Defence Against Terrorism Review

DATR

Furthering Global Cooperation on Counter-Terrorism:
NATO and its Global Partners in Afghanistan
Fatih KILIÇ and Taylan Özgür KAYA

Processes of Radicalization and Development of
Terrorist Activity
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COE-DAT
Centre of Excellence Defence Against Terrorism

Defence Against Terrorism Review
DATR

Vol. 15, 2022

CONTENT

The Defence Against Terrorism Review (DATR) is calling for papers for coming issues. The DATR focuses on terrorism and counterterrorism. All of the articles sent to DATR undergo a peer-review process before publication. For further information please contact datr@coedat.nato.int

Editor's Note

Dear Defence Against Terrorism Review (DATR) Readers,

The Centre of Excellence-Defence Against Terrorism (COE-DAT) proudly presents the 14th volume of DATR. This issue includes four articles on a wide range of aspects of terrorism….

This issue starts with the article *Furthering Global Cooperation on Counter-Terrorism: NATO and its Global Partners in Afghanistan*. It was written by Fatih Kılıç and Taylan Özgür Kaya. Fatih Kılıç is the Chief Master Sergeant in the Turkish Air Force, a PhD Candidate in the Department of International Relations at Necmettin Erbakan University, and also a Research Assistant in Centre of Excellence Defence Against Terrorism. Kaya is an Associate Professor in the Department of Political Science and International Relations at Necmettin Erbakan University. Highlighting the importance of counter-terrorism (CT) for countries and international organizations, the authors assert that countries should act jointly against terrorism to increase deterrence and strengthen their defensive positions. As one of the top priorities of NATO, CT's field has been advanced by NATO such as political principles, a military concept (MC), education and training plan, and action plans. In this respect, Kılıç and Kaya's study examines NATO's CT partnerships with other international organizations like the UN and the EU as well as other partner countries, such as Australia and Japan in the Afghanistan case, and aims to answer how NATO can contribute to global cooperation further regarding Counter-Terrorism.

Processes of Radicalization and Development of Terrorist Activity is the second article in the issue that shed light on the concept of terrorism by focusing on its modern aspect. Written by Peter Marinov, the article focuses on radicalization as the main component and motivational tool of terrorism. Though it is a complex and dynamic phenomenon, radicalization is a natural component of the modern and postmodern world that inhibits effective counteraction by any independent specialized institution or individual country. Marinov, an associate professor at Rakovski National Defence College in Bulgaria and a research assistant in the Centre of Excellence Defence Against Terrorism, concludes that policies and measures for prevention of radicalization and terrorism must be different, specific and targeted for different communities, regions, age groups and literacy levels because there are differences between terrorism based on left and right ideologies, on nationalism and separatism, and with different religious motivations.

The third article written by Marko Bulmer focuses on the significance of subterranea as an operational environment for NATO. In the article entitled *Contemporary Tactical Military Use of Subterranea by Non-State Actors*, Bulmer gives examples of the conflicts in Syria and Iraq which have shown how critical subterranean parts of cities are for the survival of both combatants and civilians. Used also in rural settings by combatants, subterranea has

been used increasingly to reduce or overcome the technological advantages possessed by modern militaries, and to find advantages in their limitations. Accordingly, the article stresses the significance of the examinations as to how rebel/terrorist groups have utilised subterranea is critical to understanding terrorist's intent and capabilities that are vital to identify measures, tactics, techniques or technology in the face of changing terrorist threats.

In the last article of the issue entitled *Africa A Hybrid Battleground,* Tama Csiki Varga and Vikor Marsai discuss the future challenges of hybrid conflicts in Africa by the 2030s. These challenges are expected to happen in two ways; the traditional hybrid challenges to a modern state functioning against both national and international actors, and hybrid challenges that target states in fragile conditions in particular. In the article, the definitions of 'hybrid warfare and 'hybrid war' are also clarified, which is a good contribution to the academic field of terrorism. As an expert in their study fields, Varga and Marsai focus on the possible outcomes of these hybrid challenges and by toughing upon the presumptive forms and effects of hybrid warfare which will reconstruct Africa as a 'hybrid battle ground'. In accordance with these presumptions, the required steps that NATO should take are also stressed by the authors.

As a last word, we would like to express our regards to the valuable authors, vigilant referees, and our precious readers without whom this journal is not worth publishing.

DATR always welcomes and encourages contributions from experts, civil and military officers as well as academics to send us their best work on defence against terrorism.

Sincerely yours,

Uğur Güngör

Editor-in-Chief

Furthering Global Cooperation on Counter-Terrorism: NATO and its Global Partners in Afghanistan

Fatih Kılıç[1] and Taylan Özgür Kaya[2]

Abstract: *Terrorism is undoubtedly one of the most important security problems threatening the whole world. The increase in the ability of terrorists to access to technological opportunities and capabilities, and their capacity to act almost anywhere aggravate the situation. For this reason, the counter-terrorism (CT) is of great importance for countries and international organizations, and they strive to increase their deterrence and strengthen their defense positions against terrorism. However, not only countries but also international organizations cannot overcome this struggle alone. This situation makes it necessary to act jointly. Due to its contribution to the three main tasks of the alliance, collective defense, crisis management and cooperative security, the CT is always one of the top priorities of NATO. In this context, NATO has made significant progress in the field of CT, including political principles (2012), a military concept (MC) updated in 2015 and about to be approved in 2020, education and training plan (2015) and action plans (2014, 2017, 2018, 2019). Furthermore, NATO has established various partnerships with other international organizations to increase the effectiveness of CT activities. This study aims to examine*

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NATO's CT partnerships with other international organizations including the UN and the EU and partner countries, such as Australia and Japan in the Afghanistan case in order to answer how NATO can contribute more to global cooperation on Counter-Terrorism.

Keywords: *NATO, Counter Terrorism, Afghanistan, EU, UN*

1. Introduction

'Terrorism' has traditionally defied definitions and shifted in meaning over time. It once had positive connotations during the French Revolution and with the establishment of the New World, colonies sought to distance themselves from tyrannical Kings and Monarchies in Europe.[3] However, the absence of a broadly-agreed global understanding rather than definition of terrorism only increases the risks. There are so many definitions of terrorism[4] in history and literature, in multitudinous different contexts.[5] Each is bound up in the complexities of its time and place, political backdrop and socio-national sensitivities, differences are therefore to be expected.

Terrorism as a significant global issue is a highly complex phenomenon. It remains a global threat with lasting impacts on the masses in the world today. It not only undermines international peace and security, but destroys communities and destabilizes regions. No country in the world is immune to terrorism. Fighting terrorism is a complex task because terrorists cannot be defined exclusively in terms of religion or ethnicity; they often have irregular forms of warfare and the ability to attack in different parts of the world.

Since terrorism is a transnational threat, there is a need for international cooperation for dealing with it effectively. International Organizations including the North Atlantic Treaty Organization (NATO), the United Nation (UN), the European Union (EU), and the Organization for Security and Co-operation in Europe (OSCE) have different structures, capacities, strategies and partnerships in various stages in fighting terrorism. The use of military force in fighting terrorism has a significant

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[3]   Bruce Hoffman, *Inside Terrorism* (Columbia University Press, 2006), p.3.

[4]   See, for example, Alex Peter Schmid, ed., *The Routledge Handbook of Terrorism Research*, (Taylor & Francis, 2011), p. 39., Anthony Richards, *Conceptualizing Terrorism*, (Oxford University Press, 2015), p. 51., Sebastian Wojciechowski, "Why is it So Difficult to Define Terrorism," *Polish Political Science Year Book* 38 (2009), p. 2.

[5]   Schmid, *The Routledge Handbook of Terrorism Research*, p. 413.

advantage in terms of deterrence. In this context, NATO, with its unique experience and great military capabilities, differs from other international cooperation and organizations, such as the Global Coalition Against Daesh, and the League of Arab States (LAS). However, since the partnerships between NATO and other international organizations in the fight against terrorism are no longer sufficient, it is necessary to reorganize these partnerships through incorporating other regional agencies, state and non-state actors plus emerging powers into this partnership.

This study will utilize the case study approach (CSA) as the primary research method. This will provide an overview of the main methodological features of the study - its planning, analysis, interpretation and reporting methods. CSA is used to create a multidimensional understanding by examining a complex subject in depth against the context of real life.[6] It can also provide detailed information on which gaps exist in policies subjected to analysis here, or the features favoring one implementation strategy over another. Thus, the data emerging during the study can help add to or revise our understanding of policies or strategies.[7] CSA method may differ from the researcher's epistemological perspective. They may have a critical, interpretive or positivist approach. We preferred to approach with a positivist perspective and to evaluate matters objectively. Therefore, it is believed by the authors that with such an approach, we can contribute to the sustainability and enhanced effectiveness of key partnerships.

Many of the studies conducted in this field[8] focuses on how partnerships between NATO and other international organizations are formed in the fight against terrorism, what stages they have gone through, and what results have been achieved. However, this study sets out to examine partnerships established by NATO in the global fight against terrorism with other international organizations including the UN and the EU and partner countries, such as Australia and Japan in the Afghanistan case in order to answer how NATO can contribute more to global cooperation on Counter-Terrorism. In this way, the advantageous and

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[6]   Sarah Crowe et. al., "The Case Study Approach," *BMC Medical Research Methodology* 11(1) (2011), p. 8.

[7]   Ibid, p. 6.

[8]   There are the following studies in this field; Juliette Bird, "NATO's role in Counter-Terrorism," *Perspectives on Terrorism* 9(2) (2015), David Scott Yost, *NATO and International Organizations* (NATO Defense College 2007), Kent J. Kill and Ryan C. Hendrickson, "Explaining International Organizations: NATO and the United Nations: Debates and Trends in Institutional Coordination," *Journal of International Organizations Studies* 2(1) (2011), Christian Kaunert, and Ori Wertman. "Counter-Terrorism Cooperation," in *NATO and the EU: The Essential Partners* (Lindstrom Gustav and Tardy Thierry, eds, NATO Defense College, 2019).

disadvantageous aspects of NATO in combating terrorism policy have been identified and made more contribution to the academic field by making inferences about how it contributes more to global fight against terrorism.

In this study, NATO's counter-terrorism (CT) operations in Afghanistan are chosen as a test case for analyzing NATO's global cooperation for fighting terrorism. Upon analysis, it is seen that NATO has acted in partnership with other international organizations such as the UN, EU and Global Coalition, and partner countries, such as Australia and Japan in its operations. Despite success of these partnerships, they faced many strains and difficulties and thus cannot be called as a model partnership. In the light of deficiencies detected, the study aims to make a contributory value not only to NATO but also other international and regional organizations in the field of CT in the context of comprehensive security and cooperative security approaches. This study will shed light on the possible policies to be implemented by NATO in future CT partnership initiatives. In the first part of the article, a brief history of NATO's CT strategy will be discussed. Second, NATO's CT cooperation with partners will be examined. Next, NATO's CT Strategy in Afghanistan that revealed the problems NATO faced during its partnership with other actors during its Afghanistan mission will be analyzed as the case study. And the study will end with a conclusion part.

2. The History of the NATO's Counter Terrorism Strategy

Before examining NATO's CT policy, it is useful to understand how NATO defines terrorism and CT. NATO defines terrorism as "…the unlawful use or threatened use of force or violence against individuals or property in an attempt to coerce or intimidate governments or societies to achieve a political, religious or ideological objective (AAP-6)."[9]

NATO's definition of CT:

"…*offensive measures used to reduce the vulnerability of forces, individuals and property to terrorism, to include Counter-Force activities and containment by military forces and civil agencies*."[10]

NATO as a collective defense organization was established primarily in response to a traditional external military threat. However, it had to face a series of questions

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[9]   "NATO's Military Concept for Defence Against Terrorism," NATO, available at https://www.nato.int/ims/docu/terrorism-annex.htm (accessed 24 April 2020).

[10]   Ibid.

about its future when the Cold War ended. As the security gap that emerged after the fall of the Berlin Wall began to threaten NATO's long-term future, both decision makers and academics began to explore ways to ensure the survival of the organization. The solution in this regard was the fight against terrorism, which was decided to be implemented in a format compatible with NATO's concept.[11]

In fact, international terrorism was not a phenomenon that had just emerged in the shadow of September 11, 2001 and was never on the agenda of NATO. However, the fight against terrorism was not included in NATO's priority policy at a time when it was discussed not only as a kind of passive political partner of Russia, but also an active military participant of NATO.[12] The Alliance's 1999 Strategic Concept identifies terrorism as one of the risks affecting NATO's long-term security, and paragraph 24 of concept emphasizes that "the security interests of the Alliance may be affected by other wider risks, such as terrorist acts, sabotage and organized crime".[13]

For the first time in its history, based on Article 5[14] of the Washington Treaty, NATO has started actively combating terrorism on US soil in response to the September 11 attacks.[15] This intervention was limited to providing AWACS intelligence and deploying ships in the Eastern Mediterranean[16] to intervene in suspected terrorist activities in the early October 2001 at the request of US officials.[17] The US did not make NATO the most important factor in response to this incident and decided to fight terrorism through coalition-of-willing when the attacks were found to be originating from Afghanistan. According to Michael Rühle, "September 11" was the catalyst for the most radical changes in NATO history, rather than the end of NATO.[18]

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[11] David Brown, "The War on Terrorism Would Not Be Possible without NATO': A Critique," *Contemporary Security Policy* 25(3) (2004), p. 411.

[12] Ibid. p. 412.

[13] "The Alliance's Strategic Concept," NATO, available at https://www.nato.int/cps/en/natolive/official_texts_27433.htm, (accessed 28 April 2020).

[14] Article 5; "The Parties agree that an armed attack against one or more of them in Europe or North America shall be considered an attack against them all and consequently they agree that, if such an armed attack occurs, each of them, in exercise of the right of individual or collective self-defence recognized by Article 51 of the Charter of the United Nations, will assist the Party or Parties so attacked by taking forth with, individually and in concert with the other Parties, such action as it deems necessary, including the use of armed force, to restore and maintain the security of the North Atlantic area.", "The North Atlantic Treaty," NATO, available at https://www.nato.int/cps/en/natolive/official_texts_171 20.htm (accessed 28 April 2020).

[15] "Countering Terrorism," OSCE, available at https://www.osce.org/countering-terrorism (accessed 11 May 2020).

[16] This deployment continues under the name of Operation Active Endeavor and covers the entire Mediterranean.

[17] Mary Buckley and Rick Fawn, eds., *Global Responses to Terrorism: 9/11, Afghanistan and Beyond* (Routledge, 2004), p. 259, p. 260.

[18] Michael Rühle, "NATO Ten Years After: Learning the Lessons," (NATO Review Magazine, 2016).

NATO's CT-related activities encompass three main 'spheres'- Documentation (texts, academic studies, training and publications), Organizational activities plus practical or Operational activities. Organizational work streams to some extent overlap with the Operational – the joint exercises, training schools and Centres of Excellence (CoEs) such as the Explosive Ordnance Disposal (EoD) and Consequence Management School in Iceland.

Examples illustrating each follow below.

2.1. Documentations of NATO's CT-Related Activities

It is of great importance that international organizations which were established to ensure the security of their members and carry out their policies in almost every field within certain concepts. The fight against terrorism is one of the most important issues to be evaluated in this context. There are three main documents framing NATO's fight against terrorism. These documents are:

- 2002 Military Concept for Defence Against Terrorism (MC-472): According to this text, member nation states retain primary responsibility for defence of their populations and infrastructure. Military Options continuum encompasses defensive measures and consequence management, 'traditional' offensive measures, and cooperation.[19]

- 2010 Lisbon Strategic Concept: It has three vital principal tasks: Collective Defense, Crisis Management and Cooperative Security.[20]

- 2012 Chicago Summit and NATO`s Counter-Terrorism Policy Guidelines: They take the same stream of thought, stating that "…in defining NATO's overarching approach to terrorism, allies recognize that most CT tools remain primarily with national civilian and legal authorities." Despite the burgeoning growth of terrorism as a global phenomenon, most responsibility (and capability) for countering it remains at national or sub-national level.[21]

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[19] "Final Decision on MC 0472/1 MC Concept For Counter-Terrorism," NATO, available at https://www.nato.int/nato_static_fl2014/assets/pdf/topics_pdf/20160905_160905-mc-concept-ct.pdf (accessed 12 May 2020).

[20] "NATO Adopts New Strategic Concept," NATO, available at https://www.nato.int/cps/en/natolive/news_68172.htm%20#:~:text=The%20new%20Strategic%20Concept%20urges,missile%20attacks%20and%20cyber%20attacks.&text=It%20also%20keeps%20the%20door,in%20NATO%20to%20European%20democracies (accessed 12 May 2020).

[21] "NATO's Policy Guidelines on Counter-Terrorism, Aware, Capable and Engaged for a Safer Future," NATO, available at https://www.nato.int/cps/en/natohq/official_texts_87905.htm? (accessed 12 May 2020).

These guidelines, which were framed during the 2012 Chicago Summit, focused on the three themes of Awareness, Capabilities and Engagement to cultivate a holistic and integrated approach to countering terror. These are expanded in detail below;

Awareness, including consultations**,** enhanced intelligence and information sharing. It also includes establishing networks of Subject Matter Experts and academics / practitioners in relevant fields. This also includes the sharing of methods, experience and best practice, thus reducing 'trial and error' duplication in the application and development of methods and concepts.

Capabilities, including effective intelligence (both its gathering, use, dissemination and application) and effective engagement. This also extends to Force Protection and CBRN Defence, in which certain member states possess substantial experience.

Engagement, defined as liaison and outreach with partner states and other international institutions to encourage common point of view of the terrorist threat, via boosted consultations and practical collaboration via existing mechanisms. This includes leveraging the experience of others (again reducing duplication in time and cost of 'failed experiments') plus contributing to global efforts against terrorism.

"*The Policy Guidelines on CT codify a set of definitions and end-states, with the aim of CT being '…putting an end to terrorist attacks', i.e deterrence and denial of opportunities to terrorists to execute attacks. It goes on to state '…take action against terrorists themselves' (direct action and suppression, disruption of structures, networks and funding). It adds '…protect(ing) people and property against attacks' plus preparation for recovery (resilience), an area where some member states had significant experience stemming from the Second World War. The text hinted at pertinent current issues by adding prevention '… (of people) becoming terrorists' plus discouraging support for terrorism. These presages the current day focus on media, censorship debates, counter-messaging and civil liberties*".[22]

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22 Ibid.

2.2. Organizational Structure of NATO`s CT Discipline

Organizational Structure of NATO`s CT typically involves building teams, schools and centers of excellence. These include the Terrorist Threat Intelligence Unit and Inauguration of Center of Excellence Defence Against Terrorism (2005), Science for Peace and Security Programme (SPS) projects plus the Emerging Security Challenges Division (2010). The latter body focuses on CT, Energy Security, Cyber Defence and Proliferation of Weapons of Mass Destruction.[23]

In addition to new initiatives in Civil Emergency planning and Crisis management, the Defense Education Enhancement Programme (DEEP) has driven practical initiatives such as Counter Improvised Explosive Devices (C-IED) training with Iraqi forces and establishing a civilian Crisis Management Center with Mauritania.[24]

This workstream encompasses Education, Training (COEs, NATO Maritime Interdiction Operational Training Centre (NMIOTC) and The NATO Special Operations Headquarters (NSHQ)) and Exercises. It is noteworthy throughout that the guidelines emphasize training, mentoring and outreach, capacity building with partner entities, knowledge sharing plus jointly in technical innovation, over 'direct action' and kinetic suppression of terrorist threats. Even the Special Operations Forces Community (NATO SOF HQ, Belgium) whilst having a field-deployable element, primarily builds up bodies of knowledge such as a SOF database and a tactical Improvised Explosive Devices (IED) laboratory enabling forensic analysis of improvised explosive devices, lethally effective in the past against even advanced NATO Land Systems (Bradley, Warrior, Stryker AFVs etc.).[25]

The continuing change in the strategic environment directly affects the transformation of NATO. NATO, which has undergone different transformation processes since its establishment, has faced much more security problems compared to the past. In the face of unlimited threats such as weapons of mass destruction and terrorism, as needed NATO must always be ready to be able to deploy and sustain forces in very remote areas, as in Afghanistan.[26] However,

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[23] Ibid.
[24] "Science for Peace and Security," NATO, available at https://www.nato.int/cps/en/natolive/78209.htm accessed 01 February 2021).
[25] "Special Operations Forces," NATO, available at
https://www.nato.int/cps/fr/natohq/topics105950.htm?selectedLocale=en (accessed 18 May 2020).
[26] "Güvenlik İçin Birlikte Çalışmak: NATO," NATO, available at
https://www.nato.int/nato_static/assets/pdf/pdf_publications/20120118_nato_security_turk.pdf (accessed 24 April 2020).

the breadth of the area requires NATO to create new security concepts and act in partnership with other international organizations. With the new Strategic Concept adopted at the Lisbon Summit in November 2010, NATO has undertaken Cooperative Security (CS) as a new core task in addition to existing collective defense and crisis management. Fundamentally, this new task aims to increase cohesion and cooperation with other international organizations in order to cope with new multidimensional threats.[27]

2.3. CT Centered Operations of NATO

NATO has conducted several operations within the framework of its global fight against terrorism in the post-9/11 era, including Operations Eagle Assist (OEA), Operation Active Endeavor (OAE), International Security Assistance Force (ISAF) and Resolute Support Mission (RSM).

- **Operation Eagle Assist:** Immediately after the 9/11 Terrorist Attacks, NATO invoked Article 5 of its Charter for the first time in its history and sent Air Warning and Control System (AWACS) air assets to improve the US organic air surveillance capability. 7 NATO AWACS patrolled the skies over the US on a constant basis (in similar fashion to the SAC standing nuclear bombers over the North Pole of the 1960s). The operation, to which 830 soldiers from 13 NATO countries contributed, terminated on 16 May 2002.[28] NATO's response to the September 11 attacks can be considered as one of the most important steps taken by the Alliance within the scope of the common defence strategy.

- **Operation Active Endeavor):** It was launched on 7 October 2001 to deter, defend, block and protect against terrorist activities in the Mediterranean, immediately after the 9/11 terrorist attacks, and ended in October 2016. The aim of the operation, which was launched to support the USA right after September 11, was to deter and disrupt terrorist activities in the Mediterranean. NATO`s Standing Naval Forces were deployed to patrol the eastern Mediterranean region as part of an effort to monitor maritime

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[27] "Cooperative Security as NATO's Core Task," NATO, available at https://www.nato.int/cps/en/natohq/topics_77718.htm?selectedLocale=en#:~:text=Cooperative%20security%20%E2%80%93%20a%20network%20of,to%20prepare%20for%20NATO%20membership. (accessed 22 May 2020).

[28] Kathleen T. Rhem, "Rumsfeld Thanks NATO as AWACS Planes Head Home," available at https://www.defense-aerospace.com/articles-view/release/3/9868/rumsfeld%3A-nato-awacs-to-return-home-%28may-3%29.html (accessed 28 May 2020).

traffic to detect and deter trafficking and terrorist activity. This primarily took the form of inspecting cargoes and seizing weapons or weaponizable / dual-use materials in the Mediterranean. With its contribution to the OEM, NATO once again demonstrated its solidarity and determination in the fight against terrorism. Moreover, this initiative is of great importance for NATO to implement its common defence strategy.[29]

- **International Security Assistance Force:** Albeit not a CT operation *per se*, this NATO-led operation in Afghanistan came about as a result of a terrorist threat and existed in a CT threat environment. It had direct relevance to global fight against terrorism. It aided the Afghan government in expanding and exerting its authority, and upholding security to prevent the country from becoming a refuge for international terrorism. Established under a UN mandate in 2001 at the request of the Afghan authorities, the ISAF was commanded by NATO from August 2003 to December 2014. It evolved into Operation 'Resolute Support Mission (RSM)' in 2014.[30]

- **Resolute Support Mission:** RSM, a NATO-led non-war mission, which was launched on January 1, 2015, following the completion of the ISAF mission. The main purpose of this mission, which was established upon the call of the Afghan government and in accordance with the United Nations Security Council's Resolution 2189 of 2014, is to ensure that Afghan National Security Forces (ANSF) take the responsibility of providing full security across the country. It has been training, advising, and contributing a large quantity of financial support to the ANSF and institutions. At the NATO Summit held in Brussels on 11-12 July 2018, RSM allies and partners pledged to continue to provide military assistance and financial support to the Afghan security forces until 2024. RSM currently operates in Afghanistan with at least 12,000 troops from 38 NATO Allies and partners.[31] Given the technical, military and economic assistance provided by the ANSF, it would not be wrong to say that the RSM contributed indirectly, not directly, to NATO's CT mission in Afghanistan.

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[29] "Operation Active Endeavour (Archived)," NATO, available at https://www.nato.int/cps/en/natohq/topics_7932.htm, (accessed 13 June 2020).

[30] "NATO and Afghanistan," NATO, available at https://www.nato.int/cps/en/natolive/topics_8189.htm (accessed 11 July 2020).

[31] "Resolute Support Mission in Afghanistan," NATO, available at https://www.nato.int/cps/en/natohq/topics_113694.htm (19 Jan 2021).

2.4. NATO's Counter-Terrorism Cooperation with Partners

The increase in the number of benign and malign non-state actors and problems such as corruption and social and economic inequality lead to a significant weakening of the effectiveness of states and institutions. Some malicious non-state actors, such as terrorist organizations, criminal organizations, human traffickers, and pirates, now engage in terrorist operations with their partners almost all over the world, and increasingly challenge governments through displaying state-like qualities.[32] Complex relationships between/among … create governance challenges, and these challenges can become unmanageable for governments or organizations without cooperation. The difficulty of addressing such complex issues is driving governments and institutions to adopt new comprehensive approaches and to make more efforts to increase the effectiveness of their cooperation.

Instability along the borders of NATO and the risks of the rise in the terrorist group's influence and violence in these areas create discomfort for European NATO Allies.[33] Moreover, NATO is also worried about the increasing number of weak and fragile states in strategically significant regions. In this context, the Middle East and North Africa (MENA) region, the Sahel and the Horn of Africa, which become the center of instability, extremism and terrorism, are within the scope of NATO.[34] However, the wideness of the field and the versatility of the threat require NATO to act in partnership with other international organizations. It would be appropriate to evaluate NATO's comprehensive approach on CT in this respect.

NATO currently continues to cooperate with partners such as the UN, EU and OSCE in many areas. These efforts will consolidate military-military dialogue and help develop confidence and security measures. Therefore, all relevant actors should be identified and directly involved in the process to create an effective cooperation framework.[35]

When analyzed in terms of assistance to the international and regional organizations on CT, NATO has undoubtedly assumed an important leadership role on CT, with its significant experience and powerful capacities. Guidelines end with a paragraph on assumptions for possible future operations:

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[32] "NATO Strategic Foresight Analysis Report 2017," NATO, available at https://www.act.nato.int/images/stories/media/doclibrary/171004_sfa_2017_report_hr.pdf (accessed 11 July 2020).

[33] Ibid, p. 19.

[34] Ibid, p. 31.

[35] Ibid, p. 24, p. 28.

"NATO will maintain flexibility as how to counter terrorism, playing a leading or supporting role as required. Allies' capabilities represent an essential component of a potential response to terrorism. Collective defense remains subject to decision by the North Atlantic Council (NAC)."[36]

However, NATO's powers and resources are not infinite. Therefore, in order to combat terrorism, it needs partnerships. However, another inextricable issue is that NATO is an alliance requiring unanimous agreement of members to take a decision. Building partnerships in CT involves acceding to the demands of partners.

3. NATO's Counter Terrorism Strategy in Afghanistan

Immediately following the 9/11 terrorist attacks on the mainland USA, NATO invoked the Article 5 collective defense clause of the Treaty for the first time in its history and then decided to deploy its forces and assets to support the global war on terrorism (GWOT). This unique decision not only reinforced the coherence and determination within the Alliance, but also ended serious debates about the future of the transatlantic alliance before this event.[37] Soon after, NATO joined to ISAF and carried out its first "out of area operation"[38] in August 2003.[39]

ISAF's primary objectives were to help the nascent Afghan Transitional Authority (ATA), to create a secure environment in and around Kabul and rebuild Afghanistan following decades of conflict. Its deployment was based on a mandate conferred by the United Nations Security Council (UNSC) Resolutions 1386, 1413, 1444 and 1510.[40] In the Resolution 1386, it was emphasized that the Afghan people have the right to live freely and determine their own administration, and it was stated that all countries have a duty at this stage. In this context, it was decided to establish the

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[36] "NATO's Policy Guidelines on Counter-Terrorism," NATO, available at https://www.nato.int/cps/en/natohq/official_texts_87905.htm? (accessed 19 July 2020).

