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A JOINT REPORT OF THE CSIS INTERNATIONAL SECURITY
PROGRAM AND EUROPE, RUSSIA, AND EURASIA PROGRAM

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EUROPE'S HIGH-END MILITARY CHALLENGES

The Future of European
Capabilities and
Missions

CSIS

CENTER FOR STRATEGIC &
INTERNATIONAL STUDIES

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EXECUTIVE SUMMARY ►

This report examines the evolution of European military capabilities over the next decade. It asks two main questions. What military capabilities might European allies and partners of the United States possess by 2030? And what types of military missions will these states be able (and unable) to effectively perform by 2030?

In examining military missions, this analysis moves beyond the familiar debates about assessing European defense spending as a percentage of gross domestic product and identifying capability gaps. Instead, it attempts to better gauge military outcomes and focuses on the ability of European militaries to effectively perform missions across the conflict continuum. An important metric of military power is the ability of military forces to successfully execute a variety of missions. In examining capabilities and missions, this report makes three main arguments.

First, European militaries—including the largest and most capable European members of the North Atlantic Treaty Organization (NATO), such as the United Kingdom and France—will continue to struggle to conduct several types of missions without significant U.S. assistance. One is large-scale combat against Russia, China, and Iran, where European states still lack sufficient heavy maneuver forces, airlift, naval combatants, missile defense, and support capabilities, such as logistics and fire support. European challenges in conducting large-scale combat against major competitors will likely increase as Russia and especially China improve their conventional, nuclear, and even irregular capabilities. These challenges will be particularly notable with large-scale, high-end conflict at short notice given most European countries' persistent readiness challenges.

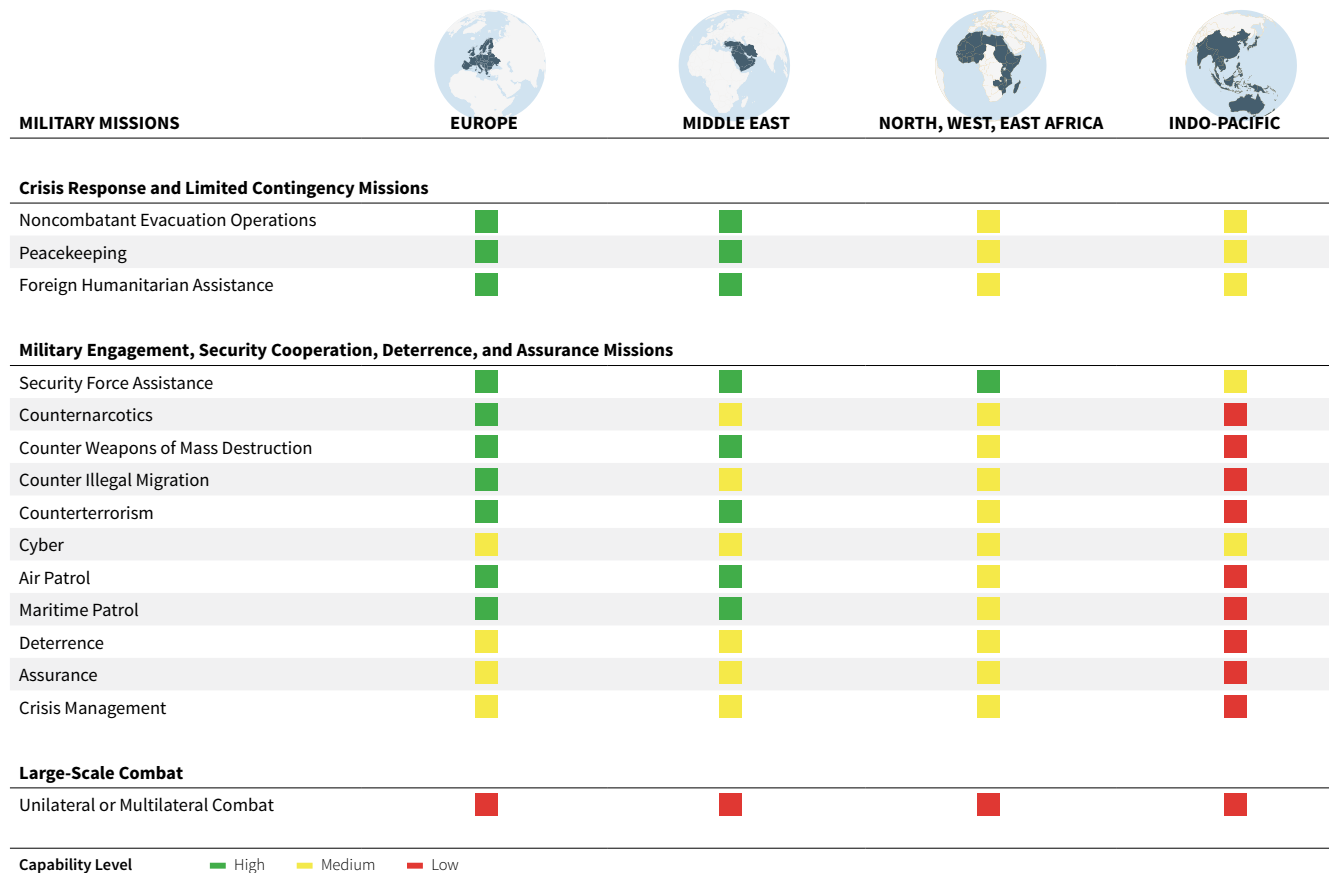
Second, European militaries will face significant challenges in the Indo-Pacific, where European maritime and air forces lack sufficient airlift, aerial refueling, and basing to sustain operations. This

challenge contrasts with the stated ambition of some European militaries, including the United Kingdom and France, to become more active in the Indo-Pacific. In September 2021, for example, the United Kingdom—along with Australia and the United States—announced their involvement in a trilateral security partnership to help Australia build nuclear-powered submarines. The United Kingdom and France have significant economic and security interests in the region, as well as considerable economic and diplomatic tools they can bring to bear in defending them. However, their military capabilities for power projection in the Indo-Pacific region are limited and will continue to lag over the next decade, particularly as they try to manage threats closer to home. Given the modest size of European militaries, such as the UK Royal Navy, sustaining a military presence in the region will also prove extremely difficult.

Third, Europe's major powers will likely have the capability to conduct most types of missions at the lower end of the conflict continuum without significant U.S. military aid, particularly in the areas of crisis response and limited contingency missions. Examples include noncombatant evacuations, peacekeeping, and foreign humanitarian assistance—especially in Europe, the Middle East, and parts of Africa. In addition, major European states will also likely be able to conduct most types of military engagement, security cooperation, deterrence, and assurance missions—especially in Europe and, to a degree, in the Middle East and Africa. Examples include security force assistance, counternarcotics, counterterrorism, air patrol, and maritime patrol.

Figure S.1 on the next page highlights the main conclusions. “High” (or green) means that the major European states—such as the United Kingdom, France, and Germany—generally have the capability to successfully conduct the designated type of mission in the identified region without U.S. aid. “Medium” (or yellow) means that major European states have the capability to successfully conduct the designated type

FIGURE S.1: OVERVIEW OF EUROPEAN CAPABILITIES TO PERFORM MISSIONS



Source: CSIS analysis from multiple sources.

of mission in the identified region with moderate U.S. aid, such as transport, aerial refueling, or intelligence, surveillance, and reconnaissance (ISR) capabilities. “Low” (or red) means that major European states have the capability to successfully conduct the designated mission in the identified region only with significant U.S. aid.

In light of these challenges, this report recommends that the United States and European governments focus on several areas. To begin with, NATO should continue to revise its burden-sharing metrics to focus more on outcomes—including analyzing the ability of allies and partners to conduct specific missions. This could be done by aggregating lessons from past operations and conducting future

wargames and scenarios. These steps would be a natural task for NATO’s Allied Command Transformation (ACT), which already hosts a lessons-learned portal. In addition, NATO should modernize the NATO Defense Planning Process, which might entail incorporating more targets in emerging domains, focusing on capabilities that enable multidomain integration, and allowing for greater regionalization in defense planning. Finally, adjustments to standard procurement practices can help increase the likelihood that capability targets are met. Creative options might include the use of NATO Common Funding to meet collective capability targets or address NATO-wide shortfalls. Other mechanisms for funding high-impact, high-cost systems (e.g., integrated air defense for the Baltic or

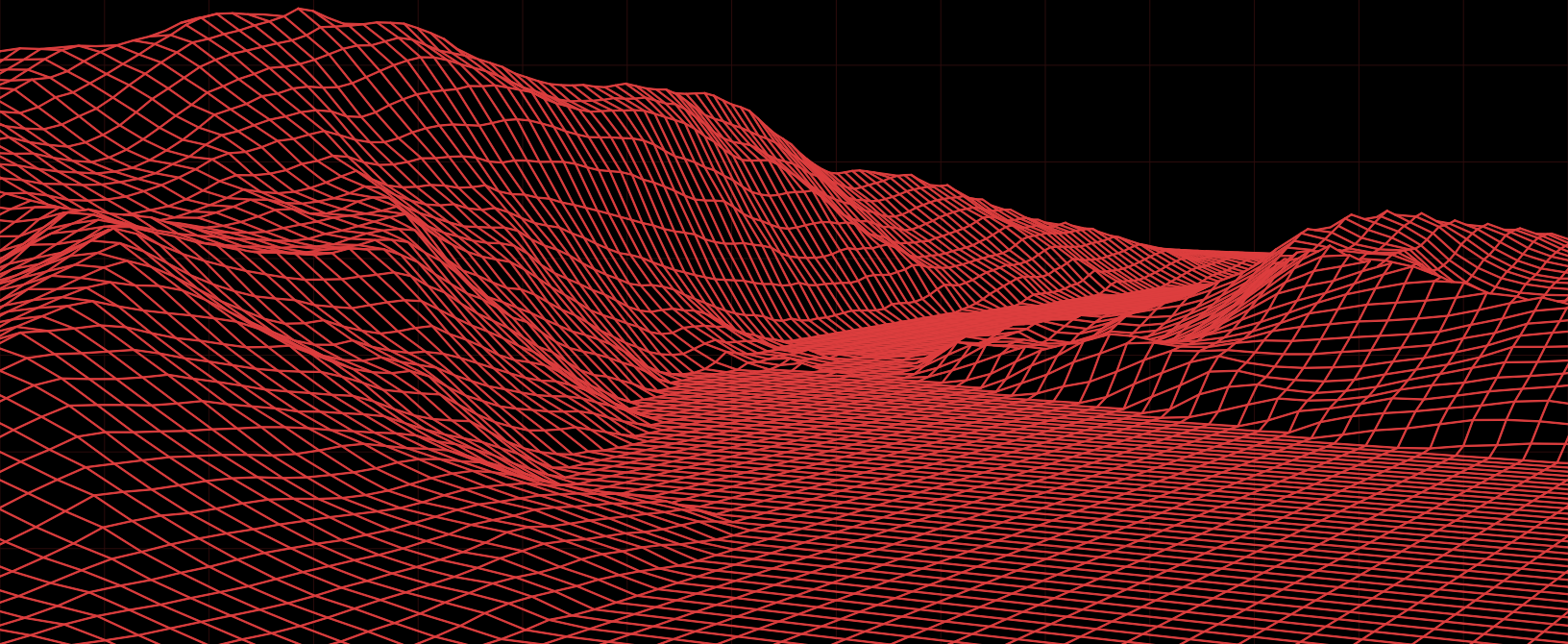
Black Sea regions) include the idea of a NATO bank or pooled security assistance.¹

As the past several years have demonstrated, European forces and capabilities cannot recover from decades of underinvestment overnight. Legacy issues such as aging equipment, insufficient training at scale, and low stockpiles—which in turn create readiness and interoperability challenges—take time to correct. Given the scale of the challenge, policymakers need to consider these and other adjustments in order to increase the likelihood that European allies and partners can conduct a wider range of missions without U.S. assistance.

CHAPTER 1

EUROPE'S HIGH-END
MILITARY CHALLENGES

INTRODUCTION





The growing focus on competition between Western countries and China, Russia, and other states has led to a renewed debate about European defense spending and capabilities.¹

The United States and its European partners face an evolving threat landscape which will require a range of military and non-military capabilities. Russia will likely attempt to expand its influence in Europe, the Middle East, Africa, and other regions through a combination of conventional military, irregular, diplomatic, and other actions.² China has engaged in activities to increase its influence, expand its economic power, and surpass the United States as the dominant global technological, military, and economic power.³ Iran's expanding missile program, support to partner forces across the Middle East and South Asia, and potential nuclear program threaten the security of the United States and Europe.⁴ Finally, the United States and Europe face a wide range of transnational challenges, such as terrorism, organized crime, pandemics, nuclear proliferation, climate change, and migration.⁵ In dealing with these threats, there will likely be notable technological changes in such areas as big data, artificial intelligence, autonomous capabilities, space, cloud technologies, missile technologies (including hypersonic), and quantum technologies.

The 2014 Wales Defense Investment Pledge and other initiatives have led to numerous efforts to track quantitative and qualitative metrics of defense and procurement spending and to identify capability gaps. Examples range from monitoring which European countries spend a minimum of 2 percent of their gross domestic product (GDP) on defense to tracking collaborative opportunities for research and technology across such domains as land, air, maritime, space, and cyberspace.⁶ While useful,

these initiatives do not provide a comprehensive understanding of outcomes—including how states utilize the number and types of military personnel, main battle tanks, combat aircraft, and other systems and platforms to conduct specific military missions. For example, how effective will European countries be in 2030 at helping to deter aggression by adversaries along Europe's periphery or conducting sustained combat operations against regional or global powers in the Baltics, Indo-Pacific, or Persian Gulf? To what extent will European countries be able to project military power in their immediate neighborhood, as well as to theaters such as Asia, the Middle East, and Africa? And what will be their ability to deter, respond to, and operate in newer domains such as cyber and space? These types of questions are designed to help gauge outcome measures such as military performance, not just inputs and outputs.⁷

Consequently, this report assesses the future military capabilities and performance of European allies and partners of the United States. It identifies the military capabilities these countries are likely to have by 2030 and assesses the ability of European governments to conduct military missions around the globe, whether independently or alongside the United States. Such missions include contributing to NATO's core task of collective defense by deterring and defending against any threat of aggression, as well as participating in humanitarian assistance, security force assistance, freedom of navigation, large-scale combat, and other missions outside of Europe.

The report focuses on European capabilities by 2030—a 10-year horizon. This time period allows the report to strike a balance between utility and accuracy. It allows the analysis to project far enough away to influence European and U.S. capability developments, but also to make reasonable predictions about the future.⁸ The report primarily concentrates on Europe's largest countries, such as the United Kingdom, France, and Germany.

RESEARCH DESIGN

To better understand future European capabilities, this report asks two main questions. First, what military capabilities might European allies and partners of the United States possess by 2030? Second, what types of military missions will these states be able (and unable) to effectively support or perform inside and outside Europe by 2030? To answer these questions, the research design involves a combination of qualitative and quantitative methods.

To answer the first question, the report examines the current capabilities of European governments, European plans to retain or retire these capabilities, and plans to develop or procure new military capabilities over the next 10 years. This aspect of the research focuses on European military capabilities supporting conventional and nuclear capabilities, and it includes the main domains of warfare, such as ground, maritime, air, cyber, and space. An essential component of this task involves going beyond cataloguing European capabilities and capturing qualitative aspects of these capabilities, such as deployability, sustainability, and survivability. In addition, the report utilizes primary source materials, such as national defense strategies, NATO defense planning targets, NATO's "key capabilities shortfall" lists (such as its 2019 "Political Guidance"), defense budgets, and research and development plans. It also analyzes secondary sources on future European capabilities and uses information from interviews with government and nongovernment subject matter experts.

