Moreover, they were sure that everything was going well in Darfur. They emphasised the necessity of the mission's expansion too. They thought that with the help of the donors every problem could be solved. They were worried more about not getting as much financial support as they had requested. They expressed concerns about the transmission of the operation to the UN. Their main goal was to gain absolute control over the subsidies which the AU got. They noted that the EU should not set conditions according to this. Unlike them, the military supervisors of the mission admitted the problems which were threatening the functioning of the mission. Despite these dangerous factors, they talked about the necessity of continuing the operations and managing a new enlargement of the participants. In their opinion, putting a robust military force into action would be the only way to make peace in Darfur. Hence new groups, equipment (combat cars, combat helicopters, etc.) and more financial support had to be sent

to them. The members of the group saw it unequivocally that the representatives of the AU in Addis were unable to control the operations in Darfur and to settle the maintenance of logistics. Respectively, the operation command did not assure the necessary information. It was obvious that the mission's command and control system's work was limited, and this was one of the reasons why the mission seemed unsuccessful. The group noted that the leaders of the AMIS did not take the advice of the experts who were sent to Darfur in March, 2005.⁷ [16] They were endeavouring to close the mission without a disgraceful failure. At this point an idea came up, that by the middle of 2006 the mission would be transferred to the UN. But till that time they asked for further financial help, because at this point the mission was struggling with a 40 million Euro deficit, and they expected the acquitting from the donors. According to the Europeans who were serving in Darfur, the biggest problems were related to the bad leadership, the lack of collaboration, the bad planning, the deficits (air-fuel, food, drinking water, etc.), the lack of competence, and the deterioration of the security circumstances. The members of the group reconciled with the leader of the Pacific Architects & Engineers (PAE) (this organ arranged the supplement of the mission), who said that the mission had serious logistic problems. For instance the AMIS got only 30–51% of the total needs. For example due to the passengers who travelled with the food-delivery airplanes the amount of the food diminished and at the end it was never enough.

Besides the fuel deficit, bad organisation also worsened the provision. The PAE's leader said that the sector commanders often created financial funds, and they bought food from the funds to feed their soldiers. The leader also said that he did not see any sense in extending the number of the military groups until the proper circumstances were provided. He indicated that they did not know that European police advisors were coming, and it was very difficult to give them accommodation. This case showed appropriately the communication problems between the organs of the mission. This information was confirmed by the command of the police officers, who were very disappointed because of the accommodation they got. However, the group got good news about the mission of the police component, nevertheless, of 1,560 people only 850 arrived.⁸ [17] Even so the police officers started to move out to the refugee camps and the safety rate ameliorated. But the communication and logistic problems further diminished the efficiency of the police officers.

The group indicated in the résumé of the account that the enlargement of the mission tackled logistic problems, particularly the lack of fuel and food. The experts of the Joint Logistic Operation Center (JLOC) ballasted the provision system a little,⁹ [18] but the financial problems, the unserviceable command and control system, the malignancy of the parties, the dissension of the different elements caused continuous problems. They counselled giving bigger competence to the JLOC managing the logistic issues and to establish the Joint Operation

7 Several advisors confirmed that they were very frustrated due to the fact that the AU asked for the EU's financial-logistic help, but they did not care about the opinion of their advisors. Several people were indignant, because the Africans did not respect the Europeans, although the EU was the greatest supporter of the AMIS. Several African officers did not know that the EU was giving assistance to them, they thought that the advisors are from Canada and America. [16]

8 The stronger actions of the police officers were the result of the commander-change. The previous police commander was in conflict with the military commander of the mission. His follower was the South-African Daniel Moenyana who was much more active than his predecessor.

9 Sadly the leaders of the mission often ignored the advice of the logistic experts. They just used the ideas of the professionals in case of emergency. That is why the leaders of the group noted in the recommendation that the AMIS leaders should use the advice of the experts. [18]

Centre (JOC) because if the command was solid, then there would not be any emulation between the components. Moreover, they considered the sustainability of the EU's support very important because it was a core factor for the functioning and the cessation of the mission and would be damaging for all participants. Colonel Michael Eger created a résumé about the health provision. The medical expert noted that the civilian company (chosen by the AMIS) had not assured the services which they offered in the contract. The medical support of the mission was defective. The peacekeepers could use the French military force hospitals located in Chad (Abechi and N'djamena), but they were 1000–2000 km far away. Most of the African troops had no medical crew, the soldiers did not get medical preparation, and there were not enough first aid kits. The lieutenant colonel also noted that the European officers serving in Addis and Khartoum got normal medical service, but the officers in El-Fasher or in the sectors did not get proper medical support. [19] This issue remained a problem till the end of the mission, partly this was one of the reasons why the European states did not want to send more advisors and observers to the staff of the AMIS. According to the report of the expert group, the EU decided to form their role in the mission in tune with three important aims: [20]

- Renewing the political agreements with active participation of the EU;
- Helping the AMIS to work more efficiently;
- Helping the AU to close the conflict quietly, so after a successful consolidation the AMIS could leave Sudan.

By then the leaders of the EU were expecting (moreover, they offered) the UN to take over the mission, but the AU refused this. The EU and other donors decided to continue the assistance for the AMIS's work despite the chaos. According to the plans this help cost 100 million Euros for the European states in 2006. Even so, the EU planned to support the medium-term transmission of the mission. In November, 2005, the EU Soldier Core made a report analysing the situation in Darfur. The utilization of the support and the functioning of the mission were checked. It was noted that establishing the DITF was a good idea but creating the correspondence between the operation areas was not successful, the policemen and the soldiers took part in the work of the mission in an inadequate way. The DITF leaders often contended with the command in Khartoum, and they had no exact information about the events in the area of operation. They remarked, according to Khartoum that its role and its tether are often unclear, which leads to conflicts. However, the command exercise was to maintain connections with the Sudanese governmental organisations, and to arrange the logistic issues of the mission, but in the logistic area it did not engage in major activities. According to the command in Darfur several negative facts emerged. The AMIS Command did not coordinate the work of the components, there was a strong contention between the sectors and other commands, moreover, the peacekeepers were also rivalling. The mission split into parts and it did not try to operate uniformly. It worked in accordance with the habit of the current commander. Although the JLOC did good work in the logistic area, the Joint Operation Centre existed only in plans so the solid control over the mission was not achieved in 2005. According to the report, the AMIS's growth was only apparent on paper but actual positive change was not made in Darfur. In a way the report condemned the European member states too because it noted that of the 50 soldier/policeman positions they only filled 21, from which 16 positions were filled only after February, 2006. Hence the EU leadership tried to motivate the member states to take a bigger role in the support. It was asked separately to

send a medical officer (because of the deteriorating health circumstances) to the JLOC organisation, to facilitate the medical support of the European advisors/observers. The countries that sent the advisors/observers saw the problems clearly, some of them did not send more advisors to the logistic system of the operation. [21] The EU's Military Staff commander Perruche indicated in his letter to the EU leaders that till the end of 2005 around 100 European advisors and observers served in the AMIS staff. [22] However, to keep up the EU's role in the mission it was necessary to deploy more military and police officers. On 24th November, 2005, the EU Military Staff sent a letter to the member states, in which they asked them to testify by 5th December, how they want to support the AMIS further, and they also tried to request more observers and advisors to Darfur. But the member states did not hurry with the answer because it seemed likely that again they cannot fill 13 positions out of 16 places. Great Britain announced it would diminish the number of the advisors. Italy and Spain did not send new ones after the service time of their advisors expired. Hungary claimed to leave the mission. Yet, because of the strong commitment of the EU, it was very important to send European advisors and to ensure the functional capability of the mission. For this reason, the member states tried everything in order to improve the bad work and living conditions of the European advisors. [23] For example they gave them communication equipment, they rented houses for the officers serving in El-Fasher so that they could sleep in houses, not in tents. They tried to make their living conditions more comfortable in Darfur.¹⁰ [24] However, more and more European officers complained about the bad living conditions. [25] Moreover, the European military observers did not get their salaries from the mission, even though the AU got the money from the donors. The AU was asked a lot of times to pay the salaries, but it did not grant that, so the EU paid them from the ATHENEA Mechanism's budget. [26] It was not easy to fill the vacant positions, as the AU demanded more professionals. For example on 29th November, 2005, it requested lawyers to Khartoum and El-Fasher in order to arrange the documents of the AMIS II's operations. [27] In 2006, during Colonel Philippe Mendez's tour of duty, the EU offered only one candidate for the vacancy: Colonel Philippe Beny, who became the special representative for the next 6 months. [28] This example presents how difficult it was to find other European advisors. According to a report, the year 2006 was highly important for the mission, so important to the EU that it wanted to extend its role in the mission's work. A greater involvement did not come into reality, there were barely a few European observers in the camps, and the number of the European officers diminished too.¹¹ In February, 2006, out of 31 positions only 15 were filled. 11 officers wanted to go home before March and there were no new officers to replace them. All in all these problems resulted in the leaving of the EU, for this they created the extraction plan. [29] The EU Military Staff's analyses in 2006, provides information about 2 military observers in Chad, while in