[37] NATO's counter-terrorism strategy seems to be oscillating between the War Model (WM) response and the Expanded Criminal Justice Model (ECJM). This oscillation is due to the European subscription to the ECJM, leaning towards the criminal justice model (CJM). While the core members such as France and Germany subscribe to the CJM model, the new members lean towards the US approach. This non-convergence is leading to frictions at three levels: between the United States and the Europeans; between the East Europeans and the West Europeans and between France and Germany on the one hand and the United Kingdom on the other, Prasad P. Rane, "NATO's Counter-Terrorism Strategies in Afghanistan," *Strategic Analysis* 31(1) (2007), p. 85, p. 86.

[38] The term out-of-area" is used here to indicate that the relevant institution carried out a military operation far from the expected place of departure.

[39] The United States has preferred NATO to perform the role of a second line of defence, given its members' divide and uncertainty over the approach towards terrorism.

[40] "Resolutions Archive," United Nation Security Council Resolution, available at http://unscr.com/en/resolutions (accessed 21 May 2020).

ISAF for 6 months to help the ATA.[41] Between August 2003 and December 2014, different countries[42] participated in ISAF. The mission gifted the US a significant mean of exerting moral and political leverage on allies and partners.[43] The UNSC also mandated ISAF to work closely with the Afghan Security Forces, the UN Secretary General's Special Representative and the coalition for OAE.[44]

NATO's mission in Afghanistan had three priorities: continued ISAF expansion, perfecting the coordination mechanisms between NATO/ISAF and other international organizations and missions operating in Afghanistan.[45] The scope and scale of NATO's Afghanistan involvement has grown steadily since December 2005, with a revised operational plan. This plan aimed at helping the Afghan Government to practice its power and authority throughout the country.[46] Subsequently, NATO took over ISAF's command from the US-led coalition on July 31, 2006. In the light of these developments, it was observed that significant changes happened in the character of NATO's CT strategy. For example, there was transformation from 'NATO in support' to 'NATO in the lead'.[47]

NATO assumed full command of the UN-mandated ISAF mission in the late 2006 and was formally requested to remain by the Afghan Government, reinforcing its legitimacy yet further. This brought almost all foreign forces under NATO command with the exception of modest-sized US elements.[48] NATO assumed further new

[41] "Resolution 1386 The Situation in Afghanistan," United Nation Security Council Resolution, available at http://unscr.com/en/resolutions/1386 (accessed 21 May 2020).

[42] All NATO member states, plus 11 Euro-Atlantic Partnership Council (EAPC) nations (Armenia, Austria, Azerbaijan, Bosnia and Herzegovina, Finland, Georgia, Ireland, Macedonia, Switzerland, Sweden, Ukraine), and 15 Non-NATO and non-EAPC nations (Australia, Bahrain, Dominican Republic, El Salvador, Jordan, Kuwait, Malaysia, Mongolia, New Zealand, Philippines, Singapore, South Korea, Thailand, Tonga, United Arab Emirate)., "Resolute Support Mission (RSM): Key Facts and Figures," NATO, available at https://rs.nato.int/rsm/newsroom/key-facts-and-figures#:~:text=The%20Resolute%20Support%20Mission%20currently,and%20Laghman%20in%20the%20east). (accessed 29 May 2020).

[43] "Operations and Missions: Past and Present," NATO, available at https://www.nato.int/cps/en/natohq/topics_52060.htm (accessed 22 October 2020).

[44] "United Nations Security Council Resolution 1707 (2006)," United Nations, available at https://undocs.org/S/RES/1707(2006) (accessed 22 May 2020).

[45] James Pardew and Christopher Bennett, "NATO's Evolving Operations," NATO Review, 2006).

[46] "Revised Operational Plan for NATO's Expanding Mission in Afghanistan," United Nations Office for the Coordination of Humanitarian Affairs, available at https://reliefweb.int/report/afghanistan/revised-operational-plan-nato-s-expanding-mission-afghanistan (accessed 23 May 2020).

[47] The NATO's Military Concept for Defence against Terrorism addresses two roles for NATO's involvement in counter-terrorist operations – NATO in the lead and NATO in support. This concept was approved by the North Atlantic Council (NAC) in permanent session and subsequently endorsed by Heads of State and Government at the Prague Summit on November 21, 2002., available at "NATO's Military Concept for Defence Against Terrorism".

[48] Kenneth Katzman, *Afghanistan: Post-War Governance, Security, and US Policy*, (Nova Science Publication, 2008), p. 31.

responsibilities in the civil-military cooperation (CIMIC) and state-building field. Core tasks included physical reconstruction of Afghanistan and support to the Afghan government in establishing law and order as well as cultivating a functioning democracy.[49]

NATO's primary goal in Afghanistan has been "to enable the Afghan authorities to provide effective security across the country and ensure that the country will never again be a safe haven for terrorists".[50] In the light of this objective, NATO, as part of its CT strategy based on a military concept, has adopted a more comprehensive approach to combating terrorism in the ISAF mission and carried out various operations using both soft and hard power, such as military power, public diplomacy, and reconstruction experts. These operations aiming to reduce the activities of terrorists are part of NATO's CT strategy based on a military concept. NATO's CT strategy in Afghanistan started as support and evolved into leadership.[51] NATO has supported the military components of the 24 Provincial Reconstruction Teams (PRT)[52] in northern, western and southern Afghanistan, which played an important role in the entire ISAF-NATO mission.[53] NATO has also taken the lead in CT operations in Afghanistan, using strengthened command, control and intelligence structures, while providing on-the-ground support to its allies, coalition and other international organizations with all its assets and capabilities. In the context of NATO's cooperative security, the NAC worked closely with non-NATO countries at ISAF, providing them with political direction and coordination. The Allied Joint Force Command (AJFC), headquartered in Brunssum, the Netherlands, assumed operational responsibility for the management, training, deployment and maintenance of ISAF.[54]

ISAF completed its mission in December 2014, the US air power in the country was gradually reduced and the PRTs and the majority of the 800 bases under

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[49] Hubertus Hoffmann, "Afghanistan: A new Grand Strategy for NATO, EU and the U.S.," *World Security Network*, available at http://www.worldsecuritynetwork.com/Broader-Middle-East/hubertus-hoffmann/Afghanistan-A-new-Grand-Strategy-for-NATO-EU-and-the-U.S (accessed 01 June 2020).

[50] "NATO and Afghanistan," NATO, available at https://www.nato.int/cps/en/natohq/topics_8189.htm (accessed 11 July 2020).

[51] Rane, "NATO's Counter-Terrorism Strategies in Afghanistan", p. 81.

[52] Provincial Development Teams (PRTs), established in November 2002 by US, are small inter-agency organizations promoting governance, security and reconstruction in problematic areas of Afghanistan. These teams, which later came under the control of NATO, conducted several activities in many areas, such as controlling of the narcotics trade, disarming of militants, preventing of corruption, and building of the economic infrastructure. Paul Gallis, "NATO in Afghanistan: A Test of the Transatlantic Alliance," *Connections* 6(3) (2007), p. 14.

[53] Rane, "NATO's Counter-Terrorism Strategies in Afghanistan", p. 82.

[54] Rane, "NATO's Counter-Terrorism Strategies in Afghanistan", p. 80, p. 81.

ISAF control were handed over ANDSF and Afghan institutions throughout 2014.[55] Respectively, the RSM began its mission in 2015. However, at that time, Afghans were seriously concerned about the Taliban would regain power after the withdrawal of US and international forces from Afghanistan, just as ISIS regained power when the US pulled out of Iraq. Unfortunately, the Afghans were right to worry and Taliban started to capture large parts of provinces, such as Helmand Province, Konduz City, and Kandahar since 2015.[56] According to the BBC, the Taliban has overtly taken control across 70% of Afghanistan in 2018.[57] In parallel with these developments, it has been inevitable for the US and the Taliban to reach an agreement. After many setbacks a final peace agreement was signed between the US and the Taliban on 29 February 2020, and a pre-agreement for peace was signed between the Afghan government and the Taliban representatives towards the end of 2020. However, despite all these agreements, the security environment in Afghanistan still remains fragile. Moreover, the statements of US officials related to the withdrawal of all US troops from Afghanistan in May 2021 has increased concerns that the country would fall back into an impasse.[58] Secretary General of NATO Jens Stoltenberg drew attention to this very issue in his press release on 9 December 2020, and stated that NATO would not have any option other than peace in Afghanistan and would continue to provide support to Afghan national security forces both financial and capacity building. Stoltenberg said "we will stay in Afghanistan for as long as necessary, to ensure the country never again becomes a safe haven for international terrorists".[59]

3.1. The problems NATO has Encountered in Cooperation with Other Actors in the ISAF

Undoubtedly, CT exists in a continuum of politics, religion, culture and society, and indeed the armed forces and international organizations are no exception. Naturally,

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[55] Katzman, Kenneth, and Clayton Thomas, "Afghanistan: Post-Taliban Governance, Security, and US Policy", *Library of Congress Washington DC Congressional Research Service* (2017), p. 26.
[56] Ibid.
[57] "Why is There A War in Afghanistan? The Short, Medium and Long Story," *BBC*, available at https://www.bbc.com/news/world-asia-49192495 (accessed 28 January 2021).
[58] Mehdi-Jalalddin Hakimi, and Stephanie Ashe, "The U.S.-Taliban Agreement and the Afghan Peace Process," https://law.stanford.edu/2020/12/07/the-u-s-taliban-agreement-and-the-afghan-peace-process/ (accessed 22 January 2021).
[59] Amy McCullough and Rachel S. Cohen, "NATO Secretary General: We Will Stay in Afghanistan As Long as Necessary", *Air Force Magazine*, available at https://www.airforcemag.com/nato-secretary-general-we-will-stay-in-afghanistan-as-long-as-necessary/ (accessed 21 January 2021).

there are many reasons why NATO could not achieve the desired success in the CT operations during the ISAF's command. It would be completely unfair to describe this task as an example of failure when evaluated from the perspective of NATO. Some of the flaws in the process arise not only from NATO itself, but also from other actors operating in the field and partnerships that cannot be established with them.

NATO's lackluster results in Afghanistan arguably stem from a lack of mass and substance, given the sheer size of Afghanistan, and the cautious pace of gradually increasing involvement. The cultural reasons for institutional aversion to 'shock and awe' have been covered – the need for harmony amongst large number of members with divergent socio-political conditions, plus populations' appetite for involvement (and electoral cycles). As the Taliban insurgency grew stronger in 2006-2007, ISAF countries realized that they would need partners like the UN to promote effective governance and reconstruction in Afghanistan.[60] The expansion of ISAF's mandate beyond the capital, which was formerly limited to Kabul and its surrounding, challenging geography of Afghanistan, some Allies' reluctance to provide additional military personnel and the lack of equipment necessary to stabilize the country have led NATO to establish partnerships with other international organizations, non-governmental organizations and willing countries.

NATO's experience in Afghanistan has also been instrumental in the development of NATO's new cooperative approach that has been undertaken during the post-Cold War period. In Afghanistan, NATO has carried out a mission with non-European partners, making the importance of establishing cooperative working relationships a higher priority. In the concept of providing cooperative security, NATO has established several partnerships with actors in Afghanistan. These are Central Asian members of the Partnership for Peace (PfP)[61] program, including Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan and Tajikistan, the partnership with non-NATO countries such as Australia, New Zealand and Japan, and the cooperation with other international organizations, including the UN and the EU. These partnerships took place in many areas ranging from border security, military base use, troop and

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[60] Matthew Corcoran, "UN-NATO Cooperation in Afghanistan," available at https://cic.nyu.edu/news_commentary/un-nato-cooperation-afghanistan#:~:text=The%20US%20and%20many%20of,coalition%20defeated%20the%20Taliban%20regime.&text=In%20March%202002%2C%20the%20UN,Nations%20Assistance%20Mission%20in%20Afghanistan). (accessed 01 June 2020).

[61] The Partnership for Peace (PfP) program established between each partner country is tailored to the country's ambitions, needs and capabilities and implemented jointly with the incumbent government. Kazakhstan, Kyrgyzstan, Turkmenistan and Uzbekistan signed the PfP Framework Document with NATO in 1994, and joined the Euro-Atlantic Partnership Council in 2001 to condemn the 9/11 terrorist attacks and promise to fight terrorism.

equipment supply to expertise reinforcement.[62] Most of them also served as one of the elements of NATO's CT operations under ISAF's command.

Australia has been one of the prominent partners of NATO in Afghanistan, which supported the NATO-led ISAF mission with 1550 soldiers, played an important role in ANSF's training.[63] The Australian Federal Police (AFP) staff deployed to various missions based in Kabul between 2007 and 2014. AFP members have assumed various advisory roles in NATO or Afghan authorities, such as NATO Training Mission-Afghanistan (NTM-A) Deputy Commander Policeman and Afghan Government Deputy Security Minister's Administrative Police Advisor.[64] It also made a significant contribution by assigning additional civilian personnel to support NATO's civil-military stabilization efforts in Afghanistan in 2009-2010.[65]

Japan is another significant partner of NATO in Afghanistan, which has played a leading role in ISAF. It has involved in disarmament, demobilization and reintegration (DDR) efforts and the disbandment of illegal armed groups (DIAG). In addition, Japan has indirectly contributed to security by providing salary support for Afghan police officers, constituting literacy programs for National Army members and granting $ 52 million to the PfP Trust Fund.[66]

While NATO's partnerships in ISAF with PfP and other non-NATO countries are more circumstantial, its partnerships with UN and the EU are more institutional and have a long history. Born from the spirit of multilateralism after the Second World War, NATO and the UN are organizations deeply committed to common values, such as ensuring international peace and security, protecting international justice and law, and committing to respect for human rights and fundamental freedoms.[67] The inclusion of the aims and principles of the UN Charter in the North Atlantic Treaty is a clear demonstration of these common values. The NATO-UN partnership, whose main purpose is to promote international peace and security,

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[62] "Security Through Partnership," NATO, available at https://www.nato.int/docu/sec-partnership/sec-partner-e.pdf (accessed 21 July 2020).

[63] "Australia's Involvement in Afghanistan—Frequently Asked Questions," *Australia, Parliamentary Library*, available at http://parliamentflagpost.blogspot.com/2010/10/australias-involvement-in-afghanistan.html (accessed 10 January 2020).

[64] "Afghanistan: Lessons from Australia's Whole-of-Government Mission," *The Australian Civil-Military Centre*, available at https://www.acmc.gov.au/sites/default/files/2018-07/apo-nid71004-15836_0.pdf (accessed 21 January 2021).

[65] "Annual Report 2009–10." *Australian Government*, available at https://www.pc.gov.au/about/governance/annual-reports/annualreport0910 (accessed 10 January 2021).

[66] Victoria Tuke, "Japan's Crucial Role in Afghanistan," *Asia Pacific Bulletin* 206 (2013).

[67] For further information please look at: The North Atlantic Treaty, and Chapter I of the United Nations Charter, available at https://www.nato.int/cps/en/natohq/official_texts_17120.htm?, and https://legal.un.org/repertory/art1.shtml (accessed 10 September 2020).

developed within the scope of dialogue and cooperation in the post-Cold War period and yielded with operations[68] carried out first in the Western Balkans and then in Afghanistan, Iraq, Libya, and Africa.[69] This part of the study will first examine the problems NATO encountered while cooperating with its partners during ISAF CT operations, then analyze what it has done to overcome these problems, and finally, offer some recommendations based on ISAF experience.

The NATO-UN partnership in Afghanistan began in 2003. Initially, the duties of both institutions were clear. While the UN focused on political process, human rights, the rule of law and gender equality with its United Nations Assistance Mission in Afghanistan (UNAMA)[70], NATO was responsible for ISAF command, mainly tasked with creating a safe environment for political stability and ensuring the economic development of Afghanistan.[71] Since both missions have parallel tasks and their own unique command system, the lack of hierarchical link between them caused great difficulties. UNAMA and ISAF officials came together at numerous meetings at many stages, but these meetings evolved into a vicious circle with no results due to their failure to agree on prioritization and meaningful coordination between them.[72]

Building an effective partnership was important for not only NATO but also the UN. ISAF countries needed UN legitimacy and support for both encouraging effective administration and reconstruction in Afghanistan and convincing their citizens that they are waging a "just" war. On the other hand, the UN was calculating that increasing NATO's logistical and military capabilities in an increasingly dangerous environment could ease tensions.[73] After increasing contacts over time, a structural framework was needed in order to ensure that partnership activities are carried out effectively. In this context, the UN and NATO signed a joint declaration in September

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[68] These operations are the Stabilization Force in Bosnia and Herzegovina (SFOR) in 1995, the Kosovo Force (KFOR) in 1998, the AU Mission in Somalia (AMISOM) in 2007, the NATO Training Mission-Iraq (NTM-I) from 2004 to end 2011, Operation Unified Protector in Libya in 2011, the International Security Assistance Force (ISAF) from 2003 to 2014., "Relations with the United Nations," NATO, available at https://www.nato.int/cps/en/natohq/topics_50321.htm (accessed 10 September 2020).

[69] Endre Sebok, "NATO-UN Relations: Looking Ahead After 10 Years of Expanding Cooperation" (NATO Review, September 2018), available at https://www.nato.int/docu/review/articles/2018/09/28/nato-un-relations-looking-ahead-after-10-years-of-expanding-cooperation/index.html (accessed 10 July 2020).

[70] UNAMA was established by UN on 28 March 2002 to support the people and institutions of Afghanistan in ensuring peace and stability in line with the rights and obligations contained in the Afghan constitution.

[71] Michael F. Harsch, "NATO and the UN: Partnership with Potential," *Stiftung Wissenschaft und Politik, German Institute for International and Security Affairs* (2012), p. 12.

[72] Ibid.

[73] Gallis, "NATO in Afghanistan: A Test of the Transatlantic Alliance", p. 10.

2008 to establish a consensus on controversial issues such as aid distribution and civilian casualties and to increase cooperation between headquarters.[74] However, this cooperation did not last very long. According to Harsch, weakening of the UN's freedom of movement owing to NATO's increasing power in Afghanistan, and ISAF's inability to react to Taliban attacks on UN personnel in a timely manner despite the agreement between them, caused disappointment in the UN.[75]

Another reason why the NATO-UN partnership could not be carried out effectively in Afghanistan was the resource inequality between them. The US reinforcement of its civilian and military presence in Afghanistan has provided NATO a large operational capability, which has led to an increase in UN dependence on NATO. Moreover, different public reporting of civilians who lost their lives due to US and NATO attacks has been another problem between the parties. For example, even though the UNAMA in Afghanistan reported that civilian deaths increased 62 percent in the first five months of 2008 compared to the same period of 2007, ISAF claimed that these figures were exaggerated by the UN. This situation reduced the support of the Afghan people to NATO forces and led to an increase in resistance.[76]

The EU was another significant partner of NATO in the ISAF mission. In fact, NATO and the EU had not interacted with each other during the Cold War years due to diverging objectives and missions.[77] However in the post-Cold War era when adaptation efforts of both organizations in which the EU tried to become an effective and credible foreign and security policy actor and NATO tried to become more than a collective defence organization through taking on new responsibilities such as crisis management and peacekeeping coincided with each other, a new era of strategic partnership started.[78] This partnership, increasingly continuing since the late 1990s, began to give more productive outcomes in the 2000s. The partnership, which advanced in a conceptual framework with the Berlin Plus Agreement[79] in 2003, had the chance to be implemented in the field. Subsequently,

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[74] Ibid.
[75] Harsch, "NATO and the UN", p. 15.
[76] Ibid.
[77] Aslıgül Sarıkamış Kaya, "The EU NATO Relations in the Post-Cold War Security Context," *ÇOMÜ Uluslararası Sosyal Bilimler Dergisi* 2(4) (2017), p. 114.
[78] Ibid.
[79] "The Berlin Plus agreement refers to a comprehensive package of arrangements finalized in early 2003 between the EU and the NATO that allows the EU to make use of NATO assets and capabilities for EU-led crisis management operations.", "EEAS - The Berlin Plus Agreement," European External Action Service, available at https://eeas.europa.eu/headquarters/headquarters-homepage_en (accessed 10 July 2020).

the NATO-EU partnership has been tested in two successful Balkan operations, EUFOR Concordia in the Former Yugoslav Republic of Macedonia (2003) and EUFOR Althea in Bosnia and Herzegovina (2004), and crowned with the "strategic partnership", as stated in the official documents of both parties.[80]

The partnership between NATO and the EU in Afghanistan began after NATO took over the command of ISAF. Realizing that the stabilization in Afghanistan cannot be achieved only through military initiatives, NATO has attempted to establish a partnership with the EU Police Mission (EUPOL) in Afghanistan[81] mission, which has been responsible for training the Afghan Police Force.

NATO-EU cooperation was not directly in the field of CT, but on the axis of ensuring security in Afghanistan. The NATO-led RSM and its predecessor, ISAF had collaborated with the EUPOL Afghanistan between 2007 and 2014 without any form of official cooperation agreement.[82] ISAF forces were tasked with training the Afghan National Army (ANA) and the Afghan National Police (ANP) to support the growth of the Afghan National Security Forces (ANSF) through the NATO Training Mission-Afghanistan (NTM-A).[83] NATO-EU partnership was implemented at this stage. The ANP training program, which was initially under the responsibility of the EU, was revised several times. This program, which started in 2002 under the control of Germany's Police Project Office, continued its existence in 2007 as the EUPOL Afghanistan. The EUPOL Afghanistan, which is mostly engaged in the training of Afghan civilian police members, continued to work in the coordination of NTM-A established by NATO in 2009. However, ANA and ANP training efforts, which were created to improve the size and power of the ANSF that would ensure the security of the whole country, could not succeed due to various reasons, such as insufficient manpower, lack of resources and skills, and insufficient number of trainers.[84]

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[80] Tinatin Aghniashvili, "Towards More Effective Cooperation? The Role of States in Shaping NATO-EU Interaction and Cooperation," *Connections* 15(4) (2016), p. 73.

[81] EUPOL Afghanistan, which began its activities in 2007, was established to assist the Afghan government in reforming the police force, and continued its activities until 2016., European Court of Auditors, "The EU Police Mission in Afghanistan: Mixed Results", (Publications Office of the European Union, 2015), p. 7.

[82] Attila Mesterhazy, "NATO-EU Cooperation After Warsaw" (NATO Parliamentary Assembly, Defence and Security Committee, 2017), p. 2.

[83] "Backgrounder: NATO Training Mission-Afghanistan (NTM-A)," NATO, available at https://www. nato.int/nato_static_fl2014/assets/pdf/pdf_2009_10/20110310_091022-media-backgrounder-NTM-A.pdf (accessed 14 August 2020).

[84] Andrew R. Hoehn and Sarah Harting, "Risking NATO: Testing the Limits of the Alliance in Afghanistan" (RAND Corporation, 2010), p. 34.

The mandate of the EUPOL Afghanistan was limited to certain areas, including civil policing, home office reform, and criminal justice.[85] Furthermore, EUPOL Afghanistan did not have an overall leadership mandate, and had relatively limited funding and staff number compared to major actors, such as NTM-A.[86] While NTM-A mainly focused on Afghan Security Forces, the EUPOL focused solely on civilian police training. The lack of adoption of a common strategic perspective in the training led to various disputes between the partners, but it was observed that these disputes disappeared to some extent at the operational level and a more coordinated approach was observed. For example, while the EUPOL forces were deployed in Kabul, their security needs were met by NATO forces.[87] However, the unwillingness of these actors to be coordinated by the International Police Coordination Board of Afghanistan (IPCB), which was supported by EUPOL Afghanistan and failed to provide coordination and observation, made the situation difficult.[88] On the other hand, due to political reasons, the fact that EU member states are more suitable to initiate a civilian operation rather than increasing their contribution to the NATO mission individually was another flaw in the partnership between them.[89] Despite all these difficulties, the partnership between EUPOL Afghanistan and NTM-A has been successful in specific fields, such as information sharing and human network analyzing.[90] Above all, both institutions found opportunities to collaborate in an operation away from their own homeland.

4. Conclusions

In sum, NATO has adopted a wide-ranging approach in the CT field since the September 11 attacks. In the context of this, NATO has created and implemented a CT strategy consisting of documentation (texts, academic studies, training and publications), organizational activities and operational activities. On the other

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[85] "The EU Police Mission in Afghanistan: Mixed Results", p. 43.
[86] NATO Training Mission-Afghanistan (NTM-A), a multinational military organization, began its activities in November 2009 and carried out its activities to provide high-level training for the Afghan National Army (ANA) and the Afghan Air Force (AAF)., "The EU PoliceMission in Afghanistan: Mixed Results", p. 39.
[87] Aghniashvili, "Towards More Effective Cooperation?", p. 80, p. 81.
[88] "The EU Police Mission in Afghanistan: Mixed Results", p. 19.
[89] Siddharth Tripathi and Enver Ferhatovic, "The European Union's Crisis Response in the Extended Neighborhood", in *The EUs Output Effectiveness in the Case of Afghanistan* (EUNPACK Paper, WP 7, March 2018), p. 30.
[90] Thierry Tardy and Gustav Lindstrom, "The Scope of EU-NATO Cooperation," in *The EU and NATO The Essential Partners*, (EU Institute for Security Studies, 2019), p. 66, p. 67.

hand, NATO has carried out various cooperative initiatives with other international and regional organizations in the CT field, and even has played a leading role in some of them. Of course, like all partnerships, it is unrealistic to expect from this partnership to show excellent results. The existence of different structures and working conditions in these organizations results in various problems in establishing inter-institutional partnership. However, the most important role in eliminating this complexity will undoubtedly belong to NATO. Since NATO, which was established as a regional security organization, is fairly superior in terms of both experience and capability in the field of CT compared to other organizations.

The study focuses on how NATO can contribute more to global cooperation on the CT. The case study approach was adopted as the method in the study, and in this context, the ISAF mission in Afghanistan, which was under NATO's command, was chosen as the case study. In the light of NATO's Afghanistan experience, it can be concluded that the partnerships are the products of the common security concerns of the allies. However, despite the good intentions of all parties, it is observed that their initiatives could not find the same response in the field. In fact, NATO has taken on a great responsibility by taking over the command of a complex and inextricable mission in which it was not involved from the very beginning. Controlling a range of incompatibilities has been very difficult for NATO. After NATO took over the command of ISAF, it was thought that the security of the Afghan people would be re-established through a strong military organization. At this stage, European allies insisted that there should be a UN resolution legitimizing the deployment of NATO troops in Afghanistan and that the UN should lead NATO's ISAF mission.[91] However, the failure to meet these expectations and the challenges confronted in controlling the wide area of operation caused the differences of opinion and the coordination problems among NATO members.[92]

NATO leaders have complained at times that they had trouble in persuading their allies to support ISAF. Because some members were reluctant to send the necessary troops and equipment as they claimed that ISAF was a rebuilding and stabilization mission, not a CT mission.[93] For this reason, NATO had to get support from non-member countries, such as Australia, Japan, New Zealand, South Korea, and the United Arab Emirates. At this stage, NATO has established partnerships with UN

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[91] Gallis, "NATO in Afghanistan: A Test of the Transatlantic Alliance", p. 10.

[92] Ibid. p. 11, p. 29.

[93] Ibid. p. 21.

and EU-led elements on the ground. However, it cannot be said that the expected results from these partnerships have been achieved due to the reduction in the number of NATO and US forces. Because of this reduction, Afghan security forces have begun to confront with Taliban militants directly since 2014 and 45,000 of them died.[94] Moreover, with the increase in the opium trade, Taliban is strengthening its financial condition and this makes Afghanistan even more complex.[95] However, the presence of NATO and US forces in Afghanistan under the RSM and the ongoing US funds to the Afghan institutions are the crucial developments in terms of fight against terrorism in Afghanistan. The recommendations listed below are expected to enable NATO to contribute more to global cooperation on Counter-Terrorism.

- NATO could take advantage of the UN's legitimacy in Afghanistan and could have delegated its authority on certain issues during the partnership, such as press releases and public information. Thus, consistency could be achieved in sharing information among partners.

- It seems essential for NATO, UN and EU to increase coordination between them to avoid competition and duplication in the CT field. At this stage, NATO can take a leadership role in terms of its high power.