To answer the second question, the report develops a theoretical framework to assess military missions, which is based on U.S. military doctrine and an extensive literature on military power. It divides military missions into three broad categories: (1) crisis response and limited contingency missions; (2) military engagement, security cooperation, deterrence, and assurance; and (3) large-scale

combat. Using this framework, the report then examines the types of missions European allies and partners may be able or unable to effectively perform by 2030 in the following geographic areas: Europe; the Middle East; North, West, and East Africa; and the Indo-Pacific. To better understand future missions, the report relies on an analysis of wargames and future scenarios (such as a Russian invasion of the Baltics, Iranian aggression in the Persian Gulf, and Chinese activity in the South China Sea and Taiwan Strait), after-action reports and analyses of operations involving European states (such as in Iraq, Afghanistan, Libya, the Mediterranean, Africa, and the Balkans), and assessments of future capabilities.

CAVEATS ►

There are a few important caveats in understanding what this report does *not* aim to accomplish. First, it does not assess whether one or more European countries will have the political will to conduct military missions and specific operations. There are numerous legitimate questions about the political will of European countries to perform a range of missions. European countries remain divided over such issues as the degree of threat from—and how to respond to—Russia, China, and Iran. In addition, some European countries will likely remain focused on internal problems, such as migration and terrorism, rather than external challenges. German society, for example, has a strong anti-military sentiment, which impacts German readiness and capabilities. Economic conditions and budget constraints also vary across Europe, potentially impacting the willingness of governments to use scarce resources for out-of-area missions. There may be significant political fragmentation in one or more European governments, making it difficult to reach consensus internally or among other governments about whether and how to conduct a specific operation. For example, Germany, Italy, and

Spain require authorization from their multiparty governments to engage in crisis management operations. Finally, some countries and populations could be sensitive to casualties and may not support the use of force—especially in the wake of the wars in Iraq and Afghanistan.⁹ For these and other reasons—including differences in interests and strategic cultures—there will likely be significant variation in the political will of European countries to conduct some military missions.

Second, there may also be variation in the “will to fight” among European countries. A country’s will to fight includes its “disposition and decision to fight, to act, or to persevere when needed.”¹⁰ It is impossible to predict how European countries will act over the next decade since much will depend on the specific events leading up to a conflict, the make-up of governments, and other variables. Consequently, this report focuses mainly on the ability of European countries to perform missions—not their political will or will to fight.

Third, this report does not conduct a net assessment of European militaries and potential adversaries. A “net assessment” involves an analysis of the military balance and strategic interactions between opposing sides.¹¹ A proper net assessment would require a much more detailed data collection and analysis effort of individual European, Chinese, Russian, Iranian, and other military capabilities relative to each other. Nevertheless, this report leverages the outcome of wargames, scenarios, and other assessments, many of which involved military operations against China, Russia, and Iran in specific contexts. This report also does not provide a comprehensive analysis of how Chinese, Russian, and Iranian capabilities could evolve over the next decade in such areas as air, ground, maritime, space, and cyber capabilities. However, it does highlight some possible future Russian, Chinese, and Iranian capabilities. The concluding chapter argues that future adversary capabilities will likely impact the

ability of European militaries to effectively perform future missions.

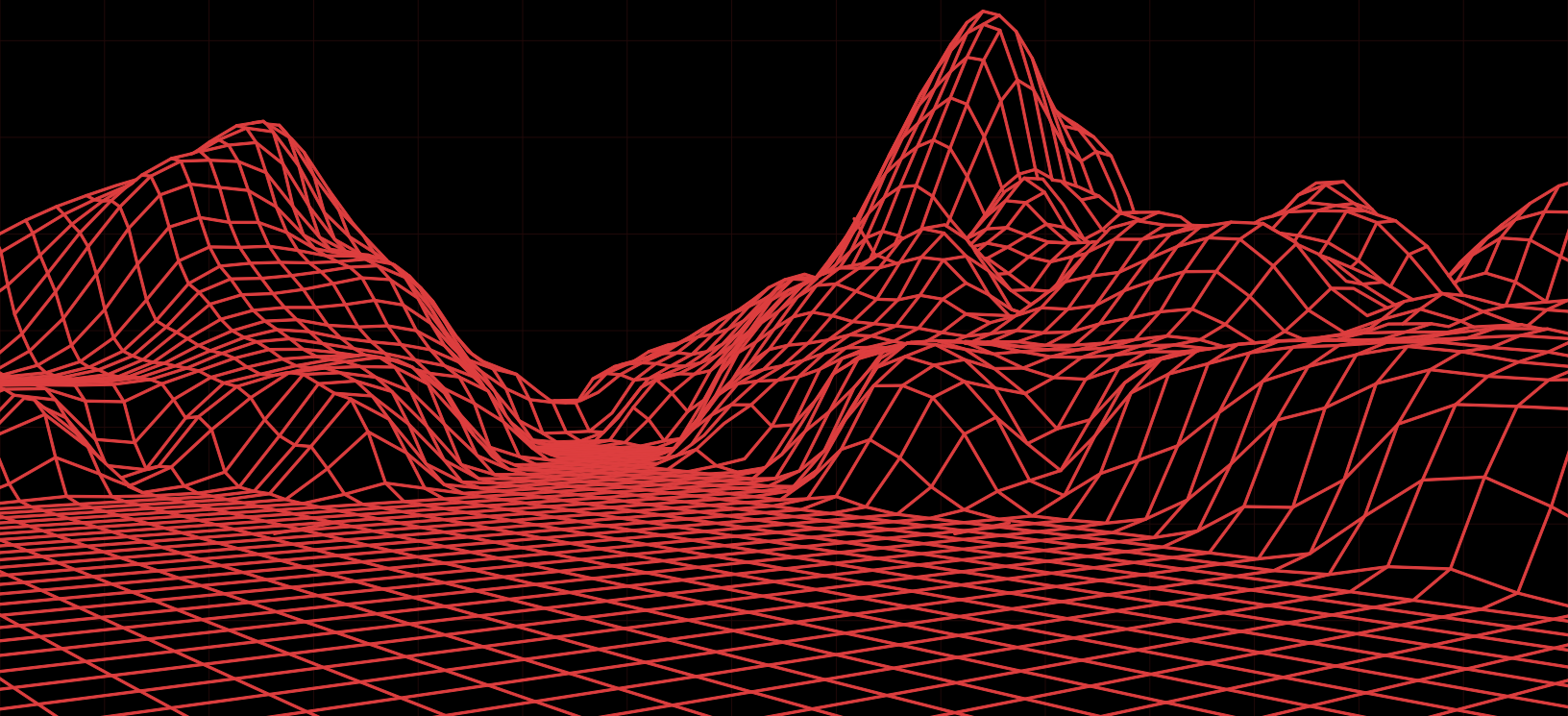
ORGANIZATION OF THE REPORT ➤

The rest of this report is divided into three chapters. Chapter 2 examines the evolution of European military capabilities. Chapter 3 develops a framework for analyzing military missions and explores the types of operations European countries may be able (and unable) to perform by 2030. Chapter 4 provides a brief conclusion, including several policy recommendations.

CHAPTER 2

EUROPE'S HIGH-END
MILITARY CHALLENGES

EUROPEAN CAPABILITIES





This chapter identifies the forces and key military capabilities that European allies and partners of the United States are likely to possess by the end of 2030. Rather than focus solely on inputs, such as defense spending, this analysis provides a more comprehensive picture of outputs and outcomes by focusing on capabilities. For example, how do the number and types of military personnel, main battle tanks, combat aircraft, and other systems and platforms come together to generate useable capabilities in specific scenarios, both with and without the participation of the United States?


To accomplish this, the chapter is divided into four sections. The first section provides an overview of current trends and challenges in European countries' defense spending, acquisition, and force modernization plans. It also captures important qualitative aspects in these trends, such as levels of readiness, deployability, sustainability, and survivability. The second section assesses future European capabilities in such domains as air, land, maritime, cyber, and space. The third section analyzes the capabilities of globally minded allies (i.e., the United Kingdom and France) as well as countries who are leaders in Europe (i.e., Germany and Italy). Specifically, it looks at their current force and capability inventories; plans to retain or retire major units or systems; and proposals to improve or modernize their forces through procurement or development of new capabilities over the next 10 years. As appropriate, this section will also reference the forces and capabilities of several "small-but-capable" European allies, such as Denmark, the Netherlands, Norway, and Poland as well as NATO partners Finland and Sweden. The fourth and final section provides brief conclusions.

CURRENT TRENDS ►

Over the last decade, the state of allied military capabilities has improved in both qualitative and quantitative terms, including by meeting NATO Capability Targets, filling key capability shortfalls, and reducing dependence on the United States. Yet, overall, the picture is mixed, with some allies stepping up more than others and some targets still not met.

According to NATO figures, 2020 marked the sixth consecutive year of increased defense spending across European allies and Canada, amounting to 3.9 percent increase in real terms.¹ While all NATO members increased their defense spending over this period, some countries' increases are larger than others in real terms.² In 2020, the top non-U.S. spenders (in decreasing order) were the United Kingdom, Germany, and France followed by Italy, Canada, Poland, and the Netherlands.³ Measured against the 2014 Wales Defense Investment Pledge, which commits allies to spend at least 2 percent of GDP on defense and 20 percent of their defense budgets on major new equipment (including R&D) by 2024, 10 allies now meet the 2 percent commitment (compared to 3 in 2014), and 24 are spending more than 20 percent on major equipment (compared to 7 in 2014).⁴ NATO Secretary General Jens Stoltenberg anticipates this positive trend will continue, but it is possible that some NATO members will adjust their defense spending plans downward if the economic pressures of the Covid-19 pandemic prove too great.⁵

In qualitative terms, although the readiness, deployability, and sustainability of allied forces has improved in line with the NATO Capability Targets and other initiatives, further improvements are needed. On readiness, allies decided in 2014 to enhance the 40,000-strong NATO Response Force (NRF) by creating a Very High Readiness Joint Task Force (VJTF) that would consist of a land component of around 5,000 troops with appropriate air, maritime, and special operations forces (SOF) units. As was the case with the

 **Although the readiness, deployability, and sustainability of allied forces has improved in line with the NATO Capability Targets and other initiatives, further improvements are needed.**

NRF before it, NATO declared the VJTF operationally capable in 2016 even as gaps remain across the land, air, and sea domains.⁶ In particular, some key enabling elements, such as the Joint Intelligence, Surveillance, and Reconnaissance (JISR), have yet to reach full operational capacity.⁷ While the ground troops assigned to the VJTF are European, the United States provides the key enablers for the VJTF, including ISR, strategic and tactical airlift, command and control, SOF capabilities, and precision fires.⁸ Currently, only France, Germany, Italy, Poland, Spain, Turkey, and the United Kingdom are capable of leading the VJTF's land element (on a rotational basis) and have, to varying degrees, struggled to fill this lead-nation role. This was the case with Germany, which during its rotation in 2019 pulled elements from other units in order to field the one brigade required by NATO.⁹ Since then, Germany and other VJTF lead nations have made substantial investments in those units in terms of logistics and equipment, but many gaps will not be filled before 2030.

Beyond ensuring the credibility of these rapid response forces, NATO is also pushing its members to improve the readiness of their forces for both collective defense and crisis response operations. To this end, NATO launched the NATO Readiness Initiative (NRI) in 2018, which sets a commitment to have 30 heavy or medium maneuver battalions, 30 kinetic air squadrons, and 30

major naval combatants ready to use within 30 days or less. NATO has now sourced all the combat forces of the NRI and is conducting the training, testing, and evaluation needed to designate them all as credible.¹⁰ One concern is that allies' efforts to meet the NRI thresholds will come at the expense of meeting their NRF readiness targets.

In the Wales Summit Declaration in June 2014, allies agreed to meeting NATO usability targets, which were previously defined as having 50 percent of a country's total land force deployable and 10 percent of its total land force deployable on a sustained basis.¹¹ While NATO data on allies' performance is classified, national reporting and data collected by the European Defense Agency (EDA) suggest that while some allies, such as Denmark, exceed NATO's usability targets, others, such as Greece, remain below.¹² While the causes vary by country, they include a preference for homeland security, lack of enabling capabilities such as tanker and transport aircraft, or shortfalls in the Battle Decisive Munitions (BDMs) needed to sustain an operation.

Finally, in terms of capabilities, the picture is also mixed. Whereas the 2014–2018 and 2019–2023 NATO Defense Planning Process (NDPP) cycles showed a greater willingness among allies to accept the NATO Capability Targets assigned to them, with 2017 marking the first year that allies accepted 100 percent of their assigned targets, several countries are falling short on implementation. The reason is not always a lack of funding or political will, though these play a role. Often it is legacy issues—such as lagging industrial capacity, bureaucratic procurement processes, or problems with recruitment and retention—that contribute to these implementation delays.¹³ Given the time it takes to rebuild or modernize these instruments, delays are likely to persist over the next decade.

Another guiding NATO defense planning principle is that, with a few exceptions, no single ally should provide more than 50 percent of an individual capability. Allies have made important progress in reducing the number of capabilities for which they are more than 50

percent dependent on the United States, including for air-to-air refueling, strategic lift, and ISR. Current investments in areas such as ground-based air defense (GBAD), precision strike, sea-based ballistic missile defense (BMD), and naval maritime patrol craft will help to further reduce this dependence.

OVERVIEW OF CURRENT CAPABILITIES ►

Before profiling the force, capabilities, and modernization efforts of individual allies, it is worth highlighting the most critical shortfalls across NATO in the main domains of warfare (i.e., ground, naval, air, cyber, and space). Of note, NATO will designate a capability as a shortfall even if one or more allies have that capability. This underpins NATO planning assumptions that there should be sufficient redundancy in certain forces and capabilities such that NATO can conduct multiple operations and missions concurrently. It also reflects NATO's approach to responsibility sharing among allies—namely that it should not be just the United States or a handful of allies carrying the majority of the burden.

Given the priority afforded to NATO's core task of collective defense, NATO's greatest overall need is for heavier, more capable, high-readiness land combat forces available for deployment on short notice.¹⁴ While some allies now argue this mission



NATO's greatest overall need is for heavier, more capable, high-readiness land combat forces available for deployment on short notice.

can be accomplished using lighter or more mobile forces, current NATO planning assumptions are based around heavy combat forces. Even when European NATO allies possess the required number of forces, they are often challenged by the lack of readiness in these large-scale combat formations. Many units are hollowed out, inadequately trained, not yet modernized, or lack the necessary enablers to execute high-end operations, as highlighted in Chapter 3 (i.e., large-scale combat operations in a collective defense scenario or a large-scale crisis management operation beyond NATO borders). Wargames and exercises have repeatedly demonstrated the importance of sufficient short-range air defense (SHORAD), long-range fires, ISR, and deployable communications in a collective defense scenario in the Baltic or Black Seas.¹⁵ While such capabilities are improving across the alliance, current procurement plans and lead times suggest they will remain a challenge until the mid-2030s.

