



The Utility of Military Exercises

From Readiness to Enhanced Deterrence?

Guillaume Lasconjarias

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Masthead

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This report is a part of Centre for Military Studies' policy research services for the Ministry of Defence and the political parties to the Defence Agreement. The purpose of the report is to investigate the nature, purpose and value of military exercises, how they have developed over time and what role they play today and could play in the future.

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Author:

Associate Research Fellow, Dr. Guillaume Lasconjarias
French Institute of International Relations (IFRI)

Kolofon

Nytten af militære øvelser

Denne rapport er en del af Center for Militære Studiers forskningsbaserede myndighedsbetjening for Forsvarsministeriet og de politiske partier bag forsvarsforliget. Formålet med rapporten er at undersøge militære øvelses kendetegn, formål og værdi, hvordan de har udviklet sig gennem tiden, og hvilken rolle de spiller i dag og kan komme til at spille fremover.

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Forfatter:

Associeret forsker, ph.d. Guillaume Lasconjarias
Institut Français des Relations Internationales (IFRI)

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Abstract and Recommendations

Military exercises are often overlooked or merely considered a routine activity. Due to a very limited theoretical literature, as well as an inclination to focus on the “real thing”, i.e. operations and campaigns, military exercises have been left aside. However, they deserve a more concrete analysis of what they are, the purpose they serve, and the role they play. In the past and especially during the Cold War, military exercises were used both to craft new concepts and to incorporate new capabilities that played a key role in deterring any given adversary; and in case deterrence would fail, to assure the readiness of our armed forces.

Because military exercises also send a political message, they are a double-edge sword and must be conceived, designed, and carried out with caution. Their strategic intent must be clearly set to avoid the risk of miscalculations or misinterpretations and, subsequently, escalation. Transparency and strategic communications are therefore a necessity to demonstrate openness and determination.

The recommendations are made to help decision-makers and exercise planners to identify the most satisfactory combination of military requirements and political judgments when designing and conducting exercises displaying NATO's transatlantic bonds and strength. In a period of strategic uncertainty, this is more than necessary.

At the strategic level, it is important for decision-makers to have a deep understanding of the strategic and operational value of military exercises, including their international function. Such an understanding can also enable additional support for funding exercises, enabling armed forces to plan and execute these training events on a regular basis. By supporting exercises with both a national and multinational (NATO/EU/and other partners) dimension, exercises will also contribute to political trust in coalitions and alliances. This multinational component could be reinforced by a national willingness to share and open other nation-led training centers.

National training centers can be included in pooling and sharing initiatives; they can be acknowledged by NATO following the NATO Centers of Excellence model or even be fully or partially funded through NATO. Public awareness is another important aspect of the political function of military exercises: Communication campaigns can underline the political-messaging function of exercises to strengthen deterrence and underline resolve.

The challenge at the joint operational level is to focus on aligning training and readiness at every level, focusing on interservice, interagency, as well as joint and multinational training. Many countries have implemented new types of exercises in recent years, some in the cyber/hybrid domain, but others are still needed. For instance, a NATO-led, theatre-wide, joint, multi-national Integrated Air and Missile Defense (IAMD) exercise would be essential, as it is the only way to ensure the functionality of the sensors, weapons, and C2 that

are distributed on ships, in different countries, and will have to operate in a contested cyber domain.

Practitioners at the operational and tactical levels must see exercises as opportunities to test plans, doctrine, and equipment. To be able to do so, they should be allowed a certain degree of flexibility with respect to the amending of scenarios as well as to allow failure: Exercises should be designed to create situations where commanders and/or units will fail. To quote General Ben Hodges, former commander of United States Army Europe (USAREUR), this is critical, and our model should be physical exercise “where top athletes train to ‘muscle failure’... if we don’t do this, then many critical weaknesses are never addressed or fixed.”

Dansk resumé og anbefalinger

Militære øvelser bliver ofte overset eller blot anset for at være en rutinepræget aktivitet. En meget begrænset teoretisk litteratur om emnet samt en tendens til kun at fokusere på "virkelige ting" – krige og militære operationer – betyder, at studiet af militære øvelser er blevet negligeret. Militære øvelser fortjener at blive gjort til genstand for en mere konkret analyse, ikke mindst af deres kendetegn, formål og hvilken rolle de spiller. Førhen, især under Den Kolde Krig, blev militære øvelser brugt til både at udforme nye strategiske koncepter og inkorporere nye kapaciteter, som spillede en afgørende rolle i at afskrække den til enhver tid givne modstander. Og skulle afskrækkelsen mislykkes, ville øvelserne have bidraget til at sikre de militære styrkers parathed.

Militære øvelser udgør et dobbeltsidet sværd, fordi de også sender et politisk signal. De bør derfor blive udtænkt, planlagt og gennemført med varsomhed. Den strategiske hensigt må være tydelig for at undgå misforståelser, misfortolkninger og, i sidste ende, eskalation. Gennemsigtighed og strategisk kommunikation er derfor en nødvendighed for at demonstrere åbenhed og beslutsomhed.

Rapportens anbefalinger er udformet til at hjælpe beslutningstagere med at identificere den mest hensigtsmæssige kombination af militære krav og politiske overvejelser i forbindelse med planlægning og gennemførelse af de militære øvelser, som har til formål at demonstrere NATOs styrke og dybden i det transatlantiske samarbejde. I en tid præget af strategisk usikkerhed bliver dette stadigt mere nødvendigt.

På det strategiske niveau er det vigtigt, at beslutningstagere har en dyb forståelse for militære øvelsers strategiske og operationelle værdi, herunder deres internationale rolle. En sådan forståelse kan også være med til at fremme yderligere finansiering af øvelsesaktiviteter, som vil gøre det muligt at planlægge og udføre militære træningsøvelser regelmæssigt. Ved både at støtte nationale og multinationale militære øvelser (NATO, EU og andre partnere), vil det kunne bidrage til at øge den politiske tillid mellem koalitions- og alliancepartnere. Den multinationale dimension kunne endvidere forstærkes, hvis staterne var villige til dele og åbne nationale trænings- og øvelsescentre.

Nationale trænings- og øvelsescentre kan blive inkluderet i samlende og udvekslende initiativer; de kan blive anerkendt af NATO ud fra NATOs "Centers of Excellence"-model eller blive fuldt eller delvist finansieret af NATO. Offentlig opmærksomhed er et andet vigtigt aspekt af militære øvelsers politiske funktion: Kommunikationskampagner kan understrege militære øvelsers politiske budskab med henblik på at styrke deres afskrækkende virkning og signalere beslutsomhed.

Udfordringen på det værnssfælles operationelle plan er at sørge for, at træning og parathed er afstemt på alle niveauer, hvilket kræver fokus på tværgående øvelsesaktiviteter – med samarbejde mellem værn, styrelser, kommandoer og – i en multinational kontekst – mellem stater. Flere lande har implementeret nye øvelsestyper de seneste år, fx med en cyber/hybrid-dimension,

men der er stadig behov for at udvikle nye øvelsestyper. For eksempel vil en NATO-ledet værnssfælles og fuldspektret, multinational integreret luft- og missilforsvarsøvelse være essentiel, eftersom det er den eneste måde, hvorpå man kan sikre, at de sensor-, våben- og kommando- og kontrolsystemer, som forskellige landes enheder er udstyret med, fungerer og er i stand til at operere sammen i et fjendtligt cyberdomæne.

Praktikere på det operationelle og taktiske niveau må se øvelser som en mulighed for at kunne teste planer, doktriner og udstyr. For at være i stand til det, bør de fra deres overordnede have en vis fleksibilitet med hensyn til løbende at ændre på scenarier, og det bør ligeledes være tilladt at begå fejl: Øvelser bør være udformet på en måde, så chefer og/eller deres enheder bringes i situationer, hvor de vil begå fejl. For at citere general Ben Hodges, tidligere kommandør ved United States Army Europe (USAREUR), er dette kritisk, og øvelserne skal derfor ses som fysisk træning, "hvor topatleter træner til deres muskler 'fejler' ... for hvis ikke vi gør det, vil mange kritiske svagheder aldrig blive håndteret eller udbedret."

1

Introduction

Mid-February 2020: Immediately before the COVID-19 pandemic hit Europe, the United States Army Europe (USAREUR) launched “DEFENDER-Europe 20” with great fanfare, announcing it as “the largest deployment of U.S.-based forces to Europe for an exercise in more than 25 years.”¹ More than 20,000 soldiers from bases across the United States were getting ready for months of deployment in Europe as part of an ambitious drill running the gamut from tactical live-fire drills to division-level operations aimed at building a battlefield network for the use of all NATO allies in the event of a conflict.² The emergency situation that hit Europe had consequences for the size and scope of this military exercise, but it was not called off; a decision that underlined the importance of such an activity, as Secretary of State Mike Pompeo had already recalled at the Munich Security Conference.³

Military exercises are essential – both for the military, but also any nation aiming to demonstrate its resolve. These exercises represent more than mere military activity; at both the state level and in military terms, they have both political and strategic dimensions. They gather equipped troops and their enablers for training purposes and to be able to practice the command and control of ground combat forces, dozens of aircraft, and ships in real-time war gaming scenarios. This ensures readiness and demonstrates capabilities. At the same time, exercises have a signaling function, sending a multitude of messages internally and externally; internally, to a broad audience of policy-makers and politicians, and externally, both to the general public, allies and potential adversaries, by showcasing capabilities and determination. This dual nature (political and strategic) renders exercises a hybrid phenomenon that must be explained and understood for those involved at every level of the decision-making process. They have an importance unto themselves, as they are the key moment where the benefits (or shortfalls) of training are highlighted and become operational readiness; that is, the ability of the armed forces to decisively impose their might over an adversary in combat and at the service of strategic considerations.

These roles should have called for a broader interest from academics, but unfortunately it has not. Indeed, military exercises have not attracted the same interest as other military activities.⁴ They are either overlooked or merely lumped together with training in general – probably because they belong to the core competence of every military, service, and branch. Scholars sometimes develop a key example of where an exercise has been used to hide a full-fledged invasion – as in the case of Egypt in the Yom Kippur War in 1973 – and routine military exercises have contributed to escalating the tensions between countries. More recently, the changing security environment might call for some comparisons, all of which indicate how exercises play a role that goes beyond sole operational benefits. A country investing in large-scale exercises and routinely deploying several thousand troops on its border might fuel some anxiety in the neighborhood – something that has been said about Russia, for example, which has used exercises as part of its confident foreign policy.⁵ This also explains why NATO has stepped up its exercise program since

2014.⁶ As NATO Secretary General Jens Stoltenberg declared at a press conference for *Trident Juncture 2018*, which was the largest NATO exercise since the end of the Cold War, exercising together signals the existence and strength of the transatlantic bond and puts deterrence into practice. It also demonstrates the ability to work, operate, and ultimately to go to war together. Exercises are a guarantee that when and if something happens, your forces will be ready, effective and able.⁷ In other words, exercises are an active measure that a nation (or group of nations) uses to immunize itself against any threats, to assure or reassure its allies and partners, and to warn its potential adversaries. This constitutes a particular form of deterrence, namely coercive credibility, albeit with notable risks of being misread and at the cost of rising tensions.

This report is a desk study based on the relevant academic literature and supplemented with a dozen interviews with NATO officials as well as with senior military officers from the US, France, the UK, and Germany.⁸ It primarily aims to help political officials and policymakers to understand the nature and purpose of military exercises and why investing in them is justified and cost-effective. It is also intended to be instructive for senior military commanders and their respective staffs and to reinforce and internalize the underlying political and strategic value that exercises carry with them by avoiding any unintentional developments. This is of particular interest to Denmark for three distinct but connected reasons: its geostrategic position in the Baltic Sea region, its NATO and EU membership, and its military and diplomatic ambitions and commitment to and in Europe. Denmark stands to gain from carefully designing its own exercises, tailoring its participation in bilateral or multinational exercises, and/or contributing to other countries' exercises (e.g., the UK-led Joint Expeditionary Force). This is both a matter of alliance policy and a question of deterrence.

In order to discuss the nature, purpose, and utility of military exercises comprehensively, this report is designed around four key sections. It starts with a description of the nature of military exercises aimed at achieving a common understanding of what they are about, how they are planned, and by whom. It then offers a description of their recent evolution from the Cold War era to the return of great power competition, which is intended to assess the diplomatic and strategic purposes they serve. The third section focuses on how both NATO and the EU as organizations use military exercises (or similar activities) to strengthen the European security architecture and how this impacts their respective neighborhoods. The final section offers recommendations on how to improve the use of military exercises and effectively calibrate between resolve and restraint in a time of considerable strategic uncertainty.

2

Military Exercises 101: Understanding the Nature, Role, and Value of Military Exercises

Military exercises perform a variety of roles, because they are at the crossroads between tactical-technical roles and a political-strategic dimension.⁹ This “multidimensional nature”¹⁰ sometimes renders it difficult to assess exercises properly, as a single exercise may well have multiple objectives, depending on the type of exercise (with or without troops, for instance) the level and echelons involved, the size, volume, and nature of the deployed forces, the scenario, and, of course, the geopolitical context in which it takes place. This section discusses these core features and unpacks some generalities regarding military exercises to help understand their nature and role.

2.1

Common Features of Military Exercises

Generally speaking, military exercises have five common features: First, **collective practice**. This is the ultimate moment of a training process, where soldiers, airmen, sailors, space, and cyber combatants practice their respective roles collectively with their colleagues, all of whom are performing their individual roles. Depending on their rank and function, this type of drill prepares personnel for the tasks they would be performing in battle.¹¹ This occurs regularly and is *de facto* combat-related.