- It is quite natural to have units serving the same purpose in organizations. However, in order to avoid disruptions in coordination in sensitive operations such as CT, a joint structuring can be made or representatives from other international organizations can be employed within the partners.

- In the light of the lessons learned from experience on terrorism, NATO should show maximum sensitivity to planning in CT operations, in which it takes the lead. NATO should keep in mind that CT operations are a long and tiring process, and above all, it should establish mutual trust among its members and take action by taking their sensitivities into account.

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[94] Hakimi, and Ashe, "The U.S.-Taliban Agreement and the Afghan Peace Process".

[95] For further information, please look at; "Afghanistan Opium Survey 2018: Cultivation and Production," United Nations Office on Drugs and Crime and Islamic Republic of Afghanistan Ministry of Counter Narcotics, available at https://www.unodc.org/documents/afghanistan// Opium_Surveys/Afghanistan_opium_survey_2018.pdf?lf=28&lng=en (accessed 28 January 2021).

Bibliography

Aghniashvili, Tinatin, "Towards More Effective Cooperation? The Role of States in Shaping NATO-EU Interaction and Cooperation," *Connections* 15(4) (2016).

Bojor, Laviniu, and Mircea Cosma. "Afghanistan after NATO Withdrawal," *Scientific Bulletin* 20(1) (2015).

Brown, David, "The War on Terrorism Would Not Be Possible without NATO': A Critique," *Contemporary Security Policy* 25(3) (2004).

Buckley, Mary, and Rick Fawn, eds. G*lobal Responses to Terrorism: 9/11, Afghanistan and Beyond*, (Routledge, 2004).

Coen, Myrianne, ed. *Defense Against Terrorism: Enhancing Resilience of Democratic Institutions and Rule of Law*, (IOS Press, 2019).

Corcoran, Matthew, "UN-NATO Cooperation in Afghanistan", available at https://cic. nyu.edu/news_%20commentary/un-nato-cooperationafghanistan#:~:text=The%20 US%20and%20many%20of,%20coalition%20defeated%20the%20Taliban%20 regime.&text=In%20March%202002%2C%20the%20UN,Nations%20Assistance%20 Mission%20in%20Afghanistan). (accessed 01 June 2020).

Crowe, Sarah, et. al., "The Case Study Approach," *BMC Medical Research Methodology* 11(1) (2011).

Ersen, M. Uğur, and Çınar Özen, eds*. Use of Force in Countering Terrorism*, (IOS Press, 2010).

Gallis, Paul, "NATO in Afghanistan: A Test of the Transatlantic Alliance," *Connections* 6(3) (2007).

Gürbüz, Uğur, ed. *Future Trends and New Approaches in Defeating the Terrorism Threat*, (IOS Press, 2013).

Hakimi, Mehdi-Jalalddin, and Stephanie Ashe, "The U.S.-Taliban Agreement and the Afghan Peace Process", available at https://law.stanford.edu/2020/12/07/the-u-s-taliban-agreement-and-the-afghan-peace-process/ (accessed 22 January 2021).

Harsch, Michael F., "NATO and the UN: Partnership with Potential," *German Institute for International and Security Affairs* (2012).

Hoehn, Andrew R. and Sarah Harting, *Risking NATO: Testing the Limits of the Alliance in Afghanistan*, (Rand Corporation, 2010).

Hoffman, Bruce, *Inside Terrorism,* (Columbia University Press, 2006).

Hoffmann, Hubertus. "Afghanistan: A new Grand Strategy for NATO, EU and the U.S.", *World Security Network*, available at http://www.worldsecuritynetwork.com/Broader-Middle-East/hubertus-hoffmann/Afghanistan-A-new-Grand-Strategy-for-NATO-EU-and-the-U.S (accessed 01 June 2020).

Juliette, Bird, "NATO's role in Counter-Terrorism," *Perspectives on Terrorism* 9(2) (2015).

Katzman, Kenneth, "Afghanistan: Post-War Governance, Security, and US Policy," *Library of Congress Washington DC Congressional Research Service* (2008).

Katzman, Kenneth, and Clayton Thomas, "Afghanistan: Post-Taliban Governance, Security, and US Policy," *Library of Congress Washington DC Congressional Research Service* (2017).

Kaunert, Christian, and Ori Wertman. "Counter-Terrorism Cooperation", in *NATO and the EU: The Essential Partners* (Lindstrom Gustav and Tardy Thierry, eds, NATO Defense College, 2019).

Kaya, Aslıgül Sarıkamış, "The EU NATO Relations in the Post-Cold War Security Context," *ÇOMÜ Uluslararası Sosyal Bilimler Dergisi* 2(4) (2017).

Konarovsky, Mikhail, "Afghanistan after 2014," *International Organizations Research Journal* 12(3) (2017).

Kriendler, John, "NATO Crisis Management: Cooperation with PfP Partners and Other International Organizations," *Connections: The Quarterly Journal* 3(4) (2004).

Long, Austin, "After ISAF: Partners and Proxies in Afghanistan after 2014," *Small Wars and Insurgencies* 27(1) (2016).

McCullough, Amy, and Rachel S. Cohen, "NATO Secretary General: We Will Stay in Afghanistan As Long as Necessary", available at https://www.airforcemag.com/nato-secretary-general-we-will-stay-in-afghanistan-as-long-as-necessary/ (accessed 21 January 2021).

Mesterhazy, Attila, *NATO-EU Cooperation after Warsaw*, (NATO Parliamentary Assembly, Defence and Security Committee Report, 2017).

Millar, Alistair, "Developing regional counterterrorism cooperation in South Asia," *CTC Sentinel* 2(2) (2009).

Nesi, Giuseppe, ed. *International Cooperation in Counter-Terrorism: The United Nations and Regional Organizations in the Fight Against Terrorism*, (Routledge, 2016).

Pardew, James, and Christopher Bennett, "NATO's Evolving Operations," (NATO Review, 2006).

Perliger, Arie, and Daniel Milton, "Fighting together? Understanding Bilateral Cooperation in the Realm of Counterterrorism," *Dynamics of Asymmetric Conflict* 11(3) (2018).

Rane, Prasad P., "NATO's Counter-Terrorism Strategies in Afghanistan," *Strategic Analysis* 31(1) (2007).

Rhem, Kathleen T., "Rumsfeld Thanks NATO as AWACS Planes Head Home", available at https://www.defense-aerospace.com/articles-view/release/3/9868/rumsfeld%3A-nato-awacs-to-return-home-%28may-3%29.html (accessed 28 May 2020).

Richards, Anthony, "Conceptualizing Terrorism," *Studies in Conflict and Terrorism* 37(3) (2014).

Richards, Anthony, "Defining Terrorism", in *Handbook of Terrorism and Counterterrorism* (Routledge, 2018).

Rühle, Michael, "NATO Ten Years After: Learning the Lessons," (NATO Review Magazine, 2016).

Sarıkamış Kaya, Aslıgül, "The EU NATO Relations in the Post-Cold War Security Context," *ÇOMÜ Uluslararası Sosyal Bilimler Dergisi* 2(4) (2017).

Schmid, Alex Peter, ed., *The Routledge Handbook of Terrorism Research*, (Taylor & Francis, 2011)

Schmid, Alex, "Terrorism–The Definitional Problem," *Case Western Reserve Journal of International Law* 36 (2-3) (2004).

Sebok, Endre, "NATO-UN Relations: Looking Ahead After 10 Years of Expanding Cooperation" (NATO Review, 2018), available at https://www.nato.int/docu/review/articles/2018/09/28/nato-un-relations-looking-ahead-after-10-years-of-expanding-cooperation/index.html, (accessed 10 July 2020).

Silke, Andrew, "The Study of Terrorism and Counterterrorism," *Routledge Handbook of Terrorism and Counterterrorism* (2019).

Suhrke, Astri, "Waging War and Building Peace in Afghanistan", *International Peacekeeping* 19(4) (2012).

Tanrısever, Oktay F., ed. *Afghanistan and Central Asia: NATO's Role in Regional Security Since 9/11* (IOS Press, 2013).

Tardy, Thierry, and Gustav Lindstrom, "The Scope of EU-NATO Cooperation," in *The EU and NATO The Essential Partners*, (EU Institute for Security Studies, 2019).

Tokgöz, Kenan, ed. *Enhancing Cooperation in Defence Against Terrorism* (IOS Press, 2012).

Tripathi, Siddharth and Enver Ferhatovic, "The European Union's Crisis Response in the Extended Neighborhood," in *The EUs Output Effectiveness in the Case of Afghanistan* (EUNPACK Paper, WP 7, March 2018).

Tuke, Victoria, "Japan's Crucial Role in Afghanistan," *Asia Pacific Bulletin* 206 (2013).

Wojciechowski, Sebastian, "Why is it So Difficult to Define Terrorism," *Polish Political Science Year Book* 38 (2009).

Yost, David Scott, *NATO and International Organizations*, (NATO Defense College, 2007)

Yost, David Scott, "Enhancing NATO's Cooperation with International Organizations," (*NATO Review* 3, 2007).

Zhen, Pan Guang Wang, "International Counter-Terrorism Cooperation: New Situation, New Development and Its Efficiency Assessment," *Journal of Social Sciences* 11 (2010).

"Afghanistan: Lessons from Australia's Whole-of-Government Mission", The Australian Civil-Military Centre, available at https://www.acmc.gov.au/sites/default/files/2018-07/apo-nid71004-15836_0.pdf (accessed 21 January 2021).

"Afghanistan Opium Survey 2018: Cultivation and Production," United Nations Office on Drugs and Crime and Islamic Republic of Afghanistan Ministry of Counter Narcotics, available at https://www.unodc.org/documents/afghanistan//Opium_Surveys/Afghanistan_opium_survey_2018.pdf?lf=28&lng=en (accessed 28 January 2021).

"Annual Report 2009–10", Australian Government, available at https://www.pc.gov.au/about/governance/annual-reports/annualreport0910 (accessed 10 January 2021).

"Arrested, Jailed, Bailed–Why it Should Be İllegal to Fight Against ISIS", available at https://www.isdglobal.org/arrested-jailed-bailed-why-it-should-be-illegal-to-fight-against-isis/, (accessed 21 April 2020).

"Australia's Involvement in Afghanistan—Frequently Asked Questions", Australia Parliamentary Library, available at http://parliamentflagpost.blogspot.com/2010/10/australias-involvement-in-afghanistan.html (accessed 10 January 2021).

"Backgrounder: NATO Training Mission-Afghanistan (NTM-A)," NATO, available at https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2009_10/20110310_091022-media-backgrounder-NTM-A.pdf (accessed 14 August 2020).

"Cooperative Security as NATO's Core Task," NATO, available at https://www.nato.int/cps/en/natohq/topics_77718.htm?selectedLocale=en#:~:text=Cooperative%20security%20%E2%80%93%20a%20network%20of,to%20prepare%20for%20NATO%20membership. (accessed 22 May 2020).

"Countering Terrorism," OSCE, available at https://www.osce.org/countering-terrorism (accessed 11 May 2020).

"EEAS - The Berlin Plus Agreement," European External Action Service, available at https://eeas.europa.eu/headquarters/headquarters-homepage_en (accessed 10 July 2020).

"Final Decision on MC 0472/1 MC Concept for Counter-Terrorism," NATO, available at https://www.nato.int/nato_static_fl2014/assets/pdf/topics_pdf/20160905_160905-mc-concept-ct.pdf (accessed 12 May 2020).

"Güvenlik İçin Birlikte Çalışmak: NATO," NATO, available at https://www.nato.int/nato_static/assets/pdf/pdf_publications/20120118_nato_security_turk.pdf (accessed 24 April 2020).

"NATO Adopts New Strategic Concept," NATO, available at https://www.nato.int/cps/en/natolive/news68172.htm#:~:text=The%20new%20Strategic%20Concept%20urges,missile%20attacks%20and%20cyber%20attacks.&text=It%20also%20keeps%20the%20door,in%20NATO%20to%20European%20democracies. (accessed 12 May 2020).

"NATO and Afghanistan," NATO, available at https://www.nato.int/cps/en/natolive/topics8189.htm. (accessed 11 July 2020).

"NATO-Afghanistan Relations," NATO, available at https://www.nato.int/nato_static_fl2014/assets/pdf/2020/12/pdf/2012-backgrounder-afghanistane.pdf (accessed 19 Jan 2021).

"NATO's Military Concept for Defence Against Terrorism," NATO, available at https://www.nato.int/ims/docu/terrorism-annex.htm (accessed 24 April 2020).

"NATO's Policy Guidelines on Counter-Terrorism," NATO, available at https://www.nato.int/cps/en/natohq/official_texts_87905.htm? (accessed 19 July 2020).

"NATO Strategic Foresight Analysis Report 2017", (Transformation, NATO Allied Command, 2017).

"Operation Active Endeavour (Archived)," NATO, available at https://www.nato.int/cps/en/ natohq/topics_7932.htm (accessed 13 June 2020).

"Operations and Missions: Past and Present," NATO, available at https://www.nato.int/cps/ en/natohq/topics_52060.htm (accessed 22 October 2020).

"Relations with the United Nations," NATO, available at https://www.nato.int/cps/en/natohq/ topics_50321.htm (accessed 10 September 2020).

"Resolute Support Mission (RSM): Key Facts and Figures," NATO, available at https://rs.nato.int/rsm/newsroom/key-facts-and-figures#:~:text=The%20Resolute%20 Support%20Mission%20currently,and%20Laghman%20in%20the%20east). (accessed 29 May 2020).

"Resolute Support Mission in Afghanistan," NATO, available at https://www.nato.int/cps/en/ natohq/topics_113694.htm (accessed 19 Jan 2021).

"Resolution 1386 The Situation in Afghanistan," United Nations Security Council Resolution, available at http://unscr.com/en/resolutions/1386 (accessed 21 May 2020).

"Revised Operational Plan for NATO's Expanding Mission in Afghanistan," United Nations Office for the Coordination of Humanitarian Affairs, available at https://reliefweb.int/ report/afghanistan/revised-operational-plan-nato-s-expanding-mission-afghanistan (accessed 23 May 2020).

"Security Through Partnership," NATO, available at https://www.nato.int/docu/sec-partnership/sec-partner-e.pdf (accessed 21 July 2020).

"Special Operations Forces," NATO, available at https://www.nato.int/cps/fr/natohq/ topics_105950.htm?selectedLocale=en (accessed 18 May 2020).

"Tackling the Surge of Returning Foreign Fighters," NATO, available at https://www.nato. int/docu/review/articles/2017/07/14/tackling-the-surge-of-returning-foreign-fighters/ index.html (accessed 15 January 2020).

"The Alliance's Strategic Concept," NATO, available at https://www.nato.int/cps/en/natolive/ official_texts_27433.htm (accessed 28 April 2020).

"The EU Police Mission in Afghanistan: Mixed Results," European Court of Auditors, available at https://www.eca.europa.eu/Lists/ECADocuments/SR15_07/SR_EUPOL_ AFGHANISTAN_EN.pdf, (accessed 01 June 2020).

"Science for Peace and Security," NATO, available at https://www.nato.int/cps/en/ natolive/78209.htm (accessed 01 February 2021).

"United Nations Security Council Resolution 1707 (2006)," UN, available at https://undocs. org/S/RES/1707(2006) (accessed 22 May 2020).

"Why is There A War in Afghanistan? The Short, Medium and Long Story," BBC, available at https://www.bbc.com/news/world-asia-49192495 (accessed 28 January 2021).

Processes of Radicalization and Development of Terrorist Activity

Petar Marinov[1]

Abstract: Terrorism as a phenomenon has a complex structure in which ideological, social, religious, ethnic, psychological and other elements are intertwined. Modern terrorism is a complex and dynamic phenomenon that successfully adapts to the political and economic situation. In its modern manifestations, terrorism increasingly relies on synergy between different influences and approaches. This allows for the impact, the effect of which significantly exceeds the mechanical sum of the effects of the individual forms and approaches. The main component and motivational tool of terrorism is the process of radicalization. Despite the lack of consensus on the understanding of the phenomenon of radicalization, this phenomenon is imposed as a consequence and result of increasingly complex social processes in modern and postmodern societies. Effective counteraction is beyond the power of any independent specialized institution or individual country. Understanding of the concept of terrorism is linked to the analysis of the common features of modern terrorism. Based on the content of ideology and motivation, as well as the specifics of the methods of action, there are differences between terrorism based on left and right ideologies, on nationalism and separatism, and with different religious motivations.

Keywords:terrorism, radicalization, motivational tool, counter-terrorism and radicalization.

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Introduction

Modern terrorism is a manifestation of a clash, of a conflict between powerful economic interests that are often disguised in religious and ethnic terms. Criminally accumulated free money seeks its realization around the world. According toNatio naleconomiccrimecenter,the movement of financial flows from the so-called „dirty money" annually amountsto 100 billion pounds per year only in the UK[2] and to the colossal amounts of about 800 billion to 1 trillion dollars worldwide. These financial flows cause enormous damage to the world economy, as they seriously threaten the security of the global financial system itself.

Interest in terrorism is growing in direct proportion to the victims of the attacks. Strategies to combat it are constantly being drafted, legislation is being changed to punish perpetrators of crimes, but this cannot eliminate terrorism. The constant terrorist attacks, the numerous casualties and damage caused by terrorism make it one of the most terrible and sinister phenomena that exist today.[3]

Terrorism is a strategic risk and this means that national security systems must address this risk and establish the necessary regulatory, financial, informational and human capacity for early warning, prevention, response, counteraction and effective management of its consequences. Countering such a complex and multifaceted phenomenon requires political will and decisions that require vision, strategy, leadership, statehood, as well as focusing the entire national security system on society and its individual citizens. This presupposes a strategic level of counteraction and engagement of serious managerial and institutional resources and the efforts of the strategic management of the state.[4]

The process of radicalization is the main component and motivational tool of terrorism. Despite the lack of consensus on the understanding of the phenomenon of radicalization, this phenomenon is occuring as a consequence and result of increasingly complex social processes in modern and postmodern societies.

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[2]   https://nationalcrimeagency.gov.uk/news/national-economic-crime-centre-leads-push-to-identify-money-laundering-activity. Accessed 30.01.2021.

[3]   Savov, I. A Look at Counteracting Hybrid Threats in the European Union. International Conference "Asymmetric Threats, Hybrid Wars and Their Impact on National Security", New Bulgarian University, March 2018, ISBN 978-619-7383- 09-6, pp. 179-185

[4]   Stoykov, S., Dimitrova, S., Marinov, R. The development of educational capacity of human resources in the field of security-main priority of national security, International Conference on Creative Business for Smart and Sustainable Growth, CreBUS 2019, March 2019, Article number 8840062, Category number CFP19U17-ART; Code 152084, ISBN: 978-172813467-3, DOI: 10.1109/CREBUS.2019.8840062

Similarly to other phenomena with transnational characteristics, it has its universal features, but also its unique and local distinctive lines.[5]

In recent years, there has been a tendency to redistribute the number of ethnic and civilizational groups by quantity and geography. On the other hand, the constant changes in the concepts of education and development of the young generation, as well as the uneven global distribution of resources and goods, lead to a change in the value system of large social groups. Individual regions are impoverished and encapsulated and a microenvironment which is significantly different from the basic characteristics of the respective regions is formed. Respect for the state and state institutions is strongly marginalized. At the same time, more and more attempts are being made to exploit the basic instincts for preserving an ethnic or national group for political or immoral purposes (e.g. ethno festivals, marketing campaigns, etc. are organised) or to channel those feelings and emotions as a motivator for inciting right-wing extremists, even left-extremist ideologies and movements in society. Most often, these processes are a counterpoint to the intensifying processes of radicalization on religious and ethnic grounds, taking place in certain regions and ethnic groups in Europe and on the Balkans. Despite the existing stereotypes, signs of marginalization can also be identified among representatives of the main and dominant ethnic and religious communities, which are beginning to exhibit degradation of the value system and functional illiteracy.[6]

The **aim** of the present study is to study and analyze the impact factors on the radicalization and development of modern terrorism, to determinetheir modern features and to derive a basic algorithm underpinning the process of radicalization.

The following **research tasks** have been defined:

1. To analyze the essence of modern terrorism and the development of comprehension of the essence of terrorism.

2. To study the essence of radicalization, the factors which influence it, and to present an up-to-date description of the phenomenon.

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[5]   Manual - to the contract URI №5785 opm-26 5785mpd-6 / 24.01.2018 - "Conducting a national expert study on the topic of Early recognition of signs of radicalization for early prevention", under the project "Improvement of expert capabilities of the employees of the Ministry of Interior for prevention of aggression in the society, anti-corruption and countering radicalization ", contract № BG05SFOP001-2.004-0003-C01 / 27.12.2016, for providing gratuitous financial aid under the Operational Program "Good Governance".

[6]   Marinov P. (2017) Contemporary Challenges to the Management of the System for Security and Countering Terrorism. Sofia: Iztok-Zapad Publishing House., Sofia, 2016, ISBN 978-619-01-0027-0

3. To outline the interrelationships between radicalization and modern terrorism.

The research methodology includes the application of an analytical and conceptual approach, which uses methods of collecting data and information from various sources, including field research and in-depth interviews with representatives of various religious and social strata of society, data preparation, data formation. evaluation, structural, theoretical analysis and synthesis, logical and comparative analysis. The combined use of these methods allows the implementation of links between different results and conclusions, which allows for a comprehensive and in-depth study of the process of radicalization and motivation for terrorist activity.

The first part attempts to analyze the development of perceptions about the nature of terrorism, including the available official definitions. The accepted definitions in NATO and the contradictions caused by the clear distinction between preventive and reactive measures to counteract theorism are considered. On this basis, the main features of modern theorism are derived. This would allow concretizing the analysis of emerging crisis situations, clearly distinguishing theorism from other forms of violence and taking adequate countermeasures.

in the second part a model for motivation for theoretical activity is proposed. The main phases are clearly defined and a connection is made with the intensity of the expression of extreme behavior leading to theorism.

Seven levels of radicalization have been identified, which can serve as an indicative mechanism for the presence of radicalization and can be included in the training of public and private sector employees who may encounter radicalization processes.

The essence of modern terrorism and the development of comprehensionof the nature of terrorism.

Terrorism as a phenomenon has a complex structure in which ideological, social, religious, ethnic, psychological and other elements are intertwined. In addition, very often terrorism as a form of violence is associated with war,guerrilla warfare, crime, and similar destructive for the society activities and actions. As a result of its complex structure, there is no generally accepted definition of *terrorism*. In defining modern terrorism, account should be taken of the fact that the development of the information environment changes the nature of existing security systems, forcing them to work in a complex information environment and

to create and implement a number of new complex policies, approaches and tasks. Modern terrorism is a complex and dynamic phenomenon that successfully adapts to the political and economic situation. Effective counteraction is beyond the power of any independent specialized institution or individual country. Real results in the fight against terrorism can only be achieved through joint efforts and the creation of legislation that is effective and counteracts terrorist acts and threats.[7]

All of the above leads to serious difficulties in the legal grounds for the fight against terrorism, because if there is no definition, there is no punishment.

Understanding of the concept of **terrorism** is linked to the analysis of the common features of modern terrorism. Based on the content of ideology and motivation, as well as the specifics of the methods of action, there are differences between terrorism based on left and right ideologies, on nationalism and separatism, and with different religious motivations.[8]

The new global and asymmetric threats posed by international terrorism, insurgency, organized crime, the proliferation of dangerous technologies and components of weapons of mass destruction, actions threatening the state, information manipulation and misinformation, pose a significant danger to both global security and each national security.[9]

The security environment within the European Union (EU) has in recent years been characterised by the development of a number of crises, complex emergencies and acts of terrorism.The risks and dangers in Europe are growing in numbers and character. The attacks that took place in European in 2012 in Bulgaria (Burgas), 2014, 2015 and 2016 in France (Paris, Nice) and in Belgium (Brussels) are proof that an adequate response is needed from each country.[10]

At the same time, the essential nature of terrorism as a specific types of action and approach must be considered. While classical warfare is based on physical dominance and victory, terrorism is an asymmetric approach aimed at psychological impact.

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[7] Marinov, P. Terrorism: Abstractions and Realities. Sofia: Iztok-Zapad Publishing House. 2016, ISBN 978-619-152-866-0

[8] European Commission's Expert Group on Violent Radicalization (2008). Radicalization Processes Leading to Acts of Terrorism, submitted to the European Commission on 15 May 2008.

[9] Savov, I. A look at the inviolability and protection of personal data in the digital age, bulletin no. 37, Faculty of Police, Academy of the Ministry of Interior, 2017, ISSN 1312-6679, pp. 79-97

[10] European Commission's Expert Group on Violent Radicalization (2008). Radicalization Processes Leading to Acts of Terrorism, submitted to the European Commission on 15 May 2008.

In its modern manifestations, terrorism increasingly relies on synergy between different influences and approaches. This allows the resulting impact to exceedsignificantly the sum of the effects of the single forms and approaches. In addition to the traditional attacks on unarmed individuals and public facilities, the development of DAESH(IS)has shown that it is possible the ambitions of terrorist organizations are to reach the levels of classic military formations and even establishment of a state entity. Understandably, DAESH(IS)focuses the attention of the world community, but this does not exclude the study and analysis of still existing terrorist groups with different motivations. Destabilisation in the Middle East has led to an increase in the migrant wave, which in turn has caused economic, social and civilisational problems. This sparked the resurgence of right and left extremism.

The religion - politics interrelations

The development of each cause, ideology or its higher form – religion (for short we will call it **the Cause**) follows almost the same pattern (model). It is characterized by a birth, a period of enthusiasm and increase in followers, a period of enthusiasm and radicalization, a warlike period, and a climax which is inevitably followed by marginalization. It is worth noting that during the warlike period there is a desire for rapid and mass dissemination and imposition of the Cause, and this is accompanied by the deep conviction that this is in the interest of the people who are forced to accept the Cause. At the climax, all followers sincerely believe and personally accept any Cause issue.

No matter thepattern of development, leaders emerge at an early stage. The spread and expansion of the Cause brings power over people and resources, and power inevitably turns leaders into elite. The more the power of the Cause grows, the more the elite moves away from the masses; thus the social, economic and social differences increase and become clear and noticeable. Of course, this cannot be an endless process. At a certain critical moment, the connection between the elite and the masses becomes thinner until it breaks. The trust of the masses in the elite is compromised, and this in turn erodes faith in the Cause itself. This is also the beginning of marginalization.[11]

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[11] Lasch, Ch. (1995) The Revolt of the Elites and the Betrayal of Democracy. New York: W.W. Norton&Company

The lifespan of a Cause is determined by its scale. When it comes to a specific idea, with clearly defined and physically achieved goals, the life of the Cause can last for months. With political causes, this period can be from several years to decades, even centuries. However, when it comes to higher Causes, such as the world's major religions the lifespan can be as long as millennia. The attempt to compare the development of world religions, following the proposed model, confirms many similarities. The specifics of the ideological construction of a religion, which have an additional supporting or deterrent effect on the process, must also be taken into account.

The political motivation and the proclamation of a certain ideology, religion or ethnic rights as a cause which plays a strong role as a stimulant serves the purpose of manipulation and violence.

From all the above, it can be concluded that the argument about the multifaceted nature of terrorism as a phenomenon and the objective impossibility to reach a uniform and generally accepted definition is confirmed.

NATOdefinition of terrorism and counter-terrorism

Although there is no generally accepted definitions on terrorism and counter-terrorism, we can present NATO's themfrom AAP 6 Nato Clossary of terms[12] and definitions where the Terrorism is considered as: …..The unlawful use or threat of violence, the imposition of fear and terror on individuals or property in order to force or intimidate governments or societies, or to establish control over the population, to achieve political, religious or ideological objectives. In the same document, the definition of counter-terrorism is: all preventive, protective and protective measures taken to reduce the vulnerability of forces, individuals and property to terrorist threats and/or actions in order to respond to terrorist acts. Within the framework of the comprehensive approach. This may be combined with or followed by measures to allow recovery after acts of terrorism. The basic NATO documents related to countering-terrorism like the Military Concept for Defence against Terrorism (MC472) use these initially agreed definitions.

The analysis of the definition shows that terrorism is a form of violence or a threat of violence, subordinated to or justified by a specific cause - political, religious or ideological. The second emphasis is on the purpose of the violence,

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[12] AAP-6, NATO Glossary of Terms and Definitions, https://www.nato.int/structur/AC/310/pdf/nov2000.pdf

namely submission of the public consciousness through fear and shock in the interest of the cause. In addition to the emerging features of terrorism, the need to refine the definition is clear, as it is scientifically unacceptable to define an object, phenomenon or process with the same word used to name the object, phenomenon or process. In our case, if we consider the content of the term TERROR – derived fromthe Latin verb *terrere*to frighten, to terrify,we will see that a tautology is formed and that is why it is necessary to refine the definition.