10 The EU assumed that they pay for the air travel of the observers between El-Fasher and Khartoum from the budget of the ATHENEA Mechanism. They pay their way when they go home too, not just in the case of service. This was necessary because the AMIS launched a regular flight between the two cities (with the help of civil enterprises). The flight was not fit for the basic secure requirements. Nevertheless, all of the African soldiers and policemen used it. As they often overloaded the airplane, it was a game of hazard to use it. One of the airplanes crashed on 24th December, 2005. No one survived the tragedy. Because of this the EU military staff prohibited to use the airplanes for the Europeans and gave them tickets for civilian airplanes free of charge. [24]

11 After the Hungarian secession several countries lowered the number of their personnel in the mission. In the beginning of 2006, this was the footing: Cyprus (1 person), France (5 people), Great Britain (2 people), Germany (1 person), Italy (1 person), Austria (1 person), Spain (2 people), Portugal (1 person).

Darfur none. Hence, they drew the attention of member states again to send military and police officers as soon as possible. [30] For this only Slovakia applied and sent two observers. [31] In this period the members of the mission started to speak officially about the transmission of the operations to the world organisation. The EU supported this initiative and offered further support to execute it as soon as possible. On 30th April, 2006, Brigadier General Francis Girand's duty came to an end as the vice president of the Cease-Fire Committee. The EU appointed Brigadier General Oliver Pitty to his position. In the meantime, the Peace Treaty of Darfur was signed, which ensured the EU one new position inside of the Cease-Fire Committee. Apart from the job, this officer was responsible for the observers' and advisors' financial-logistic support, the functioning of the EU ensured communication equipments. This position was very useful later, because the people who were serving in the mission often requested and received help from the Main Officer. There was a change related to the provision of the officers too, as on 1st March, 2006, the AU terminated the contract with Medical Services Support which provided medical supply to the mission. The Command of the AMIS decided that the newly arrived battalion's medical sections will ensure the primary health care in the mission. The more serious surgeries were made exclusively in the state hospital in El-Fasher. [32] However, this concept was not acceptable for the EU because of previous experience. The fact that the Nigerian battalions did not bring medical personnel to Darfur raised the question: whether the AMIS is able to ensure health care for the European advisors as well or not. [33] First, the EU Military Council planned to extract the whole European Staff by 30th March, 2006. After the agreements the EU signed a contract with the US government that in exchange for money the PAE takes care of the pressing medical service problems for the 30 European officers. [10] In April 2006, the EU Military Council sent a medical group of two to Darfur. They proposed various recommendations after the surveys on the field, to improve the health care there. [34] For example, till there was no ensured medical service for the European observers, the EU Military Staff forbade leaving the camps, so they could not go on patrol. [35] In May, 2006 the EU sent a Swedish medical group to the province who gave advice and organised first aid courses for the African peacekeepers, taught them how to treat at least minor injuries. After that the health care problems were solved, the EU introduced new rules to ensure safer working conditions for the staff. As a result, the European staff could stay in the mission.¹² [36] [47]

Yet, the attitude of the advisors turned worse, especially in Addis Ababa where the previous collaboration disappeared and distrust affected the work quality negatively. [17] Notwithstanding the previous problems, the AU was very satisfied with the work of the European advisors and on 18th May, 2006, they asked the EU to send another six advisors. Finally the Forward Joint Mission Headquarters (/FJMHQ) was established in Darfur. Both the police officers and civilians played a great role in its work. [37] On 6th June, 2006, the EU eventually offered four staff officers for different positions. [38] However, they previously had planned to send home all of the observers. At the end they let them stay, moreover they increased their number to 32 people. [14] The member states kept on the constant observer circulation

12 Soon after this, the DITF asked the Military Staff to ensure the equipment for the AMIS to build two camp hospitals. The EU asked them to clarify in their petition what they needed. Their wishes were unduly huge. Moreover they asked for the same medicine for 2.1 million Euros from the Swedish too. The EU refused to give the supply because the UN was taking over the mission. They noted, when the AU asked for any kind of assistance it had to be constantly re-established and real – for the EU to consider their needs. [36] [47]

(generally it worked adequately with few problems) till the cessation of the AMIS. [39] The EU tried to integrate the lessons learned by the previous observers and advisors into the training of the new officers. Between 18th and 20th June, 2006, they organised a lessons learned conference in Brussels to which they invited everyone who had served in Darfur to date. The ones who could not receive their honours previously had the chance to obtain them during the conference. [39] The ex-observers and the advisors made motions in several topics to the EU Military Staff, and they utilized a lot from them (ensuring GPS instruments, creating a reference book about the operation, improving the standard of the training, etc.). [40] At the same time the EU sent not just soldiers and policemen to the AMIS, but civilian officials too, mainly financial, legal and logistic specialists, although they were less visible than the other group members. [41]

Colonel Francois Amelineau, the military advisor of the EU special representative noted that while the EU still gave important support for the AMIS in the beginning of 2007, there were not so many positive results, because the leaders of the mission especially the military commander – Mayor General Aprezi – ignored the advice. They demanded the financial and logistic support, but they refused the advice related to the utilization of the money because of the “African leadership”. Occasionally they tried to play the donors off against each other. From the end of 2006 they gave the chance to the UN to participate in the leadership because they were preparing to give the operation to the world organisation. In February, 2007, the UN sent 47 military and 30 police advisors to Darfur to coordinate the activities related to the problems. Even so the operation struggled with logistic problems. The biggest problem was still the supplement of catering, so the AMIS tried to organise 260,000 ready-meal kits, and they expected the financing from the donors. France gave them a part of the required money. [42] The EU remained the major supporter of the mission but Brussels planned to pull out the European advisors and observers after the UN's takeover. This process was coordinated by the new special representative Torben Brylle. His predecessor (Pekka Haavisto) got another leading position at the UN. [43]

Between 18th and 20th June, 2007, the leading officer of the EU's military staff – Lieutenant Colonel Ronald Dorenbos – visited the operational area to find out personally what living and working conditions the European officers have. Although the lieutenant colonel got reports about the circumstances, he was shocked that the European advisors and observers were living in austere conditions. Yet, they were in a good mood and they did their job suitably. But the dealing with the European officers astonished him. Albeit they gave a position to every European in the mission's staff, they were not integrated into the AMIS system, and were treated like strangers. For instance, they were not allowed to participate in the handover – discussions but they were expected to accomplish every task. [44] There were similar cases in El-Fasher, in the organisation of the JLOC. The African commander banished the European and Canadian advisors from the discussions, while he was complaining that he did not have enough people to carry out the professional duties, not to mention the organisation's tasks related to the handover of the mission. He notified that in positions of trust he wanted to see only African officers, and he did not care about the opinions of the “whites”, because the mission was under African control. [45] Only those got bigger honour who were in logistic or financial positions, those who were indispensable for the mission. Despite all of these difficulties every European soldier tried to work well for the AMIS. On the other hand the European police integrated completely into the police component and they became indis-

pensable for the African police. The health care was better and the health risks lowered. The European observers moved out of the rented house because an Egyptian officer who lived in the neighbourhood was killed by unknown people. Shortly the Sudanese government organs arrested three people. All of them admitted the commitment of the crime, so the Europeans moved back to the house. The lieutenant colonel noted that the three advisors in Khartoum were living in civilised living and working conditions. In his report he mentioned that while the EU and the donors were still giving important support to the AMIS, it became nearly non-functioning. They were only waiting for the takeover by the UN. [46]

Considering the report, the EU leaders supported the UN's takeover in every possible way and they continued the financial support of the AMIS. The activity of the European military and police officers slowed down, they did not undertake new conflicts for the mission. And so they were waiting for the remodelling of the operation, when the European contingent was extracted and the EU's support operation was officially eliminated.

