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**NAVAL
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MONTEREY, CALIFORNIA

THESIS

**THE STRATEGIC UTILITY OF SOF IN GREAT
POWER COMPETITION: A NATO PERSPECTIVE**

by

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December 2022

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**THE STRATEGIC UTILITY OF SOF IN GREAT POWER COMPETITION: A
NATO PERSPECTIVE**

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ABSTRACT

NATO needs to discuss whether, why, and how Special Operations Forces (SOF) contribute to the “fight” in Great Power Competition. NATO’s security strategy traditionally relies on a deterrence posture with conventional and nuclear capabilities. The new *NATO 2022 Strategic Concept* validates the necessity to research the question: What is the strategic utility of SOF for NATO in Great Power Competition, and how can this strategic utility be enhanced? This study uses a qualitative methodology. At the core is a comparative analysis of two scenarios in the Black Sea and Arctic regions, both developed through a systematic process and enriched with imagination to contain useful vignettes. The analysis suggests that SOF have strategic utility, albeit in changing manifestations in different phases of the conflict continuum, in Great Power Competition. SOF expands the strategic options available to political and military leaders—expansion of choice—to anticipate and respond, especially in an early stage of a crises below the threshold of armed conflict. SOF also achieve significant results with limited forces—economy of force—when conventional formations are not available or capable. It is not about what SOF can and should do; the heart of the matter is what makes the strategic difference—expansion of choice and economy of force—that defines the future of SOF.

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LIST OF ACRONYMS AND ABBREVIATIONS

3C	Competition-Crisis-Conflict
A2AD	Anti-Access/Area Denial
AAP	Allied Administrative Publication (NATO)
AATC	Allied Arctic Training Center (NATO)
ACO	Allied Command Operations (NATO)
ACT	Allied Command Transformation (NATO)
AD	Air Defense
AI/ML	Artificial Intelligence and Machine Learning
AJP	Allied Joint Publication
ARF	Allied Response Force (NATO)
ASE	Arctic Security Environment
ASSI	Assassination
ASW	Anti-Submarine Warfare
AZRF	Arctic Zone of the Russian Federation
BMD	Ballistic Missile Defense
BRI	Belt and Road Initiative
BSE	Black Sea Security Environment
BSEC	Organization of the Black Sea Economic Cooperation
BSR	Black Sea Region
BUL	Bulgaria
C2	Command & Control
CAO	Civil Affairs Operations
CBRN	Chemical, Biological, Radiation, Nuclear
CD	Comprehensive Defense
CDSR	Comprehensive Defence, Shared Response
China-CEEC	Cooperation between China and Central and Eastern European Countries
CHOD	Chief of Defense
CHT	Countering Hybrid Threats
CIP	Common Intelligence Picture
CNA	Cyber Network Attack
CNE	Cyber Network Exploitation
COFCO	China's Oil and Food Cooperation
COIN	Counter Insurgency
COP	Common Operational Picture
COVID-19	Corona Virus Disease 2019

C-SAB	Counter Sabotage
C-SOF	Combatting Special Operations Forces
CT	Counter Terrorism
CWMD	Counter Weapons of Mass Destruction
DA	Direct Action
DCFTA	Deep and Comprehensive Free Trade Area
DDA	Deterrence and Defence of the Euro Atlantic Area (NATO)
DDoS	Distributed Denial of Service
DIME	Diplomacy, Information, Military, and Economic
DSO	Director of Special Operations (DSO)
EDT	Emerging and Disruptive Technology
EEZ	Exclusive Economic Zone
eFP	Enhanced Forward Presence
EFP	Early Forward Presence
EU	European Union
EW	Electronic Warfare
FHA	Foreign Humanitarian Assistance
FID	Foreign Internal Defense
FL	Faction Liaison
FOE	Future Operational Environment
FSE	Future Security Environment
GEO	Georgia
GIN	Greenland, Iceland, Norway
GIUK	Greenland, Iceland, United Kingdom
GP	Great Power
GPC	Great Power Competition
GRU	<i>Glavnoye Razvedyvatelnoye Upravlenie</i> (Russian Military Intelligence Service)
GWOT	Global War on Terrorism
HQ MNC-SE	Headquarters Multinational Corps South-East (NATO)
HRO	Hostage Release Operations
HUMINT	Human Intelligence
IFOR	Implementation Force (NATO)
IGO	International Governmental Organization
IO	Information Operation
IS	International System

ISAF	International Security Assistance Force
IW	Irregular Warfare
JFC	Joint Force Commander
JIMP	Joint, Interagency, Multinational, and Public
JP	Joint Publication
JPME	Joint Professional Military Education
KSSO	<i>Komandovanie Sil Spetsial'nalnykh Operatsii</i> (Russian SOCOM)
LNG	Liquified Natural Gas
MA	Military Assistance
MC	Military Committee (NATO)
MFN	Most Favored Nation
MISO	Military Information Support Operations
MOL	Moldova
MOU	Memorandum of Understanding
NAC	North Atlantic Council
NATO	North Atlantic Treaty Organization
NAVEUR-NAVAF	United States Naval Forces Europe – Naval Forces Africa
NCS	NATO Command Structure
NCSC	NATO Cyber Security Center
NFCC-BS	Naval Forces Command Center Black Sea
NFS	NATO Force Structure
NMD HQ	Northern Military District Headquarters (Russia)
NMS	NATO Military Strategy
NRC	NATO-Russia Council
NRF	NATO Response Force
NSCC	NATO SOF Coordination Center
NSHQ	NATO Special Operations Headquarters
NSOCC-A	NATO Special Operations Component Command Afghanistan
NSOS	NATO Special Operations School
NSR	Northern Sea Route
NSS	National Security Strategy
NSTI	NATO SOF Transformation Initiative
NWCC	NATO's Warfighting Capstone Concept
OCSE	Organization for Security and Cooperation in Europe
OGRF	Operational Group Russian Forces

OSO	Office of Special Operations
PfP	Partnership for Peace
PJC	Permanent Joint Council
PLA	People’s Liberation Army (China)
PLAN	People’s Liberation Army Navy
PMC	Private Military Company
POE	Preparation of the Environment
PRC	People’s Republic of China
PSYOPS	Psychological Warfare
ROU	Romania
RPG	Rocket Propelled Grenade or <i>Ruchnoy Protivotankovy Granatomyot</i>
SA	Situational Awareness
SAB	Sabotage
SACEUR	Supreme Allied Commander Europe (NATO)
SCADA	Supervisory Control and Data Acquisition
SCO	Shanghai Cooperation Organization
SEAL	United States Sea, Air, and Land Teams – Naval SOF
SFA	Security Force Assistance
SFOR	Stabilisation Force (NATO)
SHAPE	Supreme Headquarters Allied Powers Europe (NATO)
SIGINT	Signal Intelligence
SLOC	Sea Lines of Communications
SME	Subject Matter Expert
SO	Special Operations
SOCC	Special Operations Component Command
SOCOM	Special Operations Command
SOF	Special Operations Forces
SOFA	Status of Forces Agreement
SOFAD	Special Operations Forces Advisor
SOLTG	Special Operations Land Task Group
SOPLE	Special Operations Planning and Liaison Element
SR	Special Reconnaissance
SRH	Special Raid Harassment
SSOO	SHAPE Special Operations Office
STW	Special Technical Warfare

TANAP	Trans-Anatolian Natural Gas Pipeline
TAP	Trans-Adriatic Pipeline
TF	Task Force
tFP	Tailored Forward Presence
TG	Terrorist Groups
TRACECA	Transport Corridor Europe-Caucasus-Asia
TTP	Tactics, Techniques, and Procedures
UAV	Unmanned Aerial Vehicle
UKR	Ukraine
UN	United Nations
UNSC	United Nations Security Council
U.S.	United States
UW	Unconventional Warfare
WP	Warsaw Pact
WWII	World War II
XO	Executive Officer

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EXECUTIVE SUMMARY

NATO needs to discuss whether, why, and how Special Operations Forces (SOF) contribute to the “fight” in the competition-crisis-conflict (3C) continuum in a renewed Great Power Competition (GPC). NATO’s security strategy traditionally relies on a deterrence posture with predominantly conventional and nuclear capabilities to engage strategic adversaries. In the last two decades, the Alliance has been deeply engaged in peace support and counterterrorism operations, with SOF as the tool of choice. Today, the global strategic landscape has changed from a unipolar to a multipolar order with regional and great powers (GP). These developments and the new *NATO 2022 Strategic Concept* validate the necessity to research and assess the two-part question: What is the strategic utility of SOF for NATO in GPC, and how can this strategic utility be enhanced? We argue that the strategic utility of SOF lies in *expansion of choice*—SOF expand the strategic options available to political and military leaders—and *economy of force*—SOF achieve significant results with limited forces. These are the critical value propositions for SOF in GPC and remain valid in the future.

The research uses a qualitative methodology. At the core is a structured and systematic comparative analysis of two fictional scenarios in NATO’s strategic area of interest to assess the strategic utility of SOF therein. The two fictional scenarios are set in the Black Sea region and in the Arctic, both playing out approximately one decade in the future. Imagination enriches the scenarios with narrative vignettes that make the crisis situations more tangible. The Black Sea scenario is characterized by hybrid warfare while the Arctic scenario is a higher-intensity crisis. The Black Sea scenario revolves around a complex and volatile situation in Bulgaria and the unrecognized state of Transnistria. The Arctic scenario plays out in the High North and creates a conflict situation on Svalbard, which is Norwegian territory and has strategic significance for the Alliance. Both scenarios stay below or short of the Alliance’s Article 5 threshold.

Our comparative analysis suggests that SOF have strategic utility because they offer decisionmakers *expansion of choice* and *economy of force*. Table 1 highlights a selection of tasks that SOF could employ to leverage utility. The color-coding follows the likelihood

of SOF employment according to green: yes, high likelihood of tasking; yellow: medium likelihood of tasking; and red: low likelihood of tasking or probability of success. The matrix illustrates that several options for SOF are available in each vignette (green and partly yellow boxes), while with different characteristics.

Table 1. The Utility of SOF – Expectation of SOF Tasking in the Scenarios

Origin	Task	Black Sea – “Varna Incident”			Arctic – “Svalbard Crisis”		
		Yes	Maybe	No	Yes	Maybe	No
NATO	MA - Military Assistance	Green					Red
NATO US	SR - Special Reconnaissance	Green			Green		
NATO US	DA - Direct Action		Yellow		Green		
NATO US	CWMD - Countering Weapons of Mass Destruction		Yellow			Yellow	
NATO US	CT - Counterterrorism			Red		Yellow	
NATO US	HRO - Hostage Release Operation		Yellow		Green		
NATO US	COIN - Counterinsurgency			Red			Red
NATO	CHT - Countering Hybrid Threats	Green			Green		
US	UW - Unconventional Warfare	Green				Yellow	
US	SFA - Security Force Assistance		Yellow				Red
US	CAO - Civil Affairs Operations			Red		Yellow	
US	POE - Preparation of the Environment		Yellow		Green		
RUSSIA CHINA	SAB - Sabotage		Yellow		Green		
CHINA	SRH - Special Raid Harassment		Yellow			Yellow	
New	EFP - Early Forward Presence	Green			Green		
New	Support to Comprehensive Defense	Green					Red
New	SOF in Space/Cyber		Yellow			Yellow	

In the Black Sea scenario (“Varna Incident”), non-kinetic and supportive tasks like military assistance and early forward presence are dominant, while in the Arctic scenario (Svalbard Crisis”), active and kinetic activities like special reconnaissance, direct action, and hostage release operations are paramount. The further analysis suggests that these tasks provide measurable effects and support strategic goals (i.e., SOF adds *expansion of choice*) for strategic decision-makers. Furthermore, SOF offers in both scenarios significant strategic leverage with limited force (i.e., *economy of force*). In the Black Sea scenario, small SOF teams act as a “door opener” with a small footprint to build trusted networks with local military and administrative entities. In the Arctic scenario, conventional forces are not suitable for high-risk missions with a short response time and are not trained for extreme environmental conditions in combination with a high-threat exposure, whereas SOF offer this unique skillset.

The study suggests that SOF has strategic utility, albeit in changing manifestations in different phases of the competition-crisis-conflict (3C) continuum: the higher the intensity on the conflict scale, as long as it remains below an Article 5 activation and NATO conventional mobilization, the greater the need for SOF’s kinetic and high-risk capabilities. The assessment of the scenarios supports the generalization that SOF provides strategic value in situations below the threshold of armed conflict, particularly if they include gray zone and hybrid activities by great powers and proxy forces in cross- and multidomain environments. The analysis shows that SOF give strategic decision-makers options to anticipate and respond and create significant strategic effects with limited forces. They help answer strategic problems, especially in the early stage of conflict, by building networks, trusted relationships, and early presence. SOF’s characteristics, capabilities, tasks, and activities are crucial to sensing and solving critical situations with an overt, covert, and clandestine signature before, during, and after a crisis, when conventional forces are not capable, available, or the best strategic option. Strategic utility is not about what SOF can, could, and should do; the heart of the matter is what makes the strategic difference—*expansion of choice* and *economy of force*—that defines the future of SOF. Only when SOF actions have a strategic implication does the real value proposition of special operations (SO) emerge.

In the course of examining the strategic utility of SOF, both scenarios emphasize a dilemma within NATO that deserves noting. SOF throughout NATO will have utility in a conflict yet NATO has limited authority over them. NATO SOF has hardly any opportunity to act as a unified entity in a situation below the threshold of armed conflict and without an Article 5 activation. National SOF are usually the first responders to act in a crisis, unilaterally or with available and willing allies and partners based on other bilateral and multilateral agreements. Still, the NATO Special Operations Headquarters (NSHQ) plays a crucial role in both scenarios as the standardization, coordination, and synchronization hub for NATO-aligned SOF forces and capabilities.

In addition to assessing the strategic utility of SOF, this thesis demonstrates that fictional yet realistic scenarios can be an effective analytical method. Envisaging the future based on systematically developed scenarios offers useful insights to assess SOF's value proposition in GPC relevant to NATO. The thesis contributes with a scenario development tool that fuses facts with fiction and that helps NATO to strategically plan with and utilize SOF in competition, crises, and conflict engaging Russia and China.

Our research adds to the academic discussion and debate on NATO's role and its NATO SOF enterprise in GPC for the near future. The recommendations are:

- NSHQ and the Office of Special Operations (OSO) in SHAPE, as the standing NATO SOF elements, should be able to plug in and support national command structures in case of crisis since national SOF elements will have authority to act ahead of Article 5 activation.
- NSHQ and NATO should actively engage and participate in national, bilateral, and multilateral SOF exercises, planned, executed and hosted by individual nations, to better understand the collaboration of NATO and National SOF in a crisis situation.
- NSHQ should stimulate a broader and more creative debate on strategic deterrence by SOF far below the common threat of conventional and nuclear escalation. SOF can be an integral part of the deterrence discussion because it can alleviate the risk of strategic surprise, prevent a *fait accompli*, and serve for

alternative signaling. Possible synergy effects of SOF with other (civilian) instruments of power embedded in an integrated deterrence concept should be part of this debate.

- SOF planners should critically revise NATO and national SOF doctrines in regard to tasks and activities, and must be receptive and open to new tasks and best practices introduced by antagonists and understand how those leverage strategic utility by employing SOF. Examples of tasks that should be revised or added are special raid harassment, early forward presence, and the close cooperation and operationalization of fused capabilities within the SOF-cyber-space triad.
- NATO Special Operations School (NSOS) should incorporate and apply useful fiction and imagination for scenario development in courses, especially in strategic foresight and strategy development seminars. This fiction should follow a rigorous transparent process, use available academic sources, and be open to new ideas and trends to avoid any bias.
- NATO should utilize progressive working groups with experts from technological, political, military, and sociological fields to build additional scenarios for specific relevant security environments in the Euro-Atlantic area to implement a sense for forethought and foresight.
- Advanced Joint Professional Military Education (JPME) institutions like the Naval Postgraduate School, the NATO Defence College, War Colleges, and national Command & Staff schools can serve as excellent venues to further validate, adapt, and implement the thesis methodology and findings.

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I. INTRODUCTION

Russia continues its military activities unabated. ... Both state and non-state actors promote disinformation and propaganda. And the rise of China is fundamentally shifting the global balance of power. Heating up the race for economic and technological supremacy. Multiplying the threats to open societies and individual freedoms. And increasing the competition over our values and our way of life. NATO 2030 is about how we adapt to this new normal. ... So first, we need a strong military Alliance. To protect our democracies. And to continue to compete in a more competitive world. ... As we look to 2030, we must continue to invest in our armed forces and modern military capabilities. They have kept us safe for over 70 years, as they continue to do today. Security is the foundation for our prosperity. Now and in the future.

— Jens Stoltenberg, NATO Secretary General¹

In June 2022, during the North Atlantic Treaty Organization (NATO) Summit in Madrid, the *NATO 2022 Strategic Concept* was released. In February the same year, Russia had invaded Ukraine, and started the first major land war in Europe since 1945. NATO's new strategic concept explains the renewed strategic competition environment in which Russia is the most direct threat to the Allies' security and the stability in the Euro-Atlantic area, and China is singled out as a significant challenger to the Alliance and its members, utilizing "coercive policies," economic warfare, and "malicious hybrid and cyber operations."² One year earlier, at NATO's Summit in June 2021, NATO leaders already agreed that all 30 Allies will keep engaging China and Russia to defend the security interests of the Alliance, as the ambitions and assertive behavior of these countries present multi-layered challenges to the rules-based international order and the Alliance security environment.³ Even the U.S. 2022 National Security Strategy (NSS) reiterates that the

¹ Jens Stoltenberg, "Remarks by NATO Secretary General Jens Stoltenberg on Launching NATO 2030 - Strengthening the Alliance in an Increasingly Competitive World," June 8, 2020, http://www.nato.int/cps/en/natohq/opinions_176197.htm.

² NATO, *NATO 2022 Strategic Concept* (Madrid: NATO, 2022), 5, https://www.nato.int/nato_static_fl2014/assets/pdf/2022/6/pdf/290622-strategic-concept.pdf.

³ NATO, "Brussels Summit Communiqué Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Brussels 14 June 2021," June 14, 2021, https://www.nato.int/cps/en/natohq/news_185000.htm.

post-Cold War era is over and competition between the major powers, China, Russia, and the United States, shapes the near and distant future. Furthermore, the NSS underlines NATO's vital role in deterring further Russian aggression in Europe and addressing systemic challenges from China.⁴

NATO exists on the basis of mutual support, enshrined in Article 5 of the North Atlantic Treaty, which states that “an armed attack against one or more of them in Europe or North America shall be considered an attack against them all.”⁵ In other words, NATO needs to address current and future strategic concerns in a geopolitically sensitive security environment that has drastically altered over the last two decades. The global strategic landscape has changed from a unipolar to a multipolar order. At the core of NATO's strategic agenda are China's and Russia's technological advances, gray zone operations, hybrid threats, destabilizing effects on NATO states' political cohesion, and the global challenge of climate change.⁶

NATO's security strategy traditionally relies on a deterrence posture with predominantly conventional and nuclear capabilities, historically focused on Russia. Nevertheless, the Alliance has been deeply engaged in peace keeping and peace enforcement operations since the dissolution of the Soviet Union in the beginning of the 1990s, deviating from its core task of deterrence and defense. Especially after the 9/11 terrorist attacks against the United States and the following military interventions in the Middle East, Special Operations Forces (SOF) have been the tool of choice, conducting counterinsurgency (COIN) and counterterrorism (CT) operations in remote areas for more than two decades. SOF of NATO members, utilizing NATO's command and force structures, were heavily involved. Now, since most of these missions have ended or have been significantly cut back, NATO needs to discuss whether, why, and how SOF can

⁴ White House, *National Security Strategy of the United States of America* (Washington, DC: White House, 2022), 8,17, <https://www.whitehouse.gov/wp-content/uploads/2022/10/Biden-Harris-Administrations-National-Security-Strategy-10.2022.pdf>.

⁵ North Atlantic Treaty Organization, “The North Atlantic Treaty,” April 4, 1949, https://www.nato.int/cps/en/natohq/official_texts_17120.htm.

⁶ NATO, *NATO 2022 Strategic Concept*, 3–5.

contribute in new ways to the “fight” in the competition-crisis-conflict (3C) continuum of a renewed Great Power Competition (GPC).

Future military interventions will encounter a dramatically evolving global security environment.⁷ In addition, new disruptive technologies, the cyber and space domains, and climate and environmental changes are examples that mark a paradigm shift in the future security environments. Military operations to “promote the international legal order” are diminishing, while GPC will intensify in the coming decade.⁸ For multiple reasons, great power competitors operate below the threshold of armed attack and blur the lines between war and peace. As Rob De Wijk asserts in the *Future of NLD SOF: Towards an All-Domain Force*, “to remain below-the-threshold of an armed attack, states are employing a mixture of [overt], covert, clandestine, ... and non-military activities to attain their objectives.”⁹ Two examples are the growing tensions with an assertive China in the South and East China Sea and a revisionist Russia in its Near Abroad since 2014.

A. RESEARCH QUESTION

The strategic use of SOF has significantly impacted key tenets of strategic postures and warfighting strategies (e.g., deterrence, escalation dominance). At the same time, war, strategies, tendencies, and global military trends are constantly evolving. Looking into the future, the strategic debate is not where and how to use SOF, but rather, about what their strategic utility will be going forward. These developments and the new *NATO 2022 Strategic Concept* validate the necessity to research and assess the two-part question: **What is the strategic utility of SOF for NATO in Great Power Competition, and how can this strategic utility be enhanced?**

⁷ Rob De Wijk et al., *The Future of NLD SOF: Towards an All-Domain Force* (The Hague, The Netherlands: Hague Centre of Strategic Studies, 2021), 6, <https://hcss.nl/report/the-future-of-nld-sof-towards-an-all-domain-force/>.

⁸ Rob De Wijk et al., *The Future of NLD SOF: Towards an All-Domain Force*, 6–7.

⁹ De Wijk et al., 6.

“Despite their recent prominence, there remains a limited grasp” of SOF’s characteristics, capabilities, and doctrinal aspects.¹⁰ A thorough exploration and explanation of SOF’s characteristics, capabilities, and unique competencies is needed for military (non-)SOF commanders, policymakers, and strategists to understand and employ SOF’s utility to maximize the odds of success. The notion that SOF conduct tactical operations and activities that conventional or regular forces cannot is in itself not enough to claim strategic utility, only by virtue of uniqueness. It follows that when SOF actions have a strategic implication, the real value proposition of special operations (SO) emerges.¹¹

Concerning the aforementioned strategic value proposition of SOF, it is essential to understand that the realized effects by SOF activities will manifest themselves often in a less attributable way outside of the military scope of national power. As such, the utility of SOF can take a different form in the political-strategic realm than in the military environment. Furthermore, SOF and their SO, as such, are not conducted in a vacuum: dynamics in the operational, political, societal, cultural, and international spheres also are ubiquitous and profoundly intertwined with special operations. Strategic utility presupposes relevance, adaptation, flexibility, and a high probability of success for political and military decision-makers.

Finally, this thesis shows that analyzing and assessing the future strategic utility of SOF is a difficult undertaking and always flawed to a certain extent. The strategic utility can only be determined with hindsight based on a wide range of historical cases; only then can strategic utility be determined. Furthermore, as Colin Gray adds “strategic utility of special operations cannot be assessed in a general way; it needs the context in which the strategic utility is grounded.”¹² Hence, envisaging and anticipating the future based on a

¹⁰ Funs Titulaer, “Special Operations (forces) Explained,” *Militaire Spectator* 190, no. 2 (February 2022): 84, <https://www.militairespectator.nl/thema/geschiedenis-operaties/artikel/special-operations-forces-explained>.

¹¹ Richard W Rubright, *A Unified Theory for Special Operations*, JSOU Report 17–1 (Tampa, FL: Joint Special Operations University, 2017), 37–38.

¹² Colin S. Gray, *Explorations in Strategy*, Contributions in Military Studies No. 164 (Westport, CT: Greenwood Press, 1996), 163.

scientifically developed scenario is the most effective way to analyze and assess SOF's strategic utility in GPC relevant to NATO and NATO member states.

B. PURPOSE

The purpose of this thesis is threefold. First, it aims to help NATO, its Office of Special Operations (OSO), and the NATO Special Operations Headquarters (NSHQ) to better understand the strategic utility of SOF in a GPC security environment in the (near) future. Second, it provides a science-based scenario development tool that integrates imagination, comprehensive analysis, conclusions, and recommendations based on two relevant scenarios that can help NATO strategically utilize SOF in the 3C continuum engaging Russia and China. Third, the thesis contributes to the academic discussion and debate on NATO's role and its NATO SOF enterprise in GPC, focusing on Russia and China.

C. RESEARCH METHODOLOGY

This study uses a qualitative methodology to answer the two-part research question: what is the strategic utility of SOF for NATO in Great Power Competition? And, whether, why, and how can this strategic utility be enhanced? Two fictional, yet science-based scenarios are the focus of this thesis, both set in the near future approximately one decade ahead. These scenarios are developed, analyzed, and compared to assess the future strategic utility of SOF. A thorough literature review and contemporary analysis provide the background and theoretical basis and explore (1) Special Operations theories, (2) the background and characteristics of the Great Power Competition, (3) the role of NATO in the Great Power Competition environment, (4) what constitutes NATO SOF and SOF for NATO, and (5) the characteristics and tenets of the future security environment.

The study's core is a comparative analysis of the two scenarios, each focusing on a relevant geographical area for NATO's future strategic planning: the Black Sea and the Arctic regions. Both scenarios are built using a three-step development process. First, this methodology determines the problem set, type of conflict, and political/military strategic environment. Second, a science-based discussion of the geographical future security environment (FSE) via the so-called escalation matrix follows, looking at structural and

proximate escalating and de-escalating variables to derive the “scenario skeleton.” In the third step, imagination enriches these evidence-based plotlines with “scenario flesh and blood” to create plausible, tangible, and useful vignettes. Finally, an analysis of these vignettes follows, applying a two-step framework which 1) examines the pure utility of SOF in terms of doctrinal SOF tasks and activities, and 2) subsequently evaluates whether this utility also creates strategic effects. The conclusive comparative analysis then reveals similarities and differences between the scenarios to answer the research question.

These scenarios are in line with the *NATO 2022 Strategic Concept*. The Black Sea and Arctic regions are directly at NATO’s borders, and NATO clearly states that “the Black Sea region is of strategic importance for the Alliance.”¹³ Furthermore, the Alliance highlights the relevance of climate change for global security and points to the Arctic. The latest strategic concept adds regarding Russia that “it aims to destabilize countries to our East and South” and that “in the High North, its capability to disrupt Allied reinforcement and freedom of navigation across the North Atlantic is a strategic challenge to the Alliance.”¹⁴ Both areas are also of high interest to the other Great Powers (GP), and regional and geopolitical crises erupt or are likely to erupt in the following years with accelerating climate change in both security environments. Nonetheless, the scenarios are not intended to be an accurate prediction of the FSE a decade from now but rather an approximation of various thinkable security challenges and as a means to analyze whether, why, and how (this includes when and where) SOF has a strategic utility for NATO.

Interviews with key subject matter experts (SME) have a central role in the research, following a two-step approach. In the first step, SMEs from NATO, NSHQ, and recognized China and Russia experts were interviewed to refine and focus the scenarios based on the literature research and determine a coherent criteria framework for determining the strategic utility of SOF. In the second step, SMEs, especially operational experts in the NATO and NATO SOF environment, were interviewed about the specific

¹³ NATO, *NATO 2022 Strategic Concept*, 11.

¹⁴ NATO, 4.

scenarios and vignettes to identify capabilities, needed refinements, and voids in the current NATO SOF posture and SOF's utility on a strategic level.

D. SCOPE

This thesis is shaped by three main parameters regarding actors, regional areas, and type of conflicts to explore. First, the analysis deliberately takes GPC as the research background to concentrate on the United States (NATO's leading nation), Russia (NATO's main adversary), and China (NATO's challenger), as main actors, as well as the Alliance itself. Second, this research specifically zooms in on scenarios in the strategic area of interest of NATO to assess the strategic utility of SOF. The Black Sea and Arctic regions, also called future security environments, are of high strategic importance at NATO's periphery. Third, the analysis focuses on situations below the threshold of armed conflict; that is, not "full-scale war." In understanding future operational environments, the research anticipates armed conflict but does not extensively elaborate on this end of the conflict continuum.

E. LIMITATIONS

This study is accompanied by a number of limitations that should be identified here. First, the research is exclusively based on theoretical perspectives from scholarly work, SME interviews, formal governmental publications, and concepts. This lens might not include all factors like context, history, and practical examples in the scenarios. Second, no classified documents are used, and background information about different actors or NATO are taken from public sources only. Current strategic planning of NATO is therefore not taken into account. Third, the authors have no expertise in Russian and Chinese culture, language, and writings. Therefore, this thesis predominantly makes use of secondary sources. Fourth, due to the extensive availability of sources, it is impossible to include all existing differentiated perspectives. This thesis utilizes a balanced selection of sources from NATO, Russia, China, the United States, and various areas of academia. Fifth, this thesis makes use of a limited number of different scenarios. However, the scenarios reflect critical NATO FSEs, are selected with military and political science SMEs' advice, and follow a science-based approach. Last, the SME interviews conducted are clearly Western

dominated (U.S. and European experts), while no Chinese and Russian nationals were available to contribute to this thesis.

F. STRUCTURE

This thesis consists of five chapters. After the introduction and evaluation of the research question in Chapter I, Chapter II thoroughly explores and analyzes the concept of strategic utility of SOF. Subsequently, it examines the GPC environment in which the strategic utility of SOF resides, by exploring the definition of GPC, the conflict continuum, Russia and China as the antagonistic GPs, and SOF in GPC. Finally, it provides an understanding of and insight into NATO's strategic considerations, future planning, and the Alliance's contemporary discussion about SOF's future role.

Chapter III explains the thesis's research design to determine the strategic utility of SOF by describing the methodology of how to build valuable scenarios, use imagination to write realistic vignettes, and analyze the strategic utility of SOF when examining these vignettes. It explains a three-step approach for scenario building and vignette writing, introducing the Three-Axes Model for case selection, the escalation matrix to understand the FSE, and imagination as critical trait for thinking about the future. Furthermore, it gives two analytical tools to carve out the strategic utility of SOF for NATO in those scenarios: 1) the "SOF tasks and activities" tool and 2) the "out of the box" tool.

Chapter IV presents the characteristics and key trends of the FSE, followed by two scenarios in the Black Sea and the Arctic regions. Each scenario is built utilizing the three-step development process and starts with a scenario overview discussing the problem set, the political and military environment, and the intention and ambitions of Russia and China. Then the escalation matrix builds the relevant structural and proximate escalatory variables. The following vignettes then provide a glance into the future with a fictional story. Finally, the analytical tools explore the value proposition of SOF in these vignettes to create strategic effects. The last part of the chapter contrasts the two scenarios in a comparative analysis to highlight similarities and varieties in the strategic utility of SOF.

The concluding chapter, Chapter V, presents a research summary, offers a synopsis of results, and makes recommendations on the strategic utility of SOF for NATO in GPC.

II. RESEARCH OBJECT, BACKGROUND, AND LENS

Special operations forces are a national grand-strategic asset; they are a tool of statecraft that can be employed quite surgically in support of diplomacy, of foreign assistance (of several kinds), as a vital adjunct to regular military forces, or an independent weapon.

— Colin S. Gray, *Strategist*¹⁵

This chapter explains the center of the thesis, the strategic utility of SOF, and embeds it into the GPC environment. Furthermore, it introduces NATO as the lens to focus the research. The maturation and evolution of SOF, with its roots at the beginning of World War II to a force of choice during two decades of the Global War on Terrorism (GWOT), leading to the ongoing discussion about their future role is always closely tied to the term of SOF's strategic utility. This thesis follows this practice and puts the future strategic utility of SOF in the heart of the discussion. Furthermore, as the security environment has shifted from a unipolar world order centered around the United States to that of a GPC, defined by the competitive activities of the central actors the United States, Russia, and China, there are evolving implications for the global and the Euro-Atlantic political and military landscape. This shift also impacts the utility of SOF and its strategic relevance. Hence, a broad look into GPC forms the background for the discussion about SOF's strategic utility. Finally, any discussion about SOF's future strategic relevance needs a lucid lens. This lens is the NATO perspective, reflecting on the single most important defense alliance in the Western hemisphere, and zooming into its current and future strategic planning.

Section A of this chapter conducts a thorough exploration and analysis of the concept of the strategic utility of SOF. The discussion looks briefly at SOF history; different SOF and SO definitions; the most seminal and relevant theories related to the strategic utility; SOF tasks, activities, and characteristics; and concludes with an examination of how to assess strategic utility. Subsequently, Section B examines the notion of GPC by exploring its theoretical concept, the conflict continuum, Russia and China as the antagonistic GPs, and

¹⁵ Colin S. Gray, *Explorations in Strategy*, Contributions in Military Studies No. 164 (Westport, CT: Greenwood Press, 1996), 149.

SOF's role in this strategic constellation. Finally, Section C provides insights into NATO's strategic considerations, future planning, and the Alliance's contemporary discussion about SOF's future function.

A. THE STRATEGIC UTILITY OF SOF

SOF creates strategic, asymmetric advantages for the nation across a spectrum of conflict. Their enduring value resides in the ability to adapt and to combat asymmetric threats, including in the gray zone, employ precision and surprise to achieve strategy effects in conflict or crisis, build access, placement, and influence through sustained partnership with foreign forces, and support allies and partners, resilience, and resistance efforts, all providing discreet options when conventional action is impractical or not desired.

— General Richard D. Clarke, former Commander USSOCOM¹⁶

The following discussion explores and analyzes the concept, theories, and practical application of the strategic utility of SOF. The first subsection briefly describes the history of SO and SOF to provide an understanding of how SOF's utility in different conflicts evolved over time. The second subsection outlines SO and SOF definitions by analyzing academic literature and military doctrine. The third subsection discusses seminal theories on the strategic utility of SOF and how military theorists describe SOF's utility from various angles. Aggregated from the literature reviewed, the fourth subsection summarizes central characteristics, tasks, and activities of SOF. The last subsection then explores how to assess the strategic utility of SOF and closes with offering two analytical tools to test and validate the strategic utility of SOF in a GPC environment through a NATO lens. These tools are thoroughly described in Chapter III, which explains the research methodology, and applied in Chapter IV through scenario analysis.

1. History of Special Operations and Special Operations Forces

Historically, SOF have always filled voids in times of crises and uncertainty. Due to their innovative, adaptable, flexible, and pragmatic response to operational dilemmas, they

¹⁶ "Hearing to Receive Testimony on United States Special Operations Command's Efforts to Sustain the Readiness of Special Operations Forces and Transform the Force for Future Security Challenges" (Washington, DC: Alderson Court Reporting, April 27, 2022), 3.

have been relied on numerous times. They have solved problems and challenges posed by new and unexpected situations or bought time for conventional forces to adapt, reorganize, and respond. However, the history of SOF tells us that, on completion of a crisis, SOF have mostly been disbanded or marginalized within national military institutions.¹⁷

The contemporary prevailing understanding of SO and SOF is grounded in World War II. This does not mean, though, that SO or SOF did not exist earlier in history.¹⁸ Warfare and its intricate use of stratagems, special units, unconventional approaches, and special tactics have been used for ages.¹⁹ Yet, contemporary Western SOF mainly trace back to experiences during or after World War II. Eliot E. Cohen illustrates their variety and impact: “Commandos raided the coasts of occupied France, Russian partisans attacked German supply lines and gathered intelligence, Office of Strategic Service’s Jedburgh teams coordinated the French resistance, Britain’s Special Air Service plausibly claimed to have destroyed more German aircraft on the ground in North Africa than the Royal Air Force shot down in the air.”²⁰ During this period, SOF was generally labeled as a “special unit,” “special men,” and “special mission.”²¹ Political and military leaders relied on SOF to counter new threats or circumstances until conventional forces were in place.²² Nevertheless, nearly all of these “special units” were disbanded after the war.

With the emergence of the Cold War and, more specifically, in the lead-up to the Korean War (1950–1953), thinking about SOF recurred. As observed by President John F. Kennedy in a speech at West Point in 1962, and recounted by Christopher Marsh, James D.

¹⁷ Bernd Horn, “The Evolution of SOF and the Rise of SOF Power,” in *Special Operations Forces in the 21st Century: Perspectives from the Social Sciences*, ed. Jessica Glicken Turnley, Kobi Mikha’el, and Eyal Ben-Ari (New York: Routledge, 2018), 15–16.

¹⁸ Jessica Glicken Turnley, Kobi Mikha’el, and Eyal Ben-Ari, *Special Operations Forces in the 21st Century*, Cass Military Studies (New York: Routledge, 2018), 1–96.

¹⁹ Yuval N. Harari, *Special Operations in the Age of Chivalry, 1100–1550, Warfare in History* (Woodbridge, UK ; Rochester, NY, USA: Boydell Press, 2007); John Arquilla, ed., *From Troy to Entebbe: Special Operations in Ancient and Modern Times* (New York, NY: University Press of America, 1996).

²⁰ Eliot A. Cohen, *The Big Stick: The Limits of Soft Power and the Necessity of Military Force* (New York: Basic Books, 2016), 75.

²¹ Bernd Horn, “The Strategic Utility of Special Operations Forces,” *Canadian Military Journal* 14, no. 4 (August 2014): 66, <http://www.journal.forces.gc.ca/vol14/no4/PDF/CMJ144Ep66.pdf>.

²² Turnley, Mikha’el, and Ben-Ari, *Special Operations Forces in the 21st Century*, 28–29.

Kiras, and Patricia Blocksome in *Special Operations: Out of the Shadows*, “the world was becoming characterized by a new form of warfare, new in its intensity, ancient in its origins—war by guerrillas, insurgents, and assassins.”²³ This type of special warfare would require a new kind of capabilities, tactics, units, and mindset.²⁴ This pathway inevitably led to the creation of the U.S. Army Special Forces’ Green Berets in 1952 and, subsequently, the U.S. Navy Sea, Air, and Land (SEAL) teams and the U.S. Air Force’s 1st Special Operations Wing in 1962. Like the United States, multiple Western countries created military and police SOF, especially to counter a wave of religious and political terrorism throughout Europe and the Middle East in the 1970s and 1980s.

Initially, SOF were mostly tailored to counterterrorism, hostage rescue operations, and integration with police-type special units. Still, these were niche capabilities within the wider armed forces apparatus, and Western SOF were not deployed regularly during the 1980s and 1990s. The terrorist attacks of 9/11 on the World Trade Center towers in New York and the Pentagon in Washington, DC, turned the employment and utility of SOF upside down.²⁵ SOF suddenly was the go-to capability and the cost-efficient, highly adaptable, and high readiness response to this urgent crisis. The successful unconventional intervention of U.S. SOF in Afghanistan, toppling the Taliban regime within a couple of weeks, led to two decades of irregular warfare campaigns with the employment of most of the U.S. and Western SOF.²⁶ As a result, SOF’s organization, structure, capabilities, and mission profiles during the post-9/11 era departed from their World War II roots.²⁷ Most SOF units supporting the GWOT were consequently tailored to kinetic Direct Action (DA), CT, and COIN operations.

²³ Christopher Marsh, James D. Kiras, and Patricia J. Blocksome, *Special Operations: Out of the Shadows* (Boulder, CO: Lynne Rienner Publishers, Inc, 2020), 1.

²⁴ Marsh, Kiras, and Blocksome, 1.

²⁵ Titulaer, “Special Operations (forces) Explained,” 87–89.

²⁶ Joseph L. Votel et al., “Unconventional Warfare in the Gray Zone,” *Joint Forces Quarterly* 80, no. 1 (2016): 102.

²⁷ Jack Watling, *Sharpening the Dagger: Optimising Special Forces for Future Conflict* (London, UK: Royal United Services Institute, 2021), 1–4, <https://www.rusi.org/events/members-events/report-launch-sharpening-dagger-optimising-special-forces-future-conflict>.

The employment and commitment of Western SOF to the GWOT also forged cooperation and assimilation between the units, organizations, and institutions. In these years, SOF operating within a NATO force structure was molded. Consequently, the NATO SOF Coordination Center (NSCC) was created in 2006. In 2010, the successful NSCC construct was enhanced to form the NATO Special Operations Headquarters (NSHQ), with all NATO members and several NATO partner nations participating.

Over the last decades, there has been a vast proliferation of SOF across the globe. Besides the majority of NATO countries, many nations, including Russia and China, have developed similar capabilities to leverage their strategically advantageous positions in all phases of the conflict continuum.²⁸ Now, as China and Russia continue to threaten Western and U.S. interests globally, in parallel, the GWOT has wound down. The dramatic U.S. withdrawal from Afghanistan in December 2021 serves as a prominent sign of a shift in the global security environment from a focus on COIN operations back to peer competitor conflicts. NATO and its Western SOF institutions have started assessing this shift to GPC and how they can contribute strategic utility to the fight.²⁹

2. Defining Special Operations and Special Operations Forces

Historically, a wide range of terms have been used to capture the essence of what constitutes *special operations*, as well as what sets SOF apart from conventional forces and makes them different. There are many definitions of SO and SOF in numerous doctrinal publications and scholarly literature. In order to analyze the strategic utility of SOF, a proper notion of what does and does not constitute SOF is self-evident.

In his seminal book *Explorations in Strategy*, Colin Gray discusses the nature of SOF and SO. He explains that: “The heart of the matter is that special operations are operations that regular forces cannot perform, and special operations forces are selected, equipped, and trained to do what regular forces cannot do ... special operations lie beyond the bounds of

²⁸ Ruslan Pukhov and Christopher Marsh, *Elite Warriors: Special Operations Forces from around the World*, 1st ed. (Minneapolis, MN: East View Press, 2017), VII–X.

²⁹ Marsh, Kiras, and Blocksome, *Special Operations*, 183–87.

routine tasks in war.”³⁰ However, SOF are not by nature *special*. Their capabilities are a “means to an end and unique to SOF only in their combination and specific application in certain strategically significant circumstances.”³¹ Moreover, SOF distinguish themselves from the notions of elite or specialized forces, with elite units excelling in their performance related to comparable forces, and specialized forces being tailored, trained, and equipped for a specific capability or task.³² Hence, SOF provide military and political decision-makers a broad range of flexible, low-cost, and effective capabilities outside of the conventional context.³³ SOF have the ability to deliver timely and deliberate options in all domains, regardless of the location, for desirable outcomes in high-risk environments with a reasonable probability of success.³⁴

Maurice Tugwell and David Chartres offered in 1984 an instrumental definition of special operations as:

Small-scale, clandestine, covert or overt operations of an unorthodox and frequently high-risk nature, undertaken to achieve significant political or military objectives in support of the foreign policy. Special operations are characterized by either simplicity or complexity, by subtlety and imagination, by the discriminate use of violence, and by oversight at the highest level. Military and non-military resources, including intelligence assets, may be used in concert.³⁵

Despite this holistic approach, Tugwell and Chartres’s definition underlines the key elements of political significance in the employment of SOF and SOF’s broad—in other words, unconventional—approach in mission execution.

³⁰ Gray, *Explorations in Strategy*, 1996, 149.

³¹ De Wijk et al., *The Future of NLD SOF*, 13.

³² Thomas R. Searle, *Outside the Box: A New General Theory of Special Operations*, JSOU Report 17–4 (Tampa, FL: Joint Special Operations University Press, 2017), 11–16; Robert G. Spulak, *A Theory of Special Operations: The Origin, Qualities, and Use of SOF*, Report 07–7 (Tampa, FL: Joint Special Operations University, 2007), 1–2.

³³ Horn, “The Strategic Utility of Special Operations Forces,” 67.

³⁴ Gray, *Explorations in Strategy*, 1996, 144–49. (Gray gives six key features for defining Special Operations as: 1. Small scale, 2. Clandestine, covert, or overt, 3. Unorthodox, 4. High Risk, 5. Significant political or military objectives, 6. Foreign Policy.)

³⁵ Maurice Tugwell and David Charters, “Special Operations and the Threats to United States Interests in the 1980s,” in *Special Operations in U.S. Strategy*, ed. Frank R. Barnett, B. Hugh Tovar, and Richard H. Shultz, vol. 1 (Washington, DC: National Defense University Press, 1984), 35.

Another influential definition is found in the U.S. Joint Publication 3-05 Special Operations (JP 3-05):

Special operations require unique modes of employment, tactics, techniques, procedures, and equipment. They are often conducted in hostile, denied, or politically and/or diplomatically sensitive environments, and are characterized by one or more of the following: time-sensitivity, clandestine or covert nature, low visibility, work with or through indigenous forces, greater requirements for regional orientation and cultural expertise, and a higher degree of risk. Special operations provide joint force commanders (JFCs) and chiefs of mission with discrete, precise, and scalable options that can be synchronized with activities of other interagency partners to achieve United States Government (USG) objectives.³⁶

The U.S. JP 3-05 definition highlights the features of SO as unique and stresses the sensitive environments they are conducted in, the higher degree of risk for SOF, and the strategic leadership pointing to the outcomes, and it stresses the interoperability with interagency partners.

For NATO, the Allied Joint Publication for Special Operations (AJP 3.5) is the foundational doctrine for SO, SOF, and their employment within the Alliance. Special Operations (SO) is the central term used by NATO to describe SOF activities and their created effects, which are predominantly military and political-strategic in nature.³⁷

Special operations are military activities conducted by specially designated, organized, trained, and equipped forces using distinct techniques and modes of employment. These activities may be conducted across the full range of military operations, independently or with conventional forces. Politico-military considerations may require clandestine operations and the acceptance of a degree of political or military risk not associated with operations by conventional forces. Special operations create strategic or operational level effects or are executed where significant political risk exists.³⁸

Furthermore, the AJP 3.5 adds to the definition of SOF: “NATO SOF are strategic assets to be employed to help achieve strategic and specified operational level objectives. SOF

³⁶ Joint Chiefs of Staff, *Joint Publication 3-05 Special Operations*, JP 3-05 (Washington, DC: Joint Chief of Staff, 2014), IX.

³⁷ NATO, *Allied Joint Doctrine for Special Operations*, B Version 1, AJP 3.5 (Norfolk, VA: NATO Standardization Office (NSO), 2019), 1–2.

³⁸ NATO, *Allied Joint Doctrine for the Conduct of Operations*, C Version 1, AJP 3 (Norfolk, VA: NATO Standardization Office (NSO), 2019), 1.

are commanded through a special operations component command (SOCC) which exists alongside other service or functional component commands with a joint staff to plan and direct special operations.” The NATO definition stresses the relevance of the political context for SO, its SOF, and their strategic level effects.

For Russia, SO have a long tradition. Nonetheless, it took until 2013 for General Valery Gerasimov, Chief of the Russian General Staff, to announce the creation of Russia’s own Special Operations Command as a unified SOF command, and the establishment of corresponding SOF units for the highest strategic tasks.³⁹ Russia emulated the U.S. model for special operations despite its long history with Spetsnaz and elite airborne units within separate services and branches. The *Komandovanie Sil Spetsial’nalnykh Operatsii* (KSSO), structured as Russia’s SOCOM after 2013, defined special operations as:

The special operation of troops (forces) is a complex of special actions of troops (forces), coordinated by objectives and tasks, time and place of execution, conducted according to a single concept and plan in order to achieve certain goals. Special actions of troops are activities carried out by specially designated, organized, trained, and equipped forces, which apply methods and ways of fighting not typical for conventional forces (special reconnaissance, sabotage, counter-terrorist, counter-sabotage, counter intelligence, guerrilla, counter-guerrilla, assassination and other activities).⁴⁰

Unfortunately, there is no publicly available doctrine that describes the Russian employment of its SOF in more detail.⁴¹ Nevertheless, it is possible to get some insights on the employment of Russian SOF by analyzing their definition of SO and SOF. The most significant distinction between the NATO/U.S. and Russian definitions is the latter’s inclusion of assassination, sabotage, and counter-sabotage operations, whereas most other key elements are similar. Likewise, Russia’s understanding of guerrilla warfare matches the U.S. concept of unconventional warfare (UW), but it is distinct from that of NATO, which has not yet recognized UW or guerrilla warfare in its doctrine.

³⁹ Christopher Marsh, *Development in Russian Special Operations: Russia’s Spetsnaz, SOF and Special Operations Command* (Ottawa, Canada: Cansofcom Education & Research Centre, 2017), 1–2.

⁴⁰ Marsh, 1–2.

⁴¹ Tor Bukkvoll, “Military Innovation Under Authoritarian Government – the Case of Russian Special Operations Forces,” *Journal of Strategic Studies* 38, no. 5 (July 29, 2015): 605–14, <https://doi.org/10.1080/01402390.2015.1056342>.

China's People's Liberation Army (PLA) has developed its own special operations capabilities over the last decade. The 2013 PLA strategic doctrine *Science of Campaigns*, published by the Chinese National Defense University, describes special operations as:

Campaign special operations refers to the irregular operational activities implemented by specially formed, trained and equipped crack force units (element) using special warfare in order to achieve specific campaign and strategic goals. Its goals are mainly to raid the enemy's vital area targets, paralyze the enemy's operational systems, reduce the enemy's operational capability, and interfere, delay and disrupt the enemy's operational activities in order to create favorable conditions for the main force force-units.⁴²

PLA SOF are tailored for special reconnaissance (SR), DA, raids, sabotage, special harassments, and special technical warfare such as computer network and cyber-attacks.⁴³ A noteworthy shortcoming of PLA's SOF is that they are lacking long-distance airlift, specialized close air support, long-range sustainment capabilities, and a unified Special Operations Command (SOCOM).⁴⁴ Dennis Blasko argues in a *War on the Rocks* blog that "despite its early history as a guerilla organization, the PLA does not include irregular and unconventional warfare among the types of campaigns the force may be assigned. Special operations are an 'important campaign activity' to be integrated" into cross-domain and joint operations. SOF should be merged with "other specialized military capabilities, such as electronic warfare, aviation, missiles and missile defense, and information warfare," as reported by John Chen and Joel Wuthnow.⁴⁵

The U.S., NATO, Russian, Chinese, and the Tugwell and Chartres doctrinal definitions have four common denominators. The first is the notion that SO are conducted by specially designated, selected, organized, and trained forces. Second, all definitions have the

⁴² Zhang Yuliang, Yu Shusheng, and Zhou Xiaopeng, eds., *In Their Own Words: Foreign Military Thought - The Science of Campaigns*, China Aerospace Studies Institute, Air University (2020) (Beijing: National Defense University Press, 2006), 217–18.

⁴³ Yuliang, Shusheng, and Xiaopeng, 220–21.

⁴⁴ Dennis J. Blasko, "Chinese Special Operations Forces: Not Like 'Back at Bragg,'" *War on the Rocks*, January 1, 2015, <https://warontherocks.com/2015/01/chinese-special-operations-forces-not-like-back-at-bragg/>.

⁴⁵ John Chen and Joel Wuthnow, "China Maritime Report No. 18: Chinese Special Operations in a Large-Scale Island Landing," U.S. Naval War College, *CMSI China Maritime Reports*, 2022, 2; Blasko, "Chinese Special Operations Forces."

same modes of employment—overt, covert, and clandestine. Third is the argument that SO are mostly characterized by political (or diplomatic) and military risk. Lastly, special operations are employed for operational and strategic effects and objectives.

This thesis adopts the NATO SOF definition, with NATO serving as the lens for researching and analyzing the strategic utility of SOF in the GPC security environment. Therefore, for the remainder of the thesis, the NATO definition is the authoritative explanation for SO and SOF.⁴⁶ Furthermore, the NATO definition is based on a consensus of all member states. Still, the thesis acknowledges the divergent insights and notions from the other doctrinal views to assess SOF's roles and capabilities in the analysis tools applied in Chapter IV.

3. Theory of Special Operations

A theory of special operations should describe the basic principles, concepts, characteristics, and general frameworks for using SOF, explain why special operations are adopted, and envision what these operations should achieve. The SOF community was and remains engaged in discussions about whether a theory of SOF and SO is necessary.⁴⁷ History shows that nations have conducted SO throughout almost all chronicled conflicts, and therefore in many cases developed, trained, and used SOF.⁴⁸ Characteristics, tenets, principles, frameworks, models, and strategies for SO and SOF were learned, formulated, and exercised following their experiences and a learning-by-doing approach. Therefore, as Charles Cleveland argues, “SOF and SO theory was operationalized by key decision-makers understanding and advocating for the strategic utility of SOF.”⁴⁹

⁴⁶ For a comprehensive comparison of special operations definition for NATO, EU, and UN, see: Kevin D. Stringer, “The Special Operations Doctrine of International Organizations: An Introductory Analysis to United Nations (UN), North Atlantic Treaty Organization (NATO), and European Union (EU) Approaches,” *Special Operations Journal* 7, no. 1 (January 2, 2021): 87–93, <https://doi.org/10.1080/23296151.2021.1907898>.