With regard to the understanding of the concept of counter-terrorism, the use of the word ‚Counter' is of importance. According to the definition, the term counter-terrorism includes all possible preventive, offensive and defensive measures. The basic meaning of the terms in the Bulgarian language with the prefix ‚Counter' is an action, which is a reaction to another action or event that has already taken place: counterattack, counteroffensive, counter-coup, counter-revolution and others. This in turn creates ambiguity and a lack of clear distinction between the various forms of counter-terrorism and especially between preventive and reactive measures.

After the initial publication of the NATO definitions on terrorism and counter-terrorism, there are no new attempts to change the agreed ones. The conclusion is that when developing new or reviewing existing documents, there is no identified need for a new edition.All publications on terrorism share the view that it is a form of violence. Regarding its other characteristics, there is a great variety of opinions. For example, its goal is defined as causing fear, intimidation, achieving political, economic, ethnic goals, gaining popularity, and more. There is a great diversity when defining terrorism characteristics of means and organization in over a hundred definitions. The most common elements in those definitions are‘violence' and‘force', found in 83.5% of the definitions, followed by ‘political' - 65%, ‘fear' - 51%, ‘threat' - 47%.[13]

Political motivation is found in all major types of terrorism - left-wing extremist, right-wing extremist, separatist (ethnic), religious. For this reason there is no need to add „ethnic", „religious" or other goals to the definition.

Unlike legitimate political organizations, terrorists use violence to seize power. There is also violence in other social phenomena - war between states, civil wars, guerrilla warfare. Therefore, the differences between terrorist violence and other types of violence needs to be clarified.

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[13]   Alex Schmid,Terrorism - The Definitional Problem, 36Case W. Res. J. Int'l L.375 (2004)

The common element in the definitions is thatthere is no uniform definition of terrorism and most probably, despite the international efforts, such a definition will not to be adopted. This is caused by the differences in political views, interests and conditions. In our view, it is imperative to eleborate on the main features of terrorism as an activity and to characterise direct terrorist acts in order to distinguish them from other forms of confrontation.

On this basis, as well as on the basis of modern examples of terrorist activity, an attempt can be made to derive and suggest a definition of terrorism:

politically motivated activity, incriminated by domestic and international law, which involves violence against citizens to achieve its goals.

Political motivation - each terrorist act or activity is based on a political motive. Most often the driving emotion is the sense of injustice and a desire to change the state system orthe political (religious) system, or desire for power and control over resources and others. It is worth mentioning that even in the most recent examples of acts committed by individuals, the so-called „lone wolves", their motivation is based on affect caused by a sense of injustice, or a desire to identify oneself with an idea or group (terrorist, religious, political, including individual movements with specific causes, etc.), or the wish tobecome noticable, as well as to contribute to the accomplishment of the accepted cause with the terrorist act.

Publicity is the second characteristic of terrorism. Since the political goal cannot be achieved without establishing control over the society, group or population in a certain region, the main goal is to spread the results of the terrorist act as wide as possible. In almost all cases, a point for monitoring and filming the terrorist act is established. Next, the information, very often additionally manipulated and with added elements (sound, inscriptions, messages, symbols, etc.), which enhance the psychological impact, is disseminated/broadcast with the use of various media techniques. This is the basic method used in the „Islamic State" media campaign. The distribution/broadcast of video materials and photos from attacks, executions and tortures, through the media, the Internet and other media channels, increases the effect of the acts in a geometric progression and allows the achievement of the goal by terrorist organizations at a very low cost. This raises the question of the involvement of public media in the spread of the information and the degree to which public media should inform society,because there is a certain moment after which the media can become (willingly or unwillingly) accomplices in the terrorist act.

Indiscriminate and mass casualties - Unlike other forms of armed confrontations, terrorism most often targets innocent people. In some cases, depending on the specific purposes of the terrorist act, the target could be representatives of a particular ethnic group or religion. What is more, the planners and perpetrators of terrorist acts are not interested in the number of victims; on the contrary, very often they aim at masses of people. This characteristic complements the above described first and second characteristics. Very often this is the leading goal, which neglects the importance of traditionally respectedsites, such as religious temples, health facilities, children's centers, etc. An example of this is the cascading terrorist attack with improvised explosive devices on a mosque in the Yemeni capital during Friday prayers, and the armed attack and random shooting of doctors and helpless patients in a hospital in Sanaa. Both attacks were filmed and the recordings were broadcast in the Internet.

Intentional cruelty - this characteristic is directly related to the desire to cause shock and awe as a result of the exerted violence; its main purpose is to intensify the desired effect in combination with the other characteristics.

The suggested main characteristics of terrorism are the basis for a classification of the types of terrorism. Such classification is essential for the successful identification and analysis of a terrorist activity or a specific act and for taking decisions on an adequate response of the security system.

Based on outlinted spesifics and modern terrorism key features **the following basic motivation algorithm** [14]can be derived and suggested.

It should be emphasized that reaching a certain level (stage)of the algorithm does not automatically mean execution of terrorist activity. The transition or non-transition from one levelto the next depends on many factors: literacy, personal qualities and value system, the environment, historical and socio-political factors. Very often, the first two levels, and sometimes the third (radicalization) can be occupied by highly educated people and even sometimes by employees in the security system, but this does not make them terrorists. At the same time, the transition along the algorithm stages and reaching the final stage by illiterate persons, or persons with specific personal characteristics, can be done very quickly and at the cost of very little effort (manipulation, motivation, etc.)

What are the distinctive characteristics and the main factors influencing the levels (stages)in the algorithm?

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[14]   See Figure 1

Sense of injustice - this feeling is basic in the human psyche and it can be triggered by various reasons related to the psyche and life of the individual (e.g. satisfaction, professional development and personal sense of adequacy of the assessment of efforts, material and social status, recognition and level in the hierarchy of the individual group or society, etc.), as well as by global **causes**.

It should be emphasized that the larger and more global a cause is, the higher its potential to attract and unite more individuals is.[15]

Although developed with a focus on business and human resources management, this theory can find its modern and more general relations to the processes of radicalization, including relations to personal emotions, religious beliefs and established moral and value system. In this sense, in modern conditions, to form a sense of injustice towards a religion or a particular civilizational model of social relations is easy. Some examples include the global response and negative reactions of large masses of people after the publications of the French magazine Charlie Hebdo.Those publications were actually based on the democratic values and on the freedom of speech right. However, the result clearly shows that global understandings of these two concepts are quite different and when ignoring these differences or disregarding civilizational and religious specifics, the result could be generation of radicalization instead of democracy.

Affect / Anger - Without going deeply into the scientific aspects of personality psychology and the characteristics of the states of affect, we must underline that the negative emotional mood caused by a deep sense of injustice can have several expressions. Preliminary manifestations of anger should hint unequivocally that there is a serious problem. This type of anger has its characteristic features: abuse of alcohol or other intoxicants, increased tone of speech, usage of swearing and insulting vulgar language, typical facial expressions, finger pointing, sudden movements of the hands near hips, stiffness of the body, prolonged staring, deliberate violation ofthe personal space, etc.[16]

What matters more in the described algorithm for a person's transition to terrorism, is the suppression of anger. This type of anger is not of an immediate threat, but it is much more intense than the manifested (aggressive) anger, as it

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[15] Adams, J.S. (1965) Inequity in Social Exchange, Advance Experimental Social Psychology, 2, 267-299

[16] Dzhekova R, Mancheva M., Stoynova N., Anagnosto, D. (2017) Monitoring of the risks of radicalization. Center for the Study of Democracy. Sofia, ISBN: 978-954-477-300-7, p.22.

harbours a lot of negative thoughts and emotions based on a long-time accumulated negative attitude towards a person or problem, or in this case - the reason for the sense of injustice. It is the extreme leves of supressed anger that are the beginning of the process of radicalization and reaching extremes in assessments, positions, rejection of any alternatives and, at a later stage, the decisive readiness to impose the embraced Cause on the others.[17]

The essence of radicalization. The processes of radicalization and their connection with terrorist activity.

In its modern manifestations, terrorism increasingly relies on synergy between different in character influences and approaches. This synergy allows for impact, the effect of which significantly exceeds the sum of the effects of the single approaches. At the same time, the new information environment has changed the operation of existing security systems. This puts them in a difficult position and causes them to function in a complex information environment. This requires the implementation of a number of new complex policies, missions and tasks and underlines the increasing complexity of governance, which is the basis for improving their organisation and skills on scientific grounds[18]. The Internet serves as fertile ground for terrorist networks such as al Qaeda or „Islamic State" to spread their ideas and plan the destruction of life and property[19].

The main component and motivational tool of terrorism is the process of radicalization. Threats are changing their forms and become unconventional, such as modern forms of terrorism, information attacks in cyberspace against government institutions or against energy, transport, and financial critical infrastructure among others. Attacks by radicalised people who were born or newly arrived migrants in the community have been recorded in the European Union. These attacks on the population aim to create and maintain panic and fear and disrupt normal social processes[20].

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[17] See Figure 2
[18] Stoykov, S., Dimitrova, S., Marinov, R., The development of educational capacity of human resources in the field of security-main priority of national security, International Conference on Creative Business for Smart and Sustainable Growth, CreBUS 2019, March 2019, Article number 8840062, Category number CFP19U17-ART; Code 152084, ISBN: 978-172813467-3, DOI: 10.1109/CREBUS.2019.8840062
[19] Savov, I. A look at the inviolability and protection of personal data in the digital age, bulletin no. 37, Faculty of Police, Academy of the Ministry of Interior, 2017, ISSN 1312-6679, pp. 79-97
[20] Savov, I., A Look at Counteracting Hybrid Threats in the European Union, International Conference "Asymmetric Threats, Hybrid Wars and Their Impact on National Security", New Bulgarian University, March 2018, ISBN 978-619-7383-09- 6, pp. 179-185

Radicalization is perceived as a change of views, feelings and behaviour, which results in intergroup violence and requires self-sacrifice in the name of protecting one group at the expense of another. It can also be explained as a strategic use of violence to change the behavior of certain social groups or state institutions. This diversification of interpretation also explains the multilayered nature of the factors that have led to the beginning of the process, as well as the achievement of the corresponding state, namely radicalism. It is not uncommon in the research on the topic to equate radicalism with extremism and terrorism. If we analyze the various definitions of „radicalization", we will notice that it is most often associated with extremism[21].

There are numerous analyzes of the reasons leading to the radicalization of individuals, groups and countries. They can be grouped into socio-economic (poverty, social inequality, social hopelessness, etc.), psychological (fear, loss of sense of belonging to one's own social or political group, etc.), ideological (desire to change the status quo in competition with another social group), religious (hyperbolizing certain dogmatic norms in order to show superiority over other religious communities), political (the use of violence in order to achieve dominance in government), and others.[22]

Radicalisation resulting in extreme behaviour, violence and terrorism, is not a new phenomenon, but the process is evolving at an alarming rate and scale. This process is not limited to one Member State, but affects the whole European Union. Policies and measures undertaken at the EU and national levels must be further developed to match the scale of the challenge.[23]

There is no official data of the number **of radicalised people** currently on the territory of the European Union who may pose a potential security threat. However, various databases at a national level give an idea of the scale of the problem: around 20 000 people have been reported in France; 20,000 in the UK, 11,000 in Germany. At the same time, threat analyses show an increase in **right-wing** extremism promoting hate speech. This fuels violent extremism as well as division in society. The number of attacks carried out on the basis **of left and right radicalisation** is on the rise.The **return of members of militants to terrorist** organizations

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[21]   Chukov, V. "Radicalization - a complex and contradictory social process"

[22]   https://www.nato.int/structur/AC/310/pdf/nov2000.pdf

[23]   Marinov P. (2017) Contemporary Challenges to the Management of the System for Security and Countering Terrorism. Sofia: Iztok-Zapad Publishing House., Sofia, 2016, ISBN 978-619-01-0027-0

and their families, including adolescents, together with local extremists and those prone to self-radicalization, are the main challenges to preventing radicalization. In the long term, the Member States of the European Union must take proactive measures and balance strong and soft approaches. [24]

Regardless of the type of radicalisation or country-specific circumstances, some specific tools of terrorist groups or extremist organisations can be identified. They include:

1) the use of **the internet and social media** for propaganda and recruitment purposes;

2) reqruitmet of persons in prisons;

3) actions to increase polarisation and, more broadly, to **undermine public peace and shared values.** These **multifaceted challenges require multilateral responses** from all public domains that involve all relevant actors at local, regional, national, European and international levels with policies aimed at preventing and combating radicalisation, while complementing other measures as part of a more comprehensive approach to combating terrorism.[25]

Another factor for radicalisation is the role of foreign influence. Many countries in the region have seen students leave for the Gulf States, where they are being educated in the more conservative relidious thought. Upon their return to the region, these students continue to advocate for the 'purification' of traditional religious. The core of the Salafi proselytisation effort revolves around Bosnians who are educated through this scholarship scheme, and who have established local NGO's and madrassas.

Research that explores the extent to which foreign influences play a radicalising role and thus contribute to violent extremism in the region and in diaspora communities, is crucially important. Analysis of links between Gulf-funded scholarship schemes, the funding of Salafist NGOs, and a recent influx of foreign investments could prove incredibly valuable to uncovering patterns that inform policy-level intervention strategies.

~~Based on~~ the described radicalization factors and the existing definitions,

[24] European Commission's Expert Group on Violent Radicalization (2008). Radicalization Processes Leading to Acts of Terrorism, submitted to the European Commission on 15 May 2008.

[25] https://ec.europa.eu/home-affairs/what-we-do/policies/crisis-and-terrorism/radicalisation_en- Accessed 19.05.2020.

Radicalization Levels can be formulated. This will contribute to increasing the descriptiveness of ongoing analyzes and also to focusing more precisely on prevention policies and measures, and deradicalization programs. Synthesis can be applied to the definition in the "Strategy for Counteracting Radicalization and Terrorism 2015-2020" and it can bepresentedwith details about conditions and signs that characterize each level:[26]

1) **Level 1** - Determined, firm position, accompanied by signs of supressed anger.

2) **Level 2** - Extremeness, contrast in assessments and perceptions.

3) **Level 3** - Rejection of alternatives. Rejection of discussions. Declaring a position without argumentation.

4) **Level 4** - Negative reaction at each alternative opportunity, even in cases of verbal expression of other opinions and positions.

5) **Level 5** - Manifestations of verbal or behavioral aggression in defence of the cause. Clear signs of manifest anger.

6) **Level 6** - Determined readiness to impose one's opinion on others through personal example (change in behavior, appearance, etc.) and active propaganda.

7) **Level 7** - Determined readiness to impose one's opinion on others by force.

Extremism and violent extremism - According to definitions in dictionaries, extreme means being far beyond the ordinary, the norm. In this sense, the transition from the seventh level of radicalization to extremism will be associated with behavior or reactions that go beyond what is accepted, expected, beyond imposed moral and legal norms or stereotypes. At this stage, this behavior does not have to be aggressive. This can be violation of work discipline, a manifestation of civil disobedience, participation in protests, or when someone is undertaking unexpected actions, personally or professionally. As feelings and perceptions deepen, this extreme behavior can escalate into aggression. By its nature, it can be directed at the individual himself and take the form of self-aggression (e.g. eating disorders, physical training to the point of exhaustion, self-harm, etc.). As much as it is not desirable to reach this stage, in terms of the basic algorithm, it is the more favorable outcome, as they most often it can lead to injuries affecting

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[26] Strategy for Counteracting Radicalization and Terrorism 2015-2020 (2015). Sofia: Republic of Bulgaria, Council of Ministers.2015.

only the radicalized person. The more unfavorable development of the algorithm is the manifestation of aggression towards the others. These conditions, which in many cases are borderline, are defined as a form of terrorism or violent extremism by many researchers.

On the basis of the analyzed factors for radicalization, a typology of the causes on which it is based can be derived, and hence - specific profiles of extremism can be defined. Generally, we can divide them into four larger groups, namely:[27]

1) **Right-wing extremism. It** can be associated with fascism, racism, ultra-nationalism, or superiority of a particular social group. This form of radicalisation is characterised by exploiting people's fears about their racial, ethnic or pseudo-national identity. Its main manifestations is extreme hostility towards state authorities, minorities, immigrants and/or left-wing political groups.

2). **Political-religious extremism**. This form of radicalisation is based on political interpretations of religion and the protection of religious identity. It takes various forms, i.e. international conflicts, foreign policy, public debate, etc. Any religion can result in this type of radicalization.

3) **Left extremism.** It focuses mainly on anti-capitalists claims and calls for the transformation of political systems that are considered responsible for the social inequality. This form of radicalisation can also resort to the use of force and all forms of violence in defence of its cause. This category includes anarchists, anti-globalists, Maoists, Trotskyists and Marxist-Leninist groups, and others who use violence.

4) **Single-issue extremism.** With this type, motivation is most often one-Cause. It often includes environmental and animal rights movements, anti-abortion extremists, some anti-gay and anti-feminist movements, and ultra-individualistic or independent extremist movements.

It is difficult to put a clear line between violent extremism and terrorism. In addition to the basic characteristics of terrorism described, some researchers also require evidence of a particular form of organisation for the use of violence in order to classify a violent act as terrorism. for the use of violence so that an act to be classified as terrorism. However, this requirement is refuted by the cases of self-radicalized persons that have become more frequent in recent years, in which the

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[27] European Commission's Expert Group on Violent Radicalization (2008). Radicalization Processes Leading to Acts of Terrorism, submitted to the European Commission on 15 May 2008.

supporting factors prevail over the deterrents, and they reach the final levels of the applied algorithm: they grab a certain cause and are unequivocally convinced that this cause will compensate for the deficits that have led to radicalization, so they commit terrorist acts. This phenomenon has gained wider popularity with the name of „Lone Wolf".[28]

Almost every adult person has a position on certain issues and very often it is extreme, unappealable and difficult or impossible to change. Thus, this is a condition very close to the first level of radicalization,defined above, and sometimes even close to higher levels of radicalization. The balance, or its disturbance, of the described influencing factors leads to transition along the basic algorithm. In most cases, the deterrents prevail and the „movement" along the levels of the algorithm stops at a certain level. However, when they are not stable, especially the part that concerns the individual and society (system of moral values, intellect, education, public relations and norms, etc.), the supporting factors prevail. Depending on the amplitude, this can significantly accelerate the radicalization process. This is especially true for people whose values and morals are not yet well established (children and adolescents) or people who have an identity crisis. Therefore, it cannot be argued that radicalization necessarily leads to terrorism, and that a certain person who has extreme positions, even if they are accompanied by a certain form of extreme behavior, is not necessarily a terrorist. Still, the transition from extreme states to the level of terrorism is expected to be easier in such cases. However, it must be strongly emphasized that every terrorist has gone through the process of radicalization at a certain speed.

Conclusion

From all that has been said so far, it can be assumed that in different force majeure or crisis situations, different parts of society, individual segments and / or communities in different regions, may demonstrate surprisingly different characteristics and behavior. This means that policies and measures for prevention of radicalization and terrorism must be different, specific and targeted for different communities, regions, age groups and literacy levels. This should have an impact not only on the planning and preparation of anti-terrorist operations, but also on the development of counter-terrorism capabilities in the armed forces. Attention to

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[28] Marinov, P. Terrorism: Abstractions and Realities. Sofia: Iztok-Zapad Publishing House. 2016, ISBN 978-619-152-866-0

the prevention of radicalization and the role of the armed forces must be directed both „outwards" and „inwards" to the formations and structures, and towards prevention of radicalization of employees and servicemen. The complexity and multifaceted nature of the described influencing factors, as well as the need to conduct operations in anallied (NATO) format, necessitates the establishment of an alliance policy on the described issues, which will lead to the development of specific policies and approaches.

Moreover, all these unique policies and measures must be in the spirit and subject to the main regulatory documents: doctrinal and legal basis. On the other hand, the counteraction of terrorist or paramilitary groups or individual cells may face a new and unexpected enemy for the territory of the country, namely the environment and the local population. Those who conduct an operation may find themselves in the dilemma of „implementing preventive measures to counter terrorism or comply with the law and respect the rights of the country's citizens." In the uncertainty, asymmetry and network centricity of modern combat operations, commanders have to creatively apply the principles of the use of their subordinate forces and means[29]. This requires a complete rethinking of possible crisis options, reassessment of the environment with specific characteristics of the regions, as well as making the necessary changes in plans and procedures for the use of formations by the Armed Forces of NATO countries or in allied format.

Bibliography

Manual - to the contract URI №5785 opm-26 5785mpd-6 / 24.01.2018 - "Conducting a national expert study on the topic of Early recognition of signs of radicalization for early prevention", under the project "Improvement of expert capabilities of the employees of the Ministry of Interior for prevention of aggression in the society, anti-corruption and countering radicalization ", contract № BG05SFOP001-2.004-0003-C01 / 27.12.2016, for providing gratuitous financial aid under the Operational Program "Good Governance".

Huntington, S. P. (1997) The Clash of Civilizations and the Remaking of World Order. New York: Simon & Schuster.

Adams, J.S. (1965) Inequity in Social Exchange, Advance Experimental Social Psychology,

---

[29] Gradev K, The Influence of Hybrid Threats on the Principles of War, Yearbook of the Faculty of Command and Staff 1/2015. Sofia: Military Academy "G. S. Rakovski ". 2015. 265-275 p.

2, 267-299

Chaliand G, Blin A., The history of terrorism from antiquity to Al Qaeda, University of California PressBerkeley and Los Angeles, California, 2007, ISBN-13: 978-0-520-24533-4

Stoykov, S., Dimitrova, S., Marinov, R.The development of educational capacity of human resources in the field of security-main priority of national security, International Conference on Creative Business for Smart and Sustainable Growth, CreBUS 2019, March 2019, Article number 8840062, Category number CFP19U17-ART; Code 152084, ISBN: 978-172813467-3, DOI: 10.1109/CREBUS.2019.8840062

Savov, I. Alookattheinviolabilityandprotectionofpersonaldatainthedigitalage, bulletinno.37, FacultyofPolice, AcademyoftheMinistryofInterior, 2017, ISSN 1312-6679, pp. 79-97

Savov, I. A Look at Counteracting Hybrid Threats in the European Union. International Conference "Asymmetric Threats, Hybrid Wars and Their Impact on National Security", New Bulgarian University, March 2018, ISBN 978-619-7383-09-6, pp. 179-185

Chukov, V.Radicalization - a complex and contradictory social process.

European Commission's Expert Group on Violent Radicalization (2008). Radicalization Processes Leading to Acts of Terrorism, submitted to the European Commission on 15 May 2008.

Dzhekova R, Mancheva M., Stoynova N., Anagnosto, D.(2017) Monitoring of the risks of radicalization. Center for the Study of Democracy. Sofia, ISBN: 978-954-477-300-7, p.22.

Gradev K, The Influence of Hybrid Threats on the Principles of War, Yearbook of the Faculty of Command and Staff 1/2015. Sofia: Military Academy "G. S. Rakovski ". 2015. 265-275 p.

Strategy for Counteracting Radicalization and Terrorism 2015-2020 (2015).Sofia:Republic of Bulgaria, Council of Ministers.2015.

Lasch, Ch.(1995) The Revolt of the Elites and the Betrayal of Democracy. New York:W.W. Norton&Company

Marinov, P. Terrorism: Abstractions and Realities.Sofia:Iztok-Zapad Publishing House. 2016, ISBN 978-619-152-866-0

Marinov P. (2017) Contemporary Challenges to the Management of the System for Security and Countering Terrorism. Sofia:Iztok-Zapad Publishing House., Sofia, 2016, ISBN 978-619-01-0027-0

https://ec.europa.eu/home-affairs/what-we-do/policies/crisis-and-terrorism/radicalisation_ en - Accessed 19.05.2020.
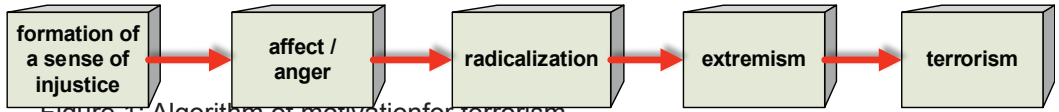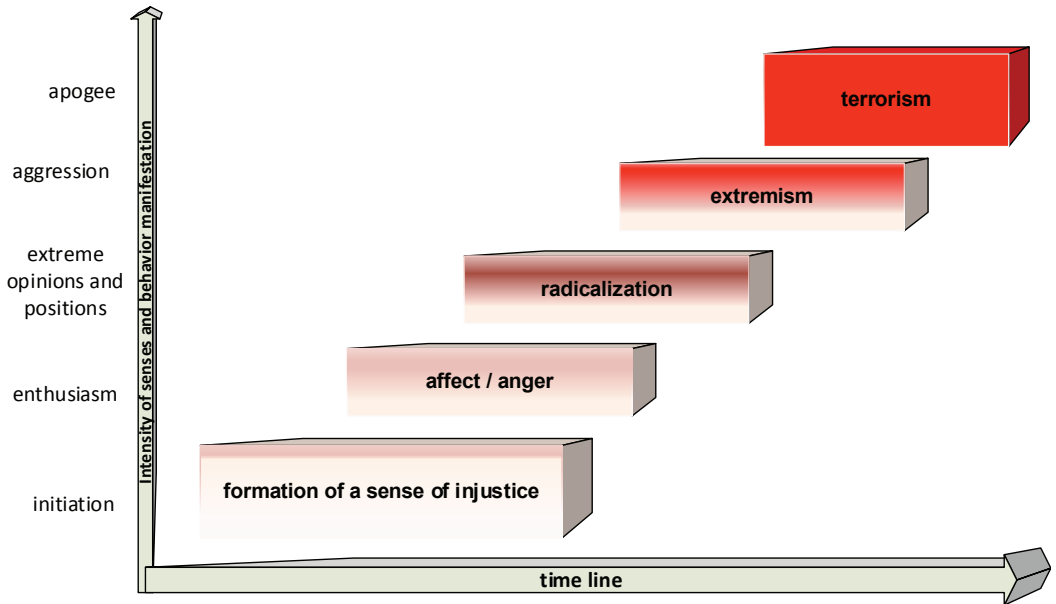
Appendix:

Figure 1: Algorithm of motivation for terrorism.

Figure 2: Progress of intensity of feelings and behavior expression in accordance with

the model of motivation for terrorism.

Contemporary Tactical Military Use of Subterranea by Non-State Actors

Marko Bulmer[1]

Abstract: *Contemporary military conflicts show that NATO needs once again to understand the significance of subterranea as an operational environment. Much previous subterranean knowledge, training and infrastructure was taken as a Cold War peace dividend and 'at risk' in subsequent defence reviews. Today, both state and non-state actors are utilising this space. NATO tactical-level subterranean experiences in Afghanistan have largely been with caves and tunnels in mountains[2,][3]. In contrast, conflicts in Syria and Iraq have centred on the need to hold or capture cities[4]. These conflicts have again shown how critical subterranean parts of cities are for the survival of both combatants and civilians. In rural settings, these same conflicts have seen combatants use natural subterranean features but also undertake significant military tunnelling and underground construction projects. The increased use of subterranea has been driven by the need to avoid detection and to*

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[1] Lieutenant Colonel, PhD, British Armed Forces. He is a professionally qualified geologist and geographer.

[2] Such as Tora Bora, Shahi-Kot valley and Paktika.

[3] Eugene Palka, "Military Operations in Caves: Observations from Afghanistan", in: *Military Geography and Geology: History and Technology*. (Paul Nathanail, Robert Abrahart & Roy Bradshaw (eds) Land Quality Press, Nottingham Chapter 19, 2008). p. 269-278.

[4] Robert D. Barbaree, "Coordinating Chaos, Integrating Capabilities in Future Urban Combat". in: *Complex Terrain Megacities and the Changing Character of Urban Operations.* (Benjamin M. Jensen, Henrik Breitenbauch and Brandon Valeriano eds. Marine Corps University Press, Quantico, Virginia. Chapter 6, 2019). pp. 140-155.

increase protection in an attempt to reduce or overcome the technological advantages possessed by modern militaries, and to find advantage in their limitations. The scale of subterranean excavations was formerly to be expected by state actors but conflicts in Syria, Iraq, Lebanon and Gaza have revealed the significant capabilities and capacities of non-state actors. Examinations as to how rebel/terrorist groups have utilised subterranea highlights considerations for NATO forces response today and in the future. This is critical to understanding terrorist's intent and capabilities that are vital to identify measures, tactics, techniques or technology that can be introduced to counter the changing terrorist threat.