Summary

Between 2005 and 2007, the EU gave political, military-police and financial-logistic support for the AMIS. It can be said that the EU's assistance was essential for the AU, for without their help the operation would have collapsed. Although the EU's support was financial and logistic,¹³ the professional work of more than 100 military and police officers (who were delegated by the EU member states) helped a lot to keep up the functioning of the mission. It was an important contribution too that the EU transported more than 2,000 African soldiers and policemen to the operational area and to their homes from its own budget. The role of the EU was understated so its merits were not recognised even if they should have been. On the other hand, it can be said that the operation was successful and the lessons learned there were utilized in further missions.¹⁴

References

- [1] BESENYŐ J.: Logistic Experiences: The case of Darfur – Promoting Peace and Security in Africa. *Finnish Department of Strategic and Defence Studies*, 2 35 (2006), 49–50.
- [2] *Fact Sheet: EU Response to the crisis in Darfur*. Brussels, 10 June, 2004. HM-HIM HL MH Separated Assortments 78 –II/AMIS – Sudanese mission.
- [3] *Briefing Note on the renewal of the mandate of the AU Mission in the Sudan (AMIS) – PSC/PR/2 (XLII)*.
- [4] *PCS/AHG/Comm-27.05.2004*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [5] *PSD/246/1141*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission

13 During the two and half years the EU gave over 300 million Euro to the AMIS, and the member states gave another 500 million Euros to the mission's budget.

14 The European political and military leaders learnt a lot from the experiences of the operation in Darfur. During the EU's Consultative and Supporting Operation in Congo they could use this knowledge, so the Europeans had a much more positive line there.

- [6] *Council Joint Action on the European Union civilian military supporting action to the African Union mission. In the Darfur Region of Sudan.* HM-HIM HLMH Separated Assortments 77/AMIS-Sudanese Mission.
- [7] *Council Joint Action 2005/557/CFSP of 18 July 2005 on the European Union Civilian-Military Supporting Action to the African Union Mission in the Darfur Region of Sudan. Official Journal of the European Union*, L 188, 20 7 (2005), 46–51. www.operationspaix.net/DATA/DOCUMENT/3437~v~COUNCIL_JOINT_ACTION_2005_557_CFSP_on_the_European_Union_civilian-military_supporting_action_to_the_African_Union_mission_in_the_Darfur_region_of_Suda.pdf (downloaded: 13 07 2015)
- [8] *Council Joint Action appointing a Special Representative of the European Union for Sudan.* Brussels, 13 July, 2005. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [9] *IM 07-07/04 DG 317/05.* Brussels, 22 July, 2005. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [10] *HM-HIM HL MH Separated Assortments 77/AMIS – Sudanese mission.*
- [11] *IM-07-07/07 CCM 024/05.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [12] *EU Organization Arrangements to Manage the Consolidated Package of Support to AMIS II.* HM-HIM HL MH Separated Assortments 78-I/AMIS – Sudanese mission.
- [13] *Draft Concept for EU Civilian/Military Supporting Action to AMIS II.* HM-HIM HL MH Separated Assortments 78-I/AMIS – Sudanese mission.
- [14] *Status of EU Assistance Mission to AMIS II. and shortfall in personnel.* Brussels, 18 August, 2005. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [15] *Report: Council Secretariat AMIS II assessment mission 16–22 September 2005.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [16] *IM 07-07/03 CCM 046/06.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [17] *Monthly Report EUSR Sudan, April 2006.* – HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [18] *Report: Council Secretariat AMIS assessment mission 16–22 September 2005.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [19] *CCD 02-04-00/03 CCM 003/05.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [20] *Strengthening EU Action in Response to Developments in Darfur.* Brussels, 30 November, 2005. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [21] *IM 07-07/03 DG 498/05.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission
- [22] *IM 07-07/03 DG 496/05.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [23] *IM 07-07/03 DG 510/05.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [24] *IM 07-07/03 DG 082/06.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [25] *IM 07-07/03 CCM 005/06.* HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.

- [26] *IM 07-07/03 DG 365/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [27] *IM 07-07/03 DG 503/05*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [28] *IM 07-07/03 DG 048/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [29] *IM 07-07/03 CCM 046/ IM 07-07/07 CCM 024/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [30] *IM 07-07/03 DG 070/06*. HM-HIM HL MH Separated Assortments 80/AMIS – Sudanese mission
- [31] *Military Advice on EU Support to AMIS and Possible AMIS – UN Transition*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [32] *IM 07-07/03 DG 208/06*. HM-HIM HL MH Separated Assortments 80/AMIS – Sudanese mission.
- [33] *IM 07-07/03 DG 101/06*. HM-HIM HL MH Separated Assortments 80/AMIS – Sudanese mission.
- [34] *IM 07-07/03 DG 253/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [35] *IM 07-07/03 DG 261/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [36] *IM 07-07/03 DG 271/06*. HM-HIM HL MH Separated Assortments 80/AMIS – Sudanese mission.
- [37] *AU request for advisors PSD/DITF/NV/1869*. HM-HIM HL MH Separated Assortments 75/AMIS – Sudanese mission.
- [38] *IM 07-07/03 DG 347/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [39] *IM 07-07/03 DG 196/06*. HM-HIM HL MH Separated Assortments 80/AMIS – Sudanese mission.
- [40] *IM 07-07/03 DG 383/06*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese mission.
- [41] *EUSR MA WEEKLY REPORT – Week 06/2007*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [42] *EU MSR WEEKLY REPORT – Week 04/2007*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [43] *EU MSR WEEKLY REPORT – Week 21/2007*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [44] *EU MSR WEEKLY REPORT – Week 23/2007*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [45] *EU MSR WEEKLY REPORT – Week 26/2007*. HM-HIM HL MH Separated Assortments 78-II/AMIS – Sudanese Mission.
- [46] *DGEUMS visit to Sudan/Darfur 18–20 June 2007*. HM-HIM HL MH Separated Assortments 78-I/AMIS – Sudanese mission.

The Rise of Islamic State of Iraq and Syria (ISIS)

Luna SHAMIEH¹, SZENES Zoltán²

Europe and Hungary, currently faces multiple national threats in an environment of growing disorder. ISIS, the “State of Terror”, is executing a sophisticated strategy that involves simultaneous efforts and attacks in Iraq and Syria, the Middle East and North Africa, and the wider world. Civil wars are intensifying in Ukraine, Yemen, and Libya, causing massive migration waves. The recent terrorist attack in Paris has shown that ISIS supported homegrown terrorism is an increasing threat. This article discusses the development and internal issues of the most dangerous terrorist organization. Although it was not a purpose to analyze the international consequences of the recent ISIS attack in Paris, the authors express their hope that ISIS might make a strategic mistake. On 13th November, 2015 can be a turning point in the fight against the Islamic State.

Keywords: ISIS, Islamic State of Iraq and the Levant (ISIL), DAESH – the Arabic equivalent of ISIL, Islamic State, terrorism, jihadist, Iraq, Syria

Islam and Politics

The Islamic religion has been associated with politics since its establishment. The prophet Muhammad was a religious and political leader for the people “Ummah”.³ He worked as a political leader in different aspects and conducted many successful military expeditions with different parties throughout his leadership period. Additionally, he worked as a judge and helped resolve conflicts and disputes for his people, which made him the reference for the “Ummah” in multi-disciplinary aspects including cultural, family disputes, and even economic issues that might have risen. Furthermore, he initiated relationships with neighboring countries especially in the relationship with the King of Ethiopia to seek asylum. Hence, several incidents and occasions reveal the relationship between the religion and politics during the prophet’s leadership.

After the prophet the political leadership continued, especially after his death when the followers discussed who would take over the leadership. During this phase disputes aroused in ruling the vast Caliphate that the Prophet Muhammad established. The Caliphate is the government system in which an Islamic political leader leads the Ummah in accordance to the Islamic ideologies.