For out-of-area crisis management operations, allies' experiences in Afghanistan, Libya, and Kosovo revealed shortfalls in strategic lift, air-to-air refueling, medium-altitude long-endurance unmanned aerial system (MALE UAS), and heavy-lift helicopters equipped with self-protection and secure communications gear. This is also evident in Mali, where U.S. forces have provided airlift, refueling, and intelligence support to France for several years and the United Kingdom's Chinook heavy-lift helicopters assist with heavy support lift.¹⁶

NATO faces similar challenges in the maritime domain. In the period between 1990 and 2014, many countries reoriented their navies to low-end missions such as counterpiracy, counterterrorism, migration, and search and rescue, to the detriment of collective defense missions such as sea control, securing lines of communication, and territorial defense. Force generation for maritime activities remains a problem for NATO, as witnessed by persistent difficulties generating force for Operation

Sea Guardian and the Standing NATO Maritime Group 2 (SNMG2).¹⁷ While this is partly a political challenge resulting from competition for resources with EU maritime missions (e.g., EUNAVFOR's Operation Sophia), it is also an effect of manpower shortages and outdated platforms, particularly frigates and destroyers. Fortunately, many countries are now making significant investments in their surface warfare platforms. France, Germany, Spain, Turkey, and the United Kingdom are all procuring new frigates or destroyers, with most due to enter service before or by 2030.¹⁸ Others, such as Italy and the United Kingdom, are acquiring or upgrading naval patrol craft and mine countermeasure ships.¹⁹ Many countries' mine countermeasures systems, including those of France, Belgium, Denmark, and the Netherlands, will also incorporate unmanned countermine drones.²⁰ Progress is also underway on filling shortfalls in other anti-submarine warfare (ASW) platforms and general maritime situational awareness. For example, Germany plans to replace its aging P-3 Maritime Patrol Aircraft (MPA) with P-8s by 2025, thus joining the United States, United Kingdom, and Norway, which also operate the P-8A Poseidon.²¹ NATO's subsurface fleet should remain constant with continued U.S. and UK investment in and modernization of their respective nuclear-powered attack submarine (SSN) and nuclear-powered guided-missile submarine (SSBN) programs. A final NATO shortfall in the maritime domain is in anti-air and anti-surface missiles, which are needed to sustain high-end operations. While the United Kingdom plans to invest in a range of new weapons, including air- and sea-launched long-range, anti-ship cruise missiles, these will only enter service after 2030.²²

In the air domain, NATO's fleet is balanced and robust enough to meet most NATO requirements. The combat air fleets of NATO's original members have been well maintained, and most are now introducing next-generation platforms such as the Joint Strike Fighter, Super Hornet, and Eurofighter

Typhoon in the mid-2030s. Nevertheless, there are some concerns about operational readiness as the same allies are repeatedly called upon for both air policing and air combat missions at home and abroad. Operations in Afghanistan and elsewhere have revealed that combat support and combat service support are lagging for some allies, thus limiting their ability to support their own forces. Importantly, European allies are making significant progress in reducing their dependence on the United States for strategic lift and air-to-air refueling. This includes France and Germany's planned acquisition of additional A400Ms and C-130Js as well as new Multirole Tanker Transports (MRTT) by 2023.²³ Six nations—Belgium, the Czech Republic, Germany, Luxembourg, the Netherlands, and Norway—will operate their MRTTs as part of NATO's Multinational Multi-Role Tanker Transport Fleet (MMF).²⁴ A final shortfall is in the area of suppression of enemy air defense (SEAD) systems, where operations in Libya and Kosovo revealed that only a few allies—chiefly the United States, Germany, and Italy—are capable of executing SEAD missions from their aircraft, a capability that is essential to neutralizing defenses in a contested environment.²⁵ This should improve with the F-35 entering service in several allies' combat air fleets given its inbuilt SEAD and electronic warfare features.²⁶ Retaining the advantage in future conflicts will also require NATO countries to adapt



Operations in Afghanistan and elsewhere have revealed that combat support and combat service support are lagging for some allies, thus limiting their ability to support their own forces.

their SEAD capabilities to operate in non-traditional domains, such as electromagnetic, space, and cyber, in addition to traditional domains.²⁷

Cyber

NATO's cyber doctrine and capabilities have evolved rapidly in the past five years. NATO declared cyberspace an operational domain in July 2016 and set up a new Cyberspace Operations Center within NATO's Command Structure in 2018. Cyber is part of NATO's core task of collective defense, meaning that a cyberattack on a NATO member could trigger Article 5.²⁸ While all allies have upgraded their cyber defenses, only a handful possess deployable cyber capabilities and are capable of conducting offensive cyber operations.²⁹ France, the United Kingdom, and the United States are considered the most capable, with the Netherlands, Norway, Germany, and Denmark also recognized as having sufficient cyber capabilities.³⁰ While many countries, such as Germany and France, have dedicated cyber units embedded in their armed forces, the United Kingdom has taken a cross-government approach in establishing a new National Cyber Force that combines the capabilities of the Ministry of Defense, GCHQ, and MI6. For NATO's cyber capabilities to become more effective, the pool of capable allies with deployable cyber capabilities needs to increase and be better integrated into NATO plans and doctrine. NATO's recently endorsed Cyber Defense Policy aims to address this. Improvements on incident response, shared situational awareness, and attribution are key elements in sharpening NATO's competence in this domain.

Space

NATO's approach to space took a more active turn in 2019 with the launch of a new space policy and recognition of space as an operational domain.³¹ These steps reflect the growing importance of space-based capabilities for commercial and military

endeavors as well as allies' concern over Russia and China's efforts to weaponize space. Yet, for now, NATO is not developing offensive counterspace capabilities of its own. Rather, it is focused on mapping allies' reliance on and vulnerabilities in space and building the resilience and security of space-based assets. Currently, only a few allies meet their space-based surveillance and situational awareness targets, with the United States, United Kingdom, and France at the forefront. In April, the United Kingdom established a new, tri-service Space Command that will become operational in 2022 and operate under a joint command structure with the UK Ministry of Defence's Space Directorate.³² France released its Space Defense Strategy in 2019 and has been stress testing the resilience of its space systems, including through an exercise with the United States and Germany in March 2021.³³ Both the United Kingdom and France are making significant investments in their space programs, such as in launching new satellites with asset protection. Overall, NATO countries have better space-based assets than their adversaries, including in both the number of satellites and the quality of assets. Smaller allies may lack the ability to contribute physical capabilities but should be encouraged to contribute funding toward NATO efforts.

Missile Defense

Allies' ballistic missile defense capabilities span all services and vary in range and mission. At the tactical and theater level, there are shortfalls in missile defense for maneuver force operations. Although several allies are developing heavy brigades as part of their assigned NATO capability targets, some brigades will initially lack the missile defense capabilities to meet NATO's requirement that the brigades be "self-contained." Fortunately, allies' air and ground missile defense capabilities are steadily improving, with more countries placing orders for Patriot batteries. In 2017, Poland

ordered three batteries, Romania ordered four, and Sweden ordered four, joining existing Patriot operators Germany, the Netherlands, Greece, and Spain. Italy and France, which operate the Sol-Air Moyenne Portée/Terrestre (SAMP/T), are increasing the radar and missile ranges on the SAMP/T, to be complete in the 2025 timeframe. Importantly, the Netherlands and Denmark are both improving their at-sea ballistic missile defense capability, which will fill an important gap for NATO and complement the four U.S. Aegis destroyers operating out of Rota, Spain.³⁴ The Aegis are part of the European Phased Adaptive Approach (EPAA), which is the United States' contribution to NATO's Ballistic Missile Defense (BMD) program, designed to protect Europe against short-, medium-, and intermediate-range ballistic missiles launched from Iran. Other legs of the system include a radar in Turkey, command center in Germany, and ground stations in Poland and Romania. While the NATO BMD program reached Initial Operating Capability in 2016, improvements to command and control are needed for it to reach full operational capability (FOC), ideally by the end of the decade.³⁵ In the interim, Iran continues to invest in improving the range and capability of its ballistic and cruise missiles, as highlighted in Chapter 3, and Tehran will likely be able to reach all European capitals by 2030.

Nuclear

NATO's nuclear posture has come under political pressure in recent years as several NATO allies and partners advocate for greater progress on arms control and nuclear non-proliferation. In some NATO member states, such as Germany and the Netherlands, domestic political pressure is growing to revisit their countries' roles in hosting and contributing to the delivery of U.S. nuclear weapons. Nevertheless, those countries that are part of NATO's extended deterrence architecture are taking steps to modernize and

ensure the safety of NATO's nuclear capabilities and delivery mechanisms. The United Kingdom and France, whose independent strategic nuclear forces are not part of the NATO architecture but contribute to transatlantic security more broadly, are both planning significant investments. Their next-generation SSBNs—SNLE-3G in the case of France and the Dreadnought class for the United Kingdom—will not enter service before 2030 or later.³⁶ As such, they are more noteworthy as a drain on these countries' already limited resources.

COUNTRY PROFILES ►

As indicated in the introduction, this report does not conduct a net assessment of European militaries. That said, it is helpful to look more closely at a handful of allies whose near-term investments in forces and capabilities—due to the size of their militaries, the size of their defense budgets, and geostrategic positioning—will disproportionately determine which missions European allies are able or not able to conduct by 2030. These include France and the United Kingdom, which share the U.S. global outlook in terms of mission and operations, and Germany and Italy, which aspire to be leaders in their respective regions of Central and Southern Europe.

France

France is the fourth-largest spender in NATO (after the United States, United Kingdom, and Germany) and one of the most ambitious and globally minded U.S. allies. In addition to its nuclear capability, France seeks to maintain a balanced force model capable of operating across the entire spectrum of operations. It sees itself as a global power with global responsibilities, including in the Indo-Pacific.³⁷ Its stance on European “strategic autonomy” is an important part of its outlook: while France recognizes the important role of the United States in collective defense against Russia, it believes Europe should be less dependent

on the United States and capable of doing more on its own in its immediate neighborhood. It also places coalition building at the core of its ambition: it wants to lead European partners where it can, with or without the United States.³⁸ Terrorism remains the primary priority, but France recognizes that competition with Russia and China has intensified, to include military competition.³⁹ Combined with its view of a deteriorating security environment, this has led it to begin investing in military modernization, including—arguably belatedly—for high-intensity conflict.⁴⁰ Although capable, in recent years French forces have been badly stretched by operations against domestic terrorism, in the Sahel, and in maintaining its territorial defense duties overseas.⁴¹



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After a 30-year period of “stagnation or decline” in financing, the 2019–2025 Loi de Programmation Militaire (MPL) is the manifestation of this ambition.⁴² The MPL allocates €198 billion (\$233 million) to the armed forces, an increase of €7.4 billion (\$8.7 billion) more per year on average than during the previous window of 2014 to 2018.⁴³ This increase reflects President Emmanuel Macron's intention to reach the 2 percent Wales Pledge by 2025.⁴⁴ There are three main priorities for the relevant ongoing or planned programs for procurement or modernization.⁴⁵

The first are capabilities that contribute to France's strategic autonomy. These include its nuclear deterrent capabilities, such as France's medium-range air-to-surface cruise missile as well as an upgraded version of the submarine-launched ballistic missile, the M51.⁴⁶ It also includes upgrades to the SAMP/T missile defense system and to France's ISR capabilities, such as four new satellites, renovation of 18 maritime patrol aircraft, and a suite of drones that will primarily be used for intelligence purposes, including four MQ-9 Reaper drones.⁴⁷

The second are capabilities that facilitate power projection, to include 28 new Rafale fighter jets and, by 2024, 55 modernized Mirage 2000D attack fighters.⁴⁸ Strategic airlift also features here as France plans 12 MRTT refueling/transport aircraft by 2023; 50 A400M aircraft, 16 of which have already been delivered; and modernization of the air force's C-130 aircraft.⁴⁹

The third are capabilities to facilitate force mobility in a denied environment. On land, this includes the acceleration of the SCORPION armored fighting vehicle (AFV) program, which aims to "replace virtually every front-line motorized and armored vehicle in the army."⁵⁰ Half of the medium AFVs are expected by 2025.⁵¹ In the air, this entails a large delivery of NH90 helicopters. At sea, France plans to add, by 2025, four Barracuda nuclear attack submarines, eight FREMM multimission frigates, and two mid-sized FTI frigates, in addition to the mid-life renovation of three La Fayette frigates.⁵² Overall, France intends to have 15 front-line frigates in play by around 2030.⁵³

France adds these new capabilities to a relatively well-equipped conventional armed forces, albeit one with gaps. The new frigates and submarines are a welcome addition to an already strong French navy, but the air force was a more mixed picture before the MPL. France had ample fighter craft, but was lagging behind on enablers such as refueling aircraft, heavy transport aircraft, and transport helicopters.⁵⁴ The new MRTTs, A400Ms, and NH90 helicopters, as well as the

modernized C-130s, are therefore a necessary addition which constitutes an improvement in power projection capacity by 2025.⁵⁵ On land, the new AFVs will improve France's ability to contribute in high-intensity conflict scenarios—although the Franco-German program to replace the Leclerc main battle tank will not be completed until at least 2035.⁵⁶ Indeed, several of France's largest, most expensive procurement programs—the FC/ASW missile system, a new generation of nuclear submarines, a next-generation aircraft carrier, and the future combat air system (FCAS)—will not be delivered until after 2030.

With respect to personnel, France has no intention to cut troop numbers and has not had difficulty recruiting, a fact that can likely be attributed to recent terrorist attacks on French soil, particularly the 2015 attacks in Paris. The Ministry of Defence's current focus is on building up the necessary manpower in newer domains—65 percent of the country's newest 6,000 recruits will be assigned to cyber and space responsibilities.⁵⁷

France is one of NATO's most capable cyber warfare actors, with a strategy that includes both offensive and defensive doctrine.⁵⁸ It established a Cyber Defence Command in 2017, and the MPL allocated €1.6 billion (\$1.9 billion) toward cyber capabilities and the hiring of 1,000 new cyber combatants (up from 3,400).⁵⁹ France cooperates with NATO but does not relinquish control of its operations or capabilities. It is also ambitious in space, where its strategy emphasizes situational awareness and the protection of French and European assets.⁶⁰ Before the MPL, France had nine military satellites.⁶¹ The MPL allocated €700 million (\$824 million) for new satellites (including four ISR satellites by the end of 2021) and asset protection capabilities, as well as €3.6 billion (\$4.2 billion) to renew existing infrastructure and to set up a Space Command.⁶²

In terms of nuclear posture, both components of France's deterrent—ballistic missile submarines and air-launched cruise missiles—are being modernized

under the MPL. France does not integrate its nuclear forces or doctrine into NATO's command structure. For ballistic missile defense, France employs the NATO-interoperable, ground-based, theater defense SAMP/T system. As of mid-2018, the French air force had seven.⁶³ In early 2021, France and Italy announced they would modernize the jointly manufactured system to better defend against modern missile and cyber threats, with a particular focus on its multifunction fire control radar.⁶⁴

The United Kingdom

The United Kingdom's strategic culture, global economic reach, expeditionary mindset, and capable military make it a leader in NATO and an essential partner of the United States. Its March 2021 integrated review of security, defense, development, and foreign policy—dubbed *Global Britain in a Competitive Age*—sets out the government's vision for the United Kingdom's role in the world through 2030 and the actions it will take to realize this through 2025. It affirms the United States will remain the United Kingdom's "most strategic and important ally" but also directs the country to invest more in its network of bilateral and regional partnership in Europe and globally.⁶⁵

Of importance to NATO, the integrated review is clear that the Euro-Atlantic region will remain the

center of gravity for UK security and defense, citing Russia as the "most acute direct threat" to the United Kingdom.⁶⁶ As such, the majority of investment will be directed toward recapitalizing the United Kingdom's land, air, and sea assets to deliver on its NATO commitments. At the same time, the integrated review calls for a UK "tilt" toward the Indo-Pacific in recognition of the growing geopolitical and economic importance of the region.⁶⁷ Unlike most European countries (with the exception of France), the United Kingdom has a network of partnerships and bases in the region from which it can project some influence and military power. These include its relationships with fellow Commonwealth countries Australia, New Zealand, and India; the Five Power Defense Arrangement (FPDA); and basing arrangements in Oman, Bahrain, the United Arab Emirates, Saudi Arabia, Diego Garcia, and Australia. This year, its carrier, the HMS Queen Elizabeth, will lead a multinational task group through the Mediterranean, Middle East, and Indo-Pacific. The AUKUS trilateral security pact between Australia, the United Kingdom, and the United States envisions close cooperation among these three partners on critical technologies such as cyber, artificial intelligence, quantum technologies, and undersea domains.