Second, **everybody exercises**. Military exercises are carried out at every level, from the smallest sub-unit (a platoon, ship, or aircraft to large-scale units) up to the corps level. They challenge combatants in all five operating domains – land, sea, air, cyber, and space – as well as their leaders at every level of command and control. Services and branches are responsible for training their respective forces and for ensuring mandatory readiness.¹² If not the key organic function of each of the services, training is the one that wraps all of the other functions together (organizing, manning, equipping, sustaining) to create and maintain an effective joint combat force and to build an effective *esprit de corps*. Logically, there is a dedicated department, bureau, or officer in charge of designing, developing, resourcing, assessing the effectiveness of, and providing command oversight of the whole training and exercise process. Sometimes referred to as an “umpire” at the tactical level, those responsible must secure a high standard.¹³ The ultimate goal is to bring individual service forces together into a coherent whole to deliver an intended effect.¹⁴

Third, **exercises are key to interoperability**. At the joint, interagency, and multinational (or combined) levels, they improve “the commanders’ abilities to coordinate employment of two or more services’ forces in combat, train combatant forces in joint and/or combined operations, test reaction capability, and test current plans, doctrine, and procedures.”¹⁵ They also play a crucial

role in testing the decision-making process and its mechanisms together with the functioning of the command structure, especially under challenging and disruptive conditions. This ability to streamline the decision-making process and to analyze effectiveness is tested through scenarios at every level and in a multitude of situations.

Fourth, **exercises are for real**. Exercises mirror the priorities of nation and alliance in terms of operations and capabilities; hence, their aims and objectives must mirror the current operational requirements and priorities.¹⁶

Fifth, **exercises belong to a cycle**. Once carried out, military exercises offer evidence-based feedback on how to improve capabilities, units, services, and the interactions between them. Every exercise ends with a “hot wash-up” – an “after-action report,” which is carefully analyzed in a “broader lessons learned” process.

In other words, short of war, military exercises allow senior commanders and their staff to gain practice in managing all of the components of their command so that “the troops would be in the right place at the right time with the right equipment and the right consumables to enable them to do their fighting job.”¹⁷ Practicing the art of war is by no means a perfect science, but it helps to stay on top of one’s game. To quote a USMC Officer during last the Thai-US Cobra Gold Exercise: “Practice makes best.”¹⁸

Figure 1: Common Forms of Military Exercises¹⁹

Common Forms of Military Exercises			
CALFEX	Combined Arms Live Fire Exercise	LIVEX	Live Exercise
CAX	Computer Assisted Exercise	LOGEX	Logistics Exercise
CFX	Command Field Exercise	MAPEX	Map Exercise
CPX	Command Post Exercise	MOBEX	Mobilization Exercise
COMEX	Communications Exercise	PFPX	Partnership for Peace Exercise
DEPEX	Deployment Exercise	SEDRE	Sealift Emergency Deployment Readiness Exercise
EDRE	Emergency Deployment Readiness Exercise	STX	Situational Training Exercise
FTX	Field Training Exercise	TEWT	Tactical Exercise Without Troops
FCX	Fire Coordination Exercise		

Each exercise merges multiple components. As Figure 1 shows, there are multiple ends, ways, and means to carry out exercises, depending on the intended outcome and the level at which the force is specifically training. At the tactical level, it trains individuals and groups, while the operational and strategic levels focus on the processes, procedures, and routines of a staff and HQ to help them to plan, command, and coordinate troops, concepts, and operations.²⁰

2.2

Why Exercises Must Look Realistic

In order to be effective and efficient, military exercises (and training in general) ought to be as realistic as possible – something the Romans had already identified, as reflected in the famous adage attributed to Flavius Josephus: “Their exercises are unbloody battles, and their battles bloody exercises.” This issue spans the history of military exercises:

“No other activity prepares a military force better for combat than combat itself. The environment in which combat is conducted – one of violence, death and destruction, fear and valor, complexity and uncertainty – is one of the most challenging in which any human being or human organization must operate. It is so challenging and unique that it cannot be completely replicated outside of combat itself. Thus, to be effective, military organizations must train under conditions that are as realistic as possible and come as close as possible to placing the individual, the team, the unit, and the crew in the environment and situations they will face in combat. Training realism is one of the key measures of training effectiveness.”²¹

There is consensus that exercises must be realistic to give them credibility and utility. Nevertheless, they can never fully achieve real wartime dynamics, and planners must decide “how to achieve desired levels of realism within the constraints of safety, logistics, and various economic and political limitations” – for not to mention the operational ones. In air exercises, for instance, speed and altitude – but also jamming and spoofing – are limited, which says a lot about the impossibility of replicating an authentic war experience (as also emphasized in the soldier-produced literature).²² Reproducing something that is the closest to the real war experience is nevertheless a permanent quest, and simulation has recently offered some technological solutions. For instance, the *Combined Arms Tactical Trainer* of the British Army allows the maneuver units to have at their disposal everything a battlegroup would enjoy in the battlefield – without the nuisances or costs. Of course, this emphasizes that to be considered valuable, a certain level of authenticity is required, which also entails an element of risk and failure. For exercises, this suggests that scenarios must be based on case studies that are somehow linked to the overarching geopolitical context, a plausible threat, or a possible intervention in a foreign country.

Many historical examples tackle how series of exercises have profoundly impacted the patterns of deployment and operations in a positive or negative way.²³ The problem is, however, that by getting closer to reality, unintended consequences might arise. One notable case is the 1983 exercise *Able Archer*, which was a NATO exercise aimed at rehearsing procedures and consultations mechanisms in response to a Soviet aggression. In an atmosphere of escalating tensions, however, the fact that the exercise was more ambitious than those previous triggered fears among Soviet leaders – with some heightened risks of shifting into a real war. *Able Archer* therefore demonstrates the ease with which a common military exercise can be misconstrued as preparation or cover for an act of aggression.²⁴

Another illustration of the methods involved in exercises can be found in wargames. Wargaming and serious games in general seem to be a cost-effective way to train and educate a large audience.²⁵ Even if they do not belong to the categories of exercises, they fulfill the same demand by helping

military professionals to “think differently”. The process allows greater flexibility and imagination – making it easier for decision-makers to “think outside of the box,” to explore potential solutions, to be creative, and to break with cognitive biases that can blind them to risks and rewards. Fiction and play, in sum, are ideal tools to get off the beaten track.²⁶ Third, based on extensive communications and internet-based solutions, exercises offer alternative options – planning post-conflict issues or simulating long campaigns – which LIVEX and CPXs can barely manage. At the strategic level, they aid the development of strategies and contingency plans prior to or during detailed planning. At the operational level, they enable the inclusion of a wide variety of information and “escape the often-hyper-focused mentality that comes at the initiation of a headquarters planning process.”²⁷ In the near future, the development of more robust artificial intelligence (AI) platforms and applications in association with wargaming will help staffs and individuals to test and explore new tactics, improve decision-making, and boost innovation.²⁸ Nevertheless, because they are less visible, if everybody agrees on the educational value of wargaming, some question their deterrence value.

2.3

Building Exercises: A Catch-22?

Because they can fit a wide range of tasks, the designing, modelling, and planning of military exercises are difficult. While they are not the real thing, they unfold in a realistic, real-time environment. And because they simulate war, they can actually be seen as a genuine threat. In other words, exercises must look real to provide some concrete lessons learned, but they must also be controlled to avoid misunderstandings, reduce tensions, and limit the risks for the participants themselves.

Designing, modelling, preparing, and conducting exercises requires time and resources – and the process can look very bureaucratic. For NATO countries, the command structure in charge is the Allied Command for Operations (ACO – usually referred to as the Supreme Headquarters Allied Powers Europe (SHAPE) in its historical denomination). It supports a 6-year process “with detailed programming for the first two calendar years, and outline[s] programming for the following four calendar years.”²⁹ This means that there might be some critical adjustments after the first round, depending on the level of achievements and the outcomes. At the end of the process, ideally, the lessons learned are shared among the participants, military allies, and the partner community in general, with the endeavor of being incorporated into common education and training processes.

Ultimately, exercises can never be fully satisfactory – they can never fulfil all of the various criteria. Nonetheless, if carefully planned with realistic expectations, they can be of incommensurable value. They must only be designed and conducted by those with the relevant expertise, experience, and who understand the specificities of the exercising rationale. This also necessitates a good level of acquaintance with the operational leaders who can discuss and incorporate the latest developments of ongoing operations. Nevertheless, in order to avoid rehearsing for the last war, these scenarios must also include imaginative thinking, including “free minds” that will bring out-of-the-box thinking and try to incorporate a diverse set of “what if” scenarios into the exercise.³⁰

2.4

The External Role of Military Exercises

Military exercises are highly visible. “Live exercises” in the landscape and the display of dozens of aircraft or ships rarely go unnoticed. Even some tabletop exercises in barracks are deliberately announced and made known to the public, as they send a political and diplomatic signal the moment they are carried out.

Not only can this message be misread, it is sometimes not understood well enough by the people in uniform who often neglect or overlook the diplomatic and political implications. In other words, military exercises are more than a simulated wartime operation; they also serve political ends. The military aim is to enhance readiness and interoperability, primarily at the national level, but also to get alongside allied and partner nations in the prospect of future potential coalition operations. At the same moment, the political leadership views the utility of exercises perhaps more in the political messaging. In sum, exercises enhance deterrence vis-à-vis potential adversaries while reassuring allies.

These political-strategic purposes might fall under four categories, none of which are exclusive but rather complementary:³¹

- Reassurance of allies and partners
- Increasing interoperability and the ability to operate together
- Concrete diplomatic involvement
- Applied deterrence

These dimensions explain why boosting or reducing the number of “exercises and events” catches the attention of every national security community, as doing so may indicate a shifting balance of power in a particular area of the world. For instance, the increased Sino-Russian defense ties in the Asia-Pacific, in the Baltics, and recently in the Mediterranean question the nature of the military relations between the two countries.³² For quite some time, the development of Sino-Russian military relations has concentrated on military technology before moving to establish a security cooperation mechanism through the Shanghai Cooperation Organization (SCO) in 2001 and then moving into a strengthened cooperation in the field of military education. Since 2005, the last (or latest?) step has been the gradual institutionalization of joint military exercises. Conversely, the decision by the Trump administration to cancel joint military exercises with South Korea in 2018 was part of a political and diplomatic sequence of events aimed at winning over peace with North Korea. Therefore, as one proponent of the policy reasoned the “one-time suspension of a primarily symbolic training exercise is a small price to pay for the possibility of peace on the peninsula.”³³ The exercise in question, *Ulchi Freedom Guardian*, had been held every August for decades, the 2017 iteration involving 50,000 South Korean troops alongside 17,500 U.S. forces. The suspension of the exercise – labelled “provocative” by the North Koreans – has indeed been more than a symbolic victory for Kim. Some commentators argued that this was weakening the traditional U.S. alliances in Asia, eroding the readiness of the joint and combined forces and the ability to operate together in the event of conflict. Again, this example underlines how an exercise can also be understood as “a political instrument, a negotiating chip, instead of being the baseline of deterrence on the peninsula.”³⁴

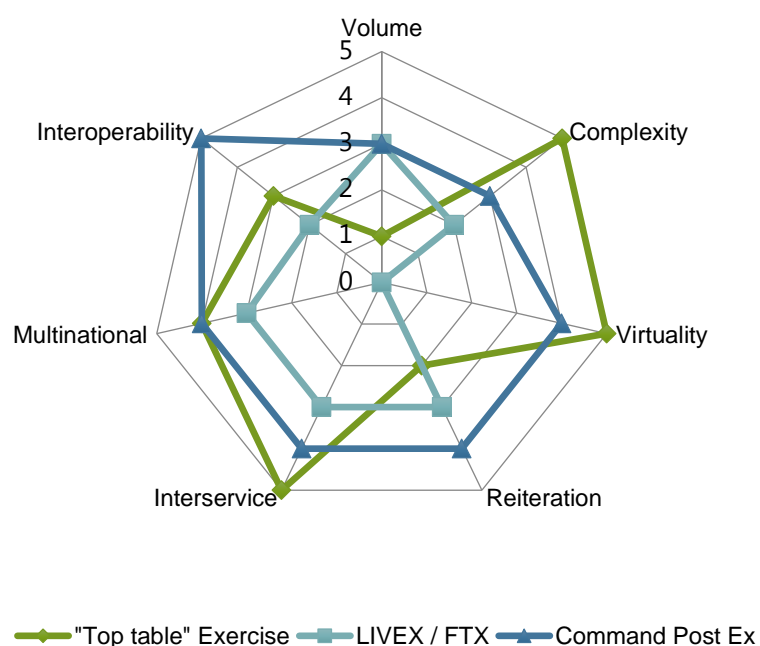
2.5

Intermediate Conclusion

In sum, military exercises tackle a range of issues, making them a necessity to assess, evaluate, and then adjust the education and training dimension at every level and for every service. This is a process: defining what is expected, planning in advance, committing resources, exploring a scenario and its implications, drawing lessons, and modelling training afterwards. At stake is the improvement of the overall capabilities of one's forces by testing everything that can be tested and ameliorating what can be enhanced. This operational endeavor is nevertheless only the tip of the iceberg, as the potential deployment of troops, ships, and aircraft embraces a larger spectrum than a purely military one – a truly strategic role. Exercises are never just an operational tool; they have an immediate, signaling function that potentially can be misread. Therefore, they have a role to play when it comes to strengthening a strategic communication policy – something NATO has insisted on since 2017.