⁴⁷ James D. Kiras, “The Dangers of Theory,” in *Special Operations: Out of the Shadows*, ed. Christopher Marsh, James D. Kiras, and Patricia J. Blocksome (Boulder, CO: Lynne Rienner Publishers, Inc, 2019), 21–23.

⁴⁸ Arquilla, *From Troy to Entebbe*.

⁴⁹ Charles Cleveland et al., *Special Operations Theory* (Tampa, FL: Joint Special Operations University, 2017), 55–56.

One of most prominent theories of SOF is the theory of *relative superiority*, focusing explicitly on direct action—a high kinetic profile. This theory developed by William McRaven, published in his book *Spec Ops: Case Studies in Special Operations Warfare*, argues that a numerically inferior SOF unit can achieve disproportionate results by leveraging “relative superiority” at a particular place and time by speed, surprise, and purpose.⁵⁰ He developed six crucial principles for SOF to generate a relative superiority to succeed: simplicity, security, speed, surprise, purpose, and repetition. McRaven’s theory creates a functional framework for SOF to put into practice. However, the theory only focuses on the kinetic side of SO and is far less helpful for other special operations, such as military assistance (MA) and special reconnaissance (SR). For McRaven, the strategic utility of SO manifests itself in creating strategic effects, no matter if tactically successful or not, by a significantly smaller specially selected and trained attacking force.

Robert Spulak’s *A Theory of Special Operations* asserts that SO are activities that achieve a strategic effect when “conventional forces would create unacceptable risks due to Clausewitzian friction.”⁵¹ He argues: “Overcoming these risks requires [special operations] that directly address the ultimate source of friction through qualities that result from the distribution of the attributes of SOF personnel.”⁵² Spulak lists three characteristics of SOF: 1) “SOF are *elite warriors* who can exceed the physical and cognitive limits typical of conventional forces”; 2) “SOF are *flexible*, which enables SOF to deal with uncertainties and differences between perception and reality than conventional forces”; and 3) SOF are “*creative* which enables them to exploit the unpredictability and nonlinearity of combat and also create more friction for the enemy.”⁵³ Spulak summarizes the operational characteristics of SOF to perform their strategic utility as the following: 1) relative superiority, 2) certain access, 3) unconventional operations, 4) integrated operations, and 5) strategic initiative.⁵⁴ In

⁵⁰ William H. McRaven, *Spec Ops: Case Studies in Special Operations Warfare : Theory and Practice* (New York: Presidio Press, 1996), 5–26.

⁵¹ Spulak, *A Theory of Special Operations: The Origin, Qualities, and Use of SOF*, 1.

⁵² Spulak, 1–2.

⁵³ Spulak, 14–15.

⁵⁴ Spulak, 22–23.

Spulak’s theory, the strategic utility of SOF is the mitigation of strategic risks by utilizing an elite unconventional and highly adaptive force.

In 2013 Harry R. Yarger, published his theory of SOF in *21st Century SOF: Toward an American Theory of Special Operations*.⁵⁵ Although the title focuses on the American SOF, the theory has a broader conceptual and contextual scope. Because SOF operates in all domains, across the services and national borders, it is qualitatively different from the contributions of the conventional forces of the different services. He asserts that “SOF are better than other military instruments,” and in some circumstances “they provide another discrete instrument within the American military element of power.”⁵⁶ Furthermore, he reviews and summarizes elements of SOF schools of thought—doctrine, SOF truths, SOF imperatives, and SOF core values—and stresses the role of the SOF community as an advocate and proponent for Irregular Warfare (IW). IW is perceived, as the realm where SOF can make the greatest contribution to strategic utility and value. Although Yarger does not pose a unifying strategy, he lists 26 premises and propositions that define the strategic utility of SOF. Of which the most relevant are the following:

- Distinct military capability of strategic value to national security,
- Evolve over time according to strategic context,
- Exist on the cutting edge of change and continuity in the security environment,
- Relative value increase as direct strategic utility is approached,
- Special operations missions are defined by the strategic, operational, and tactical contexts.⁵⁷

Across the SOF-related academic literature, relevant doctrinal publications, and the conducted interviews, the most frequently quoted explanation and definition of the strategic utility of SOF is the one by the strategist Colin S. Gray in *Explorations in Strategy*. His theory on the strategic utility of SOF, which he breaks down in two master claims and seven other

⁵⁵ Harry R. Yarger, *21st Century SOF: Toward an American Theory of Special Operations*: (Tampa, FL: Joint Special Operations University, 2013), <https://doi.org/10.21236/ADA591817>.

⁵⁶ Yarger, 27.

⁵⁷ Yarger, 47–62.

claims, is anchored in NATO and U.S. doctrine, academic publications typologies of SOF and SO, and regularly mentioned in the interviews.⁵⁸

Gray defines strategic utility as “the contribution of a particular kind of military activity to the course and the outcome of an entire conflict concerning the consequences of the direct and indirect impact they facilitate.”⁵⁹ He explains that the strategic utility of SOF is for most part judgmental and limited quantifiable.⁶⁰ Furthermore, he candidly argues that SOF are not the critical components, but the utility of special operations in all forms of conflict defines SOF’s usefulness. Gray claims that “the prime concern is not to explain how to conduct special operations, but instead to explore the difference such operations can make for the course and outcome of a conflict” or, in other words, the strategic utility of SOF.⁶¹ Gray also categorizes what tasks are achievable for SOF to contribute to the strategic objectives, and which are not:

- Tasks that only SOF can perform.
- Tasks that SOF can do well.
- Tasks that SOF tends to do badly.
- Tasks that SOF cannot perform at all.⁶²

He further emphasizes that it is important to understand that SOF are better tailored for SO tasks.⁶³ However, SOF do not serve as the panacea for every critical situation in conflict and war.

⁵⁸ NATO, *Allied Joint Doctrine for Special Operations*, 1–6; Joint Chiefs of Staff, *Joint Publication 3-05 Special Operations*, II-10; Turnley, Mikha’el, and Ben-Ari, *Special Operations Forces in the 21st Century*, 18–23; Marsh, Kiras, and Blocksome, *Special Operations*, 22–25; Titulaer, “Special Operations (forces) Explained,” 96–97; Isaiah Wilson III, “Rediscovering the Value of Special Operations,” *National Defense University Press Joint Forces Quarterly* 105 (April 2022): 37–43, <https://ndupress.ndu.edu/Media/News/News-Article-View/Article/2999171/rediscovering-the-value-of-special-operations/>; Steve Lambakis, “Colin Gray on the Strategic Utility of Special Operations,” *Comparative Strategy* 40, no. 2 (March 4, 2021): 206–8, <https://doi.org/10.1080/01495933.2021.1880841>; Christopher Marsh, Personal communication Dr. Christopher Marsh, VTC, May 4, 2022.

⁵⁹ Gray, *Explorations in Strategy*, 1996, 163–64.

⁶⁰ Gray, 163–64.

⁶¹ Gray, 141.

⁶² Gray, 153.

⁶³ Gray, 153–54.

Gray describes the strategic utility of SOF in terms of nine claims, stated in Table 1. Two of the claims are more important to him than the others, and he refers to them as “master claims,” while the rest he simply calls “other claims.” He lays out that the strategic utility of SO resides in two central traits: 1) “the ability to achieve significant results with limited forces”—*economy of force*, and 2) “the expansion of options available to political and strategic decision-makers”—*expansion of choice*.⁶⁴ Appendix B explains all claims in more detail.

Gray’s definition of strategic utility is the authoritative one for this thesis. Although he gives nine claims, this work uses only his two master claims (*economy of force* and *expansion of choice*) for analyzing the strategic utility of SOF in the scenarios, as only these claims are universally applicable. The others are more specific and not necessarily present in all scenarios. Nevertheless, they add further attribution to the direct and indirect impacts on strategic outcomes and objectives.

Table 1. The Strategic Utility of Special Operations—
Claims by Colin S. Gray.⁶⁵

<i>Master claims</i>	
1. Economy of force	2. Expansion of choice
<i>Other claims</i>	
3. Innovation	7. Humiliation of the enemy
4. Morale	8. Control of escalation
5. Showcasing of competence	9. Shaping the future
6. Reassurance	

One of the latest attempts to provide a theory of SOF is Tom Searle’s *Outside the Box: A New General Theory of Special Operations*, published in 2017.⁶⁶ Searle theorizes how *normal operations* and *special operations* relate to each other. According to his theory, special operations are “outside of the box” of operations conducted by conventional forces, as shown

⁶⁴ Gray, 168, 174.

⁶⁵ Source: Gray, 169.

⁶⁶ Searle, *Outside the Box*.

in Figure 1. For Searle, SO are military operations, but they can take place outside the conventional box. From this conceptualization it follows that 1) conventional operations are not everything the military instrument of power can do, and 2) conventional forces cannot cover the whole array of military operations. SOF, therefore, *fills the voids* that are left outside the box of conventional operations. He uses a NATO example to contextualize the theory: “If NATO conventional forces cannot counter Russian hybrid warfare, then special operations may become NATO’s main [and only] military option.”⁶⁷

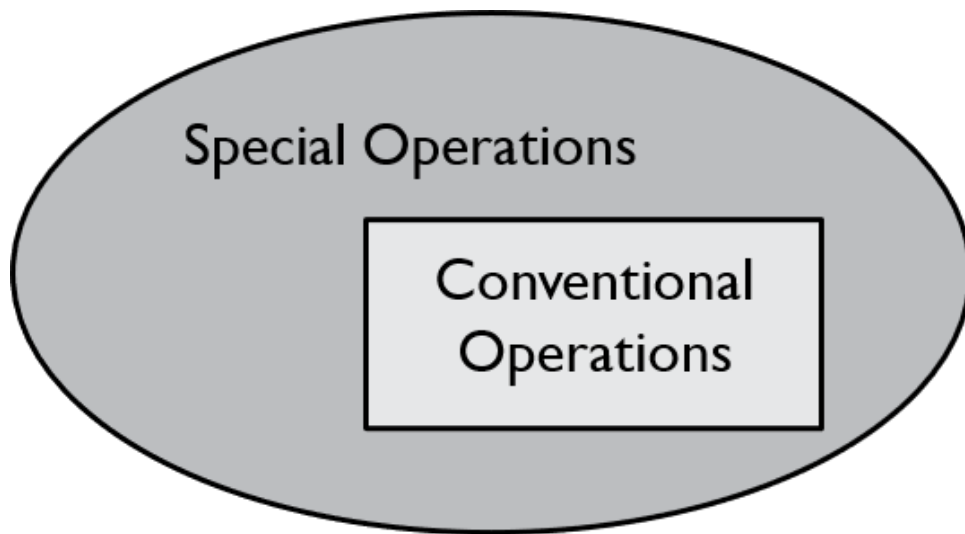


Figure 1. Searle’s Visualizations of “Outside the Box” Theory.⁶⁸

Following this assertion, he concludes that “special operations are all those military operations that are not purely conventional operations.”⁶⁹ He argues that SOF are also able to complement conventional forces, and the value proposition these operations generate has a strategic effect.⁷⁰ This theory sees SOF not as niche capabilities within the conventional box but expansively. SO are all the operations conducted outside the conventional box up to the authoritative boundaries of military

⁶⁷ Searle, 20.

⁶⁸ Source: Searle, 18.

⁶⁹ Searle, 17–18.

⁷⁰ Rubright, *A Unified Theory for Special Operations*, 21.

responsibilities. Searle asserts that “since military operations are all military operations that are not purely conventional operations, everything inside the circle of military responsibilities, but outside the conventional operations box, is a SO.” His outside-the-box theory is also at the core of the “out of the box” analytical tool used for the determination of the strategic utility of SOF in the scenarios in Chapter IV.

As the various theories discuss, strategic utility of SOF is always contextual and interlinked with the time, space, resources, risks, and interagency interests. It is determined by the precarious threshold between tactical activities and the strategic outcome—the strategic-value proposition.⁷¹ After all, as Funs Titulaer argues, it is a balanced combination of creative and flexible elite warriors that empower SOF to operate in the unpredictable and ever-changing security environment while aligning with policy objectives and to capitalize on strategic utility, value, and unique opportunities to complement the existing capabilities.⁷²

Finally, the concept of strategic utility is based on two essential yet, to some extent, independent elements: the “utility” of SOF’s employment in general, and the achievement of desired positive effects on a strategic level or scale. First, utility means something is useful or designed for use.⁷³ Utility in the context of the strategic employment of SOF refers to two elements: the relevance and the use of SOF. The relevance relates to the attainment of the valuable outcomes contributing to national and alliance security interests or, as Gray calls it, the course and outcome of an entire conflict. The other element of utility has to do with the use—access, placement, and employment—of SOF for particular ends, and those ends need to be valuable at the strategic level. Second, the notion “strategic” refers to the outcome, the objective, or the *ends*, as Harry Yarger explains it.⁷⁴ Understanding the relations among ends, ways, and

⁷¹ Titulaer, “Special Operations (forces) Explained,” 98–99.

⁷² Titulaer, 98–99.

⁷³ *Merriam-Webster*, s.v. “utility,” accessed May 10, 2022, <https://www.merriam-webster.com/dictionary/utility>.

⁷⁴ Harry R. Yarger, “Toward a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model,” in *Theory of War and Strategy*, ed. J. Boone Bartholomees (Carlisle, PA: Strategic Studies Institute, U.S. Army War College, 2012), 47–49, <https://www.jstor.org/stable/resrep12116.6>.

means is crucial for leveraging strategic utility. On the other hand, the means—SOF—and the ways—SO—are only the attributes for achieving the outcome or end. The measurable positive effect of attaining political and military strategic objectives can manifest itself outside the military domain in national or alliance security interests. Not only are the military strategic ends, which SOF try to (support to) accomplish, in many cases not exactly specified or concise, but foremost, they are somewhat ambiguous and open to interpretations. Moreover, the strategic objectives, desired outcomes and ends, morph over time or after renewed political guidance.⁷⁵ Furthermore, assessing strategic utility must also take into account SOF's effects via partner forces when conducting military assistance (MA), foreign internal defense (FID), security force assistance (SFA), and resistance advice and training. "SOF operations are frequently designed to influence populations both physically and cognitively," as Linda Robinson explains.⁷⁶ Assessing strategic effects in this cognitive domain is tempting because direct causal relations among the means, ways, and ends are not easy to attribute directly to SOF access, placement, and employment. Finally, it must encapsulate "the dynamic nature of special operations, robust to the fact that SOF effects are achieved in denied, [and undeclared] environments" with a covert, clandestine, and low-visibility posture.⁷⁷

4. SOF Tasks, Activities, and Characteristics

To describe the various tasks and missions SOF will carry out now and in the future, this thesis combines NATO, U.S. and Russian and Chinese tasks and activities.⁷⁸ This section takes the current NATO and U.S. doctrines as a reference and a point of departure. The U.S. doctrine is more often iterated than NATO's Joint Publication and

⁷⁵ Donald Stoker, *Why America Loses Wars: Limited War and U.S. Strategy from the Korean War to the Present*, 1st ed. (Cambridge, UK: Cambridge University Press, 2022), 1–20, <https://doi.org/10.1017/9781108611794>.

⁷⁶ Linda Robinson, Daniel Egel, and Ryan Andrew Brown, *Measuring the Effectiveness of Special Operations* (Santa Monica, CA: RAND Corporation, 2019), 9, https://www.rand.org/pubs/research_reports/RR2504.html.

⁷⁷ Robinson, Egel, and Brown, XV.

⁷⁸ De Wijk et al., *The Future of NLD SOF*. Similar to the approach the Hague Centre of Strategic Studies (HCSS) made in their study: *The Future of NLD SOF: Towards an All-Domain Force*

captures a broader and timelier overview. Furthermore, Russian and Chinese SOF tasks and activities are added to complement the list.⁷⁹ This composite view provides a broader foundation for analyzing the utility of SOF in GPC and identifying key points where SOF should have a significant role or identifying voids where NATO's SOF principal tasks and SOF activities do not suffice. The semantic differences between missions, tasks, and core activities are not scrutinized but are seen as different categories applicable to SOF, largely independent of their operational context.⁸⁰

Finally, the listed tasks and activities are suitable to and feasible over the range of military operations, independently or in close cooperation with non-SOF, including joint, interagency, multinational, and public (JIMP) operations.⁸¹ NATO doctrine even underlines that “while a crisis is developing, SOF may [also] be deployed to establish an early forward presence, initiate military and civilian liaison, conduct area assessments, provide an early C2 capability, advise friendly forces, or prepare for follow-on forces.”⁸² Table 2 has the list of the comprehensive tasks and activities, and serves as the main source for the “SOF tasks and activities” analytical tool to test and validate the utility of SOF in Chapter IV, “Scenario Analysis.”

⁷⁹ Bukkvoll, “Military Innovation Under Authoritarian Government – the Case of Russian Special Operations Forces,” 605–14.

⁸⁰ De Wijk et al., *The Future of NLD SOF*, 28–30.

⁸¹ NATO, *Allied Joint Doctrine for the Conduct of Operations*, 1–19.

⁸² NATO, 1–19.

Table 2. Comprehensive List of SOF Tasks and Activities.⁸³

Comprehensive List of SOF Tasks & Activities			
	Task	Description	Miscellaneous
NATO and U.S. Principal SOF Tasks			
NATO	MA - Military Assistance	Measures and activities that support and influence critical friendly assets. MA includes training, advising, mentoring, capability building of friendly security forces; partnering with local, regional, and national leadership or organizations; civic actions supporting and influencing the local population; and the conduct of combined operations. ^A	Training, Advising, Mentoring, Partnering, Interagency Support
NATO US	SR - Special Reconnaissance	Reconnaissance and surveillance activities typically conducted in a covert manner in, but not limited to, hostile, denied, or diplomatically and/or politically sensitive environments to collect or verify strategic or operational information using distinct techniques and modes of employment. ^{A B}	Environmental Reconnaissance, Threat Assessment, Target Assessment, Post-action Reconnaissance
NATO US	DA - Direct Action	Short duration strikes such as precision destruction, raids, ambushes, assaults, terminal guidance operations (such as forward air control), and other small-scale offensive actions conducted with specialized military capabilities to seize, destroy, capture, exploit, recover, or damage designated targets in hostile, denied, or diplomatically and/or politically sensitive environments. ^{A B}	Raid, Ambushes, and Assaults Terminal Guidance Operations Recovery Operations Precision Destruction Operations Surgical Strike
NATO and U.S. SOF (Core) Activities			
NATO US	CWMD - Countering Weapons of Mass Destruction	Activities conducted to ensure that states are neither coerced nor attacked by nuclear weapons and chemical, biological, radiological and nuclear (CBRN) materials, and aimed at disablement or destruction of the weapons or materials. This includes the adversary's ability to research, test, produce and stockpile these weapons. ^{A B}	Chemical Biological Radiological Nuclear
NATO US	CT - Counterterrorism	Defensive and offensive activities and measures taken to reduce the vulnerability of forces, individuals and property against terrorist threats and/or acts, and to respond to terrorist acts. Operations to defeat terrorist groups and to render them incapable of using unlawful violence to instill fear and coerce governments or societies to achieve their goals. ^{A B}	
NATO US	HRO - Hostage Rescue and Recovery / Hostage Release Operation	Sensitive crisis response missions to terrorist threats and incidents. Offensive operations in support of hostage rescue and recovery can include the recapture of facilities, installations, and sensitive material overseas. Note: For NATO, the resolution of HRO is foremost a nation-to-nation responsibility. ^{A B}	No Fail Mission
NATO US	COIN - Counterinsurgency	A comprehensive civilian and military effort designed to simultaneously defeat and contain insurgency and address its root causes. SOF missions complement the overarching application of diplomatic, economic, military, and information instruments of power. ^{A B}	
NATO	FL - Faction Liaison	Activities in close cooperation with factions in the operational area to gain a better understanding of the operational environment, situational awareness, and to collect information. ^A	
NATO	CHT - Countering Hybrid Threats	Politically sensitive operations below-the-threshold of military armed conflict to enhance, upon Host Nation request, national resilience to hybrid campaigns. ^A	

⁸³ Adapted from sources as described in table notes: NATO, *Allied Joint Doctrine for Special Operations*, 7–12; Joint Chiefs of Staff, *Joint Publication 3-05 Special Operations*, 12-18; Yuliang, Shusheng, and Xiaopeng, *In Their Own Words: Foreign Military Thought - The Science of Campaigns*, 220–21; Bukkvoll, “Military Innovation Under Authoritarian Government – the Case of Russian Special Operations Forces,” 606; Marsh, *Development in Russian Special Operations: Russia’s Spetsnaz, SOF and Special Operations Command*, 19.

	Task	Description	Miscellaneous
US	UW - Unconventional Warfare	Operations and activities that are conducted to enable a resistance movement or insurgency to coerce, disrupt, or overthrow a government or occupying power by operating through or with an underground, auxiliary, and guerrilla force in a denied area. ^B	
US	FID - Foreign Internal Defense	Participation in any activities, upon request, undertaken by a host nation government to protect its society from subversion, lawlessness, insurgency, or terrorism. ^B	
US	SFA - Security Force Assistance	Missions to support the development of the capacity and capability of foreign security forces and their supporting institutions. ^B	
US	FHA - Foreign Humanitarian Assistance	A range of humanitarian activities conducted to relieve or reduce human suffering, disease, hunger, and deprivation. ^B	
US	MISO - Military Information Support Operations	Operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals in favor to the originator's objectives. ^B	
US	CAO - Civil Affairs Operations	Actions planned, executed, and assessed that enhance the operational environment; identify and mitigate underlying causes of instability within civil society or support to the civil government. ^B	
US	POE - Preparation of the Environment	An umbrella term for special operations and activities conducted by SOF to develop an environment for future special operations. ^B	
Additional Russian and Chinese (PLA) SOF Tasks & Activities			
RUSSIA CHINA	(SAB) Sabotage	Actions planned and executed to damage or destroy an adversary installation or piece of equipment, so that it cannot be used. ^{C E}	
RUSSIA	(C-SAB) Counter Sabotage	Deliberate actions planned and executed to prevent damage or destruction by an adversary to own installations and equipment. ^C	
RUSSIA	(C-SOF) Combating SOF	Missions specifically designed to engage and destroy adversary's SOF units, capabilities, and equipment and to deny them access and placement in the operational environment. ^D	
RUSSIA	(ASSI) Assassination	Liquidation of adversary's military and political leaders. ^D	
CHINA	(SRH) Special Raid Harassment	Multiple and continuous raids in the enemy's rear area (deep operation) delivering chaos, fear, worry, uneasiness and tiresomeness. Creating multiple dilemmas for the enemy. ^E	
CHINA	(STW) Special Technical Warfare	Utilizing various technical means provided by modern science and technology for achieving specific operational goals. Mostly it focuses on cyber network exploitation (CNE) and attack (CNA). It includes interfering with space capabilities, global positioning, and navigation. ^E	

^A NATO, *Allied Joint Doctrine for Special Operations*, 7–12.

^B Joint Chiefs of Staff, *Joint Publication 3-05 Special Operations*, I2-18.

^C Marsh, *Development in Russian Special Operations: Russia's Spetsnaz, SOF and Special Operations Command*, 19.

^D Bukkvoll, "Military Innovation Under Authoritarian Government – the Case of Russian Special Operations Forces," 606.

^E Yuliang, Shusheng, and Xiaopeng, *In Their Own Words: Foreign Military Thought - The Science of Campaigns*, 220–21.

SOF Characteristics: There are several characteristics or key attributes of SOF that are implicitly derived from the discussed history, definitions, and SOF theories. Since no exhaustive, complete, and generally agreed-upon list exists, however, it remains important and relevant to review the most common in the field of academics and practitioners. In an attempt to summarize the characteristics of SOF, a variety of doctrinal, academic, and strategic publications are reviewed; furthermore, the following summary of characteristics is enhanced with elements from the interviews.⁸⁴

- Small-scale footprint and action
- Scalable and tailored to the mission
- Unique modes of employment – overt, covert, clandestine, discrete, low-visibility
- Built on individuals
- High level of adaptability, improvisation, and innovation
- Surgical precision and effect
- Operational reach
- High level of autonomy
- Self-sustaining / limited support needed
- Operations that are joint by nature
- Low risk / high pay-off
- Short response time in combination with a high operational tempo

⁸⁴ The summary of characteristics is derived from the theories of SOF of Harry Yarger, Robert Spulak, Wesley McRaven; doctrinal publications U.S. SOCOM, U.S. JCS, USARMY, NATO; and academic publications; See Appendix B for the SOF Truths.

5. Assessing Strategic Utility of SOF

All kinds and quantities of military application need to be approached with some reference to the lingua franca of strategic effectiveness. For officials to explain the strategic utility of a special operations capability, a nuclear strike option, or whatever, they need a persuasive grasp of the structure of the conflict at issue. No matter what the subject specifically under discussion is; The strategic theorist almost uniquely should be able to relate tactical means to strategic consequences.

— Colin S. Gray, *Strategist*⁸⁵

This section lays out a way to assess the strategic utility of SOF in GPC. Establishing a causal relation between SOF’s utility and the strategic effect or outcomes, as discussed in the theory of SO and SOF subsection, is complex but not impossible.⁸⁶ Achieving any form of strategic utility depends on the alignment of the ends, ways, and means.⁸⁷

The five analyzed theories of SO and SOF, and the SOF tasks, activities, and characteristics give a conceptual understanding what SO and SOF are, how they can be utilized, and what characterizes SO and SOF. Furthermore, Gray gives a useful definition of strategic utility of SO and SOF that will be used throughout this thesis: “Strategic utility is the contribution of a particular kind of military activity to the course and outcome of an entire conflict” concerning the consequences of the direct and indirect impact they facilitate.⁸⁸ The two master claims (*economy of force* and *expansion of choice*) are the focal point of the discussion to assess the strategic utility of SOF in the analysis of the scenarios in Chapter IV.

⁸⁵ Colin S. Gray, *Strategy and History: Essays on Theory and Practice* (London: Routledge, 2006), 45, <https://doi.org/10.4324/9780203964903>.

⁸⁶ Robinson, Engel, and Brown, *Measuring the Effectiveness of Special Operations*, XIV–XV.

⁸⁷ Yarger, “Toward a Theory of Strategy: Art Lykke and the U.S. Army War College Strategy Model,” 49. *Ends (objectives)* explain “what” is to be accomplished. Ends are objectives that, if accomplished, create, or contribute to, the achievement of the desired end state at the level of strategy being analyzed and, ultimately, serve national interests. *Ways (strategic concepts/courses of action)* explain “how” the ends are to be accomplished by the employment of resources. *Means (resources)* explain what specific resources are to be used in applying the concepts to accomplish the objectives.

⁸⁸ Gray, *Explorations in Strategy*, 1996, 163–64.

Therefore, the value proposition of SOF in GPC is concerned with identifying the range of roles and activities through which SOF may best support strategic effects and objectives against peer threats throughout the conflict continuum. SOF may have strategic utility, if they offer a greater *economy of force* and an *expansion of choice* relative to fewer suitable instruments, including situations in which conventional military forces may be inappropriate, escalatory, or where other government entities may lack the capacity. The defining character implies “that the strategic utility of SOF is assessed by what they can perform.”⁸⁹ The master claims about the strategic utility of SO help to assess, test, analyze, and validate the strategic utility of SOF for this thesis.

The strategic utility of SOF cannot be assessed in a general way without the context, mission profile, and, most important, the strategic objectives. Discussing and assessing the utility of SOF must also take a holistic approach to the conflict continuum.⁹⁰ It is the whole range of the conflict continuum within the security environment in which SOF must be considered to have a strategic role.⁹¹ Nevertheless, SOF can be more suitable to certain modes of competition or conflict than to others. Finally, the utility of SOF must have an order of magnitude that is significant enough to create a measurable strategic effect.

The notion that SOF conduct tactical operations and activities that conventional or regular forces cannot is in itself not enough evidence to claim strategic utility. Only when these contributions leverage a significant strategic effect does the real value proposition of SOF appear.⁹² Concerning the previously mentioned strategic value proposition for the strategic utility of SOF, it is essential to understand that the realized successes manifest in a different way outside of the military instrument of national power. Furthermore, SOF and their SO are not executed in a vacuum; dynamics in the operational, political, societal, cultural, and international spheres also are pervasive and profoundly intertwined with SO.

⁸⁹ Gunilla Eriksson and Ulrica Pettersson, eds., *Special Operations from a Small State Perspective* (Coventry: Springer International Publishing, 2017), 7, <https://doi.org/10.1007/978-3-319-43961-7>.

⁹⁰ Gray, *Explorations in Strategy*, 1996, 167.

⁹¹ Gray, 167.

⁹² Rubright, *A Unified Theory for Special Operations*, 37–38.

This thesis applies two analytical tools to analyze, assess, and validate the strategic utility of SOF. The first tool is the “SOF tasks and activities” tool which seeks to examine the “utility” part of the discussion on strategic utility of SOF, and helps to assess the applicability of the defined SOF tasks and activities irrespective of which national doctrine, as depicted in Table 2. The second tool is the “out of the box” tool, based on the proposition in Searle’s SOF theory Outside-the-Box. This tool takes the strategic goals (ends) as a starting point and guides a holistic discussion on SOF’s future role, including operations in new domains and in close cooperation with non-SOF capabilities, all under the premise of supporting strategic ends. The two master claims *expansion of choice* and *economy of force* are the guiding principles to assess the strategic utility of SOF in the “out of the box” tool. The tool could expose possible capability voids in tasks and activities not defined by NATO but which can be of strategic value (utility) for the respective scenarios. The tool also guides the discussion on whether SOF could (partially) fill these voids left unfilled by conventional forces and other means.⁹³ The two tools are defined and explained in detail in Chapter III, “Scenario Building and Methodology,” and applied in Chapter IV, “Scenario Analysis.”

B. GREAT POWER COMPETITION

“Great-power competition” is the latest watchword of the defense enterprise. What was an “arcane term” just a few years ago is now firmly entrenched in conventional defense thinking In fact, there has been a recent flurry of analysis about the nexus of great-power competition ... to which the concept is linked to virtually every aspect of defense, strategy, and security. And yet there is an unfortunate problem that, collectively, [in] the defense establishment: ... none of these strategy documents truly define what this phrase means.

— Alexander Boroff, U.S. Army Officer and Planner⁹⁴

Great Power Competition is a loosely and commonly coined term. Various related terms like strategic competition, great power rivalry, and international competition are

⁹³ Titulaer, “Special Operations (forces) Explained,” 97–99.

⁹⁴ Alexander Boroff, “What Is Great-Power Competition, Anyway?,” Modern War Institute, April 17, 2020, <https://mwi.usma.edu/great-power-competition-anyway/>.

often used interchangeably with it. Basically, all these terms refer to the same elements and characteristics in a renewed international system (IS). The first subsection explores the question of what characterizes the GPC phenomenon and why, specifically, the term GPC is used in this thesis. The second subsection then explains the gradation within the conflict continuum, especially focusing on the below-the-threshold of conflict notion. The third and fourth subsections subsequently provide an analysis of Russia and China as Great Powers (GPs), and why those nations are considered a threat and challenge for NATO. The final subsection summarizes scholars' and practitioners' contemporary thoughts on SOF's role in GPC.

1. What Is Great Power Competition?

GPC is ultimately a framework for understanding global, interstate relations that dominated political, societal, economic, military, and informational matters for centuries. During the Cold War, a dyadic—bipolar—GPC between the Soviet Union and the United States was the norm. However, after the fall and dissolution of the Soviet Union, the United States remained the only superpower in a unipolar world order. In the last decade GPC reemerged in the post-Cold War era when Russia and China transitioned to the role of competitors to the United States after two decades of cooperation and partial collaboration.⁹⁵

Still, GPC is a highly contested term among scholars, policymakers, and military practitioners. On the one hand, no all-encompassing and fully agreed-on definition exists. On the other hand, the shift in the international order towards a new period of competition is widely accepted in the public and academic debates.⁹⁶ Terms like “competition,” “rivalry,” and GPC have ontologically different meanings. Therefore, for a better separation, “GPC” needs to be deconstructed. First, the expression “Great Power” needs

⁹⁵ Ronald O'Rourke, *Renewed Great Power Competition: Implications for Defense - Issues for Congress* (Washington, DC: Congressional Research Service, 2022), 1–3, <https://crsreports.congress.gov/product/pdf/R/R43838>.

⁹⁶ Michael Mazarr et al., *Understanding the Emerging Era of International Competition: Theoretical and Historical Perspectives*, Research Report (Santa Monica, CA: RAND Corporation, 2018), 1–2, <https://doi.org/10.7249/RR2726>.

clarification. Thomas F. Lynch III and Philip C. Saunders state that a GP has three main characteristics:

- Unusual capabilities [e.g., nuclear weapons, dominant disruptive technology, size of military forces] in comparison with those of other states;
- behavior that indicates a willingness to use those capabilities in and beyond the state's immediate neighborhood; and
- the perception by the other actors that the state has both unusual capabilities and the willingness to use them.⁹⁷

Second, various definitions of “competition” point to “a contest between rivals.”⁹⁸ Michael Mazarr explains: “Competition in the international realm involves the attempt to gain an advantage, often relative to others believed to pose a challenge or threat, through the self-interested pursuit of contested goods such as power, security, wealth, influence, and status.”⁹⁹

Nevertheless, the term GPC is also closely related to the United States' Trump administration (2017–2021), which prominently used it in the 2017 National Security Strategy.¹⁰⁰ Russia and China were labeled as the central great powers, next to the United States. However, the expression is not new and was also used by previous administrations.¹⁰¹ To broaden the scope and to include other highly relevant nation states that pose a threat to the United States, especially the regional powers Iran and North Korea, the term Strategic Competition has replaced GPC in most official documents since.¹⁰² Still, this thesis continues to use the term GPC. It clearly focuses on the three GPs, the United

⁹⁷ Thomas Francis Lynch, ed., *Strategic Assessment 2020: Into a New Era of Great Power Competition*. (Washington, DC: Institute for National Strategic Studies, National Defense University, 2020), 1–2.

⁹⁸ *Merriam-Webster*, s.v. “competition,” accessed May 20, 2022, <https://www.merriam-webster.com/dictionary/competition>; Robert H. Mnookin, Scott R. Peppet, and Andrew S. Tulumello, *Beyond Winning: Negotiating to Create Value in Deals and Disputes* (Cambridge, MA: Belknap Press of Harvard University Press, 2000), 51.

⁹⁹ Mazarr et al., *Understanding the Emerging Era of International Competition*, 5.

¹⁰⁰ White House, *The National Security Strategy of the United States of America* (Washington, DC: White House, 2017), 27.

¹⁰¹ O'Rourke, *Renewed Great Power Competition: Implications for Defense - Issues for Congress*, 1.

¹⁰² Strategic competition is also not new in U.S. strategic documents as it was used, for example, in the *National Defense Strategy 2018*.

States, Russia, and China and narrows the scope to actions, activities, and capabilities of these nations. While the influence of other regional, middle, and small powers in a complex security environment is fully acknowledged, the focus on the GPs streamlines the discussion on SOF, the scenario building, and the following discussion of the strategic utility of SOF as seen through a NATO lens.

The emergence of GPC with China and Russia over the last decade, amplified by the Russian-Ukrainian conflict since 2014 and growing tensions with China in the East and South China Sea in the last decade, fueled and underscored the discussion, and heightened the posture of the U.S. military and security position in this GPC security environment. An increasingly assertive China and a destabilizing Russia create renewed strategic challenges for the United States., NATO, and their allies.¹⁰³

This renewed GPC environment results in a more insecure, unpredictable, and uncertain world compared to the unipolar power structure of the last decades, centered around the United States. Great Powers and their proxies utilize a wide range of asymmetric forms of competition, instruments of power, cross-cutting advanced technology, and overt, covert, and clandestine military activities, including hybrid warfare, (un)conventional warfare, gray zone operations, activities below the threshold of armed conflict, and deterrence by conventional and nuclear means. Middle powers, small powers, and non-state actors will lift and bandwagon with the GPs to fulfill their national objectives.

2. The Conflict Continuum

GPC plays out along the full spectrum of conflicts, which develops, according to U.S. doctrine, from cooperation through competition and/or crisis to conflict.¹⁰⁴ Those phases can shift in a linear sequence but overlap regularly and occur in parallel or simultaneously converge. NATO does not yet recognize the competition phase in the 3C

¹⁰³ White House, *Interim National Security Strategic Guidance* (White House, 2021), 6–9,14–15,20, <https://www.whitehouse.gov/briefing-room/statements-releases/2021/03/03/interim-national-security-strategic-guidance/>.

¹⁰⁴ Joint Chief of Staff, *Joint Doctrine Note 1–19 Competition Continuum*, 1–19 (Washington, DC: United States Department of Defense, 2019), 1–3, https://www.jcs.mil/Portals/36/Documents/Doctrine/jdn_jg/jdn1_19.pdf.

continuum “competition-crisis-conflict,” but uses the term “peace” instead. Therefore, NATO’s spectrum of conflict ranges from peacetime cooperation between allies and adversaries through peace support (low intensity) via security to war (high intensity) between states, named the “peace—crisis—conflict” spectrum.¹⁰⁵

Throughout, this thesis applies the 3C framework of competition-crisis-conflict to describe the gradation of conflicts. Competition in the 3C framework denotes a state of international relations in which competitors and adversaries conduct predominantly (non-)military non-violent activities to gain a positional advantage without prompting a military response and to remain below the threshold of armed conflict. When a competitor provokes an emergent, unforeseen, disruptive, and potentially (violent) escalating incident or situation, the continuum is pushed into the crisis phase. Without de-escalation, a crisis may become prolonged, lead to a *fait accompli* that favors the adversary, or escalate into an armed conflict, e.g., war. Finally, with or without transiting through the crisis phase, the conflict continuum’s highest state is armed conflict. The UN charter defines armed conflict in Article 4.2 as “the threat or use of force against the territorial integrity or political independence of any state.”¹⁰⁶ For NATO, an armed conflict or war against one member of the alliance activates Article 5 of the North Atlantic Treaty: “an armed attack against one or more ... shall be considered an attack against them all” and, therefore, triggers Art. 51 of the UN charter: “the exercise of the right of individual or collective self-defense.”¹⁰⁷

The 3C continuum delineates no clear transition from one to the other phase. Individual competitors, coalitions or alliances, and their adversaries can perceive different states at the same time in the same area of conflict. This presupposes a significant latency between intentions, signaling, deterrence, incidents, and their respective responses.¹⁰⁸

¹⁰⁵ NATO, *Allied Joint Doctrine*, E Version 1, AJP 1 (Norfolk, VA: NATO Standardization Office (NSO), 2017), 2–13, 2–14, 2–15.

¹⁰⁶ United Nations, “Charter of the United Nations,” 1945, Art 2.4, <https://treaties.un.org/doc/Publication/CTC/uncharter.pdf>.

¹⁰⁷ North Atlantic Treaty Organization, “The North Atlantic Treaty,” Art. 5; United Nations, “Charter of the United Nations,” Art. 51.

¹⁰⁸ NATO SOF HQ, *SOF Roles in Comprehensive Defence Across the Spectrum of Conflict - NATO Restricted* (Mons, Belgium: NSHQ, 2020).

Finally, the conflict continuum is not a rigid tool but a framework that opens the cognitive lens to the extensive range of threats and challenges and brings coherence to the complexity of the contemporary security environment in GPC.¹⁰⁹

In 2016, General Joseph L. Votel (ret.) clearly stated that the United States, including the Euro-Atlantic hemisphere (NATO), is entering an era “where threats and responses to these threats will take place in a segment of the conflict continuum called the ‘gray zone.’”¹¹⁰ Frank Hoffman characterizes the gray zone by its “intense political, economic, informational, and military competition more fervent than normal steady-state diplomacy, yet short of conventional war” and below the threshold of armed conflict.¹¹¹ While gray zone refers to a space in the conflict continuum, gray zone operations are played out between diplomacy and conventional warfare, where national statecraft is neither effective nor appropriate, and conventional forces are not suitable or feasible.¹¹² Whereas hybrid warfare includes violent activities, the gray zone is perceived as non-violent. Nevertheless, other typologies have surfaced in the last two decades with the resurgence of GPC. In 2014, NATO, as well as other IGOs, nations, and think tanks, adopted the term “hybrid warfare” as a framework for understanding contemporary activities below the threshold of armed conflict, initially linked to Russia and later to China and other antagonists.¹¹³

Hoffman poses the definition of hybrid warfare as “the purposeful and tailored violent application of advanced capabilities with irregular tactics, terrorism, and criminal activities, or a combination of regular and irregular forces, operating as part of a common

¹⁰⁹ Frank G. Hoffman, “Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges,” *PRISM* 7, no. 4 (November 2018): 32.

¹¹⁰ Votel et al., “Unconventional Warfare in the Gray Zone,” 102.

¹¹¹ Hoffman, “Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges,” 35–36.

¹¹² Votel et al., “Unconventional Warfare in the Gray Zone,” 101–2.

¹¹³ Oscar Jonsson, *The Russian Understanding of War: Blurring the Lines Between War and Peace* (Washington, DC: Georgetown University Press, 2019), 8–14; NATO, “Wales Summit Declaration Issued by NATO Heads of State and Government,” NATO, 2014, Art. 13, https://www.nato.int/cps/en/natohq/official_texts_112964.htm. NATO Summit 2014 (Wales) states: “We will ensure that NATO is able to effectively address the specific challenges posed by hybrid warfare threats, where a wide range of overt and covert military, paramilitary, and civilian measures are employed in a highly integrated design.”

design in the same battlespace.”¹¹⁴ He makes clear that the “fusion of advanced military capabilities with irregular forces and tactics is key.”¹¹⁵ In his narrow definition focusing on military, violence, and security, Hoffman also explicitly delineates the importance of synchronicity in time and place. Finally, this definition also includes conventional activities in a tailored mix with the other elements as genuinely hybrid.

However, the discussion on gray zone and hybrid warfare mirrors Western thinking and perception. In general, the Western understanding does not always reflect other nations’ views, conceptions, and activities. The long-term lack of attention to Russian and Chinese military thoughts has made hybrid warfare, the “Gerasimov doctrine, the Chinese three warfares, and unrestricted warfare—discussed in the following Russia and China subsections—the bedrock for debates on understanding, deterring, and engaging Russia and China.¹¹⁶

Gray zone and hybrid warfare are the mainstream frameworks to conceptualize and discuss the Russian and Chinese behavior and activities. This thesis uses both for the scenario development, subsequent vignettes, and analysis. Finally, this thesis explores and analyzes only scenarios below the threshold of armed conflict and, therefore, excludes scenarios with open armed conflict and war, or what implies NATO’s Article 5 activation.

3. Russia as a Great Power

According to NATO, Russia is “the most significant and direct threat to NATO’s security, peace, and stability.”¹¹⁷ Russia seeks to establish “spheres of influence, [its so-called Near Abroad,] and direct control through coercion, subversion, aggression, and

¹¹⁴ Hoffman, “Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges,” 40.

¹¹⁵ Hoffman, 40.

¹¹⁶ Sangkuk Lee, “China’s ‘Three Warfares’: Origins, Applications, and Organizations,” *Journal of Strategic Studies* 37, no. 2 (February 23, 2014): 198–221, <https://doi.org/10.1080/01402390.2013.870071>; Liang Qiao and Xiangsui Wang, *Unrestricted Warfare: China’s Master Plan to Destroy America* (Panama City, Panama: Pan American Pub, 2002).

¹¹⁷ NATO, *NATO 2022 Strategic Concept*, 4.

annexation.”¹¹⁸ Russia uses conventional, cyber, hybrid, gray zone, and proxy means and capabilities. Meanwhile, Russia is a state with a marginal economy, high corruption, and limited financial revenue, with a vexing choice of how to compete with a challenger that contests Russia’s perceived interest in the regional and, more important, the global order. Russia is an urgent but also a transient GP on the decline, a security threat to the global order, and specific to the NATO alliance’s territory and interests. The ongoing Russo-Ukrainian War since 2014 shows that Russia has the potential to do extensive and existential military damage and disruption to NATO’s adjacent territory. Russia utilizes an aggressive military strategy to contest its borders and to constrain Western institutions.¹¹⁹ Next to its conventional military hard-power, Russia still has an extensive nuclear weapons arsenal, diplomatic instruments such as the United Nations Security Council (UNSC) veto right, and a vast potential of natural resources—leveraging energy diplomacy and coercion—and an extensive arms production and sales industry.¹²⁰

Russian cooperation and competition with the West reversed course after the accession of Vladimir Putin, who singled out any post-Cold War cooperation with the West and claimed the contemporary world order as unjust to Russia’s righteous role as a GP. In 2007, he explicitly warned NATO to cease eastward expansion.¹²¹ The later Russian annexation of Crimea in 2014 serves as an example of a successful hybrid operation. This development in Russian foreign policy also illustrates the shifts from cooperation through competition to crisis—staying below the threshold of armed conflict. The most recent aggressive military invasion in Ukraine in February 2022 even spotlights that Russia is willing to operate in the conflict zone.

¹¹⁸ Michael J. Mazarr, *Mastering the Gray Zone: Understanding a Changing Era of Conflict*, Advancing Strategic Thought Series (Carlisle, PA: Strategic Studies Institute and US Army War College Press, 2015), 89–96.

¹¹⁹ Lynch, *Strategic Assessment 2020*, XVIII.

¹²⁰ Fraser Cameron and Horst Teltschik, “Prospects for Eu-Russia Relations,” *Konrad-Adenauer-Stiftung*, Facts & Findings, no. 50 (April 2008): 3–5.

¹²¹ Russia, *President of Russia Vladimir Putin: Speech and the Following Discussion at the Munich Conference on Security Policy* (Munich, Germany, 2007), <http://en.kremlin.ru/events/president/transcripts/24034>.

However, Russia tends to pursue its interests not only, and not intentionally, via conventional and transparent means. Rather, as Thomas F. Lynch III observes in the *Strategic Assessment 2020*, it leans to unconventional means of coercive influence and activities, proxy and mercenary forces, information warfare, cyber operations, clandestine SOF operations, disinformation, and coercive messaging to NATO and the United States “stressing Russian resolve for nuclear retaliation, and touting its purported superiority in hypersonic and other [high-tech] weapon systems.”¹²²

Shortly before Russia annexed Crimea in 2014, a seminal article by General Valery Gerasimov, chief of the Russian General Staff, was published, in the *Viyenno-Promyshlenny Kuryer* (Military-Industrial Courier).¹²³ The article, titled *The Value of Science Is in the Foresight*, argues that future warfare is a blend of the instruments of national power to create favorable outcomes. The dominant aspect of this theory is the notion of the relationship between military and non-military methods of war, but also the necessity to utilize indirect, clandestine, unattributable, and asymmetric techniques to achieve strategic gains and not provoke an armed conflict—NATO Article 5 declaration—by staying below the threshold of armed conflict. This so-called “Gerasimov doctrine” has significant similarities and mirrors the Western notions of hybrid warfare and gray zone operations. Russia, therefore, incorporates the full range of instruments of national power and makes use of conventional, unconventional, information warfare, disinformation, indirect and hybrid activities.¹²⁴

¹²² Lynch, *Strategic Assessment 2020*, 221–23.

¹²³ Valery Gerasimov, “The Value of Science Is in the Foresight,” *Military Review* 96, no. 1 (February 2016): 23–29, <https://www.proquest.com/docview/1761154043/abstract/7C332C7F5EB24C34PQ/1>.

¹²⁴ Marsh, Kiras, and Blocksome, *Special Operations*, 119–23. Charles K. Bartles lists seven different types of military means Russia uses for the conduct of indirect and asymmetric activities: 1) Undeclared Forces (‘little green men’), 2) Peacekeepers, 3) Paramilitary units, 4) Private Military Companies (PMC), 5) Foreign fighters, 6) Special Operations Forces, and 7) Information Warriors (Cyber).

4. China as a Great Power

The PRC [People’s Republic of China] is the only competitor with both the intent to reshape the international order and, increasingly, the economic, diplomatic, military, and technological power to do it.”

— United States National Security Strategy, 2022¹²⁵

With this statement, the National Security Strategy highlights that the People’s Republic of China (PRC) poses a distinctly different role and threat in the GPC security environment for the United States and NATO from that of Russia. The contemporary increase in China’s geopolitical power and aspirations have influenced the tactics and activities it employs. China is aware that promoting its regional and global interests and participating in direct military engagements with the other GPs, but also establishing strong alliances that can tip the perceived strategic balance, must be avoided. Moreover, a confrontation with one or more nuclear powers has the potential to spin to a nuclear confrontation, with unacceptable implications worldwide.¹²⁶

China, for the first time mentioned as a challenger in a NATO strategic document in 2019, employs a broad range of diplomatic, information, military, and economic (DIME) tools to enhance its projection of global power and at the same time stays deliberately ambiguous about its intentions, strategies, activities, and alliances (such as with Russia).¹²⁷ Like Russia and the United States, China is also a nuclear power and has a permanent seat in the UNSC. Unlike Russia, China is a rising revisionist GP driven by resentment, diffidence, and ambition. China feels itself threatened by the United States and the contemporary international system and aims to alter the status quo in its immediate neighborhoods—the “middle kingdom”—and establish a zone of effective control along

¹²⁵ White House, *National Security Strategy of the United States of America*, 23.

¹²⁶ Danny Pronk, *21st Century Strategic Competition with Russia and China* (The Hague: Clingendael Netherlands Institute of International Relations, 2021), 5–6, <https://www.clingendael.org/publication/21st-century-strategic-competition-russia-and-china>.

¹²⁷ “Joint Statement of the Russian Federation and the People’s Republic of China on the International Relations Entering a New Era and the Global Sustainable Development,” [kremlin.ru](http://en.kremlin.ru/supplement/5770)) accessed February 7, 2022, <http://en.kremlin.ru/supplement/5770>.

its periphery.¹²⁸ China, basically, has identified four lines of engagement in the contemporary GPC:

- Political action to promote favorable global change and international norms;
- increasing economic pressure on opponents by China's ability to promote its interests on a global scale;
- engagements cyber and network warfare; and
- incorporation of non-state or civilian actors into conflict. Over the past two decades, China's actions have largely adhered to these four guiding principles.¹²⁹

In 1999, two PLA colonels introduced the concept of “unrestricted warfare.” Their work provided a reorientation of Chinese security strategy on the basis of lessons taken from the transformative U.S. impact in the Gulf War in 1991, discussing strategy, capability, and technology as a means to an end for China's future strategic position.¹³⁰ The concept drastically enlarges the definition of war and its implications. War no longer only means the use of armed forces to subdue the adversary to enforce one's will but, instead, “using all means, including armed force ... and non-military lethal and non-lethal means” to force its adversary to accept its terms; in other words, combining asymmetrical, unconventional and covert activities against its adversaries.¹³¹ Furthermore, in 2003, China adopted the concept of “three warfares,” creating capabilities for psychological warfare, public opinion warfare, and legal warfare (“lawfare”), focusing on the perceptions of its own and targeted societies, and with lawfare creating legal “superiority by mobilizing domestic and international laws” to gain political and economically superior positions.¹³²

China pursues strategic partnerships, also in Europe, to strengthen commitment and enforce their interests. Some examples are the Shanghai Cooperation Organization (SCO), the BRICS group, and the Asian Development Bank. China launched its Belt-and-Road-

¹²⁸ Lynch, *Strategic Assessment 2020*, IX–XI.

¹²⁹ Pronk, *21st Century Strategic Competition with Russia and China*, 5–7.

¹³⁰ Qiao and Wang, *Unrestricted Warfare*.

¹³¹ Qiao and Wang, 7.

¹³² Lee, “China's ‘Three Warfares,’” 198–204.

Initiative (BRI) in 2013, strengthening China’s connections with Eurasia and Europe with new ports, railways and roads, investments, and infrastructure projects and giving access and influence to resources, markets, and institutions while leveraging its expanding overseas interests.¹³³ Finally, the deepening and broadening strategic partnership between Russia and China and their attempts to undermine NATO’s values and security interests is a new strategic challenge and possible threat to NATO and its allies.