While the integrated review and accompanying Defence Command paper are ambitious and appear to support NATO requirements, some analysts note that this vision may never be realized in that it fails to fully reconcile ends, ways, and means.⁶⁸ Much of the November 2020 settlement for defense (a 14 percent increase to £188 billion (\$256 billion) over four years) will be needed to fill existing holes in UK defense in the first half of the decade, indicating that very few new capabilities will be realized before the second half of the decade. Another concern is that the integrated review's focus on high-end technologies (including a £6.6 billion (\$8.9 billion) investment in R&D funding over the next four years) and continued investment in costly nuclear



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capabilities will hollow out structure in the middle (especially land forces) that will be needed should the United Kingdom be called to fight.⁶⁹

In the land domain, the United Kingdom plans to meet its commitment to field a warfighting division for NATO (3rd UK Division) consisting of two modernized heavy brigades (instead of three, which is the norm).⁷⁰ The army will receive dedicated modernization funding for tanks (Challenger 3), armored reconnaissance vehicles (Ajax), and armored personnel carriers (Boxer). Investments are also planned in modernized long-range precision fires (including MLRS and Apache); new air defense systems; tactical surveillance drones; and new electronic warfare capabilities.⁷¹ The first of these is particularly welcome given a dearth of long-range fires capability across NATO and their utility in a fight with Russia. While Shadow Defense Secretary John Healy and other parliamentarians have criticized the United Kingdom's plan to further reduce army end strength (from 76,000 to 72,500 by 2025), Defense Secretary Ben Wallace maintains that a restructured armed forces with fewer units, and its lighter, modernized forces, will be equally effective.⁷² Such forces include a new Ranger Regiment to operate in complex, high-threat environments (assuming tasks traditionally done by special forces) and a Security Force Assistance Brigade for capacity building, assurance and deterrence, and conflict preservation.⁷³ The United Kingdom is also betting that multidomain integration, particularly in the areas of space and cyberspace, will increase the mobility, agility, and survivability of the armed forces.⁷⁴ The flagship unit here will be the 6th UK Division, which is tasked with delivering cyber, electronic warfare, information operations, and unconventional capabilities for both warfighting and operations conducted below the threshold of armed conflict.⁷⁵ Again, while these plans are impressive on paper, it is not clear that the United Kingdom can meet this level of ambition with such a small force. With the repeated cuts to the British army over the

last decade, its end strength now stands at 40 percent of the size of the U.S. Marine Corps.

In the air domain, the Royal Air Force will improve its combat air capability by upgrading its current Typhoon fleet with new radars and weapons and eventually increasing its F-35 fleet beyond the 48 aircraft already on order.⁷⁶ While the size and timing of next tranche is still to be determined, naval operators estimate they need 60 to 80 aircraft to fully staff the Carrier Strike Group.⁷⁷ The United Kingdom is also investing £2 billion (\$2.8 billion) over four years in its sixth-generation Future Combat Air System (FCAS) beginning in the mid-2030s, a costly project that supports its defense industrial base but provides little near-term capability. In air transport, the United Kingdom will rely on its fleets of A400M, C-17, and Voyager tanker/transport aircraft.⁷⁸ Some operators have expressed concern over the decision to remove the C-130J from service in 2023 given the transport aircraft's solid performance in austere, high-risk environments.⁷⁹ Another questionable move is the decision to replace the United Kingdom's E-3D Sentry with three E-7A Wedgetail aircraft in 2023. Insofar as at least four aircraft are needed to guarantee the readiness of NATO's airborne early-warning and control system, the procurement falls short on meeting the UK commitment to NATO.⁸⁰

The Royal Navy is the biggest beneficiary among the three services from the integrated review, which calls for a doubling in shipbuilding investment over the next five years. At the heart of this is the ambition to operate its two carriers simultaneously and maintain the United Kingdom's continuous deterrence posture at sea. Given current shortfalls in aircraft, sailors, and escort ships, this is a tall order. In the United Kingdom's surface fleet, retirement of some older platforms (e.g., Type 23 frigates) will create a temporary decrease in the United Kingdom's frigate/destroyer fleet below the current 19 ships. The plan is to increase this to 24 by the mid-2030s with upgraded versions of the Type 31 and 32 frigates and

Type 45 destroyer as well as a newly launched Type 26 frigate.⁸¹ One important addition to the North Atlantic theater is the United Kingdom's plan to develop a new multirole ocean surveillance ship to monitor undersea cables, which would enter service in 2024.⁸²

As part of its new doctrine of “persistent engagement,” the United Kingdom intends to deploy more naval assets globally to conduct training, assurance and deterrence missions, protection of shipping lanes, and freedom of navigation maneuvers. This includes plans for two Littoral Response Groups—one in the North Atlantic by 2021 and one in the Indo-Pacific by 2023.⁸³ Plans for the Indo-Pacific also entail forward deployment of offshore patrol vessels and Type 31 frigates to the region by 2021 and 2023, respectively.⁸⁴ This will be reinforced by increased investment in the United Kingdom's overseas basing network in locations such as Cyprus, Gibraltar, and Oman.

The newer domains of cyber and space will also see significant investment. In standing up a new National Cyber Force combining the capabilities of GCHQ, MI6, and the Ministry of Defense, the United Kingdom plans to triple its offensive cyber capability (and thus NATO's). Measures in space include standing up a new Space Command and investing in small satellite technology, digitalization, and sub-threshold capacities.⁸⁵ Taken together, space and cyber are essential to the United Kingdom's drive toward multidomain integration by creating the digital backbone needed to better operate in contested environments.

Finally, regarding its nuclear capability, the United Kingdom commits to maintaining a “minimum, credible, independent nuclear deterrent, based on a continuous at sea posture and assigned to the defence of NATO.”⁸⁶ To achieve this, they will renew their nuclear deterrent by replacing the Vanguard-class submarines with four new Dreadnought-class submarines by the early 2030s and replacing their

existing warheads. To the surprise of many nuclear policy experts, the integrated review also announced that the United Kingdom will increase its warhead cap from 225 to 260 in response to a “developing range of technological and doctrinal threats.”⁸⁷ There is concern that this change, coupled with the United Kingdom's embrace of a doctrine of strategic ambiguity, will undermine its credibility in ongoing nuclear diplomacy efforts to increase transparency and to advance disarmament and non-proliferation.⁸⁸

Germany


Given its position at the heart of continental Europe, economic might, and the size of its armed forces and associated command structure, Germany is essential to NATO deterrence and defense posture, particularly in a collective defense scenario. Thanks to its size and structures, it is one of a handful of NATO allies that can serve as a framework nation for the VJTF or provide the organizational backbone for deployed multinational units, as it does for NATO's Enhanced Forward Presence in Lithuania. There is also the potential to procure the core of costly capability systems, such as missile defense, in cooperation with smaller allies.

Today, Germany's armed forces are working to recover from the decades of underinvestment and force reductions that persisted from 1990 to 2014. During this period, crisis management, rather than collective defense, became the basis for German operational planning, and expeditionary operations, such as those in the Balkans or Afghanistan, became the main theater for employment of the Bundeswehr. Insofar as readiness and equipment requirements for crisis management are lower than those for collective defense, this focus resulted in the hollow forces Germany has today.⁸⁹ Other legacy issues include shortfalls in personnel, readiness, equipment, and infrastructure as well as a weak defense industrial base and sluggish procurement system that Germany is still struggling to improve.

Defense also suffers from low public support and some leaders' reluctance to acknowledge that military power is a viable instrument of power in global competition alongside diplomatic and economic tools.⁹⁰

Positively, Germany began to reverse the negative trend in its defense spending in 2014 following Russia's illegal annexation of Crimea, increasing its defense spending by 25 percent since 2014. In 2019, defense spending rose an impressive 10 percent, to €42 billion (\$49.3 billion), and the country plans to spend 1.7 percent of GDP on defense by 2024.⁹¹ As articulated in the 2016 "White Paper on German Security Policy" and 2018 "Concepts for the Bundeswehr," collective defense is again the basis for German defense planning, with a focus on coalition warfare.⁹² Though organized around full combat for a home defense or NATO collective defense scenario, elements of these forces and capabilities will also be usable in out-of-area missions such as peacekeeping and crisis management.

The challenge for Germany is how to fix chronic readiness problems and fill existing gaps while also modernizing its forces. To this end, Germany has a credible plan to increase defense spending and modernize its armed forces through 2031. The 2016 white paper and subsequent 10-year plan (2021–2031) establish specific targets for each service, with milestones along the way in 2023, 2027, and 2031.⁹³ Germany is a leader in NATO in terms of applying and adhering to the NATO Defense Planning Process such that a full 80 percent of its national and NATO targets are aligned (with the remaining targets responding to EU requirements), and the bulk of its manpower goes to NATO missions.⁹⁴ Despite this ambitious and detailed plan, it is unlikely Germany can preserve the projected spending levels and retain the public and parliamentary support needed to realize it.

 **The challenge for Germany is how to fix chronic readiness problems and fill existing gaps while also modernizing its forces.**

The core of the Bundeswehr is its land element. Rather than increase the overall size of the land forces, which would face recruiting and demographic challenges, Germany is trying to rebuild the readiness and capability of its existing eight brigades. According to the plan, Germany will add one self-sustaining, fully digitalized brigade (and respective air and naval components) by 2023 when it is scheduled to serve as the framework nation for NATO's VJTF. This will be followed by three additional self-sustaining, fully digitalized brigades by 2027, with three divisions ready by 2031, again with respective elements for the air force and navy.⁹⁵ This is accompanied by investments in major combat systems, including Leopard tanks, Puma infantry fighting vehicles (for the VJTF), Boxer Armored Personnel Carriers (APV), and artillery upgrades by 2024.⁹⁶ If these improvements are realized, which is unlikely given Germany's legacy problems in procurement and the defense industry, NATO's force readiness will increase markedly by 2031.

In addition to protection of Germany's territorial waters and sea lines of communication, the German navy has deployed in a number of crisis management, conflict prevention, and humanitarian operations, such as the European Union's Atalanta and IRINI and the United Nation's UNIFIL. Much like the army, Germany's past naval force planning focused on low-end missions such as counterpiracy, counterterrorism, migration, and search and rescue. While these missions will

remain important, the goal is to reorient the navy to homeland and collective defense missions such as sea control, securing lines of communication, and territorial defense.⁹⁷ To this end, the current defense plan includes major investments in new Maritime Patrol Aircraft as well as more combat and combat support ships, including frigates, corvettes, submarines, and mine-laying capabilities. Germany also plans to equip its frigates with air defense radars and, ideally, interceptor missiles.⁹⁸ These improvements align with NATO's shortfalls and will be largely complete in the 2031 timeframe.

The German air force will also see significant upgrades to existing capabilities in line with its NATO requirements. In April 2020, Minister of Defense Annegrete Kramp-Karrenbauer recommended to the parliament that Germany replace its aging Tornado fighter jets, which reach the end of their service life by 2030, with a combination of Eurofighters and F-18s by 2030.⁹⁹ The package is with the parliament but will have to be approved by the next government. This is not a given in light of some Social Democratic Party (SPD) and Green Party members' desire to end Germany's role in NATO's nuclear mission. Germany is also focused on addressing longstanding NATO shortfalls in strategic lift and air-to-air refueling capabilities through the acquisition of C-130Js with France as well as more A400M tanker/transport aircraft (increasing from the current 30 to 53 by 2026). Improvements to in-theater transport are planned through the acquisition of new heavy transport helicopters (Boeing or Sikorsky) through the Foreign Military Sales program. A decision is expected in the second quarter of 2021, and the helicopters would enter service in 2025.¹⁰⁰ Beginning in 2023, the German air force, which is responsible for the ground-based air defense mission, will begin modernizing its Patriot fleet to keep it operational until 2030. Germany also intends to field a new defensive system against short-range threats, with the first capability planned to enter service in 2026.¹⁰¹

Both investments are important contributions to NATO requirements for collective defense.

Germany has made important progress in the newer domains of cyber and space. In 2017, Germany launched a new military cyber unit to prevent cyberattacks against critical infrastructure. Germany has also made its national cyber capabilities available to NATO, including offensive elements. In space, Germany is able to play a role in enabling other forces and is investing significantly in space-based early warning.¹⁰²

Finally, in terms of nuclear posture, the current government has pledged to remain part of NATO's nuclear sharing arrangements. If this policy were to change with the arrival of a new coalition government after September 2021, it would destabilize the status quo and force a rebalancing of NATO's extended deterrence posture. For now, the nuclear sharing mission is registered as one of 15 planned major procurement programs and will remain so at least until the new government reviews the budget and its planned procurements, likely in early 2022. In 2020, the government recommended to the parliament the purchase of 30 F-18s to fill Germany's air-to-ground mission, replacing a portion of Germany's Tornado fighter jets.¹⁰³ The F-18 procurement will also include 15 EA-18G Growlers for jamming and SEAD purposes to enable follow-on strikes, which would help fill the current shortfall in NATO's electronic warfare capabilities.¹⁰⁴


Germany has made significant progress on reversing the negative trend in defense spending, and the Defense Ministry has a solid plan to improve the readiness of and modernize the armed forces. The difficulty lies in Germany's ability to execute on this plan. Many of the major procurements on the agenda can only proceed if the Defense Ministry can reasonably secure the out-years funding needed to enter multiyear acquisitions. While the coalition has agreed to increase the budget topline in the near term, this comes with an expectation that

spending will decrease in the midterm. Yet even if projected spending levels are met, there are political and structural issues that could hinder progress. These include low parliamentary and public support for defense, the low priority of defense in the broader policy agenda, and an antiquated, overregulated procurement system.

Italy

Italy is a relatively capable NATO ally, albeit one with limited global ambitions and capabilities. After national and collective defense commitments, its priority is crisis management in the Greater Mediterranean, where Italy is capable of and willing to act as a framework nation, providing both command and control and a plurality of capabilities.¹⁰⁵ Italy takes its cue from NATO defense planning on spending priorities and contributes robustly to international missions. Politically, it balances its NATO obligations with a desire to support European defense integration and European defense industrial interests, in which Italy has a stake. Although Rome does not conduct strategic reviews on a regular schedule, its defense planning document for 2020–2022 (DPP) explains that Italian defense is tailored toward two threat vectors: state-based challenges from the east, to include an increasingly assertive Russia and China, and a cycle of instability from the south.¹⁰⁶

As with many allies, Italy is shifting from an expeditionary, crisis management-oriented structure back to a conventional, territorial defense posture.¹⁰⁷ In the process, there is a discernable tension: planning documents identify shortfalls and outline modernization plans, but money is often lacking, and qualitative and quantitative capability deficits remain.¹⁰⁸ Additionally, Italy's geographic position on NATO's southern flank pulls it in two, often incongruent directions: meeting its collective defense commitments in the Balkans and Black Sea regions and managing the range of transnational

 **As with many allies, Italy is shifting from an expeditionary, crisis management-oriented structure back to a conventional, territorial defense posture.**

threats emanating from the Greater Mediterranean region. Including spending through the Ministry of Economic Development, Italian defense spending in this DPP shows a 26 percent increase in the Italian procurement budget from the prior period, suggesting this tension between requirements and resources may be lessening.¹⁰⁹

The Italian army, for example, is focused on strengthening its heavy forces. Via the Centauro and Freccia programs, the army is adding to their depleted roster of armored fighting vehicles. Italy is purchasing 16 new CH-47F heavy transport helicopters to improve its in-theater transport capabilities and is currently developing the AW249 attack helicopter to replace its aging AW129 Mangusta fleet, which will retire from service in 2025.¹¹⁰ The GMLRS artillery program provides for the development and acquisition of extended-range artillery capabilities. In air defense, Italy is working with France on a new version of their SAMP/T anti-air system.¹¹¹ Finally, the DPP allocates €214.9 million (\$253 million) for a command and control program to help Italy plan, organize, and lead operations abroad, including for NATO.¹¹²

For the air force, Italy's participation in the F-35 Joint Strike Fighter program is its flagship: by 2025, it plans to buy 30 F-35B short take-off and vertical landing fighters (to be split between the air force and navy), as well as 60 F-35As for the air force.¹¹³ Italy

also intends to help address NATO's scarcity of electronic warfare aircraft. The DPP allocates €1.23 billion (\$1.4 billion) for the purchase of multimission, multisensor ISR/EW craft based on the Gulfstream Aerospace G-550.¹¹⁴ The air force also intends to purchase 116 NH90 transport helicopters, which will be equipped with self-protection capabilities, another NATO shortfall. There are partially financed programs for a refurbishment of the land-attack cruise missile Storm Shadow; precision weaponry; and the air-to-air missile METEOR. Finally, Italy is financing the modernization of its MQ-9 drones.