To help summarize the range of specific purposes of exercises, Figure 2 gathers the three most common exercise types (live exercises, command post exercises, and tabletop exercises) and assesses their impact by analyzing the purpose they serve. The **volume of force** committed to an exercise is obviously the first factor, as there are some limitations to that, especially due to diplomatic negotiations such as the Vienna Document. **Complexity** comes second: The more comprehensive the scenario and the greater the number of services, allies, and partners involved, the more complex - and therefore also the more politically sensitive - it becomes.³⁵ **The issue of virtuality** – that is, how realistic it is and how it can be replicated using new tools and technologies – is another issue; it either compensates for not deploying troops in the field or it can also be a tool to explore alternative and what-if scenarios. **Reiteration** comes fourth: Are these exercises a routine measure or are they exceptional? A gigantic exercise near the border of a neighboring state with which diplomatic relations are tense can have a profound impact and deep consequences. The fact that exercises involve a strong **Interservice and multinational** dimension shows how exercises can be valuable in the training of various services and branches or can be enshrined in a more cooperative manner with allies, partners, etc., which adds a strong diplomatic dimension. **Interoperability** is the final factor: It is one of the most difficult objectives to achieve, especially at the multinational level.

Figure 2:
Categorization of Military Exercises



This figure highlights how three major exercise types provide various and complementary values; LIVEX are highly visible and help set the scene for credibility and a certain level of ambition when it comes to demonstrating one's capabilities. Tabletop exercises, and in many ways CPX, are known for their ability to train the decision-making structure and foster interoperability at every level. Tabletop exercises have a unique ability to do foresight and experimentation, which is necessary to prepare forces and HQs for the "unknown." In sum, exercises have a very difficult task to fulfill: they train for today, they test for tomorrow, and they send key messages to a range of internal and external audiences.

3

The Evolution of Military Exercises – from Cold War to Cold Peace?

An historical perspective is helpful when assessing the extent to which the nature of military exercises has evolved. The aim of focusing on how NATO and Russia engaged in exercises in the past and how the situation has dramatically changed in recent years is to see how far military exercises have accompanied or supported this evolution. Evidently, the geopolitical context plays an important role: The Cold War is over, but there are some similarities to be explored. In this light, the Alliance has also chosen to go back to basics – “relearning the strategies and tactics of deterrence and defence at which the Alliance excelled during the Cold War” without turning its back on dialogue – a new cold peace.³⁶ This section henceforth aims to assess past practices and to harvest what is still applicable in order to accommodate and even succeed vis-à-vis the new normal.

3.1

Cold War Routine

If military exercises within the Alliance (or any alliance) had any major interest and role to play, it was to ensure interoperability, coordination, cooperation, and to guarantee a proper level of cohesion between nations at a time where the lessons of World War II were being forgotten. In the early 1950s, the Chairman of the NATO Military Committee considered that a certain stage had been reached at the moment when “major exercises were being held and it was possible to find the weak links and to strengthen them as well as gaining most valuable experience in cooperation.”³⁷ Nevertheless, it was also during these early years that national authorities insisted on identifying the political implications of the NATO exercise program, a measure that had been thought to discuss the “reasons for proceeding with an exercise in the face of possible political danger.”³⁸ A pattern was set by which three conditions were to be respected to achieve a successful exercise program:

- Pursue mutual reinforcement among the allies
- Enable multinational interoperability
- Improve doctrinal innovation

This mix between the military expectations and the restraint of a defensive alliance was a necessity to avoid any risk of escalation. Nevertheless, both sides had mirroring practices, strengthening ties between the various armies, demonstrating capabilities in action, yet with the risk of triggering a competition with unintended consequences. Reason lies in what Ruiz Palmer describes as the fact that those exercises “were seen as ‘bringing to life’ what otherwise were ‘inert’ military capabilities and strategies.”³⁹ Exercises alone were not dangerous, but their content “could not be divorced from the wider context of the Cold War in which they were planned and executed.”⁴⁰

For the Warsaw Pact and NATO alike, Cold War exercises hinged on three elements:

- **Large-scale exercises**, where large numbers of troops would be deployed: In the 1980s, NATO routinely engaged in exercises involving 80,000-130,000 troops, as did the Warsaw Pact.
- The emphasis on **highly capable conventional forces**, which were seen as the best insurance against a failure of deterrence – short of a nuclear scenario, which was never off the table.
- The **possibility to test new concepts**: In 1988, REFORGER 88 practiced AirLand Battle tactics between two opposing Blue forces (one called Blue, the other Gold). This was the first REFORGER exercise NOT to practice operations against the Warsaw Pact, generally called Orange.

These reasons also explain why détente made a case for greater transparency, which the Helsinki Final Act (1975) accelerated. The level of ambiguity concerning true intentions placed exercises under scrutiny and emphasized the need to declare them publicly. To be clear, this did not preclude the misreading, misperception, misinterpretation, and increased tension, as *Able Archer 83* demonstrates, but the two blocks did at least try to minimize the risk of a real confrontation. In the following years, this led to additional constraints on military exercises, and NATO unilaterally suggested in 1989 that neither alliance should hold more than one exercise annually involving more than 40,000 troops and/or 800 tanks. These limits on the size and frequency of military exercises were seen as a way to improve stability and avoid risks of spiraling.⁴¹

3.2

From a Changing Character of War to a Changing Character of Exercises?

The early 1990s brought about dramatic change in how the international community perceived it should deal with security challenges. The demand for peacekeeping/peace-enforcement grew as the Cold War ended. For many NATO allies, the deployment in the Balkans produced many “firsts,” including the first significant cooperation with other international organizations (mainly the UN) and the Alliance’s first peacekeeping operation.⁴² The overall geopolitical context had a profound impact on how NATO militaries conceived a new role for their forces and future missions, which had consequences for training in general and how forces were to be exercised prior to deployment.⁴³

Bosnia and Kosovo provided a number of valuable lessons, which were translated within the political and military domains. This had obvious consequences for the approach to exercises, as it had become clear that the nature of conflict scenarios had to gradually consider peacekeeping as a succession of emergencies, with a focus on humanitarian assistance, the implementation of a wide range of civil aspects, and with the need to sometimes revert to the use of force. For the Alliance, this meant that the contingents deployed had to be at the same moment a strong and flexible force, with robust rules of engagement and capable of dealing with a variety of contingencies and emergencies. In order to cope with public security and crowd control, for instance, NATO had to create a Multinational Specialized Unit (MSU) of *carabinieri*, *gendarmes*, and other special police operating under military command. When not available, non-specialized units had to be trained and exercised for such missions.⁴⁴

In the field, exercises became a tool to get the most out of partner countries, to involve and improve the capabilities of local forces, and to demonstrate NATO's commitment to ensuring future stability. In the case of the Balkans, the development and professionalization of local security forces was seen as an efficient tool to also authorize a true disengagement of the deployed forces in the long term. As a component of professional military education, exercises had become part of security force assistance.⁴⁵

Generally speaking, the operations in the Balkans underlined the importance of training, education, and preparedness, as the security conditions were volatile and required adaptation at every level. The focus on the Balkans obviously led NATO military forces to spend much of their time preparing for deployment. In the U.S. case, in December 2000, General Eric Shinseki named the units to see service in Bosnia and Kosovo through May 2005. While this was partly intended to provide adequate time for specialized training, this emphasis on specialized training for peacekeeping missions was also criticized by experts who sought that "greater proficiency at peace operations [came] at the expense of warfighting proficiency."⁴⁶ It is true that with the exception of the "First entry units," which would have to deal with a phase of intensive fighting and more kinetic operations, the follow-ups would switch to a posture of military administration, the main focus of which was on implementing a comprehensive crisis management approach alongside civilian and military partners.⁴⁷

In most NATO countries, this period was characterized as a premium for operations and, therefore, the exercises evolved:

- **End of the large LIVEX and focus on CPX:** In the mid-1990s, instead of deploying numerous units for large field training exercises, the emphasis was on command post exercises, which required fewer resources.
- **Improvement of the IT domain:** The integration of new technologies through simulation and a more robust Communication and Information Systems' infrastructure led to a change in terms of scenarios and more comprehensive gameplay.
- **A need to train the command posts for crisis management operations:** All of these improvements were a direct consequence of the changing type of conflict, where the emphasis was on stabilization rather than force on force.

These movements also occurred at a time when European militaries were experiencing the consequences of the so-called "peace dividends." Cuts were made to personnel and finances that led to "*bonsai* armies," which were armies with limited resources for tailored operations abroad.⁴⁸ The dismissal of the former "enemy" – the Warsaw Pact – and the integration of old adversaries in the same alliance rendered the notion of an "enemy" vain. The basis of the strategic doctrine that had been developed and elaborated over more than five decades disappeared; and with it, an enemy that could be identified and resembled a real threat vanished; and with that grew the need to think about a plausible threat, a virtual enemy that deeply modified the nature of exercises. Exercises had to change and be more cost-effective while leaning more toward mirroring ongoing operations.

3.3

Did Afghanistan and Iraq Change the Nature of Military Exercises?

The campaigns in Afghanistan and Iraq, while very demanding, did not radically change the overall approach to military exercises at the operational or strategic level. However, the intense operations at the tactical level required the rethinking of the training, equipment, and warfighting skills of many NATO countries.⁴⁹

The rediscovery of intense fighting in Afghanistan and Iraq led to significant changes made to military training and the mandatory improvement of warfighting skills. The UK provides a good example of how it began launching five scalable predeployment exercises per year. Named *Medicine Man*, these exercises involved live-fire scenarios that mirrored the challenges faced in the field: from elusive adversaries mingling with civilians to the constant media presence. One of the challenges was also to adapt the training sites, as most of the European armies lacked sufficient training facilities to replicate an Afghan/Iraqi environment.⁵⁰ The French Army dedicated the Canjuers training site in the south of France to the predeployment preparation and rehearsal of all troops tagged for Afghanistan: starting in 2009-2010, each year, four *Groupements Tactiques Interarmes* (a battle group based on an infantry battalion with additional combat elements and capabilities), 10 operational mentoring and liaison teams and two *Bataillons de Commandement et de Soutien* (support battalions) would be trained in one new “Afghan Village” setting.⁵¹

Second, the Afghan and Iraq campaigns demonstrated the need for mission-relevant tasks. The nature of the counterinsurgency campaigns made clear that the traditional focus on conventional combat had to be complemented. In the case of the British and French forces, the troops and staffs identified for deployment to Afghanistan would receive specific training concluded with some final exercise – again, a way to evaluate their skills. In a constrained economic environment, however, this meant that these same militaries had to sacrifice what was less immediately relevant: saving money and making time for more pressing priorities. In the UK, “by 2007, a total of 357 training exercises had been cancelled in this manner.”⁵²

Arguably, the NATO countries participating in the ISAF and OIF operations had to adapt to a challenging operating environment. But this adaption, strongly visible with respect to doctrine, training, equipment and education, only had a limited impact on the nature of the exercises. Fundamentally, the scenarios were still based on the same prerequisites that had existed since the Balkans: coercion – stabilization – normalization. After a quick initial entry with an unmatched deployment of strength, Western militaries would enter a (very long) phase where the nature of the missions would support the civilian authorities and the population. Thus, the role of exercises insisted on the so-called “comprehensive approach;” a mindset where soldiers developed their ability to work alongside other non-military actors.⁵³

3.4

And Then Came Russia...

The aggressive actions perpetrated by Russia in Crimea and in the eastern part of Ukraine in 2014 led the NATO Allies to shore up deterrence and defense measures, engage in military posturing, increase their defense spending, and develop programs to counter new threats, namely those labelled as “hybrid.”⁵⁴ The Newport Summit in September 2014 acknowledged that instability along Europe’s borders was no longer a remote and purely hypothetical prospect for the West and that it had become a matter requiring urgent attention. NATO was confronted by the new Russian stance and had to readapt

quickly. This was also a moment of self-doubt: How could NATO shift back to collective defense – the bedrock of the organization – without dropping the two additional tasks (crisis management and cooperative security)? How to respond to Russia without antagonizing it?⁵⁵

This new “Cold Peace” between NATO and Russia seems characterized by suspicion and mistrust. Throughout Europe, the mindsets have been evolving since 2014, from “war is unthinkable” to “we need to think about war” in order to exercise effective deterrence. The first warning call came in 2007 - 08, with the cyberattacks in Estonia and the war in Georgia. At the same time, the mechanisms that had been supporting the European security architecture since the 1980s and 1990s begun to atrophy, some abandoned outright.⁵⁶ The second warning call was the massive series of exercises carried out by the Russian military along NATO’s territorial border. Already in 2013, Russia re-launched Soviet-era surprise combat readiness inspections, which Russian officials claim pertain to the transition from peace to war.⁵⁷ Russia has also chosen to strengthen its strategic command and control (C2), focusing on mobility, executing complex coordination measures, and varying tasks in each strategic direction to maximize flexibility.⁵⁸ This is all reflected in the 2014 military doctrine that demands Russia handle the entire military conflict spectrum envisaged: armed conflicts, local wars, regional wars, and world wars. Consequently, the mobilization of several ministries and agencies, the moving and regrouping of thousands of troops, hundreds of tanks, dozens of aircraft, ships and submarines, has become routine, consolidating the ability of Russian forces to create flexible strategic options and operational constructs that can be employed in all strategic directions.⁵⁹

These exercises have been closely monitored by European and US militaries as well as their political elites. Considerable concerns have been raised, not least in Poland and the Baltic states – especially *Zapad 2017*, which took place in Belarus and the Russian enclave of Kaliningrad.⁶⁰ The change of context in Europe, adding to an increased number of military incidents registered across the Euro-Atlantic area (more than 60 between 2014 and 2016), spurred memories of historical analogies, directly emanating from the Cold War, from Hungary in 1956 to *Able Archer* in 1983.