Concerning their different relative power projection intentions and capabilities, China and Russia share similarities in the operations and activities they employ to achieve their objectives. Both use surveillance, censorship, disinformation, and national propaganda to influence their domestic and international target audiences. Furthermore, they have developed excellent means, tools, and activities to operate in the gray zone and conduct hybrid activities. Finally, both are strengthening their SOF, cyber, space, semi-conventional, ballistic missile and nuclear forces, anti-access area-denial (A2AD), communications, and hypersonic capabilities.

China can no longer be seen as an ascending economic power located in the far east with only regional interests. China uses hybrid, cyber, and (dis)information to target and harm NATO’s security.¹³⁴ Its influence encroaches on European territory, including regions like the Arctic, Black Sea, and the Mediterranean. Furthermore, the close military cooperation between China and Russia has alarmed the United States and NATO. A military joint venture between these two GPs increases risks and threat perceptions toward the NATO alliance and emboldens the GPC arena.

Finally, as Christopher Marsh and Mark Grzegorzewski assert, Russia and China will exploit the space and cyber domains as domains to create asymmetric advantages in GPC. The space and cyber domains are not bounded by geographical regions or regulations. China “views information operations via space, cyber, and electronic warfare

¹³³ Lynch, *Strategic Assessment 2020*, 53–57.

¹³⁴ NATO, *NATO 2022 Strategic Concept*, 1–5.

as the ‘tip of the spear’ in any future conflict to shape the narrative and obtain information superiority” while paralyzing the other antagonists.¹³⁵

5. SOF and Great Power Competition

The shift in the global strategic environment to GPC has sparked various thoughts on SOF’s role. The contemporary GPC is neither an extrapolation of the Cold War, as already discussed, nor are the capabilities SOF can bring to bear in the GPC conflict zone unchanged from previous decades. General Richard D. Clarke (ret.), the former USSOCOM commander, conveys that SOF can operate in the gray zone, just like Russia and China, and counter the adversaries by using irregular and asymmetric tactics.¹³⁶ Thus, SOF presents the adversary with multiple dilemmas and places adversaries’ assets at risk. Furthermore, SOF are able to compete, engage, and fight around the edges (gray zones), without direct involvement, using high-tech solutions such as drones, artificial intelligence, and machine learning (AI/ML) integration, command & control (C2), and sensor & surveillance capabilities. But also, U.S. SOF prevail in cultural awareness, language proficiencies, and most importantly, in maintaining, expanding, and exploiting its international network.

According to General Votel, SOF provides strategic utility for nations and alliances by providing a persistent and preeminent contribution because of their inherent proficiency in maintaining low visibility and a small footprint, and thus, they can provide decision-makers with “strategic options.” Especially in FID and UW, supporting resistance movements and insurgencies against (possible) occupying powers, SOF seem useful. SOF’s ability to build trust and confidence helps forge capable resistance entities to thwart adversaries’ aggression.¹³⁷ This concept is similar to NATO’s comprehensive defense

¹³⁵ Mark Grzegorzewski and Christopher Marsh, “Incorporating the Cyberspace Domain: How Russia and China Exploit Asymmetric Advantages in Great Power Competition,” Modern War Institute, March 15, 2021, <https://mwi.usma.edu/incorporating-the-cyberspace-domain-how-russia-and-china-exploit-asymmetric-advantages-in-great-power-competition/>.

¹³⁶ “Hearing to Receive Testimony on United States Special Operations Command’s Efforts to Sustain the Readiness of Special Operations Forces and Transform the Force for Future Security Challenges.”

¹³⁷ Votel et al., “Unconventional Warfare in the Gray Zone,” 102–3.

(CD) framework introduced by Lieutenant General E. Wendt (ret.), former NSHQ commander, incorporating irregular (SOF) forces as part of a whole-of-society approach to improving, bolstering, and institutionalizing societal resilience in a host country to deter and fight, in this case, Russian aggression.¹³⁸

Finally, the emergence of the cyber and space domains poses an interesting value proposition as well as challenges for SOF in the contemporary and future GPC environment. SOF leaders and academics have started to discuss a closer operational collaboration in the so-called SOF-cyber-space triad.¹³⁹ Still, the development of special operations in cyber and space requires understanding what is special instead of conventional. More importantly, it requires understanding what capabilities and tactics are needed for irregular warfare by SOF in the cyber and space domains, by leveraging strategic utility.¹⁴⁰ However, details with respect to the SOF-cyber-space triad are almost exclusively classified and cannot be discussed in depth in this thesis.

C. NORTH ATLANTIC TREATY ORGANIZATION

The Alliance is a dynamic and vigorous organization which is constantly adapting itself to changing conditions.

— Pierre Harmel,
Belgian Diplomat and Author of the “Harmel Report”¹⁴¹

NATO is one of the most prominent and important security alliances in the Western world and plays a significant role in the stability and protection of its member states. Viewing the thesis’s exploration of the strategic utility of SOF in GPC through a NATO lens helps to focus on specific recommendations for NATO, NATO’s SOF C2 structure,

¹³⁸ Eric Wendt, “Comprehensive Defense: A Whole-of-Society Approach via Irregular Forces,” *Special Warfare*, April-June (2021): 30–31, <https://www.soc.mil/swcs/swmag/ComprehensiveDefense.pdf>.

¹³⁹ *Senate Armed Services Committee Advance Policy Questions for Lieutenant General Bryan P. Fenton, USA Nominee for Commander, United States Special Operations Command*, Senate Armed Services Committee, July 21, 2022, <https://www.armed-services.senate.gov/imo/media/doc/Fenton%20APQ%20responses.pdf>.

¹⁴⁰ Marsh, Kiras, and Blocksome, *Special Operations*, 191–97.

¹⁴¹ NATO, “The Future Tasks of the Alliance: Report of the Council (‘The Harmel Report’),” NATO, December 1967, https://www.nato.int/cps/en/natohq/official_texts_26700.htm.

and SOF of NATO nations. Furthermore, GPC implications, which have an obvious global dimension, are curtailed to the Euro-Atlantic region and its adjacent periphery.

The first subsection introduces NATO’s central purpose as a defense alliance, and central threats and challenges to the Alliance’s internal cohesion. This overview is the starting point to better understand how NATO’s strategy has evolved in recent years. The second subsection provides an overview of NATO’s civilian and military structure. This short synopsis helps to appreciate NATO’s strategic decision-making and planning processes. The third subsection examines NATO’s strategy development in the last two decades, with an emphasis on the latest *NATO 2022 Strategic Concept* and how it differs from the previous concept from 2010.¹⁴² This discussion clarifies the Alliance’s stance towards the increasingly aggressive posture of Russia and the global security challenges posed by China. The fourth subsection highlights relevant aspects of NATO’s relationship with the GPs United States, China, and Russia to identify and assess NATO’s role in the great power concert. The fifth subsection examines central documents for NATO’s strategic future planning to illustrate the direction the Alliance is taking and NATO’s perception of future challenges. Finally, the last subsection explores the question of what “NATO SOF” is and means. For this, current SOF doctrine, definitions, and structures within NATO are explained, with a reference to the NATO Special Operations Headquarters’ (NSHQ) understanding of strategic utility of SOF in comprehensive defense.

1. Purpose and Challenges

The North Atlantic Treaty Organization (NATO) is often considered the “most successful [security] alliance in history.”¹⁴³ Its core trademark is Article 5 of its founding treaty (“North Atlantic Treaty”): “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

¹⁴² NATO, *Strategic Concept 2010: Active Engagement, Modern Defence* (London, UK: NATO, 2010), https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_publications/20120214_strategic-concept-2010-eng.pdf.

¹⁴³ “NATO Secretary General Outlines NATO’s Response to Renewed Tensions in Europe,” NATO, accessed October 18, 2022, https://www.nato.int/cps/en/natohq/news_191315.htm.

all.”¹⁴⁴ Since its foundation in 1949 NATO has played a crucial role to maintain or restore stability in the European and North American hemispheres to follow its core purpose: “the preservation of peace and security” of its members.¹⁴⁵ As of 2022, the Alliance has grown to include 30 Allies. The admission of former Warsaw Pact (WP) members and nations that had been part of the Soviet Union until 1991 has led to political friction with the Russian Federation.¹⁴⁶ Over the last two decades, NATO-Russian tensions have increased, culminating in 2022, when Russia’s aggressive and coercive military and non-military activities in Europe climaxed in open war in Ukraine, threatening NATO territory and the Alliance’s values.¹⁴⁷ Additionally, China’s economic and political influence in Europe and its periphery has significantly grown, hence making the People’s Republic of China one of NATO’s “strategic competitors”¹⁴⁸

Despite NATO’s role as a historically very effective political and military alliance, it still faces internal challenges and struggles among its members. Two distinctive controversial aspects are: 1) the disagreements about prioritization and achievement of NATO’s three core tasks and 2) the interpretation of common values.¹⁴⁹ The debate over the Alliance’s core tasks reflects NATO’s geographical split over threat perceptions and the question of *deterrence and defense*.¹⁵⁰ While Eastern European Allies fear a Russian intervention, Allies from Southern Europe, like Spain, Italy, and to some extent France,

¹⁴⁴ North Atlantic Treaty Organization, “The North Atlantic Treaty.”

¹⁴⁵ The North Atlantic Treaty (“Washington Treaty”) was signed on April 4 1949, by Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States; NATO, *The North Atlantic Treaty (Including Protocols)* (Washington, DC, 1949), https://www.nato.int/nato_static_fl2014/assets/pdf/stock_publications/20120822_nato_treaty_en_light_2009.pdf.

¹⁴⁶ Sumantra Maitra, “NATO Enlargement, Russia, and Balance of Threat,” *Canadian Military Journal* 21, no. 3 (July 15, 2021): 35–46, https://publications.gc.ca/collections/collection_2021/mdn-dnd/D12-8-21-3-eng.pdf.

¹⁴⁷ Ukraine is not a NATO member, yet is a member of NATO’s Partnership-for-Peace (PfP) program, and was invited to start the NATO application process in 2008.

¹⁴⁸ NATO, *NATO 2022 Strategic Concept*, 3.

¹⁴⁹ Trine Flockhart, “A Fractured Alliance in Good Shape?,” *Atlantisch Perspectief* 43, no. 2 (2019): 10.

¹⁵⁰ David S. Yost, *NATO’s Balancing Act* (Washington, DC: United States Institute of Peace, 2014), 344.

view a significant threat from instability and terrorist organizations in Northern Africa or the Middle East. NATO is politically split between needing to orient towards deterring peer states and maintaining focus on the persistent threat of terrorism. A similar discussion exists regarding *crisis prevention and management*, whether NATO should continue its commitments in out-of-area operations or fall back to defend Europe solely on its own soil and the adjacent borders. Furthermore, there is ambiguity in the perceptions of *cooperative security*. Divergent positions persist about which partnerships are necessary, what the cooperation with organizations such as the European Union (EU) and the Organization for Security and Cooperation in Europe (OSCE) should look like, and what NATO's political rather than military role should be. Apparent fractures appear between Eastern and Southern Allies on the strategic defense focus; the perception and role of the EU, manifested in the withdrawal of the United Kingdom from the EU in 2020; and a political power struggle among large nations like the United States, Germany, and France, and smaller Allies like Hungary, Greece, and the Baltic States.¹⁵¹ These internal power dynamics are a balancing act in order to maintain that unanimity of the Allies.¹⁵²

Another critical aspect is the common belief in NATO's values of "democracy, individual liberty and the rule of law."¹⁵³ Nations currently causing tensions within the Alliance are Hungary and Turkey as examples of the gradual erosion of democracy.¹⁵⁴ Nevertheless, NATO has had non-democracies or weak democracies in its ranks before, like Portugal (until the mid-1980s) and Greece (until the end of the 1970s).¹⁵⁵ Moreover, NATO serves as a platform to promote its shared values internally, and so far, most of these "outliers" have found their way to overcome domestic authoritarian tendencies.¹⁵⁶

¹⁵¹ Timo Kivimäki, "Power, Contribution and Dependence in NATO Burden Sharing," *European Security* 28, no. 1 (January 2, 2019): 66–84, <https://doi.org/10.1080/09662839.2019.1578750>.

¹⁵² Flockhart, "A Fractured Alliance in Good Shape?," 10.

¹⁵³ NATO, *The North Atlantic Treaty (Including Protocols)*.

¹⁵⁴ Bruce Jones, "The Future of Nato in an Order Transformed," *Brookings* (blog), June 14, 2021, <https://www.brookings.edu/blog/order-from-chaos/2021/06/14/the-future-of-nato-in-an-order-transformed/>.

¹⁵⁵ Flockhart, "A Fractured Alliance in Good Shape?," 12.

¹⁵⁶ Celeste A. Wallander, "NATO's Enemies Within: How Democratic Decline Could Destroy the Alliance," *Foreign Affairs* 97, no. 4 (2018): 70–81.

Still, these internal debates are a distraction from NATO's core tasks, and the Alliance has to stay wary of any exploitation of these discrepancies by its strategic competitors.

Despite these challenges, NATO acts very effectively as one security organization when push comes to shove. Even when Allies interpret aspects differently, each nation stands to the common purpose, goals, and values, agreed on in numerous and often lengthy discussions — also in their own interests. All NATO members significantly profit from a stable Euro-Atlantic security environment. Furthermore, while the Alliance promotes unity in effort, it also emphasizes sovereignty of the nations. Each country is independent in its decisions, what inherently even provides opportunities for NATO. Allies can still work towards the agreed-upon goals, even if no official unified NATO guideline is given. Especially in a GPC environment, focusing on Russia's and China's hostile activities, each Ally has agreed to contain, deter, and in the worst case, defend against these adversaries.¹⁵⁷

2. NATO's Civilian and Military Structure

NATO's structure is based on civilian oversight and a strong military integration. The Alliance's goals, policies, and strategies are always directed and approved by the civilian representatives of NATO member states. All decisions taken have to be consensus-based and agreed on unanimously by the 30 nations. The Alliance's highest decision-making body is the North Atlantic Council (NAC), comprised of member states' permanent representatives or ministers of foreign affairs or defense, or the heads of state or government, depending on the format and urgency. NATO's Secretary General serves as the most important coordinator between civilian and military bodies, and between the allies. Despite NATO's emphasis on its stature as a consensus-based alliance, member states are not required to participate in every "non-Article 5" operation.¹⁵⁸ Furthermore, individual states or coalitions of Allies can initiate action outside NATO's auspices in their own responsibility.

¹⁵⁷ NATO, *NATO 2022 Strategic Concept*, 2.

¹⁵⁸ Yost, *NATO's Balancing Act*, 2014, 9.; The "non-article 5" formula refers to Alliance military operations other than collective defense as defined in Article 5 of the North Atlantic Treaty.

NATO's Military Command Structure (NCS) is under the authority of the Military Committee (MC), NATO's highest military body, which directs NATO's military operations. The NCS consists of two strategic commands: The Allied Command Operations (ACO), located near Mons (Belgium) and the Allied Command Transformation (ACT), located in Norfolk, Virginia (United States). The ACO is responsible for the planning and execution of all NATO military operations, as directed by the NAC. It consists of the strategic-level headquarters, the Supreme Headquarters Allied Powers Europe (SHAPE), along with three Joint Force Commands (JFC) in Naples (Italy), Brunssum (the Netherlands), and Norfolk, Virginia (United States), each capable of commanding major military operations in all domains. The ACT's central responsibilities are the steering of education and training, future military planning, and the promotion of interoperability throughout the Alliance.¹⁵⁹ For military operations, the NCS relies on the NATO Force Structure (NFS). NATO forces are "allied national and multinational forces and headquarters placed at the Alliance's disposal on a permanent or temporary basis" and therefore under direct NCS command.¹⁶⁰ Nevertheless, although the Alliance has an integrated command structure, the vast majority of NATO members' forces remain under their respective national authorities.¹⁶¹

So far, NATO's structure of civilian oversight for military operations, the demand for a unanimous voice in political and strategic matters, and the strong sense of an alliance of independent nations connected by shared values have formed the backbone of NATO's success in maintaining peace and stability in Europe for decades. However, the Russian invasion of Ukraine in 2022 is a watershed moment for the Alliance and rekindled the notion of collective defense. The *NATO 2022 Strategic Concept* is a public signal that NATO is capable of taking action and adaptive in its course, politically and militarily.

¹⁵⁹ Public Diplomacy Division Press & Media Section NATO, "Factsheet NATO Command Structure," NATO, February 2018, https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2018_02/1802-Factsheet-NATO-Command-Structure_en.pdf.

¹⁶⁰ Public Diplomacy Division Press & Media Section NATO.

¹⁶¹ Jonathan Masters, "What Is NATO?," Council on Foreign Relations, May 4, 2022, <https://www.cfr.org/background/what-nato>.

3. Shifts in NATO's Strategic Concepts 2022

Next to the North Atlantic Treaty, the NATO strategic concepts are the predominant political strategic documents to lead NATO's way forward. The 2010 strategic concept *Active Engagement, Modern Defence*, published in the light of nearly two decades of "non-Article 5" missions on the Balkans and in Afghanistan, states that the "Euro-Atlantic area is at peace and the threat against NATO territory is low."¹⁶² However, the wording changed considerably with the most recent *NATO 2022 Strategic Concept*, signed in June 2022: "The Russian Federation's war of aggression against Ukraine has shattered peace."¹⁶³

The *NATO 2022 Strategic Concept* is very clear in naming the two central threats for the stability in the Euro-Atlantic area: 1) The Russian Federation as "the most significant and direct threat to Allies' security;" and 2) Terrorist groups (TG) and "terrorism, in all its forms and manifestations," as the "most direct asymmetric threat to the security of our citizens."¹⁶⁴ This framing reflects the different threat perceptions within the Alliance, with Russia as the central concern of Northern and Eastern allies, and terrorism and stability in Northern Africa as significant factors for Southern NATO members, like Italy and Spain.¹⁶⁵ Still, the concept also broadens the scope and stresses the growing threat towards peace and stability in the Euro-Atlantic area by "strategic competitors" who "seek to exploit the openness, interconnectedness and digitalization" of NATO nations.¹⁶⁶ Accordingly, and alongside Russia, China is singled out as a significant challenger to the Alliance and its members, utilizing "coercive policies," economic warfare, and "malicious hybrid and cyber operations."¹⁶⁷

¹⁶² NATO, *Strategic Concept 2010: Active Engagement, Modern Defence*.

¹⁶³ NATO, *NATO 2022 Strategic Concept*.

¹⁶⁴ NATO, 1, 4.

¹⁶⁵ James Carafano, "NATO Southern Flank Matters More Than Ever, but Who Will Fix It?," The Heritage Foundation, 2022, <https://www.heritage.org/global-politics/commentary/nato-southern-flank-matters-more-ever-who-will-fix-it>.

¹⁶⁶ NATO, *NATO 2022 Strategic Concept*.

¹⁶⁷ NATO, 5.

Still, the Alliance’s three core tasks remained nearly unchanged at first glance from the 2010 to the 2022 strategic concept: *deterrence and defense, crisis prevention and management, and cooperative security*.¹⁶⁸ However, the add-on of *crisis prevention* emphasizes the desire for a more active role of NATO to stop a crisis before an escalation in contrast to simply managing it. Additionally, the tone and wording significantly differ between the concepts. The 2022 document is direct, explicit, and conveys an atmosphere of severity by formulations like “no one should doubt our strength and resolve to defend every inch of Allied territory, and prevail against any aggressor.”¹⁶⁹ While the 2010 strategic document revolved around engagements of choice, the 2022 strategic concept warns of engagements of necessity. With the *NATO 2022 Strategic Concept*, the Alliance clearly adapted its course and refocused on deterrence and defense in a tense competition environment.

4. NATO and the Great Powers

In addition to the discussion about the role of GPs in GPC in Section B of Chapter II, this thesis focuses on the relationship of NATO as an alliance of independent nations towards those GPs to inform the scenario analysis and delineate the roles for SOF.

Russia: The fear among European countries of a “hot war” with the Soviet Union during the Cold War was one of the driving factors for the foundation and the perseverance of NATO. After the dissolution of the Soviet Union, concerns among NATO leaders about a “renewed Russian threat” lingered.¹⁷⁰ After the breakup of the former Eastern Bloc, the new Russian Federation had to deal with a radically changing economic and political system.¹⁷¹ Still, it remained a nuclear superpower. In 1997, at the NATO summit in Paris, France, NATO and Russia signed the Founding Act on Mutual Relations, Cooperation and

¹⁶⁸ NATO, 3.

¹⁶⁹ NATO, 6.

¹⁷⁰ Timothy A. Sayle, *Enduring Alliance: A History of NATO and the Postwar Global Order* (Ithaca, NY: Cornell University Press, 2019), 231.

¹⁷¹ By 1994 all Russian military forces had left the former Warsaw Pact territory.

Security.¹⁷² This act established the “NATO-Russia Permanent Joint Council” (PJC) as a venue for consultations in a variety of security and cooperation topics. In 2002 the NATO-Russia Council (NRC) replaced the PJC and led to a more formalized discussion format, including a permanent Russian office at the NATO HQ.¹⁷³ Russia’s aggressive military action in Georgia in August 2008 led to the suspension of formal meetings of the NRC for about one year, but later resumed normal working processes.¹⁷⁴

The Russian annexation of Crimea in 2014 and the military support of anti-Ukrainian separatist movements in Donbas and Luhansk was a pivotal moment in the NATO-Russian cooperation. Working relationships were suspended, yet not formally cut. At NATO’s summit the same year, the Allies condemned “in the strongest terms Russia’s escalating and illegal military intervention” and called “Russia’s aggressive actions” a fundamental challenge to peace.¹⁷⁵

After the escalation of the Russian-Ukrainian War with Russia’s military invasion beginning on February 24, 2022, NATO’s “Statement by NATO Heads of State and Government” called the attack “brutal, unprovoked and unjustified,” and named it the “gravest threat to Euro-Atlantic security in decades.”¹⁷⁶ In the unfolding full-scale war most NATO countries started providing weapons and significant financial aid to the Ukrainian government to support its defense efforts. Russia’s permanent verbal threat of possible nuclear escalation towards Ukraine’s supporters is called out in the *NATO 2022 Strategic Concept* as “coercive nuclear signaling.”¹⁷⁷ NATO’s nuclear arsenal in also

¹⁷² NATO, “Founding Act on Mutual Relations, Cooperation and Security between NATO and the Russian Federation Signed in Paris, France,” NATO, October 12, 2009, https://www.nato.int/cps/en/natohq/official_texts_25468.htm.

¹⁷³ NATO, *NATO-Russia Council Rome Declaration* (Rome, 2002), https://www.nato.int/nrc-website/media/59487/2002.05.28_nrc_rome_declaration.pdf.

¹⁷⁴ Public Diplomacy Division (PDD) – Press & Media Section NATO, “NATO-Russia Relations: The Background,” NATO, March 2020, https://www.nato.int/nato_static_fl2014/assets/pdf/2020/4/pdf/2003-NATO-Russia_en.pdf.

¹⁷⁵ NATO, “Wales Summit Declaration Issued by NATO Heads of State and Government.”

¹⁷⁶ NATO, “Statement by NATO Heads of State and Government on Russia’s Attack on Ukraine,” NATO, February 25, 2022, https://www.nato.int/cps/en/natohq/official_texts_192489.htm.

¹⁷⁷ NATO, *NATO 2022 Strategic Concept*.

prominently mentioned and its role as “nuclear alliance” highlighted.¹⁷⁸ The NATO-Russian relationships are at a historic low point, and “NATO cannot consider Russia to be a partner” anymore.¹⁷⁹

China: Public NATO announcements and documents avoided naming China explicitly until the meeting of NATO’s heads of state and governments in 2019. In the following “London Declaration,” NATO acknowledged that “China’s growing influence and international policies present both opportunities and challenges.”¹⁸⁰ Over the last decade, China has increasingly employed a broad range of DIME tools to gain global influence and project power without exposing its actual intentions, strategies, and activities.¹⁸¹ China is a significant trading partner to most NATO nations, but utilizes hybrid, cyber, and (dis)information to target and harm stability in the Euro-Atlantic region. Furthermore, the deepening and broadening strategic partnership between Russia and China and their attempts to undercut NATO’s values and security interests is a strategic challenge and possible threat to NATO.¹⁸²

Therefore, the *NATO 2022 Strategic Concept* clearly calls China out as using “coercive policies” that challenge NATO’s interests and values.¹⁸³ Moreover, “the PRC’s malicious hybrid and cyber operations and its confrontational rhetoric and disinformation target Allies and harm Alliance security.”¹⁸⁴ This assertive wording is a remarkable shift in NATO’s stance towards the growing Chinese influence in the Euro-Atlantic area. On the other side, NATO wants to remain open to “constructive engagement” and cooperation on urgent issues like climate change.

¹⁷⁸ NATO, 1.

¹⁷⁹ NATO, “Relations with Russia,” NATO, July 14, 2022, https://www.nato.int/cps/en/natohq/topics_50090.htm.

¹⁸⁰ NATO, “London Declaration Issued by NATO Heads of State and Government,” NATO, December 4, 2019, https://www.nato.int/cps/en/natohq/official_texts_171584.htm.

¹⁸¹ “Joint Statement of the Russian Federation and the People’s Republic of China on the International Relations Entering a New Era and the Global Sustainable Development.”

¹⁸² NATO, *NATO 2022 Strategic Concept*, 1–5.

¹⁸³ NATO, *NATO 2022 Strategic Concept*.

¹⁸⁴ NATO.

Another friction point related to the Chinese sphere of influence is NATO's close partnerships with several Asia-Pacific countries: Australia, Japan, New Zealand, and the Republic of Korea.¹⁸⁵ At NATO's Madrid summit, where the new *NATO 2022 Strategic Concept* was signed, representatives of these four Asian countries participated to strengthen and propagate this strategic cooperation. This is a clear signal for a NATO-Asian partnership with global reach to counter Chinese influence and coercive measures.¹⁸⁶

United States: The United States is without any doubt one of the most crucial NATO members. Concerning budget and military power, the U.S. contribution to the Alliance is the highest in absolute numbers.¹⁸⁷ Despite other worldwide commitments and crises (i.e., Suez 1951, Vietnam 1964–75, Iraq 1991 and 2003) throughout NATO's history, the United States stood steadfast on the side of the European allies and stationed significant military formations and capabilities in Europe. The United States also provides the nuclear umbrella over Europe and facilitates “nuclear sharing” with several NATO partners.¹⁸⁸ NATO cannot uphold a credible nuclear deterrence and thereby the status of a “nuclear alliance” solely relying on British and French capabilities.¹⁸⁹

¹⁸⁵ Katherine Walla, “Opportunity Knocks for Nato and Its Partners in the Asia-Pacific,” *Atlantic Council* (blog), March 26, 2021, <https://www.atlanticcouncil.org/blogs/new-atlanticist/opportunity-knocks-for-nato-and-its-partners-in-the-asia-pacific/>.

¹⁸⁶ Bill Hayton, “NATO Knows Asia Is Vital to Protecting Global Security,” Chatham House – International Affairs Think Tank, June 28, 2022, <https://www.chathamhouse.org/2022/06/nato-knows-asia-vital-protecting-global-security>.

¹⁸⁷ Anthony H. Cordesman and Grace Hwang, *The Need for a New NATO Force Planning Exercise* (Center for Strategic and International Studies, 2022), 5.

¹⁸⁸ Mihailo Jovetic and Michel Roelen, *Snapshot - NATO Nuclear Sharing and the Future of Nuclear Deterrence in Europe* (The Hague, The Netherlands: Hague Centre for Strategic Studies, 2018), <http://www.jstor.org/stable/resrep19579>; Nuclear sharing is a concept in NATO's policy of nuclear deterrence, which allows member countries without nuclear weapons of their own to participate in the planning for the employment of nuclear weapons within NCS. Participating countries also maintain technical equipment (mostly nuclear-capable aircraft) to deliver nuclear weapons in case of war, and store nuclear weapons on their territory.

¹⁸⁹ Jovetic and Roelen.

Nevertheless, the domestic discussion in the United States about whether to stay in NATO during the Trump administration caused severe friction with the Allies.¹⁹⁰ President Trump’s statement not to defend NATO territory if the other NATO members would not raise defense budgets sparked fear that one of the major concerns about NATO stability had come true: the election of an isolationist president in the United States.¹⁹¹

The U.S. position on China still significantly differs from the official NATO standpoint. The U.S. National Security Strategy 2022 clearly names China as the major threat to U.S. security and prosperity.¹⁹² NATO’s military planning has to take into account that the United States risks overstretching its forces if it gets militarily involved in conflicts in both the Pacific region and Europe at the same time.¹⁹³

5. NATO’s Future Strategic Planning and Changing Military Posture

The *NATO 2022 Strategic Concept* is exceptionally forward leaning for a political document pointing to NATO’s future military posture:

We will individually and collectively deliver the full range of forces, capabilities, plans, resources, assets and infrastructure needed for deterrence and defence, including for high-intensity, multi-domain warfighting against nuclear-armed peer-competitors. ... We will deter and defend forward with robust in-place, multi-domain, combat-ready forces, enhanced command and control arrangements, prepositioned ammunition and equipment and improved capacity and infrastructure to rapidly reinforce any Ally, including at short or no notice.¹⁹⁴

Yet, the Alliance’s planning for and adapting to a changing security environment within NATO’s civilian and military structure started earlier. In 2019, NATO’s “London Declaration” publicly demanded from the Alliance’s Secretary General to work on “a

¹⁹⁰ Meghan McGee, “Europe Needs to Push Back Against Trump,” *Foreign Policy* (blog), July 10, 2020, <https://foreignpolicy.com/2020/07/10/trump-europe-nato-transatlantic-push-back/>.

¹⁹¹ McGee; Aaron Blake and Michael Birnbaum, “Trump Says He Threatened Not to Defend NATO against Russia,” *Washington Post*, April 22, 2022, <https://www.washingtonpost.com/world/2022/04/22/trump-says-he-threatened-not-defend-nato-russia/>.

¹⁹² White House, *National Security Strategy of the United States of America*, 11.

¹⁹³ Hal Brands, “The Overstretched Superpower,” *Foreign Affairs Online*, January 18, 2022, <https://www.foreignaffairs.com/articles/china/2022-01-18/overstretched-superpower>.

¹⁹⁴ NATO, *NATO 2022 Strategic Concept*, 6.

forward-looking reflection process to strengthen NATO’s political dimension.”¹⁹⁵ In early 2020, Secretary General Stoltenberg introduced the work on the “NATO 2030 initiative” to make the Alliance ready for the next decade’s challenges. Three main trends are emphasized in the NATO 2030 process:

1. *a changing threat landscape*: focusing on the state actors Russia and China, terrorist groups and organizations (TG), and the shared global challenge of climate change;
2. *shifting internal dynamics*: addressing recent frictions among member states, and threats to democratic stability by disinformation and political polarization;
3. *the continued evolution of warfare*, caused by emerging and disruptive technologies (EDT), like artificial intelligence or hypersonic missiles.¹⁹⁶

The thorough iteration of *NATO 2022 Strategic Concept* is a significant stepping stone in addressing current and future challenges and preparing NATO for the next decades to come.¹⁹⁷

Also in 2019, the new classified NATO Military Strategy (NMS) “Comprehensive Defence, Shared Response” (CDSR) was approved by the NAC.¹⁹⁸ Following the NMS the operational-strategic concept of “Deterrence and Defense of the Euro Atlantic Area” (DDA) was introduced and serves as the overarching guidance for subordinate military documents and planning. It describes military deterrence and defense activities, all

¹⁹⁵ NATO, “London Declaration Issued by NATO Heads of State and Government.”

¹⁹⁶ Jason Blessing, Katherine Kjellstrom Elgin, and Nele Marianne Ewers-Peters, *NATO 2030 Towards a New Strategic Concept and Beyond*. (Washington, DC: Foreign Policy Institute / Henry Kissinger Center for Global Affairs, John Hopkins Univeristy, 2021), 1.

¹⁹⁷ NATO, *NATO 2030: United for a New Era - Analysis and Recommendations of the Reflection Group Appointed by the NATO Secretary General* (Brussels, Belgium: NATO Defense College, 2020), 12, https://www.nato.int/nato_static_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf.

¹⁹⁸ It is the first updated NMS since NATO’s “Flexible Response” strategy in the 1960s.

following NATO's 360-degree approach. At the same level as DDA within NATO's documents landscape resides NATO's Warfighting Capstone Concept (NWCC), a long-term planning initiative about future military capabilities and their influence on the next-generation battlefield, owned by the ACT.¹⁹⁹ Both initiatives, the DDA and the NWCC, serve as central pillars in NATO's military strategic planning.

Derived from the DDA, the *NATO 2022 Strategic Concept* and additional aligned strategic documents, three main elements drive NATO's future military planning: 1) the reorientation to deter, defend, and defeat an adversary; 2) NATO's 360-degree approach and the preparation to compete and fight in all domains and locations; and 3) an emphasis on resilient societies and resistance to any coercive enemy activities. NATO heads of state have announced a "significant *hardening of its deterrence and defense posture* to be able to defend every inch of Allied territory and prevail against any aggressor."²⁰⁰ They agreed to expand the NATO Response Force (NRF) to a so-called Allied Response Force (ARF) from 40,000 to over 300,000 troops.²⁰¹ To effectively perform deterrence and defense, the DDA demands a adaptive, flexible, and responsive force that will be crucial for NATO in a multi-speed, multi-scale, and multi-domain crises or conflicts.²⁰²

NATO's *360-degree approach* is mentioned in most strategic level NATO documents. This concept refers to the ability to deter and defend against adversaries from all directions, "across the land, air, maritime, cyber and space domains, and against all threats and challenges."²⁰³ The DDA points to a growing interdependence of geography, domains, and force readiness and translates the 360-degree approach into clearly stated

¹⁹⁹ NATO Allied Command Transformation, "NATO's Allied Command Transformation Holds Virtual Chiefs of Transformation Conference," NATO ACT, December 3, 2020, <https://www.act.nato.int/articles/act-holds-virtual-cotc>.

²⁰⁰ NATO, *NATO 2022 Strategic Concept*.

²⁰¹ Ed Arnold, "New Concepts but Old Problems: NATO's New Strategic Concept," RUSI, July 1, 2022, <https://www.rusi.org/explore-our-research/publications/commentary/new-concepts-old-problems-natos-new-strategic-concept>.

²⁰² Julian Lindley-French, "The Lindley-French Analysis: Speaking Truth Unto Power: The Nato Strategic Integrated Operating Concept," *The Lindley-French Analysis* (blog), October 14, 2020, <https://lindleyfrench.blogspot.com/2020/10/the-nato-strategic-integrated-operating.html>.

²⁰³ NATO, "Deterrence and Defence," NATO, September 12, 2022, https://www.nato.int/cps/en/natohq/topics_133127.htm.

geographic and domain objectives to alleviate multiple dilemmas caused by adversaries with military means.²⁰⁴

The establishment and support of *resilient societies* and a focus on *resistance* have prominently surfaced in NATO declarations and concepts especially since the Russian aggression in 2014. The *NATO 2022 Strategic Concept* states that the Alliance will “pursue a more robust, integrated and coherent approach to building national and Alliance-wide resilience against military and non-military threats and challenges to our security, as a national responsibility and a collective commitment rooted in Article 3 of the North Atlantic Treaty.”²⁰⁵ Article 3 requires all NATO members to “develop their individual and collective capacity to resist armed attack.”²⁰⁶ An example for the implementation of *resistance* as part of a whole-of-society resilience is NATO’s *Comprehensive Defence Handbook* that provides hands-on advice on how to train and prepare a population to resist an hostile power. This handbook was crafted under the direction of the NATO Special Operations Headquarters and published in 2020 as an unclassified, open-source document.²⁰⁷

6. What Is NATO SOF?

NATO’s general view on the purpose of SOF and SO is summarized in the first paragraph of AJP-3.5: “Special operations may deliver strategic or operational level results and might be executed where significant political risk exists.”²⁰⁸ Yet, the NATO publication does not explicitly clarify the difference between SOF of member states, also called National SOF, and NATO SOF. Hence, the term “NATO SOF” is often misused as an overarching expression for any SOF unit of NATO countries and deserves

²⁰⁴ Lindley-French, “The Lindley-French Analysis.”

²⁰⁵ NATO, *NATO 2022 Strategic Concept*.

²⁰⁶ North Atlantic Treaty Organization, “The North Atlantic Treaty.”

²⁰⁷ NSHQ, *Comprehensive Defence Handbook*, A Version 1, vol. 1, 2 vols. (SHAPE, Belgium: Nato Special Operations Headquarters, 2020).

²⁰⁸ NATO, *Allied Joint Doctrine for the Conduct of Operations*.

clarification.²⁰⁹ Lieutenant General Fletcher, commander of the NSHQ (COM NSHQ), acknowledges that “it confuses people when we say NATO SOF because NATO does not have an own SOF.”²¹⁰ Furthermore, publicly referring to spelled-out definitions is difficult as most in-depth documents about SOF within NATO are classified. The NSHQ study *SOF Roles in Comprehensive Defence Across the Spectrum of Conflict* clearly describes, separates, and distinguishes NATO and National SOF:

NATO SOF consists of standing NATO military headquarters elements and those SOF operating under a NATO mandate. The standing organizations are the NSHQ, the SHAPE Office of Special Operations (OSO), the Special Operations Forces Advisors (SOFADs) and liaisons assigned to headquarters across the NATO Command Structure (NCS) and NATO Force Structure (NFS). These elements comprise the NATO SOF Enterprise. ... NATO SOF are augmented in peacetime by SOF command and control (C2) structures created for current operations, national SOF units deployed in support of those operations, and SOF participating in NATO exercises, operations, activities or the NATO Response Force.²¹¹

National SOF, on the other hand, “include units organized to meet special operations mission requirements as defined by NATO and the nation; units organized for special operations outside NATO definitions; and units reserved for national purposes.”²¹²

Lieutenant Colonels Thomas Mott and Willem Melchers, two experienced officers working at the Office of Special Operations (OSO), pointed to the discussion within NATO’s SOF enterprise: “You could argue that NSHQ is also NATO SOF, but there is no standing body of forces.”²¹³ On the other side, they clarify that several SOF elements, like the NRF’s SOCC, equipped and manned by NATO members, are assigned to NATO missions and, therefore, are considered NATO SOF. Nevertheless, all interviewed SOF

²⁰⁹ Madeleine Moon, *Nato Special Operations Forces in the Modern Security Environment*, Defence and Security Committee 064DSCFC18E (NATO Parliamentary Assembly Sub-Committee on Future Security and Defence Capabilities, 2018).

²¹⁰ Antonio Fletcher, Personal communication with LTG Fletcher, COM NSHQ, VTC, May 12, 2022.

²¹¹ NATO SOF HQ, *SOF Roles in Comprehensive Defence Across the Spectrum of Conflict - NATO Restricted*, 4. Unrestricted Paragraph.; NATO Special Operations Component Command – Afghanistan (NSOCC-A) serves as an example in a permissive environment.

²¹² NATO SOF HQ, 3. Unrestricted Paragraph.

²¹³ Willem Melchers and Thomas Mott, Personal communication with Lt Col Melchers and Lt Col Mott OSO SHAPE, VTC, June 11, 2022.

experts concur that NATO SOF can practically only be named as such if it includes operational and deployable SOF units. Lieutenant General Fletcher explains that “you really only get NATO SOF when the NAC actually identifies a crisis and forces are handed over to be part of the NATO force structure.”²¹⁴

Therefore, this thesis uses the terms National and NATO SOF as: *National SOF* are SOF of NATO members that are under national C2, no matter whether they are working for NATO goals or national purposes. Thus, *NATO SOF* are SOF elements of NATO members that fulfill all necessary standards defined by the NSHQ for SOF in NATO, and that are under NATO Command and Control (C2) and, therefore, are part of NATO’s force structure. Or, to put it in another way, “SOF of NATO nations flagged under NATO [are] NATO SOF.”²¹⁵

NATO has developed a standing and doctrinal structure for coordinating SOF activities within the Alliance. SOF elements of NATO members have trained and operated together already throughout the Cold War era and the 1990s. However, the conflicts in Afghanistan (as of 2001) and Iraq (as of 2003) involved many NATO nations with a significant SOF contribution. Despite successful campaigns and mission, “gaps in policy, organization, interoperability, and resourcing” surfaced and proved the ad-hoc command structures inadequate.²¹⁶

At the Riga Summit in 2006, NATO Heads of State acknowledged these shortcomings and launched the NATO SOF “transformation initiative (NSTI) aimed at increasing their ability to train and operate together.”²¹⁷ The NSTI included the establishment of the SHAPE Special Operations Office (SSOO), now the Office of Special Operations (OSO), and the NATO Special Operations Coordination Center (NSCC). This structure proved effective, especially in the support for the NATO Special Operations

²¹⁴ Antonio Fletcher, Personal communication with LTG Fletcher, COM NSHQ.

²¹⁵ LeAnne Howard, Personal communication with LeAnne Howard, VTC, June 1, 2022.

²¹⁶ Sandor Fabian, “NATO Special Operations Forces: Even If It Is Not Broken Yet, It Needs to Be Fixed,” *Special Operations Journal* 4, no. 2 (July 3, 2018): 190, <https://doi.org/10.1080/23296151.2018.1511084>.

²¹⁷ NATO, “Riga Summit Declaration Issued by NATO Heads of State and Government (2006),” NATO, November 29, 2006, https://www.nato.int/cps/en/natohq/official_texts_37920.htm.

Component Command Afghanistan (NSOCC-A), which oversaw all SOF operations within NATO's ISAF mission. In 2009, the NAC approved the restructuring of NATO's SOF elements and the NSCC got reorganized as the NSHQ with a significantly increased work force. In NATO's current SOF structure, the OSO is an integral element of SHAPE and therefore a part of NATO's command structure (NCS). The OSO provides advice and assistance to SHAPE staff in all SOF matters and serves primarily at the political-strategic level. On the other side, the NSHQ is based upon a Memorandum of Understanding (MOU) agreement among SHAPE, contributing nations, and the United States as the framework nation, and is therefore not an integral part of NATO's command or force structure.²¹⁸

The NSHQ is the primary point of coordination and synchronization for all NATO Special Operations-related activities to facilitate the employment of SOF.²¹⁹ It is also the Alliance's SOF proponent for "NATO SOF policy, doctrine, capabilities, standards, training, education" and assessments to forge collaboration, interoperability, and enhance employment of NATO Special Operations.²²⁰ Marsh describes NSHQ's role as "the coordinating function among SOF and NATO members and less of a SOCOM; it's not utilizing and employing its own forces, but it is a kind of a superstructure above national level SOF."²²¹ The commander of the NSHQ is dual-hatted: As commander of the NSHQ, he is the head of a MOU organization and not part of the NATO force structure. In this role he is NATO's SOF coordinator and talks to national SOF commanders and brings the international SOF community together. On the other hand, he is the SOF Advisor (SOFAD) for SHAPE and serves as Director of Special Operations (DSO) on SACEUR's Special Staff.²²² As SOFAD, he interacts with SACEUR, the MC, and, if needed, even with the NAC. As a three-star commander, he has also the leverage to talk independently to national Chiefs of Defense (CHOD). The unified leadership and close daily working relationships

²¹⁸ NSHQ, *NATO Special Operations Headquarters Handbook*, NATO Unclassified (Mons, Belgium, 2020), 5.

²¹⁹ NSHQ, 7–8.

²²⁰ NATO, "Special Operations Forces," NATO, February 24, 2015, https://www.nato.int/cps/en/natohq/topics_105950.htm.

²²¹ Marsh, Personal communication with Dr. Christopher Marsh.

²²² NSHQ, *NATO Special Operations Headquarters Handbook*, 9.

between the OSO and NSHQ drive a strong collaboration and facilitate the coordination within NATO's SOF communities.²²³

Fueled by changes in the security environment after 2014, NSHQ started to redirect and realign NATO's SOF approach.²²⁴ After being NATO's "de facto military instrument of choice for the broader global counterterrorism campaign,"²²⁵ SOF units had to adapt towards NATO's focus on deterrence and defense. Under NSHQ's guidance a series of studies were conducted, aligned to NATO's DDA and NWCC developments.²²⁶ Central concerns are the roles of SOF along the 3C conflict continuum and within NATO's Resilience Framework, based on Article 3 of the North Atlantic Treaty.²²⁷ One of the outcomes is the publication of NATO's *Comprehensive Defence Handbook* in 2020, which was drafted by NSHQ and significantly supported by former COM NSHQ Lieutenant General (ret.) Eric Wendt.²²⁸ The central idea of SOF in comprehensive defense is their active support to national resilience and resistance before and after the outbreak of military hostilities, strongly aligning to the "classic" MA missions conducted abroad. As a consequence, the question of whether separate SOF units should specialize in either DA or MA missions to maintain the high standards for each is debated.²²⁹ Furthermore, NATO has introduced the term UW into its lexicon, following the U.S. definition of working by, with, and through indigenous or local forces. However, there is no expectation that UW will become a SOF task in future NATO doctrine. Instead, this step recognizes that some Allies have this capability and expands the possibility of what DA, SR, and MA can be. The intent is to integrate national capabilities with national authorities acting in national defense with NATO objectives and advance plans. National SOF can perform missions

²²³ Willem Melchers and Thomas Mott, Personal communication with Lt Col Melchers and Lt Col Mott OSO SHAPE.

²²⁴ LeAnne Howard, Personal communication with LeAnne Howard.

²²⁵ Moon, *NATO Special Operations Forces in the Modern Security Environment*.

²²⁶ NATO SOF HQ, *SOF Roles in Comprehensive Defence Across the Spectrum of Conflict - NATO Restricted*.

²²⁷ NATO SOF HQ; North Atlantic Treaty Organization, "The North Atlantic Treaty."

²²⁸ NSHQ, *Comprehensive Defence Handbook*.

²²⁹ Wendt, "Comprehensive Defense: A Whole-of-Society Approach via Irregular Forces," 32.

across peace, crisis, and conflict, that NATO SOF simply cannot under extant NAC authorities.

The trend towards a more formalized regionalization of SOF units is also part of the discussion about the future focus of NATO and National SOF. Unquestionably, SOF units training and living in certain geographic regions are more proficient to operate there than others. An example is that of Norwegian SOF (and in the future Swedish and Finnish SOF, too) who are best suited to conduct missions at NATO's Northern flank, compared to other National SOF units.²³⁰ However, minimum standards for all SOF units certified by NATO still apply to maintain cohesion and interoperability within NATO's SOF community.

The backbone of the discussion about the strategic utility, future employment, and role of SOF is the common understanding of their "value proposition." NSHQ's study *SOF Roles in Comprehensive Defence Across the Spectrum of Conflict* describes two principal ways of how "SOF provide value to their employers": 1) "SOF expand the menu of options for use of the military instrument, offering unique capabilities that may be creatively applied in any context;" and 2) "SOF offer greater economy of force and reward relative to less suitable instruments, to include situations in which conventional military forces may be inappropriate, escalatory or where other government entities may lack capability." The close reference to Gray's two master claims about the strategic utility of SOF—*economy of force* and *escalation of choice*— is no coincidence.²³¹ The discussion and verification of those claims is one of the main aims in Chapter IV, "Scenario Analysis."

²³⁰ Antonio Fletcher, Personal communication with LTG Fletcher, COM NSHQ; Willem Melchers and Thomas Mott, Personal communication with Lt Col Melchers and Lt Col Mott OSO SHAPE; LeAnne Howard, Personal communication with LeAnne Howard.

²³¹ Gray, *Explorations in Strategy*, 1996, 169.

III. SCENARIO BUILDING AND METHODOLOGY

The problem for defense planning that is beyond resolution is the scientifically certain fact that we have no data from the future about the future.

— Colin S. Gray, *Strategist*²³²

The discussion about the future strategic utility of SOF requires some form of evidence, not mere speculation. While evidence on the future seems initially contradictory, this thesis aims to provide this scientifically grounded qualitative data for the research question on SOF's role in the future. This chapter explains the research design to determine the strategic utility of SOF from a NATO perspective, by analyzing science-based fictional stories presenting possible future strategic problem sets in the Euro-Atlantic area. As discussed in Chapter II, the hypothesis is that SOF have strategic utility when: 1) they have utility (are useful) under the given circumstances, without considering the strategic implications initially, and 2) they create strategic effects, following the two master claims of providing *economy of force* and *expansion of choice* compared to other military options. Two analytical tools test these premises in sequence: 1) the "SOF tasks and activities" tool, which examines the utility of SOF, and 2) the "out of the box" tool, which provides a framework to discuss the two central claims for the strategic utility of SOF. This method is applied in two case studies in Chapter IV, both based on a fictitious but realistic scenario.

A central element of the thesis is to develop scenarios in the near future with a timeframe looking approximately one decade ahead. This approach meets three central challenges for the research question: 1) the determination of strategic utility is generally barely possible with quantitative means, as the two master claims *economy of force* and *expansion of choice* cannot simply be measured in a complex future security environment; 2) the prediction of future crises and conflicts, and forecasting when, where, and how they are fought is speculative; and 3) the discussion on SOF's role in GPC requires transparent and comprehensible logic and reasoning, as it is often accompanied by an emotional

²³² Colin S. Gray, *Defense Planning for National Security: Navigation Aids for the Mystery Tour* (Fort Belvoir, VA: Defense Technical Information Center, 2014), <https://doi.org/10.21236/ADA597098>.

undertone in public debates and with some SOF stakeholders fearing to lose their status as the primary fighting force, earned in the recent decades of CT and COIN operations. Therefore, the discussion about the strategic utility of SOF needs a thorough qualitative process that avoids any bias.

This chapter describes the methodology for how to determine and build valuable scenarios, use imagination to write realistic vignettes, and to analyze the strategic utility of SOF when examining these vignettes. The first section explains the three-step approach for the scenario building and vignette writing, introducing the Three-Axes Model for case selection, the escalation matrix for developing a deep understanding of the respective security environment, and imagination as critical trait for the writing of vignettes. The second section then explains the two analytical tools to carve out the strategic utility of SOF for NATO in those scenarios: 1) the “SOF tasks and activities” tool, and 2) the “out of the box” tool.

A. SCENARIO DEVELOPMENT AND VIGNETTES – A THREE-STEP PROCESS

Knowledge without imagination can tell you where you are but not where to go.

— Kathleen J. McInnis, Political Scientist²³³

Scenarios are particularly well suited to discuss the strategic utility of SOF in a future context, because they are “integrating several aspects of a situation more or less simultaneously,” as strategist Herman Kahn and futurist Anthony J. Wiener state.²³⁴ Yet, the development of realistic scenarios that follows strict logic is mandatory to provide the useful background for an academic analysis. A scenario is defined as “an account or

²³³ Kathleen J. McInnis, “Strategists Have Forgotten the Power of Stories,” *Foreign Policy* (blog), May 19, 2020, <https://foreignpolicy.com/2020/05/19/national-security-policy-making-mythos-logos-strategy/>.

²³⁴ Herman Kahn and Anthony J. Wiener, “The Use of Scenarios: The Year 2000, A Framework for Speculation on the Next Thirty-Three Years,” Hudson Institute, 1967, <https://www.hudson.org/technology/the-use-of-scenarios>.

synopsis of a possible course of action or events.”²³⁵ Kahn and Wiener say that “scenarios are attempts to describe in some detail a hypothetical sequence of events that could lead plausibly to the situation envisaged. ... By the use of a relatively extensive scenario, the analyst may be able to get a feeling for events and the branching points dependent upon critical choices.”²³⁶ Political scientists Martin Neill, Wade P. Hinkle, and Gary Morgan emphasize that a scenario’s plausibility “is essential to its credibility.”²³⁷ They add that this credibility should be “based on intelligence” and evidence.²³⁸ To satisfy this demand, in other words, the fact-based grounding of the scenarios for the scenario development in this thesis grounds itself in a thorough examination of academic and publicly available sources, which are supported and enhanced by interviews with SMEs from relevant political, military, and academic fields.

A realistic, large-scale scenario includes several events, storylines, and decision-points. To better grasp a broad futuristic scenario, vignettes are very useful. These are short descriptive pieces of writing which are embedded in the scenario and focus only on specific storylines or decision-points to make the complex environment comprehensible and tangible. A scenario can consist of numerous such short stories. The goal of the proposed scenario development process is to create realistic yet fictional vignettes, which are rooted in a broad future security environment while focusing on the discussion of SOF’s employment on a military strategic level.

The scenario development follows a three-step process: The first step is the determination of the problem set and case selection regarding the factors “intensity of conflict” (along the 3C conflict continuum), the “direction of conflict” (geographical and domain placement), and the “development over time,” and identifies the relevant actors in

²³⁵ *Merriam-Webster*, s.v. “scenario,” accessed August 25, 2022, <https://www.merriam-webster.com/dictionary/scenario>.