Keywords: *Subterranea, Survivability, Detectability, Vulnerability, Recoverability.*

1. Introduction

Non-state actors have demonstrated understanding of how modern militaries fight, how to reduce or overcome their technological advantages, and particularly how to exploit their limitations. Contemporary conflicts have revealed increasing levels of sophistication and capability in subterranean warfare in urban and rural settings. This requires changes in how modern militaries fight underground[5]. Subterranea encompasses both under land and seabed and is often not monitored by those who lay claim to the surface. It is a domain in which modern militaries cannot easily find an adversary, penetrate sufficient depths, fight in at-scale, for long duration, or manage captured underground tunnels and facilities[6]. This should engender debate as to the will and ability of NATO forces to be competitive in subterranean warfare at tactical, operation or strategic level, either by going underground, minimising direct engagement by destroying subterranean structures from above, or identifying and avoiding. To operate in this space the NATO land forces will need joint action with Air, Space and at times, Maritime forces. Subterranea is a domain also being exploited by organised crime and the same underground structures may be used for trade, smuggling (weapons, people, and drugs), movement of civilians and combatants. Depending on the circumstances, underground warfare

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5   Raphael Cohen et al., *From Cast Lead to Protective Edge.* (RAND Corporation, Santa Monica, California, 2017). p. 246.

6   Mark Bulmer, Contemporary Military Use of Subterranea, (British Army Review, 175, 2018). pp. 106-113.

may fall within the scope of several domestic and international legal frameworks[7]. Both shallow (less than 20 meters below ground) and deep (greater than 20 meters below ground) subterranea, are complex operating environments[8] for defence and security agencies within the home countries of NATO members and overseas.

Several motives can be identified for the military use of subterranea in Iraq and Syria. First, since 2011, Syrian rebel forces opposing the Syrian Government Forces (SGF) of the Assad regime[9] needed concealment from surveillance and protection from conventional as well as chemical air and artillery strikes[10]. In addition to the civil war, Syria has been the epicenter of the conflict between al-Qaeda[11] and its renegade affiliate the Islamic State of Iraq and Syria referred to as Da'esh[12, 13]. These terrorist groups needed protection from the U.S. led coalition Combined Joint Task Force – Operation Inherent Resolve (CJTF-OIR) air campaign starting in August 2014. These Syrian rebels and terrorist groups fought, and continue to fight against regular forces with superior technology and air superiority[14]. Second, rebel forces and terrorist have been able to exploit both shallow and to a lesser extent, deep subterranea because the regional geology and hydrogeology[15] is favourable to tunnelling, there was local knowledge, and they accepted very high risks associated with going underground. This latter point enabled knowledge, skills and experience to advance rapidly. Third, the oil, gas, quarrying and construction sectors in the region had a large amount of plant, machinery, as well as expert and experienced labour that could be redeployed, adapted and used for subterranean

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[7] Daphne Richemond-Barak, *Underground Warfare.* (Oxford University Press, 2018), p. 270.

[8] With inter and intra dependencies through, across and within sectors, networks and domains.

[9] The Free Syrian Army (FSA), Sunni Arab rebels, Salafi jihadists and Da'esh.

[10] Iran, Russia and Hezbollah support the Syrian government.

[11] Al-Qaeda operates as a network of Islamic extremists and Salafist jihadists. The organisation has been designated as a terrorist group by the United Nations Security Council, NATO, the European Union, the United States, China, the United Kingdom, France, Russia, India, Turkey and various other countries.

[12] Da'esh (ad-Dawlah al-Islamiyah fil-Iraq wa ash-Sham) also known as IS according to the UN Security Council Resolution 2368 (https://www.undocs.org/S/RES/2368(2017)) and the sanctions list (https://www.un.org/securitycouncil/sanctions/1267/aq_sanctions_list).

[13] By April 2013, tensions between AQ and IS heightened when the Da'esh caliph Abu Bakr al Baghdadi instructed his fighters to expand from Iraq to Syria to reclaim control over Jabhat al-Nusra. Over the summer and fall of 2013, IS's aggressive posture toward other jihadists led to heightened tensions, which escalated into infighting in January 2014 and ignited the so-called jihadi civil war. The following month, al Zawahiri officially expelled IS from his AQ network.

[14] Turkey supports the Syrian opposition but has also opposed the US led support to the YPG fighting Da'esh due to its designation as a terrorist organisation.

[15] The branch of geology concerned with water occurring underground or on the surface of the earth.

excavations[16]. This was seized by Da'esh and affiliates and they worked fast to set up and run a large tunnelling programme across the so called 'caliphate'.

In this paper, the use of subterranea by terrorists groups and rebels in Iraq and Syria from 2011 to 2021 is examined. One of the challenges to preparing it has been the difficulty in determining place names, especially when dealing with small towns that may have two or three names, in Arabic, Kurdish, Turkish or Syrian. Reports from Iraqi, Kurdish and foreign media often used culturally specific names. In addition, coverage was often specific to Iraqi, Syrian, Turkish or CJTF forces, Kurdish Peshmerga, local militia, ethnic or religious groups.

Standardisation has been attempted here by cross-reference to multiple sources such as official geology and administrative maps for Iraq, Syria, and the Kurdish Regions.

2. Methodology

Resolutions sufficient to search for evidence of subterranean excavations in Iraq and Syria, that were reported in open source international media, were examined using publically released hand held images, drone footage, as well as EO NASA and ESA satellites such as OLI on Landsat 8, Sentinel-2A, and DigitalGlobe World View. The Operational Land Imager (OLI) on Landsat 8 measures in the visible, near infrared, and short wave infrared portions of the electromagnetic spectrum. The satellite has a 16-day repeat cycle with an equatorial crossing time of 10:00 a.m GMT +/- 15 minutes. Sentinel 2-A images are acquired with a 20.6° field of view providing an approximately 290 km swath, and the equatorial repeat cycle of each Sentinel-2 sensor is 10 days, and five days when combined. Sentinel 2-A uses 13 spectral bands, from the visible and near-infrared to shortwave infrared at resolutions from 10 to 60 m on the ground. DigitalGlobe's WorldView-2 satellite has a revisit time of 1.1 days and provides 0.46 m panchromatic (B&W) mono and stereo satellite image data. WorldView-3 satellite has an average revisit time of < 1 day and provides 31 cm panchromatic resolution, 1.24 m multispectral resolution, 3.7 m short wave infrared resolution (SWIR) and 30 m CAVIS resolution.

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16 Mark Bulmer, "Using EO to understand the significance of cement production infrastructure in the Syrian conflict", in *Advances in Remote Sensing of Infrastructure Monitoring.* (Vern Singhroy, ed, Springer Remote Sensing/Photogrammetry, Springer Nature, Switzerland. Chapter 14, 2021). pp. 307-354.

The factors of shape, size, shadow, tone, associated features and movement in images were used to interpret features related to subterranean excavations, characteristics and activities (Hamshaw Thomas, 1920). Shape was used to identify characteristic lines, symmetry and spacing of subterranean structures. Sizes of tunnels and underground facilities (UGFs) such as tactical and storage sites were used to gain insight into their role and capability. Shadows associated with lighting were used to calculate their heights and shapes. The tone within any one image was unique and provided information related to weather, time of day, season, an objects surface and the relative position of the sun if it was taken on the surface. This was harder to use with images taken underground. Tone proved to be useful for tracing cables and on occasion conveyor belts on tunnel walls and floors, as well as distinguishing between subterranean structures in different locations within and between different theatres of conflict. Associated features were often critical to interpreting the function of facilities within tunnels and UGFs. Signature equipment allowed distinctions to be identified between different terrorist and rebel groups excavating subterranean structures, occupiers and users, and their methods. Evidence for camouflage, concealment and deception techniques used to hide tunnel entrances and portals as well as spoil were identified.

2.1 Geospatial Data Analyses. Subterranean structures identified using open source hand held images, drone footage, as well as EO imagery, were geo-located into GIS layers to enable analysis. Identified tactical tunnels and UGFs were analyzed using activity[17], temporal[18], and/or trend analysis[19], and change detection[20] to determine function, serviceability and operational signatures. Where identifiable,

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17 In the activity analysis ground-based, drone and satellite images were used to identify, assess and evaluate single or multiple occurrences which indicate subterranean activity is either underway or has taken place. The analysis was determined using a single image to determine if an excavation was active, or multiple images over a period of time, perhaps to assess the movements of spoil and shoring during on-going excavations.

18 Temporal analysis refers to the image sensor return/repeat time between acquisitions and the analysis of that imagery. For satellite imagery this frequency of imaging could be carried out by the same platform or a second one and is therefore another enabler of change detection. Using EO satellites, the return/repeat times were varied and the analysis covered both months and year long period of time.

19 Trend analysis was used in the evaluation and synthesis of activity, temporal and change detection analysis, to identify patterns of activity at subterranean sites to predict likely future trends and outcomes with a particular focus on the irregular or abnormal. The production of spoil over the construction cycle and operation was examined.

20 Change detection was used to compare two or more images to recognise often subtle changes in perhaps the positioning of spoil or equipment through to the differences observed during the construction of a tactical tunnel or UGF, or during its operational use.

factors of shape, size, shadow, tone, associated features and movement in images were then used for dimensional analysis to derive associated metrics that were related to imaged evidence of a tactical tunnel or UGF being operational (e.g. height and diameter were used to determine whether occupants crawled, crouched or stood) and how spaces were used (such as feeding, sleeping, storage). Calculations of excavated volumes were determined from the dimensional analysis and using numbers derived from open source tunnel excavation documentation it was possible to obtain advance rates.

3. Military Subterranea in Syria and Iraq

Rebel forces and terrorist groups have used subterranea in Syria and Iraq as a core part of their tactical, operational and strategic control over urban and rural territories and their military capability. Since the start of the Syrian Civil War in 2011, natural, engineered, mined and hybrid[21], tactical subterranean structures has provided protection to rebels plus terrorist groups against SGF barrel bombs and artillery as well as Russian and Iranian munitions. Offensively, tactical tunnelling has been undertaken to get under critical buildings of military significance to blow them up[22, 23] (Fig. 1), This tactic has been used effectively in Iraq, Syria, Afghanistan, Lebanon and Gaza with associated tunnels being often short, shallow and rudimentary. In Syria, this prompted counter tunnelling by SGF using knowledge gained by Hezbollah from the Lebanon-Israel war where they received North Korean assistance[24]. Once frontlines between opposing rebel, terrorist and government forces became established, subterranean activity transitioned to creating defensive positions. Over time to counter attacks by government forces, rebel and terrorist subterranean structures went deeper enabling long-term survival underground. Complex tunnel networks less than or equal to 20 meters below ground were created by both rebels and Da'esh, along with other terrorist groups using hand tools, power tools and machine excavators. To avoid detection, tunnel

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[21] A combination of all four.

[22] U.S. Finds Clues in Bakery to Foil Iraqi Terror Plot (The Associated Press, 8 Sep 2008). https://www.nbcnews.com/id/wbna26611968. (Accessed 10 Sep 2021).

[23] In May 2014 the Islamic Front tunnelled under and destroyed the Carlton Hotel in Aleppo that government forces were using as a base. In March 2015, the Air Force Intelligence building in Aleppo was destroyed in the same way.

[24] Yaakov Lappin, "Security and Defence: The North Korean Connection, "(12 March 2016), The Jerusalem Post, available at http://www.jpost.com/Arab-Israeli-Conflict/SECURITY-AND-DE-FENSE-The-North-Korean-connection-447557 (accessed 6 Nov 2020).

excavations started in buildings and spoil was hidden in rooms. Tactical tunnels less than 20 meters below ground range from large enough for one person to crouch in to those large enough for three fighters to stand in shoulder to shoulder. In September 2017, a tunnel complex in Raqqa captured from Da'esh was found to be constructed with prefabricated reinforced concrete forms[25] (Fig 2a) similar to those in tunnels in Gaza (Fig. 2b, c). The most sophisticated tunnel complexes had dormitories, mosques, hospitals, armouries, kitchens, latrines, and command centres complete with CCTV, solar panels, computers, phones, electricity, respirators and ventilation. These were serviced by transformers, converters and diesel engines facilitating underground occupation for long periods. These are very similar to Viet Cong tunnel complexes[26] and enabled fighters to come up onto the surface behind, in flanking positions, or amongst advancing forces, achieving great military effect. SGF have attempted to siege and starve rebel and terrorist-held urban areas. In response, tunnel trade became critical for rebel forces, terrorist groups and civilians such as in the Damascus suburbs of the eastern Ghouta enclave[27] reminiscent of the Rafah crossing and Gaza. Rebel forces and terrorist groups tunnelled in almost all urban areas they controlled. Across Syria and Iraq they also exploited existing natural sinkholes, caves, tunnels and quarries. Caves and natural tunnels used by locals for shelter, storage, or religious practices quickly became known to Da'esh after they took over any territory[28]. Outside Mosul Da'esh used the abandoned two point five kilometer long civil infrastructure rail tunnel for a military training site, setting up a shooting range, obstacle course, mosque and clinic within it[29]. This rail tunnel south of Mosul was excavated in the early twentieth century for the Baghdad railway. In northern Iraq, as part of their terror tactics against Iraqi and Iraqi-Peshmerga forces as well as civilians, sinkholes and

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[25] Tunnel form is a formwork system that allows the constructor to cast walls and slabs in one operation in a daily cycle. It combines the speed, quality and accuracy of factory/off-site production with the flexibility and economy of in-situ construction and is recognised as a modern method of construction. The system creates an efficient load-bearing structure.

[26] Tom Mangold and John Penycate, *The Tunnels of CuChi.* (Berkley Books, New York, 2005), p. 299.

[27] At times the same forces fighting each other on the surface were trading with each other through tunnels.

[28] Mark Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq", in *Military Aspects of Geology: Fortification, Excavation and Terrain Evaluation*. (Edward Rose, Judy Ehlen & Ursula Lawrence, eds, Geological Society of London Special Publication. 473, 2019). https://doi.org/10.1144/SP473.11

[29] Isabel Coles, "Mosul Train Tunnel Reveals Assault Course for Elite Islamic State Fighters". *Reuters*, (6 March 2017), https://www.reuters.com/article/us-mideast-crisis-mosul-tunnel/mosul-train-tunnel-reveals-assault-course-for-elite-islamic-state-fighters-idUSKBN16D0WW (accessed 14 November 2020).

caves around Sinjar, Mosul and Tikrit[30] were used by Da'esh as execution sites and mass graves[31, 32]. Over the time of IS occupation, most of the victims executed at mass grave sites were Shiites, Yazidis and Christians, all of whom Da'esh consider to be apostates. The Khasfa sinkhole eight kilometers south of Mosul was 400 meters deep and Da'esh filled it with an estimated 4000 bodies many of which were reported to be Iraqi soldiers and police that surrendered when Mosul fell to Da'esh[33]. In Syria, a similar pattern of mass graves occurred at sites such as near Dera'a as part of Da'esh terror tactics. The al-Hota sinkhole outside Raqqa[34] may be one of the larger mass graves filled with captured Syrian Army soldiers, rebels and jihadists opposed to Da'esh, hostages and civilians, but the number of bodies is unknown. Da'esh used water as a weapon using the kārēz[35] underground irrigation system to control water but also to fight tactically in ways similar to the mujahedeen in Afghanistan[36]. Control of water by Da'esh has been significant in recruiting new Da'esh fighters locally and gaining legitimacy[37]. Subterranea has also been used by Da'esh to destroy or loot items of cultural heritage[38] which have then been used to raise revenue[39].

[30] Mark Bulmer and Archie Walters. "The Socio-Cultural and Environmental Impact of Islamic State Use of Sinkholes and Caves as Mass Graves in Syria and Iraq". *13th Spatial Socio-Cultural Knowledge Workshop, Cranfield University.* (12 May 2021). pp. 17.

[31] Loveday Morris & Mustafa Salim" ISIS dumped bodies in a desert sinkhole. It may be years before we know the full scale of the killings". *The Washington Post*, (2 March 2017). https://www.washingtonpost.com/world/middle_east/isis-dumped-bodies-in-a-desert-sinkhole-it-may-be-years-before-we-know-the-full-scale-of-the-killing/2017/03/02/0a4c0fd4-fd2b-11e6-9b78-824ccab94435_story.html (accessed 11 November 2020).

[32] There is no definition of the term 'mass grave' in international law; it is commonly understood to refer to a site containing a multitude of buried human remains. Under Iraqi national law, 'mass grave' is defined as "land or location containing the mortal remains of more than one victim, who were buried or hidden."

[33] Florian Neuhof, "Horror of Mosul where sinkhole became mass grave for 4000 of Isil's victims". *The Telegraph*, (27 February 2017), https://www.telegraph.co.uk/news/2017/02/25/horror-mosul-sinkhole-became-biggest-mass-grave-iraq/ (accessed 14 November 2020).

[34] Nadim Houry with Sara Kayyali and Josh Lyons, "Into the Abyss. The al-Hota Mass Grave in Northern Syria". Witness Field News Type. Human Rights Watch. 4 May, 2020. https://reliefweb.int/sites/reliefweb.int/files/resources/Into%20the%20Abyss.pdf (accessed 10 May 2021).

[35] In rural areas the ancient qanat (kārēz) technique of water supply from a deep conduit with a series of vertical access shafts is still used for irrigation, providing cattle with water and for drinking water supply.

[36] Lester Grau, *The Bear Went Over the Mountain. Soviet Combat Tactics in Afghanistan.* 780 National Defense University Press, Washington DC, 1996), p. 216.

[37] Marcus DuBois King, "The weaponization of water in Syria and Iraq". *The Washington Quarterly* 38 (2016), pp. 153–169.

[38] Namak Khoshnaw, "Explore the IS Tunnels. How the Islamic State Group Destroyed a Mosque but Revealed a 3,000 Year old Palace". *BBC News*. (22 November 2018). https://www.bbc.co.uk/news/resources/idt-sh/isis_tunnels (accessed 14 November 2020).

[39] Daniel Kees, "ISIS the Art Dealer", *Regulatory Review* (13 April 2020). https://www.theregreview.org/2020/04/13/kees-isis-art-dealer/ (accessed 15 November 2020).

When Da'esh crossed over the Syria/Iraq border in August 2014 and captured the town of Sinjar, Kurdish Yezidi civilian hostages were forced to dig tunnels ten meters below ground in the local limestone rock. Over 70 tactical tunnels less than 20 meters below ground have been identified in the complex below the town. Tunnel excavations were started in buildings where spoil could be hidden in rooms to avoid detection by CJTF Intelligence Surveillance and Reconnaissance (ISR) assets. One tactical tunnel zero point nine meters wide and one point eight meters high, extended for three kilometers. In towns and villages formerly controlled by Da'esh in parts of Nineveh, Erbil and Kirkuk governorates, more than 60 tactical tunnel complexes around ten meters below ground have been identified[40]. These are in addition to those in Anbar, Salah Al-Din, and Diala governorates. Documents found in October 2016, in a tunnel complex 10 meters below ground in Sheikh Amir east of Mosul, revealed written Da'esh operational practices for provisioning tunnels[41]. In November 2016, another large tunnel complex was captured from Da'esh in Karemlash where one tactical tunnel excavated ten meters below ground under St Barbara church, was nine kilometers long. The tunnel has evidence of tool marks from drill bits used in excavation. In Bashiqa, twenty kilometers east of Mosul, ten tactical tunnels excavated by Da'esh were discovered in a complex ten meters below ground. These are more sophisticated forming facilities, some have rooms connected to CCTV on the surface, makeshift hospitals, rest areas, kitchens and weapons storage. Small generators in houses above the tunnel entrances powered lights and fans affixed to the tunnel walls. The urban area of Bazwaia was connected to the outskirts of Mosul by a two kilometre long shallow cut-and-cover (C&C) trench, with a deeper tunnel complex under the town. Spoil from the excavations was stored inside buildings (Fig. 3b) and timber shoring along with steel arches was used in the tunnels lengths which had lighting and ventilation (Fig. 3c).

In northwest Syria, the advance on 20 January, 2018 of Turkish Armed Forces (TAF) with Turkish-backed Free Syrian Army (TFSA)[42] began Operation Olive Branch[43]. Advancing forces encountered extensive military use of subterranea by

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[40] Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

[41] Solar panels would be placed near an entrance to charge smartphones and other devices and a month's worth of food was to be kept in a storeroom. Men should not gather at the entrance or in the open, and entrances were to be concealed in houses.

[42] The TFSA formed 30 December 2016 is different to the FSA. The official aims of the TSFA are to assist Turkey in creating a 'safe zone' in Syria. At its formation in A'zaz, it proclaimed itself a National Army. The FSA fought against the TSFA.

[43] Operation Olive Branch was a cross-border military operation conducted by the TAF and TFSA in the Afrin Region. The air war and artillery barrages ended as the TFSA entered the city of Afrin on 18 March 2018.

the defending forces with new levels of sophistication in the Syrian conflict. If Afrin in 2012, after SGF pulled out, Kurdish People's Protection Units (YPG) and Women's Protection Units (YPJ)[44], founded in 2011 took responsibility for its defense. Both the YPG and YPJ were light infantry constructs with limited artillery, improvised armoured vehicles, no combat engineers and no airpower. To defend against TAF/TFSA in the newly formed Afrin Region, Kurdish parties (KCK/PKK/PYD[45]) and YPG/YPJ constructed tactical trenches, observations towers (OTs), cut-and-cover hardened tunnels (CCHTs) and underground facilities (UGFs) 10 to 20 meters below along the border between Turkey and Syria and throughout Afrin. These were reminiscent of the Maginot Line[46]. In 2015, the Syrian Democratic Forces (SDF) was established composed primarily of Kurdish, Arab, and Assyrian/Syriac fighters, as well as some smaller Armenian, Turkmen and Chechen forces. The SDF fought under the leadership of the YPG/YPJ. The use of subterranea was a direct response to having no air power, needing to avoid detection and improve survivability against munitions used by the SGF, TAF, TSFA, the Al-Nusra Front[47], and Da'esh plus their affiliates. In north-west Syria, military trenches, OTs, CCHTs and UGFs were constructed in mountains of limestone, sandstones and marls and in valleys in alluvial terraces and conglomerates, lithologies very favourable for digging and tunnelling using hand tools and machine excavators. Once fighting began, these prepared positions were occupied by the SDF. Initially, tactical trenches were unsophisticated but underwent

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[44] Turkey recognises the YPG, YPJ and SDF as an extension of the PKK however other nations such as the UK have not proscribed the YPG as a terrorist organisation (https://www.gov.uk/government/publications/proscribed-terror-groups-or-organisations--2).

[45] The Kurdistan Communities Union (KCK) is a Kurdish political organisation that serves as an umbrella group for all the democratic confederalist political parties of Kurds, including the Kurdish Workers' Party (PKK) and Democratic Union Party (PYD). The PKK and all its affiliates are considered as terrorist organisations by Turkey with evidence of deliberate targeting of civilians. NATO refers to the PKK as a terrorist entity. In the United States a case had been made for removing the Kurdistan Workers' Party (PKK) from the State Department's list of Foreign Terrorist Organizations (FTOs) would create conditions for greater security cooperation between the United States and the PKK in the fight against the Islamic State in Iraq and Syria (ISIS) (https://www.lawfareblog.com/case-delisting-pkk-foreign-terrorist-organization). In 2020, the supreme court of Belgium ruled that the PKK was not a terrorist organisation, instead labelling the group as an actor in an internal armed conflict (https://www.brusselstimes.com/belgium/92787/belgian-government-defies-ruling-of-its-supreme-court-on-pkk/).

[46] Joe Kaufmann et al., *The Maginot Line. History and Guide.* (Pen & Sword Books, Barnsley, UK, 2011). p. 308.

[47] The Al-Nusra Front is the official Syrian branch of al-Qaeda made up of Syrian jihadists fighting against the SGF and its affiliates, and CJTF militaries. Its goals were to overthrow Bashar al-Assad's government in Syria and to create an Islamic emirate under sharia law. The tactics of al-Nusra Front differed from Da'esh; whereas Da'esh alienated local populations by demanding their allegiance and carrying out beheadings, al-Nusra Front cooperated with other militant groups and declined to impose sharia law where there had been opposition. Al-Nusra presented themselves as moderate in comparison to Da'esh.

rapid design and material improvements to attempt to incorporate force protection lessons learned from the blast and impact effects of weapons systems[48]. Unlined and unsupported tactical trenches collapsed if an artillery round or missile struck near them, burying defenders. The introduction of concrete and rebar reduced trench collapses and meant that TAF air and artillery strikes on fighting positions had to hit a trench directly. Roofing over the tactical trenches to create CCHTs also concealed the defenders from TAF ISTAR assets and made targeting more difficult. Changing angles, alignment and dimensions in tactical trenches and CCHTs were all measures introduced to advantage the defenders and disadvantage the attackers in face-to-face trench warfare, features reminiscent of the World War I trenches[49, 50]. Within machine excavated tactical trenches five to seven meters deep and three point five meters wide (Fig 4a), reinforced concrete was used to create C&C tunnels one point five meters wide, two meters high with all sides zero point nine meters thick (Fig. 4b). These were then covered with spoil to provide additional overhead protection with firing points[51] (Fig. 4c). In several locations "double-deck" tactical tunnels were constructed. OTs constructed of reinforced concrete (Fig. 4d) were connected to CCHTs and had ventilation, electrical wiring and living areas. These linked to command and control (C2) centers at strategic points. In addition to cut-and-cover techniques, the SDF also constructed UGFs as part of the defense around Afrin using tunneling techniques to increase overhead protection by increasing the depth below ground inside mountain slopes. UGFs incorporated design features such as camouflage and concealment, reinforced portals, defensive hard points and thick burster layers, all features of 1914-18 European trench warfare[52], the 1930s French Maginot Line[53] and the Atlantic Wall[54]. The most sophisticated UGFs had dormitories, hospitals, armories, kitchens, latrines, and command centers complete with CCTV, solar panels, computers, phones, electricity, respirators and ventilation, all of which facilitated underground occupation for long periods.

[48] Mark Bulmer, "Geological Considerations for Military Works in the Afrin Battlespace, Syria", in: *Military Geoscience in Peace and War.* (Aldino Bondesan & Judy Ehlen, eds, Springer Nature, Switzerland, 2021). In press.

[49] Simon Jones, *Underground Warfare 1914-1918.* (Pen & Sword Books Ltd, South Yorkshire, England. 2010), p. 288.

[50] Peter Doyle, *Disputed Earth: Geology and Trench Warfare on the Western Front 1914-1918.* (Unicorn Publishing Group, London, 2017), p. 285.

[51] Mark Bulmer, "Geological Considerations of Military Works in the Afrin Battlespace". (Report to 66 Works Group, 170 (Infrastructure Support) Engineer Group. 20 May 2018a). pp. 32

[52] Doyle, "Disputed Earth: geology and trench warfare on the Western Front 1914-1918". p. 285.

[53] Kaufmann et al., "The Maginot Line. History and Guide". p. 308.

[54] Steven Zaloga, The Atlantic Wall (1), (Fortress, Osprey Publishing Ltd, Maryland, 2007), p. 64.

4. Knowledge, Skills and Experience

A critical part of the learning competition between terrorists and security forces in the use of subterranea is understanding terrorist's intent, but also their capabilities (know your Enemy[55]). Each attack, along with tactics, techniques and procedures conducted by the terrorists (both successes and failures) has to be critically examined by the security forces to identify their own weaknesses or to identify measures, tactics, techniques or technology that can be introduced, in order to counter the changing terrorist threat. The ability of non-state combatants to use subterranea has been enhanced by their improved understanding of geology and geotechnics, advances in deployable civil engineering design and materials, as well as in available power tools. In the contemporary conflicts in Syria and Iraq, these have been available to non-state actors within the battlespaces but have also come in from outside[56]. Access to the underground has been through natural features, or through mines, quarries and by tunneling. Practices and techniques used in military tunnels and UGFs show that knowledge came into Syria from Lebanese fighters and that these in turn had been greatly informed by engineers from North Korea. As the conflict in Syria spread and moved into Iraq, other state actors provided subterranean advice and expertise. The YPG and YPJ and then SDF, gained tunnel experience from the KCK and from fighting against the Al-Nusra Front as well as Da'esh in Kobane and Raqqa. This has led to greater understanding by attackers (CJTF, Russia, and Syrian Army, Iran, Turkey, and Israel) of how to use modern weapons systems against subterranean military targets and by defenders from different terrorist and rebel groups[57] of how to use and design in subterranea to increase survivability. Critical to the defenders has been favorable geology (the marble and gneiss of Afghanistan, the limestones, chalky limestones, and marls of Syria and Iraq) for excavating underground and hydrogeology for avoiding the locations of water tables that cause stability and flooding in underground structures. Combining the evidence for open and covered tactical trenches, shallow and deep tunnels and sophisticated UGFs shows that these non state actors designed, excavated and constructed co-ordinated subterranean structures at a range of

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[55] Tzun Tzu, *The Art of War*.