The NATO Allies needed to act in a mirroring manner and to display the image of a strong alliance. From Newport on, comprehensive adaptations were made, galvanizing international responses to common threats. To re-energize NATO, several initiatives were taken: The first major signal was that the Allies could – and would – provide help and assistance if one of its member states was to come under attack. The notion of “assurance” or “reassurance” was the first building block of the Readiness Action Plan (RAP), by which the Eastern European allies could immediately see more jets in the air and more ships at sea.⁶¹ Designed to “ensure that NATO remains a strong, ready, robust, and responsive Alliance capable of meeting current and future challenges from wherever they may arise,” the RAP has been a driver of the transformation within the Alliance. Second, the Wales Summit was crucial in reversing the trend of declining defense budgets, with the decision made by the heads of state and government to increase their military spending to 2% of each country’s gross domestic product (GDP) over the next 10 years. Third, adaptation drives every effort NATO has engaged in ever since in terms of trying to meet every plausible challenge and threat.

Naturally, military exercises are part of this process. Since 2014, their number has dramatically increased, as a visible and immediate token of the

Alliance's commitment to the security and defense of all its Allies – especially those in the eastern part of Europe. Sure, this number was merely a *trompe l'oeil*, as many national exercises were only rebranded under the NATO flag in order to weigh in and prove that NATO was credible as an alliance: More than 300 exercises were planned in 2015, half of which took place in the eastern part of the Alliance. In 2016, approximately 250 were carried out, and this effort continued throughout 2017 and 2018.⁶² This new routine was a pretext to maintaining a high operational readiness level, but added a strong political messaging both to the Allies, which had to be reassured, and *vis-à-vis* Russia, which had to be deterred.⁶³ In some cases, exercises were scheduled in the same timeframe as their Russian counterparts to demonstrate readiness and political will. In 2017, for instance, partially overlapping with Russia's *Zapad* exercise, Poland and Sweden launched their own military multinational exercises, which were intended to demonstrate their own capabilities and strong international backing as a means to deter potential Russian moves.

This pattern has not diminished since, rendering this military posture a permanent one and underlining the current existing tensions between NATO and Russia as being between restraint and resolve. With *Vostok* in September 2018, the Russian Federation staged the largest maneuver outside Europe since the end of the East-West cold war, with “about 300,000 servicemen, over 1,000 aircraft and unmanned aerial vehicles, 80 ships, and 36,000 tanks and other vehicles.”⁶⁴ The long-prepared NATO *Trident Juncture 18* followed, in October and November 2018, with more than 30 states, including Finland and Sweden. About 50,000 troops, 250 aircraft, 65 vessels, and 10,000 vehicles were deployed in Norway for the largest NATO exercise since the end of the Cold War. The Russian army again demonstrated its might in September 2019 in exercises together with forces from post-Soviet Central Asian countries as well as China, India, and Pakistan: *Tsentr 2019* gathered almost 130,000 personnel, 600 aircraft and helicopters, and 15 naval vessels in a scenario aimed at preparing and coordinating combat activities against any threats that could arise.⁶⁵

To sum up, since 2014, military exercises have become one of the tools essential to ensure force readiness while simultaneously demonstrating credible deterrence. They have become part of the strategic dialogue between NATO and Russia, a “show of force” as much as proof of one's determination. Hence, they deserve close attention, since what “the sides are demonstrating through their exercises is also increasing uncertainty (...) threat perceptions and the risk of escalation by fueling worst-case assumptions.”⁶⁶

4

In Defense of Military Exercises?

The NATO and EU Understandings of Exercises

Throughout its 70-year history, NATO has always had to focus on adapting to a changing security environment. However, the pace of events, their complexity, and their intricacies in recent years have called the consensus-based organization to leverage its political and military potential.⁶⁷ On the contrary, the EU – by trade and construct a very distinct organization – has favored other types of exercises and scenarios. Nevertheless, there seems to be some complementarity in how both organizations approach, use, and therefore value exercises.

4.1

Interoperability and Innovation: The NATO Approach

The NATO approach to exercises is less a reflection of the changing Russian posture and more a policy deliberately developed since the early 2000s. This began when NATO opened its new command, the Allied Command Transformation (ACT), which, as the name indicates, focused on transformation. Its mandate was to reflect on the evolution of warfare and future operations. This led to the establishment of two dedicated centers: the Joint Warfare Centre (JWC) in Stavanger, Norway, and the Joint Force Training Centre (JFTC) in Bydgoszcz, Poland. The JWC would focus on the operational level and analyze the emerging doctrinal, capacity, and capability NATO concepts, conceptualizing and developing fictitious scenarios.⁶⁸ The JFTC would mainly serve as a training center to support command-level exercises (CPX) at the tactical level, the focus here on certification exercises; those mandatory for taking either the NATO Response Force (NATO's first deployable elements) or being deployed to Afghanistan. In a similar fashion, both would use exercises as the means to enhance interoperability, operational effectiveness, and, in a more limited way, as a platform for experimentation.⁶⁹

Figure 3 highlights how NATO “connects the dots” between training, doctrine, and warfare development in general. Training is at the heart of what NATO does. It starts with the outputs given by doctrine, as well as by the operations and exercises. Through lessons-learned processes those help define new standards, new procedures, new equipment etc. Those new elements are conceptualized and then tested, to help forge new doctrine etc. Of course, this cycle is a dynamic one, where all the inputs and outputs create a common ground and language for all NATO allies and bodies. This is an essential mission, materialized in publications – the famous Allied Joint Publications (AJP) – as well as in the standards – the NATO Standardization Agreement (STANAGS).

Figure 3:
The NATO Cycle Connecting
Training to Warfare Development⁷¹



Since 2012, the ACT has been very active in this domain. With the forecasted end of the ISAF mission together with the pitfalls identified during Operation *Unified Protector* over Libya, there was a sense of determination to identify what could be done to keep NATO relevant. Then-NATO Secretary General Anders Fogh Rasmussen decided to address readiness and interoperability. In 2012, at the Munich Security Conference, Rasmussen launched the Connected Forces Initiative (CFI), where exercises served as one unique way to maintain skills, knowledge, and cohesion across the NATO militaries – despite a generalized mood of “war fatigue:”

“Exercises allow our troops to practice what they have learned. To provide realistic and challenging scenarios. And they make working together second nature when it comes to complex joint operations. NATO’s own exercise schedule has been reduced in recent years because so many of our troops were deployed on operations. But as we draw down from these, we should build up our exercise program again.”⁷¹

Yet it took – and still takes – considerable effort to move in that direction. If ISAF operations demanded extensive training, it came at the detriment of exercises. Nations had choices to make, especially after 2008 and the consequences of the financial crisis. This led to a form of “defense negligence,” with the priority set on operations (and Afghanistan), while exercises were to maintain a form of routine knowledge of procedures.⁷² At the NATO level, because of their cost, the incredible amount of time, the drain on financial and human resources, and the necessary long-term planning and preparation, exercises were seen as part of a process that could not be changed overnight, meaning that the Allies thinking about exercises did not change radically.

With 2014 and the radical change now happening, exercises required profound modification. First, many experts realized that Russia had acquired

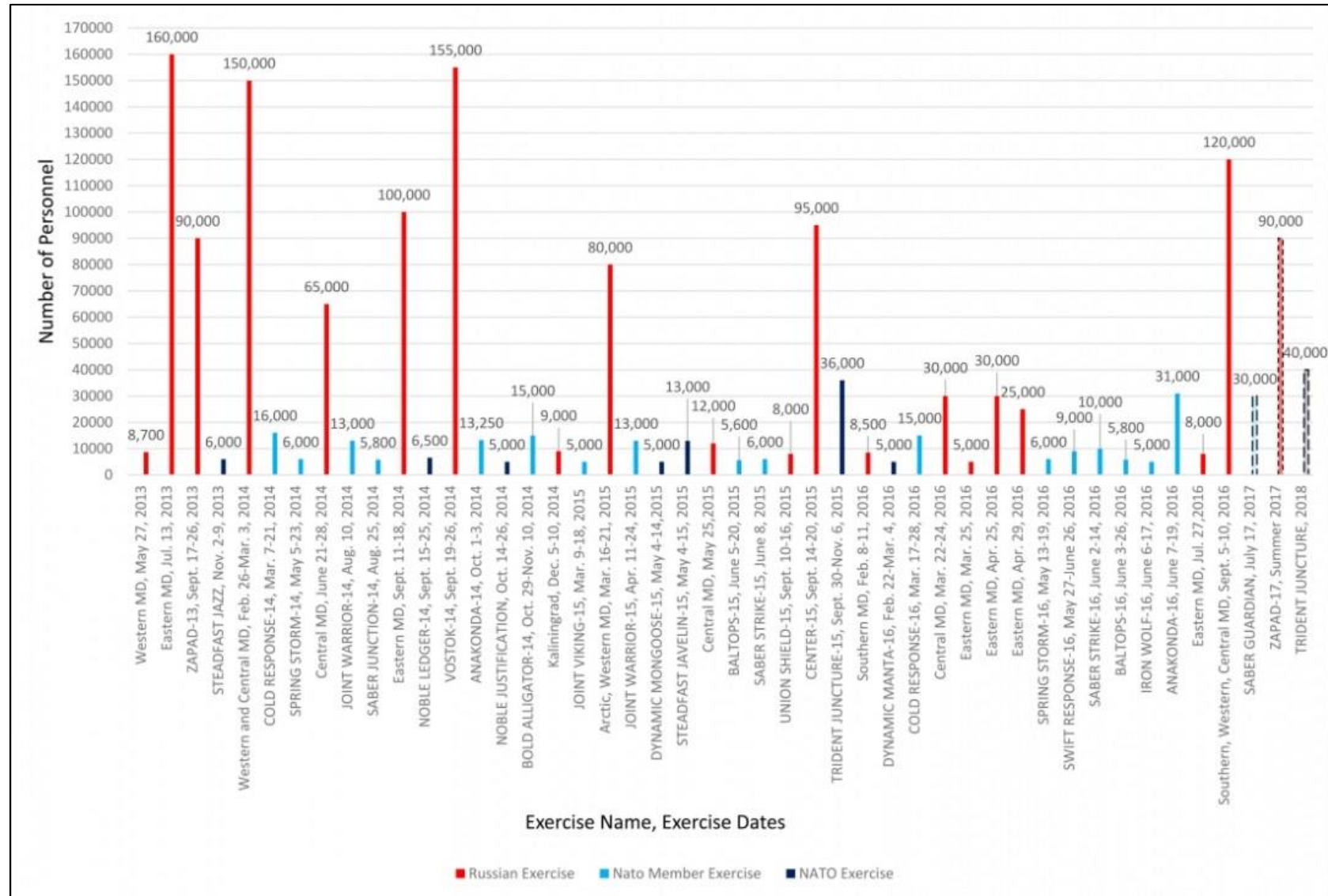
a sort of superiority in exercising its troops and its chain of command. Figure 4 compares the magnitudes of military exercises conducted by NATO and Russia in recent years, revealing a jarring contrast: Russian exercises dwarf those of NATO.⁷³ Russia had placed emphasis on large exercises involving over 100,000 troops, numbers that directly recalled the 1980s. NATO, on the other hand, even with a large American footprint, never exceeded 20,000 troops (one-fourth of what Russia would deploy). While hardly a surprise, this “NATO-Russia Exercise Gap” had to be taken seriously. The Allies collectively insisted on “narrowing” the gap and increasing both the size and volume of large exercises, which took almost three years to accomplish.

Second, NATO had to modify its habits radically; Afghanistan had been crucial in raising the stakes for training, as well as the complex procedures in a complex environment with a galaxy of actors. Nevertheless, after a decade of operations in Afghanistan, a certain amount of routine has certainly crept into the designing, preparation, deployment and nature of the mission. Therefore, all actors agreed that the time had come to retrain “the entire NATO chain of command (including at the nuclear level), followed thereafter by exercises to rehearse authentic contingencies.”⁷⁴

Third, there was a need to alter the nature of scenarios, refocusing on collective defense and core Article 5 operations as opposed to the crisis response scenarios that had become the norm. Starting with *Trident Juncture 2015* and until *Trident Juncture 2018*, NATO insisted on new concepts, new doctrines, and new ambitions. Scope and realism improved, hybrid threats developed, and cyber and ballistic missile defense became the “new normal.”⁷⁵ All levels of command benefitted from the lessons of Ukraine and the Donbas: The French Army, for instance, decided to rethink the nature, organization, and structure of its command posts, imagining a future environment where the long-enjoyed relative “operational comfort” would vanish and the risk of symmetrical confrontation with a technically advanced adversary would rise.⁷⁶ Good bye air supremacy, welcome back A2/AD, electronic warfare, and information operations. This was a real eye-opener for some NATO allies.⁷⁷

The preparation of those exercises also led some NATO countries to realize how far from being ready they were – including at the national level. Many deficiencies came under the spotlight, including the military mobility issue, when large forces had to move across Europe. What was common practice in the past in the well-known REFORGER exercises (“Return of Forces to Germany”) now faces many hurdles, from red tape to practical concerns (e.g., the carrying capacity of bridges for heavy tanks, use of railroads, truck load standards).⁷⁸ Working with a hypothetical high-end confrontation, the return to larger formations has also been underlined, a 180 degree “about face” after two decades of peacekeeping and crisis management. Throughout NATO countries, divisions have disappeared and brigades have become the new normal. The number of combat battalions has shrunk: in 1990, West Germany was able to field 215 combat battalions. By 2015, even a reunited Germany could only muster 34. France has reduced the number of its artillery battalions by two-thirds, Italy by four. And some weapons systems have simply disappeared from some Ally inventories, such as main battle tanks.⁷⁹