Two parties were evident in the dispute that resulted from whom would rule the Ummah after the death of the prophet; one that was in favor of electing a successor (Calipha) and

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3 The word literally means *community* or *people*. When it comes to Islam, it means *the whole community of Muslims bound together by ties of religion*. There are many sects within the Muslim community, but the whole of it is considered *Ummah*. The word encompasses everyone who is a Muslim.

the other argued that it should go to Muhammad's son in law Ali bin Abu Taleb who was nominated by the prophet before his death. Ali became the fourth caliph but was murdered in the city of Kufa. Twenty years later, Ali's followers were travelling with his son to Karbala where he was massacred with his fighters in Karbala. Accordingly, Kufa and Karbala are now considered the heartland of Shia Islam.

In the past few years Sunni and Shia disputes have regressed to conflicts and they have now become a serious issue of conflict in the region. Shia mainly exists in Iran, part of Iraq and Bahrain; though they are minorities in other regions. Figure 1 shows the distribution of both parties. Iran, Iraq, and Bahrain include the largest Shia communities that comprise 89, 60, and 70% respectively.

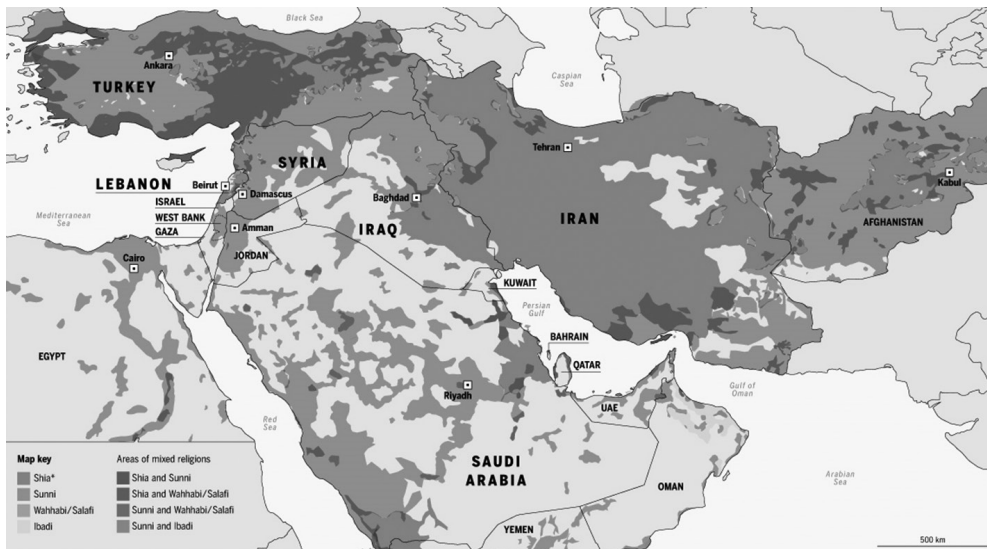


Figure 1. Distribution of Sunni and Shia in the Middle East. [32]

Iraq and Syria: The Fertilized Land

The political situation in both Iraq and Syria permitted for the expansion of ISIS. Both countries included internal conflict and growing seeds of struggle. This made the expansion of ISIS in the region possible.

To identify allies and enemies it is worthy to going back to the Iraqi case to defines some of the roots of the case. The Kurds, who are currently in a decisive war and fights with ISIS, had faced a devastating situation during Saddam Hussein's rule of *Iraq*. In 1988 the Iraqi leader Saddam Hussein used chemical weapons to kill tens of thousands of Iraqi Kurds in the north of the country to gain control of the oil wealth in that region. This conflict led to resentment and hatred between the Saddam Regime and the Kurds. Furthermore, as a Sunni leader, who was in favor of the Sunni over the Shia; the regime favored Sunni people for employment purposes. Hence, although Saddam Hussein was able to keep the country as one he helped create political tensions that catalyzed the current situation.

Another main catalyst that helped keep the region on the boiling is the Iraqi invasion. On 2nd August, 1990 Iraq invaded its neighboring country Kuwait, as was a result of disputes about oil production. This led to the UN sanctioned international coalition led by the USA, who used ground, maritime and air forces to force Iraqi troops to leave Kuwait. Within days the Iraqi forces were forced out. [1] However, the sanctions never came to an end even after the ceasefire. A no-fly zone was inflicted until the second invasion of Iraq. (See Figure 2.) This no-fly zone helped empower the Kurds in the north and empower the Shia in the south. After the termination of the Saddam Regime through the Iraq invasion in 2003, a new weak Shia regime was established. Hence the weak government and system lived at the tensions that led to failed statehood facilitated internal conflicts, especially with the existence of three different parties (Shia, Sunni, Kurds), with different visions and different views of the new Iraq.



Figure 2. No-fly zone in Iraq between 1990 until 2003. [33]

Syria is another region that has been facing internal conflict to a large extent since 2011. Many people were against the Assad Regime and the opposition has been getting bold. The rebels have become more and more effective and extreme. [2] In 2014 the inter-level conflict erupted among the Opposition Forces in the Syrian Civil War. Large opposition groups are fighting with each other: the Free Syrian Army (FSA), the Army of Mujahedeen, the Islamic Front, and the Islamic State of Iraq and Syria, amongst whom ISIS is the strongest one. The Islamic State – according to the regional Arabic resources – has about 10,000–100,000 fighters (estimated number, the figures are extraordinarily wide-ranging) [3] alone which equal with the strength of other rebel groups together. Since Syria has been a failed state system, she is easily accommodated the rebel movements like ISIS.

Establishment

The story of ISIS goes back to *Abu-Musab Al-Zarqawi* who was imprisoned in Jordan for 5 years, after being sentenced 15 years for the possession of weapons and being affiliated to the Bayat al-Jihadi. Zarqawi then left go to Afghanistan and made contact with al-Qaeda where he was able to establish the Jihadi Group Jund al-Sham; which was named later “Jama’at al-Tawhid wal-Jihad”. One of their main activities was the bombing of some tourist sites in Jordan in 1999. One of these explosions was the Radisson SAS Hotel in which Sajida Al-Rishawi was one of the terrorists who attempted to blow herself up, but failed to do so. Sajida al-Rishawi has remained in the Jordanian prisons since then and was most recently requested by ISIS as part of the prisoner swap agreement with the Jordanian pilot Muath Kassasbeh. Shortly, after the explosions incidents, Zarqawi and his people relocated to northern Iraq.

Zarqawi established the Jama’at al-Tawhid wal-Jihad in the Kurdish area of Sulaymaniya which was targeted by the US troops during the 2003 US invasion of Iraq. This group had three major targets: the Shia, the international community, and Jordan; and hence their terrorist activities were conducted as such. In September 2004, Zarqawi announced *the allegiance with al-Qaeda*; where the group was then called al-Qaeda in Iraq.⁴

The relationship between al-Qaeda in Iraq and al-Qaeda was tense due to the different visions and strategies of both groups. However, the group remained to attract supporters and followers. Ideologically, all followers come from the Jihadi movement; which is very similar to Saudi Wahhabism⁵ and who believe that the Shia to be heretics. Zarqawi died in June 2006, and al-Qaeda in Iraq appointed Abu Ayyub al-Masri as the new leader. Four months later the Islamic State in Iraq (ISI) “Dawla al-Islamya fi Iraq” was established with a fully structured cabinet. [6]

In 15th October, 2006 a jihadist website revealed a recorded statement by the Mujahidin Shura Council declaring the establishment of the “Islamic State in Iraq”: “After the Kurds had secured a state in the north and the Rawaf,⁶ had won approval for federalism in the south and center with the support of the Jews in the north and the Safawis⁷ in the south, protected by armed militias that have black hearts, ideology, and action – militias that have been killing our Sunni people and subjecting them to the ugliest forms of killing, torture, and displacement. The condition of the Sunnis has become the same as the condition of the orphans on the table of wicked people. Therefore, it has become a must for the honorable and free Sunni mujahidin, ulema,⁸ and notables to make something for their brothers, sons, and honor in light of this silly drama that is called Al-Maliki’s state, in which it was regrettable that Sunni traitors took part. By doing so, they confused the religion for the people and deliberately wasted the rights of their people. [7]

The statement included the vision for establishing the new group. It also identified the allies and the enemies. In 2006, the Islamic State of Iraq’s Leader Abu Omar Al-Baghdadi

4 The Hungarian ISIS experts have similar timeline for establishing of the terrorist organization. [4] [5]

5 Wahabism is a religious group that started in Saudi Arabia by Muhammad ibn Abd al-Wahhab. Abd al-Wahhab demanded that all Muslims should pledge allegiance to the Caliph, and those who do not follow him should be killed.