²³⁶ Kahn and Wiener, “The Use of Scenarios: The Year 2000, A Framework for Speculation on the Next Thirty-Three Years.”

²³⁷ Martin Neill, Wade P. Hinkle, and Gary Morgan, *Scenarios — International Best Practice: An Analysis of Their Use by the United States, United Kingdom, and Republic of Korea* (Alexandria, VA: Institute for Defense Analyses, 2016), 3, <https://www-jstor-org.libproxy.nps.edu/stable/resrep22842>.

²³⁸ Martin Neill, Wade P. Hinkle, and Gary Morgan, 3.

the scenario and outlines their relationship to each other. The second step is the development of a scientifically sound scenario structure, using an enhanced escalation matrix tailored to GPC, to describe the security environment along structural and proximate variables of conflict. This enhanced matrix is adopted from Timothy Heath and Matthew Lane’s RAND study on *Science-Based Scenario Design: A Proposed Method to Support Political-Strategic Analysis*.²³⁹ Connecting relevant factors and conflict variables leads to several possible scenario plotlines—the “scenario skeleton.” The third and final step is the enhancement of these evidence-based plotlines with imagination, adding the scenario’s “flesh and blood.” The result is a well-crafted short story that combines known facts with fiction. However, this fiction is no free fabrication, but has to be grounded in the academic discussion on the **future security environment** (FSE). Expectations and assumptions about future political, social, and technological developments greatly define the upcoming potential strategic problem sets and stimulate the imagination about future trends. The FSE is examined in more detail in the first section of Chapter IV, “Scenario Analysis.”

1. Case Selection with the Three-Axes Model

The first step in the scenario development is the determination of when, where, and how a scenario unfolds, focused on the research question. One overarching scenario that covers all aspects of the complex strategic competition environment would be difficult to create and not valuable to discuss the strategic utility of SOF. The Three-Axes Model helps to localize and determine useful cases and narrows the conflict situation. Figure 2 depicts the model’s main elements.

²³⁹ Timothy Heath and Matthew Lane, *Science-Based Scenario Design: A Proposed Method to Support Political-Strategic Analysis* (RAND Corporation, 2019), <https://doi.org/10.7249/RR2833>.

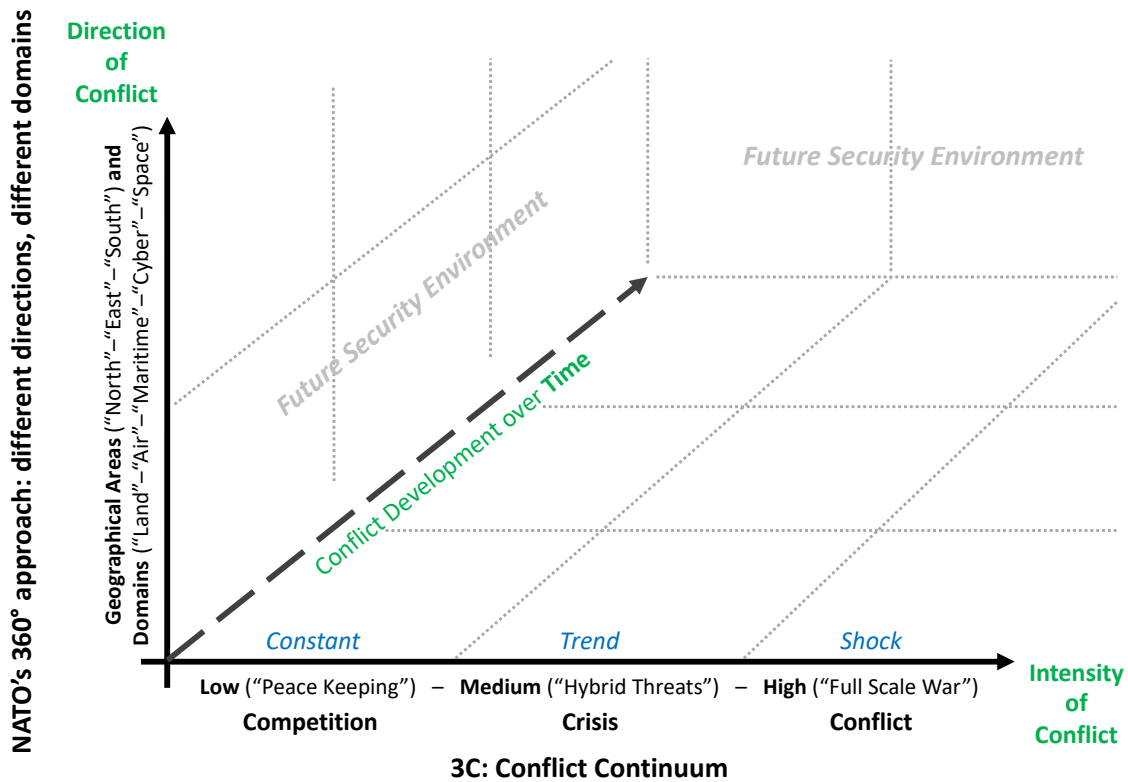


Figure 2. The Three-Axes Model for Scenario Case Selection

The **first axis** examines the **intensity of conflict**, based on the 3C conflict continuum “competition-crisis-conflict.” Even without the precise separation of these phases in reality, they resemble the idea of constants, trends, and shocks in types of conflict. Low-intensity conflict in the competition phase is the “norm” in strategic competition and the constant denominator for NATO’s force structure and organization in the last decades. Low-intensity operations can have violent peaks in tactical operations yet do not involve large combat operations.

Medium-intensity conflict is closely connected with hybrid conflict. It includes violent and non-violent activities along the whole DIME spectrum of instruments of national power, and incorporates violent acts by proxies, but are not overtly conducted by one of the great powers.²⁴⁰ The trend toward hybrid conflicts, involving a broad variety of state means in all

²⁴⁰ Hoffman, “Examining Complex Forms of Conflict: Gray Zone and Hybrid Challenges,” 31–47.

domains, is one of the central observations of “evolution” in conflict.²⁴¹ Despite violent elements, medium-intensity conflicts remain under the threshold of armed conflict, or, in NATO terms, below the Article 5 threshold.

High-intensity conflict marks the top end of the intensity scale. This phase enters open combat operations in all domains by state actors, yet also includes violent and non-violent activities by proxies, and hostile influencing campaigns in the cyber domain. For example, the Russian invasion of Ukraine in 2022 crossed the threshold from hybrid conflict to armed conflict and war at NATO’s Eastern flank, which includes military combat operations by regular forces, separatists and insurgents, and private military contractors. High-intensity conflict is often accompanied by shocks in the security environment, which is defined as decision-makers and societies being “overwhelmed by change.”²⁴² The adaptability to shocks illustrates the resilience of affected actors and nations.

Operations in low-intensity conflict have clearly been the norm for NATO and its SOF enterprise in the last decades. For example, peace-support operations in the Balkans, maritime security operations in the Mediterranean Sea and at the Horn of Africa, and the long-term engagement in Afghanistan are all defined as low-intensity operations without large-scale all-domain combat operations. While specific missions were clearly high-risk and did cost significant human life, the adversary often was terrorist groups and militias rather than near-peer militaries. SOF of NATO members is well suited and highly experienced in these low-intensity security environments. Still, especially Eastern European SOF units in the Baltics, Poland, or Romania have gained experience in medium-intensity operations in recent years, by countering Russia’s mostly hybrid attempts threatening their national security or by conducting training missions in Ukraine or Georgia.²⁴³ Furthermore, NATO in general and its SOF in particular have almost no experience in high-intensity conflict. The trend in GPC shifts to gray zone and hybrid operations in the Euro-Atlantic area and the escalation of

²⁴¹ Peter Schwartz, *The Art of the Long View: Planning for the Future in an Uncertain World* (New York: Currency Doubleday, 1996), 147.

²⁴² Alvin Toffler, *Future Shock* (New York: Bantam Book/Random House, 1970), 1.

²⁴³ Andrew White, “Ukraine Conflict: Ukrainian Special Operations Forces in Focus,” *Janes News* (blog), March 4, 2022, <https://www.janes.com/defence-news/news-detail/ukraine-conflict-ukrainian-special-operations-forces-in-focus>.

conflict in Ukraine in 2022 serve as cruel reminders that high-intensity conflict is still possible. Hence, the examination of the strategic utility of SOF in a GPC environment for NATO is most interesting in medium-intensity levels of conflict and how to avoid the escalation to high-intensity engagements.

The **second axis** in the Three-Axes Model describes the **direction of conflict**. It refers to the geographical areas and domains in which a conflict plays out. Figure 2 labels NATO's 360-degree approach. This concept refers to the Alliance's ability to deter and defend against adversaries from all directions, "across the land, air, maritime, cyber and space domains, and against all threats and challenges."²⁴⁴ The "direction of conflict axis" aims to facilitate a qualitative discussion and decision on the involved geographical regions and domains and does not follow an incremental process.

In an examination of the geography of the Euro-Atlantic area and its periphery for signs of growing tensions between the GPs, three key security regions catch the eye: 1) North Africa, with European, NATO, Russian, and Chinese military activities, high economic interests, and unstable local political conditions; 2) Eastern Europe/Black Sea, with growing military tensions at NATO's Eastern flank, open Russian hostilities in its "sphere of influence," and strong economic interests along gas- and oil-pipelines in and around the Black Sea by most European countries and China (as part of the BRI); and 3) the Arctic or High North, with rapidly changing environmental conditions, growing tensions about resource exploitation, and its expected relevance as a global sea trading route from Europe to Asia. NATO names all these regions in the *NATO 2022 Strategic Concept*.²⁴⁵ SOF of NATO members have significant experience in "out of area" operations in North Africa and the Middle East. However, SOF seem to have little practical experience in operating at NATO's edges—and the Arctic region is for most militaries worldwide a new operational environment. Therefore, the scenarios focus on NATO's Eastern/South-Eastern and Northern flanks to

²⁴⁴ NATO, "Deterrence and Defence."

²⁴⁵ NATO, *NATO 2022 Strategic Concept*, 4. The NATO strategic concept highlights the Arctic as a security concern due to Russia's ability to disrupt Allied reinforcements and freedom of navigation as a strategic challenge. Furthermore, it stresses the military buildup in the Baltic, Black Sea, and Mediterranean Sea region, along with its military integration with Belarus and the invasion of Ukraine on the edges of NATO territory, threatening NATO's security and stability.

discuss these gaps. Furthermore, both scenarios are settled in a multi-domain environment, with a focus on land and sea. Nevertheless, space and cyber are also touched upon in the discussion on SOF's likely tasks in the vignettes.

The **third axis** in the Three-Axes Model is the **conflict development over time**. Conflicts evolve and change, sometimes gradually but often within short timeframes. The development of conflict is linked to the 3C conflict continuum but does not necessarily follow exactly this sequence. While the long-term development of the future security environment includes, of course, a large amount of uncertainty, possible realistic assumptions have to be considered in the scenario determination. The vignettes discussed in Chapter IV do not examine in detail the long-term development of the respective security environments but can only focus on specific conflict time stamps that are useful to answer the research question.

The thesis aims to develop scenarios in the near future with a timeframe of approximately one decade from drafting. The security situation in the Euro-Atlantic area, with NATO as the most important bulwark for stability and peace, can dramatically change in this timeframe. Nevertheless, many trends and developments—political, military, and technological—can be anticipated for a decade and may fade the farther away the outlook gets. Therefore, NATO regularly updates its strategic concept about every ten years. Adding to the discussion about SOF's future role in GPC, with GPC already unfolding for several years, a decade seems to be an adequate “distance” from which to discuss new developments without utilizing too many assumptions and purely poking in the fog.

This thesis focuses on two cases, the **Black Sea region** in a hybrid warfare context and the **Arctic region** with a high-intensity context. NATO clearly states that “the Black Sea region is of strategic importance for the Alliance.”²⁴⁶ Furthermore, NATO highlights the relevance of climate change for global security and points to the Arctic. The *NATO 2022 Strategic Concept* adds in regards to Russia that “it aims to destabilize countries to the East and South,” and that “in the High North, its capability to disrupt Allied reinforcement and freedom of navigation across the North Atlantic is a strategic challenge to the Alliance.”²⁴⁷

²⁴⁶ NATO, 11.

²⁴⁷ NATO, 4.

The Black Sea and Arctic regions are also of high interest to the other GPs and are areas where regional and geopolitical crises erupt or are likely to erupt in following years with accelerating climate change and changing energy requirements. Furthermore, SOF of NATO members will very likely play a role, kinetic and non-kinetic, in both theaters, while NATO doctrine, training, and education still needs to adapt. Details of the scenario and vignette development for the “Black Sea” and “Arctic” scenarios are provided in Chapter IV.

2. The Escalation Matrix

The second step in scenario development process is building a template of relevant structural and proximate factors of the determined scenario: the **escalation matrix**.²⁴⁸ The analysis of academic sources on GPC, previous conflicts, and the FSE verify the matrix’s content. The purpose of the escalation matrix is 1) to gain an integrated, deep understanding of the scenario’s security environment, 2) to explore various conflict variables from a holistic perspective, helping to realize each variable’s escalatory and de-escalatory influence on the security situation, and 3) to identify essential, interesting, or even controversial elements which later form the storyline of the vignettes or short stories.

Before discussing the various conflict variables in detail, the central actors in the scenario must be pinpointed. Heath and Lane categorize in their work great powers, regional powers, minor powers, and non-state actors.²⁴⁹ To reflect the complexity of the GPC discussion and of the Euro-Atlantic area, two additional categories are introduced in this thesis: 1) trans-regional powers that are separate from great powers in having available yet not unusual force capability; and 2) International Governmental Organizations (IGO), which are often only regarded as formal diplomatic forums, and are now identified as unified political and military actors.²⁵⁰ Table 3 defines each of the categories, following the depiction by Heath and Lane.

²⁴⁸ Heath and Lane, *Science-Based Scenario Design*, 22.

²⁴⁹ Heath and Lane, 20.

²⁵⁰ Lynch, *Strategic Assessment 2020*.

Table 3. Typology of Antagonists

Typology of Antagonists		
Type	Definition	Examples
Great Power	A large country that has three main characteristics: 1) “Unusual capabilities [e.g., nuclear weapons, dominant disruptive technology, size of military forces] in comparison with those of other states;” 2) “behavior that indicates a willingness to use those capabilities in and beyond the state’s immediate neighborhood;” and 3) “the perception by the other actors that the state has both unusual capabilities and the willingness to use them.” ²⁵¹	United States, China, Russia
Trans-regional Power	“A large, wealthy country with a relatively advanced economy; technologically advanced militaries capable of projecting some power beyond its immediate periphery”	Japan, United Kingdom, India, France, Germany
Regional Power	“Relatively prosperous medium-sized countries with either small, advanced economies or larger mixed economies; relatively modern militaries, but ability to project power mostly confined to periphery” ²⁵²	Iran, Australia, Singapore, Vietnam, Taiwan, South Africa, Pakistan, Brazil
Minor Power	“Poorer small to medium countries with less developed economies; militaries generally less technologically advanced” ²⁵³	Cambodia, Afghanistan, Guatemala, Nicaragua, Sudan, Somalia
Non State Actor	Armed and non-armed groups and private organizations operating within a country or across national boundaries ²⁵⁴	ISIS, Al Qaeda, Taliban, various insurgency groups, separatist movements, PMCs, militias
International Governmental Organization (IGO)	Associations, coalitions, or alliances of national states and organizations consisting of nation states (internationally recognized) with a common agenda (IGOs can act as a singular actor with one common leadership, command structure, and goals)	NATO, BRICS, EU, ASEAN, CIS, UN <i>NATO-led ISAF/RS from 2001–2014, UN-led intervention in Korea 1950. (Temporary alliances for a specific crisis or conflict—for example, a coalition of the willing, i.e., Operation Inherent Resolve - Iraq & Syria 2015–current)</i>

After the selection of the scenario’s central actors, the escalation matrix needs to be filled with a focus on the GPs and relevant antagonist. Each box should be considered and discussed to deepen the understanding of the roots and reasons behind a crisis or conflict. *Structural variables* are broad systemic, economic, or societal level forces that

²⁵¹ Lynch, 1–2.

²⁵² Heath and Lane, *Science-Based Scenario Design*, 20.

²⁵³ Heath and Lane, 20.

²⁵⁴ Heath and Lane, 20.

shape the context for crises and conflict—the *roots of conflict*. These factors regularly develop and change over time and provide the, in many instances, subjectively rational incentive for decision-makers to use force. On the other hand, *proximate variables* are immediate factors that affect individual decision-makers or crisis situations—the cause of conflict or *casus belli*. They directly initiate decisions for the use of force in crisis or conflict. Each of these factors, structural and proximate, can either have escalatory or de-escalatory effects, depending on the particular characteristics of the scenario’s security environment.

Table 4 (structural variables) and Table 5 (proximate variables) show the explanatory escalation template for the GPC environment, enhancing the presentation by Heath and Lane. Next to each variable, the tables show aspects of how these variables can either have a de-escalatory or an escalatory effect. Furthermore, explanatory examples of means and measures to identify these variables are listed.

Table 4. Escalation Matrix (Structural Variables).²⁵⁵

Generic Escalation Matrix for Structural Variables in Great Power Competition			
Variable	Structural Variables		Measures
	De-Escalatory	Escalatory	
Shift in balance of power	Incremental change	Rapid change	Relative change in gross domestic product (GDP), military force balance of power, leadership position in the international system
Dispute issues	Few, easily managed	Multiple topics, intractable, involving both positional and territorial issues	Variety, type, and history of disputes between two rivals, but also evidence that other countries are “joining in” with one side or the other
Subvariables: 1) Access to resources	<i>Stable trading mechanisms, fair market behavior</i>	<i>Exploitation of market positions, high demographic pressure, survival mechanism activated (water, food, basic services, etc.)</i>	<i>Economic dependence on resources, technological changes over time (changing raw materials), water and/or food shortage</i>
2) Infrastructure incl. overland & oversea bases	<i>Shared use of infrastructure, stable agreements for joint exploitation and use</i>	<i>Intolerable imbalances, building new military infrastructure, renewed use or upgrading of existing bases</i>	<i>Newly developing trading routes and energy supply lines, geopolitical position (sea ports, extended land borders)</i>
3) Interdependence (entanglement)	<i>Strong economic autonomy, stable and robust supply chains, availability of buffers (territorial, supplies, economy)</i>	<i>High dependence on external stability, political and economic domestic friction</i>	<i>Dependence on global economic/military stability, vulnerable international supply chains, likelihood of regional/global domino effects</i>
Rivalry dynamics	Actors regard each other as low threat, peaceful competitor	Actors regard each other as highly threatening and as hostile/adverse competitor	Official designations of primary and secondary threats, evidence of “enemy image,” linkage of competitive policies to the threat posed by rival
History of militarized crises	None or fewer than one	More than three severe crises	Destabilizing political-military incidents involving militarized assets that were ultimately resolved diplomatically
Partnership & alliance building	Little effort to expand alliance/security partnerships/economic partnership	Intense effort to expand alliances, partnerships (to target other)	Announcements, activity indicating a buildup of security partnerships aimed (in part) at rival country, <i>formalized security relationships with allies, in the form of a defense-pact, a non-aggression pact, or an entente</i>
Arms development (technology and quantity)	Little evidence of military buildup / technological competing edge	Arms racing, rapid and intense arms buildup aimed at each other	Increases in defense spending and pace of buildup of military assets that could be used against rival, weapons exports to other actors, foreign military sales (FMS) (allies, friendly states, and sometimes also rivals and enemies)
Integrated Approach	<i>Societal oversight about instruments of power, trust throughout official organizations and agencies, ability to prevent, anticipate, and negotiate with other actors</i>	<i>Connectedness of official bodies leveraged by the government to avoid societal oversight, closed, highly networked systems, including official and non-official instruments</i>	<i>Interconnectedness, networked, ability to create kinetic and non-kinetic effects with integrated societal and military components, perception of other entity’s behavior (domestic and foreign), building alliances and coalitions</i>
Domestic demand for aggressive politics	Little to no constituency in each country for hostile policies	Large and powerful constituency demands hostile policies against rivals	Polls indicating support for hostile actions against rival state; clear political punishment for leaders who advocate compromise and popularity for hard-line leaders
Multilateralization of disputes	Dispute mainly confined to two parties	Overlapping disputes among proxies, allies, and partners	Statements by involved governments about disputes, identified threats, and gestures of support for partners in dispute with main rival
Military Professionalism (quality, operational experience, military culture)	<i>Mostly unilateral exercises, low operational experience, no efforts to improve military readiness, defensive military culture</i>	<i>International exercises, offensive exercises, military think tanks, effort to improve individual and unit operational experience, combat experience</i>	<i>Joint military exercises; education and training; the transfer of knowledge and intelligence sharing; senior-level meetings; defense industry cooperation; arms control efforts; assistance in buying weapons</i>
Security Perception (IO) (military offense-defense balance, degrees of revisionism)	<i>Meetings and summits of heads of state, ministers, and high-ranking military and intelligence on regular basis, strong intelligence capabilities, information sharing, low risk of influence operations</i>	<i>Rarely meetings on high political and military level, weak information sharing, history of influence operations, weak intelligence network</i>	<i>Regional and global Information Operations (IO), wording in official statements, intelligence capabilities, arms control mechanisms, information sharing agreements (i.e., signaling)</i>
Means to react proportionally	<i>Variety of offensive and defensive countermeasures against military, cyber, and economical threats, available budget to buffer external aggression, willingness to “show strength” (escalate to de-escalate)</i>	<i>Low variety of military and economical countermeasures, high debt level</i>	<i>Range of military, non-military, political, economic, and intelligence means available to react to another actor’s aggression; ability and willingness for deterrent measures</i>

²⁵⁵ Adapted from: Heath and Lane, 22–23, *Italic* by Authors.

Table 5. Escalation Matrix (Proximate Variables).²⁵⁶

Generic Escalation Matrix for Proximate Variables in Great Power Competition			
Variable	Proximate Variables		Measures
	De-Escalatory	Escalatory	
Decision maker perception of situation	Balance of fear of threat with fear of war; views open to correction	Severe issues of threat inflation; heightened sense of danger; hardened views	Statements by leaders regarding situation; messaging content to other parties
Decision maker perception of broader strategic situation	Generally optimistic or confident	Insecure and/or pessimistic about long-term trends	Statements by leaders regarding long-term trends beyond current crisis
Balance of military forces at site of dispute	Relative parity of forces	Imbalanced in favor over aggressor	Comparison of security forces in proximity of dispute, <i>i.e.</i> , <i>proxies</i>
Diplomatic methods	Firm but flexible approach	Rigid and inflexible diplomacy	Statements by either side regarding demands, evidence of diplomatic actions to manage situation
Trigger event	Established flash point, but not violent	Established flash point, violent incident; for the most severe rivalries, trigger can be a seemingly unimportant event	Reports of the proximate cause of the crisis and reported leadership decisions on how to respond
Status & Prestige	<i>Strong sense of being peaceful country, strong diplomatic history, history of bandwagoning, junior partner</i>	<i>Perception as a leading regional/global actor, history of diplomatic “hard power,” self-perception as a rising star, overestimation of own capabilities</i>	<i>Cultural self-perception of an actor; comparison with other regional/global actors</i>
Subvariable: Influence by domestic pressure groups	<i>Reserved and cautious statements by influential groups, low level of political and military lobbyism</i>	<i>Aggressive public pressure on politicians and the governmental system, high degree of political populism, strong military and commercial lobbyism</i>	<i>Statements by influential pressure groups (finance, military, populist politicians), labor unions, industrial complexes; high financial and political pressure, domestic bribery of politicians</i>
Disruptive military innovation/ technology	<i>Broad availability of technology leaps; information sharing about new capabilities; international agreed rules for the use of new technology, strong defensive cyber capabilities, communication contingencies available</i>	<i>Unilateral availability of disruptive technology, threatening rivals; cyber security breaches, breakdown of communication channels; no contingencies for communication lines</i>	<i>Technology leaps, breakthrough in cyber capabilities, AI, or military capabilities (missiles, subsurface maritime vehicles, etc.); robustness of national communication technology</i>
Technological / natural disaster or climate change effects	<i>Strong civil protection and disaster control, domestic interagency work, international support networks, NGO capabilities</i>	<i>Centralized disaster control, weak domestic disaster relief capabilities, no external support mechanisms, lack of trust in government and institutions, spillover effects</i>	<i>Technological disaster (nuclear accident, bursting of a dam, etc.), droughts, floods, earth quakes etc.</i>
Use of CBRN means	<i>Robust domestic and international control mechanisms, restrained statements by political leaders, societal condemnation and rejection of the use of CBRN, availability of CBRN countermeasures</i>	<i>Low threshold for the use of CBRN, history of violence escalation, training of offensive military CBRN capabilities</i>	<i>History of CBRN use, CBRN offensive and defensive capabilities, military and political doctrine towards CBRN</i>
Communication channels	<i>Regular meetings and talks of high-level representatives (political, military, economic), several direct communication channels, availability of trusted mediator, open and trusted communication style</i>	<i>Sporadic talks of high- and working-level representatives, no or only few communication channels, no common membership in organizations, reserved or aggressive communication style</i>	<i>Confidence-building measures, stable intergovernmental communication channels, history of dialogue, regular discussion forums, “hot wire” connection between high-level officials</i>
Intrusion (physical, digital)	<i>Low efforts, open and agreed intrusion activities</i>	<i>Exposure of covert and clandestine operations</i>	<i>Overt, covert, clandestine activities in another actor’s security environment to generate information, intelligence to leverage favorable conditions</i>

²⁵⁶ Adapted from: Heath and Lane, 22–23, *Italic* by Authors.

So far, steps one (case selection) and two (escalation matrix) of the scenario development process provide the factual background for the scenarios and vignettes. Analysts can now identify significant connections between actors and interdependent conflict variables, which form the “scenario skeleton.” In the next step, imagination, fiction, and storytelling add the “scenario flesh and blood” to link the “dots” to a more coherent picture and to overcome gaps in the storylines, as depicted in Figure 3.

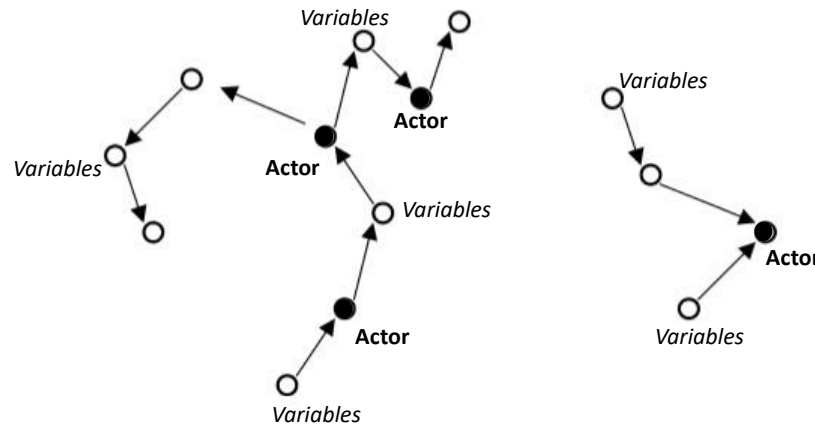


Figure 3. Scenario Plotlines (“Scenario Skeleton”).²⁵⁷

3. Imagination and Vignettes

Well-told stories remain with us through time.

— Lauge Baungaard Rasmussen, Sociologist²⁵⁸

The final step of the scenario building process is to enrich the scenario plotlines (“skeleton”), based on the escalation matrix, with fiction to provide plausible, easily understandable, and valuable vignettes that include a broad array of realistic factors for the analysis of the actual research goal. Gaps can be overcome by imagined yet realistic developments in the next years. In general, as Rasmussen lays out, “scenarios are not

²⁵⁷ Source: Lauge Baungaard Rasmussen, “The Narrative Aspect of Scenario Building - How Story Telling May Give People a Memory of the Future,” *AI & Society* 19, no. 3 (September 2005): 243, <http://dx.doi.org.libproxy.nps.edu/10.1007/s00146-005-0337-2>.

²⁵⁸ Rasmussen, 229.

supposed to replace analytical thinking. Instead, they may be seen as a “bridge” between analytically oriented planning and creatively oriented [strategy] making due to their ability to transmit both rational and creative layers of thought.”²⁵⁹ Details, including fictional ones, make the vignettes more interesting and recognizable. Figure 4 exemplifies how fiction can bridge the gaps in the storylines, all embedded in the future security environment.

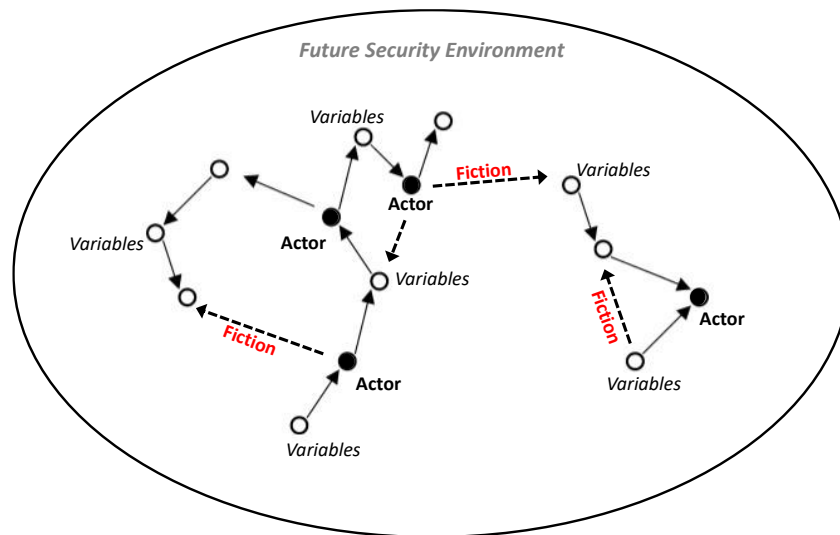


Figure 4. Scenario Plotlines Connected by Fiction (“Scenario Flesh and Blood”).²⁶⁰

Creating future scenarios implies many assumptions and speculations. They do not represent or predict the future, but create useful stories for analysis purposes. Rasmussen makes clear that “as an imagined future, the scenario story is pure fiction.”²⁶¹ However, packing the scenario in an interesting story helps to connect the many factors of a possible security environment to serve the purpose of an academic discussion and not merely entertainment. Moreover, a well-crafted story highlights specific aspects the writer wants the reader to remember and comprehend.

²⁵⁹ Rasmussen, 230.

²⁶⁰ Adapted from: Rasmussen, 243.

²⁶¹ Rasmussen, 235.

Storytelling in the scenario development process serves two goals. First, vignettes allow a holistic view of the future. They are not supposed to replace analytical thinking but add new ideas, fiction, and even provocative thoughts to explore possible outcomes to stimulate planning and decision-making processes. Second, adding storytelling to the fact-based future predictions makes it easier to retrace future relations between competition and conflict drivers. Rasmussen says that “early signals of the coming future can more easily be picked up.”²⁶²

A vignette can be told from many different angles and perspectives.²⁶³ The scenarios in this thesis, built to discuss the strategic utility of SOF, combine elements from the geographic security environment and expected changes thereof in the next years, apply historical and doctrinal patterns to the behavior of central actors, and add expectations of the FSE in regards to technological, environmental, and political change. The perspective is that of a military strategic staff and avoids details of a first-person tactical viewpoint. Moreover, the research question demands discussion of the strategic utility of SOF, not solely the utility of SOF per se. The vignettes serve as the foundation to bounce off the analysis criteria for the strategic utility of SOF.

B. ANALYTICAL TOOLS TO DISCUSS THE STRATEGIC UTILITY OF SOF

Future events may not be drawn from the restricted list of those we have learned are possible; we should expect to go on being surprised.

— Herman Kahn and Anthony Wiener, *Strategists and Futurists*²⁶⁴

This quote by Kahn and Wiener applies not only to future events but is especially relevant to the analysis of future scenarios. This thesis uses two analytical tools to discuss the strategic utility of SOF in the designed future vignettes: 1) the “SOF tasks and activities” tool, examining the utility of SOF in the vignettes, and 2) the “out of the box” tool, providing a framework to discuss the two central claims for the strategic utility of SOF: *economy of force*

²⁶² Rasmussen, 230.

²⁶³ Rasmussen, 235.

²⁶⁴ Kahn and Wiener, “The Use of Scenarios: The Year 2000, A Framework for Speculation on the Next Thirty-Three Years.”

and *expansion of choice*. So far, following the overall methodology, the scenario design alone has only limited value in this regard. It is the analytical tools that help to determine, assess, and discuss the research question’s core element: strategic utility.

1. “SOF Tasks and Activities” Tool

The “SOF tasks and activities” tool seeks to illuminate the “utility” part of the discussion on the strategic utility of SOF. The tool assesses the applicability, i.e., the likelihood of utilization of the SOF tasks and activities outlined in Table 2 of Chapter II. The table summarizes NATO, U.S., Russian, and Chinese SOF doctrines to provide a holistic overview of what SOF is able to do, and for which tasks they are trained and structured. Building on this table, the “SOF tasks and activities” tool examines the question: “Can defined SOF tasks, no matter from what country’s doctrine, be operationalized by SOF to create a positive effect in the described security environment?”

The result is an on-point visualization of whether the respective task is applicable or not, highlighted with a signal light scheme (green: high likelihood of tasking; yellow: medium likelihood of tasking, requires more support or only medium probability of success; red: low likelihood of tasking or probability of success). The proposed template also requires short notes on how and why the respective conclusion is drawn. Table 6 depicts an example of the tool’s application.

Table 6. “SOF Tasks and Activities” Tool (Example)

Scenario “Example”					
Task	Yes	Maybe	No	Explanation (how/why)	Origin
MA - Military Assistance				Availability and access to local militias; available language skills; support by local administration; prior knowledge in weapons and tactics; sustainable logistics for SOF teams and militias	NATO
SR - Special Reconnaissance				Geography requires mainly covert (civilian) SR; high ethnic and language demands (only limited availability) → operational SR by local forces, logistic and intelligence support by NATO SOF	NATO US
DA - Direct Action				Requirement by HN to conduct DA unilaterally; high risk of revealing open kinetic support (negative IO campaigns)	NATO US
CAO - Civil Affairs Operations				high demand of good governance support; high risk for civilian IGO/NGO support; building trust with entity X	US
...					...

The goal of the “SOF tasks and activities” tool is 1) to provide an accessible outline of the applicability and utility of certain SOF tasks in the scenarios. The reader can go over the scenario and vignette and gain a concise overview of SOF tasking possibilities and voids thereof in the color-coded table; and 2) to decide on the utility (or usefulness) of SOF in the respective security environment and vignette. Moreover, with the inclusion of U.S., Russian, and Chinese tasks, more possibilities are explored on how NATO doctrine could be updated and enhanced to meet the described future challenges in the scenarios.

Still, the reasonable tasking of SOF with a specific mission does not automatically result in creating strategic effects and influencing strategic-level decision-making. The yardstick remains the support of NATO’s strategic goals, which is the initial point of the second tool for analyzing the strategic utility of SOF, the “out of the box” tool.

2. “Out of the Box” Tool

The “out of the box” tool refers to Searle’s SOF theory stated in *Outside the Box: A New General Theory of Special Operations*, that SOF conduct those military missions other units cannot perform. Searle’s central finding is that special operations are conducted “outside of the box” of conventional forces’ military operations. SOF fills voids in the strategic military profile but can also substitute for or complement conventional operations.²⁶⁵ The prerequisite for the discussion of the strategic utility of SOF is the verification of utility with the “SOF tasks and activities” tool. The “out of the box” tool then follows a simple flowchart that guides a holistic discussion on SOF’s future role, including operations in new domains and in close cooperation with non-SOF capabilities, all under the premise of supporting strategic level goals. In the outlined flowchart in Figure 5, NATO’s strategic goals are the starting point of the discussion.²⁶⁶

It is important to note that this analytical tool is not narrowed by existing doctrine and capabilities but asks provocative questions to explore more possibilities about how,

²⁶⁵ Searle, *Outside the Box*.

²⁶⁶ NATO’s general strategic goals are to maintain peace in the Euro-Atlantic Area, to deter any aggression against NATO members and their territory, and to defend against any hostilities. Classified documents specify NATO’s military strategic goals.

where, and with what means SOF can help NATO to maintain peace in the Euro-Atlantic area, to deter aggression against NATO members, and to defend against hostilities. The “out of the box” tool tries to enhance a bold outlook and debate on future demands on SOF, including operations in new domains like space and cyber in close cooperation with other forces and partners, with the given scenarios as background for future-oriented progressive thinking. Nevertheless, the tool is no clear-cut deterministic model but asks relevant question to finally carve out, if the two master claims to manifest strategic utility—*economy of force* and *expansion of choice*— are at least partially met.

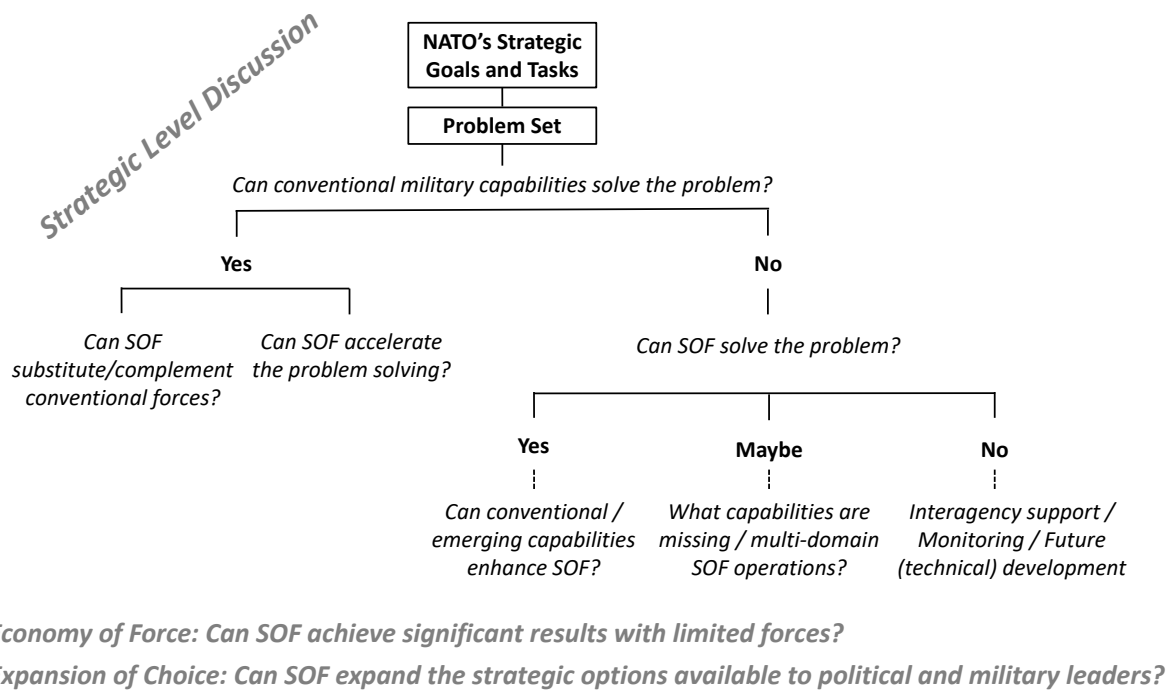


Figure 5. “Out of the Box” Tool

The starting point of the discussion is a thorough understanding of the strategic goals SOF should ideally support. NATO’s central strategic goal is “the preservation of peace and security” of its members.²⁶⁷ Of the Alliance’s three core tasks, deterrence and defense is the most significant in the chosen Black Sea and Arctic scenarios. In general,

²⁶⁷ North Atlantic Treaty Organization, “The North Atlantic Treaty.”

the scenarios and the vignettes should be designed to contain a variety of singular strategic problems or an overall strategic problem. The “SOF tasks and activities” tool has already identified if and how SOF’s utility applies to these problems. Nevertheless, the pure utility in these specific situations does not necessarily mean that SOF is generally the better tool nor that its utility has strategic effects.

Following Searle’s approach of SOF operating outside the conventional “box,” and to start the exploration of the strategic utility of SOF, the first question is “Can conventional military capabilities solve the problem?” If the answer is “yes,” that conventional forces are available and suitable to create the desired strategic effect in accordance with NATO’s goals, there are two more questions for SOF: “Can SOF complement or substitute for conventional forces?” and “Can SOF accelerate the problem solving?” These two questions aim to discuss the *economy of force* of SOF as one of the master claims for their strategic utility. The answer to these questions should address whether and how SOF can support efficiency and effectiveness or, as Gray describes it, “act as a force multiplier and augment the strength of regular forces.”²⁶⁸ Nevertheless, the debate should also include the possibility that SOF, even if conventional forces are available, are the better option by creating disproportionate effects in less time and by mitigating the risk of loss of life.

If the answer for the availability and suitability of conventional capabilities as problem solvers is “no,” the inevitable question arises, “Can SOF solve the problem?” This question follows the claim of the *expansion of choice* as a central element of SOF’s strategic utility. Even if SOF can solve the problem and create strategic effects, possibilities still have to be explored about whether and how conventional forces can enhance SOF’s chances for success. The discussion should not end with a doctrinal description of joint operations but should consider new and emerging technologies or tactics. If the answer to whether SOF can solve the problem is not a clearcut “yes” or “no,” but a “maybe” with some doubt about SOF’s suitability, the capability voids have to be analyzed, and more options have to be discussed about whether SOF operations can be expanded in other domains, require special technological capabilities, or additional legal or administrative

²⁶⁸ Gray, *Explorations in Strategy*, 1996, 169.

support. However, if the answer to whether SOF can solve the problem is “no,” this does not mean that NATO cannot reach desired outcomes. NATO has, as a large defense alliance of 30 nations, a full toolbox of diplomatic, economic, intelligence, or political means, next to its military capabilities. Nevertheless, SOF should closely monitor the crisis development to identify gaps in the non-military approaches and to fill the voids with their military capabilities where and when needed.

The combination of both tools, based on well-selected and designed scenarios, offers an extensive qualitative exploration of the strategic utility of SOF. This approach, which is in part very rigorous (fact-based scenario design, “SOF tasks and activities” tool) and in other parts very flexible (fictitious vignettes, “out of the box” tool), can easily be adapted and applied to a variety of similar discussions, scenarios, and timelines. The scenarios serve purely as a vehicle for a possible crisis situation in the future for analysis of the strategic utility of SOF. The following analysis and discussion of the Black Sea and Arctic scenarios provide a thorough understanding of current NATO SOF doctrine, its voids in the given scenarios, and a rich understanding of SOF’s strategic utility in the future security environment.

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IV. SCENARIO ANALYSIS

The reason that the future is difficult to predict is that it depends on choices that have yet to be made, including our governments, in circumstances that remain uncertain.

— Sir Lawrence Freedman, Emeritus Professor²⁶⁹

This chapter constitutes the heart of this thesis: the analysis of the strategic utility of SOF in two scenarios, both based on the ongoing discussion of a re-emerging GPC and the role of NATO as the cornerstone of the Euro-Atlantic security architecture. The chapter starts with the characteristics and key trends of the future security environment (FSE), followed by the two scenarios: 1) the Black Sea and 2) the Arctic. Each scenario builds on the three-step process methodology laid out in Chapter III and culminates in fictional yet plausible vignettes. However, this fiction is no pure fabrication but has to be grounded in the GPC context and viewed through a NATO-oriented lens, as discussed in Chapter II. The last part of the chapter analyzes and compares the strategic utility of SOF in both the Black Sea and Arctic scenarios. The assessment is based on the definition of strategic utility as “a contribution of a particular kind of military activity to the course and the outcome of an entire conflict concerning the consequences of the direct and indirect effect they facilitate,” based on the two master claims *economy of force* and *expansion of choice*.²⁷⁰

Of course, other regions are relevant to NATO, too, and vignettes can be told from various angles and directions. However, the scenarios, including the vignettes, are specifically chosen and designed to discuss the strategic utility of SOF in the Euro-Atlantic area. They combine details from regional security environments, expected developments of these environments in the coming years, historical and doctrinal patterns in the behavior of central actors, and prospects of technological, environmental,

²⁶⁹ Lawrence Freedman, *The Future of War: A History*, First edition (New York: Penguin Random House, 2017), XVIII.

²⁷⁰ Gray, *Explorations in Strategy*, 1996, 163–64.

and political changes. The perspective is that of a military-strategic staff and avoids details from a first-person tactical viewpoint.

Section A describes and explores the FSE, its main driving characteristics, and its implications for GPC in the next decade. Subsequently, Sections B and C focus on the Black Sea and the Arctic scenarios. Each scenario follows the three-step development process laid out in Chapter III. First, each section, B and C, starts with the determination of the problem set, the political and military environment, and the intention and ambitions of the key actors, Russia and China. Then the discussion of the geographical FSE in the escalation matrix follows, identifying the relevant structural and proximate escalatory factors—the “scenario skeleton.” In the third step, imagination, enhances these evidence-based plotlines for the vignettes, adding the “scenario flesh and blood.” These short stories, the “Varna Incident” and the “Svalbard Crisis,” provide an interesting and relevant glimpse into the future. Finally, the analytical tools discussed in Chapters II and III, the “SOF tasks and activities” and the “out of the box” tools, explore subsequently the utility and the strategic utility of SOF in these vignettes. Section D then offers a comparative analysis of the two scenarios and highlights the varieties and similarities in the value proposition offered by SOF to create strategic effects.

A. FUTURE SECURITY ENVIRONMENT

In the High North, its [Russia’s] capability to disrupt Allied reinforcements and freedom of navigation across the North Atlantic is a strategic challenge to the Alliance. Moscow’s military build-up, including in the Baltic, Black and Mediterranean Sea regions, along with its military integration with Belarus, challenge our security and interests.

— NATO 2022 Strategic Concept²⁷¹

Various political and environmental trends and technological evolutions drive the future security environment and influence the GPC realm in all dimensions. The FSE leading up to 2035 is shaped by an immutable history, and the nature and character of

²⁷¹ NATO, *NATO 2022 - Strategic Concept* (Madrid, Spain, 2022), 4, <https://www.nato.int/strategic-concept/>.

the international system are molded, formed, and forged by its recent and more distant past. Nevertheless, every era has its own unique and changing character.

Russia and China continue reinforcing, modernizing, and strengthening their armed forces. Hybrid warfare and gray zone operations are becoming increasingly common and elusive. Contestation in the information domain, cyberattacks, nuclear weapons modernization, the space domain's militarization, and conflicts over scarce natural resources will rise in the coming decade.²⁷² Nevertheless, the rate of change in the described “trends” and “characteristics” may vary over the next decade.

Discussion of the future always carries with it the elements of uncertainty and unpredictability; anticipating the future is never accurate, and the likelihood of unforeseen, disruptive events, like the COVID-19 pandemic, cannot be ignored. These “shocks” can tremendously impact the balance of power and societal resilience.²⁷³ The occurrence and impact of natural disasters and pandemics, and the strategic implications of the Russo-Ukrainian War and the Chinese-Russian relationship cannot be fully anticipated.

Several critical global trends for the next decade influence the two scenarios. The main trends are impacts from 1) climate and environmental change, 2) shifts in the balance of power and increased competition, 3) demographic change (regionally unequal growth of the world population), 4) increased urbanization and liberalization, 5) resource scarcity and distribution, 6) digitalization, and finally 7) rate of advancements in technology—emerging and disruptive technologies (EDT).²⁷⁴ These global trends can facilitate opportunities or create threats to NATO security interests. Furthermore, they not only shape the FSE but give imperatives for the future utility of SOF.

²⁷² De Wijk et al., *The Future of NLD SOF*, 19–20.

²⁷³ Developments, Concepts and Doctrine Centre Ministry of Defence United Kingdom, *Future Operating Environment 2035* (Shrivenham, UK: Ministry of Defence United Kingdom, 2015), VIII, <https://www.gov.uk/government/publications/future-operating-environment-2035>.

²⁷⁴ Michael O'Hanlon, “Forecasting Change in Military Technology, 2020–2040,” Foreign Policy at Brookings, Security, Strategy, and Order (Washington, DC: The Brookings Institution, 2020); Developments, Concepts and Doctrine Centre Ministry of Defence United Kingdom, *Future Operating Environment 2035*, 1–4; NATO Science and Technology Organization, *Science & Technology Trends 2020–2040: Exploring the S&T Edge* (Brussels, Belgium, 2020).

Four interrelated tendencies characterize the military component of the FSE, according to U.S. Chairman of the Joint Chiefs of Staff, General Mark Milley:

1. Adversaries are contesting in all domains;
2. smaller armies fight on an expanded battlefield that is increasingly lethal and hyperactive;
3. nation-states have more difficulty in imposing their will within a politically, culturally, technologically, and strategically complex environment; and
4. near-peer states [GPs] more readily compete [in the gray zone and conduct hybrid engagements] below armed conflict, making deterrence more challenging.²⁷⁵

Furthermore, in the future, GPs will increasingly use clandestine, ambiguous, low-visibility, and covert operations to attain their objectives. Their ability to act below formal—conventional—response thresholds depends on three instruments of influence: 1) engagement by proxy forces (e.g., the Wagner group), 2) winning the perception of the targeted and domestic audience (battle of the narratives), and 3) leveraging primacy in cutting edge technologies such as A2AD, hypersonic weapons, Electronic Warfare (EW), Cyber-attacks and (Counter-) Space capabilities, AI/ML, and surveillance & detection sensory technology.²⁷⁶ Technological developments have an important role in future GPC; however, they alone are not “a silver bullet” and are “unlikely to trump the importance of population support.”²⁷⁷

The changing FSE influences and determines how the world will look in the near-distant future. This shapes the scenarios’ development and underscores the logic that great power competition, climate, environmental change, technological advancements, and societal dynamics infused with gray zone operations and hybrid activities in the physical and virtual domains fundamentally transform the character of the FSE for SOF.

²⁷⁵ U.S. Army Training & Doctrine Command (TRADOC), *The U.S. Army in Multi Domain Operations*, Pamphlet 525-3-1 (U.S. Army, 2018), VII.

²⁷⁶ Watling, *Report Launch*, VII; U.S. Army Training & Doctrine Command, *The Operational Environment (2021-2030): Great Power Competition, Crisis, and Conflict* (Fort Eustis, VA: U.S. Army, 2021), 8.

²⁷⁷ Mike Pietrucha, “The Search for the Technological Silver Bullet to Win Wars,” War on the Rocks, August 26, 2015, <https://warontherocks.com/2015/08/the-search-for-the-technological-silver-bullet-to-win-wars/>.

B. SCENARIO 1: BLACK SEA SECURITY ENVIRONMENT

In micro the Black Sea is reflecting the broader competition between revisionist and brutal and aggressive Russia and our democratic world. This is why this region is reflected in the Strategic Concept as a region of maximum strategic importance for NATO.

— Mircea Geoană, NATO Deputy Secretary General²⁷⁸

In the Black Sea basin, the policies of Russia and China are based on substantially different premises. Russia has been involved in the Black Sea since the earliest stages of its existence as a self-determined entity. ... For China, its interests in the Black Sea are a natural extension of its policies in Central Asia, the Caucasus, the Middle East, and Europe.

— Ivan Safranchuk and Igor Denisov, Political Scientists²⁷⁹

The Black Sea region (BSR) is at the intersection of Europe and Central Asia, with significant energy supply lines and substantial maritime trading potential (Figure 6). All three GPs are politically, economically, and militarily active with their own agendas, but with different approaches and priorities. Furthermore, the region marks NATO's South-Eastern flank and is a historical hotspot for crises and conflicts. This section discusses the "Black Sea" scenario, a potential future crisis situation with a dynamic and hybrid context a decade into the future. The first subsection provides the overview of the Black Sea security environment (BSE) and outlines the economic and military significance of the BSR for the GPs and NATO. The second subsection discusses the escalation matrix, which specifies details for 25 structural and proximate variables relevant for the stability and security of the region and presents possible implications for the future in the BSE. Relevant results form the "scenario skeleton," i.e., the plotlines for the "Varna incident" vignette in the third subsection. The last subsection analyzes the strategic utility of SOF in this specific fictional situation in the

²⁷⁸ NATO, "Remarks by NATO Deputy Secretary General Mircea Geoană at the Black Sea Summit," NATO, accessed October 22, 2022, https://www.nato.int/cps/en/natohq/opinions_197709.htm.

²⁷⁹ Ivan Safranchuk and Igor Denisov, "China and Russia in the Black Sea: Between Global Convergence and Regional Divergence," *A Sea Change-China's Role in the Black Sea* (Washington, DC: Frontier Europe Initiative, November 2020).