At sea, there are several significant programs, though many are aspirational or not yet funded. The DPP continues to fund the Trieste Landing Helicopter Dock, a large, amphibious, multirole ship due for delivery in 2022.¹¹⁵ It also includes the new DDX Destroyer program, which aspires to provide two next-generation destroyers with modern weaponry and sensors by 2028. At the moment, however, funding has only been secured for a "de-risking study" to assess the program's feasibility.¹¹⁶ Italy has also ordered two U212 Near Future Submarines, the first of which should arrive by 2029.¹¹⁷ Finally, the DPP provides financing for other capabilities that will help fill NATO shortfalls, including 10 PPA patrol vessels; a midlife modernization of Italy's GAETA minesweepers; and the development of the TESEO long-range, anti-ship littoral attack missile.

Overall, these additions are welcome, but caution is due given Italy's unstable government and struggling economy. The DPP contains a long list of programs it identifies as crucial but does not fully fund, including several NATO shortfalls, such as next-generation deep strike capability; next-generation destroyers; missile defense capable of dealing with modern ballistic and hypersonic threats; chemical, biological, radiological, and nuclear defense (CBRN); and a suite of command, control, and communication (C3) capabilities.¹¹⁸ Furthermore, with respect to personnel, although Italy has not had difficulties

with recruitment or retention (particularly in newer domains such as cyber), they are bound by a 2012 law to reduce their troop ceiling to 150,000 by 2024 (current end strength is 165,500 active-duty personnel).¹¹⁹ Italy is also grappling with an aging problem that tilts the budget unsustainably toward the salaries of senior officers at the expense of investment, procurement, or incentives for younger officers.¹²⁰ Taken together, these factors indicate Italy may struggle to field a fully modernized armed forces in the short to medium term.

Italy is also improving its cyber and space-based capabilities. The Ministry of Defence's (MOD) Command for Network Operations reached full operational capability in 2019 and is responsible for cyberwarfare and defending MOD networks, both in Italy and in the field.¹²¹ Recent DPPs have been more attentive to cyber. The 2020–2022 plan, for example, contains funding for a program to modernize Italy's cyber defense and security capacity, as well as a more targeted program to overhaul the army's network. In space, Italy is boosting its existing capacity via the COSMO-SkyMed and SICRAL 3 programs, which will add two new ISR satellites and one communications satellite, respectively, by 2025.¹²²

Like France, Italy deploys the SAMP/T medium-range ballistic missile defense system. In Italy's case, the system is operated by the army, which had 16 SAMP/Ts as of 2018. Forthcoming updates to the system include upgraded radars; the development of new command, control, and fire modules; and the integration of an updated version of the ASTER 30 family of SAM missiles.¹²³

CONCLUSION ►

The goal of this chapter was to focus on the military capabilities European allies and partners of the United States are likely to possess by 2030. Improvements on the input side—such as six

consecutive years of increased non-U.S. NATO defense spending and a greater percentage of spending directed toward new procurements that fill identified NATO capability gaps—indicate that the output of European countries is also likely to advance over the next decade. European allies are particularly focused on improving their capabilities for collective defense. For example, several countries are rebuilding the readiness and capability of their heavy, combat-capable brigades for high-intensity warfare and modernizing strategic platforms such as combat air and surface combatants. Progress is also being made in reducing European allies' reliance on the United States for key enablers such as strategic and tactical lift, aerial refueling, and ISR. Other NATO defense planning priorities that are being addressed by a significant number of European allies include ground-based air defense, ASW capabilities, and at-sea missile defense.

On the downside, rebuilding mass and capability takes time, and these investments are late to need. Many of the units allies assigned to the NATO force roster are hollow, lacking personnel and materiel. Still others have trained together in a NATO context but never deployed together, particularly in more challenging environments. Another potential risk lies in the decision of some major allies, most worryingly the United Kingdom, to cut force structure in favor of investments in high-tech future capabilities (rather than fund both). Eager to maintain their respective defense industrial bases, there is a tendency among major European allies to fund costly, big-ticket programs—such as the French next-generation aircraft carrier and SSBNs, the British Tempest Program, and the French-German Main Ground Combat System (MGCS) future land warfare system—that siphon off significant resources but deliver no capability in the near term. A more useful approach would be to spend the money on near-term capabilities needed for the most likely scenarios.

Finally, despite these ongoing and planned investments, it is unlikely that the promised forces and capabilities will be realized on time. Changes in political leadership, downward economic pressures from the Covid-19 pandemic, and shifting procurement schedules or production lines (including in the United States) will all inhibit European allies' ability to execute their plans to schedule. Because allies are already playing catch-up in modernizing their armed forces, any delays or divergences risk undermining NATO interoperability and its ability to keep pace with adversaries' military modernization. An underlying factor outside the scope of this report is that few countries west of Warsaw feel threatened (except by domestic terrorism) and so are unlikely to invest the political or financial capital needed to deliver on defense.

Still a bigger question is whether allies' forces and capabilities can come together to generate useable capabilities in specific scenarios. Europe's ability to conduct missions at the lower end of the spectrum—such as noncombatant evacuation operations, peacekeeping, and security force assistance—without the United States will depend largely on acquiring key enablers such as strategic airlift, aerial refueling, and hardened multirole helicopters according to plan. Likewise, allies' bandwidth to conduct assurance, deterrence, and maritime security missions will hinge on their ability to increase the sustainability and deployability of their land forces and their air and maritime fleets. Least certain is European allies' ability to conduct large-scale crisis management operations without the assistance of the United States. If allies' recent experiences in Afghanistan and Mali are any indication, European allies will remain dependent on U.S. support in these more demanding peacekeeping and crisis management scenarios, particularly when they are outside of Europe or long in duration. For the most demanding scenario, namely large-scale combat against an adversary such as Russia, the picture is challenging even with



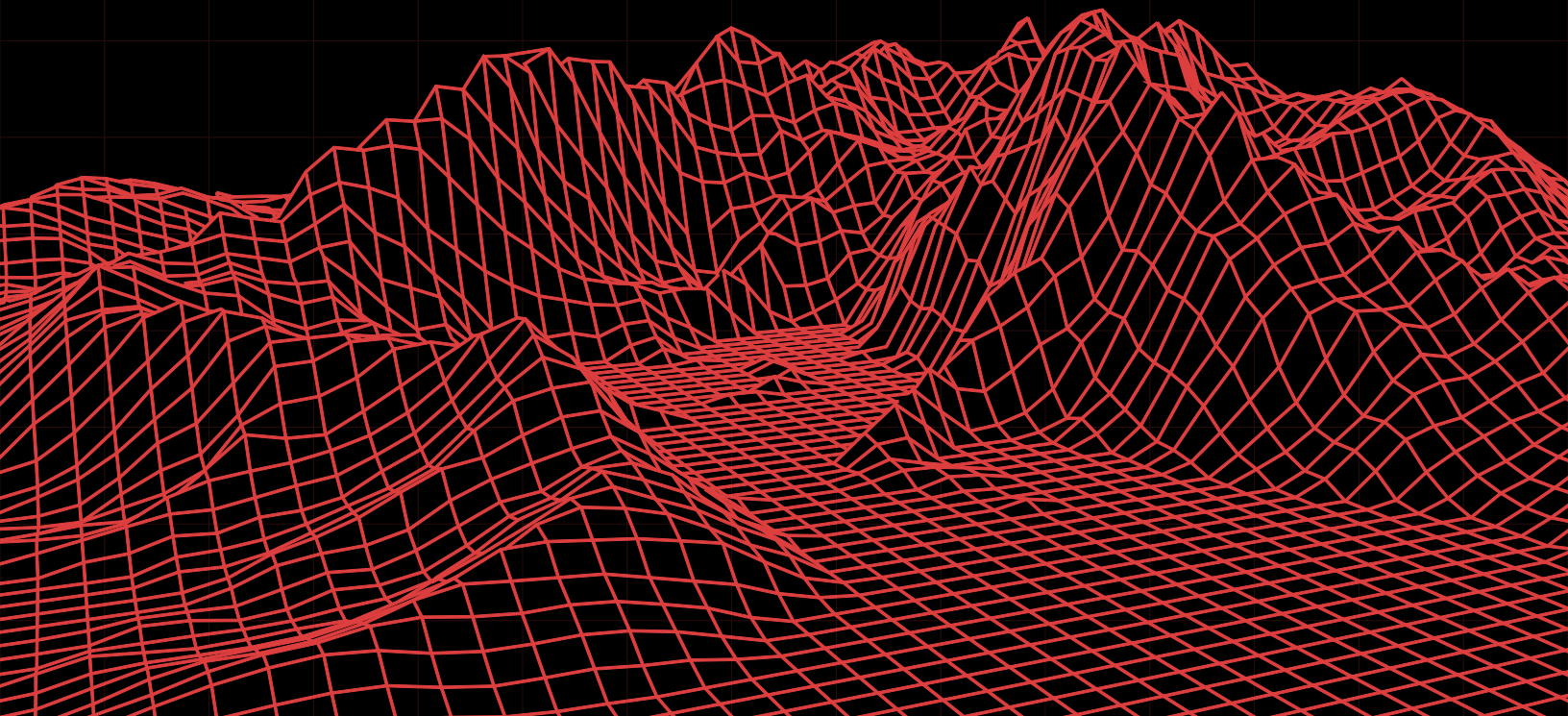
If allies' recent experiences in Afghanistan and Mali are any indication, European allies will remain dependent on U.S. support in these more demanding peacekeeping and crisis management scenarios, particularly when they are outside of Europe or long in duration.

U.S. involvement due to the close, contested nature of the operating environment. To this end, it will be important for European allies to increase their readiness and field capabilities essential to improving situational awareness, force protection, and neutralization of enemy defense.

CHAPTER 3

EUROPE'S HIGH-END
MILITARY CHALLENGES

EUROPEAN MISSIONS





This chapter examines the ability of European countries to successfully perform military missions across the conflict spectrum over the next decade. It asks one central question: what types of missions will European allies and partners of the United States be able and unable to effectively perform by 2030? To answer this question, the chapter uses a combination of complementary methods.

First, it builds an analytical framework that includes a range of military missions, from small-scale humanitarian assistance missions to large-scale combat. The chapter then uses this framework to evaluate the ability of European countries to accomplish these missions. Second, it builds a data set of specific European operations over the past three decades, including operations conducted through NATO and the European Union. The data provide a useful context for the types and frequency of missions in which European states may engage. Third, it uses the results and analyses from wargames, scenarios, exercises, after-action reviews, and other analyses—including the results of Chapter Two—to assess the ability of European states to perform military missions through 2030. Many of these involve future wargames and scenarios.¹ Ex post facto methods are inherently biased because they select only on past operations, and the future is likely to be different from the past. Consequently, war games and scenarios set in the future are helpful to understand evolving mission requirements.

The chapter focuses on the ability of European militaries to perform a *military mission*, a military task to complete an action with a specific purpose, as defined by U.S. military doctrine.² An important metric of military power is the ability of military forces to successfully prosecute a variety of missions.³

Military missions are often categorized by their focus. Examples include noncombatant evacuation, foreign humanitarian assistance, security force assistance, freedom of navigation, counternarcotics, counterterrorism, and large-scale combat missions.

In addition, this chapter also discusses *military operations*, which include specific military actions to carry out strategic, operational, tactical, or other objectives.⁴ As used here, missions refer to the general tasks that militaries are asked to perform, while operations refer to specific, named efforts. Named operations include such examples as Operation Allied Force in Kosovo, Operation Unified Protector in Libya, Operation Concordia in the former Yugoslavia, and Operation Sea Guardian in the Mediterranean.

There are a few important caveats in understanding what this chapter does not aim to accomplish. First, it does not assess whether one or more European countries will have the political will to conduct military missions, as noted in the introduction. European countries will likely remain divided about the threat from countries such as Russia and China, focus on internal problems such as migration and extremism, face economic and budget constraints that limit their willingness and ability to deploy outside of Europe, and possess domestic populations that are sensitive to casualties and resistant to the use of military force.⁵ There will likely be particular European reluctance to engage in large-scale combat outside of Europe.⁶ Second, this chapter does not conduct a net assessment of European militaries and potential adversaries. However, it does leverage the outcome of wargames, scenarios, and other assessments, many of which involved military operations against China, Russia, and Iran.

The rest of this chapter is divided into three sections. The first develops a framework for understanding and analyzing military missions. The second section assesses European participation in military missions through 2030. The third section provides a brief summary of the main conclusions.

FRAMEWORK FOR UNDERSTANDING MILITARY MISSIONS ➤

There is a robust literature on how countries translate military capabilities into outcomes, either through unilateral or multilateral missions.⁷ Much of the policy focus on European capabilities has been on tracking quantitative metrics (such as the percent of GDP that countries spend on defense), current gaps, and necessary future capabilities (such as main battle tanks, soldier systems, patrol-class surface ships, platforms to counter unmanned aerial systems, and space systems).⁸ NATO has collected and analyzed such metrics as the percent of GDP that a country spends on defense and on procurement of major new equipment (including R&D), percent of allied forces that are deployable, percent of allied forces that are sustainable, and contributions to NATO Command Structure (NCS) positions. While valuable, these steps do not translate defense spending or military capabilities into a judgment on whether and how countries will be able to perform specific military missions.

Assessing military performance is a complex undertaking. How a state—or states—perform in conducting military missions can include a wide range of factors, such as strategy, tactics, morale, numerical preponderance, technology, combat motivation, force employment, leadership, and materiel.⁹ Other factors are also important, such as readiness, sustainability, modernization, and force structure.¹⁰ To complicate matters, military forces frequently perform a wide range of missions, such as countering terrorists, deterring aggressors, conducting peacekeeping efforts, enforcing sanctions, performing freedom of navigation missions, and training foreign police and soldiers.¹¹ Proficiency in one or several does not indicate proficiency in all or even most missions.¹²

To better understand military missions, this chapter leverages U.S. joint military doctrine and divides

missions into three categories: crisis response and limited contingency missions; military engagement, security cooperation, deterrence, and assurance missions; and large-scale combat.¹³ These categories can be differentiated by their scale and scope. Crisis response and limited contingency missions, for example, are at one end of the conflict continuum and generally include small-scale efforts and limited or no combat. Large-scale combat missions sit at the other end of the conflict continuum and can involve joint, multidomain operations involving air, ground, maritime, cyber, and space.¹⁴ Most military engagement, security cooperation, and deterrence missions sit somewhere in the middle. NATO's three core tasks—collective defense, crisis management, and cooperative security—are captured in this framework.

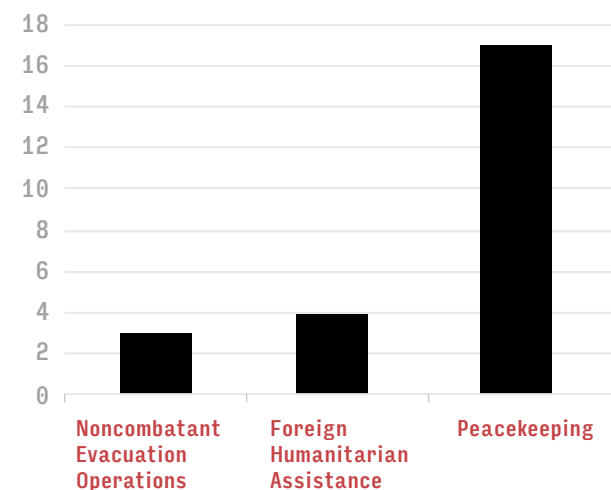
Figure 3.2 on the next page provides an overview of the types of military missions and examples of current and historical operations involving European countries.¹⁵ Appendix 1 provides a more complete list of specific military operations involving European states, including those under NATO and the European Union.

First, crisis response and limited contingency missions include such activities as noncombatant evacuation operations (NEOs), peacekeeping, and foreign humanitarian assistance efforts. NEOs involve situations in which military forces attempt to evacuate noncombatants from foreign countries when their lives are endangered by war, civil unrest, or natural disaster.¹⁶ Peacekeeping consists of military support to diplomatic, economic, or other efforts to establish or maintain peace in areas of potential or actual conflict—often to support such regional or international institutions as the United Nations or African Union.¹⁷ As highlighted in Appendix 1, historical examples involving European countries include Operation Concordia and Operation Allied Harmony in the former Yugoslav Republic of Macedonia, Operation Althea in Bosnia and Herzegovina, and numerous operations in support of UN peacekeeping efforts

across the globe.¹⁸ Finally, humanitarian assistance involves the use of military forces to reduce human suffering, pandemics, disease, or hunger.¹⁹ Examples of foreign humanitarian assistance include the European Union Force Chad and Central African Republic (EUFOR Tchad/RCA) and NATO's humanitarian relief efforts in Pakistan following the October 2005 earthquake, which killed an estimated 53,000 people.²⁰ As Figure 3.2 shows, European militaries have predominantly conducted peacekeeping missions (71 percent), followed by foreign humanitarian assistance (17 percent) and noncombatant evacuation missions (12 percent).