6 Derogatory term for Shiites.

7 Reference to Iranians. Men of knowledge, teacher or authority.

8 Men of knowledge, teacher or authority.

then claimed that supporters were growing and organization of the group had started with self-sufficiency. Their control started widening, although it was only by early 2007, that the local tribes started combating the ISI troops, this started in Anbar province with what was called the Sahwa “awakening” movement. [8] As a result the Islamic State suffered significantly during the Sahwa, until 2009.

From June 2009 until August 2010 the US military withdrew from Iraq, this weakened the Sahwa efforts. The US commander in Iraq General Lloyd predicted this weakening. He summarized the US-Iraqi relations in November 2011 as follows: *“As we leave, we can expect to see some turbulence in security initially, and that’s because you’ll see various elements try to increase their freedom of movement and freedom of action,” despite better conditions than at any other point, “there will probably be unfinished business for many, many years to come [...] al-Qaeda will continue to do what it’s done in the past, and we expect that it’s possible they could even increase their capability.”* [9]

This withdrawal not only weakened the Sahwa group, but also left a weak Iraqi government unable to deliver the required services. The Nouri al-Malki’s Shia-led government was unable to pay the wages or to provide security to the people. [9] ISI on the other hand was providing better salaries for its people. This facilitated local recruitment from Iraq, which facilitated social grounding. This led to expansion in controlling wide areas, and expansion in the number of military operations conducted. This facilitated their campaign “breaking the walls”. The campaign helped free ISIS members from the Iraqi prisons.

The internal conflict in Syria and the expansion of ISI helped spread of the ISI to Syria. In early 2012, the Syrian revolution turned to armed struggle, which facilitated the work of Jihadist groups. The al-Nusra Front was established in Syria on January, 2012. The Nusra Front is a Jihadist group that was in opposition to President Bashar Assad in Syria. The group justified its existence and was also accepted by the people due to its acts against the Assad regime and through Islamic theological rule. [10] That was the crucial moment that changed the revolutionary style to a mechanism that welcomes jihadist movements. Leaders of the group avoided declaring affiliation with ISI or al-Qaeda, although ISI did support al-Nusra with men and funds. *In 10th April, 2013, Abu Bakr al-Baghdadi announced the merger of al-Nusra to form the Islamic State that expanded to Syria.* [10] Hence, the name started as the Islamic State in Iraq and Syria, which is known as ISIS or ISIL. However, Abu Muhammad Al-Julani (leader of al-Nusra) denied his knowledge of the decision and renewed his pledge of allegiance to al-Qaeda leader Ayman Zawahri. Hence, conflict erupted and the majority of the non-Syrian followers welcomed the merge with ISIS. Though Syrian followers decided not to join the al-Baghdadi group, others were not in favor of any and joined Islamic parties as Ahrar al-Sham.

The Name

Different names are used for the militant group operating in Iraq and Syria; different naming refers to different positions and ambitions. The following are the names used:

- **ISIS:** the name ISIS is an acronym for the Islamic State in Iraq and Syria. The group revealed this name first. Currently, this is the name used by the media and the public.
- **ISIL:** the Obama Administration calls it ISIL acronym for Islamic State in Levant. This means that the geographic location includes the whole Levant including Jordan, Lebanon and Palestine.

- *Daesh*: this is the name used by the Arab States, since it refers to the Arabic Acronym of the name “Al-Dawla Al-Islamiya fi al-Iraq wa al-Sham” which is the Islamic State in Iraq and Sham.
- *Islamic State*: This is the name the group call themselves and this reflects their ambition; an Islamic State without borders. They claim to represent the Muslims everywhere. Even if they have the ambition of extending the Islamic State to the Closer World (see Figure 3 for the map). As shown in the map below the Islamic State includes Iraq, Sham (this part includes Syria, Lebanon, Jordan, Palestine, and Israel), Hijaz (Saudi Arabia, Kuwait, Bahrain, Qatar, United Arab Emirates, Oman), Yaman (Yemen) the land of Alkinana (Egypt, Libya) Maghreb (Algeria, Morocco and Mauritania), the land of Habasha (Sudan, Somalia, Djibouti), Khurasan (Iran, Afghanistan, Pakistan, Kazakhstan, India, and parts of China), Andalus (Spain, which is the same name that was used during the Islamic government), Orobpa (Europe), Anathol (European part of Turkey), Kurdistan (parts of Syria, Turkey, Iraq and Iran), Qoqzaz (Caucasus area).



Figure 3. Islamic State according to ISIS. [11]

Al-Qaeda Ideology vs. ISIS Ideology

Al-Qaeda and ISIS have many similarities in the vision and organization. Both parties were looking forward to having a transnational Islamic State that would be established in the maximum geographic locations possible. Both groups were looking for the Islamic Government system, the Caliphate, following the Islamic Sharia and having the Caliph as the centralized political and Islamic leader who will give the orders and the Ummah will have to follow them. All disputes and courts will follow Islamic Sharia. For example, thieves should have their hands chopped off in public, and several other Islamic legal verdicts. It is apparent that

both groups have modern technology mechanisms and very well established public relations and advocacy plans. They both use social media for spreading news, progress and proclaimed plans

However, despite of the unified origin of both groups, they are different in two main aspects. First, they differ in the strategy they are working with. Al-Qaeda started its work with external strategies focusing on the external relations, [12] which is apparent through the 9/11 attacks and the London bombing. The advocacy of the groups was focused on fights against the people of other countries to ensure that their ideology will be inflicted. On the other hand, IS had the opposite strategy, they were focused on their people and all brutal acts were inflicted on their own people.

From an organizational perspective it could be called a “vanguard” group according to the political scientist Paul Staniland. [13] This means that the group has a tight central leadership; however, it is not as strongly embedded within the community. Especially, because most people are against the idea of this extremist ideas and strategy.

Another difference is based on the target group of both IS and al-Qaeda. The Islamic State calls upon its people, and this is limited to Sunni people. They are against any non-Sunnis people. They kill Shia and Christians; they are even against Sunnis who are not in favor of their strategy. They try to control the region of Iraq and Syria. ISIS believes that full control of this region will help them move to their second step. All their activities are based on their region, as they perceive that they cannot move forward to any new battles until they are done successfully with the current battle.

Currently, no one is concerned about al-Qaeda ideology, despite the fact that the war against terrorism started against this specific group. The ideology, the group, and the term are diminishing with time. This diminishing was never a result of the war against terrorism despite all the activities and operations against al-Qaeda, nor did it neither collapsed due to the change of people’s thinking; moreover, it was not defeated by any local war. The only cause of this defeat was the arising of ISIS; ISIS started to compete with the ideology, the mechanism and the strategy of establishing an Islamic State. It is even accepted as an ideology amongst youth coming from different origins and religions.

ISIS Organization

The Islamic State is a very well organized group, this is apparent through the structure they are using and most importantly through the progress they are accomplishing. The following factors assure the well-organized system of the group.

Organizational Structure

The group has a well-developed organizational system of state, which might be even more developed than existing states in the region. It includes the three authorities of an established state:

1. Judicial authority: according to their system includes:
 - a) Islamic courts.
 - b) The Judicial Authority: this deals with all judicial matters.

2. Legislative authority: for ISIS this includes:
 - a) The Shura (Consultative) Council: this council includes 9–11 members, all selected by the Caliph. The main task of the Council is supervising affairs the state.
3. Executive authority: the executive part includes defense, military, and public relations:
 - a) *Military*: the Military Council: includes three members appointed by the Caliph. The council is responsible for planning and supervising military actions and operations.
 - b) *Security*: the Defense, Security and Intelligence Council: it is responsible for the security of the Caliph, and most importantly of implementing orders, campaigns, judicial decisions and, intelligence purposes.
 - c) Public Relations for disseminating the messages of the Caliph.