Figure 4: The Russia–NATO Exercise Gap⁸⁰



The new focus on exercises has already at least helped the nations to identify existing shortfalls and priorities. The example of *Trident Juncture 2018* is enlightening, where a more robust and challenging scenario was carried out. As some official publications have underlined, no less than 21 experiments have tested “all fueling real substance to Allied Command Transformation’s Warfare Development agenda.”⁸¹ In addition, the high visibility offered was seen as a way of demonstrating NATO’s cohesion and readiness; two essential pillars in putting deterrence into action. These two dimensions must have been identified, as Russian interference was reported during the exercise, making TJ18 a real opportunity to signal both at the military and political levels how the Alliance was ready to respond to any form of aggression.⁸²

4.2

From Crisis Management to Hybrid Threats: The EU’s Exercise Ambitions

Underlining how differently the EU works from NATO is a truism that is also reflected in how the EU considers exercises in the field of security and defense. The EU only recently came to consider defense as one of its areas of concern, whereas NATO’s *raison d’être* is more reduced in scope, focusing much more on the military implications of defense and security. The two organizations have evolved in parallel to one another; for the EU, military exercises have never been something as important and structuring as they have for NATO. Nevertheless, the EU has followed another path, seeing its added value in the domain of crisis management, with limited military ambitions. It started implementing Crisis Management Exercises back in 2002, while continuing to develop scenarios dealing with civil protection and disaster management.⁸³ Nevertheless, from 2002 to 2009, the frequency of these exercises came across as too rare and isolated to have a significant impact on working relations due to the rotation period (at least on the military side).⁸⁴

In addition, from the perspective of the EU, what matters most is the decision-making process, which is analogous to command and control at the supranational level. Just consider the complexity of the institutional actors who have at least a partial say over a looming or ongoing crisis:

“Bodies such as the Council of the EU and its Integrated Political Crisis Response mechanism, the crisis response mechanism of the European External Action Service and Directorates General of the European Commission respond to trans-boundary crises such as hybrid threats, terrorism and criminal activity, public health, energy security and more.”⁸⁵

Yet both organizations admit that they must work together and that they are essential partners. Again, geopolitical challenges require a stronger partnership, something that has materialized in recent years. In 2016, at the NATO Warsaw Summit, a Joint Declaration was signed that recognized this need:

“because our security is interconnected; because together we can mobilize a broad range of tools to respond to the challenges we face; and because we have to make the most efficient use of resources. A stronger NATO and a stronger EU are mutually reinforcing. Together they can better provide security in Europe and beyond.”⁸⁶

Seven areas of cooperation were defined, and exercises were named among them.

For NATO and the EU, because of their specificities and likely political issues, it was neither possible nor thinkable to run a common exercise. The idea was therefore to implement a new concept, the “Parallel and Coordinated Exercises” (PACE): NATO would run its traditional Crisis Management Exercise (CMX) and the EU, in the lead, would launch its Multi-Layer Crisis Management Exercise. While separated, both scenarios would include common features – notably hybrid threats – and the staff of the non-leading organization would contribute to the planning and conduct of the leading organization’s exercise. Eventually, both organizations would share the lessons and recommendations to the largest extent possible.⁸⁷ This “spirit of reciprocity” has also helped the EU to step up its efforts. For instance, the EU HEX-ML 18 (Hybrid Exercise-Multi Layer 18) has been the largest crisis management exercise ever conducted and led by the EU to improve and enhance its ability to respond to a complex crisis of a hybrid nature with internal and external dimensions. Interactions were created to interact with NATO in the area of cyber, disinformation, and civil protection with the overarching objective of synchronizing the two organizations’ crisis response activities.⁸⁸

Exercises have been identified as one avenue where the two organizations can better cooperate and partner, despite their differences. Seen as complementary, because of their design, their conduct, their lessons, and their recommendations, these exercises offer opportunity to foster a common strategic culture. They also enhance interoperability, at least at the staff-to-staff level; nevertheless, there is a long way to go, as the lessons learned are only partially shared.⁸⁹

To sum up, military exercises have ramped up since the mid-2000s, either to respond to the changing character of war and the mandatory evolution of the conflict or to be a truly visible response to the changing geopolitics. That was less surprising from NATO, which has a record in terms of military adaptation, than from the EU, which started its own round of exercises of a different scope and yet with some shared objectives: being ready for any potential crisis – something that the COVID-19 crisis has illustrated dramatically.

5

Conclusion

For NATO in general and Denmark as one of its key member states, military exercises – joint, combined, and multinational – are part of the essential readiness ensuring that commanders and forces will develop their warfighting skills, practice standard operating procedures, and enhance multinational interoperability while experimenting with new concepts, doctrine, tactics, and technologies. All in all, exercises help maintain NATO's technological edge in an uncertain and challenging environment while undermining any adversary's confidence in setting strategic conditions for aims that are contrary to NATO defense and security. In other words, exercises are part of deterrence, as they provide concrete insurance and reassurance to allies and partners.

To summarize, exercises have two key functions and one role. First, internally and from a military standpoint, exercises help to ensure that the Allies will retain armed forces that are effective and ready. Second, exercises convey a diplomatic and political message about strength and resolve. By exercising together with partners, they demonstrate that interoperability is achievable and that, despite overarching questions about the future of the Alliance, NATO is fit for purpose. This explains why exercises not only contribute to an overall NATO strategy but are an essential component that must be carefully assessed and used to avoid escalating tensions. Looking back at the history of NATO – as well as that of Russia – underlines that these elements of embedding exercises in a larger strategic approach made of resolve and dialogue were one reason the Cold War remained cold. Exercises help create credible, capable, as well as resilient forces that rendered NATO a formidable adversary.

Continuing to invest in military exercises is therefore necessary, if not necessarily a sufficient condition, if NATO wants to remain an effective and efficient organization. The return to large-scale exercises will be the benchmark on which to build in the years to come if they are continuously forward-thinking and innovative, both in understanding how warfare is evolving and in adapting training to meet those challenges.⁹⁰ It is therefore essential to continue the large joint and multinational exercises – such as *Trident Juncture* – but also to emphasize that a large number of exercises will routinely continue at every level. Only this ability to address the full spectrum of conflict, in all strategic directions and for all plausible situations, will be applied deterrence. Exercises are cost-effective because they provide interoperability, an essential quality for any coalition with which one nation or a group of nations wages war. And this pertains to building a truly common transatlantic as well as European strategic culture.

In this regard and in summary, exercises must not only be protected from any cuts – they must be developed and incorporated in an ambitious and effective exercise program spanning NATO and EU nations at every level: NATO sets the standards and guarantees interoperability, and NATO focuses on the purely military dimension of exercises. The EU can help by pushing dual issues forward, issues such as military mobility, which relates to the capacity to deploy forces throughout Europe more easily.⁹¹ And at their level, the individual nations are responsible for undergoing these main training events.

These exercises have a price tag, of course, but they have real value in that they warrant readiness and deterrence in practice.

5.1

Leveraging the Political and Diplomatic Options...

Exercises address a wide range of audiences and must therefore be carefully modelled and designed and even more carefully conducted to avoid misreading, misunderstanding, and misperception. **The strategic intent must henceforth be well-crafted:** at minimum is a focus on how the exercise will be received; by the population, by the observers, and by foreigners. The answer depends of the size, volume, nature, and geographic location of the exercise: comparing *Zapad* with *Rim of the Pacific* (RIMPAC) is meaningless, as the stakes are very different.⁹² A better option would certainly help develop a better understanding of why exercises are useful and essential to support and even reinforce the pursued strategic objectives. The messaging would therefore not only apply to the demonstration of one's capabilities and the will to use them, but also to how the population would be supportive, which would further strengthen the deterrence effect.⁹³

Second, **even if there are risks, not conducting military exercises is not an option.** Whatever signal they send, **exercises will probably always be seen as a potential threat – a “threat in being”** – especially in times marked by geopolitical tensions. As regards NATO-Russia relations, the risk of escalation and misperception already exists in an asymmetric manner. The truth is that Russia has used its own series of massive exercises doubled with snap inspections to generate ambiguities along NATO's boundaries.⁹⁴ Therefore, not exercising oneself in the idea of pursuing some kind of appeasement might not deter but rather convince an external actor to use its forces.⁹⁵ Some suggest that NATO should practice its military drills “in different zones close to Russia's borders with minimal prior warning,” the equivalent to some NATO-snap exercises. Such exercises would receive extensive attention, however, and the states neighboring NATO would be invited to participate, including Belarus and Moldova: “Such maneuvers could help disrupt Moscow's military planning and disperse Russian forces along its borders with NATO states,” one author argues.⁹⁶

At the same time, **military exercises must remain as transparent as possible.** Transparency is important for reducing tensions, and NATO/US exercises are always announced well in advance; they incorporate numerous press briefings and typically have large numbers of media embedded. Compare this to the uncertainty and anxiety created by Russian exercises, which are never truthfully reported to avoid Vienna Document requirements. Because the risk of escalation does exist, it might be time to include the OSCE in the game and for it to start getting serious about revising the Vienna Document. Russia has blocked this process for years.⁹⁷ More globally, the dismissal of all of the pillars that once constituted the basis of the post-Cold War security environment are a matter of concern, and some countries should step up and claim their right for more transparency and security.

5.2

...While Keeping the Military Dimension of Exercises

Exercises are not the equivalent of real warfare, but they can be as realistic as possible – that which some call “realistic but fictitious.”⁹⁸ These scenarios must be equally imaginative, challenging and yet efficient; otherwise, they will lose their added value (i.e., from training to respecting procedures). This paradoxical requirement calls for a **true balance between realism and what**

is doable with regards to time, resources, funding, etc.⁹⁹ While sticking to traditional scenarios or to scenarios that have been very costly to develop is understandable, there is an inherent risk of drifting from what will happen in real life, which would render these very scenarios useless. Each exercise should probably be tailored in a manner that is realistic enough to be taken seriously by the target-training audience and by potential opponents without being too forward-looking and aggressive – especially in exercises hosting external observers that could observe postures and innovative courses of action that they could report back to their home country. This could start by having scenarios incorporating real country names (as opposed to fictitious ones), which is something that Russia does and NATO and the EU do not. Real names lend an air of credibility to exercises and help to provide opportunity to think about real situations.

Above all, **exercises must deal with complexity**. Complexity in incorporating a mix of military requirements (Anti-Access and Area Denial (A2AD), Cyber, Air and Missile Defence etc.) and an environment that includes UN Security Council Resolution 1325, the protection of civilians, critical infrastructure protection, etc. Covering all of the potential missions and areas of operations has become a necessity, which creates additional needs in terms of having subject matter experts aboard, increasing the size of HQs and staffs, and impacting the professional military education system, all of which would require additional developments.

5.3

Recommendations

The following recommendations unpack most of what has been discussed throughout this report. One major element is to support a strong and ambitious NATO/national exercise program. These recommendations are divided in three parts, corresponding to three different levels and actors, ranging from the political/strategic domain to the practitioners at the operational/tactical level.

At the **strategic level**, it is important for decision-makers to have a deep understanding of the strategic and operational value of conducting military exercises, including their international function. Such understanding can also enable additional support for funding exercises, so that the armed forces can plan and execute these training events on a regular basis. By supporting exercises with both national and multinational (NATO/EU/and other partners) dimensions, exercises also contribute to political trust in coalition and alliances. This multinational component could be reinforced by national willingness to share and further open nationally led training centers.

National training centers can be included in pooling and sharing initiatives, be NATO-acknowledged following the NATO Centers of Excellence model, or even fully or partially funded through NATO. Public awareness is another important part of the political function of exercises: Communication campaigns can underline the political messaging function of exercises to strengthen deterrence and underline resolve.

At the **joint operational level**, the challenge is to focus on aligning training and readiness at every level, focusing on interservice, interagency as well as joint and multinational training. Many countries have implemented new types of exercises in recent years, including the cyber/hybrid domain, but more are still needed. For instance, a NATO-led, theatre-wide, joint, multinational Integrated Air and Missile Defense (IAMD) exercise would be essential, as it is the only way to ensure the functionality of sensors, weapons, and

C2 that are distributed on ships, in different countries, and will have to operate in a contested cyber domain.¹⁰⁰

Practitioners at the **operational and tactical levels** must see exercises as opportunities to test plans, doctrines, and equipment. To be able to do so, they should be allowed a certain degree of flexibility to amend scenarios and to allow failure: Exercises should be designed to create situations in which commanders and/or units fail. To quote General Ben Hodges, former commander of the USAREUR, this is critical, and our model should be physical exercise “where top athletes train to ‘muscle failure’... if we don’t do this, then many critical weaknesses are never addressed or fixed.”¹⁰¹

These three layers of recommendations will only be actionable if there is a continuous political interest guaranteeing that exercises will always be a funding priority. They go beyond the sole legitimate interest that NATO and its member states or any given nation has in “maintaining readiness, exercising command and control of complex military operations, and assuring both their citizens and allies that they are capable of defending against external aggression.”¹⁰² Exercises are a double-edge sword, and must be both supervised and sponsored: supervised through an urgent update of the Vienna Document, which could be sponsored by a group of nations highlighting the role and importance of security-building measures. And supervised by all NATO nations, rendering military exercises a priority for the coming years through an “exercise pledge” that could also include partners such as the EU or other venues.

In times of great uncertainty, there is only one rule, which refers to the old Roman tradition: *Si Vis Pacem, Para Bellum*.