Second, military engagement, security cooperation, deterrence, and assurance include a wide range of activities to establish, shape, and maintain relations with other nations. The general objective is to protect national interests by building or maintaining support to partner nations, enhancing their capability to provide security and maintain stability, and establishing operational access.²¹ Security cooperation involves military interactions with foreign security agencies to build or maintain defense relationships, develop their capabilities, and provide access.²² Large-

FIGURE 3.1: EUROPEAN CRISIS RESPONSE AND LIMITED CONTINGENCY OPERATIONS BY SUBTYPE, 1994–2021



Source: CSIS database of European military operations.

FIGURE 3.2: TYPES OF MILITARY MISSIONS

MISSIONS	TASKS	EXAMPLES INVOLVING EUROPEAN COUNTRIES
CRISIS RESPONSE AND LIMITED CONTINGENCY MISSIONS		
Noncombatant evacuation operations	Evacuate endangered noncombatants from locations within countries to safe havens.	Operation Amaryllis
Peacekeeping	Provide military support to diplomatic and other efforts to establish or maintain peace.	Operation Concordia, Operation Allied Harmony, Operation Althea
Foreign humanitarian assistance	Conduct military activities to directly relieve or reduce human suffering, disease, or hunger.	EUFOR Tchad/RCA, NATO operations in Pakistan following the October 2005 earthquake
MILITARY ENGAGEMENT, SECURITY COOPERATION, DETERRENCE, AND ASSURANCE		
Security force assistance	Build or improve the capacity of foreign security forces and their supporting institutions, including foreign internal defense, election security, border security, and other actions.	NATO's Resolution Support Mission (RSM) in Afghanistan; Kosovo Force (KFOR); NATO Mission Iraq (NMI); a range of smaller operations such as EUFOR RD Congo, EUCAP Somalia, EUTM Mali, EUPOL Afghanistan, EUBAM Libya, EUTM Somalia
Counternarcotics	Detect, monitor, and counter the production, trafficking, and use of illegal drugs.	EUFOR RCA
Counter weapons of mass destruction	Curtail the conceptualization, development, possession, proliferation, use, and effects of weapons of mass destruction.	Operations in support of the 1999 WMD Initiative, Operation Sea Guardian
Counter illegal migration	Detect, monitor, and counter the movement of illegal migrants.	EUNAVFOR MED, Operation Triton, Operation Themis, Operation Mare Nostrum
Counterterrorism	Prevent, deter, preempt, and respond to terrorism (offensive actions) as well as reduce the vulnerability of individuals and property to terrorist attacks (defense actions).	International coalition to defeat the Islamic State, Operation Barkhane
Cyber	Conduct offensive and defensive cyber activities.	Operations to protect 2017 French presidential election, 2019 EU parliamentary elections
Air patrol	Protect navigation, overflight, and related interests in the air, such as air policing, air patrols, interdiction, and no fly zones.	Operation Eagle Assist, Operation Deadeye, Baltic Air Policing
Maritime patrol	Protect navigation, overflight, and related interests on, under, and over the seas, such as freedom of navigation, protection of shipping, interdiction, enforcement of arms embargos, naval patrols, and counterpiracy.	Operation Sea Guardian, Operation Active Endeavor, Operation Allied Protector, Operation Ocean Shield, Operation Atalanta, Operation Mare Sicuro, Operation Corymbe, Operation Irini, Operation Themis, Operation Poseidon
Deterrence	Persuade an adversary not to initiate a war or activity because the expected costs and risks outweigh the anticipated benefits.	Operation Atlantic Resolve, Black Sea Region Deterrence
Assurance	Support an ally or partner's government and population and communicate a credible message of confidence in the dependability of its security commitment.	NATO's air policing operations over Albania, Montenegro, Slovenia, and the Baltic region; NATO assurance operations in support of Turkey (including airborne warning-and-control systems, as well as Patriot and SAMP/T air defense systems); Operation Sea Guardian
Crisis management	Conduct expeditionary air, land, and maritime deployments out of area, particularly large-scale ones that involve multiservice military deployments.	Operation Allied Force, Operation Deliberate Force, Operation Unified Protector, Operation Serval, International Security Assistance Force (ISAF)
LARGE-SCALE COMBAT		
Unilateral or multilateral combat	Integrate major efforts and campaigns that involve one or more countries.	Operation Enduring Freedom, Operation Iraqi Freedom

Source: CSIS research and analysis.

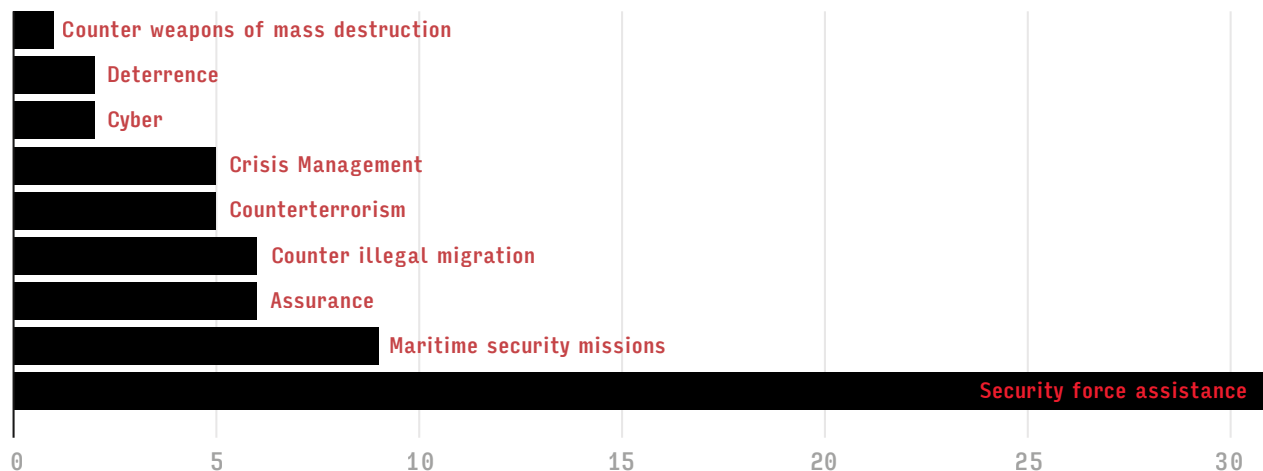
scale crisis management missions include efforts to conduct expeditionary air, land, and maritime deployments.²³ Many of these specific operations—such as Operation Allied Force, Operation Deliberate Force, and Operation Unified Protector—involve multiservice military deployments that require several thousand personnel.²⁴ NATO's Operation Unified Protector, for instance, had three components: the enforcement of an arms embargo in the Mediterranean, the enforcement of a no-fly zone to prevent aircraft from bombing civilian targets, and air and naval strikes against those military forces involved in attacks or threats to attack Libyan civilians and civilian-populated areas.²⁵

These types of activities can also involve deterrence (i.e., actions to persuade an adversary not to initiate a war or other military activity because the expected costs and risks outweigh the anticipated benefits) and assurance (i.e., actions to support an ally or partner's government and population and communicate a credible message of confidence in the dependability of its security commitment).²⁶ Assurance measures might involve flying airborne warning and control systems (AWACS), deploying Patriot air defense systems, conducting enhanced air policing, and utilizing surface-

to-air, medium-range platform terrain (SAMP/T) systems.²⁷ NATO created the tailored Forward Presence (tFP) in 2016 to help reassure Bulgaria and Romania and establish a Black Sea presence.²⁸ Figure 3.3 highlights the frequency that European countries have performed these types of operations, and it indicates that European states have most frequently engaged in security force assistance operations (44 percent) and maritime patrol operations (13 percent).

Third, large-scale combat sits at the other end of the conflict spectrum from crisis response. Large-scale combat involves a series of tactical actions—such as battles—conducted by combat forces to achieve strategic or operational objectives.²⁹ It can include a range of activities, from wars in specific countries or regions involving a combination of multidomain air, ground, maritime, and other capabilities, to world wars among great powers.³⁰ These types of missions generally require substantial power projection capabilities, including the ability to deploy and employ military forces rapidly, over long distances, and for sustained periods.³¹ Historical examples involving European countries include Operation Enduring Freedom and Operation Iraqi Freedom, as highlighted in Appendix 1.

FIGURE 3.3 : EUROPEAN MILITARY ENGAGEMENT, SECURITY COOPERATION, DETERRENCE, AND ASSURANCE OPERATIONS BY SUBTYPE, 1994–2021



Source: CSIS database of European military operations.





ASSESSMENT OF FUTURE EUROPEAN PERFORMANCE ►

This section applies the framework outlined in Figure 3.1 to analyze future military missions involving European states. It provides a qualitative judgment of European capabilities through 2030—especially from major powers such as France, the United Kingdom, and Germany—based on the results and analyses from wargames, scenarios, exercises, after-action reviews, and other analyses.³² The goal is to provide reasonable estimates of whether European states may be able

to conduct future missions across the continuum of conflict in four regions: Europe (including the Mediterranean), the Middle East, Africa (especially North, West, and East Africa), and the Indo-Pacific. These are the regions where European forces are most likely to deploy in the future, based on future planning considerations and past actions.³³

The assessment is based on whether the evidence from wargames and other analyses suggests that European states can successfully conduct the designated mission with no, limited, or significant U.S. support. “High” (or green) means that the major European states—such as the United Kingdom, France, and Germany—generally have

FIGURE 3.4: OVERVIEW OF EUROPEAN CAPABILITIES TO PERFORM MISSIONS

MILITARY MISSIONS	 EUROPE	 MIDDLE EAST	 NORTH, WEST, EAST AFRICA	 INDO-PACIFIC
Crisis Response and Limited Contingency Missions				
Noncombatant Evacuation Operations	High	High	Medium	Medium
Peacekeeping	High	High	Medium	Medium
Foreign Humanitarian Assistance	High	High	Medium	Medium
Military Engagement, Security Cooperation, Deterrence, and Assurance Missions				
Security Force Assistance	High	High	High	Medium
Counternarcotics	High	Medium	Medium	Low
Counter Weapons of Mass Destruction	High	High	Medium	Low
Counter Illegal Migration	High	Medium	Medium	Low
Counterterrorism	High	High	Medium	Low
Cyber	Medium	Medium	Medium	Medium
Air Patrol	High	High	Medium	Low
Maritime Patrol	High	High	Medium	Low
Deterrence	Medium	Medium	Medium	Low
Assurance	Medium	Medium	Medium	Low
Crisis Management	Medium	Medium	Medium	Low
Large-Scale Combat				
Unilateral or Multilateral Combat	Low	Low	Low	Low

Capability Level High Medium Low

Source: CSIS analysis from multiple sources.

the capability to successfully conduct the designated type of mission in the identified region without U.S. aid. A high judgment is not a fact or a certainty, however, and such judgments still carry a risk of being wrong. “Medium” (or yellow) means that major European states have the capability to successfully conduct the designated type of mission in the identified region with moderate U.S. aid, such as transport, aerial refueling, or ISR capabilities. “Low” (or red) means that major European states have the capability to successfully conduct the designated mission in the identified region only with significant U.S. aid.³⁴ Figure 3.4 provides a summary of the main findings.³⁵

The rest of this section is divided into three components: crisis response and limited contingency missions; military engagement, security cooperation, deterrence, and assurance missions; and large-scale combat.

CRISIS RESPONSE AND LIMITED CONTINGENCY MISSIONS ►

Major European states—particularly the ones discussed in Chapter 2—have a high likelihood of performing most crisis response and limited contingency missions through 2030 without U.S. aid. Europe’s ability to perform critical missions is especially high in Europe, the Middle East, and parts of East, West, and North Africa, though there may still be challenges in some areas.

First, European states may face difficulties conducting some missions in Asia and parts of Africa because of limited posture (especially bases), few enablers (such as airlift, aerial refueling, command and control, and ISR), and a large geographic area. These factors could also impact the speed that European militaries could respond to contingency missions. As some research has

concluded, personnel recovery missions in Africa are difficult even for the U.S. military because of a small number of deployed U.S. military personnel and a vast geographic area.³⁶ Germany, for instance, already faces airlift, combat search and rescue, and other limitations that will complicate non-combatant evacuation and other missions in Asia or parts of Africa.³⁷

Second, the deployment of Russian and Chinese assets—including intelligence, electronic warfare, and anti-aircraft weapons systems—could complicate missions in Africa, the Middle East, and Asia. Russia has expanded its military presence in the Middle East and Africa, particularly in countries such as Syria and Libya. Russia has also provided systems such as the S-400 air defense system to Turkey, which could complicate some missions in—or around—Turkey.³⁸ China continues to build military and civilian infrastructure in countries such as Djibouti, where France has a significant military presence.

In addition, growing competition could lead Moscow and Beijing to pressure some host nation countries in these regions to limit or reject U.S. and European militaries from using their airbases or ports allowing overflight access. During the Cold War, for example, the Soviet Union routinely pressured foreign countries to refuse U.S. basing rights and overflight permission for operations that Moscow opposed.³⁹ By 2030, China’s People’s Liberation Army (PLA) probably will be able to deploy and sustain military forces across Asia and much of Africa. Chinese competence may include military airlift and sealift capabilities, along with the intelligence, logistics, and communications support needed to deal with threats to China. China may also have the ability and posture to deploy aircraft carrier strike groups to the Indian Ocean and Pacific Ocean by 2030.⁴⁰

MILITARY ENGAGEMENT, SECURITY COOPERATION, DETERRENCE, AND ASSURANCE MISSIONS ➤

Europe's largest militaries will likely be able to perform numerous military engagement, security cooperation, deterrence, and assurance missions through 2030 with limited U.S. assistance—especially in Europe and the Middle East. For example, European militaries will be able to conduct numerous deterrence missions in Europe to persuade Russia not to conduct specific actions.⁴¹ Similarly, European militaries likely will be able to conduct most assurance missions to support governments and their populations, such as flying AWACS, conducting enhanced air policing, and deploying SAMP/T systems.