Additionally, the scale of manpower is helping the progress of ISIS. Some statistics say that number of fighters ranged from 7,000 to 12,000 with many recruits arriving on a daily basis. [14]

Financial Status

During its establishment ISIS received financial support from the Gulf; however, currently they are self-funded. They have the illicit sale of oil through oil wells and refineries they control to the black market. Moreover, they control many of the ancient artifacts they have stolen from the region. Also, they are able to gain money through hostages, the taxes people pay are secured (for example Christians), and businesses they are starting. Reports claim that ISIS is the richest terrorist organization in the world. According to Colin (2014) IS had 8 million US dollar net monthly income through the businesses in Mosul alone.

Use of Information and Communication Technology

ISIS personnel are highly skilled and active in IT; they post high quality videos with remarkable and advanced technology. They use the videos to send their PR messages, show their operations clearly and the progress they make in each operation. They conduct interviews with hostages declaring they are not a bloody group, and interviews with citizens who thank them for the bravery, work and for saving their lives by ending the Sykes-Picot borders. They also release their reports to the public. They work in different languages English, Arabic, German and French.

Additionally they are very active on social media; they post thousands of Facebook messages and twitter tweets. IS has created a twitter application that helps them to send all links, hashtags, and images.

Armaments

ISIS is well equipped with advanced rockets mortars and different types of weapons. According to Bender (2014) ISIS has different types of armor, including ones made by the Russians, the Chinese and the US. These include: T-55 tanks, T-72 tanks, Humvees, AK-47s, M79 OSA Rocket Launcher, RBG-6 Grenade Launcher, RPG-7s, M198 Howitzer, Type 59-1 Field Gun, ZU-23-2 Anti Aircraft Gun, FIM-92 Stinger, MANPAD, HJ-8, and DShK-1938 Machine Gun. [15]

ISIS Public Support

Despite the fact that islamization is increasing in the Middle East, which is apparent in the customs and traditions of the people there; however, not many accept the idea of ISIS. According to Pew Research (Global Attitudes Project), [16] the “Middle Easter sees religious and ethnic hatred as a top global threat. A huge number of Muslims are against the extremism of the group. They do accept the Islamic Sharia; however, they do not accept the strategy of the IS.” In a study done by the Washington Institute in October 2014; only 5% from Saudi Arabia support ISIS, 3% in Egypt, and none in Lebanon supports ISIS. [17] However, other reports indicate that there are many supporters of ISIS in Jordan, and people are traveling to Syria to support ISIS. [18] Moreover, Taliban in Pakistan are highly in favor and ready to support ISIS. [19] Additionally, “Ansar Bait al-Maqdis” (“Champions of Jerusalem”), an extremist militant group who is active in Sinai and is in alliance with the Islamic brotherhood the previous Egyptian government announced its allegiance with ISIS. Since then the group named itself “Wilayet Sinai”, Province of Sinai. They announced: “After entrusting God we decided to swear allegiance to the emir of the faithful Abu Bakr al-Baghdadi, caliph of the Muslims in Syria and Iraq and in other countries.” [20] This group has announced several times that it would be working against the Egyptian army. Also, ISIS in its website declared that the Islamic Group of Morocco has also announced its alliance to the Islamic State, through a letter that requests support from all the Muslims in the Iraqi and Syrian regions. [21]

Reports have indicated that Muslim supporters of the ISIS in Europe are in existence. “One in seven young British adults has ‘warm feelings’ towards the Islamic State, and a tenth of Londoners and one in 12 Scots views Islamic State favorably.” Which was apparent more for those of ages 18 to 34 years old, [22] another survey conducted in France, UK and Germany indicated that almost a sixth of the French population (16%) have a favorable disposition towards ISIS. [23] However, this percentage gets to 27% with those of age 18–24 years old. In Germany it reaches to 3–4% with no difference amongst age.

Main Implications of ISIS

ISIS has significant implications in the region and worldwide, these include the following:

1. *Iraq*: ISIS facilitated the disintegration of the country into several ethnic and religious parts. Different displacement trends took place in Iraq including: Shabak and Turkmen Shia Minorities from Ninewa Governorate, Christian Minorities from the Ninewa Plains, Yazidi Minorities from Sinjar and surrounding areas, mixed displacement from Northern Diyala Governorate. [24] Furthermore, distinct ethnic regions are formed in the Kurdish region in the north, Shia region in the center and south, ISIS controlled region in the north and west of Iraq. Mainly, ISIS used three strategies in the Iraqi region, first the mass targeting of civilians and sites through brutal attacks on regions including Shia, Christian and other rivals; second, targeting military personnel and opponents; lastly, targeting internationals to send their anticipated message.

2. *Syria*: ISIS has managed to control the northern and eastern parts of Syria. Again it facilitated the disintegration of the country through those with the regime and those against the regime. ISIS is fighting the Assad regime along with the other rebels including al-Nusra Front. Most recently, the US agreed with Turkey to train and equip the rebels, this will make the situation more volatile. Also, ISIS used the same three military strategies used in Iraq.
3. *The Middle East*: the concept of Jihad is widening in the area and ISIS is gaining support and allegiance from several Islamic and Jihadist groups, this increases the possibility of creating a welcoming region towards ISIS, especially with the messages in which ISIS presents itself as the savior of the true and ideal Islam. The military strategy used in the Middle East was through social media and aimed to attract personnel through the Jihad concept and philosophy and through potential sexual activity during the Jihad or promises of such affairs after death.
4. *International World*: ISIS recruits some of its personnel from all over the world including North Africa and Europe, and mostly from the Arab World. Through its strategy it is affecting the weapons and petrol prices in the region. The military strategy used is again through social media by sending terrifying videos on one hand and by sending attracting messages to recruit personnel on the other hand. In 2015 ISIS attacked 24 times [25] and killed more than 500 people outside Syria and Iraq. The recent death toll is very high: more than 120 in the Paris attack, 224 in a Russian plane above Egypt's Sinai Peninsula, more than 100 in Istanbul and almost 40 in Beirut. ISIS has made a significant turn to focus on external operations because it very likely wants to compensate for the lost territory in Iraq and Syria. The choreographed Paris attacks signal a dangerous departure from the group's typical low-tech to lone-wolf assaults representing high threats for European countries.

The recent developments shows that ISIS continues to execute its global strategy to defend its terrain within Iraq and Syria, to foster affiliates in the Middle East, North Africa, and Central Asia, and to encourage and resource terror attacks in the wider world.