BSR, using the “SOF tasks and activities” tool and the “out of the box” tool to assess if SOF offer *expansion of choice* and *economy of force* compared to other military means.

1. Scenario Overview

The BSR is at a historical crossroad of geopolitics, commerce, energy, and culture. It is a traditional strategic friction point between Europe, Russia, and Central Asia, with access to the Mediterranean Sea and the Middle East. Six countries are regarded as BSR nations, with direct access to the Black Sea coast: Bulgaria, Romania, Ukraine, Russia, Georgia, and Turkey. The Black Sea was mostly considered a “Soviet lake” during the Cold War, with large parts under direct Soviet control with the exception of Turkey. Turkish control over the maritime access to the Black Sea through the Bosphorus and Dardanelles Straits made the country an important strategic ally in NATO and to the United States. Since the break-up of the Soviet Union, the region has experienced the gradual decline of Russian influence and the pivot of several BSR nations to the West, seeking membership in the EU and NATO. In 2004 Romania and Bulgaria became members of NATO and in 2007 members of the European Union (EU). Ukraine and Georgia started the NATO Membership Action Plan (MAP) process in 2008 and were officially invited by NATO at its Bucharest Summit to become members of the Alliance.²⁸⁰ The debate on EU membership was also an inflection point leading to the “Revolution of Dignity” in Ukraine, the overthrow of the pro-Russian government and the outbreak of the Russo-Ukrainian War in 2014.²⁸¹

The region has historically been a hotspot for “frozen conflicts,” violent crises, and open war in the last three decades. Most notably are the conflicts in Moldova’s Transdnistria region close to the border of Ukraine, the separatist clashes in South Ossetia and Abkhazia, two regions of Georgia, which lead to the Russo-Georgian War in 2008, and the ongoing conflict between Armenia and Azerbaijan over the

²⁸⁰ NATO, “Bucharest Summit Declaration Issued by NATO Heads of State and Government,” NATO, April 3, 2008, https://www.nato.int/cps/en/natohq/official_texts_8443.htm.

²⁸¹ Oleksandr Reznik, “From the Orange Revolution to the Revolution of Dignity: Dynamics of the Protest Actions in Ukraine,” *East European Politics and Societies: And Cultures* 30, no. 4 (November 2016): 750–65, <https://doi.org/10.1177/0888325416650255>.

disputed region of Nagorno-Karabakh, which regularly breaks into open violence and war. The latest example is the ongoing Russo-Ukrainian War that started with the unlawful annexation of Crimea in 2014, and has escalated with the Russian military invasion of Ukraine in 2022.²⁸² However, not only Russia claims historical and strategic interests in the BSR: China has identified the Black Sea as being of significant economic and therefore strategic importance, especially in promoting and pushing its BRI to access the European Single Market.²⁸³

The BSR is an important economic crossroad for maritime trade and an important axis for fossil energy transfers from oil and gas fields in the Caucasus to the European market. The region is attractive for investors due to its nearly \$3 trillion in combined nominal GDP, a total population of over 300 million people, and as a trading hub between Europe, Eurasia, and the Middle East.²⁸⁴ After the end of the Cold War most BRI countries quickly engaged in economic development, often supported by the EU and other international bodies. The Organization of the Black Sea Economic Cooperation (BSEC) was created in 1992 and serves as an economic cooperation organization under international law. It acts as a relevant regional platform for diplomatic and economic initiatives. All BSR nations and most countries of the wider BSR economic area (Albania, Armenia, Azerbaijan, Greece, Moldova, North Macedonia, and Serbia) hold memberships, and many central and Eastern European countries have observer status.²⁸⁵ The EU has established so-called Deep and Comprehensive Free Trade Areas (DCFTA) with Georgia, Moldova, and Ukraine, granting them prioritized access to the European Single Market.²⁸⁶ Another EU

²⁸² Ben Hodges, Steven Horrell, and Ivanna Kuz, “Russia’s Militarization of the Black Sea: Implications for the United States and NATO,” CEPA, September 22, 2022, <https://cepa.org/comprehensive-reports/russias-militarization-of-the-black-sea-implications-for-the-united-states-and-nato/>.

²⁸³ Deborah Sanders, “The Black Sea Region Caught Between East and West,” *The Journal of Slavic Military Studies* 34, no. 2 (April 3, 2021): 202–25, <https://doi.org/10.1080/13518046.2021.1990561>.

²⁸⁴ Michael Cecire, “The Black Sea: Economic Region or Intersection?” (Washington, DC, August 11, 2020), <https://www.mei.edu/publications/black-sea-economic-region-or-intersection>.

²⁸⁵ “BSEC at a Glance,” The Black Sea Economic Cooperation, 2022, <http://www.bsec-organization.org/>.

²⁸⁶ European Commission, “Deep and Comprehensive Free Trade Agreements,” 2022, <https://trade.ec.europa.eu/access-to-markets/en/content/deep-and-comprehensive-free-trade-agreements>.

initiative, since 1993, is the Transport Corridor Europe-Caucasus-Asia (TRACECA), a transport program to promote economic relations and less-bureaucratic transport routes to 12 states in the Eastern European, Caucasus, and Central Asia.²⁸⁷

Besides its enormous development potential with a young work force and its strategic location as trading hub, **two main resources dominate in the BSR: fossil fuel and grain.** In and around the Black Sea is a network of pipelines, mostly to transport gas to European consumers. Examples are the Blue Stream gas pipeline (Russia-Turkey), the Trans-Anatolian natural gas pipeline (TANAP; Azerbaijan-Bulgaria), the Trans-Adriatic Pipeline (TAP; Azerbaijan-Italy) and others, forming a network that supplies most of Southern and South-Eastern Europe with natural gas.²⁸⁸ Furthermore the BSR is often called a global “breadbasket”²⁸⁹ as a substantial supplier of grain, wheat, and fertilizer. The BSR nations’ wheat production accounts for 13.2% of the global wheat supply and therefore significantly impacts the international prices and the grain supply of countries in Africa and the Middle East.²⁹⁰ However, all these economic opportunities cannot hide the fact that the BSR is subject to many centrifugal political forces between the GPs and international institutions such as NATO and the EU. This often leads to economic competition and undermines regional cooperation, which in turn is exploited by the GPs.²⁹¹

While China and Russia publicly formed a strategic alliance with the Russo-China pact to counter the U.S. global dominance, the regional situation in the BSR

²⁸⁷ TRACECA, “History of TRACECA,” 2022, <http://www.traceca-org.org/en/about-traceca/history-of-traceca/>.

²⁸⁸ Aura Sabadus, “Why the Black Sea Could Emerge as the World’s Next Great Energy Battleground,” *Atlantic Council* (blog), March 30, 2021, <https://www.atlanticcouncil.org/blogs/ukrainealert/why-the-black-sea-could-emerge-as-the-worlds-next-great-energy-battleground/>.

²⁸⁹ Deutsche Gesellschaft für Internationale Zusammenarbeit, “The Black Sea Breadbasket in Crisis: Facts and Figures - 2030,” May 25, 2022, <https://www.weltoehnung.org/full-article/the-black-sea-breadbasket-in-crisis.html>.

²⁹⁰ World Economic Forum, “These Are the Top 10 Countries That Produce the Most Wheat,” World Economic Forum, August 4, 2022, <https://www.weforum.org/agenda/2022/08/top-10-countries-produce-most-wheat/>.

²⁹¹ Cecire, “The Black Sea: Economic Region or Intersection?”.

differs from this global picture.²⁹² **China pushes its BRI in the region** and builds bilateral and regional partnerships with several Central Asian and European countries to support its position as premier trading partner. In 2012, the Chinese Ministry of Foreign Affairs initiated the Cooperation between China and Central and Eastern European Countries (China-CEEC) to coordinate direct investments and enhance business relationships of China with 17 Eastern and South-Eastern European countries (also known as the 17+1 framework). Because of increasing coercive measures, the Baltic nations Lithuania, Estonia, and Latvia left the initiative in 2021 and 2022 (now the 14+1). While Romania and Bulgaria are the only BSR nations officially involved in the 14+1 framework, all littoral BSR countries now have ties to China's BRI, either via bilateral or multilateral agreements. With Greece, Italy, and, through 14+1, Bulgaria and Romania, China has direct access to the EU market.²⁹³ Chinese state-controlled companies are increasingly investing in regional port infrastructure projects (Georgia, Bulgaria) and are controlling large parts of the maritime trade in the BSR.²⁹⁴ Furthermore, through direct investments by China's Oil and Food Cooperation (COFCO) in Ukrainian ports and grain terminals, China, the world's largest wheat producer itself, increases its influence on global grain trades significantly.²⁹⁵ China's growing influence in the BSR has the potential to alienate it from Russia, which historically claims the BSR as Russian "sphere of influence." Nevertheless, as long as the Russo-Ukrainian War is ongoing, Russia needs China as a strategic global partner in economic and political terms.

Russia clearly regards Moldova, Ukraine, and Georgia, like the Baltic states, as its traditional "Near Abroad," both as an area of Russian political dominance and as a buffer zone against NATO and Western aggression. Russia's President Putin publicly stated his desire for a reemergence of a Great Russia, including former Soviet

²⁹² Safranchuk and Denisov, "China and Russia in the Black Sea: Between Global Convergence and Regional Divergence."

²⁹³ Deborah Sanders, "Can China Promote Stability in the Black Sea Region?," *Southeast European and Black Sea Studies* 21, no. 3 (July 3, 2021): 416, <https://doi.org/10.1080/14683857.2021.1935771>.

²⁹⁴ Sanders, 416.

²⁹⁵ Sanders, "The Black Sea Region Caught Between East and West," 209.

regions.²⁹⁶ The Russian invasion of Ukraine in 2022 is a violent manifestation of this aspiration. Despite setbacks in its war effort, Russia clearly remains the most powerful military country in the BSR. The Russian Black Sea Fleet, with modern surface and sub-surface vessels, is the strongest military formation in the area. Furthermore, modern anti-air (e.g., the S-400 surface-to-air missile system) and anti-ship capabilities (e.g., *Onix* supersonic anti-ship missiles), based along the Russian Black Sea coastline and in Crimea, signal Russia's resolve to enforce the territorial claims.²⁹⁷ The BSR is also of economic and military significance for Russia because of its warm water ports and year-round access to naval routes and the gateway to the Mediterranean Sea, the Middle East, and the Suez Canal.²⁹⁸ Keeping these sea routes from the Black Sea through the Bosphorus and the Dardanelles open, in close cooperation with Turkey, is a strategic goal for which Russia is willing to risk confrontations with regional powers and strategic competitors.²⁹⁹

²⁹⁶ Andrew Fink, "How to Read Putin's Latest Comments on 'Sovereignty,'" *The Dispatch* (blog), June 14, 2022, <https://thedispatch.com/article/how-to-read-putins-latest-comments/>.

²⁹⁷ Hodges, Horrell, and Kuz, "Russia's Militarization of the Black Sea."

²⁹⁸ *Maritime Doctrine of the Russian Federation*, Decree of the President of the Russian Federation 512 (Moscow, Russia, 2022), <http://publication.pravo.gov.ru/Document/View/0001202207310001>.

²⁹⁹ Stephen J. Flanagan and Irina A. Chindea, "Russia, NATO, and Black Sea Security Strategy: Regional Perspectives from a 2019 Workshop" (Santa Monica, CA: RAND Corporation, 2019), https://www.rand.org/pubs/conf_proceedings/CF405.html.

The Black Sea Region

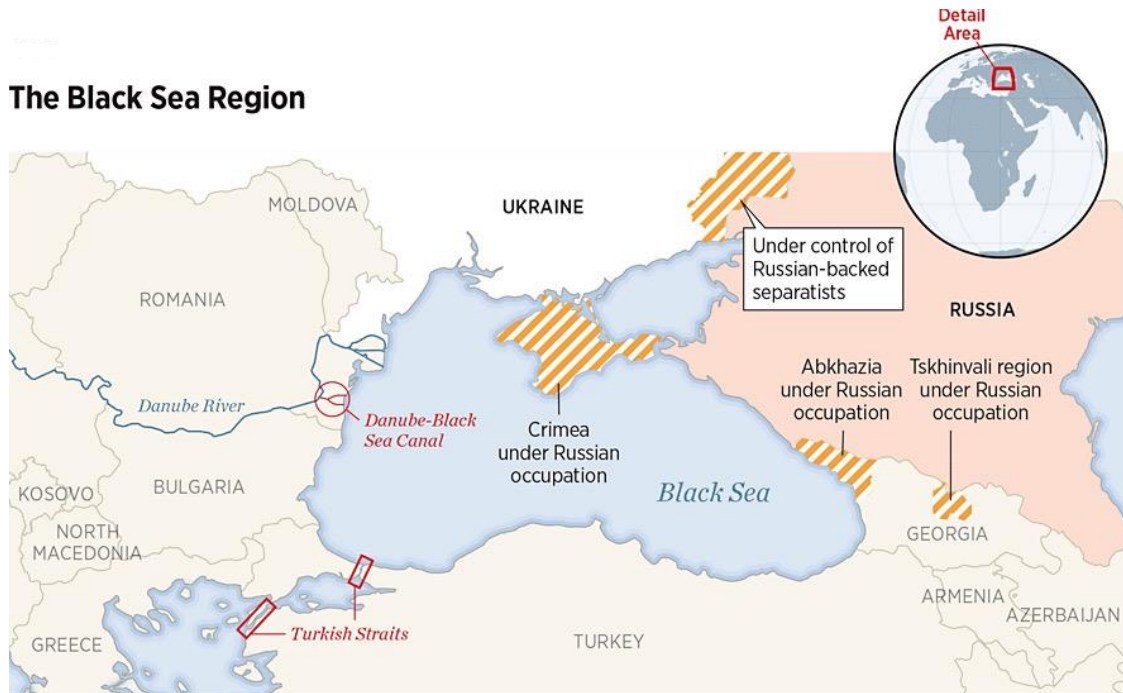


Figure 6. The Black Sea Region—Russian Occupied Territories (as of 2021).³⁰⁰

The United States has committed to peace and security in Europe, even after the dissolution of the Soviet Union and the independence of many Eastern and South-Eastern countries—especially as the leading nation in NATO. Nevertheless, the United States quickly started to develop bilateral agreements focused on economic development after the end of the Cold War. For example, the American University in Bulgaria opened in Sofia, the capital, in 1991, and Romania was declared a “most favored nation” (MFN) for economic cooperation in 1993.³⁰¹ With growing concerns about an assertive and revisionist Russia, military cooperation also intensified. In 2005, the U.S.-Romanian Status of Forces Agreement (SOFA) was signed, permanently stationing U.S. forces in

³⁰⁰ Luke Coffey and Daniel Kochis, “NATO Summit 2021: Black Sea Strategy Needed,” Issue Brief (Washington, DC: The Heritage Foundation, June 10, 2021), <https://www.heritage.org/europe/report/nato-summit-2021-black-sea-strategy-needed>.

³⁰¹ American University in Bulgaria, “About Us: American University in Bulgaria,” *AUBG* (blog), accessed October 23, 2022, <https://www.aubg.edu/about-us/>.

Romania.³⁰² A similar U.S.-Bulgarian agreement came in effect in 2006. After the Russian annexation of Crimea in 2014, in parallel with NATO's Warsaw summit agreements, the bilateral deployment of U.S. forces to Europe, called operation "Atlantic Resolve," began.³⁰³ The BSR specifically is of high U.S. strategic importance, because its geopolitical competitors and adversaries, Russia and China, are very active in the region and are constantly undermining U.S. and allied interests.³⁰⁴

Since 2004, **three littoral states of the Black Sea are NATO members**, and the Alliance has established a growing number of command and force structure elements in the region. After the Warsaw Summit in 2016, the Alliance started the Enhanced Forward Presence (eFP) mission, deploying battlegroups to the Baltics and Poland, and the Tailored Forward Presence mission (tFP) at NATO's Eastern and South-Eastern flanks and the BSR, establishing rotating, tailored capability packages to counter any adversarial intrusion.³⁰⁵ After the escalation of the conflict in Ukraine in 2022, the Allies agreed to set up additional battlegroups in Bulgaria, Hungary, Romania, and Slovakia.³⁰⁶ Furthermore, the United States and NATO regard the region of significant importance, which manifests in the installation of permanent military structures like the U.S. Ballistic Missiles Defense (BMD) system in Romania or NATO's Headquarters Multinational Corps South-East (HQ MNC-SE) as a regional strategic command. As a

³⁰² "Agreement between the United States of America and Romania Regarding the Activities of United States Forces Located on the Territory of Romania" (SOFA Agreement, Bucharest, Romania, 2005).

³⁰³ U.S. Army Europe and Africa, "Fact Sheet: Atlantic Resolve" (U.S. Army Europe and Africa, February 16, 2020), <https://www.europeafrica.army.mil/Portals/19/documents/Fact%20Sheets/Atlantic-Resolve-Fact-Sheet-02162021.pdf>.

³⁰⁴ Luke Coffey and Brent Sadler, "U.S. Leadership Needed to Improve Maritime Security in the Black Sea and the Sea of Azov," 3614, Backgrounder (Washington, DC: The Heritage Foundation, May 3, 2021), <https://www.heritage.org/global-politics/report/us-leadership-needed-improve-maritime-security-the-black-sea-and-the-sea>.

³⁰⁵ Teodora I. Hrib, "Enhanced Forward Presence and Tailored Forward Presence –Two Comprehensive Concepts Associated with the Fight against the Hybrid Warfare," *International Scientific Conference "Strategies XXI,"* 2017, 225–30.

³⁰⁶ NATO, "NATO's Military Presence in the East of the Alliance," NATO, October 19, 2022, https://www.nato.int/cps/en/natohq/topics_136388.htm.

maritime component, the NATO Naval Coordination Center for the BSR was established near Varna, Bulgaria.

Despite several general common goals like stability, peace, and economic development of the BSR, and international organizations like BSEC, the littoral Black Sea nations differ in their perspectives and attitudes towards GPC in their backyard. **Romania and Bulgaria, both post-communist democracies and recent members of NATO and the EU, have different approaches to Russia and China.** Traditionally, Bulgaria has had balanced, non-hostile, relations and sympathy for Russia, what manifests in both pro- and anti-Russian political voices and governments. Especially right-wing parties present themselves as pro-Russian traditionalists. In Romania, with its close cultural ties to Moldova, anti-Russian and, in some parts, even Russophobe sentiments are pronounced, making the country one of the fiercest pro-NATO advocates in the region.³⁰⁷ With regards to China, Bulgaria maintains good economic relations with China, especially in the energy and maritime logistics sectors. While Chinese companies also invest in the Romanian transport, energy, and communications market, Romania is very cautious and has even canceled several deals with China.³⁰⁸ Nevertheless, Romania and Bulgaria are both absolutely reliable EU and NATO partners, but with different heritages related to the GPs.

Turkey maintains good diplomatic and economic relationships with Russia and China, despite several disputes and crises over various issues, whether of a military nature, as in Syria or Ukraine, or in economic terms with the maritime trade routes through the Bosphorus or in the energy sector.³⁰⁹ For NATO, Turkey is an irreplaceable partner with its position at a geo-strategic chokepoint at the Turkish Straits and with its unique relationship to countries in the Middle East/North Africa region. Furthermore, Turkey is planning the “Istanbul Canal,” a waterway in parallel to the natural sea route

³⁰⁷ Valentin Naumescu, “NATO in the Black Sea Region: Unpredictability and Different Levels of Commitment among the Three Coastal Allies,” *The Journal of Cross-Regional Dialogues/La Revue de Dialogues Inter-Régionaux*, no. 2020 Special Issue (2020): 131–52.

³⁰⁸ Sanders, “The Black Sea Region Caught Between East and West,” 215.

³⁰⁹ Sanders, 219.

through the Bosphorus and the Dardanelles, which could possibly bypass the Montreux Convention, an international agreement that limits the number and tonnage of warships from non-Black Sea littoral states that can enter the sea via the Bosphorus.³¹⁰ If the Montreux Convention can no longer be applied to the Istanbul Canal, the strategic calculations of all GPs and NATO in the region are about to change drastically.³¹¹

This short description of the BSR, its economic and strategic features, the partly contradictory agendas of the GPs and the challenges of the regional powers in the area offer only a glance at the complexity of this geographical environment. The entanglement of economic, strategic, and security interests of various nations offers a vast variety of possible futures. To keep the discussion focused on the NATO perspective, the “Varna Incident” vignette focuses on great power activities mostly at the Western shoreline of the Black Sea, in the territories of Bulgaria, Romania, and Moldova. Nevertheless, actions in the whole BSR influence the strategic picture.

Table 7 gives an overview about the scenario’s key antagonists and highlights relevant characteristics. The escalation matrix in the following subsection also focuses on these actors.

³¹⁰ “Convention Regarding the Régime of Straits - Montreux Convention” (United Nations Treaties, 1936).

³¹¹ Tuba Eldem, “Canal Istanbul: Turkey’s Controversial Megaproject - Its Likely Impacts on the Montreux Convention and Regional Stability,” *Stiftung Wissenschaft Und Politik*, No. 43, 2021.

Table 7. Typology of Antagonists—Black Sea Scenario

Typology of Antagonists - Black Sea Scenario		
Type	Definition	Actors
Great Power	A large country that has three main characteristics: 1) “Unusual capabilities [e.g., nuclear weapons, dominant disruptive technology, size of military forces] in comparison with those of other states;” 2) “behavior that indicates a willingness to use those capabilities in and beyond the state’s immediate neighborhood;” and 3) “the perception by the other actors that the state has both unusual capabilities and the willingness to use them” ³¹²	China: BRI, economic and diplomatic activities United States: NATO leading nation, security and economic interests, bilateral security agreements (i.e., Atlantic Resolve) Russia: “Near Abroad,” sphere of influence, military and economic interests
Regional Power	“Relatively prosperous medium-sized countries with either small, advanced economies or larger mixed economies; relatively modern militaries, but ability to project power mostly confined to periphery” ³¹³	Turkey: NATO member, diplomatic and economic relations to RUS and PRC, strong military, control of Bosphorus and “Istanbul Canal” Romania: NATO member, former Warsaw Pact, orientation towards USA, NATO, and EU, strong military Bulgaria: NATO member, former Warsaw Pact, traditional ties to RUS, economic ties to PRC, economic orientation towards EU
Minor Power	“Poorer small to medium countries with less developed economies; militaries generally less technologically advanced” ³¹⁴	Moldova: EU candidate, former Warsaw Pact, Western-oriented government, internal frozen conflict with Russian-backed autonomous region Transdniestria
Non State Actor	Armed and non-armed groups and private organizations operating within a country or across national boundaries ³¹⁵	Military: Transdniestrian military, right-wing militias Economic: Cargo (state-owned companies, COSCO), Energy (pipeline operators, GAZPROM)
International Governmental Organization (IGO)	Associations, coalitions, or alliances of national states and organizations consisting of nation states (internationally recognized) with a common agenda <i>(IGOs can act as a singular actor with one common leadership, command structure, and goal)</i>	NATO, EU, BSEC, US-ROM bilateral agreement, China-CEEC, TRACECA Program, DCFTA

2. Escalation Matrix

After the general overview of the BSE’s complexity, the escalation matrix discusses in more detail relevant structural and proximate variables in the region from a strategic

³¹² Lynch, *Strategic Assessment 2020*, 1–2.

³¹³ Heath and Lane, *Science-Based Scenario Design*, 20.

³¹⁴ Heath and Lane, 20.

³¹⁵ Heath and Lane, 20.

standpoint, that could, or could not, lead to an escalation of a crisis or conflict. These variables are strictly science-based, followed by a “So What” column, that provides possible future implications for each factor. For better readability, the details of the respective de-escalatory and escalatory elements are excluded from Tables 8 and 9, which focus solely on the deductions or the “So What” relevant for the scenario. Appendix E contains the complete escalation matrix for the Black Sea scenario with all details. The green and red arrows summarize the escalatory assessment of each variable. A green arrow means that the factor is generally pointing to a regional de-escalation, a red arrow points to regional escalation; when both are present it is a draw and therefore ambiguous. Table 8 provides the structural factors—focusing on the roots of conflict, and Table 9 shows the proximate factors—the possible immediate causes of escalation and conflict.

Next to supporting the understanding of the region’s escalatory potential, the template aims to identify essential variables and elements that can form a plausible storyline for the following “Varna Incident” vignette.

Table 8. Black Sea Security Environment (Structural Variables)

Black Sea Security Environment - Escalation Matrix		
Structural Variables		
Variable	So What!	
Shift in balance of power	Economic decline of Russia and deteriorating role as GP; China is ascending GP and economic power in BSR, leads to more coercive economic measures; Russian support for pro-Russian parties in BSR and Europe; Economic and proxy fight for political influence, no open conflict	↕
Dispute issues		
Subvariables:		
1) Access to resources	Energy diversification leads to lower revenues for Russia; Coercive economic measures by Russia and China (separately) in BSR countries; Economic crisis leads to regional conflicts and social tensions	↑
2) Infrastructure incl. overland & oversea bases	Russian build-up of military bases (Novorossiysk, Black Sea fleet, airbases); Chinese dual-use logistics infrastructure (ports: Poti, Varna); Turkish construction of "Istanbul Canal"	↑
3) Interdependence (entanglement)	Mutual interest of all GPs for cooperation in BSR; United States is self-reliant and can decide to focus militarily and economically on Asia, but mitigating Chinese influence in Europe and BSR is imperative	↓
Rivalry dynamics	Russia and its antagonists NATO and the U.S. have formally stated that they are adversaries and addressed each other's main threats in their security strategies; China pushes measures for its BRI and global influence; all GPs regard BSR as significant and potential battleground	↑
History of military crises	Frozen conflicts; Costs of war between BSR nations very high (Russo-Ukrainian War); economic and political tensions, proxy forces by all GPs; increasing NATO presence in BSR	↕
Partnership & alliance building	GPs influence BSR nations with political, economic, and military means (exercises, technology sharing, common use of bases) --> some have/seek EU/NATO membership; bilateral (economic) agreements: Georgia-China, Ukraine-China; Romania-USA	↑
Arms development	GPs build new capabilities (hypersonic, submarines, strategic missiles, UAS); balancing of capabilities, possibility of accidents and resulting escalation; high risk: dual-use capabilities	↕
Integrated approach	Russia and China remain authoritarian regimes; United States increasing domestic instability; use of national means of power to leverage proxies (plausible deniability); most BSR nations seek democratic systems and societal oversight	↑
Domestic demand for aggressive politics	Populist opinions dominate media; Russia: ultra-nationalist pressure on government for "revenge" for Russo-Ukrainian War; majorities: national pride is important but not to the extent of economic/energy collapse in case of war; domestic demand for economic stability	↓
Multilateralization of disputes	In BSR multilateralization of disputes, security issues and economic interests; loss of Russian influence and the economic push by China makes the diversity of interests, disputes, and issues more complex	↑
Military professionalism	NATO strengthens HQ MN CO SE, establishes Black Sea Naval Force (BLACKSEAFOR) with Turkish support (Istanbul Canal); NATO A2AD posture (anti-ship, BMD); Russia strengthens Black Sea Fleet (with Chinese technology); China uses civilian port infrastructure for own military naval posture	↕
Security perception (IO)	Russian revisionism high, but needs to rebuild and stabilize economy and international relationships; China has no interest in violent conflict, coerces BSR nations with economic strength; BSR risks losing control over own critical infrastructure	↕
Means to react proportionally	Military, non-military, political, economic, and intelligence means available to react to other actor's aggression (for regional and minor powers support by GPs); ability and willingness for deterrent measures; but risk of accidents and miscalculations which can lead to unintended confrontations	↓

Table 9. Black Sea Security Environment (Proximate Variables)

Proximate Variables		
The proximate factors are based on the possible situation in 2028–2032		
Variable	So What!	
Decision-maker perception of specific situation	Russia and China put economic pressure on Western economies, support for “aligned” BRI nations with energy discounts (Russo-China pact); Russia utilizes proxies and covert action to create distrust towards GPs; Western leaders struggle in convincing populations to take a harsher stance towards the other GPs and high budgets for the security of critical infrastructure	↕
Decision-maker perception of broader strategic situation	BSR is significant gateway to the European market and venue of influence on Western policy; China pushes BRI aggressively, pushing Russian influence out; Russia willing to sacrifice political trust of China (China’s dependence on Russian fossil energy); the United States needs SE Europe as bulwark to strengthen European defense and security to focus on Asia	↑
Balance of military forces at site of dispute	Russia has strong conventional (naval) and nuclear posture in the Caucasus, increases forces in Transnistria, South Ossetia, and Abkhazia → military built up for exercises (Yugu 2029); NATO exercises (i.e., Trojan Footprint) include forces from MOL and UKR; SFA for MOL by ROU, UKR, and the Baltic States; China monitors the military movements and uses EW to interfere	↕
Diplomatic methods	GPs deny publicly any involvement in domestic politics of BSR countries; UN and diplomatic organizations vetoed; distrust among all actors with “incidents” on critical infrastructure	↕
Trigger event	Russia utilizes proxy forces in Transnistria to create crisis in MOL; support of local political militias to disrupt Chinese harbor infrastructure in BUL, showcasing Chinese incompetence in maintaining controlled critical infrastructure; China utilizes cyber capabilities against NATO and Russia; political crisis in BUL is imminent	↑
Status & Prestige	Main drivers of the confrontation in Russia, goal to establish control over grain hubs and European and Chinese energy supply; China aims ousting United States as main diplomatic and economic partner for the EU; ROU and BUL committed to EU values but dependent on GPs	↑
Disruptive military innovation / technology	Conventional A2AD capabilities (air defense, anti-ship, anti-submarine) deny each other’s capabilities; but differences in capabilities for protection or disruption of critical (undersea) infrastructure	↓
Technological / natural disaster or climate change effects	Threat of natural disaster in BSR is low; technological nuclear disaster possible (high funding required to build up renewable energy industry); shrinking EU demand for fossil energy increases pressure on Russia (access to grain as new economic instrument of influence)	↓
Use of CBRN means	High threshold for GPs to use of CBRN means; use of chemical agents against individuals or small groups, biological means against industrial or logistical installations possible	↓
Communication channels	After Russo-Ukrainian War, official channels re-established what mitigates the risk of accidental military confrontations; distrust among the actors; GPs competing for regional dominance; covert economic, intelligence, and proxy operations, even between China and Russia	↕
Intrusion (physical, digital)	Russia utilizes proxies in MOL to destabilize MOL (and in parts of ROU), false flag operations (“border incident;” attacks by “MOL radicals”) to disrupt SFA mission; Chinese-controlled infrastructure in BUL is attacked by right-wing militia; China utilizes cyber means to disrupt NATO and U.S. communication	↑

The escalation matrix emphasizes that the overall security situation in the BSE is volatile, but not necessarily escalatory towards armed conflict and Article 5 activation. The

central strategic factor in the region is the balance among the GPs. Tensions among the GPs are present, but direct conflict is unlikely. The economic entanglement, via direct global or indirect local ties, mitigates the risk of violent escalation. Nevertheless, the utilization of coercive economic and diplomatic means is potentially growing because every GP attempts to increase its influence as long as the strategic political situation is unsettled. Additional partnerships, especially the potential EU and NATO membership of countries like Moldova and Ukraine, might change the future strategic situation. At the moment, the United States and its closest regional ally Romania pose the strongest bloc countering Russian and Chinese influence in the littoral BSR.

The following observations and assumptions form the background and “scenario skeleton” for the “Varna Incident” vignette: after the Russo-Ukrainian War with its immense costs in human life and physical and economic destruction, Russia loses political, diplomatic, and economic weight. Many littoral Black Sea and Central Asian nations, such as Moldova and Georgia, likely seek closer ties to Western economic and defense organizations. Ukraine can expect to receive generous financial and economic support in rebuilding the country and repairing war damages. The Ukrainian government pushes for EU membership and bilateral defense agreements with the United States and European countries. China, which already had economic ties to the Ukrainian economy before the war, also participates in the rebuilding effort, posing as a local partner while positioning itself against regional U.S. leadership. China’s influence in the BSR subsequently increases, expanding its shares in infrastructure projects, for example in Bulgaria and Turkey, and thereby repelling Russian influence even more.

The relationship between China and Russia in the BSR becomes more and more strained. While officially politically aligned and economically closely connected in Asia via energy deals, they are competitors over political and economic influence in the BSR. For China, the Black Sea has strategic importance as a gateway for its BRI to the European Single Market. It is also a geographic area to contest U.S. leadership without a high risk of escalation, compared to the confrontational posture of both GPs in Asia. For Russia, influence in the BSR is a question of national pride, which adds an emotional and therefore dangerous layer to the GPC in the BSR.

3. Vignette: “The Varna Incident”

16 February - near Varna, Bulgaria

Bogdan and Petar are out of breath. They stop for a second, sucking in the fresh February air. No snow at least. But they can see each other’s vapor rising in this cold night. Both are sweating under their heavy load.

They see the lights of Varna airport in the distance. And the harbor. The harbor, of course, in glaring lights. Its 24/7 workforce, busy as ants, are loading and unloading one cargo ship after the other. Since the Chinese pushed into Bulgaria’s logistics business, they have built cargo terminal next to cargo terminal, with a newly built complex for LNG (liquified natural gas) on the other side of the huge maritime complex, about to open one day from now.

Petar hisses: “You see that? They brought loads of money—and bought the conservative government. These greedy guys ... the Chinese and our weak politicians.” Petar gets angry thinking about all this: “This needs to stop! We cannot sell our pride and our future for cheap loans. *Bŭlgarska zemya, bŭlgarska chest*—Bulgarian soil, Bulgarian honor!” Bogdan nods and replies: “*Bŭlgarska zemya, bŭlgarska chest*—Bulgarian soil, Bulgarian honor!” Petar adds upset: “These little Chinese businessmen with their reserved demeanor already own half the country. Not only the whole logistical infrastructure in Varna, the airport, the harbor, and parts of the gas pipelines, the same in Burgas by the way ... no, they now also contracted the ‘maintenance support’ for the nuclear power plant in Belene! Not to mention, total control over Bulgaria’s 5G networks.... But tomorrow, they will be wide-eyed with horror! I bet the stock investors won’t be happy...”

Petar looks at Bogdan. The determination in his friend’s face tells him that he thinks the same. They have known each other for five years now, since Radko, their leader, brought them together. A brotherhood of likeminded men loving their country. They call themselves simply *bratya bŭlgari*—Bulgarian brothers. From the beginning, they were talking about a renewed and strong Bulgaria, grounded in preserved and proud traditions. A Bulgaria based on values, the belief in its own strength, and Slavic brotherhood. Yes, they always sought—and expected—support by Russia for their cause. But the sell-out of

Bulgaria's industry, and pride, continued. After the breakdown of the old Soviet Empire, it was the West with its strangling rules that kept Bulgaria down. And now the Chinese are at the helm, driving their politicians in the direction they want; bait them with money and great dreams. And Russia? After the humiliation in Ukraine, they had to lick their wounds. But still, as history shows, the Russian empire will push back! Against the West—and the Chinese... but this has to wait until Great Slavic Russia finds its way back to strength.

So, for now, the *bratya bŭlgari* take what they can get. When a year ago Ivan showed up, they did not trust him. An American supporting their cause? But it seems they underestimated the American can-do attitude. “The enemy of my enemy is my friend,” Ivan assured the brothers. Sure, Radko, Bogdan, and the others knew that the Americans hated the Chinese and wanted to drive them out of the region... but supporting a small determined brotherhood in their cause to regain what they lost? Their national pride and control of domestic politics?

But Ivan stayed. He never disclosed who funded him; he simply showed documents and answered any of the nationalist's suspicious questions. And he brought money, intelligence ... and, most importantly, determination. He became a real brother, their *brat amerikanski*. And he convinced the *bratya* to take action. Not only talking and dreaming, but taking fate in their own hands. The Chinese should finally receive a “welcome gift” for coming to Varna. And here they are. On a cold February night, sweating and hoping that their plan will work out.

The two Bulgarians look at each other. They must hurry up. Milen and Stefan, the other team, would not hesitate to execute the plan. Ivan is in their hideout in a small village a few miles north-east of town. He would coordinate the cyberattack on the transformer substation just outside the new Chinese logistics complex at the harbor. He explained that “his friends” would facilitate a complex DDoS attack on the installation's surveillance infrastructure, using the latest AI cyber tools. “No chance they can track that back!” Ivan cheerfully explained. Radko would be part of the pick-up party after their successful attack on the harbor's energy supply.

Their plan was an incredible combination of sophisticated cyber technologies, complex chemistry—and antiquated mechanical technology. While Ivan would facilitate the cyberattack on the substation’s surveillance system with its countless cameras and motion detectors, the two attack teams would use hand-pump fire extinguishers—yes, hand-pump fire extinguishers—to set fire to the power inlets to the substation. Ivan provided the firestarter, an odorless and tasteless liquid containing magnesium nitrate and other chemicals, highly flammable and undetectable once burned.

It is a crystal-clear cold night. Petar, Bogdan, Milen, and Stefan are ready. Each team has reached its final hideout, about 200 yards apart. Sweating with their “old school flamethrowers” in their hands, they are checking the watch. Only a short sprint and a truckload of trust to Ivan’s “cyber friends,” and the lights for the Chinese port would go out. And the country’s LNG energy market would crash....

Back in his hideout, Ivan takes a smartphone he has never used before from his pocket. He texts: “*Они в положении. Подними меня*—They are in position. Pick me up.”

18 February - Varna, Bulgaria (NATO Maritime Coordination Center)

Lieutenant Commander (LCDR) Liam Brown enters his office in a gray building on the Bulgarian Navy’s installation in Varna. He pours a freshly brewed cup of coffee. “At least they got the power back on within a day,” the intelligence officer mumbles ironically and takes a sip.

Brown’s regular assignment is with U.S. Naval Forces Europe-Africa (NAVEUR-NAVAF) in Naples, Italy. But the U.S. Navy did not necessarily send the former Navy SEAL officer to NATO’s Maritime Coordination Center in his intelligence role. He has a lot of experience in the Mediterranean and Black Sea region, mostly training with partners and allies. He even did one tour with his team to Moldova, supporting his Green Beret brethren in conducting a military assistance mission and working with the national Moldavian SOF unit.

Now, as the Turks are about to open the Istanbul Canal next year—and they already announced that the nearly 100-year-old Montreux Convention will not apply to this new waterway—NATO has to step up its maritime game in the Black Sea. In any case, the

circumvention of the convention’s restrictions for military vessels in the region will drastically change the strategic landscape. So, his superiors sent him over to Bulgaria for a four-month tour to support NATO’s approach to restructure the Coordination Center as a full-fledged Naval Forces Command Center – Black Sea (NFCC-BS). And, of course, to add his experience in irregular warfare and special operations wherever possible.

“First checking social media. That’s what an intelligence officer does these days,” he thinks, being well aware of all the propaganda and false information out there.

This morning, social media was full of videos showing guys dressed in camouflage with what looks like self-made flamethrowers who set a huge fire at a transformer substation the night before—just about two miles from Brown’s office. The flames are nearly blinding the thermal imaging. The videos were leaked from some of the many surveillance UAVs the Chinese use to protect their properties.

“Amateurs,” the former SEAL thinks. But he must acknowledge that the operation had a huge impact. Surprisingly, the whole city had a power outage for several hours yesterday morning—the national Bulgarian energy company could not compensate for the disruption in time. And the Chinese are really upset that this delayed the opening of the biggest Black Sea LNG terminal—their current prestige project in Bulgaria.

However, these nationalist “wannabe terrorists” were arrested within a few minutes after the attack. But the Chinese couldn’t get control of the fire for hours. Rumor has it that the bilateral investigators have not yet been able to determine the liquid firestarter used. Even more disturbing was the news that the attackers allegedly testified that U.S. intelligence services supported their attack. The Chinese are not happy, to say the least.

Brown sips his coffee and keeps scrolling. “Oh, the Bulgarian government has summoned the American ambassador?”

21 March, Sibiu Garrison, Romania (NATO HQ MNC-SE)

More than a month later, LCDR Brown is sitting in a windowless conference room with huge screens on the wall, all blacked out right now. It is the big VTC conference room at the HQ MNC-SE in the Sibiu barracks, in the middle of Romania. NATO has set up the

HQ in 2020 as a strategic headquarters for corps-level all-domain operations at its South-Eastern flank. The American officer looks around and thinks to himself, “Let’s hope we don’t need this command soon...”

Still a few minutes until the briefing starts.... “Things turned wild quickly down in Bulgaria,” he thinks back a few weeks. Three days after the attack at the energy substation out of Varna harbor, there was a huge internet blackout. Possibly because someone got a hold of the KAFOS undersea cable right off the Bulgarian coast, but the Bulgarian federal investigators kept everything top secret. Internet OSINT “experts” speculate like mad about it.

The blackout has massively delayed all investigations on the fire incident. And in parallel, a huge anti-Chinese IO-campaign started on social media, mostly pushed by pro-Russian parties and organizations. They accuse the Chinese companies of incompetence to keep their businesses safe and to manage such a small event like a fire. *Alchni kitaïtsi* (money hungry Chinamen) is the anti-Chinese slogan. But things got worse. The nationalist-conservative *Vazrazhdane* (Revival) party, part of an already very fragile coalition, left all public and administrative positions, plunging the country into a government crisis. Public protests, supported by *Vazrazhdane* politicians and fired up by nationalists, accused the government of having sold the land to the Chinese. Not surprising, Russian flags could be seen everywhere. The Bulgarian government is about to collapse.

All this was also mixed with anti-Western propaganda. Brown got to feel this firsthand. Just a week after the “Varna Incident,” now the commonly used term in the media, he accidentally ran into an anti-EU/anti-West right-wing protest. He was in civilian clothes but the few broken American-flavored Bulgarian phrases he had picked up in the last weeks didn’t help much to cover his origin. “That was really unpleasant,” he thought.

The door opens. Finally, the other participants show up. The U.S. Navy officer is relieved to be torn from his thoughts. After everyone has entered the room, Brigadier General Nikola Nikolov, the Bulgarian HQ’s Chief of Staff, starts the meeting: “These are tense times in an already difficult region. All personnel in here have either an intelligence or special operations background with some knowledge about the area. As you all know,

we'll have a talk with LTG Ries, the commander of NSHQ, in about half an hour. With him, we will discuss options SOF could bring to the table in this situation. LTG Ries will brief the MC in two days. Maybe this is the first time the NSHQ gets direct operational control after its reorganization.... Anyway, I'll hand this over to Colonel Marks Rants, our J2, to bring everyone on the same page."

Brown knows COL Rants, an experienced Latvian SOF officer and former commander of the country's primary SOF unit. Rants gets straight to the point: "I will quickly give you the latest intel on the 'Varna Incident' in Bulgaria, before we get to the, in my opinion, more urgent situation in Moldova. So, as all of you should know, on 16 February a group of Bulgarian nationalists conducted a terrorist attack on an industrial installation at the outskirts of the port facilities of Varna. So far nine persons have been arrested, the four attackers, the two-man pick-up party, and three supporters. One of them is Radko Todorov, the leader of the so-called *bratya bŭlgari*—Bulgarian Brotherhood. He is a guy who tried to get in touch with Russian agents for years to support his radical Slavism, also via Serbia. But so far, it seemed like he was always rejected. Maybe until now...." LCDR Brown raises his eyebrows: "Oh no, this is about to take a really bad direction."

Rants continues: "Back to facts. It didn't take long until nearly all of the *bratya* broke during the interrogations. Their stories were the same. A guy named Ivan showed up, convinced them he was an American agent, working for some U.S. agency. His leadership would support their cause damaging China's reputation in Bulgaria. He provided money, computers, smart phones.... And he came up with the attack plan on the substation, very precise on where, how, and when to attack. And ... Ivan disappeared after the night of the attack ... the only credible trace: that night, in the vicinity of the alleged terrorist hideout, a so-far unknown phone logged into the 5G network, sending only one message to a confirmed GRU number in the Russian embassy, before it was shut off." Rants stops for a second and goes on with a slight grin: "Here, at this point, thanks to Huawei for their 'unbreakable' codes.... Anyway, chances are high that this was a covert operation by the Russian military intelligence. A false-flag covert action operation, so to say."

Brown shakes his head. “Sure, Ivan the Russian.... Who would suspect that?” he thinks, while the Latvian intelligence officer keeps talking: “... After massive U.S.-Bulgarian diplomatic friction in the beginning, the Bulgarians see things reasonably clearly again ... And the Chinese probably suspect the same as we do. We have confirmation that the PLAN Mediterranean Fleet out of Piraeus, Greece, has requested to cross the Turkish Straits with three frigates and support ships within the next days. And the Russian Black Sea Fleet on the other side has started its annual maritime exercise just two days ago. Well...” The colonel pauses for a moment with an even darker expression on his face.

“Well, ... a word about the undersea cable damage three days after the Varna incident, causing a widespread internet blackout in parts of South-Eastern Europe. The Bulgarian-Chinese investigation—yes, the Chinese insisted on being part of that—didn’t bring up any useful results so far, because they are lacking the equipment to reach the cable. The damaged spot is at 85 to 90-meter depth. The internet traffic is redirected via other hubs, but there is not much bandwidth left at the moment. The Bulgarians have requested support ... from NATO. Now, a U.S. Navy EOD team, which participated in the naval part of the annual TROJAN FOOTPRINT exercise in Greece, and experts from France and Germany are on their way. Their required equipment will be flown in tomorrow via Balchik Air Base, a few miles north of Varna. An interesting observation in this regard is that a Russian *Losharik*-class submarine was spotted near the Kerch Strait without a mothership. Normally those nuclear-powered boats are carried by a so-called “special mission” submarine to an area of operation, where the *Losharik* deep-sea sub does whatever it does on the seabed....”

Everyone in the room listens carefully. This is getting really dangerous. “So, the Russians are attacking Chinese dominance in the Black Sea region?” Brown reflects to himself, “Just to demonstrate strength, or are they preparing something bigger? But at least my U.S. Navy specialists get to show their skills.” The last thought makes the LCDR smile.

General Nikolov steps in: “Let’s continue with the crises in the north.” “Yes Sir,” COL Rants answers and switches topic: “Now, looking into the situation in Moldova: On 9 March, so exactly three weeks after the ‘Varna Incident,’ a six-man party attacked the border crossing point between Moldova and Transdniestria near the town of Dubasari with

small arms, AK-47s and even an RPG. Well, it seems the attack did not go according to plan. The six-man team came into heavy crossfire from both sides, from Moldavian and Transdnestrian soldiers. Two Transdnestrian border guards were killed, two more wounded, as well as one Moldavian soldier, while four of the six attackers died and the others were arrested. Where did the attackers come from? We have confirmation that these were members of a local gang with close ties to the Russian crime scene. Three of them were also ‘Wagner’ veterans with experience in Africa and Ukraine.”

“And that’s not all we have....” Nikolov mumbles. Rants nods his head and continues: “Just a week earlier ‘Юг 29 – South 29,’ the largest military exercise in Transdnestria for 20 years, started in the north of the province. Next to the about 2,000 Transdnestrian service members and nearly the whole Operational Group of Russian Forces (OGRF) of about 1,000 soldiers, another 3,000 Russian soldiers from Russia’s VDV, most from the 217th Guards Airborne Regiment, take part in the exercise. The Russian military movement was announced beforehand and approved by the Moldavian and even the Ukrainian administration. It was the largest movement of Russian forces in the area since the ceasefire of the Russian-Ukrainian War in 2023. So, now we have way too many Russian soldiers in Transdnestria, and growing protests on both sides....”

Kolonelleitnant Raivo Kivi, an Estonian LTC, jumped in. “Might I quickly summarize the accompanying Russian social media campaign?” he asked. He is the lead instructor for PsyOps courses at NATO’s newly established Center of Excellence for Comprehensive Defense in Kraków, Poland. He has worked for the last two years extensively with the Moldavian Armed Forces to build an independent PsyOps capability.

Rants did not hesitate: “Please, go ahead, Raivo!” LTC Kivi stepped up: “So, what we have seen on social media before the border incident happened was propaganda, yes, but very careful and in parts even with a peaceful undertone. Russian channels were underlining the professional attitude of Russian forces in Transdnestria. In general, to give you a quick heads-up on the situation in Moldova, the relationship between the populations on both sides of the Dniester River, which marks in large parts the border, is in general very relaxed. There are, of course, pro-Russian and pro-Western hardliners, but hardly any violent incidents.”

“But what about the upcoming debate on the planned admission to the EU later this year?” General Nikolov asked. “Yes, good point. I was just about to point to that,” Kivi replied. “Actually, we were surprised not to see more Russian propaganda in that regard. It is definitely not in Russian interest if this happens! But back to their IO campaign. Right after the attack, the situation flipped. Videos were leaked on Russian channels, claiming that the attackers were legit Moldavian anti-Russian militants, who want to ‘solve the Transdnistria problem’ before any decision on the EU. The logic behind this is simple: if Transdnistria is completely under Moldavian control, there is no longer a reason for the other EU countries to reject Moldova. Well, this story spread in the pro-Russian community!”

“But that’s not all we found...,” the PsyOps expert keeps on explaining, “in recent days videos have continued to appear showing disturbing content. For example, in one video, made from the perspective of a helmet camera, alleged Moldavian SOF attack Russian and Transdnistrian soldiers and kill several of them. Another clip shows the recruitment of Moldavian reservists, who later conduct combat drills, proving that the Moldavian government has started a mobilization. Even geolocation works with these videos. Only ... these are outstandingly well-done deep fakes. We are not totally sure, but it seems that parts are real movies, possibly using actors. All the rest, faces, background, uniform and equipment details, are all added by a very sophisticated software. It must have taken weeks or months to prepare that!”

“But it serves the purpose,” LTC Marian Ardelean, a Romanian SOF officer calmly says, sitting in one of the large room’s corners. COL Rants invites him to share his experience. “Sure,” he says, “I just came back from Moldova a week ago. Over there I served as SOLTG commander and was also responsible for the multinational training mission in the country. As you are aware, I guess, Romania and the United States initiated in 2024 a mission to build up and enhance a Moldavian SOF component with NATO standards. So far Romania, the United States, Great Britain, and the three Baltic states regularly deploy SOF elements to train the Moldavian SOF. We have set up a Moldavian SOCOM equivalent and have already trained several cohorts of operators. They really get

better and better! But what happened in the last weeks was really new to us and changed the picture.”

He pauses a second. “Well, right after the incident at the border, tensions within our training cohort also increased. Even we as instructors were suddenly involved in serious discussions with some of our, it seems pro-Russian, Moldavian SOF trainees. They accused us of selling their country to the West—and also to the Chinese. They pointed to what had happened in Bulgaria. And now the violence was coming back to Moldova. Yes, they were willing to fight for their country. But not for the interests of other powers.”

General Nikolov steps in: “Thanks, Colonel. Unfortunately, this training mission in Moldova is based on bilateral agreements; NATO is not involved. Anyway, we are not exactly sure who initiated the attack at the border, but it seems like the hostile intent was met: we have pro- and anti-Russian demonstrations with violent clashes on the streets and about a brigade-strong Russian combat force on the other side of the river...”

“Excuse me, it’s time for a discussion with LTG Ries. The video link starts in one minute,” COL Rants announces.

LTG Andrew R. Ries, a U.S. Army SF career officer was about to leave his office at NSHQ in a few weeks, after his nearly three-year tenure as NATO’s highest-ranking SOF officer. His professional development epitomizes the full range of possible SOF operations—and he also experienced the drastic shifts in SOF’s focus over the last four decades. He knew a lot about SOF. But how could SOF and specifically the NSHQ support in the current situation?

“Sir, good to see you again!” General Nikolov introduces the few participants in the room. LTG Ries looks down on them from several screens on the wall; his face is concentrated and serious. “So, Gentlemen,” he comes to the point, “I think everyone here is aware of this very sensitive situation. We have China and Russia in an infight in the Black Sea. Thank God, only diplomatic so far. But it seems like they are positioning their chess pieces. And surprisingly, Russia seems to be ahead in the game this time. To put this directly, I really think that president Medwedew is being forced to act by his own ultra-nationalists. Next year, the Russians hold presidential elections again ... whatever this

means in Russia. But well, what’s your take on SOF’s role in NATO’s area of interest? What can we offer the MC?”

Ardelean, the Romanian SOF officer, asks immediately: “Are you talking about NATO SOF?” The American general calmly answered: “You know my position, Marian. It’s in the nature of such conflicts that SOF of the NATO allies and partners are always the first on the spot. It’s basically what you already do in supporting Moldavian SOF. So, NATO SOF, and I, take over when it’s necessary and useful—and of course when we get tasked by SACEUR to do so. Until then, we are here to support.”