France is likely to retain sufficient capabilities to conduct many of these missions in Europe, the Middle East, and West Africa—the latter as a follow-on to Operation Barkhane in the Sahel.⁴² France is reducing its presence in such countries as Burkina Faso, Chad, Mali, and Niger to a total of approximately 3,000 personnel.⁴³ France also possesses the military posture and enabling capabilities—including the enablers outlined in Chapter 2—to continue to keep these forces in the region, even with a decline in the number of forces and the potential instability the region may face after the April 2021 death of Chadian president and close French ally Idriss Déby.⁴⁴ France has undertaken medium-footprint expeditionary interventions, such as the 4,000 troop mission to defeat Islamist militants in Mali in 2013 to 2014.⁴⁵ Over the next 5 to 10 years, France will likely retain a sustained capability to conduct unilateral and joint expeditionary operations, especially as it resolves its shortfalls in aerial refueling, strategic and tactical airlift, unmanned aerial vehicles, and precision-guided munitions.⁴⁶ For example, France is acquiring more MQ-9s, capable of firing GBU-

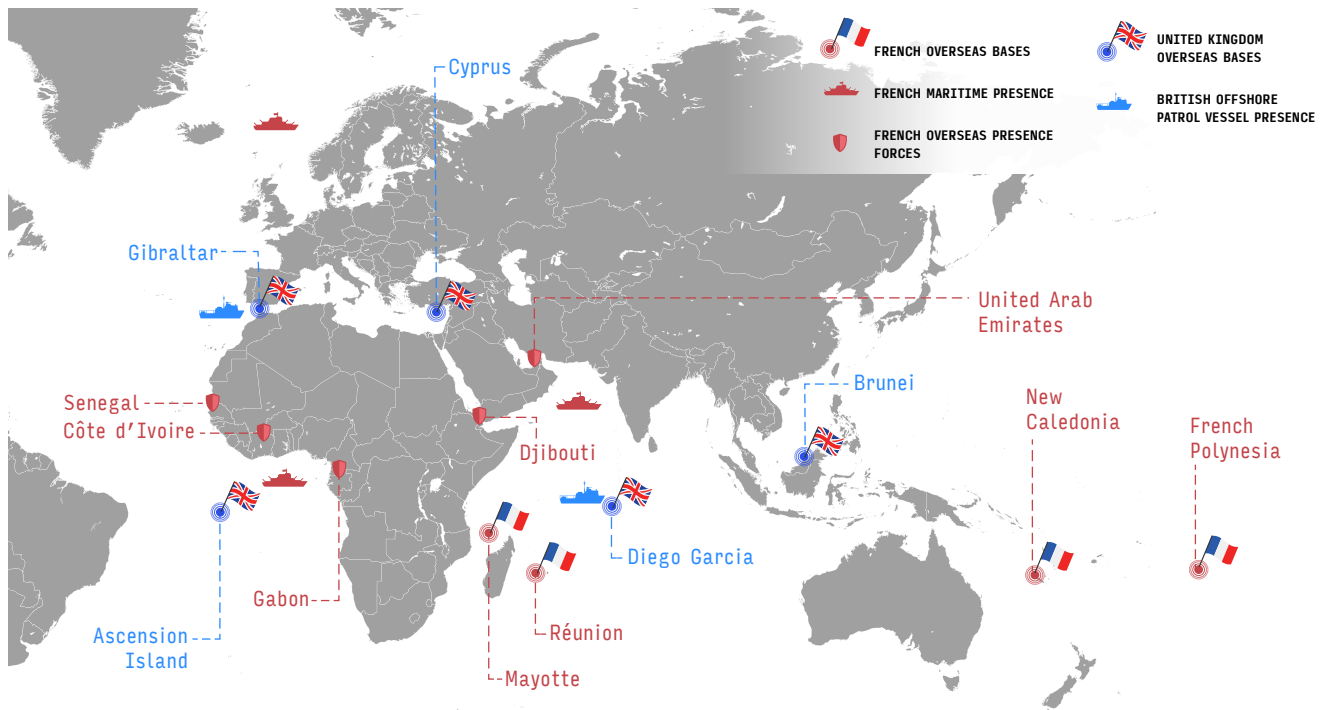
12s and Hellfire missiles. In addition, the French navy will likely remain capable of performing freedom of navigation, counterpiracy, countersmuggling, counternarcotics, and presence patrols—especially in Europe, the Middle East, and the African coast.⁴⁷

Similarly, the United Kingdom will likely be able to perform many of these types of military engagement, security cooperation, and other missions through 2030 in Europe, the Middle East, and parts of Africa—though the United Kingdom will have more difficulties in Asia. The United Kingdom will likely have significant limitations operating in the Indo-Pacific, where there are at least 1.7 million British citizens. The United Kingdom is attempting to expand its presence and activity and conduct such missions as freedom of navigation and maritime patrol. Along with the United States, the United Kingdom has also pledged to help Australia build nuclear-powered submarines to counter China in the Indo-Pacific region.⁴⁸ The United Kingdom has also conducted some exercises in the Indo-Pacific—including with Australia, Malaysia, Singapore, and New Zealand—to enable it to play at least a limited role.⁴⁹ In addition, the United Kingdom is developing a fifth-generation carrier strike group and investing in some next-generation capabilities, such as directed energy weapons and swarming drones.⁵⁰

Figure 3.5 highlights French and British posture in Africa, Europe, the Middle East, and Asia. France has some bases in New Caledonia, French Polynesia, Mayotte, Réunion, Djibouti, and the United Arab Emirates.⁵¹ So does the United Kingdom, with overseas bases in Brunei and Diego Garcia. But both France and the United Kingdom have limited power projection capabilities in the Indo-Pacific.

More broadly, European states will likely retain sufficient capabilities to perform several of these missions. France, the United Kingdom, and several other European countries—such as Germany—

FIGURE 3.5: FRENCH AND BRITISH POSTURE, 2021



Source: Carte des opérations et missions militaires [Map of military operations and missions], "Ministère des Armées [Ministry of the Armed Forces], February 10, 2021, https://www.defense.gouv.fr/operations/rubriques_complementaires/dispositif-operationnel-francais-de-ploye-a-travers-le-monde; United Kingdom Ministry of Defence, *Defence in a Competitive Age* (London: March 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974661/CP411_-_Defence_Command_Plan.pdf.

maintain competent special operations forces, allowing them to conduct security force assistance, counterterrorism, and other types of missions.⁵² In addition, Europe has several competent law enforcement and paramilitary forces—such as France's Gendarmerie and Italy's Carabinieri—capable of security force assistance, including training and advising foreign security forces. Several European states—such as France, Germany, the Netherlands, and the United Kingdom—will also likely retain significant capabilities to conduct offensive and defensive cyber operations, including against higher-end threats such as Russia and China.⁵³ Despite these capabilities, some European states may be hesitant to integrate offensive cyber capabilities into multilateral operations because of national sensitivities. European countries are also improving their ability to build computer network resilience, cyber institutions, and response strategies,

which will likely improve their ability to engage in offensive and defensive cyber missions. Finally, European countries will also likely have sufficient capabilities to conduct deterrence and assurance missions, such as enhanced air policing, maritime patrol aircraft, and forward-deployed troops.

Still, European states may face several types of challenges, based on a review of wargames and other analyses. First, they will likely face some problems in the Indo-Pacific region and parts of Africa with conducting military engagement, security cooperation, and similar types of missions without help from the United States and other partners. European militaries—even France and the United Kingdom—lack sufficient basing, airlift, logistics, aerial refueling, and power projection capabilities in the Indo-Pacific region.

Second, if planned new investments are not realized, air and naval patrol missions could become challenging even within Europe. In terms of air patrols, NATO currently conducts several air policing missions: Baltic Air Policing, Enhanced Air Policing (in the south), Icelandic Air Policing, Air Policing over Benelux, and Balkan Air Policing. While allies and partners have done well generating forces and capabilities for these missions, their concurrence, coupled with increased levels of Russian military activity close to NATO airspace, is stressing these assets. Personnel shortages, low aircraft readiness rates, and some allies' lack of investment in integrated air and missile defense capabilities will likely inhibit future missions. Staff air patrol shortfalls, for example, have impacted missions in some areas such as the Black Sea.⁵⁴ Fortunately, several allies are currently investing in ground-based air defense, short-range air defense, new fighter jets, and long-range patrol assets that will be in service by 2030.

Similarly, some types of maritime patrol missions could be impacted by shortages in frigates, problems with information sharing, and limited specialized capabilities, such as in ASW, if current defense plans are not realized.⁵⁵ While partially an issue of political will and competition with the European Union for resources, Operation Sea Guardian, which occurred in the Mediterranean, was chronically underresourced and faced particularly acute shortfalls in such areas as naval vessels (including surface combatants) and maritime patrol aircraft.⁵⁶ The German navy, for example, will likely continue to face personnel shortages, maintenance delays, spare part shortfalls, and procurement challenges.⁵⁷ As indicated in Chapter 2, the major allies recognize these deficiencies and are investing significantly in frigates and other ASW platforms that will enter service by 2030, if not sooner. Nevertheless, challenges may remain acute in the Indo-Pacific region, with such significant distances to cover in the Indian and Pacific Oceans.

Third, shortfalls could impact some types of security force assistance missions, especially in countries that face high levels of terrorism and insurgency and present a non-permissive environment. In the NATO Training Mission Iraq (NTM-I), there were shortfalls in filling Mobile Training Teams as well as force protection concerns. The NATO Mission in Kosovo (KFOR) faced personnel and intelligence shortfalls, including in human intelligence (HUMINT) and signals intelligence (SIGINT).⁵⁸

LARGE-SCALE COMBAT ➤

European states are likely to face significant challenges conducting large-scale combat missions, particularly in such areas as heavy maneuver forces, naval combatants, and support capabilities such as logistics and fire support. While much of this section focuses on European challenges in conducting large-scale combat involving Russia, China, and Iran, there are some broader problems that may impact large-scale combat. For example, it is unclear—and perhaps unlikely—that European states will realize planned major improvements in the interoperability of their forces regarding the usability of land maneuver formations; suppression of enemy air defense (SEAD);



European states are likely to face significant challenges conducting large-scale combat missions, particularly in such areas as heavy maneuver forces, naval combatants, and support capabilities such as logistics and fire support.

electronic warfare; chemical, biological, radiological, and nuclear (CBRN) defense; and medical support to operations.⁵⁹ It is also unlikely that European militaries will be able to operate at scale in high-end scenarios against countries such as Russia and China without significant U.S. assistance.

In addition, challenges in the land and maritime domains will likely impact Europe's ability to successfully perform high-end missions. While there may be new main battle tanks, infantry fighting vehicles, and armored personnel carriers, it is unclear that European militaries will adequately fix problems in combat support and training or address widespread shortfalls in materiel stockpiles by 2030.⁶⁰ Significant numbers of infantry battalions are likely to lack their required combat capabilities over the next decade, half of all combat brigades may lack short-range air defense, and roughly one-quarter of infantry divisions may lack long-range indirect fire capabilities.⁶¹ Maritime capabilities also pose a challenge for large-scale combat, including a qualitative shortfall in sensors (including sub-surface sensors), weapons, force protection, and survivability systems.⁶²

Despite these challenges, several European militaries are improving their capabilities in some areas. For example, European combat air capabilities will likely improve, with the shift to fifth-generation combat aircraft and improvement in air-to-air refueling, transport, and cargo capabilities because of the Multinational Multi-Role Tanker Transport (MRTT) aircraft fleet.⁶³ Members of the F-35 consortium—Denmark, Italy, Norway, the Netherlands, and the United Kingdom—are transitioning their fourth-generation F-16 fighters to fifth-generation F-35s by 2028. Several aspects of the F-35s—such as stealth and data-sharing capabilities—may be particularly helpful in conducting large-scale combat missions.⁶⁴ Two other European countries, Belgium and Poland, are also procuring and operating F-35s. The F-35 is a candidate in the fighter replacement programs of Finland and Germany. In 2021, Switzerland's Federal

Council recommended that the country purchase three dozen F-35As starting in 2027.⁶⁵ The United Kingdom, along with Italy and Sweden, is developing a sixth-generation future combat aircraft, the Tempest, which is expected to enter service in the mid-2030s.⁶⁶

European countries will likely continue to develop substantial space-based capabilities that will facilitate their participation in large-scale combat. For example, as discussed in Chapter 2, France has committed to increasing its military space budget through 2025 to facilitate the creation of a Space Command and to pursue active defense satellite technologies, including a self-defense laser to dazzle adversary satellites.⁶⁷ The United Kingdom is also developing high-energy lasers for anti-drone, missile defense, and counterspace purposes.⁶⁸ Norway's extensive experience in launching satellites to cover polar regions will remain a vital NATO asset.⁶⁹

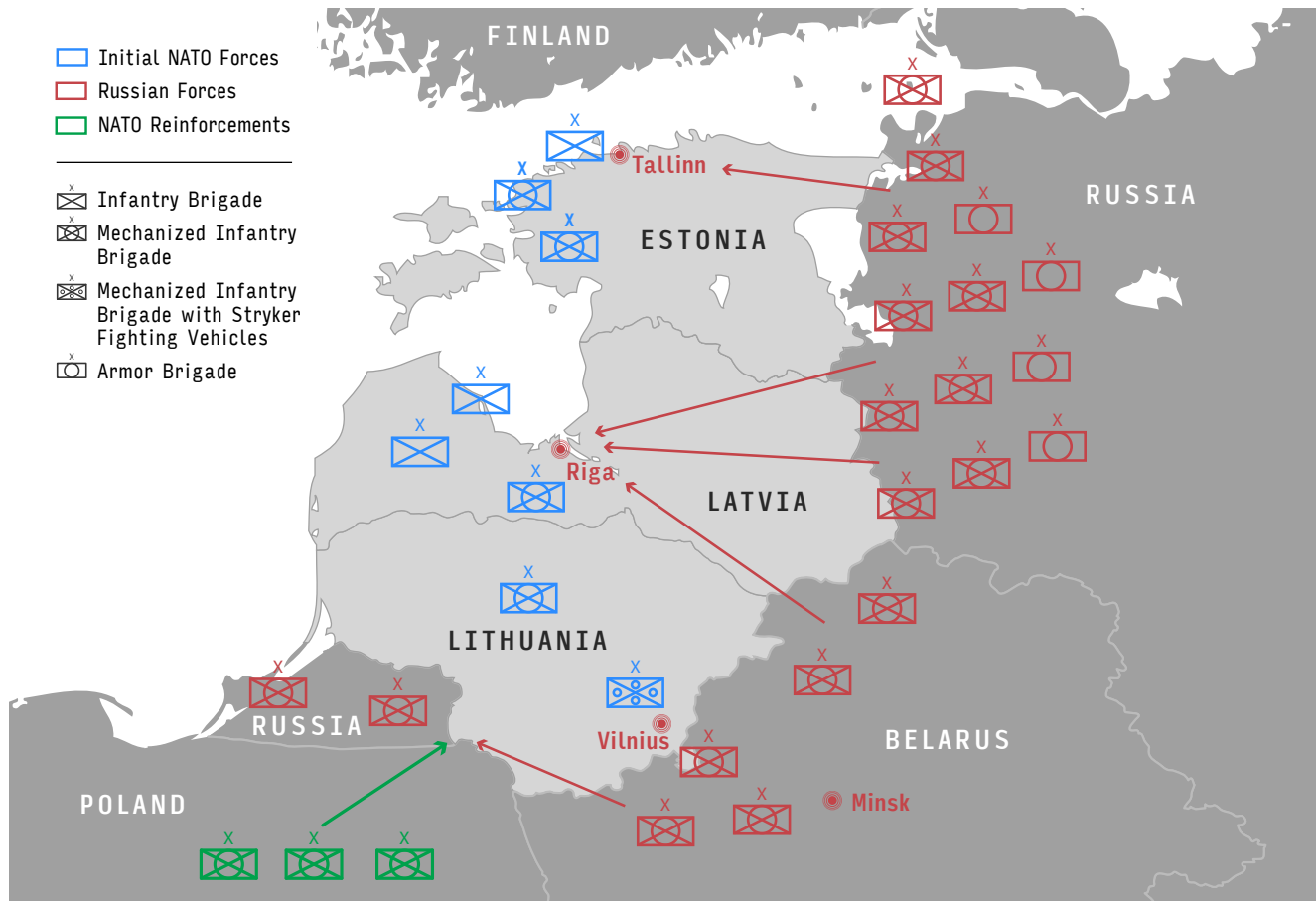
The rest of this section highlights several scenarios that help examine Europe's ability to effectively perform high-end military missions: a war with Russia in the Baltics, a war with Iran in the Persian Gulf, and wars with China in the Taiwan Strait and South China Sea. These cases represent plausible future scenarios involving large-scale combat and have been important as part of U.S. Operation Plans (OPLANS). This section uses the results and analyses from wargames, scenarios, exercises, and other analyses to assess the ability of European states to perform military missions through 2030.