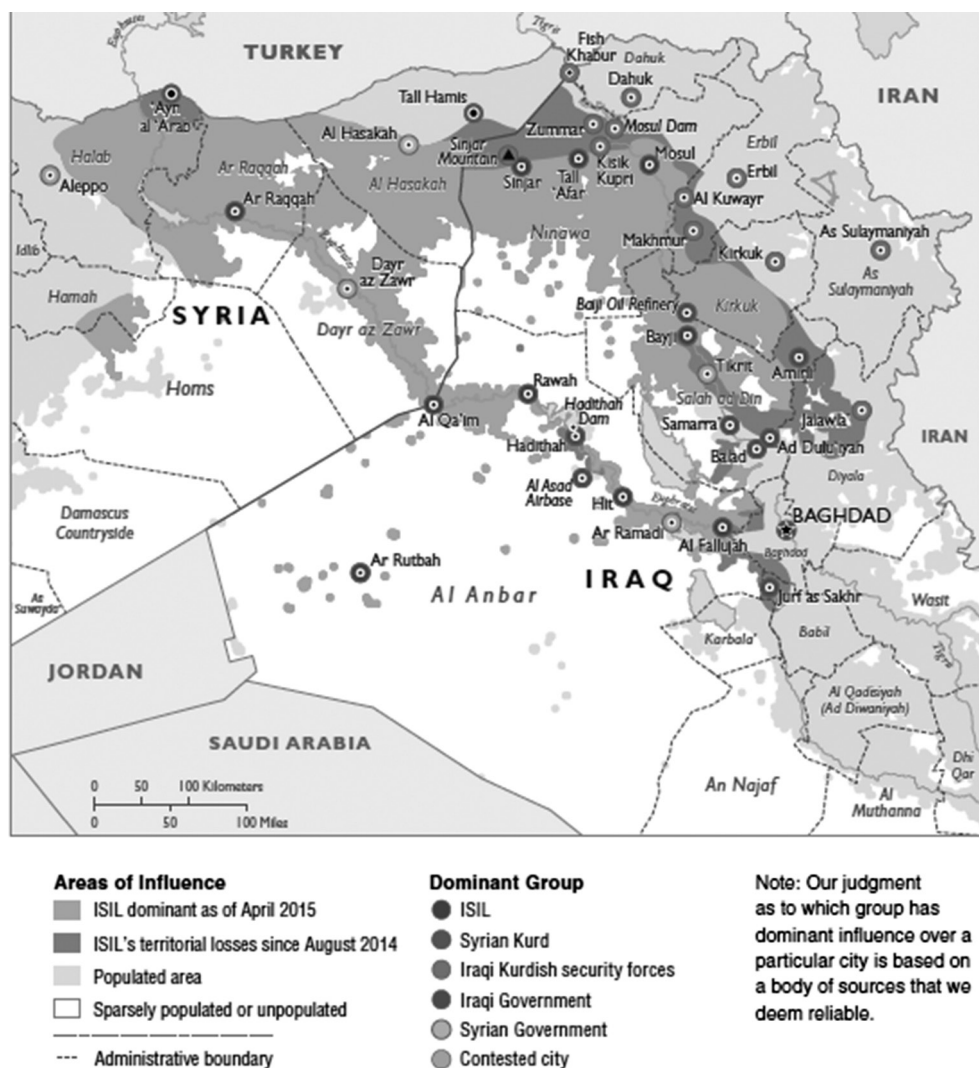


Figure 4. ISIS's Reduced Operating Areas (April 2015). [26]

US-Led International Intervention against ISIS

ISIS expansion has affected the US policy along with the international community policy in the region of Iraq and Syria. During its establishment, the US did not pay attention towards ISIS; their perspective was that rebels should play a role against the non-democratic Assad regime. However, after the wide expansion of ISIS this perspective changed. During the period June-August 2014, the US supported the local forces in the hope of terminating ISIS attacks. [27] In September, this strategy changed and a military air attack was enforced through a US-led coalition (Operation Inherent Resolve – OIR) without the use of ground troops. The coalition included Western and Arab countries. As of December 1, 2015, the countries that have participated in air strikes include: in Iraq: (1) Australia, (2) Belgium, (3) Canada, (4)

France, (5) Jordan, (7) the Netherlands, and (8) United Kingdom; in Syria: (1) Australia, (2) Bahrain, (3) Canada, (4) France, (5) Jordan, (6) Saudi Arabia, (7) Turkey, and (8) UAE. Germany will also be joining the air strikes very soon. As of 1st December, 2015, the US and coalition have conducted a total of 8,573 strikes (5,639 Iraq, 2,934 Syria). As of 28th November, 2015, the US and partner nation aircrafts have flown an estimated 59,015 sorties in support of operation in Iraq and Syria. Operation Inherent Resolve attacks destroyed/damaged 16,075 targets (tanks, military vehicles, staging areas, fighting positions, buildings), and killed a half dozen ISIS leaders and leading individuals. As of 15th November, 2015, only the US cost of operations alone since kinetic operations started on 8th August, 2014, reached 5.2 billion US dollar with an average daily cost of 11 million US dollar. [28] Currently, the US is moving again to the strategy of equipping and training rebels. However, all these strategies are not helping halt ISIS's brutal activities; they are bringing more chaos and insecurity within the region and in Europe.

In addition to US-led international coalition, Russia has also joined the air strikes on 30th September, 2015. The Russian military intervention was based on the request of the Syrian government to help against rebel and jihadist groups in Syria. Russia started air operations in north-western Syria against militant groups opposing the Bashar al-Assad regime, including al-Nusra Front, ISIS, and the Army of Conquest. The Russian Space and Air Force enjoys significant ground support from the Syrian military, Iranian Revolutionary Guards, and allied militants. The situation as it developed in October 2015, was widely assessed to be a proxy war between the United States and Russia. By 17th November, 2015, according to the Russian Defense Ministry, Russia's air force had flown a total of 2,300 missions over Syria. [29] After the terrorist attack against the Russian Flight 9,268 Russia intensified the air campaign and supported by the land operations of Syrian governmental forces. As a result, for the first time in 4 years of war the Syrian Army liberated 80 inhabited areas, assuming control over a territory of 500 square kilometers. [30]

Conclusion

With all the brutal operations of ISIS, it remains an organized group with a mission to end the Sykes-Picot Agreement⁹ and establish a state that fills a wide range of geographic regions. Starting with Iraq and Syria as a point of departure to empower themselves and then start their next phases. Hence, it is based on religious rather than national unity. The area of control at the beginning was increasing over time, and their fierce fights are also increasing.

ISIS is playing it right, it has the financial resources, it is very well organized, it is using the media effectively, and it started providing health, educational services, and community outreach. It is getting to the grassroots. It is attracting and recruiting youth from all over the world. Those youth are amazed and proud that they will be part of this movement.

Despite the International coalition to fight against ISIS, this group is gaining so much support from different parties throughout the globe. They are receiving much support from

9 The Sykes-Picot Agreement, officially known as the *Asia Minor Agreement*, was a secret agreement between the governments of the United Kingdom and France with the assent of Russia defining their proposed spheres of influence and control in the Middle East should the Triple Entente succeed in defeating the Ottoman Empire during World War I. The negotiation of the treaty occurred between November 1915 and March 1916. The agreement was concluded on 16 May 1916. [31]

the Middle East. The Taliban is an ally and the Islamic Moroccan group has announced their support according to their reports. Ansar Bayt Al-Maqdis in Egypt has sworn their allegiance. Additionally, it is worth noting that this group has supported the Islamic brotherhood in Egypt; hence, the possibility that allies will not only be in the Sinai region. Moreover, Hamas in the Gaza Strip considers itself an Islamic party more than a national party. Especially since they supported the Islamic brotherhood when they took control of the government in Egypt. During that time relationships with Egypt enhanced. This relationship was not a result of national gathering but rather an Islamic gathering. Additionally, several announcements have been distributed in Gaza during the past few weeks with the ISIS name, along with several ISIS flags found in the region. If Hamas is not an ally in the current phase, it might be in the future due to the common values.

Support of ISIS can also be found in the European region. Despite all their extremist activities they have supporters within the Muslim youth in European countries. There is danger as the terrorist attack indicated in Paris that the “foreign fighters” could return to their home country to disrupt the state and public order. At the same time, a mass shooting in San Bernardino, California, shows that ISIS continues to pose a direct threat not only to Europe, but to U.S. as well, due to its robust network of regional affiliates and global supporters.

ISIS has been established in a fertile and convenient environment. It started in weak states; in Iraq, in the conflict between the Kurds, Sunni and Shia, and in Syria between the rebels and the Assad regime. This conflict allowed them to excel and boost, and as long as the conflict will remain this will be their harvest. This fertile environment gives a high opportunity to sustain if not expand. Kurds are fighting them, but the reason for their fights is to gain their own independence. Turkey is not in favor of the Kurds winning, thus they threaten the Kurdish rebels in their region. The conflict with ISIS acts as a catalyst. Any more conflicts in Gaza or Jordan will attract ISIS.

By the end of November 2015, it has become clear that there is a new ISIS global strategy. In the center of the concept stands the defense and expansion of an operational area control in Iraq and Syria. ISIS is building two rings around the “home territory”: the closer abroad ring is designed to establish affiliates (currently eight countries exist) and increased disorder as we saw in November. In the far abroad ring ISIS will continue to launch terrorist attacks and to polarize the enemy.

However, it is thought, that the posing a threat to Europe and US, the attack in Paris, bombing the Russian Plane, and the massive attacks in the near and far abroad could change the western attitude towards ISIS. The European Union – for the first time in its history – invoked the mutual defense clause 42.7 on 17th November to assist France by all means in their power. The UN Security Council Resolution unanimously approved on 20th November all necessary measures to fight the global and unprecedented threat of ISIS in the wake of the Paris attack. There is a chance to establish a “great coalition” between US, EU and Russia which could bring the change in the fight against ISIS.