With this open-minded statement, a candid and constructive discussion is possible on what tasks SOF could perform, and how SOF can create strategic effects—for NATO and the affected countries.

4. Analysis of the Strategic Utility of SOF

The examination of the strategic utility of SOF in the “Varna Incident” vignette, as an example of a potential future in the Black Sea region, focuses on various possible SOF tasks to prove SOF’s utility, and Gray’s central claims for the strategic utility of SO: *economy of force* and *expansion of choice* of SOF employment in Bulgaria and Moldova.³¹⁶ However, the basic requirement for the discussion of the future strategic utility of SOF is to be open-minded and free of bias. Strategic utility is a qualitative concept that defies precise definition. Nevertheless, SOF, by definition a strategic tool of national power, have to critically examine how their value proposition can be enhanced in such situations.

As discussed in Chapters II and III, the analysis of the strategic utility of SOF uses two consecutive tools: In the first step, the “tasks and activities” tool discusses the utility of SOF employment, disregarding the strategic effects initially, and examines possible and realistic SOF tasks. In the second step, the “out of the box” tool complements the discussion with a strategic perspective, exploring not only the pure likelihood of SOF employment, but its utility to create desired strategic effects based on the *expansion of choice* and

Gray, *Explorations in Strategy*, 1996, 168–69.³¹⁶

economy of force claims, compared to conventional forces. Each tool takes the differences of the scenario's two geographical areas of events, Bulgaria and Moldova, into account.

“SOF Tasks and Activities” applied: The “SOF tasks and activities” tool is based on the compilation of SOF tasks according to NATO, U.S., Russian, and Chinese doctrine and is grounded in the fundamental discussion of SOF and SO in Chapter II. Tables 10 and 11 validate each possible SOF task for its likelihood of utilization in the “Varna Incident” vignette, with a signal light scheme (green: high likelihood of tasking; yellow: medium likelihood of tasking, requires more support or only medium probability of success; red: low likelihood of tasking or probability of success) and provide short explanatory key points. Table 10 focuses on current NATO and U.S. SOF tasks and activities, while Table 11 introduces additional SOF tasks from Russian and Chinese doctrine and from academic literature.

The question in this analysis step is not about the strategic purpose of SOF missions but about the mere possibility of useful SOF employment; hence, it is about SOF's utility to create any positive effect.

Table 10. “Varna Incident”—SOF Tasks and Activities (U.S. and NATO)

Black Sea Vignette “Varna Incident”					
Task	Yes	Maybe	No	Explanation	Origin
MA - Military Assistance	Green			MA possible with both allies (i.e., ROU and BUL) and partners (MOL); important tool to enhance military proficiency and trust	NATO
SR - Special Reconnaissance	Green			Support of national authorities in BUL (intelligence, also deep-sea cable investigation); “classic” SR in Transdnistria	NATO US
DA - Direct Action		Yellow		DA on Chinese or RUS in vicinity of BUL unlikely, but possible if target identification; DA on terrorists – law enforcement; DA in Transdnistria against RUS possible, but threat of escalation	NATO US
CWMD - Countering Weapons of Mass Destruction		Yellow		If RUS or PLA CBRN means are identified with hostile intent, CWMD task possible in extremis; if TG try to acquire WMD possible	NATO US
CT - Counterterrorism			Red	Domestic CT is task for police/law enforcement, but in extremis support; if MOL/BUL nationalist groups are labeled as TG possible	NATO US
HRO - Hostage Release Operation		Yellow		If hostage situation happens on NATO territory, national law applies, in extremis support; if hostages are taken (Transdnistria) possible, <i>but</i> risk for escalation	NATO US
COIN - Counterinsurgency			Red	Protests in BUL and MOL are not insurgencies; if Transdnistrian forces (or parts thereof) are labeled insurgents possible	NATO US
FL - Faction Liaison		Yellow		Not feasible in BUL (except nationalists are factions --> intelligence service task); possible to work with Transdnistrian elements	NATO
CHT - Countering Hybrid Threats	Green			High priority task, in BUL and MOL; especially in covert/ clandestine, and non-kinetic roles	NATO
UW - Unconventional Warfare	Green			No task in BUL; high feasibility in Transdnistria with small SF teams to identify and support population willing to fight the regional government; high risk of detection	US
FID - Foreign Internal Defense		Yellow		In BUL education on protection of critical infrastructure; support for MOL forces, but mostly partnering with SOF (depending on “label” for Transdnistrian forces)	US
SFA - Security Force Assistance		Yellow		Support/training for conventional forces of allies and partners possible (facility, critical infrastructure protection)	US
FHA - Foreign Humanitarian Assistance			Red	Theoretically possible in case of long-term, large-scale loss of energy supply (gas, energy); but SOF only as last resort	US
MISO - Military Information Support Operations	Green			Information operation and PsyOps are critical in BUL and MOL; dependent on label “SOF” (PsyOps in NATO no SOF, in U.S. it is)	US
CAO - Civil Affairs Operations			Red	Not necessary in BUL; possible in Transdnistria, but not in the stage of the vignette	US
POE - Preparation of the Environment		Yellow		In BUL possible through hardening the critical infrastructure, but SOF only supporting role; possible in MOL, depending on desired action; high risk	US

Table 10 shows that SOF could perform a wide variety of possible tasks and activities in the “Varna Incident” vignette, according to current NATO and U.S. doctrine. Most of the “green” tasks are non-kinetic and follow the approach of training, advising, and assisting. Furthermore, the “red tasks” are mostly SOF tasks associated with missions in Afghanistan and the Middle East, like counterterrorism (CT), counterinsurgency (COIN), and, as a special U.S. SOF trait, civil affairs operation (CAO). The latter options are not applicable because the vignette is set in countries with a developed and stable administration, which is still fully functional. However, the assessment that these tasks might become possible after a large-scale escalation is valid.

A general observation is that the utility of different SOF tasks clearly depends on the stage of the conflict—before, during, or after a possible escalation of violence. Before the conflict, the central task is to support local security services and, as the long-term goal, build trust and personal connections which might be useful in a later crisis. In Bulgaria, this means conducting exercises to increase interoperability between different national SOF units, to standardize procedures, and share experiences, like the established TROJAN FOOTPRINT exercise series under U.S. SOCEUR leadership.³¹⁷ In addition to that, training and education deployments to conventional military units, local police, or emergency services are possible to conduct foreign internal defense (FID) or security forces assistance (SFA) missions. Nevertheless, those missions always depend on local national interest and are mostly limited to individual and tactical level training. In Moldova, SOF can perform similar missions, and SOF of NATO countries, following NATO standards, is especially primed for military assistance (MA) tasks with local military and police special forces units. In parallel, SOF can conduct peacetime special reconnaissance (SR) missions to create situational awareness (SA) and to prepare for future crises—the preparation of the environment (POE).

During the crises, the situation is unchanged in Bulgaria. The focus is on supporting and assisting the local Bulgarian authorities. However, options are limited for SOF because

³¹⁷ SOCEUR, “Trojan Footprint - Annual Exercise,” accessed October 27, 2022, <https://www.socom.mil/soceur/trojan-footprint>.

any domestic counterterrorism or counterintelligence missions are under Bulgarian law enforcement authority. The situation radically changes should Bulgaria officially request military support with SOF on a bilateral or NATO basis. In Moldova, the possibility of SOF employment is significantly higher. While continuing training and educating Moldavian SOF and conventional units, SOF might advise and assist MOL SOF on special reconnaissance (SR) or possible direct action (DA) missions. Partnered missions, for example with Romanian and Moldavian SOF in Transdnistria, are conceivable, too. Another option is unconventional warfare (UW) in Transdnistria to identify, train, and support local individuals to monitor and, if needed, counter Russian or Transdnistrian forces.

After the crises, the focus is back on training, advising, and building personal ties between the countries and units, and thereby creating trust and loyalty to NATO's SOF enterprise. SOF is especially useful in building strong personal relationships which can be utilized by conventional forces and other national and international entities to facilitate their training missions.

Table 11. “Varna Incident”—Additional SOF Tasks and Activities

Additional SOF Tasks & Activities					
Task	Yes	Maybe	No	Explanation	Origin
(SAB) Sabotage				Not applicable in BUL; possible sabotage of RUS logistics in Transdnistria; sabotage of RUS forces on route to Transdnistria; dependent on target acquisition: sabotage of RUS naval forces	RUSSIA CHINA
(C-SAB) Counter Sabotage				In general, possible but intelligence required; otherwise, SOF is “overpowered” protection force	RUSSIA
(C-SOF) Combating SOF				In general, feasible task for SOF in both BUL and MOL; but staff-intensive and requires intel and time	RUSSIA
(ASSI) Assassination				Legally not feasible in BUL and MOL, only military targets in case of Art. 5; but feasible against hostile TG leaders; in Transdnistria: local and RUS leadership	RUSSIA
(SRH) Special Raid Harassment				Not feasible in BUL; possible in Transdnistria in a later stage, but high risk due to small, densely populated country (UKR support?)	CHINA
(STW) Special Technical Warfare				Feasible in both BUL/MOL; physical and digital attacks on identified ENY infrastructure (SOF-Cyber-Space triad)	CHINA
(EFP) Early Forward Presence				In both BUL/MOL partly conducted; all activities to create SA/SU (pre-emptively) influence actors to prevent or minimize the risk of escalating into a crisis or conflict	New
Support to Comprehensive Defense				An official Government strategy, which encompasses a whole-of-society approach to protecting the nation against potential threats; Not applicable to this scenario	New
SOF in Space				“Trinity” of space–cyber–SOF; Space important for surveillance and communication; SOF dependent on Space; SOF support by DA on ground stations, antennas, or support to EW missions	New
SOF in Cyber				“Trinity” of space–cyber–SOF; Cyber as intelligence/counter-intelligence means; interfering with hostile communication; SOF supports by facilitating technical means	New

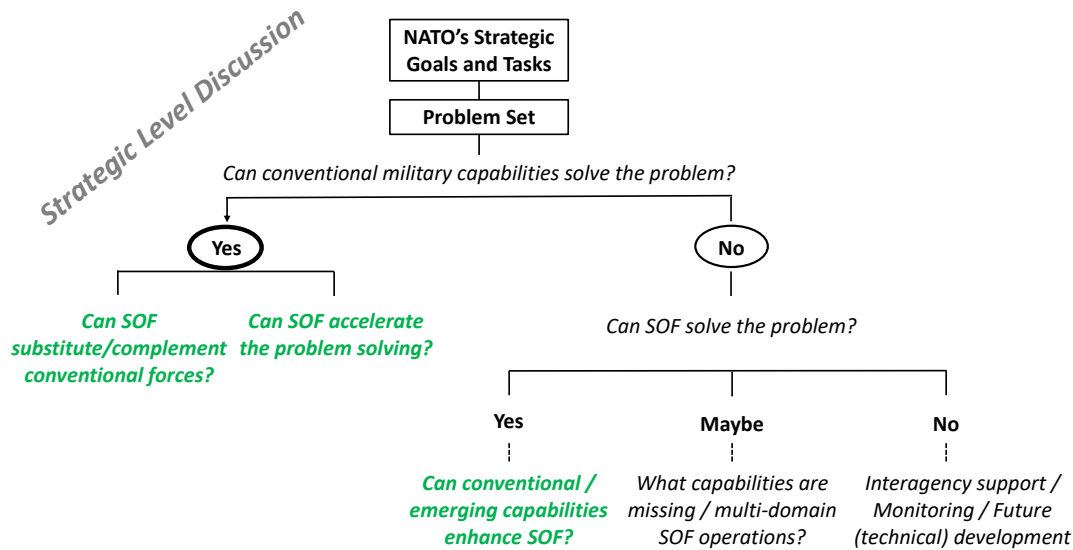
Table 11 introduces several additional SOF tasks, which are not part of the NATO and U.S. SOF mission portfolio. In the fictional “Varna Incident” vignette, the early forward presence (EFP) mission is especially noteworthy. It combines elements of MA (when working with SOF), SFA, and SR. An important aspect here is the deterrent effect of having military forces of allies and partners in country. SOF can serve as a “tripwire” for any possible adversary. Furthermore, publicly displayed SOF capabilities, especially the enhanced capabilities of domestic SOF, can also promote deterrence. This effect should

be closely tied with a well-orchestrated IO campaign. For example, having SOF of various nations working in Moldova significantly increases the costs of escalation by Transdniestrian and Russian forces against Moldavia.

Moreover, SOF clearly has an important role in comprehensive defense, the whole-of-government approach to increase national and societal resilience. SOF can not only train military and police units in Bulgaria and Moldova, but can also educate in special fields like the protection of critical infrastructure or facilitate domestic interoperability between military, police, intelligence services, and civil administrations by leading and supporting interagency exercises. The task of special technical warfare (STW), the support or facilitation of own offensive and defensive cyber operations by SOF, could play a significant role in that regard.

The “SOF tasks and activities” tool highlights that SOF have utility in the “Varna Incident” vignette and that several SOF tasks have a high likelihood of operationalization. However, the possibility of SOF’s employment alone does not imply that SOF automatically create strategic effects. The following comparison of SOF with conventional military means via the “out of the box” tool provides a critical perspective on the strategic utility of SOF in the Black Sea scenario.

“Out of the Box” applied: This tool builds on the utility discussion of the “tasks and activities” tool and focuses on the strategic effects caused by SOF employment—the strategic utility of SOF—by comparing whether conventional forces or SOF, or a combination thereof, are better suited to support strategic goals for NATO or NATO allies/partners. The basic assumption is that SOF perform military missions that conventional forces cannot. Therefore, SOF fill voids or enhance conventional operations. The two main elements to prove here are the *economy of force* and the *expansion of choice* of SOF employment. Figure 7 lays out the tool’s main findings for the “Varna Incident” vignette and guides the following discussion.



Economy of Force: Can SOF achieve significant results with limited forces? Yes

Expansion of Choice: Can SOF expand the strategic options available to political and military leaders? Yes

Figure 7. “Varna Incident”—“Out of the Box” Tool

For the tool’s first step, NATO has clearly stated that **stability in the Black Sea region is its strategic goal**. Furthermore, the Alliance will support NATO aspirants, like Ukraine and Georgia, and partners like Moldova in their efforts to mitigate Russian and Chinese influence.³¹⁸ Visible signs are additional multinational NATO battle groups in Bulgaria, Hungary, Romania and Slovakia and enhanced command structure elements like the HQ MNC-SE.³¹⁹ Nevertheless, SOF play a crucial role in training with partners and NATO allies in the region, whether it be in an alliance, multilateral, or bilateral framework. MA missions and partnering, and assisting local SOF capabilities directly feed into NATO’s deterrence posture. Romania and Bulgaria entirely concur with NATO’s goals. The countries seek stability in the whole BSR and predictable relations with their neighbors and all GPs to sustain and improve their domestic economic growth and overall wealth. However, each country has a different approach towards Russia and China, based on historical ties and economic pressure. SOF training, advising, and assisting deployments

³¹⁸ NATO, *NATO 2022 - Strategic Concept*.

³¹⁹ NATO, “NATO’s Military Presence in the East of the Alliance.”

in the region can enhance the threat awareness but hardly has a direct impact on mitigating gray zone and hybrid activities during peacetime. Yet, the generation of intelligence and building of personal relationships in contested countries greatly enhances any future military operation in the region in case of a crisis escalation.

In the “Varna Incident” vignette, **several incidents create the problem set of political and economic instability** paired with violent activities in two Black Sea countries, Bulgaria and Moldova, which can easily spill over to the whole region. Russia starts a covert but aggressive action in a direction so-far unexpected by NATO: undermining not only Western but particularly Chinese reputation in Bulgaria and other BSR countries. The attacks on Chinese economic projects and violent provocations at the Moldavian-Transdnestrian border serve more to create insecurity and turmoil than to start open conflict. The resurgence of the “frozen conflict” in Transdnestria also seeks to secure NATO and U.S. attention. Russia, countering its loss of influence in recent years, uses coercive and confrontative means to display supposedly regained strength. The government in Moscow likely intends to show its competitors’ weaknesses and to pose as more reliable partner compared to the other GPs. Russia is signaling to the world as well as its domestic audience that Russia “is back.”

Following the tool’s flowchart, the next question is **whether conventional military capabilities are available and suitable to solve this problem** after the “Varna Incident.” The answer is mixed. While military operations in general can only contribute to solving the problem in this complex and multilayered situation, in addition to diplomatic, political and intelligence means, both conventional forces and SOF play a role. So, **yes, conventional forces provide necessary capabilities to restore stability** and counter further aggressive Russian activities, particularly in Bulgaria. Additional conventional battlegroups at NATO’s South Eastern flank and the enhancement of regional forces and command structures serve as a deterrent for an escalation to open conflict on and near NATO territory. The SOF MA mission in Moldova serves a similar purpose. However, the pure presence of foreign forces hardly deters hybrid operations, sabotage, intelligence gathering, and the use of proxies. Nevertheless, training and supporting local Bulgarian and Moldavian military and administrative entities with experts in specialized fields like

logistics, energy supply, force protection, or technical reconnaissance is a conventional military or even whole-of-government task that enhances societal resilience. Such cooperations, facilitated by conventional military experts, directly feed into NATO's goal of stability and reliable allies and partners at its South-Eastern flank.

SOF does not have immediately available specialized experts in these fields. Still, SOF does complement the conventional effort by serving in a supportive “door opener” role. SOF can establish SFA missions early on with a small footprint, for example, for training security forces for critical infrastructure with technical and tactical expertise, which conventional forces can later take over. SOF can then work in an advising role in these SFA and complementing IO missions. Furthermore, SOF of NATO nations, with and without a NATO umbrella, work closely with Bulgarian and Moldavian SOF, and other local security forces. NATO's tactics, techniques, and procedures (TTP) create standards and common ground. The various units train together and build trust in their allies and partners. These personal relations are a central aspect of SOF missions, which generate informal networks across borders. For example, personal ties, common language, and TTPs offer the possibilities for joint Romanian-Moldavian SOF SR missions in Transdnistria. In general, SOF can also conduct covert SR missions to increase situational awareness to enhance the overall intelligence picture for all forces in the region. Conventional experts can then utilize this knowledge and plug it into these informal networks to increase their own success. So, SOF clearly accelerates conventional operations in a contested peacetime environment, as described in Bulgaria and Moldova. Furthermore, SOF can conduct limited SR, POE, and MA missions to prepare for a possible escalation of the crises in the region. While almost exclusively non-kinetic, SOF provides *economy of force* by preparing, complementing, and accelerating the conventional military effort in this hybrid scenario with limited forces and a small but capable footprint.

Nonetheless, **conventional capabilities alone do not solve the problem**, which raises the question of whether **SOF can solve the problem**. In the vignette, SOF adds special skills like deep-sea diving and reconnaissance which conventional forces cannot perform in time. Furthermore, the bilateral SOF MA mission with local Moldavian SOF is a core SOF task that cannot be outsourced to conventional units. Only SOF are trained to

conduct SR or POE missions in a high-risk area like Transdnistria, also in a covert and clandestine fashion. However, conventional forces also enhance these SOF operations; SOF is always dependent on non-SOF support. Especially in Moldova, using technical conventional reconnaissance like UAVs, signal intelligence (SIGINT), reconnaissance aircraft, and also the support by human intelligence (HUMINT) teams greatly enhances the overall strategic picture, both in assisting Moldavian authorities and conducting possible UW and SR missions in Transdnistria. SOF, being trained and equipped to operate in confined places, adds strategic options in a possibly escalating environment. In the Black Sea scenario, SOF have strategic value by delivering fast and tailored response options before, during, and after a crisis, even clearly below the threshold of armed conflict. SOF offer the required *expansion of choice* for military and political decision-makers to create strategic effects and to support NATO's goal of stability and early warning in the region.

The discussion proves that military instruments, conventional and SOF, have strategic utility in a tense strategic situation below the Article 5 threshold like the one described in the "Varna Incident" vignette. Nevertheless, additional diplomatic, political, economic, and other law enforcement instruments play a major role in restoring stability and resilience in Moldova and Bulgaria. Still, SOF is an integral part of the broad national and international DIME effort in a contested peace-time environment given SOF's unique skill set, making SOF respected by both partners and adversaries.

C. SCENARIO 2: ARCTIC SECURITY ENVIRONMENT

Everything that happens in the North is of particular interest and value to us. Overall, our future lies in that area In the coming decades Russia's growth will come from the Arctic and the North. This is absolutely clear to see.

— Vladimir Putin, President of the Russian Federation³²⁰

China's policy goals on the Arctic are: to understand, protect, develop and participate in the governance of the Arctic, so as to safeguard the common interests of all countries and the international community in the Arctic, and promote sustainable development of the Arctic.

— China's Arctic Policy³²¹

The Arctic is one of the most contested global regions and, therefore, of high interest for all GPs and NATO. The first subsection provides the Arctic scenario overview and characterizes the Arctic security environment (ASE), including the geopolitical objectives and the region's importance for Russia and China. The second subsection discusses the escalation matrix tailored to the Arctic security region with structural and proximate variables—the “scenario skeleton.” In the third subsection, the vignette “Svalbard Crisis” weaves facts with imagination into a short, comprehensible story. The last subsection concludes with the analysis and assessment of the strategic utility of SOF in this specific scenario, using the two analytical tools to assess the likelihood of SOF employment and if SOF missions can support strategic goals with *expansion of choice* and *economy of force* compared to other military means.

1. Scenario Overview

The Arctic security region is changing quickly, mainly due to melting ice on land and at sea. The Arctic Ocean is becoming more accessible for maritime operations, and the land mass is becoming more exploitable for infrastructure and resource extraction. Climate

³²⁰ International Arctic Forum, “Putin Statement on the Arctic,” International Arctic Forum 2020, accessed August 18, 2022, <https://forumarctica.ru/en/>.

³²¹ State Council Information Office, *China's Arctic Policy* (Beijing, China: The State Council Information Office of the People's Republic of China, 2018), https://english.www.gov.cn/archive/white_paper/2018/01/26/content_281476026660336.htm.

change leading to environmental change is occurring about twice as fast in the Arctic as in the rest of the world, and several follow-on security effects are imminent in the next decade.³²² At least in the short term, climate and environmental changes lie primarily outside direct political and human control, and will remain the main drivers for geostrategic competition in the ASE.

Furthermore, the ASE contains enormous swaths of reserves, including fossil energy and substantial rare mineral resources.³²³ North Atlantic and Arctic transoceanic shipping lanes, like the Northern Sea Route (NSR) along the northern Russian coastline, are becoming more accessible, offering substantially shorter transit times for dual-use maritime transport and opportunities for underwater fiber-optic cable placement. Finally, the excellent fishing grounds of the Arctic Sea have significant economic importance.

As a result, many state and non-state actors have a vested interest in the Arctic. Russia and China are, according to Niklas Granholm, Marta Carlsson, and Kaan Korkmaz, “in different ways, constant factors in the emerging new Arctic; Russia, due to its geographic position, and China through its long-term economic global interests.”³²⁴ Competing views of what and how to control increasingly accessible resources, sea routes, dual-purpose and military installations, accidents, natural disasters, Arctic governance, and impacts from GPC in the ASE are threatening NATO members’ interests and putting their security at risk. These challenges, compounded by increased military presence, gray zone

³²² Alexandra Kelley, “New Study Finds Arctic Ice Is Melting Twice as Fast as We Thought,” *Changing America*, June 4, 2021, <https://thehill.com/changing-america/sustainability/climate-change/556842-new-study-finds-arctic-ice-is-melting-twice-as/>.

³²³ Donald L. Gautier, “Circum-Arctic Resource Appraisal: Estimates of Undiscovered Oil and Gas North of the Arctic Circle,” Fact Sheet, Fact Sheet (Menlo Park, CA: U.S. Geological Survey, 2008), 1–4, <https://pubs.usgs.gov/fs/2008/3049/>.

³²⁴ Niklas Granholm, Märta Carlsson, and Kaan Korkmaz, *Big Three in the Arctic: China’s, Russia’s and the United States’ Strategies for the New Arctic*, FOI-R--4296-- (Stockholm: Swedish Defence Research Agency, FOI, 2016), 5–6.

operations, and hybrid activities by Russia and China, have made the ASE a complex, urgent, and strategic security environment.³²⁵

A recent RAND study summarizes six challenges related to the ASE that may fuel future competition and bring crises to the brink of conflict: 1) Russia’s central role in Arctic access and placement (militarization of the Arctic), 2) increasing safety and environmental risks, 3) the Arctic as a gray zone, 4) challenges to the current Arctic governance, 5) China’s increased economic and political involvement, 6) uncertainty about Greenland’s geopolitical future and land disputes.³²⁶ Historically, challenges in the ASE have been solved below the threshold of armed conflict, but this may not be the case given the ASE’s environmental, economic, geopolitical, and military changes.

Figure 8 depicts the relative areas of Arctic claims by European countries (mainly Norway and Denmark), North American countries (the United States and Canada), and Russia.

³²⁵ Wilfrid Greaves, “The New Arctic Geopolitics,” *RUSI Commentary* (blog), May 5, 2022, <https://rusi.org/explore-our-research/publications/commentary/new-arctic-geopolitics>. The Arctic Council, founded in 1996, has been guided by the idea of the region as ‘One Arctic’ characterized by peaceful cooperation built on three pillars: privileging the role and interests of the eight Arctic states; emphasizing the Arctic Council as the premier forum for regional cooperation; and limiting the role and activities of NATO.

³²⁶ Benjamin J. Sacks et al., *Exploring Gaps in Arctic Governance: Identifying Potential Sources of Conflict and Mitigating Measures* (Santa Monica, CA: RAND Corporation, 2021), 6–12, https://www.rand.org/pubs/research_reports/RRA1007-1.html.

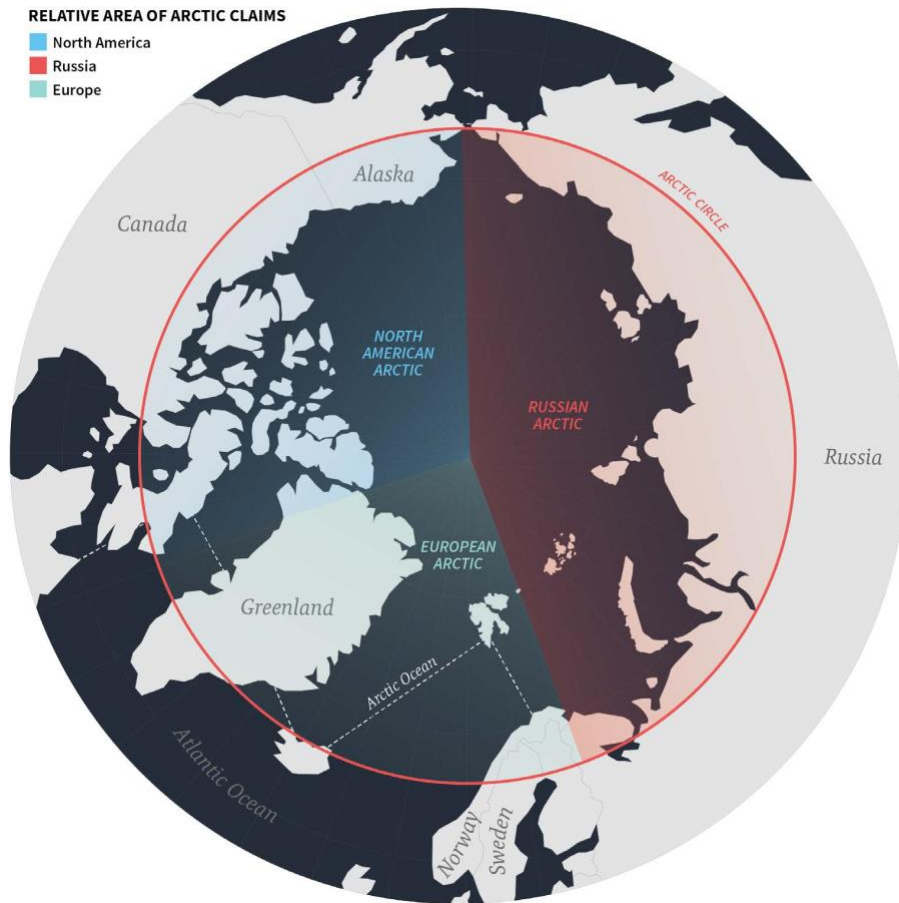


Figure 8. Relative Areas of Arctic Claims.³²⁷

Russia’s threat perceptions and strategic ambitions heading towards 2035: Russia’s central threat perception is based on the perceived fear of encirclement by NATO and the United States. In reference to Russia’s invasion of Ukraine in 2022, the likely accession of Sweden and Finland to NATO reinforces this notion. Russia anticipates that the ASE will be a strategic continuum stretching from the North Atlantic—the GIUK (Greenland, Iceland, and United Kingdom) and GIN (Greenland, Iceland, and Norway) gaps included³²⁸—to the North Pacific. Moscow’s Arctic security priorities are: 1) impose costs on other nations, alliances, and actors accessing Russia’s European Arctic, 2) protect the

³²⁷ Source: Heather A. Conley et al., *America’s Arctic Moment: Great Power Competition in the Arctic to 2050* (Washington, DC: Center for Strategic and International Studies, 2020), 8.

³²⁸ Scott Savitz, “Mind the Giuk Gap,” Rand Corporation, *Commentary (Defense One)* (blog), July 15, 2021, <https://www.rand.org/blog/2021/07/mind-the-gap.html>.

NSR, 3) remove tensions from the ASE, and 4) extend military capabilities in and beyond the Arctic Zone of the Russian Federation (AZRF).³²⁹ In other words, Russia expects that environmental change in the ASE will increase the human presence in the region, including with more military activity and, therefore, the need to prepare the defense of the AZRF. The Russian Arctic policy 2035, released in 2021, reiterates foreign military presence, attempts to reconsider basic international treaties to regulate the Arctic, and contests efforts by foreign nations and organizations, such as NATO, to prohibit Russia from conducting business and other economic activities in the Arctic, considering such actions as threats to the creation of security in the Arctic region.³³⁰

For example, Russia will try to exert control over NATO's military access and activities in the ASE, where Russia's military infrastructure on the Kola peninsula includes the Northern Military District Headquarters (NMD HQ) and significant sea-based nuclear capabilities. Furthermore, to ensure uncontested access for its own forces and perimeter defense (bastion defense concept) on and around the Kola peninsula, control and surveillance of the GIUK and GIN areas are essential for Russia.³³¹ In addition to the bastion defense, Russia seeks to extend its maritime and airspace denial capabilities beyond the Kola peninsula and the Franz Joseph Archipelago to create an out-of-area layer of protection.³³² This second layer aims to increase the security of strategic submarine activities while also allowing unhampered access for Northern Fleet assets beyond the AZRF. Russia intends to place NATO assets at risk of operating in a contested area and to limit access to the Atlantic Sea Lines of Communication (SLOC) around the GIN and GIUK gaps.

³²⁹ Mathieu Boulègue, *The Militarization of Russian Polar Politics*, Russia and Eurasia Programme (London, UK: Chatham House, 2022), 4–8, https://www.chathamhouse.org/sites/default/files/2022-06/2022-06-06-militarization-russian-polar-politics-boulegue_0.pdf.

³³⁰ Pär Gustafsson, *Russia's Ambitions in the Arctic Towards 2035*, FOI Memo: 7624 (Stockholm, Sweden: Swedish Defence Research Agency, FOI, 2021), 5–6, <https://www.foi.se/en/foi/reports/report-summary.html?reportNo=FOI+Memo+7624>.

³³¹ Boulègue, *The Militarization of Russian Polar Politics*, 10–11.

³³² Michael Kofman, "It's Time to Talk About A2/Ad: Rethinking the Russian Military Challenge," War on the Rocks, September 5, 2019, <https://warontherocks.com/2019/09/its-time-to-talk-about-a2-ad-rethinking-the-russian-military-challenge/>.

China’s ambitions heading towards 2035: China views itself as a near-arctic state and is, therefore, an important stakeholder in Arctic affairs. China’s policy goals for the ASE are, “to understand, protect, develop and participate in the governance of the Arctic so as to safeguard the common interests of all countries and the international community in the Arctic and promote sustainable development of the Arctic.”³³³ Therefore, China will continue to actively engage in developing the NSR shipping routes, extracting fossil and mineral resources, participating in Arctic governance, promoting peace and stability, and advancing Arctic-related cooperation under the “polar” BRI (which runs similarly to the NSR).³³⁴

China views the ASE as a critical link for its BRI strategy. China’s economic investments, technological capabilities, and global trade interests will lead to challenges, threats, and risky situations in the ASE. The Office of the Department of the Navy reports in its *A Blue Arctic* report that, “China is investing in shipbuilding—polar-capable cargo vessels, liquefied natural gas tankers, and nuclear-powered icebreakers—and port infrastructure to improve access to the Arctic. China’s investments, global fishing fleet, and scientific, economic, and academic linkages to the people and institutions of Arctic nations, including joint ventures with Russia, will likely continue to rise in the decade ahead.”³³⁵ China’s military, economic, informational, and scientific advances, combined with their aspiration to influence and maintain access to the Arctic States, by controlling and building maritime infrastructure with dual-use technology remains cumbersome.³³⁶

This short description of the ASE, its geopolitical and strategic features, and the agendas and goals of the GPs in the area offers a glimpse into the real complexity of this geographical environment. To keep the discussion within NATO’s scope, the “Svalbard Crisis” vignette focuses on great power activities, for the most part, at the Northern flank

³³³ State Council Information Office, *China’s Arctic Policy*, Art. II.

³³⁴ State Council Information Office, Art. IV.

³³⁵ Office of Department of the Navy, *A Blue Arctic: A Strategic Blueprint for the Arctic* (Department of the Navy), 7–9, accessed August 20, 2022, <https://media.defense.gov/2021/Jan/05/2002560338/-1/-1/0/ARCTIC%20BLUEPRINT%202021%20FINAL.PDF/ARCTIC%20BLUEPRINT%202021%20FINAL.PDF>.

³³⁶ Office of Department of the Navy, 7–9.

of NATO’s territory. Table 12 gives an overview about the scenario’s key antagonists and highlights relevant characteristics. More details about the overall strategic picture in the ASE are provided in the escalation matrix in the following subsection, which also focuses on these actors.

Table 12. Typology of Antagonists—Arctic Scenario

Typology of Antagonists - Arctic Scenario		
Type	Definition	Actors
Great Power	A large country that has three main characteristics: 1) “Unusual capabilities [e.g., nuclear weapons, dominant disruptive technology, size of military forces] in comparison with those of other states;” 2) “behavior that indicates a willingness to use those capabilities in and beyond the state’s immediate neighborhood;” and 3) “the perception by the other actors that the state has both unusual capabilities and the willingness to use them” ³³⁷	Russia: “real” Arctic power, controls most part of NSR, close proximity (with military forces) to ASE China: self-declared Arctic nation, dependence on natural resources and global trade, BRI United States: Arctic power with access via Alaska; NATO leading nation; economical interest in resources and free trade
Regional Power	“Relatively prosperous medium-sized countries with either small, advanced economies or larger mixed economies; relatively modern militaries, but ability to project power mostly confined to periphery” ³³⁸	Norway: Arctic nation, NATO’s “Northern flank,” small population, technologically advanced military, high revenues from oil and gas exports, Svalbard a historical part of Norwegian Kingdom
Non State Actor	Armed and non-armed groups and private organizations operating within a country or across national boundaries ³³⁹	Military: Proxy forces (‘little white men’), nationalistic Russian groups (Nashi), PMCs (Wagner), militias Economic: Mining corporations (Arctic Coal Company, Artikugol), Gas/Oil industry (Novatec / Chinese), tourism operators
International Governmental Organization (IGO)	Associations, coalitions, or alliances of national states and organizations consisting of nation states (internationally recognized) with a common agenda (<i>IGOs can act as a singular actor with one common leadership, command structure, and goal</i>)	NATO, UN, Arctic Council, Russo-Sino Pact, Nordefco, EU

2. Escalation Matrix

The second step in the scenario design is the escalation matrix, which provides an overview of relevant structural and proximate variables that could or could not lead to a

³³⁷ Lynch, *Strategic Assessment 2020*, 1–2.

³³⁸ Heath and Lane, *Science-Based Scenario Design*, 20.

³³⁹ Heath and Lane, 20.

crisis escalation in the ASE. This template aims to promote an integrated and deep understanding of the Arctic scenario and to identify essential elements that form the storyline of the “Svalbard Crisis” vignette. For better readability, the factual details of the respective de-escalatory and escalatory variables are excluded from Tables 13 and 14, which focus solely on the deductions or the “So What” for each variable. Appendix F shows the complete overview of the escalation matrix. The green and red arrows summarize the escalatory assessment of each variable. A green arrow indicates that the factor is generally pointing to a de-escalation in the ASE, a red arrow points to regional escalation; when both are present, the factor is ambiguous in a future scenario. Table 13 gives the structural factors—the roots of conflict, and Table 14 lists the proximate factors—the cause of conflict or *casus belli*.

Table 13. Arctic Security Environment (Structural Variables)

Arctic Security Environment - Escalation Matrix		
Structural Variables		
Variable	So What!	
Shift in balance of power	Militarization of ASE, degraded role of diplomatic institutions (Arctic Council), increased cooperation Russia & China → Russo-Sino pact. Economic decline Russia and deteriorating role as GP	↑
Dispute issues		
Subvariables:		
1) Access to resources	Joint ventures between Russia and China, claim disputed mining, fossil fuel and mineral fields. Climate change --> ice-free summers and excavatable resources	↑
2) Infrastructure incl. overland & oversea bases	Russia and China military buildup of Arctic bases (Alexandra land, Nova Zemlya, Wrangel Island, Kola Peninsula). Construction of dual use research installations in cooperation with China on Svalbard	↑
3) Interdependence (entanglement)	Russia's 'own' access to, use of, and protection of the NSR; claims the AZRF and EEZs for their use only. China is aligned with Russia on access to NSR, extraction of oil, and geopolitical gains	↑
Rivalry dynamics	Russia, NATO, and USA are adversaries and each other's main threats in both national security and Arctic. Russia fears encirclement of the ASE by NATO; China has declared itself as a near-Arctic state in its Arctic strategy (2018)	↑
History of military crises	ASE is a non-militarized zone acknowledged by all Arctic states → the Arctic Council, characterized by peaceful cooperation, emphasizing regional cooperation	↓
Partnership & alliance building	Risk of escalation → Finland and Sweden join NATO; reinforced Russo-Sino pact on security issues, trade, and natural resources; increased military activity in the ASE; risk of a confrontation and crisis due to miscalculations, accidents, and disasters	↑
Arms development	No disruptive or technological breakthrough is to be expected	↓
Integrated approach	Russia does not recognize the Arctic Council, the UNCLOS, and other Arctic institutions anymore. Russia and China founded the Russo-Sino pact to govern the NSR. Russia closed access to the Barents Sea for military transit	↑
Domestic demand for aggressive politics	For Russia, locally driven - mainly in the High North, Nova Zemlya, Svalbard, and Franz Joseph archipelagos. However, Russia uses these sentiments to leverage false flag operations and to introduce China into the Arctic as security provider	↓
Multilateralization of disputes	The introduction of China, as near-arctic state, made the diversity of interests, disputes, and issues even more complex	↑
Military professionalism	New JFC North (NATO) in Norway and an Allied Arctic Training & Readiness Center (AATRC) in Sweden to improve Arctic capabilities. Increased Russian readiness Arctic Division and retrofitting of the Northern Fleet	↑↓
Security perception (IO)	Russian OSK Sever (Northern Fleet) command - the Arctic Command - fifth military district. The ASE is Russian territory and is defended by the 'Bastion Defense' strategy. The Kola peninsula harbors two-thirds of Russia's nuclear second-strike capabilities	↑
Means to react proportionally	A range of military and non-military means are available to react to another actor's aggression. But, risks of mistakes, miscalculations, and disaster responses limit the means to react proportionally	↑↓

Table 14. Arctic Security Environment (Proximate Variables)

Proximate Variables		
The proximate factors are based on the possible situation 2028–2032		
Variable	So What!	
Decision-maker perception of specific situation	Putin explicitly claims all arctic landmass, including Svalbard, and NATO is deliberately closing the Western access to the high north & Barents Sea. Xi Jinping --> more aggressive tone NATO is hampering security of the NSR, and therefore, China must safeguard unobstructed access and passage of the NSR at all times	↑
Decision-maker perception of broader strategic situation	ASE is not main environment driving where the GPs are willing to escalate to conflict	↓
Balance of military forces at site of dispute	Russia increased its arctic capabilities --> The Kola peninsula with nuclear second-strike triad capabilities, a division of high readiness military forces, brigade of VDV (airborne) forces and ASW sensors. China adds a dual-use icebreaker fleet, a coast guard fleet, and Cyber and Space defensive and offensive capabilities complementing a relative overmatch of forces	↑
Diplomatic methods	NATO accuses Russia of violating the Svalbard treaty (1920) by increasing planned and flash exercises (ZAPAD 2029 and TENTSR-2030); Russia and China shut down (temporarily) their embassies in the arctic states	↑
Trigger event	Russia claims NATO sabotages underwater cables and disrupts the underwater sensor systems. NATO uses dual purpose installations (C2 and radar) on Svalbard to support this operation. Russia's Arctic capabilities on high alerts and closed the maritime and air space. China supports Russia with additional military and economic means	↑
Status & Prestige	Both de-escalatory and escalatory tendencies are manifest. Russia tries to escalate the ASE with forward presence, high readiness forces, false flag operations, and 'little white men'	↑↓
Disruptive military innovation/ technology	Russia has developed an underwater sensor network for ASW, also the new S-500 air defense systems, Khinzal, Zircon hypersonic, Kalbr-M and P-800 anti-ship cruise missiles with SOPKA-2 & 3 radar systems are superior to NATO's missile capabilities. China adds superior space and cyber capabilities, and co-developed unmanned deep-sea systems	↑↓
Technological / natural disaster or climate change effects	False flag natural disasters - alleged nuclear contamination of part of the ASE, deliberate pollution of Svalbard Archipelago	↑
Use of CBRN means	Russia and China have no intention to use or threaten to use CBRN weapons	↓
Communication channels	Communications channels become dysfunctional. The war in Ukraine, the Russo-Sino pact, and the intensified trade 'wars' between the Europe, U.S., and Russia and China have decreased the stability and opportunities to communicate	↑
Intrusion (physical, digital)	Russian false flag operations (e.g., cutting underwater fiber cables between Norway and Russia); political and military aid from China. NATO satellite installations suffer cyberattacks. Non-attributable covert and clandestine security undermining activities	↑

The following observations and assumptions form the background and “scenario skeleton” for the “Svalbard Crisis” vignette: The escalation matrix shows, as will the vignette, that NATO’s deterrence by denial—nuclear and conventional—is ineffective. Russia and China are neither deterred nor compelled by NATO’s Arctic capabilities,

forces, and activities. The two countries even join forces and establish a Russo-Sino pact with forces and capabilities operating in all military domains in the Arctic. The escalation matrix also highlights gray zone operations and hybrid activities—with proxy forces, the battle of the narratives, and cutting-edge technologies—below the threshold of armed conflict, and below the activation level of NATO’s Article 5, as Russia’s and China’s *modus operandi*. Incidents like the demolition of the underwater cables, false flag operations, and activities like the militarization of Svalbard with “little white men” are examples of (temporarily) non-attributable activities to establish a *fait accompli*.

Furthermore, the Arctic region is a predominantly maritime environment. Svalbard is a small island group 1,000 miles from mainland Norway in the Barents Sea, with a small Norwegian population and a harsh and unforgiving climate. As the escalation matrix points out, the protection of Svalbard is mainly dependent on maritime and air capabilities, with increasing relevance for the cyber and space domains. The land domain has limited value in protecting Norwegian territories such as Svalbard, Bear Island, and Jan Mayen. Moreover, the small Norwegian population is rapidly being outnumbered by Russian passport holders and citizens. This enables Russia, under the guise of a *fait accompli* to protecting its citizens, to militarize Svalbard to meet Moscow’s strategic ambitions of imposing costs on Arctic nations and NATO, and extending military capabilities in and beyond the AZRF.

3. Vignette: “Svalbard Crisis”

“Russia’s recent, and incrementally over time, more brutal and aggressive hybrid activities in the High North and its renewed military Russo-Sino pact with China are a game-changer for the Alliance’s security in the Arctic. It shows that we cannot take our security for granted. NATO is a defensive alliance, and our purpose is to prevent conflict and preserve peace. The Arctic has traditionally been an area of low tensions—and this has changed. By becoming partly ice-free in the summer and accessible in the winter, it unlocked increased shipping, natural resources, and economic development. But it also deteriorated our security and fueled militarization; Russia and China are clearly willing to

use military intimidation and aggression to achieve their goals. At the same time, they are stepping up their activities and interest in the Arctic.”³⁴⁰

This part of Mark Rutte’s speech is still in the ears of four senior officers, all working at the Joint Forces Command North in Olavsvern, (Tromsø) Norway. Its impact is heightened by the fact that the man giving the speech during his visit to JFC North, has been NATO’s Secretary General since 2026, and it fuels their discussion over a short coffee break outside of the commands’ main staff building. Deputy Chief J3 JOC Matti Virtanen, Brigade General of the Finnish Airforce, ponders: “The security in the High North is changing fast; Russia and China are adapting their Arctic capabilities and are pushing to secure their geopolitical interests and claims by militarizing the Barents Sea, the Kola Peninsula, contesting Norway’s Arctic islands of Svalbard, and threatening Northern Finland with hybrid activities. Without a strong and capable NATO force presence in the Arctic, NATO, and especially the near-Arctic states, are at risk.” He reminds all present about the recent installment of Russian A2AD, Sopka-2 radar, and the new underwater warfare sensor capabilities, which underscore the diminishing freedom of maneuver for NATO in the High North.

Colonel Andi Matzer from the German Army, now the acting J2 Chief Fusion & Collection Center, couldn’t agree more with Matti: “Recent reports tell us that Russian nuclear and unmanned submarines from Severomorsk on the Kola Peninsula patrol the Barents Sea on a daily basis. They are patrolling NATO’s coastline up to the GIUK (Greenland-Iceland-United Kingdom) and GIN (Greenland-Iceland-Norway) gaps. NATO and its Arctic states do, indeed, no longer have freedom of maneuver and action in the Arctic. Also, the underwater sensor system, combined with Sopka-2 radars and long-range coastal defense systems on Alexandra Land, Nova Zemlya, and Kola Peninsula present a threat to and hamper Allied operations. And then, I’m not even talking about the activities Russia and China are undertaking to destabilize the Arctic region politically.”

³⁴⁰ Adapted from: Jens Secretary General Stoltenberg, “NATO Is Stepping up in the High North to Keep Our People Safe,” NATO, August 25, 2022, https://www.nato.int/cps/en/natohq/opinions_206894.htm.

Marit Ödekirken, a Norwegian Navy Captain working at the J5 future operations and concepts branch, steps in: “Andi! Are you hinting at the alleged under-the-radar Russian surge of immigrants and issuance of Russian passports on the Svalbard archipelago? Or do you mean the bilateral Russian-Chinese exercises lately? I heard that China has moved its renewed Arctic icebreaker fleet and parts of the coast guard fleet for securing the NSR and participation in the exercise, ZAPAD 2028, in the Barents Sea with Russia—by the way, not only for defensive scenarios!”

Andi takes another sip of his coffee and moves on: “Yes, yes, sure, that’s what I mean. Cindy Presser from Reuters made a short documentary about the ‘little white men’ and the surge of Russian immigrants to Svalbard. But also the increasing clandestine Russian presence in the Arctic research centers and Russian state-owned companies like *Artikugol*. Not only on Svalbard but in the whole Arctic region ... and not only Russian. The documentary also showed an increase of Chinese state-controlled companies and personnel; ... can you imagine!”

Then, Colonel Juhan Puusepp steps in. Juhan is the SOFAD for the commander JFC North, an Estonian who speaks Russian. “I could not agree more with y’all. The Russo-Sino pact is already creating multiple dilemmas. We do not have a great deal of knowledge and insight into what we can expect from it. I’ll tell you this: It is not a trade or a fiscal pact. It is a defense alliance, a contender of NATO in the Arctic. There are many military activities going on; next to the military show of force in exercises like ZAPAD 28, there are several Chinese Coast Guard vessels and nuclear icebreakers patrolling in the Barents Sea, and Russia and China are increasing their high readiness forces on the Arctic archipelagos and the Kola Peninsula.....” NATO and Norwegian intelligence reports provide details about the Russians preparing the battlefield with covert and clandestine destabilization activities and deception operations. They call it *Maskirovka*. But NATO and Norway are lacking any specificity or ground truth supporting these observations.

Marit jumps up and exclaims: “You mean like the ‘little green men’ in Ukraine long time ago? So, these are the ‘little white men,’ then!”

Meanwhile, Matti is scrolling through his Toughbook searching for a specific report on Russo-Sino military cooperation that was prepared for last year's NATO summit in Helsinki. "Here it is," and he starts reading aloud: "A decade of economic sanctions by the West prompted Russia to enhance its ties with China. The bilateral securitization and thus militarization of the NSR, from the Bering Strait to the Barents Sea, is a win-win situation for both—revenues and cash flow for Russia and trade and access to resources for China. Furthermore, it serves as a counterbalance to NATO or even a severe threat to NATO."

"Do you guys know that Putin and Xi Jinping met more than 40 times in the last five years?" murmurs Andi.

Before all of them go back to work in the former naval base complex Olavsvern, Juhan reminds them that during the last large NATO Arctic exercises, Arctic Defender²⁷ and Cold Response 2026, NATO's cybersecurity center (NCSC) registered and traced 89 cases of Russian and Chinese intrusions of critical digital infrastructure, spoofing of operational and tactical communication, and jamming of air and maritime frequencies. And, he finally adds, they noticed an increased interest in undersea fiber-optic cables running via Svalbard to Norway and from Russia mainland to China. The Estonian SOFAD summarizes: "We are under immense threat from both of them, but what can we do? That's the main discussion right now; what the heck, NATO does not even believe it's under imminent siege."

"Not so pessimistic, Juhan. In the end, we always have you—the SOF guys," shouts Marit while entering the main entrance security gate.

Two weeks later, at the newly erected Allied Arctic Training Centre, the AATC, residing at the airfield of Kalixfors in Kiruna, Sweden, a multinational arctic task force (TF) is wrapping up the certification exercise Arctic Warrior²⁸, before going back to their homelands to be on standby for future polar missions. In the TF bar, the television is blaring news flashes. One of them gets the immediate attention of all present.

A Russia Today (RT) news reporter currently on Svalbard is reporting in drizzling rain from Barentsburg: "Today, 20 August of 2028, an aggressive act was performed by NATO. An undercover and secret operation conducted by NATO forces, led by the United

States, destroyed all underwater transmission cables. Russian citizens on Svalbard, Franz Joseph Land, and parts of Nova Zemlya are cut off from communication with the homeland, search & rescue units are blind, and the NSR traffic control has ceased; and as a consequence, all vessels in the NSR are stopped.” The crowd in the bar gets silent. Everybody is watching this newsflash in agony. Multiple iPhones start buzzing. What’s happening, or more accurately, what has happened? All are puzzled.

The reporter goes on: “President Putin and Xi Jinping have had a crisis meeting and declared in a press communique: By sabotaging the undersea communication cables NATO forces supported by the United States set a precedent, an escalation of threat, an aggressive act, all to marginalize the Russian people living in the Arctic, to deteriorate the NSR access, and fuel distrust between Russia and the great nation of China. We will not tolerate this escalatory behavior. Russia now closes the Barents Sea and the NSR for any maritime and aerial transit. The Northern Fleet is called to high readiness and intensified patrolling. The Arctic brigades and airborne troops will intensify their training in the High North, and the nuclear forces are on high alert.”

Meanwhile, the task force commander, USMC Colonel Cody Brennan, is alerted by the AATC-commander and briefed about the JFC common operational and intelligence picture. NATO has already warned and alerted JFC North and its forces to medium readiness and has ordered them to collect intelligence to better understand and shape the evolving situation but to restrain from any perceived aggressive postures.

Col. Brennan briefs his TF’s key players: “Listen up, we have been ordered to remain in place and continue training. The brigade HQ and JFC North do not exactly know what is unfolding and what is next. Their first assessment is that Russia cut the cables and is trying to blame NATO in a false flag operation, not confirmed, but highly likely.” Brennan adds that more incidents have occurred in the last 24 hours. Svalbard is cut off from all communications, satlink, radio, and underwater cable connections.