Notes

- 1 Homepage of the Defender 2020 exercise, <https://www.eur.army.mil/DefenderEurope/> accessed 14 February 2020. The consequences of cancelling military exercises have been discussed by Martin Hurt: "The Impact of COVID-19 on Military Exercises in Europe," *Blog ICDS*, 17 March 2020, <https://icds.ee/the-impact-of-covid-19-on-military-exercises-in-europe/> accessed 25 April 2020.
- 2 Paul McLeary, "From The Baltic to Black Seas, Defender Exercise Goes Big, with Hefty Price Tag," *Breaking News*, December 16, 2019: <https://breaking-defense.com/2019/12/from-the-baltic-to-black-seas-defender-exercise-goes-big-with-a-big-price-tag/> accessed 3 January 2020.
- 3 Remarks by Secretary of State Mike Pompeo at the Munich Security Conference, "The West Is Winning," February 15, 2020: <https://www.state.gov/the-west-is-winning/> accessed 24 February 2020.
- 4 Beatrice Heuser and Diego Ruiz-Palmer, "Introduction," in Beatrice Heuser, Tormod Heier, and Guillaume Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018, p. 1.
- 5 Isabelle Facon, "Military Exercises: The Russian Way," in Stephan Blank (ed.), *The Russian Military in Contemporary Perspective*, US Army War College Press, Strategic Studies Institute, Carlisle PA, September 2019, p. 235.
- 6 See NATO Webpage "Exercises," https://www.nato.int/cps/en/natohq/topics_49285.htm accessed 24 April 2020.
- 7 Remarks by NATO Secretary General Jens Stoltenberg at the *Trident Juncture 2018* Distinguished Visitor's Day, October 30, 2018. https://www.nato.int/cps/en/natohq/opinions_159852.htm accessed 23 March 2020.
- 8 The author followed the procedures described in the CMS project manual in the preparation of the report. The CMS project manual stipulates a set of quality control procedures for projects that are part of the research-based government services offered by the Centre. More information about the Centre, the procedures for quality control, and the contract can be found at the Centre's homepage (<http://www.cms.polsci.ku.dk>). The author assessed the relevant literature as part of a desk study and communicated with dozens of experts and officials.
- 9 Beatrice Heuser, "Reflections on the Purposes, Benefits and Pitfalls of Military Exercises," in Beatrice Heuser, Tormod Heier, and Guillaume Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018, p. 9.
- 10 Beatrice Heuser and Harold Simpson, "The Missing Political Dimension of Military Exercises," *The RUSI Journal* 3/162, pp. 20–28, 2017.

- 11 Timothy Harrison Place, *Military Training in the British Army, 1940–1944: From Dunkirk to D-Day*, London, Frank Cass, 2000, p. 18.
- 12 Comptroller General (i.e., General Account Office), “Improving the Effectiveness of Joint Military Exercises—An Important Tool for Military Readiness,” *Report To The Congress Of the United States*, 1979, p. 2 <https://www.gao.gov/assets/130/128381.pdf> , accessed 28 December 2019.
- 13 Timothy Harrison Place, *Military Training in the British Army, 1940–1944: From Dunkirk to D-Day*, London, Frank Cass, 2000, p. 20, gives the definition of an umpire as “a combination of actor, sports-commentator, war-correspondent and thought-reader, with first-class tactical knowledge and in peak physical fitness.” Per the same token, military literature keeps insisting on carefully promoting and selecting officers in charge of preparing, conducting, and evaluating military exercises, as well as promoting the most promising ones in the professional military education where others could benefit of their wisdom and knowledge. This debate on the role and promotion of officers in the realm of PME generally lacks consensus. See, e.g., Paula Thornhill, “To Produce Strategists, Focus on Staffing Senior Leaders,” *War on the Rocks*, July 20, 2018, <https://warontherocks.com/2018/07/to-produce-strategists-focus-on-staffing-senior-leaders/> accessed 17 January 2020.
- 14 Jim Greer, “Training: The Foundation for Success in Combat,” *The Heritage Foundation*, 4 October 2018, <https://www.heritage.org/military-strength-topical-essays/2019-essays/training-the-foundation-success-combat> accessed 29 December 2019.
- 15 Comptroller General (i.e., General Account Office), “Improving the Effectiveness of Joint Military Exercises—An Important Tool for Military Readiness,” *Report To The Congress Of the United States*, 1979, p. 4 <https://www.gao.gov/assets/130/128381.pdf> , accessed 28 December 2019.
- 16 US Department of Defense, Department of the Army, Army Regulations AR 350-28, *Training/Army Exercises*, 9 December 1997, p. 4: “Military exercises simulate wartime operations. Their realistic, battle-focused setting helps train battlefield commanders, staffs, and units for combat. The realistic setting also helps train support commanders, staffs, installations, and units in mobilizing, deploying, and sustaining operational forces. Senior commanders use exercises to tie unit training to command training strategy and to check training execution. Military exercises enhance force readiness and mobilization preparedness. They help integrate units and staffs performing separate battlefield functions into combined armed forces. They allow leaders, staffs, and units at all levels to practice operational procedures and to refine war plans. After-action reviews following exercises identify lessons learned to improve performance of units Army-wide. Military exercises occur in a variety of forms. They take place normally as joint, combined, or single-service exercises. A joint exercise involves forces of more than one service. A combined, often called multinational or multilateral exercise involves forces of more than one nation. A military exercise may also form part of an interagency exercise involving two or more Federal agencies.”
- 17 Timothy Harrison Place, *Military Training in the British Army, 1940–1944: From Dunkirk to D-Day*, London, Frank Cass, 2000, p. 20.

- 18 Thana Boonlert and Wassana Nanuam, "More Than Just Combat Exercises," *Bangkok Post*, 9 March 2020, <https://www.bangkokpost.com/thailand/general/1874654/more-than-just-combat-exercises> accessed 13 March 2020.
- 19 Based on a list provided by the U.S. Department of Defense (Department of the Army, Army Regulations AR 350-28, *Army Exercises*, 9 December 1997, https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/r350_28.pdf accessed 7 November 2019. and updated. For recent instruction on the purpose and guidance regarding a particular exercise, see U.S. DoD, Department of the Army, Training and Doctrine Command, Regulation 350-50-3, "Mission Command Training Program," 19 April 2018, <https://adminpubs.tradoc.army.mil/regulations/TR350-50-3.pdf> accessed 18 November 2019. Crisis Management Exercises (CMX) are not mentioned, even if they have taken a growing importance since the 1990s, especially within NATO.
- 20 Dan Öberg, "Exercising War: How Tactical and Operational Modelling Shape and Reify Military Practice," *Security Dialogue*, December 2019, p. 10, <https://journals.sagepub.com/doi/full/10.1177/0967010619890196>.
"Overall, the interviewees agree that command-post exercises model an environment in which warfare is conceived as the operationalization of an organizational process."
- 21 Jim Greer, "Training: The Foundation for Success in Combat," *The Heritage Foundation*, 4 October 2018, <https://www.heritage.org/military-strength-topical-essays/2019-essays/training-the-foundation-success-combat>, accessed 29 December 2019.
- 22 Anne Irwin, "The Problem of Realism and Reality in Military Training Exercises," in E. Ouellet (ed.), *New Directions in Military Sociology*, De Sitter, Whitby, 2005, pp. 93–133.
- 23 Terence Zuber, *Inventing the Schlieffen Plan. German War Planning, 1871–1914*, Oxford, Oxford University Press, 2002; Richard F. Hamilton and Holger H. Herwig (eds), *War Planning 1914*, Cambridge, Cambridge University Press, 2010. Both books insist on how seriously misleading the "war plan" idea is.
- 24 Nate Jones, *Able Archer 83: The Secret History of the NATO Exercise That Almost Triggered Nuclear War*, New York, The New Press, 2016.
- 25 On the history of wargaming in general, see Peter P. Perla, *The Art of Wargaming*, Annapolis, MD, Naval Institute Press, 1990.
- 26 Peter Perla, "Operations Research, Systems Analysis and Wargaming: Riding the Cycle of Research," in Pat Harrigan, Matthew G. Kirschenbaum, and James F. Dunnigan, *Zones of Control: Perspectives on Wargaming*, Cambridge, MA, MIT Press, 2016, p. 178: "Wargaming is a far better tool for going beyond old knowledge and exploring unforeseen consequences. This power of gaming to illuminate dark corners of the future possibilities makes it especially important in light of the concept of the Black Swan."
- 27 Krisjand Rothweiler, "Wargaming for Strategic Planning," *The Strategic Bridge*, 29 March 2019, <https://thestrategybridge.org/the-bridge/2017/3/29/-wargaming-for-strategic-planning> accessed 4 May 2020.

- 28 Benjamin Jensen, Scott Cuomo, and Chris Whyte, "Wargaming with Athena: How to Make Militaries Smarter, Faster, and More Efficient with Artificial Intelligence," *War on the Rocks*, 5 June 2018, accessed 4 May 2020: <https://warontherocks.com/2018/06/wargaming-with-athena-how-to-make-militaries-smarter-faster-and-more-efficient-with-artificial-intelligence/> and Benjamin Jensen, "Welcome to Fight Club: Wargaming the Future," *War on the Rocks*, 4 January 2019 <https://warontherocks.com/2019/01/welcome-to-fight-club-wargaming-the-future/> accessed 5 May 2020.
- 29 According to SHAPE, <https://shape.nato.int/exercises> accessed 27 February 2020.
- 30 About strategic forecasting and what it means, see Florence Gaub (ed.), *What If... ? 14 Futures for 2024*, Chaillot Papers, EUISS, January 2020, <https://www.iss.europa.eu/content/what-if-14-futures-2024>.
- 31 For examples, see Heuser, pp. 17–23.
- 32 Ryan W. French and Peter Dombrowski, "Cooling the Controversy over Sino–Russian Naval Exercises," *War on the Rocks*, 20 September 2016, <https://warontherocks.com/2016/09/cooling-the-controversy-over-sino-russian-naval-exercises/> accessed 18 January 2020; "Russia and China Hold the Biggest Military Exercises for Decades," *The Economist*, 6 September 2018, <https://www.economist.com/europe/2018/09/06/russia-and-china-hold-the-biggest-military-exercises-for-decades>, accessed 18 January 2020; Angela Stenzel, "China Trends #3 – China and Russia: Brothers-In-Arms?" *Institut Montaigne*, 11 October 2019, <https://www.institutmontaigne.org/en/blog/china-trends-3-china-and-russia-brothers-arms> accessed 18 January 2020.
- 33 Lara Seligman, "Experts Question Wisdom of Canceling U.S. Exercises with South Korea, as Mattis Makes It Official," *Foreign Policy*, 26 June 2018, <https://foreignpolicy.com/2018/06/26/experts-question-wisdom-of-canceling-u-s-exercises-with-south-korea-as-mattis-makes-it-official/> accessed 27 January 2020.
- 34 Ibid.
- 35 See General Krulak, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999.
- 36 Marc Ozawa (ed.), *The Alliance Five Years after Crimea: Implementing the Wales Summit Pledges*, Rome, NATO Defense College, Research Paper no. 7, December 2019, p. 1.
- 37 Record of Meeting of the North Atlantic Military Committee, 7th Session, 9 December 1952, http://archives.nato.int/uploads/r/null/1/0/107186/RECORD-MC_CS-007_ENG_PDP.pdf accessed 24 February 2020.
- 38 Robert T. Davis II, "Cold War Infamy: NATO Exercise *Carte Blanche*," in Beatrice Heuser, Tormod Heier, and Guillaume Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018, p. 55.
- 39 Diego Ruiz Palmer, "Military Exercises and Strategic Intent through the Prism of NATO's *Autumn Forge* Exercise Series, 1975–1989," in Beatrice Heuser, Tormod Heier, and Guillaume Lasconjarias (eds), *Military Exercises: Political*

- Messaging and Strategic Impact*, Rome, NATO Defense College, 2018, pp. 66–67.
- 40 Ibid.
- 41 Jane Sharp, *Striving for Military Stability in Europe: Negotiation, Implementation and Adaptation of the CFE Treaty*, London, Routledge, 2006, p. 62.
- 42 David Lightburn, “Lessons Learned,” *NATO Review*, June 2001, <https://www.nato.int/docu/review/articles/2001/06/01/lessons-learned/index.html> accessed 23 February 2020.
- 43 Interestingly, by 1991, NATO had released a new Strategic Concept that made clear that new security challenges would be multi-faceted in nature, multi-directional, and difficult to predict and assess.
- 44 Interview with several officers at the NATO Stability Policing Center of Excellence, Vicenza (Italy), 17 February 2020.
- 45 Steven Metz, *The American Army in the Balkans: Strategic Alternatives and Implications*, Carlisle, PA, Strategic Studies Institute, January 2001, p. 15.
- 46 Ibid., p. 36.
- 47 Chef de bataillon Jean-Baptiste Blandenet, “Entraîner les postes de commandement au XXI^e siècle,” *Revue de doctrine des forces terrestres*, Centre de la Doctrine et de l’Enseignement du Commandement, 8 July 2019.
- 48 Christian Mölling, “Europe without Defence,” *SWP Comments* no. 38, November 2011, p. 4.
- 49 An interesting case study is found in Mark J. Reardon and Jeffery A. Charlston, *From Transformation to Combat: The First Stryker Brigade at War*, Washington D.C., Center of Military History, 2007.
- 50 David Ucko and Robert Egnell, *Counterinsurgency in Crisis, Britain and the Challenges of Modern Warfare*, New York, Columbia University Press, 2015, p. 117.
- 51 Ministère de la Défense, Déplacement d’Alain Juppé, ministre de la Défense et des Anciens Combattants, au Camp de Canjuers, DICOD, dossier de presse, 15 December 2010, pp. 2–3.
- 52 David Ucko and Robert Egnell, *Counterinsurgency in Crisis, Britain and the Challenges of Modern Warfare*, New York, Columbia University Press, 2015, p. 119. For instance, the focus on nuclear, biological, and chemical weapons lost out to countering improvised bombs—an arguably more urgent requirement.
- 53 Thierry Tardy, “NATO and the Comprehensive Approach: Weak Conceptualization, Political Divergences, and Implementation Challenges,” in Graeme P. Herd and John Kriendler (eds), *Understanding NATO in the 21st Century: Alliance Strategies, Security and Global Governance*, Routledge, 2013 and “NATO’s Contribution to a Comprehensive Approach” in AJP-01(D) ALLIED JOINT DOCTRINE, Chapter 2, Section III, December 2010, pages 2–11.
- 54 On hybrid threats, see Guillaume Lasconjarias and Jeffrey Larsen (eds), *NATO’s Response to Hybrid Threats*, Rome, NDC Forum Paper no. 24, 2015.