[56] Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

[57] These included Syrian Free Army, Da'esh and affiliates, Al-Nusra Front, Kurdish Peshmerga, YPG/YPJ/SDF, Al-Qaeda and Taliban as well as Hezbollah and Hamas all of whom are currently using subterranean.

depths below ground. These have greatly enhanced their ability to survive[58]. Using small arms and IEDs fighters emerging from subterranea were able to delay, and at times destroy, superior armoured and mechanised forces advancing on their positions and were very effective in urban areas where manoeuvre options for advancing forces where often limited or constrained[59].

5. The Advantage of Subterranea

Subterranea has enabled rebel/terrorist forces to avoid detection from air and space surveillance of modern militaries fighting them. Contemporary conflicts in Syria, Iraq, Gaza, Afghanistan, Mali, and Yemen have demonstrated that one of the ways to overcome high technology weapons and platforms is to seek protection in dense urban environments, in steep rugged terrain[60] and underground[61]. While this is not new and has historical precedent in almost all conflicts[62], what is new is the ability to deliver high precision weapons with a range of munitions and at increasing speeds[63] from sea, land, air and subterranean as well as submarine environments. Added to this list is the technological ability to deliver from space. These advances favor the attacker and require the defender and non-combatants in the battlespace to seek ways to enhance their survivability. The scale over which subterranea has been utilized by contemporary non-state actors and the rate at which it has been exploited has been driven by this need for concealment and protection to survive.

5.1 Survivability

In military environments, survivability is defined as the ability to remain mission capable after a single engagement[64] and for civilians it is to remain alive or continue to exist. Where combatants have sought to hide among civilians in

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[58] However, their ideology (especially fundamentalists) meant that many fighters, once above ground, fought to the death.

[59] Barbaree, "Coordinating Chaos, Integrating Capabilities in Future Urban Combat". in: *Complex Terrain Megacities and the Changing Character of Urban Operations.*

[60] Mark Bulmer, "Geological Considerations on the use of MOAB in Achin District, Afghanistan" (PJHQ. 23 Apr, 2017). pp. 15.

[61] Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

[62] Colleen Borley, "Take It, Don't Break It A Megacity Concept of Operations". in: *Complex Terrain Megacities and the Changing Character of Urban Operations*. Benjamin M. Jensen, Henrik Breitenbauch and Brandon. Valeriano eds, Marine Corps University Press, Quantico, Virginia. (Chapter 9, 2019). p. 212-233.

[63] E Gardner, "Hypersonic Weapons: Can Any One Stop Them". (16 Oct 2018). https://www.airforce-technology.com/features/hypersonic-weapons-can-anyone-stop/ (accessed 4 Nov 2020).

[64] Robert Ball, *The Fundamentals of Aircraft Combat Survivability Analysis and Design*, (2nd Edition. AIAA Education Series, 2003). pp. 890.

urban areas[65] this has resulted in both groups seeking protection during fighting on the surface or when aerial and artillery bombardments occur. These have largely been conventional but have included chemical munitions[66]. This has meant that underground spaces such as natural caves and engineered tunnels and facilities have been used for moving and protecting fighters, fighting, hospitals, smuggling, trade, and protecting civilians. In the case of cities like Mosul, Aleppo, Damascus, Afrin, Raqqa and in the West Bank and Gaza all of these uses could occur within the same underground space over the course of a single day.

Engineering and military survivability covers not just a short duration event but over protracted periods, with all aspects of infrastructure needed to survive and to sustain. There are four main system elements. The first is detectability, which is the inability to avoid audio and visual detection, including by radar. The second is susceptibility, which is the inability to avoid being hit by a weapon. The third is vulnerability which is the inability to withstand the hit and the fourth is recoverability. This fourth is the longer-term processes, after being hit, of damage control, firefighting, capability restoration, escape and evacuation. The conflicts in Syria, Iraq, Afghanistan, Lebanon and Gaza have shown that, depending on the geology, going underground has helped avoid the first three elements whilst the fourth can be achieved through engineering. Engineering survivability is the quantified ability of a system, subsystems, process, or procedure to continue to function during and after a natural or human-induced shock[67]. A system is a regularly interacting or interdependent group of items forming a unified whole[68]. With regard to survivability, even as increased levels of destruction have occurred on the surface during the conflicts in Syria, Iraq, Gaza, Afghanistan, Mali, and Yemen, underground these engineering skills have improved driven by necessity utilizing improvised as well as commercial products and methods to improve survivability.

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[65] The World Bank Group, "The Toll of War. The Economic and Social Consequences of the Conflict in Syria" (The World Bank Group, 10 July 2017), http://www.worldbank.org/en/country/syria/publication/the-toll-of-war-the-economic-and-social-consequences-of-the-conflict-in-syria.pp. 148.

[66] Conference of the Sates Parties Adopts Decision to Suspend Certain Rights and Privileges of the Syrian Arab Republic Under the Chemical Weapons Conventions. (22 Apr 2021). https://www.opcw.org/media-centre/news/2021/04/conference-states-parties-adopts-decision-suspend-certain-rights-and.

[67] The World Bank Group, "Guide to Developing Disaster Recovery Frameworks. Sendai Conference Version". The World Bank Group, European Union and United Nations Development Programme, March, 2015). p. 88.

[68] Alexander Backlund, "The definition of system". Kybernetes 29, 4, (2000), https://doi.org/10.1108/03684920010322055. pp. 444–451.

In rural areas, subterranean structures are difficult to detect in electro optical (EO) imagery and unlikely to be detected in urban environments without first being identified through other sources. Urban areas augment survivability for subterranean structures by mitigating detectability, susceptibility, vulnerability and enhancing recoverability as a result of all the buildings and infrastructure. Increasing levels of destruction in cities such as Mosul, Aleppo, Damascus, Afrin, and Raqqa over the course of the conflicts led to accumulated rubble, debris, and waste that enhanced underground survivability because detectability, susceptibility, vulnerability were reduced. In contrast, the recoverability of underground structures after being hit decreased as infrastructure of the cities was not repaired (e.g. electricity and water services). Tunnelling ten meters and deeper below ground by rebels, Da'esh and AQ/Al-Nusra demonstrated knowledge of how to survive indirect-fire and air strikes. Penetrator air munitions presented the greatest threat to subterranean structures but needed guiding to target to be effective and minimise collateral damage. To reach a tactical tunnel or UGF, munitions needed to penetrate the roof and floor of buildings at surface level and then below ground through ten meters plus of overhead (burster and cushion layer). This enabled survivability from 150 mm rounds (standard artillery), 240 mm rounds (howitzer), 300 mm rounds (multi launch rocket systems) and possibly 400 mm (sixteen-inch) rounds from howitzers. The size and design of the subterranean networks enabled rebel, Da'esh and terrorist fighters to move away from an area under air or artillery bombardment. In the design of tactical subterranean structures, many have been identified that were self-supporting due to favourable rock quality but others had local or systematic support using wire mesh, metal sets and timbers[69]. With wire mesh, a net was held in place using bolts to stop small pieces of rock falling (spalling) from the side walls or roof. Metal sets (or ribs) with wood blocks were placed against the rock to prevent blocks of rock falling from the side walls or roof. Timbers in the form of poles and flat boards were used to stabilise walls and roof. In some instances these were placed locally but in others whole areas were supported (Fig 3c). To deter airstrikes, close air support, and ground forces advancing on Mosul, Da'esh who had no airpower but some limited drone use, set fire to tires and to oil wells in the nearby Qayyara and Najma oil fields that burned from May 2016 until March 2017[70]

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[69] Gary Hemphill, *Practical Tunnel Construction*. (John Wiley & Sons, New Jersey, 2013). p. 415.

[70] Mark Bulmer *Military use of Environmental Degradation by Islamic State, Southern Nineveh, Iraq*. Scientia Militaria: South African Journal of Military Studies, 46, Nr 1, 2018b. doi: 10.5787/46-1-1228.

to create obscuration. Fires were also started at wells between Bayji and Kirkuk in late September and October 2017. On 20th October 2017, fires were ignited at the Al-Mishraq sulphur plant creating plumes of sulphur dioxide and hydrogen sulphide to impede Peshmerga and Iraqi forces advancing to the tunnel complexes on the southern outskirts of Mosul. Fortunately, winds blew the plumes southward towards Qayyara but respirators found in subterranean structures along with food, fuel, basic water and air handling show that Da'esh was prepared to operate in the environmentally degraded conditions they had created.

6. Fighting Against Subterranea

Examination of the distribution of subterranean structures constructed by rebels and terrorist groups in Syria and Iraq shows them located at major road junctions, overwatching bridges, on high ground, at sites of cultural significance and critical infrastructure. This shows tactical awareness and understanding of the battlespace[71]. While it is possible to identify locations of on-going subterranean excavations due to noise, dust, vibration, spoil and subsidence there are no media reports from Syria or Iraq that government forces found any this way. Radar systems and synchronised electromagnetic wave gradiometers have been used for searches of cross-border tunnels in the Korean De-Militarized Zone, Gaza Strip, and US Southern Border[72] but in Syria and Iraq they were largely found by advancing soldiers. The Russian military trained Syrian and Iranian forces in the use of gradiometers, non-contact explosive device finders, search dogs and induction mine detectors as well as unmanned ground sensors[73]. After artillery bombardment and air strikes, advancing Iraqi as well as Syrian Government forces attempted to deal with threats from subterranean fighters by throwing grenades and burning tyres through portals, down shafts and entrances. However, given their military designs, with changes in tunnel angles, slopes and dimensions[74], this

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[71]   Ishan Gunduz, The Islamic State of Iraq and Al Sham and Its Urban Warfare Tactics. The Foreign Military Studies Office, Fort Leavenworth, Kansas. (18 April, 2017). p.18

[72]   Larry Stolarczyk, Robert Trounblefield, & James Battis, "Detection of underground tunnels with a synchronized electromagnetic wave gradiometer", in *Sensors and C3I Technologies for Homeland Security and Homeland Defence IV* (Edward Carapezza, ed, Proceedings of SPIE, 5778, 2005), pp. 994–1001.

[73]   Jay Akbar, "Robot Army. Russia to Send Robot Army of Deadly Ground Drones into Syria by the end of the Year". *The Sun Newspaper* (23 May 2018). https://www.thesun.co.uk/news/6355152/russia-to-send-robot-army-of-deadly-ground-drones-into-syria-by-the-end-of-the-year/ (accessed 6 Nov 2020).

[74]   Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

was insufficient and also took no account of unarmed civilians in these spaces. Tactical tunnels used by Da'esh, rebels and terrorist groups for route denial, filled with IEDs, often collapsed under the weight of a main battle tank or armoured troop carrier. During defence of urban areas under their control, Da'esh strong-pointed surrounding towns with dense networks of bunkers, tactical tunnels, IED-rigged obstacles, and anti tank guided missile (ATGM) ambush zones. As discussed in section 5.1, obscuration was produced from burning tires and oil wells[75]. At all times fighting against Da'esh there was a constant threat to advancing forces from suicide vehicle borne improvised explosive devices (SVBIEDs) that were fed into the strong point battles[76]. To counter this, advancing Iraqi and Peshmerga forces acquired earth moving equipment to build berms any time they stopped. The rate of ATGM strikes from subterranean structures by Da'esh against advancing MBTs made the Iraqi Army reluctant to push armor further into the urban area, resulting in soft-skinned Humvees advancing without armored support. In Iraq, Kurdish Peshmerga engineers often cleared and then defused IEDs in tunnels they captured but there were not enough of them to meet the scale of the need and to maintain the rate of advance. Bulldozers and wheeled Front Loaders were used to close off tunnel portals but not to make the tactical tunnels safe. From October 2016 to July 2017, subterranean structures were integral to the defence of Mosul city by Da'esh providing concealment and protection against airstrikes, indirect and direct fire. They enabled Da'esh to survive underground against their own self-generated environmental degradation; to attack advancing forces from behind and infiltrate when in static positions. In dense urban areas defensive zones covered contiguous urban blocks with outer neighborhoods honeycombed with prepared fighting positions, caches of explosives and ammunition[77]. Mouse-holes along rows of houses along with subterranean structures enabled rapid movement between buildings concealed and protected from airstrikes, indirect and direct fire. Da'esh fought a battle of movement within neighborhoods, including the re-infiltration of areas cleared by advancing forces. Overall, Da'esh demonstrated effective use of subterranean structures as part of their tactics to separate tanks and infantry from cooperating in the street-to-street fighting. In 2021, the resurgence of Da'esh

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[75] Bulmer, "Military use of Environmental Degradation by Islamic State, Southern Nineveh, Iraq".

[76] Michael Knights and Alexander Mello. Defeat by Annihilation: Mobility and Attrition in the Islamic State's Defense of Mosul. CTC Sentinel, Combating Terrorism Center at West Point (April 2017). pp. 1-7.

[77] Ibid.

in northern Iraq appears again to be utilising subterranea, particularly caves in mountainous areas, and it is to be expected that as well as excavating new sites, they will reclaim tactical subterranean structures and stores that were never found by Iraqi and Peshmerga forces or were blocked off but subsequently never cleared.

Similar to the experiences in Da'esh held cities in Iraq, and to other rebel and terrorist-held cities in Syria, the use of subterranea in Afrin and Northern Syria has made it a hard fight for TAF and TFSA against the SDF, YPG and YPJ. Their response has been to overmatch rebel/terrorist defensive works with weapons systems and to make extensive use of concrete sections to erect walls to protect ground they take[78]. During Operation Olive Branch, CCHTs, OTs and UGFs in the mountains were the primary targets for Turkish fighter jets. Heavy Turkish shelling and airstrikes caused many Syrian Kurdish villagers to flee to natural caves in the mountains complicating the distinction between the use of subterranean structures for military purposes and those being used by unarmed civilians. To counter the air and artillery threat subterranean structures used by the SDF, YPG and YPJ were constructed deeper below ground with thicker reinforced concrete lining. However, it appears that the modification did not occur fast enough to effectively defend against TAF air supremacy, artillery, armour, engineering and logistics[79]. Even so, the use of subterranea by the SDF, YPG and YPJ caused the TAF and TFSA to expend significant military resources. SDF, YPG and YPJ trenches and CCHTs constructed in and around villages, towns and cities in Afrin utilized the existing urban infrastructure, adapting it to create obstacles, blocks, hazards and kill zones. Similar to other cities where fighting occurred in Syria and Iraq, buildings were connected by tunnels[80], allowing defenders to move under protection and without being observed. Some of these same underground structures were used by civilian residents for protection from the conflict complicating the distinction between the use of subterranean structures for military purposes and those being used by unarmed civilians.

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[78]   Bulmer, "Geological Considerations for Military Works in the Afrin Battlespace, Syria".
[79]   Ibid
[80]   Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

7. Innovation in Subterranea

By late 2016, tunnel complexes captured from both rebels and terrorist groups demonstrated knowledge, skill and experience in how to excavate in the local rock geology in Syria and Iraq. The capture of two types of improvised tunnel boring machines (ITBMs) in Ninevah Province, one by Kurdish Peshmerga and the other by Iraqi forces revealed a significant and unexpected change in Da'esh's capacity and capability[81] (Fig. 5). These machines could increase the dimensions, lengths and areas of subterranean structures. They could also excavate faster than hostages or paid labour[82]. Using fewer tunnel workers enabled the released manpower to be used for other work such as moving spoil and shoring. Fabrication of tunnel boring machines (TBM's) should not have been unexpected given the engineering and mechanical skills Da'esh and affiliates, rebels/FSA and Al-Nusra have demonstrated in Syria and Iraq making weapons, up-armouring vehicles[83] and the large number of vehicles, parts and workshops they had captured. The improvised small tunnel boring machine (ISTBM) captured by Kurdish Peshmerga[84] from Da'esh had a circular cutting head zero point three meters in diameter[85] (Fig. 5a). Once lowered down a shaft, a tunnel shoulder wide and tall enough to crouch through, or to stand in, could be made using two or three horizontal bores extending between two shafts. An improvised tracked tunnel boring machine (ITTBM) was captured underground from Da'esh by Iraqi forces in November 2016[86] (Fig. 5b). The cutting head diameter is two point one meters and a single bore would produce a tunnel tall enough for a person to stand in and wide enough for a car or pick-up truck (technical) to move in[87]. Both the ISTBM and ITTBM are robust, and well suited to the local rock qualities. The advance rates of ITTBM excavations of 24 m /day calculated using analysis of the cutting head, drive mechanisms and rock quality indicate that starting in Karemlash, Da'esh could have been linked up underground the strong points town of Hamdaniya, Badana and Sheikh Amir

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[81] Ibid

[82] There are reports that Da'esh paid some locals 4000 Iraqi dinar (about $4.65) per day to tunnel.

[83] Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

[84] In the village of Tiskhrab on 24 October 2016.

[85] Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

[86] In a tunnel outside Judaydah al Mufti, Mosul. There was a hidden ramp down to the tunnel 10 m deep below ground.

[87] Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq".

(southeast of Mosul) within one year[88]. The diameters of the resulting tunnels were big enough to enable technicals and VBIEDs to move under the battlespace to these strong point towns as the battle for Mosul progressed. In Mosul, deeper tunnels bored by ITTBMs were again large enough to move VBIEDs around the battlespace undetected until they appeared on the surface. This along with hidden garages may explain their often sudden appearance. This is significant because SVBIEDs were "momentum breakers" directed by drones and motorbikes most frequently used by Da'esh[89] to blunt Iraqi forces penetrations into the inner city and is a capability that may be used in other conflict areas by terrorist groups.

On 20 March 2018, a series of UGFs around Afrin were captured from SDF, YPG and YPJ by TAF and TFSA. One UGF had a 100 meter long tunnel that linked into additional tunnels off which were dormitories, offices, kitchen, and armoury. These UGFs are constructed with concrete reinforced arches with diameters big enough for vehicles and artillery (Fig. 6a) and one is finished with the appearance of an alternate site of civilian government[90] (Fig. 6b). What distinguished these subterranean structures compared to the tactical tunnels was the time needed to create them. A Bobcat front loader, boom mounted cutting head machine and ITTBM were found at one underground site under construction. These three machines worked together underground; the Bobcat to remove spoil, the header machine with extendable boom arm and rotating cutting head to move around a tunnel face (Fig. 6c), and the ITTBM to bore circular tunnels[91] (Fig. 6d). The ITTBM design is similar to one captured outside Mosul in Iraq suggesting a link in their design heritage. Comparing the two, the ITTBM captured in Afrin is improved over the one in Mosul in its cutting head and design quality. It is demonstrably effective in the soft-rock geology around Afrin. On 24 May 2018 an improvised wheeled roadheader machine (RHM) with a ripping-type cutting head using four rotating discs was captured from rebels in southern Damascus[92].

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[88]   Ibid.
[89]   Knights and Mello. Defeat by Annihilation: Mobility and Attrition in the Islamic State's Defense of Mosul.
[90]   Bulmer, "Geological Considerations for Military Works in the Afrin Battlespace, Syria".
[91]   Ibid.
[92]   Mark Bulmer, "Improvised Wheeled Boring Machines Captured in Southern Damascus, Syria". (Report to 170 (Infrastructure Support) Engineer Group, Royal Engineers, Chilwell, Nottingham, 2018b). pp. 17.

8. Tunnelling Programmes

The large number of subterranean structures that Da'esh and its affiliates constructed between 2014 to 2018 throughout the 'caliphate' would have necessitated connecting the logistics involved in the construction of tactical subterranean structure to the wider strategic economic and military activity throughout the 'caliphate' by its 'Ministries'[93]. The same relationship appears true for the construction of subterranean structures in Afrin. These non-state actors have demonstrated geological, mining, tunnelling and engineering expertise. Design and tunnelling methods progressed from hand tools to power tools and then to TBMs and RHMs. Running these subterranean teams at the same time required knowledgeable, skilled and competent project managers. This suggests a subterranean training cadre learning lessons to make larger and more sophisticated subterranean structures. Designs of TBMs and RHMs used by non-state actors are maturing reflecting the scale of the critical need to use subterranea to counter the advantages held by modern militaries[94]. The substantial revenues generated by Da'esh and AQ/Al-Nusra have enabled them to purchase parts and expertise globally either on the open or black market to enable their use of subterranea.

9. Conclusions

Contemporary conflicts in Syria and Iraq have necessitated Syrian, Iranian, Russian and Turkish militaries, and CJTF forces to counter the use of subterranea by rebel and terrorist groups. It seems likely that subterranean experience, practices, and possibly operators, came into rebel and terrorist group-held areas in Syria and into Da'esh controlled Iraq from conflicts in Syria, Gaza, Lebanon, Jordan, Turkey, Afghanistan and the DPRK[95]. Terrorist groups have attracted foreign engineering geology and tunnel engineer expertise to their cause either through salaries, ideology or front companies, similar to attracting skilled oil sector specialists to run oil installations they captured in Syria and Iraq[96, 97]. Lessons and improvements from tactical tunnel and UGF subterranean excavations, structures and uses have now been disseminated back into conflicts in those regions. Subterranea forms part of concealment and survival activities along with night-fighting, use of bad

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[93] Bulmer, "Military use of Environmental Degradation by Islamic State, Southern Nineveh, Iraq".
[94] Bulmer, "Contemporary Military Use of Subterranea, pp.106-113.
[95] Cohen et al., "From Cast Lead to Protective Edge".
[96] Bulmer, "Military use of Environmental Degradation by Islamic State, Southern Nineveh, Iraq".
[97] Mark Bulmer, *Environmental Degradation in the Battlespace.*, in: British Army Review Special Report Culture in Conflict, 2019). pp. 48-61.

weather, smokescreens, environmental degradation, mouse-holing, camouflage and deception, and drones aimed at restoring tactical mobility to the battlefield under conditions of enemy air supremacy. As the Syrian conflict continues, it should be expected that Iranian, Russian, and Hezbollah advisors as well as those from Hamas, Da'esh in Africa[98], the Taliban and ISIS-K[99] will learn the most recent lessons in subterranean warfare and tactics, techniques and procedures used by NATO members, allies and partners. Where terrorist groups have been used subterranean structures as mass graves as part of the terror tactics every effort should be made to document the destruction and contamination and assign attribution. Identifying human atrocity and environmental degradation in caves and sinkholes is possible and can be quantified enabling evidence to be used to counter terrorist legitimacy, messaging and recruiting[100].

NATO forces need to analyse contemporary uses of subterranea (both military, civil and political) within specific environments being exploited by state and non-state actors. This requires a clear lead within NATO roles, structures and commands to derive understanding that must be integrated into doctrine for existing operating environments in air (and space), sea, land and cyber. The impact on NATO force planning of an opposing force, both state and non-state heavily utilising subterranea in littoral, urban[101], mountain[102], desert[103] and cold weather environments[104] should be stress-tested. This requires intelligence and engineer-centric thinking. Concepts as to how NATO forces will operate in subterranea must adapt to continuing urbanisation[105] with much growth being in littoral zones many of which are experiencing the impact of rising sea levels[106]. High prices and

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[98] Jason Warner and Charlotte Hulme, "The Islamic State in Africa: Estimating Fighter Numbers in Cells Across the Continent, CTC Sentinel, Combating Terrorism Center at West Point (August 2018, 11, 7). pp. 21-28.

[99] Frank Gardner. "Afghanistan: Who are Islamic State Khorasan Province Militants (BBC News, 11 Oct 2021). https://www.bbc.com/news/world-asia-58333533. (Accessed 11 Oct 2021).

[100] Bulmer and Walters. "The Socio-Cultural and Environmental Impact of Islamic State Use of Sinkholes and Caves as Mass Graves in Syria and Iraq".

[101] STANAG 6509/ATP 3.2.1.2 Conduct of Land Tactical Operations in the Urban Environment.

[102] STANAG 2643/ATP 3.2.1.3 Conduct of Land Tactical Operations in Mountainous Environments.

[103] STANAG 2648/ATP 3.2.1.7 Conduct of Land Tactical Operations in Desert Environments.

[104] STANAG 2646/ATP 3.2.1.5 Conduct of Land Tactical Operations in Cold Weather Environments.

[105] Presently, more than half of the world resides in cities, and this will rise to 70% by 2045. "Global Strategic Trends – Out to 2045. Fifth Edition", (Strategic Trends Programme, Ministry of Defence, Development, Concepts and Doctrine Centre, Shrivenham, Swindon, 2014). p. 202.

[106] Almost half a billion urban residents live in coastal areas, increasing their vulnerability to storm surges and sea level rise. In the 136 biggest coastal cities, there are 100 million people – or 20% of their population – and $4.7 trillion in assets exposed to coastal floods. Around 90% of urban

land shortages[107] are driving civil engineering subterranean development below cities and rural areas with increasing force drivers due to competition, extreme weather and climate change[108]. Greater use of subterranea is being enabled by advances in tunnel boring and subterranean engineering with increasing reliability, precision, cost reductions, and shorter project timelines. These factors and the need to replace aging underground civil infrastructure, along with their supervisory control and data acquisition systems, or in the case of many cities in the Middle East, Asia and Africa undertake sewer, water and mass transit projects for the first time, are driving a rapid rate of subterranean construction innovation. Organised crime continues to demonstrate increasing use of subterranea to enable smuggling of weapons, people, and drugs. In 2018, the US Army estimated there were 10,000 large-scale underground military facilities around the world[109] in addition to all those associated with non-state actors as well as civil engineering projects. Further development of tunnelling machines (large and small), skills and expertise should be expected enabling high precision boring in congested spaces and in technically challenging geological conditions. TBMs and RHMs are increasingly available commercially with a growing market in used machines. Across NATO, embracing and investing in subterranea as an operational space will further enable innovations in survivability against conventional, hybrid[110] and gray zone[111] warfare, the re-emerged threat of chemical, biological, radiological and nuclear attack[112] as well as toxic industrial hazard[113]. It will enable strategic, operational and tactical-level constraints and opportunities to be identified in planning and executing NATO military actions incorporating subterranea both in offense and defence rather than reacting at a tactical level once action is committed.

expansion in developing countries is near hazard-prone areas and built through informal and unplanned settlements. https://www.worldbank.org/en/topic/urbandevelopment/overview

[107] As an example, in London between 2008 and 2017 approvals have been granted for 4,650 basements going down 18 m deep. http://www.dailymail.co.uk/news/article-5703283/Map-reveals-4-650-mega-basements-dug-beneath-London-homes.html (accessed 18 May 2021).

[108] "Global Strategic Trends – Out to 2045". p. 202.

[109] Matthew Cox, "Army is Spending Half a Billion to Train Soldiers to Fight Underground". *Military. com* (24 June 2018). https://www.military.com/daily-news/2018/06/24/army-spending-half-billion-train-troops-fight-underground.html (accessed 6 Nov 2020).

[110] Christopher Chivvis, Understanding Russian Hybrid Warfare. Testimony Presented Before the United State House of Representatives Armed Services Committee (22 March 2017). CT-468. p. 12.

[111] Qiao Liang and Wang Xiangsui, *Unrestricted Warfare*. (Beijing: Peoples Liberation Army Literature and Arts Publishing House, 1999). p. 228.

[112] "Nuclear Posture Review", (Office of the Secretary of Defense, 2018). https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF. p. 100.

[113] Bulmer, "Military use of Environmental Degradation by Islamic State, Southern Nineveh, Iraq"

Bibliography

Alan Baker, "Repatriate Missing Soldiers and Civilians". *The Jerusalem Post* (5 December 2019). https://www.jpost.com/opinion/repatriate-missing-soldiers-and-civilians-610042 (accessed 5 November 2020).

Alexander Backlund, "The definition of system". *Kybernetes* 29, 4, (2000), https://doi.org/10.1108/03684920010322055. pp. 444–451.