With a dour look, Brennan continues his briefing: “Svalbard is Norwegian, but there is a treaty that allows Russia to mine coal on the island. The rumors are that it is militarizing Svalbard with ‘little white men,’ think as in Crimea 15 years ago. Also, I

understand that Norwegian personnel of research and meteorologic stations on Bear Island and Jan Mayen were taken hostage by *Osvobodit' Artiku*—Free the Arctic. *Osvobodit' Artiku* claims to be a terrorist group, but U.S. intelligence suspects it to be a covert arm of the Wagner group, mercenaries working for Putin.”

To make things worse, news comes in that this very same day a cruise ship named the *Arctic Endeavor*, sailing under the Bermuda flag on its way to Greenland, was also hijacked by a so-far undeclared armed group. Everybody present is silent, thinking, wondering what has happened and what this will mean for them.

“What a mess,” says the XO with utter amazement. “What are we gonna do, now? Well, I guess, the best we can do is stay calm, be ready, flexible, wait for intel, and continue training.”

At the same time, on Svalbard, the situation is deteriorating fast. The night before all connectivity with Norway was lost due to the broken cables. The next day the Norwegian satellite communication center suffered a cyberattack, and now the SCADA system is wiped out. The emergency radio communication seems to be jammed or spoofed. And every day, more and more Russian-speaking people arrive on the island. One thousand kilometers to the West, Russia has officially closed the Barents Sea to all non-Russian and Chinese vessels and aircraft, as a reaction to “NATO’s attack.”

But on the other hand, the Russian companies and institutions on Svalbard seem to function. Also, undeclared ships continue to enter Port Longyear with predominantly Russian-speaking people; some are armed, some are not, and some wear non-attributable white camouflage uniforms. The population on Svalbard, 25% Norwegian and 60% Russian, is getting more and more anxious. Hoarding food and basic life needs has already started. The municipal building in Longyearbyen is surrounded by “little white men,” “guarding” it, just like the harbor and only airfield of Svalbard in Longyearbyen. The Norwegian population on Svalbard feels marginalized and notices an increase in semi-military activity in and around the harbor of Barentsburg. Also, unmarked aircraft are flying in and out of Longyearbyen airfield. Desperately, the Norwegian population tries to contact the homeland to no avail.

What actually is going on is hidden under a thick layer of deception. Russia, with the support of China, is continuing to militarize the West Arctic region rapidly. With the false flag operation, cutting the fiber-optic cables, Russia has created a shock, a grave incident, a trigger to militarize the Arctic security region and safeguard the NSR and resources for itself and its ally China. While NATO has been focusing on the upcoming Russian military exercises on the mainland, Russia has taken action further North. It has facilitated the ‘black out’ on Svalbard and now legitimizes the closure of airspace and maritime activities as a reaction to hostile activities. Russia uses the deception of a humanitarian mission and lands unattributable forces—the ‘little white men’—to “counter” the *Osvobodit’ Artiku* terror group. Russia is enhancing its military posture, capabilities, and forces in the Arctic in the context of territorial defense, power projection, and GP status. Previous exercises *Tsentr27* and *Zapad26* featured missile strikes and testing of new weapons and air defense systems, like the Zircon hypersonic scramjet, the renewed P-900 Oniks anti-ship cruise missiles, and the S-500 AD systems from Alexandra Island, Kola, and Nova Zemlya is a case in point. Highly important for NATO to note is the covert placement of the SOPKA-2 radar on Svalbard. This cueing radar’s 350-mile range combined with the underwater warfare sensor leverages Russia’s and China’s early warning, A2AD, and a sensor-to-shooter capability to fend any NATO posture in the Barents Sea. NATO is, so to say, blind and toothless at this time. Only cyber, electronic warfare, and space capabilities can provide any resolve. But are there any forces available that could enhance the overall picture for NATO on the spot? Or that even could take action to solve this “shock moment” for NATO and Norway? Maybe the SOFAD has an idea. (Figure 9 shows Russian military installations in the AZRF and their location in relation to the Norwegian territory of Svalbard.)

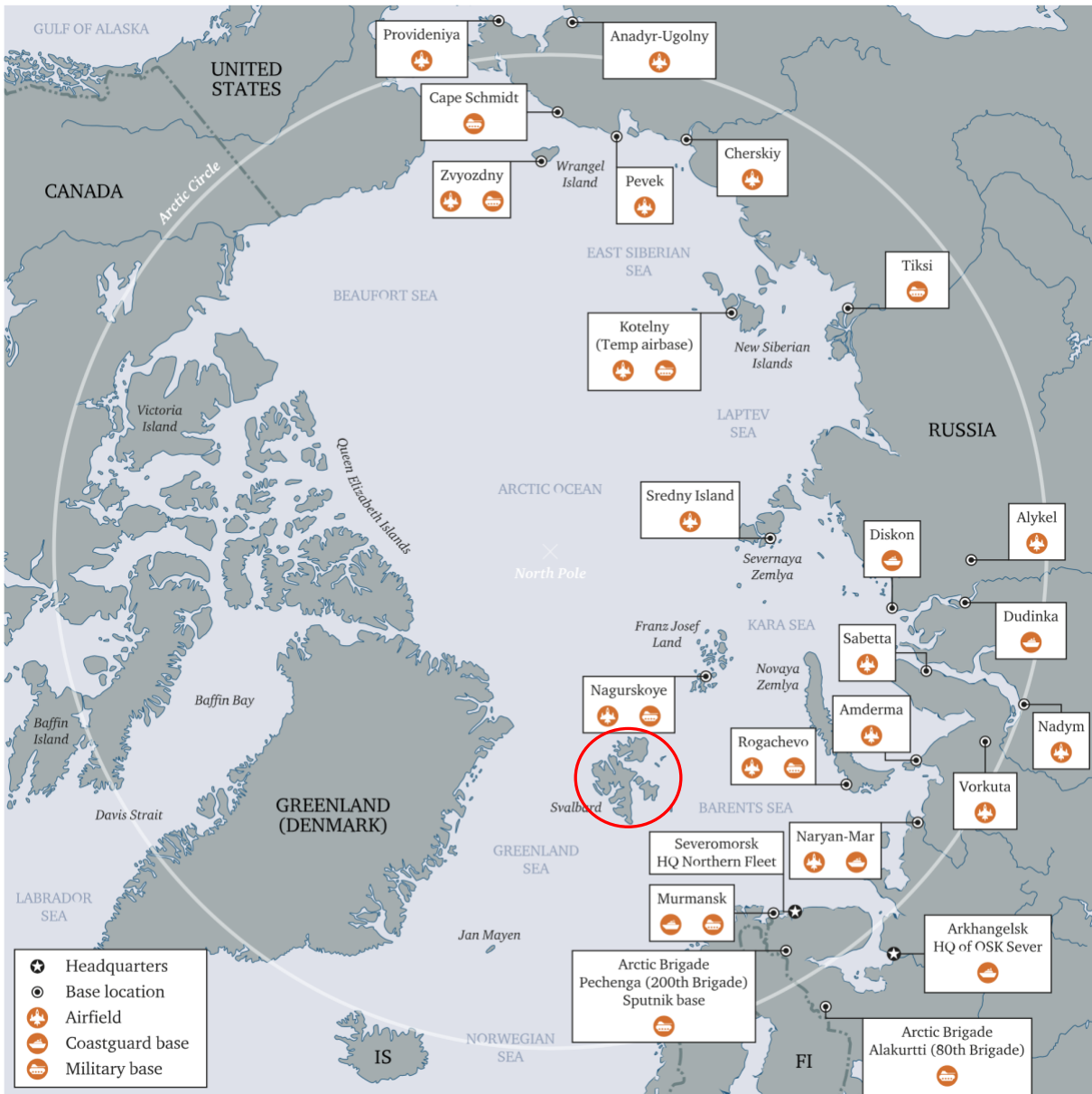


Figure 9. Russian Arctic Military Installations in the AZRF; Svalbard Marked (red circle)³⁴¹

In Olavsvern, the JCF North is working in its highest gear. Still, a lot is uncertain, non-attributable, and chaotic. During a brief lull, the four staff officers are allowed to get some fresh air.

³⁴¹ Adapted from: Mathieu Boulègue, *Russia's Military Posture in the Arctic Managing Hard Power in a 'Low Tension' Environment* (London, UK: Chatham House, 2019), 15, https://www.chathamhouse.org/sites/default/files/2019-06-28-Russia-Military-Arctic_0.pdf.

“Pffffh, this was to be expected, right! You really could see this coming,” Andi sighs. “Russia and China are trying to have a *fait accompli*. We, and the whole of NATO, are blinded by the current unfolding situation and divided by what to do and which steps to take. Every minute we wait, finding resolve will become more difficult.”

Marit chimes in, “They are dishing us up multiple dilemmas in all domains. Have you heard about the airspace violations of, what the heck, Chinese J-20 stealth fighters over Finnmark? Or, the pro-Russia demonstration, or should I call it riots, instigated by the *Nashi* gang in the Baltics?” At this stage the Norwegian Naval forces are not present in the Barents Sea and have asked NATO to send its SNMG-3 (Arctic) to come to their aid by breaching the A2AD bubble. NATO is reluctant to reposition its fleet across the Russian bastion defense belt to avoid escalating or triggering offensive signaling towards Russia and China.

That same day Xi Jinping has announced in a video statement, published on the Chinese internet platform Weibo, that China would not step back and will stand firm by Russia and not restrain itself from engaging NATO and U.S. space capabilities with counter-space warfare. Russia alleges that any offense of the Arctic blockade would be met with offensive action, neither restraining nuclear maneuvers.

“What happened to you, Matti? You look extremely exhausted and strained.” Matti is anxiously smoking a cigarette and moans while running back into the HQ, “well, NATO has all these conventional forces to prevent, deter, and ultimately defend from any Russian aggression; but you know what? It is momentarily not preventing, nor deterring Russia—nor China for that matter—at all.”

Matti is very worried that NATO does not even have a clear COP (common operational picture) or a CIP (common intelligence picture) of what is happening. And internally, the NAC is too divided on how to respond, or on whether it is an Article 5 or a Norwegian situation. He blazes, “It’s a big mess. Hopefully, the Americans and Norwegians have sufficient national capabilities to shine some light in the dark chamber; bye guys, I need to go—duty calls.”

Juhan, the JFC SOFAD, stays behind, pondering, tinkering, and worrying about what they could bring to the fight. Why has SO and SOF not been utilized so far? The

Russians surely did it. The GRU and Spetsnaz forces must have been covertly and clandestinely on Svalbard for months, maybe years. The terrorist groups hijacking the *Arctic Endeavor* and kidnapping the personnel on the research station on Jan Mayen and Bear Island by the *Osvobodit' Artiku* terrorists are surely special forces, not even to think about the 'little white men' on Svalbard. Furthermore, overt movement and maneuvering of conventional forces could lead to escalatory situations or offensive responses. We must grasp, know, and predict what will happen—where, when, and why. “We need strategic intelligence; we need response options and courses of action.” Juhan jumps up and runs back to his top-secret office space, the SOPLE (special operations planning and liaison element). “We need Special Operations Forces conducting Special Operations.”

4. Analysis of the Strategic Utility of SOF

The examination of the strategic utility of SOF in the “Svalbard Crisis” vignette, as an example of a potential future in the Arctic region, aims to answer the question if Gray’s central claims for the strategic utility of SO—*economy of force* and *expansion of choice* of SOF employment—are present and support NATO’s strategic goals. The analysis uses the two consecutive tools: first, the “SOF tasks and activities” tool, which examines the utility or reasonable likelihood of SOF employment, without considering the strategic effects, and second, the “out of the box” tool, which focuses on strategic problem solving and thereby the strategic utility of SOF, assessing the two master claims.

“SOF Tasks and Activities” applied: The “SOF tasks and activities” tool seeks to examine the “utility” part of the discussion on the strategic utility of SOF and helps to assess the applicability of the defined SOF tasks and activities for the Arctic scenario. The tool uses the combined matrix of various tasks, missions, and activities for SOF as laid out in Chapter II. The “SOF tasks and activities” tool examines the question: Can defined SOF tasks, no matter what country’s doctrine, be operationalized by SOF with a reasonable likelihood of success? However, the tasking of SOF with a specific mission does not automatically result in creating strategic effects and influencing strategic-level decision-making. The “SOF tasks and activities” tool analyzes which SOF tasks and activities are applicable—that is, have utility—based on the “Svalbard Crisis” vignette (Table 15).

Table 15. “Svalbard Crisis”—SOF Tasks and Activities (U.S. and NATO)

Arctic Vignette “Svalbard Crisis”					
Task	Yes	Maybe	No	Explanation	Origin
MA - Military Assistance				MA is not feasible, while there is no partnering force on Svalbard. And the crisis has started - too late to anticipate MA	NATO
SR - Special Reconnaissance				Strategic SR as early warning, surveillance / reconnaissance means, builds SA/SU, Target Acquisition	NATO US
DA - Direct Action				DA on ‘little white men’ seems politically unlikely, but is not impossible for national and NATO SOF. Think about covert and clandestine DA. For example, raids on logistic bases in international waters or on Svalbard	NATO US
CWMD - Countering Weapons of Mass Destruction				When Russia or China (intend to) transport or place WMD, like CBRN means, on Svalbard— not highly likely, but in extremis possible	NATO US
CT - Counterterrorism				Not applicable for NATO SOF, but Norwegian SOF could conduct CT when the <i>Osvobodit’ Artiku</i> group is labeled as a TG and not a Russian proxy	NATO US
HRO - Hostage Release Operation				Very feasible for the Jan Mayen, Bear Island, and the <i>Arctic Endeavor</i> situations. High strategic and political risk for escalation	NATO US
COIN - Counterinsurgency				No feasibility for COIN, while there is not an insurgency on Svalbard, but the narrative can be used that Svalbard is suffering from an insurgency, and it is a domestic matter, therefore, national SOF tasking	NATO US
FL - Faction Liaison				Feasible to cooperate and coordinate with Norwegian entities on Svalbard and other Arctic areas to improve SA/SU and collect intelligence. SOF with low visibility and tailoring characteristics is well suited for FL	NATO
CHT - Countering Hybrid Threats				CHT is an ongoing effort prior, during, and after the crisis. SOF is well equipped for sensing, probing, and identifying military hybrid activities	NATO
UW - Unconventional Warfare				SOF could play a crucial role setting up a resistance force to destabilize Russian “occupation” in the long term	US
FID - Foreign Internal Defense				No foreign security forces present—Norwegian territory	US
SFA - Security Force Assistance				No foreign military capabilities present on Svalbard. Furthermore, Norway is not in need of SFA to solve this crisis	US
FHA - Foreign Humanitarian Assistance				Not applicable to this scenario	US
MISO - Military Information Support Operations				Information maneuver and psyops are key attributes for national and NATO SOF HQ and unit to employ. Winning the battle of the narrative	US
CAO - Civil Affairs Operations				Possible, but only in later stages when the crisis is resolved or Svalbard remains under Russian threat	US
POE - Preparation of the Environment				POE would have shaped the operational environment on Svalbard. Strategic, operational, and tactical anticipation on Russia’s and China’s intentions would have influenced a faster and more effective NATO response	US

Table 15 shows that in the “Svalbard Crisis,” SOF have a wide variety of relevant and likely tasks and activities, focusing on NATO and U.S. doctrine. The “green tasks” are a mix of kinetic and direct activities, combined with an indirect approach, intelligence collection and non-kinetic activities, depending on the phase of the crisis. The “red tasks” mostly are related to the marginal numbers of local population present on the Svalbard archipelago to train, advise, and assist, in contrast to the “Varna Incident” vignette in the BSR.

To capture the essence of the utility of SOF, the different SOF roles in the Arctic scenario must be clustered by the consecutive phases of the crisis—before, during, and after the crisis. In the “Svalbard Crisis,” the problems for Norway and NATO have started months before the actual crisis. It was the moment the communications with Svalbard ceased as part of a Russian false flag operation, and “little white men” entered Svalbard. Norway and NATO had not anticipated this action. They were missing strategic and uniquely derived information and intelligence which conventional intelligence forces were not able to collect. They also lacked the capability of sensing or, in other words, have a feeling about what has been “brewing” in and around Svalbard, Jan Mayen, and Bear Island. In this early phase, SOF could support with early forward presence (EFP), a proper preparation of the environment (POE), combined with special reconnaissance (SR), and faction liaison (FL) in the period leading up to the crisis to anticipate what was to come. Furthermore, using SOF for identifying and countering hybrid threats (CHT) and conducting military information support operations (MISO) in combination with SOF triad (space and cyber) capabilities would have given Norway and NATO a better CIP, understanding, and response time to act.

During the crisis, most of the passive and collection roles for SOF remain valid. As long as Article 5 is not invoked in relation to the “Svalbard Crisis,” NATO is restricted in its offensive activities provided these are attributable. Norway, as a sovereign nation, has its own considerations. Kinetic activities like direct action (DA) by NATO SOF against, for example, “little white men” is possible but politically unlikely. Hostage release operations (HRO) and counter terrorism (CT) action on Jan Mayen, Bear Island, and the ferry *Arctic Endeavor* are feasible for NATO and Norway.

After the crisis, SOF has the same collecting, sensing, and anticipating roles as it did in the phase before the crisis. However, for the “Svalbard Crisis,” SOF might have an additional role in unconventional warfare (UW) by setting up a resistance force to deter any future Russian hybrid operation by military and proxy forces from occupying Svalbard. Finally, SOF could have a role in conducting civil affairs operations (CAO) when the crisis is resolved.

In addition to these common doctrinal Western tasks and activities, Table 16 adds further possible mission sets from Russian and Chinese doctrines and contemporary thoughts on SOF’s roles in GPC. Summarizing the ideas of Generals Votel, Clark, Wendt, and academics like Marsh, Blocksome, and Kiras in combination with the anticipated future roles envisioned by the interviewees who contributed to the thesis, the following list of future roles for SOF in GPC are also measured for potential utility in the Arctic scenario.

Table 16. “Svalbard Crisis”—Additional SOF Tasks and Activities

Additional SOF Tasks & Activities					
Task	Yes	Maybe	No	Explanation	Origin
(SAB) Sabotage				Feasible, while it focuses on damaging and destroying installations and equipment. Mostly in a covert operation that is not recognized as a NATO SOF operation	RUSSIA CHINA
(C-SAB) Counter Sabotage				Questionable whether SOF is the preferred force for C-SAB operations	RUSSIA
(C-SOF) Combatting SOF				National SOF and NATO SOF are well suited and tailored for C-SOF. However, in Svalbard, no Norwegian and NATO SOF is active and present	RUSSIA
(ASSI) Assassination				Legally not feasible in a situation below the threshold of armed conflict and NATO Article 5 activation	RUSSIA
(SRH) Special Raid Harassment				Not highly feasible, due to the vast distances, harsh environment, and Russia’s and China’s area denial and surveillance sensory in the Barents Sea	CHINA
(STW) Special Technical Warfare				SOF could have a strategic role in CNE / CNA and interference with space and counter space capabilities. This task aligns with the SOF Cyber/Space triad discussion	CHINA
(EFP) Early Forward Presence				Activities to create SA/SU and (pre-emptively) influence actors to prevent or minimize the risk of escalating into a crisis or conflict. However, for the Svalbard Crisis this window is already closed; EFP should have been employed before the crisis emerged	New
Support to Comprehensive Defense				An official government strategy, which encompasses a whole-of-society approach to protecting the nation against potential threats → not applicable to this scenario (small population)	New
SOF in Space				“Trinity” of space–cyber–SOF; Space important for surveillance and communication, especially in remote regions like the Arctic; SOF support by DA on ground stations, or support to EW missions	New
SOF in Cyber				“Trinity” of space–cyber–SOF; Cyber as intelligence/counter-intelligence means; interfering with hostile communication; SOF can support by facilitating technical means	New

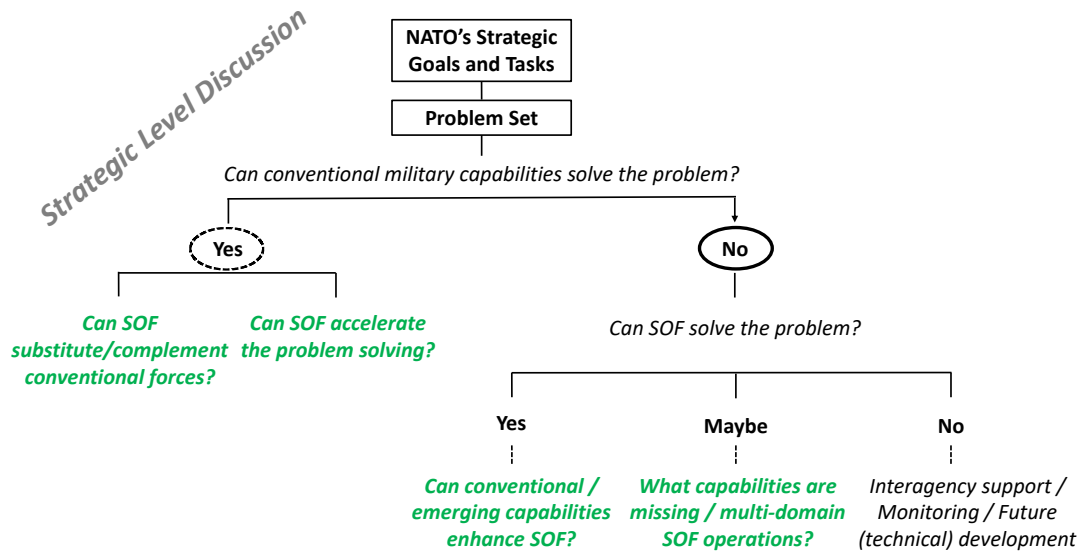
It is important to expand possible SOF tasks beyond current doctrine for a thorough discussion of the utility of SOF. Emerging roles for SOF, like the SOF-cyber-space triad, could have utility in the future. Noteworthy is the early forward presence (EFP) mission, a concept that is totally missing for Norway and NATO in the “Svalbard Crisis,” while Russia and China have used SOF capabilities for EFP activities to sense and prepare the operating environment and deliver strategic ground truth to their decision-makers. The vignette shows that Norway and NATO were reliant on a non-functioning conventional and nuclear deterrence posture. SOF could have a future role in delivering a unique

contribution to the existing deterrence option. Active measures, like the task of special raid harassment (SRH), can serve an operational purpose with strategic effects or as a threat in a deterrence role.

The analysis with the “SOF tasks and activities” tool proves that several SOF tasks have a high likelihood of operationalization and that SOF have utility in the “Svalbard Crisis” vignette. Nevertheless, SOF’s employment alone does not automatically imply that SOF generate strategic effects. The following comparison of SOF with other, conventional military means through the “out of the box” tool provides a critical perspective on the strategic utility of SOF in the Arctic scenario.

“Out of the Box” applied: The second tool, the “out of the box” tool, adds the question of strategic effects to support strategic goals to the utility discussion generated by the “SOF tasks and activities” tool. The “out of the box” tool follows the theory that SO are conducted “outside of the box” of conventional forces’ military operations. SOF perform mainly military operations that conventional units cannot. Furthermore, SOF fill voids in the strategic military portfolio and can also complement or substitute for conventional operations.³⁴² Figure 10 highlights the tool’s main findings for the “Svalbard Crisis” vignette.

³⁴² Searle, *Outside the Box*.



Economy of Force: Can SOF achieve significant results with limited forces? Yes

Expansion of Choice: Can SOF expand the strategic options available to political and military leaders? Yes

Figure 10. “Svalbard Crisis”—“Out of the Box” Tool

The strategic goal for Norway is clear: protecting and defending its territorial integrity and its population. Norwegian SOF has a national role in safeguarding Norwegian national security in and around the Svalbard archipelago. Furthermore, as stated in the new Strategic Concept and the DDA strategy, SOF for NATO and the NSHQ are supportive to the NATO strategic objectives: NATO will “deter and defend forward with robust in-place, multi-domain, combat-ready forces, enhanced command and control arrangements, prepositioned ammunition and equipment, and improved capacity and infrastructure to rapidly reinforce any Ally, including at short or no notice.”³⁴³ The vignette shows that Norway and NATO were surprised and caught off guard by Russia’s and China’s bold, aggressive move in the Barents Sea. NATO had not anticipated, and Norway was not prepared to initiate an immediate, effective response.

Russia was not deterred by NATO’s conventional and nuclear capabilities and forces, and created a **problem set for both Norway and NATO by facilitating a *fait***

³⁴³ NATO 2022 Strategic Concept, 6.

accompli on Svalbard using various non-attributable hybrid means. Moreover, it read from an under-the-threshold of armed conflict script to militarize the region, rendering conventional and nuclear activities escalatory and crippling NATO's strategic and operational options.

Following the tool's next step, whether conventional military capabilities are available and suitable to solve this problem in the "Svalbard Crisis," the answer visibly leans to no. However, conventional intelligence means and forces were available to sense the risk before the crisis, but strategic surveillance, reconnaissance, and all domain intelligence failed to deliver the predictive estimates. SOF could have delivered this strategic foresight with available covert, clandestine, and low-visibility capabilities, to mitigate the element of surprise. Early forward presence (EFP), a proper preparation of the environment (POE), combined with special reconnaissance (SR), and faction liaison (FL) prior to the crisis would have complemented the conventional means to anticipate for Norway and NATO what was to come.

Furthermore, conventional and nuclear forces failed to deter Russia and China from taking aggressive action on Svalbard. However, when SOF capabilities could leverage a role in strategic deterrence by the threat of the use of, for example, sabotage, revealing Russian and Chinese intentions with strategic SR, and special raid harassment (SRH), SOF could complement or substitute the conventional effort of strategic deterrence and provide *economy of force* in this regard.

In the "Svalbard Crisis," after the Russian and Chinese *fait accompli*, the **conventional forces are ineffective and incapable of solving the crisis** as long as the A2AD umbrella is not breached, communication with Svalbard is restored to some extent, and most important, an Article 5 situation is not declared. So, the next step in the "out of the box" tool is to answer the question, "**can SOF solve the problem?**" This is a complex question to answer with a simple yes or no. As shown in the "SOF tasks and activities" analysis, SOF has a myriad of existing and emerging tasks, activities, and capabilities to utilize for NATO and Norwegian political and military decision-makers. SOF provide broad, deep, and tailored anticipatory and response options to support the solving of this crisis or create favorable conditions for future actions in all domains. It is also important

to mention that SOF deliver results within, as well as outside, the military domain. Resolving the “Svalbard Crisis” would ultimately need a multi-domain approach and the employment of all instruments of national and NATO power. In the Arctic scenario, SOF serve first and foremost as an *expansion of choice* for political and military decision-makers by adding covert, clandestine, and low-visibility capabilities suited to extreme Arctic conditions and delivering tailored response options when deterrence fails and the threshold of armed conflict is not breached.

The Arctic scenario exemplifies SOF’s ability to give strategic decision-makers options to anticipate and respond when conventional capabilities are not suitable due to climatic, political, and hostile military circumstances. SOF provide *economy of force* in an early stage of the crisis by complementing conventional means. However, SOF’s capabilities and possible tasks and activities are crucial for resolving the “Svalbard Crisis” after the shock. They are an *expansion of choice*-option for sensing, anticipating, and responding to the hostile militarization. SOF are a highly flexible tool with unique modes of employment for strategic decision-makers in high risks situations with a low force posture, that other means cannot provide. SOF have strategic utility by supporting NATO’s (and Norway’s) strategic goals with its unique skillset in this high-risk environment.

D. COMPARATIVE ANALYSIS OF THE ARCTIC AND BLACK SEA SCENARIO

The previous sections discussed the strategic utility of SOF in the Black Sea and Arctic scenarios in isolation. The following comparison highlights the similarities and differences of the scenarios according to the main findings from the “tasks and activities” and the “out of the box” tools. While the “Varna Incident” and the “Svalbard Crisis” are fictional stories, both share the common expectation of an increased and more aggressive GPC in the periphery of the Euro-Atlantic area, with SOF providing strategic utility at different stages of conflict.

Tasks and Activities/Utility: The tasks and activities which SOF can reasonably execute to support the overall military effort—without considering strategic level effects yet—differ from the medium to the high-intensity scenarios. While the options in the Black

Sea scenario are mostly limited to non-kinetic and indirect effect activities like training, advising, and assisting other SOF and security elements in Bulgaria and Moldova, with possible SR missions in Transdnistria as an exception, the suitable SOF tasks in the Arctic clearly shift to more risky, aggressive, and kinetic options. These include SR in a de facto hostile occupied territory with enemy SOF and PMC elements, DA against high-value targets, and possible HRO at the meteorologic stations on Bear Island and Jan Mayen, and on board the *Arctic Endeavor* ferry. Two main reasons for this difference stand out: 1) visibility and availability of hostile targets; 2) availability of conventional options.

Out of the Box/Strategic Utility: The analysis of the strategic utility of SOF, the direct effect to support strategic goals, is based on Searle’s understanding of SOF conducting missions that conventional forces cannot and Gray’s two central claims of the strategic utility of SO: the *economy of force* and the *expansion of choice* by SOF employment in comparison to conventional options.

In the “Varna Incident” vignette, the claim of *economy of force* is significantly more prominent than in the “Svalbard Crisis.” One reason is that SOF perform mostly non-kinetic training and advising missions with limited forces, which can be transferred to conventional units at a later stage, which then leads to SOF taking on a supporting role or withdrawing from the assignment altogether. Especially in Bulgaria, SOF have no permanent mission. SOF mostly act as the “door opener” with a small footprint to build networks with local military, security, and administrative entities for use later in case of crisis escalation or handed over to conventional forces like the NATO multilateral battle groups as part of NATO’s tFP deterrence initiatives. For the Arctic scenario, SOF have also *economy of force*, but to a slightly lesser extent than in the Black Sea scenario: conventional forces are generally not suitable for missions like high-risk DA or HRO, therefore a comparison with SOF is hardly possible. Still, conventional formations are also not adaptable and flexible enough for extremely volatile situations, or are not equipped and trained for the environmental conditions in combination with a high-threat exposure. Nevertheless, if and when SOF capabilities could acquire a role in strategic deterrence, SOF could complement the conventional (and nuclear) deterrence effort and present additional *economy of force* through a small footprint with high strategic payoff.

In regard to *expansion of choice*, SOF create strategic effects in both vignettes, albeit with a different approach. In the hybrid security environment at the Black Sea, SOF provides *expansion of choice* for strategic decision-makers with niche capabilities like deep-sea reconnaissance, high-level training of foreign SOF, and SR in hostile territory. In Moldova, for example, bilateral SOF MA missions focus on enhancing and enabling local MOL SOF elements to conduct their own missions. However, if foreign SOF join MOL SOF on missions, for example SR in Transnistria, it will always be based on a case-by-case decision of the respective supporting nation, as there is no general obligation for support. SR is also a good example where conventional capabilities like reconnaissance UAVs, aircraft, or SIGINT can support the SOF mission or take over certain requirements with lower risk to personnel. Still, SOF create recognizable and measurable strategic effects in the “Varna Incident” vignette through the possible new task of early forward presence, acting as tripwire and clear signal of resolve, and in support to comprehensive defense. In the “Svalbard Crisis,” Gray’s claim of *expansion of choice* is especially applicable, because SOF offer capabilities like SR in extreme climate conditions, POE before and during the crisis on Svalbard and the other Norwegian islands, and possibly special raid harassment in a later stage of the hostile occupation. Nevertheless, certain aspects of the conflict like the attack on the deep-sea communication cables or the jamming of non-Russian and Chinese communication is hardly to be met with SOF.

The general observation is that the higher the intensity on the 3C continuum scale, as long as it remains below an Article 5 threshold and NATO conventional mobilization, the greater the need for SOF’s kinetic and high-risk capabilities. The assumption is that in an Article 5 situation, the emphasis shifts back to the claim of *economy of force*, as more conventional capabilities are available, and SOF often assume an important but preparatory or supporting role.

NATO / National SOF: Both scenarios emphasize a dilemma within the NATO SOF discussion as introduced in Chapter II, Section C: NATO SOF as a unified entity has hardly any opportunity to act independently. As LTG Fletcher, COM NSHQ, made clear in his interview with the authors on 12 May 2022, you only get “NATO SOF when the NAC actually identifies a crisis and forces are handed over to be part of the NATO force

structure.”³⁴⁴ In other words, NATO SOF can almost exclusively take action in case of an Article 5 activation. Both scenarios in this thesis deliberately stay below this threshold. This also feeds into the overall understanding that National SOF are almost always the first responders to act in a crisis; if possible, with available and willing allies and partners, based on additional bilateral and multilateral agreements. Examples in the scenarios are Norwegian SOF as the responsible entity to counter Russia’s “little white men” on Svalbard, or the combined Moldavian-Romanian SOF teams operating in Transdnistria.

Nevertheless, NATO SOF still play a crucial role in both scenarios. The most important is the function of the NSHQ and the OSO as the standardization hub for all NATO certified SOF units. This directly translates to the working relationships with non-NATO partners like Moldova, Ukraine, and Georgia. Common terms and TTPs simplify cooperation and the common understanding of what is possible—and what is not. The multilateral SOF MA mission in Moldova, conducted by the U.S., British, Romanian, Latvian, Estonian, and Lithuanian SOF teams is an example of an MA training mission utilizing NATO standards without NATO officially being involved. A similar function is its role as knowledge and networking hub. By attending training courses and NATO exercises together, SOF of various NATO allies share experiences, knowledge, and build personal ties and trust. This is particularly important in common NATO missions where NATO SOF are actually generated and deployed, but also in bi- and multilateral engagements like a possible interdiction of hostile entities in the Arctic scenario by specially trained Norwegian, Swedish, and Finnish SOF teams as part of the Nordic Defense Alliance. However, not tested in the scenarios but potentially necessary in the future, is a quickly available strategic SOF C2 element, in case or threat of a crises, especially in a gray zone or hybrid security environment. As the vignettes point out, an escalation is possible in both scenarios, allowing only a short response time (with the encounter of Chinese and Russian naval forces in the Black Sea, or the denial of NATO freedom of movement in the Arctic).

³⁴⁴ Antonio Fletcher, Personal communication with LTG Fletcher, COM NSHQ.

The analysis of the Black Sea and the Arctic scenarios provides a variety of insights into the possible future employment of SOF, whether in the NATO framework or only by NATO member states being involved. Both scenarios show that SOF have a strategic utility, although with varying gradation of the two master claims and with significantly different tasking in various stages of conflict.

V. CONCLUSION

SOF are optimized for providing the preeminent military contribution to a national political warfare capability because of their inherent proficiency in low-visibility, small footprint, and politically sensitive operations. SOF provide national decisionmaker strategic options for protecting and advancing U.S. national interests without committing major combat forces to costly, long-term contingency operations.

— General (ret.) Joseph L. Votel,
former Commander USSOCOM³⁴⁵

Understanding the strategic utility of Special Operations Forces (SOF) matters for NATO's future planning and decision-making. In the context of the paradigm shift from the Global War on Terrorism to Great Power Competition (GPC), with the United States, Russia and China as the primary antagonists, Western SOF must consider refining their tasks, activities, and unique offerings to political and military leaders. By definition, according to NATO doctrine, "Special operations create strategic or operational level effects or are executed where significant political risk exists."³⁴⁶ Driven by these changes in the global strategic picture, the question arises about the strategic utility of SOF in this renewed GPC environment. The current NATO security strategy relies on a deterrence posture with predominantly conventional and nuclear capabilities to engage strategic adversaries, historically focused on Russia. Deviating from its core task of deterrence and defense, the Alliance has been heavily engaged in peacekeeping and peace enforcement missions since the dissolution of the Soviet Union at the beginning of the 1990s. NATO needs to rethink whether, why, and how it needs to adapt the ways SOF can contribute to the "fight" in the competition-crisis-conflict (3C) continuum of a renewed GPC.

The use of SOF has significantly impacted key tenets of current strategic postures and warfighting strategies (e.g., deterrence, escalation dominance, etc.). However, war, strategies, tendencies, and global military trends constantly evolve. Looking into the future, the strategic question is not about where and how to use SOF, but about their future

³⁴⁵ Votel et al., "Unconventional Warfare in the Gray Zone," 102.

³⁴⁶ NATO, *Allied Joint Doctrine for Special Operations*, 1.

strategic utility. The knowledge of SOF's potential impact and the new *NATO 2022 Strategic Concept* validate the need to ask: **what is the strategic utility of SOF for NATO in Great Power Competition and how can this strategic utility be enhanced?** Therefore, this research has focused on incidents below the threshold of armed conflict while acknowledging the possibility of further escalation and NATO Article 5 activation.

Analyzing and assessing the strategic utility of SOF in the future is a complex undertaking, and it is always likely to be flawed to a certain extent. Colin Gray has observed that the “strategic utility of special operations cannot be assessed in a general way, it needs the context in which the strategic utility is grounded.”³⁴⁷ Therefore, envisaging and anticipating the future based on science-based scenarios in strategically relevant regions for NATO, like the Black Sea and the Arctic, enhanced and enriched by imagination, is an effective way to analyze and assess SOF's strategic utility in the GPC. Still, the scenarios must maintain a holistic perspective and a military strategic focus, not to keep it too general, but to facilitate the analysis and assessment of SOF's utility at the strategic level, without slipping too deeply into tactical details.

This thesis adopted Colin Gray's definition of the strategic utility of SOF as “the contribution of a particular kind of military activity to the course and the outcome of an entire conflict concerning the consequences of the direct and indirect impact they facilitate.”³⁴⁸ The analysis strictly followed his two master claims for strategic utility: 1) “the ability to achieve significant results with limited forces”—*economy of force*—and 2) “the expansion of options available to political and strategic decision-makers”—*expansion of choice*.³⁴⁹

The following synopsis of results presented in Section A answers **the research question by describing whether, why, and how SOF have strategic utility**. The whether-part of the research question is answered with a “yes” or “no” regarding proof of

³⁴⁷ Gray, *Explorations in Strategy*, 1996, 163.

³⁴⁸ Gray, *Explorations in Strategy*, 1996, 163–64.

³⁴⁹ Gray, 168.

strategic utility of SOF. The recommendations in Section B address **how SOF's strategic utility can be enhanced**.

A. RESULTS

Do SOF have strategic utility in the future? Yes, SOF have strategic utility in the future. However, that utility varies depending on the characteristics of the distinctive challenges inherent in the strategic situations and the complexities present.

Why do SOF have strategic utility in the future? The scenario analysis proves that both master claims, *economy of force* and *expansion of choice* offered by SOF, still apply in the anticipated future. SOF give strategic-level decision-makers opportunities to anticipate and respond and create significant strategic effects with limited forces. SOF help solving strategic problems, especially in the early stages of a conflict. Furthermore, both master claims are present in both scenarios, while with a different manifestation and gradation. In the Black Sea scenario, the claim of *economy of force* is slightly dominant because SOF performs mostly non-kinetic training and advising missions, which create trusted networks that can be transferred to conventional units later. For the Arctic scenario the *expansion of choice* is relevant because SOF offer a unique skillset with a very short response time that cannot be met by conventional forces or other instruments of power. With SOF, political and military decision have a strategic tool that delivers broadened, deepened, and custom-tailored anticipatory and response options when deterrence fails. Furthermore, SOF can also have a role in acting with *economy of force* regarding strategic deterrence. Overall, the scenarios give a sufficient understanding and assessment to support the generalization that SOF have strategic utility in below-the-threshold of armed conflict situations, particularly gray zone operations and hybrid activities by GPs and proxy forces emerging in cross- and multidomain environments for the coming decade.

SOF's characteristics, capabilities, tasks, and activities are crucial to sensing and solving critical situations, before, during, and after a crisis. This gives strategic decision-makers a highly flexible tool with unique modes of employment for direct and indirect effects with an overt, covert, or clandestine signature. Thus, SOF are particularly useful for

sensing, anticipating, and responding to high-risk conditions with a low-force posture when conventional forces are not capable or the best choice.

An additional observation is that the higher the intensity on the 3C continuum scale, as long as it remains below an Article 5 activation and NATO conventional mobilization, the greater the need for SOF's kinetic and high-risk capabilities. The expectation is that in an Article 5 situation, the emphasis shifts back to the claim of *economy of force*, putting SOF often in an important but preparatory or supporting role, as more conventional capabilities are available.

Finally, both scenarios emphasize a dilemma within the NATO's SOF discussion. National SOF are usually the first responders to act in a crisis, with available and willing allies and partners based on additional bilateral and multilateral agreements. On the other hand, NATO SOF has hardly any opportunity to act as a unified entity in a situation below the threshold armed conflict, and NATO SOF can only conduct deliberate kinetic and direct activities in case of an Article 5 activation. Still, NSHQ and OSO play a crucial role in both scenarios as the standardization, coordination, and synchronization hub for NATO-aligned SOF forces and capabilities.

How do SOF have strategic utility in the future? SOF can provide strategic decision-makers with a wide responsive array of cost-efficient and effective capabilities in the future—outside of the conventional context, capabilities, and forces. SOF can offer an innovative, flexible, and pragmatic response to operational dilemmas and are highly adaptable to new tasks like early forward presence (EFP), preparation of the environment (POE), special raid harassment (SRH), support to comprehensive defense, and emerging roles within the SOF-cyber-space triad. SOF have historically filled voids in times of crises and uncertainty. They have solved problems and met challenges posed by new and unexpected situations or bought time for conventional forces to adapt, reorganize, and respond.

It is relevant to note that SOF are specially designated, selected, organized, and trained forces able to operate in an overt, covert, or clandestine fashion, which enables them to operate in a hybrid warfare and gray zone environment throughout the conflict

continuum before, during, and after any incident or crisis. They have the characteristics of being small-scale, low profile, small footprint, with a high level of autonomy and can be used in unique ways. Furthermore, their ability to deliver flexible, mission-tailored, and cost-efficient solutions will fit the future GPC environment well.

SOF irregular warfare capabilities, tasks, and activities are essential for the strategic decision-maker's toolbox. These capabilities provide a vast, broad, and deep set of early warning, anticipatory, and response options, outside or next to conventional options. Furthermore, NATO's antagonists sometimes use new or different *modus operandi*, like special technical warfare, counter-sabotage, and combating SOF capabilities, from which Western SOF can learn. Finally, some capabilities, like unconventional warfare, are not feasible for NATO due to political and legal constraints. Still, understanding, facilitating, coordinating, and synchronizing UW with national and NATO SOF activities is necessary in potential future crises.

This thesis introduces an innovative and thorough research design that seeks to combine the appeal of storytelling with an analysis of the future role and utility of SOF. The purpose of this approach was to combine facts with fiction to spur thoughtful academic discussion. To have a valid academic debate on the strategic utility of SOF in specific contexts, the scenarios have to be well-crafted. The foundation is a case selection that directly serves the research question. Furthermore, scenarios have to be as fact-based and realistic as possible. The proposed escalation matrix is an effective tool to expand knowledge and understanding of a security environment and potential crisis situations that could arise in the decade ahead. Finally, imagination grounded in a discussion on the future operational environment helps to enrich and add detail to specific vignettes to make a story more realistic, interesting, and engaging for both the reader and the researcher. However, it is important to remember that the scenarios serve purely as a vehicle for conveying a possible future crisis to against which to analyze the strategic utility of SOF.

Envisaging and anticipating the future based on a scientifically developed scenario is an effective way to analyze and assess SOF's strategic utility in GPC relevant to NATO and NATO member states. This thesis helps NATO, its Office of Special Operations (OSO), and the NATO Special Operations Headquarters (NSHQ) to understand the

strategic utility of SOF in a GPC security environment in the (near) future. And finally, the research adds to the academic discussion on NATO's role and its NATO SOF enterprise in the GPC in the near future. It is not about what SOF can, could, and should do; the heart of the matter is what makes the strategic difference—*expansion of choice* and *economy of force*—that defines the future of SOF.

B. RECOMMENDATIONS

- NATO Special Operations Headquarters (NSHQ) and the Office of Special Operations (OSO) in SHAPE, as the standing NATO SOF elements, should be able to plug in and support national command structures in case of crisis since national SOF elements will have authority to act ahead of Article 5 activation. NSHQ and OSO should open a discussion about how NATO SOF and NATO command and support structures can facilitate, coordinate, and synchronize activities conducted by National SOF.
- NSHQ and NATO should actively engage and participate in national, bilateral, and multilateral SOF exercises, planned, executed and hosted by individual nations, to better understand the collaboration of NATO and National SOF in a crisis situation. Participating in and contributing to national, bilateral, and multilateral SOF exercises should start on short notice.
- NSHQ should stimulate a broader and more creative debate on strategic deterrence by SOF far below the common threat of conventional and nuclear escalation. SOF can be an integral part of the deterrence discussion because it can alleviate the risk of strategic surprise, prevent a *fait accompli*, and serve for alternative signaling. For example, in the Arctic scenario, the deterrent posture of conventional forces and nuclear capabilities was ineffective at the level below armed conflict, leading to SOF employment. Possible synergy effects of SOF with other (civilian) instruments of power embedded in an integrated deterrence concept should be part of this debate.

- SOF planners should critically revise NATO and national SOF doctrines in regards to tasks and activities. The analysis of the “SOF tasks and activities” tool shows that some definitions in contemporary official publications are not clear-cut and overlap. The SOF enterprise also has to be receptive and open to new tasks and best practices introduced by antagonists and understand how those leverage strategic utility by employing SOF. Examples of tasks that should be revised or added are special raid harassment, early forward presence, and the close cooperation and operationalization of fused capabilities within the SOF-cyber-space triad.
- NATO Special Operations School (NSOS) should incorporate and apply useful fiction and imagination for scenario development in courses, especially in strategic foresight and strategy development seminars. This fiction should follow a rigorous transparent process, use available academic sources, and be open to new ideas and trends to avoid any bias. Moreover, SOF leaders should use this knowledge to debate future SOF tasks on the highest political levels. This discussion could advise strategic level leaders on a vast, broad, and deep palette of (new) options that conventional forces and nuclear capabilities cannot give.
- NATO should utilize progressive working groups with experts from technological, political, military, and sociological fields to build additional scenarios for specific relevant security environments in the Euro-Atlantic area to implement a sense for forethought and foresight.
- Advanced Joint Professional Military Education (JPME) institutions like the Naval Postgraduate School, the NATO Defence College, War Colleges, and national Command & Staff schools can serve as excellent venues to further validate, adapt, and implement the thesis methodology and findings. Scholars can test and adapt the analysis tools and the scenarios in their research. Fellow academic and military SOF researchers should also work on additional future-looking scenarios to improve the understanding of the strategic utility of SOF and help validate new concepts, capabilities, and strategies by glancing into the future via a storytelling approach.

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APPENDIX A. LIST OF QUESTIONS FOR INTERVIEWS

Great Power Competition

1. What are the characteristics of Great Power Competition (GPC)?
2. What defines GPC? And what is the difference with Strategic Competition?
3. What are the characteristics of the great power competitors in the European security environment now and in 2030? And what are the roles of Russia and China in GPC?
4. What are Europe's security threats now and in 2030 from a GPC standpoint?
5. What are the differences and similarities between the following typologies: hybrid warfare, gray zone operations, below-the-threshold of armed conflict, and new generation warfare?
6. How does GPC affect these security threats?

Strategic Utility of Special Operations Forces

7. What is the strategic utility of SOF?
8. What are different ways (capabilities, methods, tasks, and missions) SOF has strategic utility in GPC? And how can these be researched?
9. What are the capabilities, methods, tasks, and missions NATO SOF lacks to generate a strategic utility for NATO?
10. What is the difference between the NATO and U.S. notion on the strategic utility of SOF?
11. What elements in NATO's treaty and NATO SOF's mandate constrain current and future GPC strategic utility?
12. What are conflicting and converging interests between NATO SOF and NATO member states' strategy?

NATO

13. What is the role of NATO in GPC? Why does it matter?
14. What is the strategic utility of SOF for NATO in GPC?
15. What are the voids in the future for NATO to fix with strategic employment of NATO SOF?
16. What is the strategic direction for NATO in light of the development of the new strategic concept? And what is the role and utility of SOF in this new strategic concept?
17. How does NATO, now and in the future, forge NATO SOF capabilities?
18. Is unconventional warfare considered a future NATO SOF capability?

Scenarios

19. As a picture of the future: What does the European security environment 2030 look like?
20. Which underlying developments lead to different scenarios in 2030?
21. How does the future operating environment for NATO look like?
22. In which future scenarios will NATO SOF need to play a strategic role?

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APPENDIX B. STRATEGIC UTILITY OF SPECIAL OPERATIONS

The Strategic Utility of SO Claims ³⁵⁰			
		Summary	Examples
Master claims			
1	<i>Economy of force</i>	Special operations can achieve significant results with limited forces.	<ol style="list-style-type: none"> 1. Force multiplier and augment the strength of regular forces 2. Accelerate pace of military success 3. Slow the pace of military failure 4. Substitute for absent or incompetent regular forces 5. Wage war economically 6. Solve a political or military problem quickly as well as cheaply 7. Apply military pressure with quietly and perhaps even with some plausible deniability 8. Force multiplication value ... not specific to type of conflict
2	<i>Expansion of choice</i>	Special operations can expand the options available to political and military leaders.	<ol style="list-style-type: none"> 1. The availability of a special operations capability means that a country can use force flexibly, minimally, and precisely. 2. Special operations enhance the flexibility with which one can use force 3. Special operations offer a low-cost solution to precisely targeted problems
Other Claims			
3	<i>Innovations</i>	Special operations can demonstrate new tactical doctrine, equipment, and military methods.	Special operations can be a laboratory for innovation.
4	<i>Morale</i>	Special operations can raise and encourage a sustained political will.	<ol style="list-style-type: none"> 1. Personalize conflict and create heroes 2. Demonstrate national toughness
5	<i>Showcasing of competence</i>	Special operations can enhance the political standing of the country by demonstrating military prowess.	<ol style="list-style-type: none"> 1. Help shape official and popular opinions of a nation's capacity abroad 2. Showcase military competence for deterrent effect particularly by deep, bold strike
6	<i>Reassurance</i>	Special operations can reassure an angry or fearful public or ally that something else is being done.	Special operations can function as a safety valve for an angry and frustrated public
7	<i>Humiliation of the enemy</i>	Special operations can embarrass an enemy and make him lose face without triggering a much wider war.	Special operations can damage an enemy's reputation by making him be seen to fail; they can thereby achieve a psychological (or moral) ascendancy
8	<i>Control of escalation</i>	Special operations can limit the scope and intensity of a conflict.	<ol style="list-style-type: none"> 1. Control escalation 2. Special operations can succeed while inflicting and suffering only a few casualties
9	<i>Shaping of the future</i>	Special operations as a contributor to unconventional warfare can help shape the future course of political events.	<ol style="list-style-type: none"> 1. Prepare the political ground ... for post occupation power struggles 2. Shape people's views of their occupier 3. Demonstrate political will and commitment 4. Alter the cast of players and their relative slate of assets in the politics of a particular country or region

³⁵⁰ Adapted from Gray, 168–80.

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APPENDIX C. SOF TRUTHS

Cultural knowledge and experience are founded on a range of SOF artifacts, self-description, values, and attitudes. The SOF truths have been an informal guide for SOF for decades, and they transgressed from the U.S. SOF community to the whole Global SOF Network and have also been informally adopted by NATO.³⁵¹ Additionally, they are helpful to military planners, decision-makers, and to conventional forces in informing them on how to utilize SOF to their maximum extent.

- Humans are more important than hardware.
- Quality is better than quantity.
- Special Operations Forces cannot be mass produced.
- Competent Special Operations Forces cannot be created after emergencies occur.
- Most Special Operations require non-SOF assistance.³⁵²

³⁵¹ “SOF Truths,” USSOCOM, March 11, 2022, <https://www.socom.mil>.

³⁵² “SOF Truths,” USSOCOM, March 11, 2022, <https://www.socom.mil>.