- 55 According to NATO Secretary General Jens Stoltenberg: "NATO doesn't seek confrontation, we don't want a new Cold War. The Cold War is history, and it should remain history. But we have to be able also in a more challenging security environment to defend and protect all our Allies." (Jens Stoltenberg, *Doorstep Statement*, 8 July 2016, http://www.nato.int/cps/en/natohq/opinions_133260.htm accessed 27 February 2020).
- 56 Beatrix Immenkamp, "The End of the INF Treaty? A Pillar of European Security Architecture at Risk," *Briefing*, Europa Parliament, 4 February 2019, [https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI\(2019\)633175](https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)633175) accessed 23 March 2020.
- 57 Johan Norberg, *Training for War: Russia's Strategic-level Military Exercises 2009–2017*, Stockholm, FOI, October 2018, p. 41.
- 58 Stephen R. Covington, *The Culture of Strategic Thought behind Russia's Modern Approach to War*, Harvard Kennedy School, Belfer Center, October 2016, pp. 17–19, <https://www.belfercenter.org/sites/default/files/legacy/files/Culture%20of%20Strategic%20Thought%203.pdf> accessed 3 March 2020.
- 59 Ibid., p. 20.
- 60 See Guillaume Lasconjarias and Lukáš Dyčka, "Dealing with the Russian Bear: Improving NATO's Response to Moscow's Military Exercise *Zapad 2017*," Rome, *IAI Commentaries*, October 2017 <https://www.iai.it/en/pubblicazioni/dealing-russian-bear-improving-natos-response-moscows-military-exercise-zapad-2017> accessed 20 February 2020).
- 61 According to the Wales Summit declaration, 5 September 2014, https://www.nato.int/cps/en/natohq/official_texts_112964.htm accessed 5 May 2020.
- 62 Numbers are taken out of NATO, *Key NATO and Allied Exercises Factsheet*, October 2015 https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2015_10/20151007_1510-factsheet_exercises_en.pdf and July 2016 https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2016_07/201607-04_1607-factsheet_exercises_en.pdf accessed 28 March 2020.
- 63 Guillaume Lasconjarias, "Les initiatives de l'Otan depuis le début de la crise ukrainienne," *Les Champs de Mars*, vol. 29, no. 1, 2017, p. 76.
- 64 Wolfgang Zellner (Co-ordinator), *Reducing the Risks of Conventional Deterrence in Europe: Arms Control in the NATO–Russia Contact Zones*, OSCE Network of Think Tanks and Academic Institutions, December 2018, p. 13 (online: http://osce-network.net/file-OSCE-Network/Publications/RISK_SP.-pdf).
- 65 Russia Monitor, "Tsentr 2019 and More: Russian Military Drills Reach Their Apex," *Warsaw Institute*, 17 September 2019, <https://warsawinstitute.org/tsentr-2019-russian-military-drills-reach-apex/> accessed 23 February 2020.
- 66 Wolfgang Zellner (Co-ordinator), *Reducing the Risks of Conventional Deterrence in Europe: Arms Control in the NATO–Russia Contact Zones*, OSCE Network of Think Tanks and Academic Institutions, December 2018, p. 13

- (online: http://osce-network.net/file-OSCE-Network/Publications/RISK_SP.-pdf).
- 67 Ian J. Brzezinski and Tomáš Valášek, "Reanimating NATO's Warfighting Mindset: Eight Steps to Increase the Alliance's Political-Military Agility," GLOBSEC NATO Adaptation Initiative, November 2017, <https://www.globsec.org/wp-content/uploads/2017/05/GNAI-reanimating-natos-warfighting-mindset.pdf> accessed 28 February 2020.
- 68 See respective websites, www.jftc.nato.int and www.jwc.nato.int, accessed 21 February 2020.
- 69 The JFTC also organizes NATO's annual Coalition Warrior Interoperability eXploration, eXperimentation, and eXamination eXercise (CWIX) with almost 1,000 participants from over 20 NATO and partner nations and multiple NATO commands, agencies, and organizations.
- 70 Based on NATO Joint Warfare Center, "Key Missions Areas" <http://www.jwc.nato.int/index.php/organization/mission> (accessed 24 May 2020).
- 71 Anders Fogh Rasmussen, "Remarks at the Munich Security Conference," Munich, 4 February 2012, https://www.nato.int/cps/en/natolive/opinions_841-97.htm accessed 28 February 2020.
- 72 Karl-Heinz Kamp and Wolf Langheld, "The Military Adaptation of the Alliance," GLOBSEC NATO Adaptation Project, 2017, p. 6.
- 73 Ian Brzezinski and Nicholas Varangis, "The NATO–Russia Exercise Gap... Then, Now, & 2017," *Atlantic Council*, 26 October 2016, <https://www.atlantic-council.org/blogs/natosource/the-nato-russia-exercise-gap-then-now-2017/> accessed 28 February 2020.
- 74 Ibid.
- 75 Xavier Pintat, *NATO's Readiness Action Plan: Assurance and Deterrence for the Post-2014 Security Environment*, NATO Parliamentary Assembly, 167 DSCFC 15 E, 2015, p. 7.
- 76 État-Major de l'Armée de Terre, *Action Terrestre Future*, 2016, p. 13–14.
- 77 Discussions at the CEPA Forum 2019, Washington D.C., 23 September 2019.
- 78 Philipp Lang, *A New NATO Command in Germany*, Security Policy Working Paper, no. 10, BAKS, 2018, p. 1.
- 79 Daniel Fiott (ed.), *The CSDP in 2020. The EU's legacy and ambition in security and defence*, EUISS, 2020, p.43 (https://www.iss.europa.eu/sites/default/files/EUISSFiles/CSDP%20in%202020_0.pdf) accessed 12 March 2020 and Douglas Barrie et al, "Defending Europe: Scenario-based Capability Requirements for NATO's European Members", International Institute for Strategic Studies Research Papers, 10 May 2019.
- 80 This figure was first published in Ian Brzezinski and Nicholas Varangis, "The NATO–Russia Exercise Gap... Then, Now, & 2017," *Atlantic Council*, 26 October 2016, <https://www.atlanticcouncil.org/blogs/natosource/the-nato-russia-exercise-gap-then-now-2017/> accessed 28 February 2020. Reprinted by permission of the authors and the Atlantic Council.

- 81 Colonel Neil Wright, "Some Lessons from Command Post Exercise Trident Juncture 2018," *The Three Swords Magazine* 34/2019, p. 30–31.
- 82 "Norway says it has proof that Russia messed with GPS signals during NATO's largest military exercise in decades," *Business Insider*, 19 March 2019: <https://www.businessinsider.fr/us/norway-says-it-proved-russian-gps-interference-during-nato-exercises-2019-3> (accessed 26 June 2020).
- 83 None of these are technically military exercises, even if, in some cases, the units that participate can be of military status, such as the Sécurité Civile in France.
- 84 Per M. Norheim-Martinsen, *The European Union and Military Force: Governance and Strategy*, Cambridge, Cambridge University Press, 2013, p. 94.
- 85 Daniel Fiott, *Stress Test: An Insight into Crisis Scenarios, Simulations and Exercises*, EUISS, Brief no. 9, September 2019, p. 2.
- 86 Joint Declaration by the President of the European Council, Donald Tusk, the President of the European Commission, Jean-Claude Juncker, and the Secretary General of NATO, Jens Stoltenberg, Warsaw, 8 July 2016, <https://www.consilium.europa.eu/media/21481/nato-eu-declaration-8-july-en-final.pdf>.
- 87 See NATO, *Statement on the implementation of the Joint Declaration signed by the President of the European Council, the President of the European Commission, and the Secretary General of the North Atlantic Treaty Organization*, 6 December 2016, https://www.nato.int/cps/en/natohq/official_texts_-138829.htm.
- 88 EU and NATO, "Fourth Progress Report on the Implementation of the Common Set of Proposals Endorsed by NATO and EU Councils on 6 December 2016 and 5 December 2017," 17 June 2019, p. 9, https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2019_06/190617-4th-Joint-progress-report-EU-NATO-eng.pdf.
- 89 Discussion with a senior EU officer, Paris, 3 May 2020.
- 90 Jim Greer, "Training: The Foundation for Success in Combat," *The Heritage Foundation*, 4 October 2018, <https://www.heritage.org/military-strength-topical-essays/2019-essays/training-the-foundation-success-combat>.
- 91 European Parliament, "Military Mobility," accessed 13 May 2020.
- 92 RIMPAC helps participants foster and sustain the cooperative relationships that are critical to ensuring the safety of sea lanes and security on the world's oceans, up to including participants that are not allies of the United States yet share a same precise interest.
- 93 Lara Martinho, *NATO exercises: Evolution and Lessons Learned*, NATO Parliamentary Assembly, 137 DSCFC 19 E, 25 July 2019, p. 17–18.
- 94 General (ret.) John Nicholson, "NATO's Land Forces: Strength and Speed Matter," in Mark Voyger, *NATO at 70 and the Baltic States: Strengthening the Euro-Atlantic Alliance in an Age of Non-Linear Threats*, Tartu, Baltic Defence College, 2019, pp. 54–59.

- 95 Tormod Heier and Guillaume Lasconjarias, "Conclusions," in Beatrice Heuser, Tormod Heier and Guillaume Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018, p. 373–375.
- 96 Janusz Bugajski, "Reversing Moscow's Offensive: A Strategy for Winning the Shadow War with Putin's Russia" in Mark Voyger, *NATO at 70 and the Baltic States: Strengthening the Euro-Atlantic Alliance in an Age of Non-Linear Threats*, Tartu, Baltic Defence College, 2019, p. 291.
- 97 Olivier Schmitt, "The Vienna Document and the Russian Challenge to the European Security Architecture," in Beatrice Heuser, Tormod Heier and Guillaume Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018, p. 287–302.
- 98 Interview with an officer at the Joint Warfare Center, March 2020.
- 99 The evolution of computers, the introduction of far more complex algorithms and deep-learning machines will have an effect on how military exercises are designed, and how future warfare is imagined. See Andrea Gilli (ed.), *The Brain and the Processor: Unpacking the Challenges of Human-Machine Interaction*, NATO Defense College, NDC Research Paper 6, 2019.
- 100 *Nimble Titan*, an integrated air and missile defense campaign of experimentation hosted by the U.S. Central Command and U.S. Strategic Command's Joint Functional Component Command for Integrated Missile Defense could provide the basis for this exercise, https://www.army.mil/article/220322/nimble_titan_experimentation_with_collective_integrated_air_missile_defense accessed 15 May 2020.
- 101 Conversation with General (ret.) Hodges, 20 March 2020.
- 102 Ralph Clem, "Military Exercises as Geopolitical Messaging in the NATO–Russia Dynamic: Reassurance, Deterrence, and (In)stability," *Texas National Security Review*, vol. 2, No. 1, November 2018, p. 132.

Bibliography

Barrie, Douglas, Béraud-Sudreau, Lucie, Boyd, Henry, Childs, Nick, Giegerich, Bastian, Hackett, James, and Nouwens, Meia. *European Defence Policy in an Era of Renewed Great-Power Competition*, London, International Institute for Strategic Studies, 2020 available at <https://www.iiss.org/blogs/research-paper/2020/02/the-future-of-european-defence>.

Blandenet, Jean-Baptiste, "Entraîner les postes de commandement au XXI^e siècle," *Revue de doctrine des forces terrestres*, Centre de la Doctrine et de l'Enseignement du Commandement, July 2019.

Bugajski, Janusz, "Reversing Moscow's Offensive: A Strategy for Winning the Shadow War with Putin's Russia" in Voyger, Mark. *NATO at 70 and the Baltic States: Strengthening the Euro-Atlantic Alliance in an Age of Non-Linear Threats*, Tartu, Baltic Defence College, 2019.

Brzezinski, Ian and Varangis, Nicholas, "The NATO–Russia Exercise Gap... Then, Now, & 2017," *The Atlantic Council*, 25 October 2016. Available at <https://www.atlanticcouncil.org/blogs/natosource/the-nato-russia-exercise-gap-then-now-2017>.

Brzezinski, Ian J. and Valášek, Tomáš, "Reanimating NATO's Warfighting Mindset: Eight Steps to Increase the Alliance's Political-Military Agility," GLOBSEC NATO Adaptation Initiative, November 2017. Available at <https://www.globsec.org/wp-content/uploads/2017/05/GNAI-reanimating-natos-warfighting-mindset.pdf>, accessed 28 February 2020.

Buchanan, Elizabeth and Boulègue, Mathieu, "Russia's Military Exercises in the Arctic Have More Bark Than Bite," *Foreign Policy*, 20 May 2019, Available at <https://foreignpolicy.com/2019/05/20/russias-military-exercises-in-the-arctic-have-more-bark-than-bite>.