Christopher Chivvis, "Understanding Russian Hybrid Warfare". *Testimony Presented Before the United State House of Representatives Armed Services Committee* (22 March 2017). CT-468. p. 12.

Colleen Borley, "Take It, Don't Break It A Megacity Concept of Operations". in: *Complex Terrain Megacities and the Changing Character of Urban Operations*. Benjamin M. Jensen, Henrik Breitenbauch and Brandon. Valeriano eds, Marine Corps University Press, Quantico, Virginia. (Chapter 9, 2019). p. 212-233.

Daniel Kees, "ISIS the Art Dealer". *Regulatory Review* (13 April 2020). https://www.theregreview.org/2020/04/13/kees-isis-art-dealer/ (accessed 15 November 2020).

Daphne Richemond-Barak, *Underground Warfare.* (Oxford University Press, 2018), p. 270.

David Phillips and Kelly Berkell, "The Case for Delisting the PKK as a Foreign Terrorist Organization". Lawfare (11 February, 2016). https://www.lawfareblog.com/case-delisting-pkk-foreign-terrorist-organization (accessed 17 May 2021).

Elijah Magnier,*Twitter* (6 November 2016). https://twitter.com/ejmalrai/status/795347004620754944/photo/1 (accessed 15 November 2020).

Emma Graham-Harrison and Kareem Shaheen, "Syria's Rebels Unite to Break Assad's Siege of Aleppo. *The Guardian* (6 August 2016). https://www.theguardian.com/world/2016/aug/06/syria-rebels-unite-break-aleppo-siege (accessed 11 November 2020).

Eugene Palka, "Military Operations in Caves: Observations from Afghanistan", in *Military Geography and Geology: History and Technology.* (Paul Nathanail, Robert Abrahart & Roy Bradshaw (eds) Land Quality Press, Nottingham Chapter 19, 2008). p. 269-278.

E. Gardner, "Hypersonic Weapons: Can Any One Stop Them". (16 Oct 2018). https://www.airforce-technology.com/features/hypersonic-weapons-can-anyone-stop/ (accessed 4 Nov 2020).

Florian Neuhof, "Horror of Mosul where sinkhole became mass grave for 4000 of Isil's victims". *The Telegraph*, (27 February 2017), https://www.telegraph.co.uk/news/2017/02/25/horror-mosul-sinkhole-became-biggest-mass-grave-iraq/ (accessed 14 November 2020).

Frank Gardner. "Afghanistan: Who are Islamic State Khorasan Province Militants (BBC News, 11 Oct 2021). https://www.bbc.com/news/world-asia-58333533. (Accessed 11 Oct 2021).

Gary Hemphill, *Practical Tunnel Construction.* (John Wiley & Sons, New Jersey, 2013). p. 415.

"Global Strategic Trends – Out to 2045. Fifth Edition", (Strategic Trends Programme, Ministry of Defence, Development, Concepts and Doctrine Centre, Shrivenham, Swindon, 2014). p. 202.

Hugh Hamshaw Thomas 1920. Geographical Reconnaissance by Aeroplane Photography, with Special Reference to the Work Done on the Palestine Front. The Geographical Journal, 55, 5. pp. 349-370.

Isabel Coles, "Mosul Train Tunnel Reveals Assault Course for Elite Islamic State Fighters". *Reuters*, (6 March 2017), https://www.reuters.com/article/us-mideast-crisis-mosul-tunnel/mosul-train-tunnel-reveals-assault-course-for-elite-islamic-state-fighters-idUSKBN16D0WW (accessed 14 November 2020).

Ishan Gunduz, "The Islamic State of Iraq and Al Sham and Its Urban Warfare Tactics". The Foreign Military Studies Office, Fort Leavenworth, Kansas. (18 April, 2017). https://community.apan.org/wg/tradoc-g2/fmso/m/fmso-monographs/195102. p.18.

Jay Akbar, "Robot Army. Russia to Send Robot Army of Deadly Ground Drones into Syria by the end of the Year". *The Sun Newspaper* (23 May 2018). https://www.thesun.co.uk/news/6355152/russia-to-send-robot-army-of-deadly-ground-drones-into-syria-by-the-end-of-the-year/ (accessed 6 Nov 2020).

James Acton, "The Weapons Making Nuclear War More Likely", *BBC News* (8 February 2019), https://www.bbc.com/news/world-47117349 (accessed 6 Nov 2020).

Jason Warner and Charlotte Hulme, "The Islamic State in Africa: Estimating Fighter Numbers in Cells Across the Continent, CTC Sentinel, Combating Terrorism Center at West Point (August 2018, 11, 7). pp. 21-28.

Joe Kaufmann, H. Kaufmann, Aleksander Jankovic-Potocnik and Patrice Lang, *The Maginot Line. History and Guide.* (Pen & Sword Books, Barnsley, UK, 2011). p. 308.

Jimmy Nsubuga, "Secret 'terror tunnel' found in Syria after coalition forces take control of city". *Metro News* (20 March 2018). https://metro.co.uk/2018/03/20/secret-terror-tunnel-found-syria-coalition-forces-take-control-city-7402389/ (accessed 15 November 2020).

Larry Stolarczyk, Robert Trounblefield, & James Battis, "Detection of underground tunnels with a synchronized electromagnetic wave gradiometer", in *Sensors and C3I Technologies for Homeland Security and Homeland Defence IV* (Edward Carapezza, ed, Proceedings of SPIE, 5778, 2005), pp. 994–1001.

Lester Grau, *The Bear Went Over the Mountain. Soviet Combat Tactics in Afghanistan.* 780 National Defense University Press, Washington DC, 1996), p. 216.

Loveday Morris & Mustafa Salim" ISIS dumped bodies in a desert sinkhole. It may be years before we know the full scale of the killings". *The Washington Post*, (2 March 2017), https://www.washingtonpost.com/world/middle_east/isis-dumped-bodies-in-a-desert-sinkhole-it-may-be-years-before-we-know-the-full-scale-of-the-killing/2017/03/02/0a4c0fd4-fd2b-11e6-9b78-824ccab94435_story.html (accessed 11 November 2020).

Marcus DuBois King, "The weaponization of water in Syria and Iraq". *The Washington Quarterly* 38 (2016), pp. 153–169.

Mark Bulmer, "Geological Considerations on the use of MOAB in Achin District, Afghanistan" (Report to Permanent Joint Headquarters, 23 Apr, 2017). pp. 15.

Mark Bulmer, "Geological Considerations of Military Works in the Afrin Battlespace". (Report to 66 Works Group, 170 (Infrastructure Support) Engineer Group. 20 May 2018).

Mark Bulmer, *Military use of Environmental Degradation by Islamic State, Southern Nineveh, Iraq.* Scientia Militaria: South African Journal of Military Studies, 46, Nr 1, 2018. doi: 10.5787/46-1-1228. pp. 123-147

Mark Bulmer, "Tunnel Boring Machines Captured in the Afrin Battlespace, Syria". (Report to 66 Works Group, 170 (Infrastructure Support) Engineer Group. 20 April 2018a). pp. 32.

Mark Bulmer, "Improvised Wheeled Boring Machines Captured in Southern Damascus, Syria". (Report to 170 (Infrastructure Support) Engineer Group, Royal Engineers, Chilwell, Nottingham, 2018b). pp. 17.

Mark Bulmer, "Geological Considerations of Contemporary Military Tunnelling near Mosul, Northern Iraq". in: *Military Aspects of Geology: Fortification, Excavation and Terrain Evaluation*. (Edward Rose, Judy Ehlen & Ursula Lawrence, eds, Geological Society of London Special Publication. 473, 2019). https://doi.org/10.1144/SP473.11.

Mark Bulmer, *Contemporary Military Use of Subterranea*, (British Army Review, 175, 2018). pp.106-113.

Mark Bulmer, *Environmental Degradation in the Battlespace.* (British Army Review Special Report Culture in Conflict, 2019). pp. 48-61.

Mark Bulmer, "Using EO to Understand the Significance of Cement Production Infrastructure in the Syrian conflict", in *Advances in Remote Sensing of Infrastructure Monitoring.* (Vern Singhroy, ed, Springer Remote Sensing/Photogrammetry, Springer Nature, Switzerland. Chapter 14, 2021). https://doi.org/10.1007/978-3-030-59109-0_14. pp. 307-354.

Mark Bulmer and Archie Walters. "The Socio-Cultural and Environmental Impact of Islamic State Use of Sinkholes and Caves as Mass Graves in Syria and Iraq". *13th Spatial Socio-Cultural Knowledge Workshop, Cranfield University.* (12 May 2021). pp. 17.

Mark Bulmer, "Geological Considerations for Military Works in the Afrin Battlespace, Syria", in: *Military Geoscience in Peace and War.* (Aldino Bondesan & Judy Ehlen, eds, Springer Nature, Switzerland, 2021). In press.

Mark Duell, "Revealed: How 4,650 mega-basements have been approved for London homes in the past decade so the super-rich can build cinemas, wine cellars and swimming pools. Daily Mail (8 May 2018). http://www.dailymail.co.uk/news/article-5703283/Map-reveals-4-650-mega-basements-dug-beneath-London-homes.html (accessed 18 May 2021).

Matthew Cox, "Army is Spending Half a Billion to Train Soldiers to Fight Underground". *Military.com* (24 June 2018). https://www.military.com/daily-news/2018/06/24/army-spending-half-billion-train-troops-fight-underground.html (accessed 6 Nov 2020).

Michael Knights and Alexander Mello. Defeat by Annihilation: Mobility and Attrition in the Islamic State's Defense of Mosul.CTC Sentinel, Combating Terrorism Center at West Point (April 2017). https://ctc.usma.edu/wp-content/uploads/2017/04/CTC-Sentinel_Vol10Iss46.pdf. pp.1-7.

Military.com, "YPG-Led SDF Find Booby-Trapped ISIS Tunnel in Raqqa." Military.com (5 September 2017). http://www.military.com/video/operations-and-strategy/terrorism/ypg-led-sdf-find-booby-trapped-isis-tunnel-in-raqqa/5565242772001 (accessed 8 November 2020).

Murat Kula, "Operation Olive Branch to Afrin". Anadolu Agency (7 February 2018). https://www.aa.com.tr/en/pg/photo-gallery/turkey-captures-pyd-pkk-tunnel-network-in-nw-syria/0 (accessed 14 November 2020).

Nadim Houry with Sara Kayyali and Josh Lyons, " Into the Abyss. The al-Hota Mass Grave in Northern Syria". Witness Field News Type. Human Rights Watch (4 May, 2020). https://reliefweb.int/sites/reliefweb.int/files/resources/Into%20the%20Abyss.pdf (accessed 10 May 2021).

Namak Khoshnaw, "Explore the IS Tunnels. How the Islamic State Group Destroyed a Mosque but Revealed a 3,000 Year old Palace". *BBC News*. (22 November 2018). https://www.bbc.co.uk/news/resources/idt-sh/isis_tunnels (accessed 14 November 2020).

NBC News, "Iraqi Forces Fighting ISIS Near Mosul Uncover Large Network of Tunnels". (NBC News 28 October 2016). https://www.nbcnews.com/storyline/isis-terror/iraqi-forces-fighting-isis-near-mosul-uncover-large-network-tunnels-n674381 (accessed 8 November 2020).

Nick Paton Walsh, Ghazi Balkiz and Scott McWhinnie, "Battle for Mosul: The Iraqi Fighters Closing in on ISIS". *CNN World* (31 October 2016). https://www.cnn.com/2016/10/31/middleeast/mosul-isis-scene/index.html (accessed 15 November 2020).

"Nuclear Posture Review", (Office of the Secretary of Defense, 2018). https://media.defense.gov/2018/Feb/02/2001872886/-1/-1/1/2018-NUCLEAR-POSTURE-REVIEW-FINAL-REPORT.PDF. p. 100.

Organisation for the Prohibition of Chemical Weapons OPCW, Conference of the States Parties adopts Decision to Suspend Certain Rights and Privileges of the Syrian Arab Republic under the CWC. OPCW News (22 April 2021). https://www.opcw.org/media-centre/news/2021/04/conference-states-parties-adopts-decision-suspend-certain-rights-and. (accessed 17 May 2021).

Paul Antonopoulos, "Uncovered: Tunnel diggers in Afrin". (FRN, 21 March 2018). https://fort-russ.com/2018/03/uncovered-salafist-tunnel-diggers-in-east-ghouta/. See note found in Afrin, not East Ghouta (accessed 26 August 2020).

PAX, "Amidst the Debris. A Desktop Study of the Environmental and Public Health Impact of Syria's Conflict" (www.paxforpeace.nl, October 2105), p. 84.

Peter Doyle, *Disputed earth: geology and trench warfare on the Western Front 1914-1918*. (Unicorn Publishing Group, London, 2017), p. 285.

Prima News, "Operation Olive Branch to Afrin". (29 January 2018). https://www.primanews.org/2018/01/operation-olive-branch-afrin-2/ (accessed 9 December 2019).

Proscribed Terrorist Organisations. Home Office. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/901434/20200717_Proscription.pdf. p. 22.

Qiao Liang and Wang Xiangsui, *Unrestricted Warfare.* (Beijing: Peoples Liberation Army Literature and Arts Publishing House, 1999). p. 228.

Raphael Cohen et al., *From Cast Lead to Protective Edge.* (RAND Corporation, Santa Monica, California, 2017). p. 246.

Robert Ball, *The Fundamentals of Aircraft Combat Survivability Analysis and Design*, (2nd Edition. AIAA Education Series, 2003). pp. 890.

Robert D. Barbaree, "Coordinating Chaos, Integrating Capabilities in Future Urban Combat". in: *Complex Terrain Megacities and the Changing Character of Urban Operations.* (Benjamin M. Jensen, Henrik Breitenbauch and Brandon Valeriano eds. Marine Corps University Press, Quantico, Virginia. Chapter 6, 2019). pp.140-155.

Sangar Ali, "Watch: Peshmerga Confiscates Machine Used by IS for Digging Tunnels". *Kurdistan 24* (29 October 2016). https://www.kurdistan24.net/en/news/f77c602e-b1bc-4c3f-8a08-8205c43f46c2 (accessed 14 November 2020).

Simon Jones *Underground warfare 1914-1918.* (Pen & Sword Books Ltd, South Yorkshire, England. 2010), p. 288.

STANAG 6509/ATP 3.2.1.2 Conduct of Land Tactical Operations in the Urban Environment.

STANAG 2643/ATP 3.2.1.3 Conduct of Land Tactical Operations in Mountainous Environments.

STANAG 2648/ATP 3.2.1.7 Conduct of Land Tactical Operations in Desert Environments.

STANAG 2646/ATP 3.2.1.5 Conduct of Land Tactical Operations in Cold Weather Environments.

Steven Zaloga, The Atlantic Wall (1), (Fortress, Osprey Publishing Ltd, Maryland, 2007), p. 64.

Syria Call, "Tremendous tunnel and headquarters in Afrin dug by YPG militias". (16 April 2018). https://nedaa-sy.com/en/news/5530 (accessed 10 November 2020).

Terrence McCoy, "How Hamas Uses its Tunnels to Kill and Capture Israeli Soldiers." The Washington Post (21 July 2014). https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.washingtonpost.com%2Fnews%2Fmorning-mix%2Fwp%2F2014%2F07%2F21%2Fhow-hamas-uses-its-tunnels-to-kill-and-capture-israeli-soldiers (accessed 11 November 2020).

The Associated Press, "U.S. Finds Clues in Bakery to Foil Iraqi Terror Plot" (8 Sep 2008). https://www.nbcnews.com/id/wbna26611968. (Accessed 10 Sep 2021).

The Brussels Times, "Belgian Government Defies Ruling of its Supreme Court on PKK". (30 January, 2020). https://www.brusselstimes.com/belgium/92787/belgian-government-defies-ruling-of-its-supreme-court-on-pkk/ (accessed 15 May 2021).

The World Bank Group, "Guide to Developing Disaster Recovery Frameworks. Sendai Conference Version". The World Bank Group, European Union and United Nations Development Programme, March, 2015). p. 88.

The World Bank Group, "The Toll of War. The Economic and Social Consequences of the Conflict in Syria" (The World Bank Group, 10 July 2017), http://www.worldbank.org/en/country/syria/publication/the-toll-of-war-the-economic-and-social-consequences-of-the-conflict-in-syria. p. 148.

Tom Mangold and John Penycate, *The Tunnels of CuChi.* (Berkley Books, New York, 2005), p. 299.

Tzun Tzu. *The Art of War.*

Vatan "Afrin'den son dakika görüntüleri geldi"! **(**28 February 2018). http://www.gazetevatan. com/afrin-den-son-goruntuler-geldi-1146901-gundem/ (accessed 8 November 2020).

Yaakov Lappin, "Security and Defence: The North Korean Connection," The Jerusalem Post, (12 March 2016), available at http://www.jpost.com/Arab-Israeli-Conflict/ SECURITY-AND-DEFENSE-The-North-Korean-connection-447557 (accessed 6 Nov 2020).

Yeni Safak, "Terror groups construct tunnels in Afrin with European funds, support". (5 March 2018), https://www.yenisafak.com/en/world/terror-groups-construct-tunnels-in-afrin-with-european-funds-support-3136060 (accessed 8 November 2020).

Zohra Bensemra, Portfolio of Work. (Reuters 2016). https://www.reuters.com/news/picture/ portfolio-of-work-zohra-bensemra-idUSRTX3RNFV (accessed 14 November 2020).
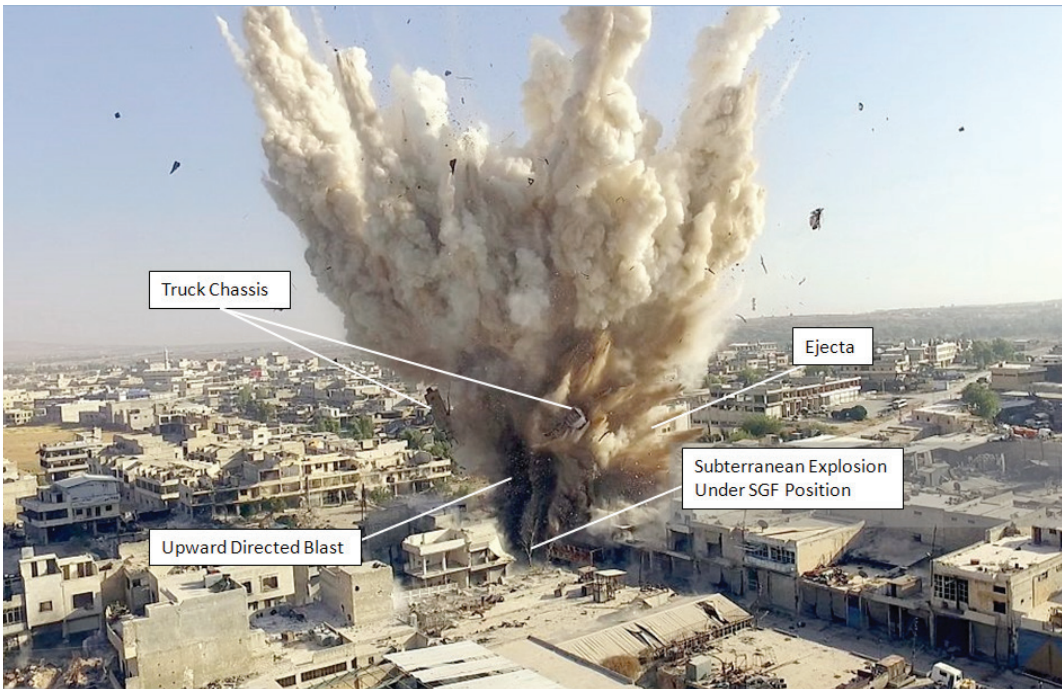
Figure 1. Explosion on 3 August 2016, in a tunnel dug by Syrian rebels under Syrian Armed Forces local headquarters in Aleppo[114].

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[114] Emma Graham-Harrison and Kareem Shaheen, "Syria's Rebels Unite to Break Assad's Siege of Aleppo.*The Guardian* (6 August 2016). https://www.theguardian.com/world/2016/aug/06/syria-rebels-unite-break-aleppo-siege (accessed 11 November 2020).

Figure 2. (a). Tunnel in Raqqa captured on the 5th September, 2017 from Da'esh constructed with prefabricated reinforced concrete[115]. (b). Tunnel in Gaza captured in August 2014[116] with characterists similar to that shown in (a) captured in Raqqa . (c). Tunnel in Gaza captured by IDF Nov 2014[117] showing how concrete forms are used in tunnel lining similar to that shown in (a).

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[115] Military.com, "YPG-Led SDF Find Booby-Trapped ISIS Tunnel in Raqqa." Military.com (5 September 2017). http://www.military.com/video/operations-and-strategy/terrorism/ypg-led-sdf-find-booby-trapped-isis-tunnel-in-raqqa/5565242772001 (accessed 8 November 2020).

[116] Alan Baker, "Repatriate Missing Soldiers and Civilians". *The Jerusalem Post* (5 December 2019). https://www.jpost.com/opinion/repatriate-missing-soldiers-and-civilians-610042 (accessed 5 November 2020).

[117] Terrence McCoy, "How Hamas Uses its Tunnels to Kill and Capture Israeli Soldiers." The Washington Post (21 July 2014). https://www.google.com/url?sa=i&url=https%3A%2F%2Fwww.washingtonpost.com%2Fnews%2Fmorning-mix%2Fwp%2F2014%2F07%2F21%2Fhow-hamas-uses-its-tunnels-to-kill-and-capture-israeli-soldiers (accessed 11 November 2020).

Figure 3. (a). Covered trench outside Bazwaia, in Ninevah Province with the metal supports and roofing visible that was used as the roofing[118]. (b). Shaft entrance to a tunnel inside a building in Bazwaia[119]. (c). Tunnel below the shaft identified in image (b) showing shoring on the wall and roof as well as power and ventilation[120].

[118] Nick Paton Walsh, Ghazi Balkiz and Scott McWhinnie, "Battle for Mosul: The Iraqi Fighters Closing in on ISIS". *CNN World* (31 October 2016. https://www.cnn.com/2016/10/31/middleeast/mosul-isis-scene/index.html (accessed 15 November 2020).

[119] Zohra Bensemra, Portfolio of Work. (Reuters 2016). https://www.reuters.com/news/picture/portfolio-of-work-zohra-bensemra-idUSRTX3RNFV (accessed 14 November 2020).

[120] NBC News, "Iraqi Forces Fighting ISIS Near Mosul Uncover Large Network of Tunnels. (NBC News 28 October 2016). https://www.nbcnews.com/storyline/isis-terror/iraqi-forces-fighting-isis-near-mosul-uncover-large-network-tunnels-n674381 (accessed 8 November 2020).

Figure 4. (a). Defensive trench excavated in the mountains around Afrin in horizontally bedded limestone with marls using a mechanical excavator[121] to be used for SDF, YPG and YPJ fighting positions. (b). Construction by SDF, YPG and YPJ of cut-and-cover hardened tunnels at Sirgaya Hill with the concrete and rebar visible along with form boards placed during the concrete pour[122]. (c). SDF, YPG and YPJ CCHT with multiple firing points and dimensions sufficient for a defender to stand[123]. (d). SDF, YPG and YPJ observation point at Mount Bursaya constructed into the mountain slope and camouflaged with limestone blocks to blend into the surrounding terrain[124].

[121] Vatan "Afrin'den son dakika görüntüleri geldi"! (28 February 2018). http://www.gazetevatan.com/afrin-den-son-goruntuler-geldi-1146901-gundem/ (accessed 8 November 2020).

[122] Murat Kula, "Operation Olive Branch to Afrin". Anadolu Agency (7 February 2018). https://www.aa.com.tr/en/pg/photo-gallery/turkey-captures-pyd-pkk-tunnel-network-in-nw-syria/0 (accessed 14 November 2020).

[123] Yeni Safak, "Terror groups construct tunnels in Afrin with European funds, support". (5 March 2018), https://www.yenisafak.com/en/world/terror-groups-construct-tunnels-in-afrin-with-european-funds-support-3136060 (accessed 8 November 2020).

[124] Prima News, "Operation Olive Branch to Afrin". (29 January 2018). https://www.primanews.org/2018/01/operation-olive-branch-afrin-2/ (accessed 9 December 2019).

Figure 5. (a). View of the front of a captured ISTBM showing the cutting head with Peshmerga fighters for scale[125]. (b). Side view of a captured ITTBM on a flat bed truck with Iraqi soldiers for scale[126].

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[125] Sangar Ali, "Watch: Peshmerga Confiscates Machine Used by IS for Digging Tunnels". *Kurdistan 24* (29 October 2016). https://www.kurdistan24.net/en/news/f77c602e-b1bc-4c3f-8a08-8205c43f46c2 (accessed 14 November 2020).

[126] Elijah Magnier,*Twitter* (6 November 2016). https://twitter.com/ejmalrai/status/795347004620754944/photo/1 (accessed 15 November 2020).

Figure 6. (a). Entrance to an SDF, YPG and YPJ underground facility in the mountains around Afrin showing vertical and horizontal rebar wired in a grid pattern ready for concrete to be poured or sprayed[127]. (b). Reinforced room in an SDF, YPG and YPJ underground facility located in the mountains around Afrin containing multiple one hundred meter long tunnels[128]. (c). Front left view of an extendable and multi-axial boom-mounted cutting head machine captured in-situ in a subterranean structure in the mountains around Afrin[129]. (d). Rear right side view of an ITTBM captured in-situ in a subterranean structure in the mountains around Afrin[130].

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[127] Syria Call, "Tremendous tunnel and headquarters in Afrin dug by YPG militias". (16 April 2018). https://nedaa-sy.com/en/news/5530 (accessed 10 November 2020).

[128] Ibid

129   Jimmy Nsubuga, "Secret 'terror tunnel' found in Syria after coalition forces take control of city". *Metro News* (20 March 2018). https://metro.co.uk/2018/03/20/secret-terror-tunnel-found-syria-coalition-forces-take-control-city-7402389/ (accessed 15 November 2020).

[130] Paul Antonopoulos, "Uncovered: Tunnel diggers in Afrin". (FRN, 21 March 2018). https://fort-russ.com/2018/03/uncovered-salafist-tunnel-diggers-in-east-ghouta/. See note found in Afrin, not East Ghouta (accessed 26 August 2020).

Africa: A Hybrid Battleground

Tamas CSIKI VARGA, PhD[1] – Viktor MARSAI, PhD[2]

1. Introduction

In the context of hybrid conflicts in Africa, two fundamental traits of challenges are expected to prevail by the 2030s: (1) the traditional hybrid challenges to modern state functioning (as known today from current conflicts), against which national and international actors (African Union, NATO, European Union) can shore up defenses from provisions to active defense; (2) hybrid challenges that specifically target states already in fragile conditions, against which there will be no effective national counterbalance due to failing state functions and institutions. In the latter case hybrid challenges will exacerbate the systemic pressures (lack of security, stability, services) in these fragile states, increasing the role of non-state actors as stakeholders in providing security. The more so, because most African states will be battling the effects of population boom and all related scarcities, including water and sanitation, food, housing, employment etc., resulting in governance failure and increasing the likelihood of evolving such ungoverned/contested spaces in Africa which we have witnessed in Iraq and Syria after 2014.

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The purpose of this paper is to highlight those presumptive forms and effects of hybrid warfare that will characterize Africa as a 'hybrid battleground' by the 2030s, inflicting strategic disruption. Furthermore, in parallel to identifying these hybrid challenges, the authors will outline necessary steps on behalf of NATO to increase the resilience of African states to said challenges.

As the authors are aware of the narrative debates concerning the use of the term 'hybrid warfare',[3] this paper will be based on the understanding of hybrid threats along the following – broadly understood but security and defense specific – lines, used as a working definition:[4] The strategic aim of hybrid war (similarly to other wars) is fundamentally political, where one party to the conflict tries to force its will upon its adversary. 'Hybrid warfare' is the use of 'hybrid war' instruments in practice. *Hybrid war is a form of indirect and restricted warfare in which the employer relies on the full spectrum of military and non-military (diplomatic, economic, informational, financial, political, energetics, public administration, crime-related, intelligence, cyber etc.) means to enforce its will along offensive or defensive aims upon its adversary. In hybrid war the use of non-military means is dominant, the kinetic use of conventional armed forces takes place only upon completion or consolidation of the employer in the military domain. Thus, hybrid war is not a total war in its nature, though escalation might lead to outright military conflict.* The use of hybrid warfare is based on blurring the boundary between war and peace, thus creating an ambiguous situation in terms of international law (of war). Hybrid warfare starts long before the first actual combat moves take place on the ground. Furthermore, the means of hybrid warfare can be employed not only by state actors but powerful non-state actors as well.