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APPENDIX D. HISTORY OF NATO 1949–2022

Soon after the end of World War II and the defeat of Nazi Germany in 1945, the discussion about a defense alliance among Western European countries started, triggered by the growing hostile posture of the former ally Soviet Union. Joseph Stalin, then the General Secretary of the Communist Party of the Soviet Union, announced in April 1945 that “everyone imposes his own [social] system as far as his army can reach.”³⁵³ The violent overthrow of the Czechoslovakian government by the communist backed national military in February 1948 and the blockade of the Western sectors of Berlin in 1948/49 by Soviet forces underlined the threat perception in Western democracies.³⁵⁴ Derived from the discussion about the Brussels Treaty as “a defense alliance and joint military organization”³⁵⁵ among Britain, France, and the Benelux states, broader negotiations started about “the establishment of an Atlantic security system.”³⁵⁶ Finally, despite domestic discussions in the United States about a further legal military commitment in Europe, the North Atlantic Treaty (“Washington Treaty”) was signed on April 4 1949, by Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.³⁵⁷

The Alliance’s creation served three main purposes: 1) “detering Soviet expansionism, 2) forbidding the revival of nationalist militarism in Europe through a strong North American presence on the continent, and 3) encouraging European political integration.”³⁵⁸ Lord Ismay, NATO’s first Secretary General, is often quoted as declaring that NATO’s purpose is “to keep the Russians out, the Americans in, and the Germans down,”

³⁵³ Milovan Djilas, *Conversations with Stalin* (San Diego, CA: Harcourt Brace & Co., 1962), 114.

³⁵⁴ David S. Yost, *NATO’s Balancing Act* (Washington, D.C: United States Institute of Peace, 2014), 4.

³⁵⁵ Sayle, *Enduring Alliance*, 13.

³⁵⁶ Office of the Historian, “Foreign Relations of the United States, 1948, Western Europe, Volume III,” The Secretary of State to the British Ambassador (Inverchapel), March 12, 1948, <https://history.state.gov/historicaldocuments/frus1948v03/d38>.

³⁵⁷ North Atlantic Treaty Organization, “The North Atlantic Treaty.”

³⁵⁸ NATO, “A Short History of NATO,” June 2022, https://www.nato.int/cps/en/natohq/declassified_139339.htm.

although this saying's authenticity has never been confirmed.³⁵⁹ Nevertheless, it is a well-termed summary of the threat perception of many Western European political and military leaders, most with first-hand experience from the war that had just ended.³⁶⁰ The Soviet Union and its increasingly violent reach into the affairs of acquired territories instilled fears about a new war in Europe. However, the Europeans were aware that a successful defense against the Soviet military was impossible without the Americans being formally involved. The United States needed to become "a European power."³⁶¹ The fear of a resurgence of a united Germany, maybe even in a pact with the Soviet Union, was another constant in all negotiations about the defense alliance and remained a recurring theme in NATO history throughout the Cold War.³⁶² Yet, another important and often intangible benefit of the defense alliance was its protection against Soviet intimidation of Western societies. George F. Kennan explained in 1948 that "the danger of political conquest is still greater than the military danger"³⁶³ or the threat of a "bullied European populace." Some politicians feared that "a European populace bullied by the threat of war"³⁶⁴ could give in to the Soviet Union without fighting. The psychological reassurance of a European will to fight and to rely on Allied and especially American commitment made the North Atlantic Treaty a cornerstone of the European security architecture.³⁶⁵

With the signature of the North Atlantic Treaty in 1949 the North Atlantic Council (NAC) as the highest political forum was established. However, it took several months and the brutal reminder of war with the communist invasion of the Southern Korean peninsula to

³⁵⁹ Sayle, *Enduring Alliance*, 3.

³⁶⁰ Sayle, 6.

³⁶¹ Sayle, 15.

³⁶² William Burr, "NATO's Original Purpose: Double Containment of the Soviet Union and 'Resurgent' Germany," *National Security Archive*, December 2018, <https://nsarchive.gwu.edu/briefing-book/nuclear-vault/2018-12-11/natos-original-purpose-double-containment-soviet-union-resurgent-germany>.

³⁶³ Office of the Historian, "Foreign Relations of the United States, 1948, Western Europe, Volume III," The Secretary of State to the British Ambassador (Inverchapel), March 12, 1948, <https://history.state.gov/historicaldocuments/frus1948v03/d38>.

³⁶⁴ Sayle, *Enduring Alliance*, 4.

³⁶⁵ Sayle, 19.

start negotiations about a standing military command structure in NATO. Finally, in December 1950 Dwight D. Eisenhower took command as first Supreme Allied Commander Europe (SACEUR) with his headquarters near Paris, France. Also in 1950, NATO adopted its first strategic concept. “The Strategic Concept for the Defense of the North Atlantic Area” focused on adequate military strength but was hesitant to openly state the use of atomic weapons.³⁶⁶ In 1952 Greece and Turkey became NATO members, as well as West Germany in 1955, all with significant diplomatic and political support from the United States countering doubts by other allies.³⁶⁷

After the first successful nuclear tests by the Soviet Union in 1949, and the fast expansion of Soviet nuclear forces, it became obvious that NATO, heavily relying on the U.S. nuclear arsenal, and the Soviet Union would face a nuclear standoff. Following controversial political discussions on whether and in what command structure nuclear weapons should be used on Alliance territory, the NATO strategy MC 48, publicly termed “Massive Retaliation,” was approved. It called on NATO military authorities to “plan and make preparations on the assumption that atomic and thermo-nuclear weapons will be used in defense from the outset.”³⁶⁸ Any Soviet violation of NATO territory would be countered by an aggressive answer with nuclear weapons, acknowledging Soviet conventional military superiority. In addition to the nuclear threat, the Soviet Union provided continuously a reason for NATO cohesion through its, in part, violent repression of annexed countries. Examples are the interventions in East Germany (1953) and Hungary (1956).³⁶⁹ Furthermore, the Soviet Union and seven other Eastern Bloc socialist republics signed the “Treaty of Friendship, Cooperation and Mutual Assistance” in 1955, commonly referred to as the Warsaw Pact, as a defense alliance in reaction to the integration of West Germany into NATO.³⁷⁰

³⁶⁶ Gregory W. Pedlow, *NATO Strategy Documents 1949–1969* (Mons, Belgium: Historical Office, Supreme Headquarters Allied Powers Europe, 1997), 11.

³⁶⁷ Yost, *NATO’s Balancing Act*, 2014, 4.

³⁶⁸ North Atlantic Committee, *A Report by the Military Committee Decision on the Most Effective Pattern of NATO Military Strength for the Next Few Years (M.C.48)*, NATO Strategy Documents 1949–1969 (NATO), accessed October 18, 2022, <https://www.nato.int/docu/stratdoc/eng/a541122a.pdf>.

³⁶⁹ Yost, *NATO’s Balancing Act*, 2014, 5.

³⁷⁰ Warsaw Treaty Organization (WTO), “Treaty of Friendship, Co-Operation and Mutual Assistance (Warsaw Pact Treaty)” (United Nations, 1955).

In the 1960s, NATO faced several shocks and adapted its strategic posture accordingly. The most critical events were the Berlin Crisis with a tank stand-off in 1961, which led to the building of the Berlin Wall, and the Cuba Crisis in 1962, which brought the East-West conflict to the brink of nuclear war. With these drastic experiences short of nuclear catastrophe, many NATO members changed their views about the dependence on nuclear deterrence. In 1966, France left NATO's standing military structure over frictions about the strategic position of France within the Alliance, and the discussion about the future NATO strategy. Nevertheless, France did not entirely withdraw as a NATO member.³⁷¹ In 1968, the NATO strategy MC 14/3 "Flexible Response" was adopted, which stated that "the deterrent concept of the Alliance is based on a flexibility which will prevent the potential aggressor from predicting with confidence NATO's specific response to aggression."³⁷² The aim was an adjusted response to Soviet violations by both conventional or nuclear NATO forces.

In 1967 the "Harmel Report," named after the Belgian Foreign Minister Pierre Harmel, pointed out the future dual-track policy for NATO. The report stated that "military security and a policy of détente are not contradictory but complementary."³⁷³ The report also identified NATO's two main future purposes: First, maintaining military strength and political solidarity to deter any aggression and to defend NATO territory, if needed. Second, "to pursue the search for progress towards a more stable relationship in which the underlying political issues can be solved."³⁷⁴ This policy of détente improved the relationship with the Soviet Union and helped to keep open important lines of communications on a strategic level to avoid military misperceptions, despite growing tensions over the Soviet Invasion of Afghanistan in 1979 and a new arms race on nuclear ballistic missiles and military space programs. In 1982 Spain became a member of the alliance. NATO's dual-track policy towards the Soviet Union

³⁷¹ Andreas Wenger, "Crisis and Opportunity: NATO's Transformation and the Multilateralization of Détente, 1966–1968," *Journal of Cold War Studies* 6, no. 1 (2004): 26, <http://www.jstor.org/stable/26925347>.

³⁷² North Atlantic Committee, *A Report by the Military Committee Decision on the Most Effective Pattern of NATO Military Strength for the Next Few Years (M.C.48)*.

³⁷³ NATO, "The Future Tasks of the Alliance."

³⁷⁴ NATO.

led in the 1970s and 1980s to several arms control treaties that helped to mitigate the risk of war in Europe.³⁷⁵

After Mikhail Gorbachev was appointed as Secretary General of the Communist Party and his beginning reforms of Perestroika and Glasnost, the political system in the Soviet Union crumbled. After protests in several countries under Soviet control, most notably the *Solidarność* movements in Poland and protests in Germany, the fall of the Berlin Wall on November 9, 1989, symbolized the end of the Soviet regime in the whole Eastern Bloc.³⁷⁶ Finally, after most Eastern European countries declared their independence, the Warsaw Pact was dissolved in June 1991, and in December 1991 the Soviet Union collapsed and ceased to exist.³⁷⁷ Consequently, NATO's main threat in the East was gone.

At the NATO summit in Rome in November 1991, NATO leaders proudly announced in the "Rome Declaration" ("Declaration on Peace and Cooperation") that "the world has changed dramatically. The Alliance has made an essential contribution."³⁷⁸ NATO's first publicly available strategic concept from 1991 clearly stated that "the threat of a simultaneous, full-scale attack on all NATO's European fronts has been removed and this no longer provides the focus for Allied strategy."³⁷⁹ Nevertheless, the concept continued, "the risks to Allied security that remain are multi-faceted in nature and multi-directional, which makes them hard to predict and assess."³⁸⁰ In 1991, the Allies did not anticipate that the focus would shift in the next years to "non-Article 5 operations," with military action in crises beyond NATO borders focusing on stability and counter-insurgency operations. In 1995 NATO forces employed air strikes on the Balkans with the following IFOR and SFOR missions as peace-

³⁷⁵ Amy F. Woolf, Paul K. Kerr, and Mary Beth D. Nikitin, "Arms Control and Nonproliferation: A Catalog of Treaties and Agreements," *Congressional Research Service* CRS Report, no. RL33865 (April 25, 2022), <https://sgp.fas.org/crs/nuke/RL33865.pdf>.

³⁷⁶ Sayle, *Enduring Alliance*.

³⁷⁷ Yost, *NATO's Balancing Act*, 2014, 8.

³⁷⁸ NATO, "Declaration on Peace and Cooperation - (The Rome Declaration)," NATO, November 1991, https://www.nato.int/cps/en/natohq/official_texts_23846.htm.

³⁷⁹ NATO, "The Alliance's New Strategic Concept (1991)," NATO, November 1991, https://www.nato.int/cps/en/natohq/official_texts_23847.htm.

³⁸⁰ NATO.

support operations under UN mandate.³⁸¹ In 1999, NATO led the air campaign against Serbian forces in the Kosovo War, despite the lack of UN guidance, based on the Russian veto in the UN security council.³⁸² Following this new reality, NATO's 1999 strategic concept included Crisis Management as one of the newly defined core tasks, next to Security, Consultation, Deterrence and Defense, and Partnership.³⁸³

The 9/11 terrorist attacks against the United States invoked Article 5 of the North Atlantic Treaty for the first time in NATO history. Several NATO members supported the following U.S.-led campaign "Operation Enduring Freedom" in Afghanistan to overthrow and end the ruling Taliban regime's support for the Islamic terrorist organization Al-Qaida with military forces on the ground. NATO took over the responsibility for the UN-backed International Security Assistance Force (ISAF) mission in 2003, now commanding most NATO forces (including forces by other non-aligned countries) and their operations.³⁸⁴ This marked NATO's first deployment outside Europe or North America.³⁸⁵ The successive Resolute Support Mission (RSM) from 2015 until 2021 ended NATO's engagement in Afghanistan.³⁸⁶ Further NATO "non-Article 5 operations" were operation "Unified Protector" in Libya in 2011 to enforce a UN resolution during the First Libyan Civil War,³⁸⁷ and training missions in Iraq to support local forces in their fight against the terrorist organization Islamic State (IS), beginning in 2018.³⁸⁸

³⁸¹ Ivo H. Daalder, "Decision to Intervene: How the War in Bosnia Ended," *Brookings* (blog), December 1998, <https://www.brookings.edu/articles/decision-to-intervene-how-the-war-in-bosnia-ended/>.

³⁸² Regina Heller, "Russia's Quest for Respect in the International Conflict Management in Kosovo," *Communist and Post-Communist Studies* 47, no. 3/4 (2014): 333–43, <http://www.jstor.org/stable/48610406>.

³⁸³ NATO, "The Alliance's 1999 Strategic Concept," NATO, April 24, 1999, https://www.nato.int/cps/en/natohq/official_texts_27433.htm.

³⁸⁴ Yost, *NATO's Balancing Act*, 2014, 135.

³⁸⁵ Jamie Shea, *Keeping NATO Relevant* (Carnegie Moscow Center, 2012), <https://www.jstor.org/libproxy.nps.edu:2048/stable/resrep26708>.

³⁸⁶ NATO, "Resolute Support Mission in Afghanistan (2015-2021)," NATO, accessed July 24, 2022, https://www.nato.int/cps/en/natohq/topics_113694.htm.

³⁸⁷ NATO, "NATO and Libya (Archived)," NATO, accessed October 19, 2022, https://www.nato.int/cps/en/natohq/topics_71652.htm.

³⁸⁸ NATO, "NATO Mission Iraq," NATO, May 2022, https://www.nato.int/cps/en/natohq/topics_166936.htm.

Building partnerships was one of the core concerns for NATO since the end of the Cold War. The Alliance wanted “to serve as a broad concept of security,”³⁸⁹ inviting others to join its path. One major step was the establishment of the Partnership for Peace (PfP) framework in 1994, which expressed the need for “a joint conviction for stability and security in the Euro-Atlantic area”³⁹⁰ with likeminded partner nations. NATO welcomed new members in several rounds of enlargement since 1991, in accordance with its “open-door policy” and Article 10 of the North Atlantic Treaty. This expansion of the Alliance to the East, welcoming former Warsaw Pact countries, caused political friction with Russia.³⁹¹ The Czech Republic, Hungary, and Poland became members in 1999. In 2004, Bulgaria, Estonia, Latvia, Lithuania, Romania, Slovakia, and Slovenia joined NATO. Albania and Croatia followed in 2009. Montenegro (2017) and North Macedonia (2020) are the latest NATO members. In 2022, NATO consists of 30 allies, with many new members states in the Balkans and Central and Eastern Europe.³⁹² As a consequence of the Russian invasion and escalation of the Russian-Ukrainian War in February 2022, Sweden and Finland simultaneously applied to join the NATO Alliance on May 18, 2022.³⁹³ The membership of these two countries, both have already a long-term cooperation with NATO for several years, will add significant naval and land assets to the Alliance, and is expected to be finalized at the end of 2022.³⁹⁴

³⁸⁹ NATO, “Declaration on Peace and Cooperation - (The Rome Declaration).”

³⁹⁰ NATO, “Partnership for Peace: Framework Document Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council,” NATO, January 1994, https://www.nato.int/cps/en/natohq/official_texts_24469.htm.

³⁹¹ Sumantra Maitra, “NATO Enlargement, Russia, and Balance of Threat,” *Canadian Military Journal* 21, no. 3 (July 15, 2021): 35–46, https://publications.gc.ca/collections/collection_2021/mdn-dnd/D12-8-21-3-eng.pdf.

³⁹² NATO, “Enlargement and Article 10,” NATO, July 10, 2022, https://www.nato.int/cps/en/natohq/topics_49212.htm.

³⁹³ NATO, “Finland and Sweden Submit Applications to Join NATO,” NATO, May 8, 2022, https://www.nato.int/cps/en/natohq/news_195468.htm.

³⁹⁴ Kristin Archick, Andrew S. Bowen, and Paul Belkin, *NATO: Finland and Sweden Seek Membership*, Insight IN11949 (Washington, DC: Congressional Research Service, 2022).

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APPENDIX E. BLACK SEA SCENARIO ESCALATION MATRIX

Black Sea Region (BSR) Security Environment Escalation Matrix			
Focus on great powers United States, China, and Russia; NATO, other IGOs, regional, and minor powers are mentioned were required			
Structural variable	Structural Variables		So What!
	De-Escalatory	Escalatory	
Shift in balance of power	Countering interests of China and Russia in BSR; Chinese economic investments in Russian “sphere of influence,” but political Russo-Sino pact makes a conflict in the region costly; U.S. military presence (i.e., BMD); stability by balance	Economic power transition towards China; decline of political and economic influence of Russia (especially after RUS-UKR war); U.S. pivot to Asia (lower mil. presence); power vacuum with weak EU and non-aligned NATO	Economic decline of Russia and deteriorating role as GP; China is ascending GP and economic power in BSR, leads to more coercive economic measures; aggressive Russian support for pro-Russian right-wing parties in BSR and Europe; Economic and proxy fight for economic and political influence (if necessary, with violent measures), no open conflict
Dispute issues Subvariables:			
1) Access to resources	High dependence of Europe and China on natural fossil resources; economic interests lead to cooperation to create stable win-win situations; Russia and other fossil energy producers are dependent on revenues	Competition over control of gas and oil fields and industry; economic coercive measures; technological change to non-fossil resources increases tensions; competition for UKR and RUS grain production and logistics	Energy diversification in Europe leads to lower revenues for Russia and state-controlled industry; Coercive economic and political measures by Russia and China (separately) in BSR countries; political (violent) clashes; economic crisis leads to regional conflicts and social tensions
2) Infrastructure incl. overland & oversea bases	Joint ventures for fossil fuel pipelines with state-owned or controlled entities from different nations; common economic interests; “stable politics lead to stable economy” (MOL ambassador to BSEC); U.S. military installations deter	Control of pipelines means control of whole economies; Increased build-up of dual-use infrastructure (ports; access to digital hubs; 5G networks); A2AD arms race (BDM, hypersonic weapons); vulnerability of critical infrastructure (i.e., undersea cables in Black Sea)	Russian build-up of military bases (Novorossiysk, Black Sea fleet, airbases); Chinese dual-use logistics infrastructure (ports: Poti, Varna); Turkish construction of “Istanbul Canal”
3) Interdependence (entanglement)	The BRI and China’s economic and trade cooperation with the EU and Europe are reciprocal and depending on each other; Russia is financially reliant on energy revenues from Europe and increasingly on China; United States is self-reliant; several international or private organizations and coordinating bodies (BSEC, China-CEEC, TRACECA Program, DCFTA)	Fragile system of dependencies; high risk of domino effects with world economy (especially for EU and Russia); Europe dependent on trade with United States and China and fossil fuel from Russia; Russia dependent on revenues from EU and China; regional powers work to get the best out of cooperation with all GPs	Mutual interest of all GPs for cooperation in BSR; United States is self-reliant and can decide to focus militarily and economically on Asia, but mitigating Chinese influence in Europe and BSR is imperative
Rivalry dynamics	All GPs envision each other as rivals in the strategic competition for trade and influence in the BSR; but common economic and political interest lever for stability in BSR	United States labels China as a global threat; Russia is the main threat for NATO, with China being a coercive challenge; Russia regards NATO and the United States as highly threatening, as hostile competitors; China and Russia enforce a change in the global order	Russia and its antagonists, NATO and the United States, have addressed formally that they are adversaries and each other’s main threats in their security strategies; China pressures measures for its BRI and global influence; all GPs regard BSR as significant and potential battleground
History of military crises	Long history of military crises and frozen conflicts create the understanding that military conflict comes with huge costs for all participants; United States and NATO countries support anti-Russian nations; China has no interest in military conflict in BSR (BRI)	Long history of military crises and frozen conflicts; most recent: Russo-Ukrainian War; Nagorno-Karabakh war (Azerbaijan - Armenia); frozen conflicts: Transdnistria (Moldova), South Ossetia and Abkhazia (Georgia); strong military presence of Russia and United States; NATO bases	Risk of open war between BSR nations is low as the costs are very high (see Russo-Ukrainian War); but economic and political tensions are also very high, high probability of use of proxy forces by all GPs; increasing NATO presence in BSR; role of Turkey unclear
Partnership and alliance building	Little effort by GPs to build or reinforce new or existing, predominantly, security and military alliances; focus on economic cooperation and national and private organizational bodies	Strengthening and expanding security alliances (NATO built-up in BSR, expansion with UKR and GEO); Russian formal military cooperation with China; coercive influence on regional and minor BSR powers (ROM, BUL, MOL, GEO)	All GPs influence BSR nations with political, economic, and military (exercises, technology sharing, common use of bases); this tendency also leads to increased military activity in the ASE, which increases the risks of a confrontation and crisis due to miscalculations, accidents, and disasters.

Structural variable	Structural Variables		So What!
	De-Escalatory	Escalatory	
Arms development (technology and quantity)	Development of high-end military capabilities very costly; mainly as political signal	A2AD arms race between NATO/USA, Russia, and China (BDM, hypersonic capabilities, anti-ship cruise missiles, special mission submarines); exchange of high-end weapons with BSR nations; Chinas develops high end capabilities and expands them as dual-use capabilities to BSR	GPs build new capabilities (hypersonic, submarines, strategic missiles, UAS) and are willing to expand presence in BSR; but balancing of capabilities, awareness of possibility of accidents and resulting escalation; high risk: dual-use capabilities (cyber, space)
Integrated Approach	A diverse array of institutions builds trust between BSR nations and GPs, create common goals and have to some extent governing authority (critical infrastructure, commercial and military use of the Black Sea; "Montreux Convention 2.0"). BSEC, DCFTA; moderate foreign politics of GPs in BSR	Highly aligned political, military, and societal systems in Russia and China; use of economic and militant proxies; no trust in international institutions and agreements	Russia and China remain authoritarian systems that control public opinion, economical decision and institutions; the United States struggle domestically to live up to their values; use of national means of power to leverage proxies (plausible deniability); most BSR nations align with democratic systems and societal oversight
Domestic demand for aggressive politics	No significant domestic demands for aggressive/violent politics in BSR; Russia has some pressure groups (Nashi; Wagner; Ultra nationalist); domestic information warfare; public perception of awareness of other GPs but no urge for violence	Societal negative resentments against GPs; populations demand to restate/expand great power status; "spheres of influence" as natural borders; energy, geopolitical security and economic prospects as main drivers; military might as sign of strength	Populist opinions dominate media but do not reflect the majority of population; Russia: ultra-nationalist pressure on government for "revenge" for shame in Russo-Ukrainian War rises; majorities: national pride is important but not to the price of economic/energy collapse in case of war; domestic demand for economic stability in BSR
Multilateralization of disputes	Disputes in the BSR are mainly settled after the Russo-Ukrainian War; clear-cut actors: USA/NATO/EU and China/Russia; military alignments are obvious (open signaling); and economic institutions offer platforms for dialogue	An array of nations, stakeholders, (private, public, military) institutions, political movements, in a multidomain environment; institutions for dispute resolve are have no authority; alignments are not clear-cut	BSE is characterized by multilateralization of disputes, security issues and, foremost, economic interests; the loss of Russian influence and the economic push by China makes the diversity of interests, disputes, and issues more complex
Military professionalism (quality, operational experience, military culture)	NATO and United States promote a (strong) defensive posture; exercises focus on the defense of borders and critical infrastructure; China builds more offensive capabilities in East Asia but no military exercises in BSR; Russia focuses its efforts on ASR and economic coercion, rebuilding military capabilities to stabilize borders to NATO (extended with Finland)	NATO's military (re-)build-up of strong defensive and partly offensive capabilities, joint NATO-BSR nation exercises; Russia uses lessons learned to restructure its military structure and doctrine; joint Russian-Chinese-BSR nations exercises	NATO strengthens its MN Div SE HQ with a standing force structure, builds up Black Sea Naval Force (BLACKSEAFOR) with Turkish support (Istanbul Canal); NATO A2AD posture (anti-ship, BMD); Russia strengthens Black Sea Fleet (with Chinese technology) and China uses civilian port infrastructure for own military naval posture
Security perception (IO) (military offense-defense balance, degrees of revisionism)	Regular meetings and summits of GPs' and BSR nations' heads of state or representatives in various political and economic forums; trust in non-violent posture of actors and focus on economic stability	Russia shows high degree of revisionism in its "sphere of influence;" support for local political militias; China uses coercive political and economic means to control national critical infrastructure; NATO tries to enlarge its influence with a strengthened PfP program	Russian revisionism is high but needs to rebuild and stabilize economy and international relationships; China has no interest in violent conflict but coerces BSR nations with economic strength; BSR risks losing control over own critical infrastructure
Means to react proportionally	Broad variety of offensive and defense countermeasures against military, cyber, and economical threats for GPs; regional and minor powers partly dependent on GPs or NATO/EU; willingness to "show strength" (escalate to de-escalate)	Economic dependencies mitigate the range of political and economic countermeasures; military countermeasures lead to escalation without a comprehensive DIME approach	A range of military, non-military, political, economic, and intelligence means are available to react to another actor's aggression (for regional and minor powers support by GPs); ability and willingness for deterrent measures; but risk of accidents and miscalculations which can lead to unintended confrontations

	Proximate Variables		The proximate factors are based on the possible situation 2028–2032
Proximate variable	De-Escalatory	Escalatory	So What!
Decision-maker perception of situation	Medwedew, Xi Jinping, and Harris do not want to escalate the tension in the BSR; the U.S. president strengthens U.S. and NATO posture for defensive measures. All leaders follow their individual national goals, but agree in economic cooperation for the benefit of all; the trade and economic benefits of a stable economy and energy support are too advantageous to risk a violent escalation	Medwedew fears being recognized as the junior to Xi Jinping and is pressured by his ultra-nationalist supporters to “defend” Russian influence in the BSR; Xi regards Russia weak for its dependence on energy revenues and the Western countries for their culture of democratic discussion and slow decision-making but has no interest in violence disrupting his BRI	According to the still existing Russo-China pact, both countries put some economic pressure on Western economies with Asian-focused energy deals, while supporting “aligned” BRI nations economically with energy discounts; but Medwedew utilizes proxies and covert intelligence operations to foster distrust towards China; Harris and Western leaders struggle with convincing their populations to take a harsher stance towards the other GPs and budget increases for the security of critical infrastructure
Decision-maker perception of broader strategic situation	All GPs’ and BSR’s leaders are aware of the great tensions and disagreements in political systems and growing GPC in the region; however, they also agree on the large economic opportunities in developing the BSR, and are aware of the strong economical interdependencies; the hunger for conflict is very low	The tensions between the United States and China are globally growing, an attack on Taiwan seems imminent; Medwedew knows that regaining Russia’s status as great power requires dominance in the BSR	The BSR is a significant gateway to the European market and venue of influence on Western policy; China pushes its BRI aggressively, also pushing out Russian influence; Russia is willing to sacrifice political trust of China (aware of China’s dependence on Russian fossil energy); the United States needs SE Europe as a bulwark to strengthen European defense and security to concentrate on Asia
Balance of military forces at site of dispute	NATO has increased its C2 and standing force structure in the BSR (ROM and BUL); Russia is rebuilding its military presence with strategic weapons and naval forces; China has no significant military forces in the BSR but holds strong diplomatic and economic tools; the forces, even in different domains, are in parity	NATO has a standing force in ROM, especially as a tripwire, with a large ARF as reserve; ROM and U.S. forces secure the land border to MOL, and the United States has increased its BMD and rotational force presence; Russia significantly increased its military capabilities (including nuclear weapons), but has also rebuilt a network of political and intelligence proxies in BRI; China has only a small military naval presence in GRE and BUL, but significant cyber capabilities	Russia has a strong conventional (naval) and nuclear posture in the Caucasus, but increased its forces and influence in Transdnistria, South Ossetia, and Abkhazia—a military build-up for large scale exercises (Yugu 2029) is imminent; NATO exercises (i.e., Trojan Footprint 2029) included also forces from MOL and UKR; bilateral Security Assistance for MOL by ROM, UKR, and the Baltic States is conducted; China monitors the military movements and uses EW to interfere with cyber and non-physical means
Diplomatic methods	Each GP has a clear and well-known diplomatic stance; several diplomatic and economic forums exist to discuss; mutual agreement that stability in the region is key and violence is counterproductive for all actors; agreement on UN level to maintain peace in BSR to develop a hub where all powers, East and West, work together peacefully	The UNSC is useless as the GPs veto each other’s approaches for a resolution to safeguard critical infrastructure nationally and to maintain energy and trade security for all BSR nations; public Russo-China agreements with strong backdoor resentments; the United States are still diplomatically involved but are signaling to focus on China in Asia in the future	GPs deny publicly any involvement in domestic politics of BSR countries or utilizing local proxies; UN and other diplomatic statements remain shallow and unspecific, or are vetoed; distrust between all actors is growing with “incidents” on critical infrastructure, pipelines, and communication hubs
Trigger event	Establish an incident, confrontation, or flashpoint, but not so intensive and broad that it triggers NATO’s or other GPs’ political and military response; mostly incremental steps toward friction, but always with the option to defuse the dispute quickly and effectively	Establish a major incident(s) or flashpoint, including violence or the threat of violence; backing these incidents up with aggressive statements and high alert status; embolden the antagonists with subversion, sabotage, disinformation, and uncertainty in all domains	Russia utilizes its proxy forces in Transdnistria to create a political crisis in MOL to deceive ROM, USA, and NATO; in parallel it supports local political militias to disrupt Chinese harbor infrastructure in BUL and infiltrate communication hubs with intelligence means, showcasing Chinese incompetence in maintaining its bought and controlled critical infrastructure; China utilizes cyber capabilities against NATO and Russia without being exactly sure who is responsible; political crisis in BUL is imminent, with parts asking for a stronger cooperation with “brother” Russia
Status & Prestige Subvariable: Influence by domestic pressure groups	NATO is a defense alliance, strengthening its SE flank; and the United States supporting allies and partners in BSR (both welcomed by majority of population in BSR); China is only interested in economic development, and Russia wants to maintain its access to the BSR logistics hubs to maintain status as global energy heavyweight	Russia perceives itself as great power with the BSR as natural sphere of influence—needs to be re-established and defended (demanded by ultra-nationalists and influential media); China sees itself on the way as the new global superpower and has the “right” to control global economy and therefore access to critical infrastructure in BSR and Europe	Status and self-perception are the main drivers of the confrontation with Russia’s goal to establish control over grain hubs and European and Chinese energy supply; and China ousting the United States as main diplomatic and economic partner for the EU; ROM and BUL are committed to European values but dependent on other GP’s support

	Proximate Variables		The proximate factors are based on the possible situation 2028–2032
Proximate variable	De-Escalatory	Escalatory	So What!
Disruptive military innovation / technology	Broadly available information and information sharing/leaking about new technology; similar developments and counter-developments in all GPs; parity in capabilities (or counter capabilities); equal assimilation of technological innovation in the commercial sector; risk of high-technology confrontation is low	Unilateral availability of disruptive technology that leverages a strategic positional advantage over the other antagonists; significant improvements in A2AD defenses (S-350 & S-500 systems, unmanned (anti-) submarine and surface warfare), underwater sensor networks to access or disrupt communication hubs; unilateral advances in space (anti-satellite) and cyber capabilities	The conventional A2AD capabilities (air defense, anti-ship, anti-submarine) deny each other's capabilities; but differences in capabilities for protection or disruption of critical (undersea) infrastructure
Technological / natural disaster or climate change effects	Climate and environmental changes show their effects but have no significant impact on BSR security; Soviet-era nuclear powerplants in the region have been stabilized and modernized; pipelines and energy supply routes are well maintained in all actors' agreement	Climate change effects are increasingly disrupting world economy with floods and storms; energy supply is high but is covered in the EU mostly with renewable energy sources; Soviet-era power plants lost subventions from Western countries and pose a significant risk of nuclear contamination	The threat of natural disaster in BSR is low, technological nuclear disaster is possible (high funding required to build up renewable energy industry); but the shrinking EU demand for fossil fuel (gas and oil) increases pressure on Russia (access to grain as new economic instrument of influence)
Use of CBRN means	Presence of tactical nuclear warheads and systems in Europe and BSR (NATO and Russia); strategic leaders restrain the use and threat of use of nuclear capabilities; all GPs and NATO are not willing to use chemical and biological warfare in any crisis and confrontation, which would not be tolerated domestically and globally	Russia threatened Ukraine and NATO with tactical nuclear weapons during the Russo-Ukrainian War, and is aware of their psychological impact in Western countries; China has no interest in nuclear confrontation in BSR, but uses the threat thereof in its propaganda towards Taiwan	High threshold for all GPs for the use of CBRN means; but the use of small-scale chemical agents in attacks on individuals or small groups, or biological means against industrial or logistical installations is possible
Communication channels	Communication between the antagonists in the BSR is guaranteed; regular consultations of high-level military and diplomatic leaders about exercises or movement of security-related goods	While the official communication is good between nations, activities of proxies (militias, intelligence elements, state-controlled industry) remains secret; Russia maintains plausible deniability; China is willing to share military information in the BSR but follows own diplomatic and economic agenda, countering U.S. influence and Russia	After the disruptions during the Russo-Ukrainian War, official communication channels are re-established which mitigates the risk of accidental military confrontations; however, distrust on all sides is great, with all GPs competing over the economic dominance; covert economic, intelligence, and proxy operations are not aligned, even between China and Russia
Intrusion (physical, digital)	Physical intrusions are very limited as no actor has an interest in disrupting political and economic stability; digital means are used by all GPs with mostly regional powers and IGOs (NATO and EU) as target	Gray zone and hybrid activities, false flag operations, non-attributable incidents in the cyber, space, and physical domains are utilized mostly by Russia and (in part) by China; intrusions are conducted multidimensionally and in multiple and across domains by all antagonists; deception, disinformation are utilized to discredit the other and create a strategic advantageous position; all activities aim to further destabilize the BSR for its own advantage to increase influence	Russia utilizes proxies in MOL and GEO to destabilize MOL (and in parts ROM), claims false flag operations ("border incident" where Transdnestrian soldiers get killed by "MOL radicals") to disrupt SFA mission and deceive NATO; in parallel Chinese controlled infrastructure in BUL is attacked by political right-wing militia; China then utilizes cyber means to disrupt NATO and U.S. communication, unaware of who is responsible

APPENDIX F. ARCTIC SCENARIO ESCALATION MATRIX

Arctic Security Environment Escalation Matrix			
Focus on great powers United States, China, and Russia; NATO, other IGOs, regional, and minor powers are mentioned were required			
Variable	Structural Variables		So What!
	De-Escalatory	Escalatory	
Shift in balance of power	Incremental power transition to multipolar world → stability by equality. Mutual and shared interest in the Arctic environment	Rapid power transition toward China → decline of political and economic power of Russia; disorder in Europe	Militarization of the ASE, decline in and degraded role of diplomatic institutions (Arctic Council), increased cooperation of Russia and China. Economic decline of Russia and deteriorating role as GP. China is ascending GP, but is in desperate need of natural resources and cheap energy
Dispute issues Subvariables:			
1) Access to resources	The improved accessibility to minerals and oil and gas in the Arctic region leverages stability and economic prosperity	The improved accessibility to minerals, oil, and gas in the Arctic leads to intensified competition. International law and treaties do not suffice to solve disputes	Russia and China cooperate in joint ventures to invest in and to claim disputed mining, fossil fuel and mineral fields. Climate change leads to ice-free summers and excavatable landmasses in the ASE
2) Infrastructure incl. overland & oversea bases	Regulated buildup of Arctic infrastructure for search and rescue, navigation, port handling, and trade purposes. Oversight by IGOs or private governing bodies	Increased buildup and militarization of Arctic infrastructure (placement of A2AD, air/sea/coastal installations and offensive systems) - Contestation of dual use and purpose infrastructures.	Russia military buildup of Arctic bases (Alexandra land, Nova Zemlya, Wrangel Island, Kola Peninsula). Alleged construction of dual use and purpose research and SAR installations in cooperation with China on Svalbard
3) Interdependence (entanglement)	BRI and China's economic and trade cooperation with the EU and Europa are reciprocal and depending on each other. Russia is financially reliant on energy revenues from Europe and increasingly from China	Interdependence is subjective and relative to Russia. China has transactional ties with Russia, Europe, and the United States. Economic and diplomatic bodies are less respected and consulted	Russia intends to 'own' the access, use, and protection of the NSR and claims the AZRF, including the Arctic EEZs, for their use only. China is aligned with Russia on a transactional basis to leverage access to the NSR, extract minerals, oil and gas, and increase geopolitical influence
Rivalry dynamics	All GPs recognize each other as actors in the strategic competition for trade and resources in the Arctic → they also recognize the mutual need for scientific research of environmental change in the Arctic → tensions and disputes relax and cooperation is improved	Russia regards NATO and the United States as threatening, as hostile competitors, and severe security risks to the ASE. NATO is Russian's main Western threat. NATO labeled Russia as its major threat in the East → NATO accession of Finland and Sweden emboldens Russia	Russia and NATO (and the United States) have formally addressed that they are adversaries and each other's main threats in both their national security and specific Arctic strategies. Russia fears the encirclement of the ASE by NATO, especially with the inclusion of Finland and Sweden. China has declared itself as a near-Arctic state in its Arctic strategy (2018)
History of military crises	No formal military crises or conflicts have occurred in the ASE. Last military engagement was during WWII - Petsamo-Kirkenes offensive (7–30 October 1944) Russia versus Nazi Germany	Air and maritime intrusion of NATO airspace during the Cold War, Nuclear submarine intrusions GIUK gap. Military exercises - NATO Trident Juncture; Russia (China) - Vostok 2018, Tsentr-2019, ZAPAD 2020; and the Svalbard tensions in 2004	Historically the ASE is a non-militarized zone acknowledged by all Arctic states and consolidated in the governing body, the Arctic Council, characterized by 'One Arctic' → peaceful cooperation based on similar social, economic, and ecological perception; emphasizing regional cooperation and limited security issues.
Partnership and alliance building	Little effort by all GPs to build, deepen, or reinforce new or existing security and military alliances and coalitions. Less importance for NATO in the Arctic and the United States limits bilateral security guarantees and access to forward basing. For example: Keflavik Iceland, Thule Greenland, and semi-permanent forward presence in Norway, Sweden, and Finland	Deepening and expansion of existing and new security alliances focused on the ASE. Accession of Finland and Sweden to NATO. Consolidation of Russo-Sino pact; also increased presence of public-civil and private dual-use and dual-purpose enterprises	Aggravation of risk of escalation by accession of Finland and Sweden to NATO; deepened and reinforced Russo-Sino pact on security issues, trade, and natural resources → higher military activity in the ASE, which increases the risks of a confrontation and crisis due to miscalculations, accidents, or disasters
Arms development (technology and quantity)	Harsh conditions make it difficult to develop new and sophisticated technological breakthroughs for military use. Limited improvements are possible, mostly in the air and maritime domains—less affected by changes in environmental conditions	Major breakthroughs in technological development of arms to operate under harsh conditions (year-round operating airfields) - underwater fiber optic cables and dual use / purpose command & communication systems, A2AD systems, improved nuclear ice-breaker fleet, and underwater ASW sensor system	Russia and China are developing technologies for their new icebreaker fleet, dual use/purpose infrastructures and, specifically Russia, their year-round operational airfields, and ASW underwater sensor system → however, no disruptive or technological breakthrough is to be expected. Russia, China, United States, and NATO possess effective hypersonic weapons and all lack effective counter hypersonic means

Variable	Structural Variables		So What!
	De-Escalatory	Escalatory	
Integrated approach	A diverse array of institutions has oversight and to some extent governing authorities over the Arctic region. The UN (UN Convention Law of the Sea), the Arctic Council, European Union, and courts of arbitrary are recognized by all GPs for dispute settlements.	Limited to no trust in oversight and governance by the UN, EU, and other non-governmental institutions. The Arctic council is dysfunctional after Russia's invasion in Ukraine in 2022 and the accession of Finland and Sweden to NATO	Russia does not recognize the Arctic Council, the UNCLOS, and other Arctic institutions anymore → Russia and China founded the Russo-Sino pact to govern, administer, and monitor the NSR, Russia closed the access to the Barents Sea for military transit and instigated a 45-day notice for passage of NATO member related vessels, aircrafts and passengers
Domestic demand for aggressive politics	No significant domestic demands for aggressive politics toward the ASE. Russia has some pressure groups (Nashi, Wagner, Ultra nationalist) that fuel the public opinion with negative sentiments (information warfare - disinformation). Negative public opinion in China and the United States is almost non-existent	A Russian and Chinese state-sponsored disinformation campaign, supported by cyber activities fuels the public opinion with negative sentiments. Energy and geopolitical security and economic prospects are main drivers	Domestic upheaval about the Arctic is for Russia very locally driven - mostly the inhabitants of the High North, Nova Zemlya, Svalbard and Franz Joseph archipelagos → Russia uses these sentiments to leverage false flag operations, arguments to protect their people and to introduce China as security provider
Multilateralization of disputes	Disputes in the Arctic are mainly confined to three actors: Russia and NATO for security and the EU for diplomatic, legal, and economic matters	A diverse array of nations, stakeholders (private, public, civic) institution, social movements, in a multidomain environment are involved. Institutions for dispute resolve are dysfunctional	The ASE is characterized by multilateralization of disputes, security issues and geopolitical interests. The introduction of China, as near-Arctic state, makes the diversity of interests, disputes, and issues even more complex
Military professionalism (quality, operational experience, military culture)	Low quality capabilities and readiness to operate in the ASE lowers the possibilities to operate in the harsh environment. Russia and China have limited forces equipped, trained, and tailored for Arctic operations. However, the risk of disasters, accidents, and miscalculations is more evident which could lead to unintended confrontations and crises	Russia's and NATO's Arctic forces, exercises and high-level meetings signal the readiness and deterrent posture for their interests and capabilities for future confrontations. China accelerated, with Russia's support, its Arctic capabilities, expertise, and readiness, for example, the dual-purpose icebreaker fleet and newly formed Arctic brigade	NATO established a new JFC North in Norway (Olavsværn, Tromsø) and an Allied Arctic Training & Readiness Center (AATRC) in Sweden (Kiruna, Kalixfors) to improve Arctic experience, capabilities and Arctic military culture. Russia increased the readiness and proficiency of its Arctic Division on the Kola peninsula and is retrofitting the Northern Fleet's vessels and submarines
Security perception (IO) (military offense-defense balance, degrees of revisionism)	Low degrees of revisionism and threat perception. Russia regularly meets NATO, U.S., and China heads of states. Russia and China have trust in the non-militarization and non-aggression of the U.S. and NATO (-members) in the ASE	Russia and China show a high degree of revisionism. Both have slightly different interests and goals, but they are aligned in regard to the Arctic. Russia envisions the ASE as Russian territory. NATO and the U.S. are a major threat and have offensive aspirations that have to be deterred and in ultimo defeated	The entire ASE falls under the Russian OSK Sever (Northern Fleet) command—the Arctic Command—Fifth Military District. The ASE is Russian territory and therefore needs to be defended using the “Bastion Defense” strategy. China is an Arctic ally that supports the Russian case as long as energy, resources, and trade for China are guaranteed; the Kola peninsula harbors two-thirds of Russia's nuclear second-strike capabilities
Means to react proportionally	Broad variety of offensive and defense countermeasures against military, cyber, and economic threats, an actor's available budget to buffer external aggression, willingness to “show strength” (escalate to deescalate).	All antagonists are limited in their variety of (counter-) measures. The Arctic is a predominantly maritime environment with very limited landmass (archipelagos) and an unforgiving climate and terrain → small population → mostly military responses	A range of military, non-military, political, economic, and intelligence means are available to react to other actor's aggression; ability and willingness for deterrent measures. But, on the other hand, the willingness, and risk of mistakes, miscalculations, and disaster responses limits the means to react proportionally

Proximate variable	Proximate Variables		The proximate factors are based on the possible situation 2028–2032
	De-Escalatory	Escalatory	So What!
Decision-maker perception of situation	Putin and Xi do not want to escalate the tension in the ASE. They perceive NATO's activities in the ASE as security risks, but balance these threats with the current defense mechanisms already in place → the trade and economic benefits for utilizing and securing the NSR are too advantageous to risk a military escalation	Alleged Russian operations are feeding persistent accusation, by NATO, of land grab, threat escalation, and the militarization of Svalbard. Russia is enlarging the Russian speaking population by illegal immigration and the issuance of passports. China and Russia are increasing military maritime exercises in the Barents Sea and emplacing A2AD systems—radar & sensors and dual use purpose—research installations in the ASE	Putin is stating explicit claims for all Arctic landmass including Svalbard, and parts of Greenland, but also the underwater Lomonosov continental shelf. He states that NATO is deliberately closing the Western access to the High North, the Barents Sea and the Kola peninsula in the air and maritime domain. Xi is using a more aggressive tone asserting that NATO is hampering the security of the NSR and, therefore, China must safeguard unobstructed access and passage of the NSR at all times
Decision-maker perception of broader strategic situation	All GPs and NATO consent that there are larger and riskier security situations in the contemporary GPC (as the Russian - Ukrainian War and domestic insurgencies in China) → Arctic will not be the main driver for hardened competition, crisis, or conflict on the short- and long-term	The strategic competition is fiercer than ever. GPs are looking for opportunities to increase and consolidate relative gains in other domains, regions, and markets. The Arctic is seen as the central geopolitical area to achieve a competitive advantage	The general perception is that the ASE is not the main driving environment where the GPs are willing to play hard and try to escalate towards conflict and risk armed conflict
Balance of military forces at site of dispute	The relative force ratios in the ASE are on parity. Russia increased its presence with an additional Arctic brigade and retrofitted its Arctic fleet to 50 operational vessels. With the accession of Sweden and Finland to NATO and the new JFC North, antagonist forces are on parity. Both sides also have effective defense measures and A2AD capabilities	Increased overmatch of relative force ratio favors Russia. Besides numeral overmatch with forces, vessels, aircraft, and submarines, Russia has nuclear forces in the ASE and gets military support from China → geographically Russia has favorable force dispositions for operations throughout its coast and archipelagos	Russia has increased its Arctic capabilities intensively over the last years. The Kola peninsula hosts, aside from the nuclear second-strike capabilities, a division of high readiness Arctic light and medium forces, a brigade of VDV (airborne) forces and advanced ASW sensors on the seabed. China adds a dual use icebreaker fleet, a coast guard fleet and cyber and space defensive and offensive capabilities complementing a relative overmatch of forces
Diplomatic methods	UN resolutions for diplomatic dispute resolve are NOT vetoed by Russia and China. The Arctic Council is assembling and hosting a crisis meeting, and a political strategic conference about the future of the Arctic is being organized. Diplomatic negotiations are ongoing	All UN resolutions for peaceful settlement of disputes are vetoed by Russia and China. India (as a non-permanent member of the UNSC) abstained. The Arctic Council is non-functional and Russia has withdrawn itself from any diplomatic negotiations. China negotiates on the behalf of Russia	NATO members and NATO accuse Russia of violating the Svalbard treaty (1920)—treating Svalbard as a demilitarized zone—the UNCLOS, freedom of navigation and escalating security threat by increasing planned and flash exercises (ZAPAD 2029 and TENTSR-2030). Russia and China shut down (temporarily) their embassies in Arctic states hampering diplomatic dispute resolve
Trigger event	Establishment of an incident, confrontation, or flashpoint, but not intensive and broad enough to trigger NATO political and military responses. Mostly incremental steps toward friction, but always with the option to defuse the dispute quickly and effectively	Establishment of a major incident(s) or flashpoint, including violence or the threat of violence → backing up these incidents with aggressive statements and higher alert statuses. Embolden the antagonists with subversion, sabotage, disinformation, and uncertainty in all domains	Russia claims that NATO has sabotaged their underwater cables to Europe and China, and that it is disrupting the underwater sensor systems. NATO has used dual purpose installations (C2 and radar) on Svalbard to support this operation. Therefore, Russia has its Arctic capabilities on high alert and closed the maritime and air space in Russia's ASE EEZ for all NATO members. China announced that it will support Russia and will safeguard the NSR with additional military and economic means
Status and Prestige Subvariable: Influence by domestic pressure groups	NATO and Russia historically share the same peaceful conception about the ASE—an Arctic that cannot and should not be ruled by military and hard power means	Russia has a strong sentiment and history of safeguarding the Arctic region and its population. Acting with hard power and militarized means and responses Russia defends its Arctic region. Russia claims itself being the only 'real' Arctic nation. China plays the role of an Arctic nation and established its Arctic capabilities	Both—de-escalatory as escalatory tendencies—are manifest. While Russia deliberately tries to escalate the ASE with forward presence, high readiness forces, false flag operations, and alleged 'little white men' activities, it aligns with its strong history and sentiment of safeguarding the ASE with hard power
Disruptive military innovation / technology	Broad available information and information sharing about new technological novelties specific to the Arctic. Mutual developments lead to mutual parity in capabilities and counter capabilities → equal assimilation of technological innovation in the commercial sector; excavation, resource extraction, science and research	Unilateral availability of disruptive technology that levers a strategic positional advantage over the other antagonist. Improvements in Russia's A2AD defenses (S-350 & S-500 systems), nuclear icebreaker fleet, and unmanned (anti-) submarine and surface warfare, but also a superior underwater sensor network, supported by Chinese space and cyber capabilities	Russia has developed an underwater sensor network for ASW and interception, also the new S-500 air defense systems, the air glide Khinzal, the land-based Zircon hypersonic, and the naval Kalbr-M and land-based P-800 anti-ship cruise missiles with SOPKA-2 & 3 radar system → superior to NATO's missile capabilities and offensive means to breach Russia's A2AD bubble easily. China adds superior space and cyber capabilities → co-developed unmanned deep-sea systems.

	Proximate Variables		The proximate factors are based on the possible situation 2028–2032
Proximate variable	De-Escalatory	Escalatory	So What!
Technological / natural disaster or climate change effects	Climate change and environmental effects are slowing down due to lower greenhouse gas emissions. The NSR is only partially ice free during the summer and in the winter not passable. SAR and disaster relief is partially outsourced to private and NGO organizations	Disaster relief and SAR is monopolized by Russia and China (NSR) - A2AD and defensive coastal defenses give Russia control over disaster control and SAR activities by NATO or the United States	False flag natural disasters → i.e., alleged nuclear contamination of part of the ASE, deliberate pollution of Svalbard Archipelago
Use of CBRN means	No presence of tactical nuclear warheads and systems in the ASE. Strategic leaders restrain the use and threat of use of nuclear capabilities in the Arctic. All GPs and NATO are not willing to use chemical and biological warfare in any crisis and confrontation. Chemical and biological warfare is extremely difficult in cold weather environments and with low density populated areas	Low threshold of use of CBRN weapons. Putin has threatened with tactical nuclear weapons during the Russo-Ukrainian War → Russia has tactical and strategic weapons ready on the Kola peninsula and allegations state that tactical nuclear warheads are available on Alexandra land and Nova Zemlya	Russia and China have no intention to use CBRN means in the ASE → no densely populated areas, nuclear clouds could contaminate Russia's northern homeland, and it leads to broader escalation in the global order, or even to global armed conflict
Communication channels	Communication between the antagonists in the ASE is guaranteed. SAR and disaster relief activities are multilaterally coordinated and the NSR has well established monitoring systems. An emergency channel (satlink) is always available regardless of nationality	No communication channels are operational or the antagonist are not willing to share. This increases the risk of miscommunication and miscalculations → threat perceptions based on single sided information and intentions	Communication channels tend to fade and become dysfunctional over the last decades. The war in Ukraine, the Russo-Sino pact and the intensified trade 'wars' have decreased the stability, trust, and opportunities to communicate. Russia and China are deliberately pushing towards a unilateral and single sides communication strategy
Intrusion (physical, digital)	Very limited → no physical and digital intrusion in the ASE. This also relates to gray zone and hybrid activities like false flag operations, or non-attributable incidents in the cyber, space and physical domains	Intensifying and increasing gray zone and hybrid activities multi and cross-domain by all antagonists. Deception, disinformation, and false flag operations are utilized to discredit the antagonists, and create a strategic advantageous position. All activities aim to further destabilize the ASE for shaping future operations	Russia claims a false flag operation (cutting underwater fiber cables from Norway and Russia to Svalbard and the cable connecting Europe - Russia - China), and therefore gets political and military support from China → NATO and NATO members satellite up/down link installations in the ASE are suffering from cyberattacks. Non-attributable covert and clandestine activities occurring in Arctic nations and on Arctic landmass

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