References

- [1] PERI: *Modern Conflicts: Conflict Profile. Iraq – Kuwait (1990–1991)*. Massachusetts: University of Massachusetts Amherst, Political Economy Research Institute, s.d. www.peri.umass.edu/fileadmin/pdf/Iraq3.pdf (downloaded: 11 03 2015)
- [2] WHITE, J. TABLER, A. J., ZELIN, A. Y.: Syria's Military Opposition. How Effective, United, or Extremist? *Policy Focus*, 128 (2013), 1–48. www.washingtoninstitute.org/uploads/Documents/pubs/PolicyFocus128WhiteTablerZelin.pdf (downloaded: 17 08 2015)
- [3] GARTENSTEIN-ROSS, D.: *How many fighters does the Islamic State really have?* War on the Rocks (online), February 9, 2015. <http://warontherocks.com/2015/02/how-many-fighters-does-the-islamic-state-really-have> (downloaded: 18 11 2015)
- [4] GALGÓCZI I.: Az Iszlám Állam megszületése (Born of IS.) *Seregszemle*, XIII 1 (2015), 109–110.
- [5] TAKÁCS I.: Az Iszlám Állam terrorszervezet kialakulása, működése és jövőbeni lehetőségei. (Birth, operation and future prospects of ISIS terrorist organization.) *Honvédségi Szemle*, 143 3 (2015), 35–36.
- [6] LISTER, C.: Profiling the Islamic State. *Analysis Paper*, 3 11 (2014).
- [7] *The Global Intelligence files*. http://wikileaks.org/gifiles/docs/36/3615824_translation-statement-of-mujahidin-shura-council-on.html (downloaded: 23 02 2015)
- [8] LAVENDER, L.: *The Re-Awakening of Anbar*. Mons: NATO Civil-Military Fusion Centre, 2013. www.irinnews.org/pdf/20130415_thematic_anbar_province_final.pdf (downloaded: 22 02 2015)
- [9] CORDESMAN A., KHAZAI, S.: *Iraq after US withdrawal: US policy and the Iraqi search for security and stability*. Washington, D.C.: Center for Strategic and International Studies, 2012. http://csis.org/files/publication/120702_Iraq_After_US-Withdrawal.pdf (downloaded: 22 02 2015)
- [10] HAMZA, M.: *The al-Nusra: From Formation to Dissension*. Doha: Arab Center for Research and Policy Studies, 2014. <http://english.dohainstitute.org/file/get/9dd86818-7314-40ec-bf8e-be4a0db226c0.pdf> (downloaded: 24 02 2015)
- [11] KIS-BENEDEK J.: The Islamic State and the Intelligence. *Nemzetbiztonsági Szemle*, (National Security Review), Special Issue (2015), 35–48. http://uni-nke.hu/uploads/media_items/nemzetbiztonsagi-szemle-2015_angol_kulonszam.original.pdf (downloaded: 10 11 2015); <http://pamelageller.com/2014/06/islamic-state-map-world-militants-outline-chilling-five-year-plan-global-domination-declare-formation-caliphate.html/> (downloaded: 20 01 2015)
- [12] MOHAMEDOU, M.: *ISIS and the Deceptive Rebooting of al-Qaeda*. Geneva: Geneva Center for Security Policy, 2014. <http://reliefweb.int/sites/reliefweb.int/files/resources/ISIS%20and%20the%20Deceptive%20Rebooting%20of%20Al%20Qaeda.pdf> (downloaded: 18 03 2015)
- [13] SCOTT, M.: *The ISIS Story*. New York: Foreign Policy Association, 2014. <http://foreignpolicyblogs.com/2014/07/03/the-isis-story/> (downloaded: 15 03 2015)
- [14] NERIAH, J.: *The Structure of the Islamic State ISIS*. Jerusalem: Jerusalem Center for Public Affairs, 2014. <http://jcpa.org/structure-of-the-islamic-state/> (downloaded: 15 03 2015)

- [15] BENDER, J.: *As ISIS Routs the Iraqi Army, Here's a look at what Jihadist have in their arsenal*. Business Insider (online), July 8, 2014. www.businessinsider.com/isis-military-equipment-breakdown-2014-7?op=1 (downloaded: 15 03 2015)
- [16] *Middle Easterners See Religious and Ethnic Hatred as Top Global Threat. Europeans and Americans Focus on Inequality as Greatest Danger*. Washington, D.C.: Pew Research Center, 2014. www.pewglobal.org/2014/10/16/middle-easterners-see-religious-and-ethnic-hatred-as-top-global-threat/ (downloaded: 20 03 2015)
- [17] *Arab Public Opinion and the Fight against ISIS*. Washington, D.C.: Washington Institute, 2014. www.washingtoninstitute.org/uploads/Documents/infographics/Arab_Public_Opinion_and_the_Fight_Against_ISIS_-_English.pdf (downloaded: 21 03 2015)
- [18] ALRASHED, A. R.: How much Support does ISIS enjoy? *Al Arabya News*, 23 June, 2014. <http://english.alarabiya.net/en/views/news/middle-east/2014/06/23/How-much-support-does-ISIS-enjoy-.html> (downloaded: 28 04 2015)
- [19] Pakistan Taliban vow support for ISIS fighters. *Al-Arabya News*, 5 October, 2014. <http://english.alarabiya.net/en/News/middle-east/2014/10/05/Pakistan-Taliban-pledges-support-to-ISIS-.html> (downloaded: 28 04 2015)
- [20] BUSHRA, S.: Egypt's Ansar Bayt al Maqdis swears allegiance to ISI: statement. *Al Arabya News*, 4 November, 2014. <http://english.alarabiya.net/en/News/middle-east/2014/11/04/Egypt-s-Ansar-Bayt-al-Maqdis-swears-allegiance-to-ISIS.html> (downloaded: 12 03 2015)
- [21] *Islamic State website*. http://the-islamic-state.blogspot.hu/2014/03/blog-post_22.html (downloaded: 20 01 2015)
- [22] GREENFIELD, D.: *80% of London Muslims Support ISIS. Most young Muslims in the UK support ISIS*. FrontPage Mag (online), 2014. www.frontpagemag.com/2014/dgreenfield/80-of-london-muslims-support-isis/ (downloaded: 20 03 2015)
- [23] GRANT, M.: 16% of French Citizens Support ISIS, Poll Finds. *Newsweek*, 26 August, 2014. www.newsweek.com/16-french-citizens-support-isis-poll-finds-266795 (downloaded: 20 03 2015)
- [24] *Iraq IDP Crisis Overview*. 3–18 August, 2014. http://reliefweb.int/sites/reliefweb.int/files/resources/REACH_IRQ_InternalDisplacement_Report_August2014.pdf (downloaded: 25 02 2015)
- [25] The world's fight against ISIS: 10 things to know. *Miami Herald*, 19 November, 2015. www.miamiherald.com/latest-news/article45474945.html (downloaded: 20 11 2015)
- [26] *Strikes in Iraq and Syria*. Washington, D.C.: US Department of Defense, s.d. www.defense.gov/News/Special-Reports/0814_Inherent-Resolve (downloaded: 06 12 2015)
- [27] *ISIS: Portrait of a Jihadi Terrorist Organization*. Ramat Hasharon: The Meir Amit Intelligence and Terrorism information Center, 2014. www.terrorism-info.org.il/Data/articles/Art_20733/E_101_14_163836165.pdf (downloaded: 25 02 2015)
- [28] *Strikes in Iraq and Syria*. Washington, D.C.: US Department of Defense, www.defense.gov/News/Special-Reports/0814_Inherent-Resolve (downloaded: 06 12 2015)
- [29] *Авиация РФ с начала операции в Сирии совершила свыше 2 тысяч вылетов. РИА НОВОСТИ (online)*, 17. 11. 2015. http://ria.ru/syria_mission/20151117/1322962104.html (downloaded: 21 11 2015)
- [30] *Минобороны России*. www.facebook.com/permalink.php?story_fbid=1678935105682572&id=1492252324350852 (downloaded: 21 11 2015)

- [31] The Editors of the Encyclopedia Britannica: *Sykes-Picot Agreement*. Encyclopedia Britannica (online), London: Encyclopedia Britannica (UK) Ltd., s.d. www.britannica.com/event/Sykes-Picot-Agreement (downloaded: 04 01 2015)
- [32] www.ft.com/m/html/expandable-picture.htm. (downloaded: 15 10 2015)
- [33] No-fly zones: The legal position. *BBC News*, 19 February, 2001. http://news.bbc.co.uk/2/hi/middle_east/1175950.stm (downloaded: 15 10 2015)