Clem, Ralph, "Military Exercises as Geopolitical Messaging in the NATO–Russia Dynamic: Reassurance, Deterrence, and (In)stability," *Texas National Security Review*, vol. 2, no. 1, November 2018.

Comptroller General (i.e. General Account Office), "Improving the Effectiveness of Joint Military Exercises—An Important Tool for Military Readiness," *Report To The Congress Of the United States*, 1979 (<https://www.gao.gov/assets/130/128381.pdf>, accessed 28 December 2019).

Covington, Stephen R., *The Culture of Strategic Thought behind Russia's Modern Approach to War*, Harvard Kennedy School, Belfer Center, October 2016, (<https://www.belfercenter.org/sites/default/files/legacy/files/Culture%20of%20Strategic%20Thought%203.pdf>, accessed 3 March 2020)

Davis, Robert T. II, "Cold War Infamy: NATO Exercise *Carte Blanche*," in B. Heuser, T. Heier and G. Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018.

European External Action Service, "Joint Report to the European Parliament, the European Council and the Council on the Implementation of the Joint Framework on Countering Hybrid Threats from July 2017 to June 2018," 13 June 2018, <https://ec.europa.eu/transport/sites/transport/files/legislation/join20190011.pdf>, accessed 23 May 2020.

European External Action Service, "European Union and NATO Work Together to Tackle Growing Cyber Threats," 11 December 2018 https://www.nato.int/cps/en/natolive/news_91115.htm?mode=pressrelease; https://eeas.europa.eu/headquarters/headquarters-homepage/32969/eu-launches-exercise-test-crisis-management-mechanisms-response-cyber-and-hybrid-threats_en, accessed 26 May 2020.

European Council, "Fourth Progress Report on the Implementation of the Common Set of Proposals Endorsed by NATO and EU Councils on 6 December 2016 and 5 December 2017," 17 June 2019. Available at <https://www.consilium.europa.eu/media/39782/fourth-report-ue-nato-cooperation-en.pdf>

European Defence Agency, "First Cyber Exercise at EU Ministerial Level Focuses on Strategic Decision-Making," 7 September 2017. <https://www.eda.europa.eu/info-hub/press-centre/latest-news/2017/09/07/first-cyber-exercise-at-eu-ministerial-level-focuses-on-strategic-decision-making>, accessed 30 May 2020.

Facon, Isabelle, "Military Exercises: The Russian Way," in Blank, Stephan (ed.), *The Russian Military in Contemporary Perspective*, US Army War College Press, Strategic Studies Institute, Carlisle PA, September 2019.

Fiott, Daniel, *Stress Test: An Insight into Crisis Scenarios, Simulations and Exercises*, EUISS, Brief no. 9, September 2019.

French, Ryan W. and Dombrowski, Peter, "Cooling the Controversy over Sino–Russian Naval Exercises," *War on the Rocks*, 20 September 2016 (<https://warontherocks.com/2016/09/cooling-the-controversy-over-sino-russian-naval-exercises/> accessed 18 January 2020).

Gaub, Florence (ed.), *What If... ? 14 futures for 2024*, Chaillot Papers, EUISS, January 2020 (<https://www.iss.europa.eu/content/what-if-14-futures-2024>)

Gilli, Andrea (ed.), *The Brain and the Processor: Unpacking the Challenges of Human-Machine Interaction*, NATO Defense College, NDC Research Paper 6, 2019.

Greer, Jim, "Training: The Foundation for Success in Combat," *The Heritage Foundation*, 4 October 2018 (<https://www.heritage.org/military-strength-topical-essays/2019-essays/training-the-foundation-success-combat>) accessed 29 December 2019.

Harrison Place, Timothy, *Military Training in the British Army, 1940–1944: From Dunkirk to D-Day*, London, Frank Cass, 2000.

Heuser, Beatrice and Simpson, Harold, "The Missing Political Dimension of Military Exercises," *The RUSI Journal* 3/162, pp. 20–28, 2017.

Heuser, Beatrice, Heier, Tormod and Lasconjarias, Guillaume (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018.

Hurt, Martin, "The Impact of COVID-19 on Military Exercises in Europe," *Blog ICDS*, 17 March 2020 (<https://icds.ee/the-impact-of-covid-19-on-military-exercises-in-europe/>) accessed 18 March 2020.

Immenkamp, Beatrix, "The End of the INF Treaty? A Pillar of European Security Architecture at Risk," *Briefing*, Europa Parliament, 4 February 2019 ([https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI\(2019\)633175](https://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2019)633175)) accessed 23 March 2020.

Irwin, Anne, "The Problem of Realism and Reality in Military Training Exercises," in E. Ouellet (ed.), *New Directions in Military Sociology*, Whitby, De Sitter, 2005, pp. 93–133.

Jankowski, Dominik "The Dangerous Tool of Russian Military Exercises," *Foreign Policy Association* 7 June 2017, <https://foreignpolicyblogs.com/2017/06/07/dangerous-tool-russian-military-exercises/> accessed 23 April 2020.

Jensen, Benjamin, Cuomo, Scott, and Whyte, Chris, "Wargaming with Athena: How to Make Militaries Smarter, Faster, and More Efficient with Artificial Intelligence," *War on the Rocks*, 5 June 2018 (<https://warontherocks.com/2018/06/wargaming-with-athena-how-to-make-militaries-smarter-faster-and-more-efficient-with-artificial-intelligence/>) accessed 4 May 2020.

Johnson, Dave, "ZAPAD 2017 and Euro-Atlantic security," *NATO Review*, 14 December 2017, <https://www.nato.int/docu/review/2017/also-in-2017/zapad-2017-and-euro-atlantic-security-military-exercise-strategic-russia/EN/index.htm>.

Johnson, Dave, "VOSTOK 2018: Ten Years of Russian Strategic Exercises and Warfare Preparation," *NATO Review*, 20 December 2018, <https://www.nato.int/docu/review/2018/Also-in-2018/vostok-2018-ten-years-of-russian-strategic-exercises-and-warfare-preparation-military-exercises/EN/index.htm>.

Jones, Nate. *Able Archer 83: The Secret History of the NATO Exercise that Almost Triggered Nuclear War*, New York, The New Press, 2016.

Kamp, Karl-Heinz and Langheld, Wolf, "The Military Adaptation of the Alliance," GLOBSEC NATO Adaptation Project, 2017 (<https://www.globsec.org/wp-content/uploads/2017/03/GNAI-The-Military-Adaptation-of-the-Alliance.pdf>)

Krulak, Charles C. General, "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999.

Lang, Philipp. *A New NATO Command in Germany*, Security Policy Working Paper, no. 10, BAKS, 2018: (https://www.baks.bund.de/sites/baks010/files/working_paper_2018_10.pdf accessed 23 March 2020)

Lasconjarias, Guillaume and Larsen, Jeffrey, (eds), *NATO'S Response to Hybrid Threats*, Rome, NDC Forum Paper no. 24, 2015.

Lasconjarias, Guillaume and Dyčka, Lukáš, "Dealing with the Russian Bear: Improving NATO's Response to Moscow's Military Exercise *Zapad 2017*," Rome, *IAI Commentaries*, October 2017 <https://www.iai.it/en/publicazioni/dealing-russian-bear-improving-natos-response-moscows-military-exercise-zapad-2017> accessed 20 February 2020.

Lasconjarias, Guillaume, "Les initiatives de l'Otan depuis le début de la crise ukrainienne," *Les Champs de Mars*, vol. 29, no. 1, 2017.

Lightburn, David, "Lessons learned," *NATO Review*, June 2001 Available at <https://www.nato.int/docu/review/articles/2001/06/01/lessons-learned/index.html> accessed 23 February 2020.

Martinho, Lara. *NATO Exercises: Evolution and Lessons Learned*, NATO Parliamentary Assembly, 137 DSCFC 19 E, 25 July 2019 (<https://www.nato-pa.int/download-file?filename=sites/default/files/2019-10/REPORT%20137%20DSCFC%2019%20E-%20NATO%20EXERCISES%20EVOLUTION%20AND%20LESSONS%20%20LEARNED.pdf>)

McLeary, Paul, "From the Baltic to Black Seas, Defender Exercise Goes Big, with Hefty Price Tag," *Breaking News*, 16 December 16, 2019: <https://breakingdefense.com/2019/12/from-the-baltic-to-black-seas-defender-exercise-goes-big-with-a-big-price-tag/>, accessed 3 January 2020.

Metz, Steven, *The American Army in the Balkans: Strategic Alternatives and Implications*, Carlisle PA, Strategic Studies Institute, January 2001

Mölling, Christian, "Europe without Defence," *SWP Comments* no. 38, November 2011.

Nicholson, John General (ret.), "NATO's Land Forces: Strength and Speed Matter," in Voyger, Mark. *NATO at 70 and the Baltic States: Strengthening*

the Euro-Atlantic Alliance in an Age of Non-Linear Threats, Tartu, Baltic Defence College, 2019.

Norberg, Johan, "Training for War: What Russia's Strategic-Level Military Exercises 2009-2017 Say About the Fighting Power of Russia's Armed Forces," FOI, October 2018.

Norheim-Martinsen, Per M., *The European Union and Military Force: Governance and Strategy*, Cambridge, Cambridge University Press, 2013.

Öberg, Dan, "Exercising War: How Tactical and Operational Modelling Shape and Reify Military Practice," *Security Dialogue*, December 2019, Available at <https://journals.sagepub.com/doi/full/10.1177/0967010619890196>.

Ozawa, Marc (ed.), *The Alliance Five Years after Crimea: Implementing the Wales Summit Pledges*, Rome, NATO Defense College, Research Paper no. 7, December 2019.

Perla, Peter P., *The Art of Wargaming*, Annapolis, MD, Naval Institute Press, 1990.

Pintat, Xavier. *NATO's Readiness Action Plan: Assurance and Deterrence for the Post-2014 Security Environment*, NATO Parliamentary Assembly, 167 DSCFC 15 E, 2015.

Pompeo, Mike, "The West is Winning," *Remarks at the Munich Security Conference*, 15 February 2020: <https://www.state.gov/the-west-is-winning/> accessed 24 February 2020.

Rasmussen, Anders Fogh, "Remarks at the Munich Security Conference," Munich, 4 February 2012. https://www.nato.int/cps/en/natolive/opinions_84197.htm accessed 28 February 2020.

Reardon, Mark J. and Charlston, Jeffery A., *From Transformation to Combat: The First Stryker Brigade at War*, Washington D.C., Center of Military History, 2007.

Rothweiler, Krisjand, "Wargaming for Strategic Planning," *The Strategic Bridge*, 29 March 2019. <https://thestrategybridge.org/the-bridge/2017/3/29/wargaming-for-strategic-planning> accessed 4 May 2020.

Ruiz Palmer, Diego, "Military Exercises and Strategic Intent through the Prism of NATO's *Autumn Forge* Exercise Series, 1975–1989," in Heuser, Heier and Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018.

Schmitt, Olivier, "The Vienna Document and the Russian Challenge to the European Security Architecture," in Heuser, Heier and Lasconjarias (eds), *Military Exercises: Political Messaging and Strategic Impact*, Rome, NATO Defense College, 2018.

Seligman, Lara, "Experts Question Wisdom of Canceling U.S. Exercises with South Korea, As Mattis Makes It Official," *Foreign Policy*, 26 June 2018, Available at <https://foreignpolicy.com/2018/06/26/experts-question-wisdom-of-canceling-u-s-exercises-with-south-korea-as-mattis-makes-it-official/> accessed 27 January 2020.

Sharp, Jane, *Striving for Military Stability in Europe. Negotiation, Implementation and Adaptation of the CFE Treaty*, London, Routledge, 2006.

Stoltenberg, Jens, *Doorstep Statement*, 8 July 2016, http://www.nato.int/cps/en/natohq/opinions_133260.htm accessed 27 February 2020.

Stoltenberg, Jens, "Remarks at the *Trident Juncture 2018* Distinguished Visitor's Day," 30 October 2018, https://www.nato.int/cps/en/natohq/opinions_159852.htm accessed 27 February 2020.

Thornhill, Paula, "To Produce Strategists, Focus on Staffing Senior Leaders," *War on the Rocks*, July 20, 2018. <https://warontherocks.com/2018/07/to-produce-strategists-focus-on-staffing-senior-leaders/> accessed 17 January 2020.

Ucko, David and Egnell, Robert, *Counterinsurgency in Crisis, Britain and the Challenges of Modern Warfare*, New York, Columbia University Press, 2015.

US Department of Defense, Department of the Army, Army Regulations AR 350-28, *Training / Army Exercises*, 9 December 1997.

U.S. Department of Defense, Department of the Army, Training and Doctrine Command, Regulation 350-50-3, "Mission Command Training Program," 19 April 2018.

Watling, Jack, "NATO's Trident Juncture 2018 Exercise: Political Theater with a Purpose," RUSI Commentary, 20 November 2018, <https://rusi.org/commentary/nato%E2%80%99s-trident-juncture-2018-exercise-political-theatre-purpose> accessed 26 November 2019.

Wright, Neil Colonel, "Some Lessons from Command Post Exercise Trident Juncture 2018," *The Three Swords Magazine* 34/2019.

Zellner, Wolfgang (Coordinator). *Reducing the Risks of Conventional Deterrence in Europe. Arms Control in the NATO–Russia Contact Zones*, OSCE Network of Think Tanks and Academic Institutions, December 2018. Available at http://osce-network.net/file-OSCE-Network/Publications/RISK_SP.pdf.