Providing adequate answers to the employment hybrid means is challenging for two main reasons:

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[3]   See for example: Patrick J Cullen – Erik Reichborn-Kjennerud: *Understanding Hybrid Warfare*. MCDC, London, 2017; James K. Wither: "Making Sense of Hybrid Warfare." *Connections*, Vol. 15., 2016, No. 2., 73-87; Andrew Radin: *Hybrid Warfare in the Baltics: Threats and Potential Responses*. RAND Corporation, Washington D.C., 2017; András Rácz: *Russia's Hybrid War in Ukraine. Breaking the Enemy's Ability to Resist*. FIIA Report 43., FIIA, Helsinki, 2015.

[4]   The authors wish to express their thanks and gratitude for the Hungarian team of experts – Alex Etl, Krisztián Jójárt, Péter Marton, András Rácz, Péter Tálas and Péter Wagner – who shared their input, insight and opinion when crafting this definition.

1) Hybrid warfare is characterized by the lack of transparency and the deniability of attribution, as the offensive party hides and denies its participation and role in the conflict as long as possible. These circumstances make it more difficult for the defending party to find remedy or retribution and to mobilize its allies against the adversary.

2) *Hybrid warfare actively builds upon inciting internal societal (ethnic, political, religious, ideological, economic, and other) conflicts of the defending party. The employer of hybrid means strives to present societal movements of discontent incited by him as legitimate and organic articulations of societal tension and discontent towards the government of the adversary.*

The authors deem the elements highlighted in Italic above particularly important for the evaluation of hybrid threats in Africa, as the security environment is already highly vulnerable in these specific aspects in several countries, and unfavorable circumstances might further deteriorate on the continent with the growing pressure of demography and scarcities. These characteristics significantly limit the capabilities of national governments and international institutions to counter hybrid challenges.

This is in line with NATO's approach, as explicitly stated as early as in the Multiple Futures Project – Navigating towards 2030, published in 2009, later on developed into a broad set of threat assessments regarding various adversaries and counter-hybrid strategies. This foresight already envisioned adversaries who are 'both interconnected and unpredictable, combining traditional warfare with irregular warfare, terrorism, and organized crime.'[5] When conducting a foresight analysis for the 2030s and beyond, we must keep in mind that three types of potential adversaries can use hybrid warfare tools in African conflicts: local state as well as non-state actors and external actors (directly or via proxies). Any of these formats can affect NATO's security interests either directly (member states' citizens and economic interests, crisis management operations' personnel, humanitarian (NGO) presence) or indirectly (through exacerbating existing conflicts and inflicting new ones), spreading instability and feeding the threats of terrorism, extremist violence and organized crime to the North Atlantic region. This complexity must be reflected not only in the threat matrix identified for future hybrid conflicts in Africa but also among the recommendations for policy responses. Still, we keep in mind that the effects of and responses to hybrid conflicts in Africa are different from those targeting NATO member states' resilience and stability.

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[5]   Multiple Futures Project: Navigating towards 2030. NATO ACT, 2009, p. 6. https://www.act.nato.int/images/stories/events/2009/mfp/20090503_MFP_finalrep.pdf

The methodology of the paper is built on trend analysis, highlighting the future vulnerabilities of (many) African states, adding current case study examples to highlight how underperforming and fragile states can become vulnerable to hybrid warfare and what consequences might appear. Here, a distinction must be made: despite the commonly held opinion that fragile states would be more exposed to hybrid conflicts, we must also keep an eye on better functioning, but underperforming states as well, because we have already seen the example of Ukraine in 2014 as a target of hybrid warfare. Therefore, we will identify key countries in Africa that might be crucial targets of hybrid warfare (as mentioned, possibly waged by state and non-state actors as well).

Accordingly, the paper is structured as follows: first, a trend analysis highlights those factors that make African states more fragile in the 2030s, also more vulnerable to hybrid conflicts. Here, brief current case studies exemplify such vulnerabilities. As a summary of this analysis, the primary hybrid threat matrix of fragile states will be outlined, followed by the implications for NATO and brief recommendations.

2. Fragile states and ungoverned spaces in Africa

It is essential to understand that most African states have undergone fundamental transformation in the past two decades. While in the 1990s and the early 2000s many African countries served as role models of ,,failed" and later ,,fragile states", incapable to fulfil their primary functions (control of territory, monopoly over the use of violence and military power, maintenance of public administration and provision of social services,), the internal and external efforts for state building have also brought significant achievements in the continent since then. This becomes evident if we take a look at the 10th Fragile States Index, which stated that one of the biggest improvement in statehood in the international system took place among West African countries, e.g. Liberia and Sierra Leone, which managed to step over the shadow of civil wars and strengthen their governments, public administration and public services.[6] At the same time we could also observe outstanding improvement even with regards to such problematic entities as Somalia, Ethiopia or Angola, states plagued by dictatorship, ethnic cleansing, famine and state collapse throughout the 1980s

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[6]   J.J. Messner (ed.): "The Fragile States Index 2014." *The Fund for Peace*. pp 37-38. https://fundforpeace.org/wp-content/uploads/2014/06/cfsir1423-fragilestatesindex2014-06d.pdf

and 1990s. The conclusion of civil wars, the economic boom of the continent, the new wave of 'African renaissance' and the new 'scramble for Africa'[75] all contributed to the improving security and social conditions of the region. Although some authors underline the dark side of this rapid development, labelling it the 'neo-colonization of the continent'[8] – also foreshadowing the prevailing rivalry of external actors for influence –, it is hard to argue against the improvement of social services, security and governance, both at macro and micro levels.[9]

Nevertheless, it is also true that there are plenty of challenges to be resolved. Even strong central governments are struggling with the structural challenges of the continent, such as overpopulation, the lack of sufficient infrastructure, environmental degradation due to climate change, the resulting shortages of food and water, as well as ethnic or religious tensions and political grievances. The trends we can forecast in these regards are alarming, setting the stage for undermining currently stable, well-functioning states and for destabilizing underperforming, fragile states.

First of all, according to official UN estimations, the population of the continent will double by 2050, reaching 2.5 billion people.[10] Although the demographic transition is approaching its end in the Northern and Southern parts of Africa, in many regions it is far from over: in the Sahel, for instance, it has just begun with extremely high (6-7) fertility rates. The net annual population growth of Nigeria is around 5 million people, and 2 million people in Egypt and Ethiopia, respectively. Such a rapid increase of population puts enormous pressure on the social and economic systems of the affected countries, which are lacking resources – and reserves – to cope with it. The fact that 70% of Sub-Saharan population is under 30 years old, will provide space for hybrid challenges undermining the resilience of such key entities, as examined in the next subchapter.[11]

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[7] R. Rotberg: *Africa Emerges*. Polity, 2013.

[8] Ian Taylor: *Africa Rising? BRICS - Diversifying Dependency*. James Currey, 2014.

[9] Just a recent example for this is the book of Camilla Toulmin, who describes the transforming life of a remote Sahelian village with increasing interconnections – with, of course, opportunities and challenges – to the outside world thanks to mobile networks, trade, and enhanced mobility. Camilla Toulmin: *Land, investment and migration: thirty-five years of village life in Mali*. Oxford University Press, 2020.

[10] "World Population Prospects 2019 Highlights". *UN DESA* 2019. https://population.un.org/wpp/Publications/Files/WPP2019_Highlights.pdf

[11] "Statistic on Youth". *UNESCO* 2013. http://www.unesco.org/new/en/unesco/events/prizes-and-celebrations/celebrations/international-days/world-radio-day-2013/statistics-on-youth/

Another fundamental obstacle for the continent is underdeveloped infrastructure, making it challenging to maintain or regain territorial (political, military, economic) control and to reach out to (geographically) distant communities, the potential targets to both conventional and hybrid challenges. The lack of sufficient number of railways, paved roads and access to electricity limit the speed of economic development and the spread of consumer goods, state services – and information. This strongly contributes to the emergence of ungoverned areas and safe havens for extremist and rebel groups, as we have witnessed on numerous occasions in Eastern and Central African countries and across the Sahel, as well as in Libya in recent years, because central governments have only limited capabilities to reach such territories. Even though immense infrastructural investments of the past decades tried to mitigate this problem, but there is still a lot to do on the one hand (e.g. Europe, covering the third of the territory of Africa, had 217,000 km railway lines, while Africa only 82,000 km)[12], while infrastructure development projects are plagued with corruption and foreign interference on the other (see the next chapter).

Thirdly, it is common sense that Africa is highly affected by climate change. Furthermore, in some cases those areas suffer most from the fastest transformation of climate and weather patterns, which have the least capacities to cope with it. For instance, while the average change in global warming since the beginning of the industrial revolution is around +1 Degrees Celsius, it is already well above +1.5 Degrees Celsius in the Sahel.[13]The consequences, such as desertification, drought and heatwaves, as well as torrential rains and floods are increasing the competition for resources across these regions, and stoke violent clashes mainly where nomadic and settled populations struggle for grazing lands, wells and agricultural lands, primarily in Mali, Nigeria, Ethiopia and the Sudan. The effects of overpopulation coupled with environmental degradation exacerbate instability and make the resolution of conflicts even harder, paving the way for sustained, low intensity armed struggles in many

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[12] "Total length of the railway lines in use in the European Union (EU-28) from 1990 to 2017". *EU-ROSTAT* 2020. https://www.statista.com/statistics/451812/length-of-railway-lines-in-use-in-europe-eu-28/; "Rail Infrastructure in Africa. Financing Policy Options". *African Development Bank Group*, 2015. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Events/ATFforum/Rail_Infrastructure_in_Africa_-_Financing_Policy_Options_-_AfDB.pdf

[13] "The past, present and future of climate change." *The Economist*, 21 September 2019. https://www.economist.com/briefing/2019/09/21/the-past-present-and-future-of-climate-change

countries. In addition, the general deterioration in living conditions and rising grievances make easier for extremist ideologies to find their way to the population, especially to more vulnerable young generations.

Last, but not least we have to keep in mind the ethnic and religious fault lines across the continent. There is no doubt that Africa left behind much of the major ethnic cleansings and genocides of the 1990s and early 2000s, and the process of nation-building reached significant results creating the national identity of 'Kenyans', 'Nigerians', 'Libyans'.[14] But the national identities are still fragile and live parallel and overlapping with other identities. Therefore, the ethnicization / clanisation of political life is still an instrument in many places both at local and national levels. One of the most current example for this has been the wave of protests sweeping Ethiopia, organized mainly along ethnic lines and leading to clashes between the different (Oromo, Somali, Amhara, Sidamo) groups of the country, eventually forcing three million people to become refugees.[15] The puzzle of identities will live with African peoples throughout the next decades as well, making them prime targets for political polarization, disinformation and manipulation among their heterogenous communities.

These structural challenges are already eroding the power and influence of even the strongest African states. The riots in 2007/2008 and in 2017 during the Kenyan elections – also organized mainly along ethnic lines – or the Ebola epidemic in West Africa in 2014 demonstrated that even the relatively well-functioning states of the continent could easily fall back to chaos and dysfunction. The capabilities of governments to provide the full-scale service of a Western-style welfare state are still lacking, and in spite of the tremendous efforts – and achievements – of the last decades it will also be lacking for the years to come. The effects of such strategic shocks become more evident if we observe some events that tried the existing – and sometimes already struggling – systems hard.

For example, the current COVID-19 pandemic showed that African countries do not have enough resources to cope with all the different – health, social, economic – aspects of the crisis, and they have to single out and heavily prioritize

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14 Personal interviews in Cameroon, Egypt, Ethiopia, Kenya, Libya, Somalia, and Uganda between 2012-2020.

15 "Ethiopia: 3 million internally displaced in escalating humanitarian crisis". *Euronews*, 31 January 2019 https://www.euronews.com/2019/01/31/ethiopia-3-million-internally-displaced-in-escalating-humanitarian-crisis

their main goals: whether they are trying to sustain a functioning economy, reduce the spread of COVID-19, or concentrate their efforts to other challenges, such as violent extremism. With regards to East Africa and the Sahel, the rising power and operational freedom of Jihadist organizations in parallel with the spread of the pandemic has become obvious both because countries had to spend their financial resources in the health sector instead of the security/defense/intelligence sectors and also because of the slowing down of the military rotations coupled with the reluctance of foreign actors to send more troops and aid to the region, as highlighted by many authors.[16] Such multiple internal crises, together with a decreased presence of international (e.g. NATO) presence foreshadow the characteristics of the future hybrid battleground in Africa. Summing it up, even the role models of the continent have limited reserves and resilience to hold on when crises break out, and there are numerous niches in their governance, public administration and security sectors which provide opportunities for hybrid activities.

Furthermore, some of the most fragile entities are still in Africa: if we check the latest Fragile States Index, we can find that seven from the ten most fragile states are in the continent.[17]Although we must be cautious with the oversimplification of reality by a list, the FSI highlights well that most African states are still extremely vulnerable in several functional sectors, and therefore, highly vulnerable for hybrid attacks, which aim their weak governmental, social and economic systems – or conventional and social media. The current example of the Central African Republic shows how the security apparatus of a state can come easily under the control of an external power – in this case, Russia. The president of the CAR, Faustin-Archange Touadéra hired the Russian private security company Sewa Security Service for his personal protection and deployed Russian advisors (mainly from Wagner Group) to the presidential palace and the army.[18] Russian companies also utilized their political and military power to capture the economic ~~and financial~~ assets of the CAR, jeopardizing the hardly-existing social services

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[16]   E.g. "Al-Shabaab recruiting behind the Covid-19 'Iron Curtain'", *Hiiraan*, 26 July 2020, https://hiiraan.com/news4/2020/July/179242/al_shabaab_recruiting_behind_the_covid_19_iron_curtain.aspx?utm_source=hiiraan&utm_medium=SomaliNewsUpdateFront. With regards to the Sahel, see Julie Colman: "The Impact of Coronavirus on Terrorism in the Sahel." *ICCT*. 16 April 2020. https://icct.nl/publication/the-impact-of-coronavirus-on-terrorism-in-the-sahel/

[17]   J.J. Messner (ed.): "The Fragile States Index 2020." *The Fund for Peace*. https://fragilestatesindex.org/wp-content/uploads/2020/05/fsi2020-report.pdf

[18]   Diamond Geezers: "Russia's murky business dealings in the Central African Republic". *The Africa Report*, 23 August 2019, https://www.theafricareport.com/16511/russias-murky-business-dealings-in-the-central-african-republic/

and public administration.[19] In another case, Somalia has become a proxy battleground among Persian Gulf countries, as Gulf countries tried to convince different Somali political groups to support the Quartet (Saudi Arabia, UAE, Bahrein, Kuwait) versus Qatar in their row. The foreign influence further plagued Somali politics with corruption, mistrust, and sometimes with violence, which contributed to the prolonged anarchy in the country, increasing tension between the different Somali political and clan-groups.[20]

Therefore, considering its economic and political potentials and vulnerabilities, Africa will be perhaps the most ideal hybrid battleground of the coming decades to test old/new methods and instruments. As we highlighted above, one could already observe such symptoms in numerous countries and in various sectors. Because of the widespread vulnerabilities of states across the continent it is challenging to single out a handful of countries as potential primary hybrid battlegrounds, but because of their determining regional power and influence in terms of politics, economy (infrastructure) and security, the stability of the following countries are deemed to be crucial for countering conventional and hybrid challenges: Egypt, Libya, Mali, Nigeria, Ethiopia, Kenya, Angola, South Africa.

3. Hybrid challenges as threats to state functioning: defining the threat matrix

The deep structural challenges of Africa and its fragile states provide multiple opportunities for the use of hybrid warfare in the continent. Unfortunately, it is true at all levels: external actors, African nations and sub-state players all have started to use these methods, what can be observed both in inter- and intrastate conflicts/ rivalries.

Before we go into details, mapping the threat matrix, it is worth to briefly mention that to some extent, hybrid warfare can be assessed as not only a negative phenomenon in the continent. The fact that many actors tend to use hybrid warfare as part of their asymmetric toolbox as influencing operations, instead of an open military conflict, helps to reduce the level of violence and the number of casualties – at least in the short term. This leaves more space for negotiations and room for

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[19] Dionne Searcey: "Gems, Warlords and Mercenaries." *New York Times,* 20 September 2019, https://www.nytimes.com/2019/09/30/world/russia-diamonds-africa-prigozhin.html

[20] "Somalia and the Gulf Crisis". *International Crisis Group,* 5 June 2018, https://www.crisisgroup.org/africa/horn-africa/somalia/260-somalia-and-gulf-crisis

maneuver for various actors. This is more obvious if we compare this approach with the different historical stages of the 'struggles for Africa': while in the 19th and 20th centuries external interventions led to extended violence and the death of millions, in the last decades conflicts are rather low intensity, more sophisticated and less bloody.

Nevertheless, the long-term effects of hybrid warfare are perhaps more devastating due to undermining governmental and societal resilience and capacities. Therefore, in this subchapter we highlight the most vulnerable sectors and the rising threats for African states and societies.

1. *The social challenges of access to information and the social media.* Conventional and social media are – and will be – among the most important hybrid battlegrounds. In Africa, the boom of the telecommunications sector has significantly increased access to media outlets and social media platforms. In theory, it should enhance knowledge-sharing and access to information, while in practice countless examples demonstrate that many online sites and social media platforms serve as sources of fake news and conspiracy theories, misguide users through disinformation, strengthening wishful-thinking, preconceptions and misperceptions that can spread incredibly fast. These elements of the 'post-truth era' undermine societal consensus and polarize public opinion on the one hand, while also increase the perceptions of mistrust and insecurity on the other. For instance, in the current demonstrations in Ethiopia the opposition regularly shares false information in social media to boost riots against the government. A particular example: the infamous opposition politician Jawar Mohamed posted that the government had wanted to kill him, what led to high -scale protest in Addis Ababa and to the complete lockdown of the Ethiopian capital for days.[21] Another example can be brought from the third Libyan civil war, in which the belligerent parties regularly blame each other for the deployment of foreign mercenaries, equipment and advisors, and the use of proxies. Even though in many cases it turned to be true, lots of video and photo coverage proved to be fake.[22] Last, but not least, we have to mention the COVID-19 situation in Somalia, where many patients avoid hospitals and die without

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21   "Deadly unrest reflects Ethiopia's discontent". *DW.com* 25 October 2019. https://www.dw.com/en/deadly-unrest-reflects-ethiopias-discontent/a-50991625

22   See the examples of the Twitter account of Oded Berkowitz: https://twitter.com/oded121351

proper assistance because of the rumors that people are intentionally killed in healthcare facilities or people are intentionally infected there by the virus. This example demonstrates the use of fake news propaganda by the Jihadist group al-Shabaab, accusing the government with such methods.[23]The remaining challenges of proper education and the amount of the youth in the continent make Africa extremely vulnerable for such fake news and propaganda. People are lacking proper training and methodology to assess and try to clarify (false) statements.

2. *Utilizing gaps in state capacities.* As exemplified above, the lack of specific state functions opens wide opportunities for influencing and intervention. In the CAR the weakness of the security services made possible for Russia to seize significant influence in the country through the intelligence, security, and defense sectors. It is not a unique issue. During the 'Riverside Dusit 2 Hotel attack' in Nairobi, January 2019 white [*Caucasian*] contractors appeared in the photos of the response teams released afterwards, which supported the arguments that the Kenyan security services are highly influenced by contractors or advisors from different nations (allegedly Israel and the UK).[24] Such 'expertise gaps' are present in various sectors, bearing extreme importance in infrastructure development, energy, as well as IT and telecommunications – providing access to critical information and infrastructure for external state actors.

3. *Abusing corruption and false brokering.* The vast infrastructural projects of Africa – financed and conducted mainly by foreign companies and by foreign loans – are highly vulnerable for corruption and mismanagement. In addition, thanks to their scale, they pose a direct challenge for host nations. Fostering the financing and realization of megaprojects in development can also reveal false brokering. For instance, some authors argue that China intentionally offered huge loans for Zambia, knowing exactly that Lusaka will be incapable

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[23] "The gravedigger's truth: Hidden coronavirus deaths". *BBC* 27 July 2020. https://www.bbc.com/news/av/world-africa-53521563/the-gravedigger-s-truth-hidden-coronavirus-deaths; Christopher Hockey and Michael Jones: The Limits of 'Shabaab-CARE': Militant Governance amid COVID-19. *CTC Sentinel*, June 2020, Vol. 13, No. 6., p 34. https://ctc.usma.edu/wp-content/uploads/2020/06/CTC-SENTINEL-062020.pdf

[24] "SAS hero who saved hundreds of lives when he shot dead two terrorists during attack in Kenya is awarded Conspicuous Gallantry Cross." *Dailymail*, 19 November 2019, https://www.dailymail.co.uk/news/article-7688099/SAS-hero-saved-hundreds-shot-dead-two-terrorists-Kenya-awarded-Gallantry-Cross.html

to pay them back, which makes possible for Beijing to seize the management of the Kenneth Kaunda International Airport.[25] Similar methods could be observed in the case of Kenyan Mombasa Port, which is East Africa's main commercial gate.[26]The monopoly in telecommunication sectors – like the exclusive role of ZTE Corporation, Huawei Technologies and the Chinese International Telecommunication Construction Corporation in Ethio Telecom – provide almost unlimited influence in the affected countries.

4. *The proliferation of advanced technologies and difficulties of attribution.* In addition, access to advanced technologies (as well as materials and manufacturing capacities), the spread of autonomous weapons and the innovative use of conventional weapons (such as drones, drone swarms) coupled with difficulties of attribution when any attack happens, will make it challenging in future conflicts to determine adequate answers against an (un)identified opponent. With the evolution of the IT sector and the growing penetration of telecommunications in administration and financing make the cyber realm of African actors ever more vulnerable, with the same problems of proper attribution.

In conclusion, we must point out that hybrid warfare as an asymmetric tool can be used in Africa both by internal and external state and non-state actors, moving along a wide range from regional powers to local extremist groups. Potential targets of hybrid warfare are similar to what we have already experienced in contemporary conflicts, in a 'whole of government targets' approach, with centers of gravity in communication, public administration and development, IT and security sectors. Africa as a hybrid battleground will bear outstanding importance because structural challenges burden most African states with already weakened resilience and scarce resources, decreasing their capability to withstand multifold crises at the same time. The degree, to which hybrid warfare will be used and whether conventional warfare as a follow-up would proceed, will mostly depend on the capabilities of the aggressor (e.g. non-state actors can rely on hybrid warfare tactics but do not possess large conventional military forces to back up influence operations).

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[25]   "China takes over Zambia's Airport", *Green World Warrior*, 19 January 2019, https://greenworldwarriors.com/2019/01/17/china-takes-over-zambias-airport-national-broadcasting-cooperation-and-zesco-power-plant/

[26]   Andre Wheeler: "Is Kenya's Mombasa Port another victim of China's debt diplomacy?", *Splash*, 7 February 2020, https://splash247.com/is-kenyas-mombasa-port-another-victim-of-chinas-debt-diplomacy/

4. Implications for NATO

Based on lessons learnt and strategic foresight we are aware that hybrid threats target states' preventive, reactive, resilient and defensive capabilities and the political-societal consensus that support the normal functioning of state institutions, provide social support and economic resources for defense. Hybrid tools are primarily non-military, but depending on the escalation potential, the use of conventional military means cannot be excluded either. Among the potential targets, across-the-board governmental institutions, key sectors of strategic importance can be identified, such as infrastructure development, media and energy (including natural resources and raw materials). The following countries have been identified as crucial for countering hybrid challenges: Egypt, Libya, Mali, Nigeria, Ethiopia, Kenya, Angola, South Africa.

Potential responses to hybrid challenges must extend to the full civilian to military spectrum. At the extreme end of the spectrum, consequences of state collapse could include acute humanitarian crises, waves of irregular migration, prolonged low-intensity military conflict and the emergence of ungoverned spaces, powerful non-state actors and new state-like formations (as we have witnessed in case of the 'DAESH'. This outcome can be evaluated as the worst-case scenario of a major hybrid (and conventional) conflict in Africa, potentially requiring major stabilization intervention. But before reaching such an intensity, there are many stages where the potential damage of hybrid attacks can be prevented or managed.

To avoid strategic disruptions as consequences of hybrid attacks, African nation states are the primary actors to develop preventive and reactive capabilities to handle such crises. Non-governed spaces cannot create strategic vacuums as these would be filled by external actors, their proxies or local hostile non-state actors. First the state concerned (and neighboring states), then regional institutions shall take up ownership – and NATO and the European Union can have a positive effect on their preparation and crisis management procedures, in acute cases potentially providing resources and direct support as well. Regional institutions, primarily the African Union shall develop capabilities for the future to assist certain critical cases. Thus, multinational support to countries in crisis can be channeled through NATO's existing partnership programs and through inter-institutional (NATO-AU, NATO-EU, NATO-UN) channels.

NATO has no mandate or resources to develop deterrence measures against hybrid threats for Africa like the ones that have been developed in the Euro-Atlantic region, but the Transatlantic alliance has certain means to support African partner countries and regional institutions in their work of designing preventive measures and develop their resilience capabilities and governance integrity. Particularly, both the alliance and individual member states should rely on their meaningful partner relations with African countries and use their political leverage, support, and advice to apply whole-of-government as well as whole-of-society approach when strengthening integrity. This would allow for involving the widest possible set of stakeholders and resources in partner countries. Moreover, there is significant room for the European Union to support this endeavor as part of the NATO-EU strategic cooperation package. Direct support can take many forms, without duplicating existing efforts. For example, 'reaction teams' for targeted, pin-point support (for cyber, hybrid, strategic communications, SSR, crisis management tasks) can be created in the future as set forth in the EU Civilian CSDP Compact, where NATO can provide not only expertise, but integrated intelligence, analytical and planning capacity.

Potential adversaries are expected to knowingly target gaps in state capacities and public administration dysfunctions (such as corruption and low levels of integrity). To prevent and counter this, of course the most can be done by national governments. To counter influence operations and penetration to critical systems, first the situational and analytical awareness of partner countries must be increased. Through strengthening existing partnerships in these specialized fields, sharing lessons learnt and best practices of countering the means of hybrid warfare on behalf of member states of the Transatlantic Alliance, also through extending advising activities to countering hybrid challenges in close cooperation with the European Union are necessary steps.

NATO and the EU already have the expertise from which partner countries can draw, as well as the institutional links for engagement. Primarily the European Centre of Excellence for Countering Hybrid Threats, the Strategic Communications Centre of Excellence, the Cooperative Cyber Defence Centre of Excellence, and the Energy Security Centre of Excellence are the partners for sharing knowledge and experience and for providing training and advising. Moreover, the African Union should also establish its own knowledge hub for experts and best practices that could support individual AU member states in times of crisis.

Last, but not least, NATO must be present in the battle of narratives through further increasing its visibility in Africa and strengthen the positive, cooperative image of the alliance within the populations of partner countries. Pursuing the shared interests in providing security and maintaining stability across the Mediterranean, through the Sahel and Eastern Africa and into Sub-Saharan Africa also means that state and non-state actors should also be willing and able to engage in cooperation with the alliance.

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Articles sent to the ***Defence Against Terrorism Review*** must not be published elsewhere or must not have been sent to another publication in order to be published. Once the articles are submitted to DATR, the authors must acknowledge that they cannot submit their articles to other publications unless the total rejection of concerned articles by the Editor or the Endorsement Committee (EC).

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Joseph Needham, *Science in Traditional China* (Harvard Univ. Pres, 1981), p. 37.

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Joseph S. Nye Jr. and David A. Welch, *Understanding Global Conflict and Cooperation*, (Pearson Publication, 2011), p. 280.

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Luis Benton et. al., *Informal Economy,* (The John Hopkins University Press, 1989), pp. 47-59.

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b. Articles in Compilation Books:

Barry Buzan, "Is International Security Possible?", in *New Thinking About Strategy and International Security* (Ken Botth and Don Kaufman, eds, Harper Collins, 1991), pp. 31-55, p. 42.

c. Articles from Daily Newspapers:

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Albania Country Report (T‹KA Publishing, 1995), p. 7.

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"Russia's National Security Strategy to 2020" (12 May 2009), *Rustrans*, available at

http://rustrans.wikidot.com/russia-s-national-security-strategy-to-2020 (accessed 02 May 2011).

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