RUSSIA ➤

War in the Baltics

The results of wargames, scenarios, and other analyses of a war with Russia in the Baltics indicate substantial European challenges. European states will unlikely possess the capabilities to successfully conduct high-end missions in the Baltics without—and even with—

FIGURE 3.6: SCENARIO OF POSSIBLE RUSSIAN INVASION OF THE BALTICS



Source: John Gordon IV et al., *Army Fires Capabilities for 2025 and Beyond* (Santa Monica, CA: RAND Corporation, 2019), https://www.rand.org/pubs/research_reports/RR2124.html.

the United States. Figure 3.6 highlights a potential Russian invasion of the Baltics and a NATO defense.⁷⁰

Russia possesses formidable capabilities in some areas. Moscow is modernizing its armored forces and incorporating advanced armored training. For example, some wargames and scenarios suggest that Russian main battle tanks will present a serious challenge. Russia is modernizing its T-72B3M, Tornado-G and Tornado-S Multiple Launch Rocket System, and 2S19M2 MSTA-SM self-propelled howitzers.⁷¹ Russia is also modernizing its legacy aircraft, surface-to-air missile (SAM) systems, and radars. By roughly 2025, Russia plans to deploy two regiments equipped with Avangard hypersonic glide vehicles (HGVs). The RS-28 Sarmat multiple-warhead

intercontinental ballistic missile is scheduled to be fielded around 2023.⁷² Russia's navy will incorporate new attack capabilities, such as anti-submarine sensors, advanced missiles, and long-range land-attack cruise missiles. Russia's Pacific Fleet will likely incorporate seven additional surface combatants by 2025 equipped with the Kalibr cruise missile system, as well as three new Project 22350 frigates armed with the Tsirkon missile system by 2025. Russia is also focused on improving other components of its anti-access/area denial (A2/AD) capabilities through 2030, including air defense, coastal missiles, and layered defenses.⁷³

According to some planning efforts, NATO might need roughly 100 combat battalions, 4 aircraft carrier strike

groups, and 80 fighter squadrons to win a large-scale campaign against Russia in the Baltics.⁷⁴ Otherwise, numerous wargames and scenarios assess that Russia would reach the outskirts of one or more Baltic capitals in roughly two to three days.⁷⁵ If the NATO Readiness Initiative (NRI) and Adapted NATO Response Force (aNRF) were implemented, European militaries might be able to meet planning objectives. But there would still be significant challenges, particularly without U.S. assistance.⁷⁶

One major problem will continue to be a disparity regarding long-range fires capabilities between Europe and Russia even with projected European investments in such systems. European governments would have to fight outnumbered and win under Russia's A2/AD and fires systems, which could deny Europe air superiority and sea control as well as inflict high losses on European forces. European forces will likely continue to be susceptible to fire throughout the theater from Russian systems, such as the Iskander, with no system capable of responding beyond fixed-wing aircraft.⁷⁷ European states will likely continue to lack sufficient ground-based air-defense capabilities to counter Russian cruise and ballistic missiles, although a significant increase in GBAD capabilities is likely by 2030.⁷⁸ These problems could be compounded by Russian long-range integrated air defense systems (IADS), which can prevent European states from using airpower in a decisive way early in the conflict.⁷⁹ Russian rockets and artillery may also outrange their European counterparts and threaten ground forces. On top of these qualitative advantages, Russia will likely continue to have large numerical advantages in tubes and launchers that make this imbalance additionally problematic.⁸⁰

European airpower may be able to destroy some advancing Russian battalions while facing Russian integrated air defense.⁸¹ But without a heavy European (or even U.S.) ground force to compel Russian forces to slow their advance, deploy off-road, and concentrate for battle, European forces will not likely have

sufficient time or lethality to halt a Russian invasion. While Germany's current defense plan aims to have three combat-capable divisions by 2031, reaching this milestone is unlikely because the German army is shrinking.⁸² The United Kingdom has also cut its army and plans to rely more heavily on reserve forces to make up the delta.⁸³ Wargames, scenarios, and other assessments highlight other problems with large-scale combat against Russia.⁸⁴



European forces will not likely have sufficient time or lethality to halt a Russian invasion.

If conflict escalates, the U.S. nuclear deterrent and supporting NATO extended deterrence framework will likely be essential. The independent nuclear deterrents of France and the United Kingdom—including the Vanguard-class and Le Triumphant-class nuclear-powered ballistic missile submarines (SSBNs), respectively—also contribute significantly to the overall security of NATO.⁸⁵ As noted in Chapter 2, France is upgrading its M45 submarine-launched ballistic missiles (SLBMs) with M51 missiles by 2025, and the United Kingdom will introduce its Dreadnought-class submarines in this same timeframe.⁸⁶ Belgium, Italy, Germany, and the Netherlands are also procuring dual-capable aircraft (DCA), such as the F-35 and F/A-18.⁸⁷

Other capability gaps that could impact missions in Baltic scenarios include: a longer-range, fast-flying radar-homing missile for suppressing modern surface-to-air missile (SAM) systems; mobile short-range air defense systems; long-range anti-ship missiles (LRASMs); and area munitions for the MLRS/Army

Tactical Missile System (ATACMS).⁸⁸ These problems would be particularly serious without U.S. involvement, though allies' investments in some of these systems could help them hold initial ground. These include acquisitions of ATACMS and Patriots by Poland and Hungary, the National/Norwegian Advanced Surface to Air Missile System (NASAMS) by Lithuania, and the High-Mobility Artillery Rocket System (HIMARS) by Poland.⁸⁹ In the view of many analysts, establishing an integrated air defense system for the Baltics is a logical next step in reinforcing deterrence and defense in the region.⁹⁰ In some scenarios, Russian forces were able to surround Warsaw in less than a week and orchestrate significant damage against Polish ground units, F-35s, and other advanced weapons systems from Russian artillery and air strikes.⁹¹ German and other European forces might also face significant challenges

neutralizing the Bastion-P coastal defense cruise missile systems located in Kaliningrad and could face significant command-and-control problems.⁹²

IRAN

Missile Threat

European states will likely face significant challenges dealing with a high-end conflict with Iran, based on a review of wargames, scenarios, and other analyses. Under the oversight of the Islamic Revolutionary Guard Corps (IRGC) Aerospace Forces (ASF) Al Ghadir Missile Command (AGMC), Iran will likely focus on fielding more accurate and longer-range missiles over

FIGURE 3.7: IRAN'S BALLISTIC AND CRUISE MISSILE RANGES THROUGH 2030



Source: Missile Defense Project, "Missiles of Iran," *Missile Threat*, CSIS, June 14, 2018, Last modified July 17, 2020, <https://missile-threat.csis.org/country/iran/>; "Identical letters dated 7 April 2021 from the Permanent Representative of Israel to the United Nations addressed to the Secretary-General and the President of the Security Council," United Nations Digital Library, April 8, 2021, <https://digitallibrary.un.org/record/3907877>.

the next decade that include countermeasures for defeating U.S. and partner missile defense systems. As Figure 3.7 highlights, Iran will likely continue to expand its missile ranges by 2030. A ballistic missile based on Iran's Zoljanah space launch vehicle could carry a one-ton warhead as far as 5,000 kilometers, allowing Iran to strike every European capital.⁹³ These developments will supplement other Iranian missiles, such as the Shahab-3 and Khorramshahr medium-range ballistic missiles, which have an operational range of up to 2,000 kilometers. Iran also has layered area denial and anti-surface warfare capabilities, including naval mining (e.g., moored contact, drifting contact, and limpet mines), small boat swarming tactics, and coastal defenses.⁹⁴

As noted in Chapter 2, NATO's Ballistic Missile Defense (BMD) program—which is designed to protect European populations from a ballistic missile attack from a country such as Iran—likely will not achieve full operational capabilities until at least 2030.⁹⁵ European missile defense capabilities are lagging. France possesses one SAMP/T ground-based air defense missile squadron that will be updated by 2025.⁹⁶ Spain is expected to have two long-range radars by 2024. Most of the European countries developing sea-based, lower-layer ballistic missile defense are forecasting delays—including to the development of a suitable interceptor missile—through the end of the decade.⁹⁷ The U.S. contribution to NATO's BMD architecture will remain critical, including the Aegis Ashore and periodic rotation of the THAAD missile defense system.

Most scenarios involving an Iranian missile threat in the Persian Gulf suggest that European countries will be able to play at best a limited role. Forces from several allied nations—particularly air, naval, and long-range fires forces from Israel, Kuwait, Saudi Arabia, Qatar, and the United Arab Emirates—might participate alongside the United States. Kuwait, Saudi Arabia, Qatar, the United Arab Emirates, and Oman could each potentially commit one or more combat

squadrons (and Saudi Arabia one or more wings) to a conflict. Some Middle Eastern countries possess the High-Mobility Artillery Rocket System (HIMARS) with Army Tactical Missile Systems (ATACMS) and could conduct fires across the Persian Gulf against Iranian targets.⁹⁸ European allies, such as Britain and France, could commit some naval and air forces and possibly forward station assets at their bases in the region.⁹⁹ But their missile defense capabilities are limited. Barring extended warning of potential Iranian aggression, and without substantial airlift assets, it is unlikely that European forces would be available during the critical early days of a Persian Gulf conflict.¹⁰⁰

CHINA ➤

War in the Taiwan Strait and South China Sea

European states will not have the capability by 2030 to successfully conduct large-scale combat operations against China without significant U.S. aid, including in the South China Sea or Taiwan Strait. The challenges in Asia are significant—even for the United States, which has likely lost “overmatch” with China.¹⁰¹ Double-digit economic growth rates allowed Beijing to expand its share of global wealth. That growing wealth



European states will not have the capability by 2030 to successfully conduct large-scale combat operations against China without significant U.S. aid, including in the South China Sea or Taiwan Strait.

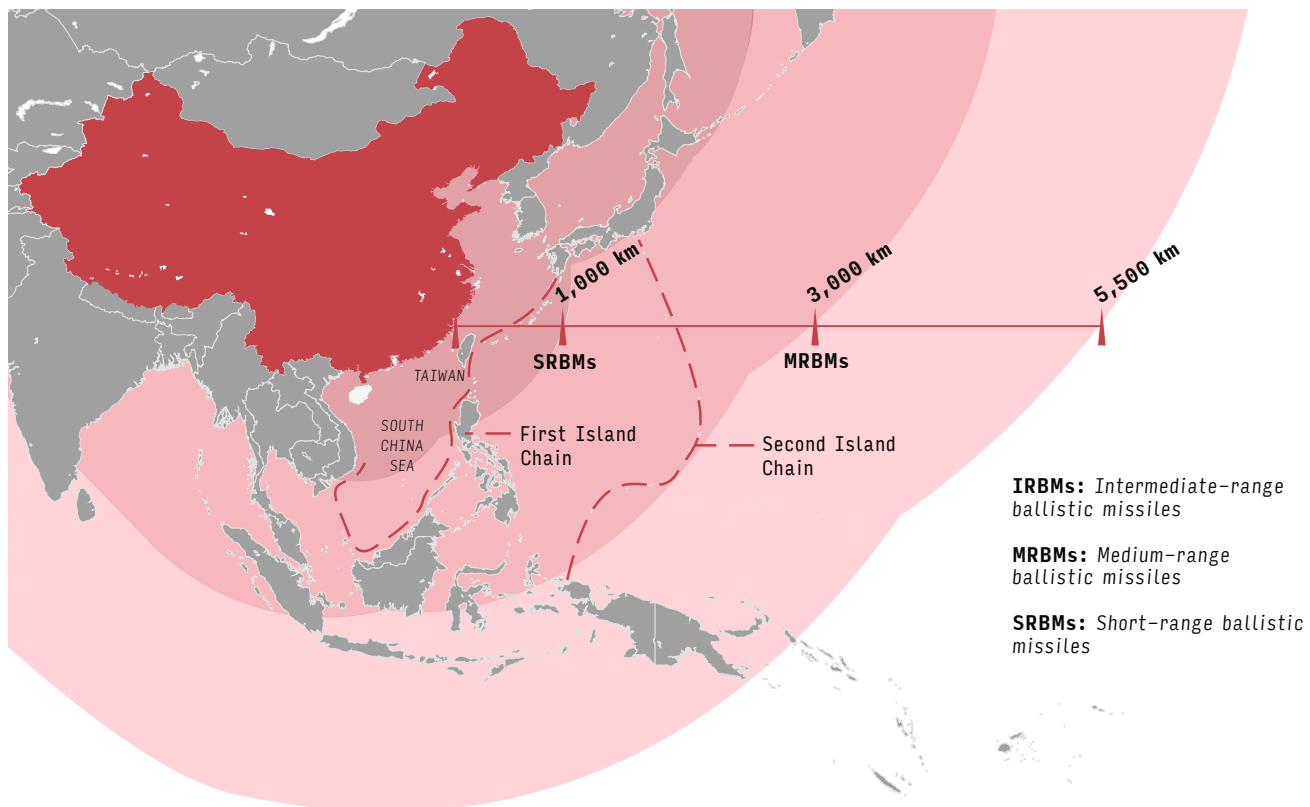
coupled with China's growing ambition has led to even greater annual increases in defense outlays, allowing China to increase its share of world military spending.¹⁰² The Chinese Communist Party's 14th Five Year Plan, which goes through 2025, calls for accelerated development of military mechanization, informatization, and intelligentization.¹⁰³ China is focusing on military applications for such areas as artificial intelligence, autonomous systems, biotechnology, information technology, quantum computing, robotics, advanced materials and manufacturing, and deep sea technologies.¹⁰⁴

Much of China's activity has focused on the development or acquisition of power projection capabilities—from fourth-generation aircraft to China's first aircraft carrier—designed to give China greater ability to influence actions in the Indo-Pacific. The PLA increasingly has the ability to put aircraft

carrier strike groups at risk and neutralize ground-based airpower. By 2030, the PLA will likely have the capability to deny operations within the First Island Chain and to complicate operations within the Second Island Chain. By 2030, the PLA may increasingly advance and integrate joint capabilities across multiple domains, which will improve China's strike capabilities, extend the range and efficacy of force projection, and protect Chinese interests.¹⁰⁵

China is developing J-20A and J-20B fifth-generation stealth fighter, armed stealth unmanned aerial vehicles, and the J-31 medium-weight stealth fighter by 2025.¹⁰⁶ China is also developing kinetic kill vehicle technology to field an upper-tier ballistic missile interceptor by 2030; longer-range, more accurate, and increasingly lethal ballistic and cruise missiles; air defenses; and other platforms and systems.¹⁰⁷

FIGURE 3.8: CHINA'S REGIONAL MISSILE THREATS



Source: Missile Defense Project, "Missiles of China," *Missile Threat*, CSIS, June 14, 2018, last modified July 16, 2020, <https://missile-threat.csis.org/country/china/>.

The PLA Navy is fielding new carrier-based aircraft, as well as ASW, helicopters, unmanned aircraft, land-based maritime strike, and air defense forces. China may have as many as five aircraft carriers by 2030, aided by helicopter carriers and a fleet of destroyers.¹⁰⁸ China has developed a credible and increasingly robust over-the-horizon (OTH) ISR capability. The development of China's space, counterspace, and electronics sectors has enabled it to increase the pace of satellite launches and deploy a wider range of sophisticated ISR satellites. China's development of anti-ship ballistic missiles presents a heightened maritime threat. At the same time, the ongoing modernization of Chinese air and submarine capabilities represents a more challenging threat to carrier strike groups. Some modeling suggests that the effectiveness of the Chinese submarine fleet (as measured by the number of attack opportunities it might achieve against carriers) has risen significantly over the past 25 years. Chinese submarines would present a credible threat to surface ships in a conflict over Taiwan or the South China Sea.¹⁰⁹

Based on these developments, European militaries will not likely have the power projection architecture and capabilities to play a major role in large-scale combat against China. They lack significantly deployable capabilities in such areas as ASW; ISR; ballistic missile defense; air precision strike; and suppression of enemy air defense and would likely prioritize those they do have for a Europe-based fight. With the exception of France, which has military assets and some 7,000 to 8,000 troops permanently stationed in the region, European countries lack the significant posture and prepositioned forces in the Indo-Pacific region needed to move quickly in the early stages of any conflict.¹¹⁰ The huge distances in the Indo-Pacific will also stress European allies' air-to-air refueling and transport capabilities. Nevertheless, European states can provide some capabilities—such as cyber and space—to support the United States or other countries in the region, including Australia, South

Korea, Japan, and New Zealand, and contribute to lower-end deterrence and assurance missions.

CONCLUSION ►

The goal of this chapter was to focus on military missions and to move beyond assessing whether European countries will be able to increase their defense spending to 2 percent of GDP or fix capability gaps. In examining which types of missions European governments will be able to effectively perform in Europe, the Middle East, parts of Africa, and the Indo-Pacific, this analysis highlights several findings.


First, European reliance on the United States can be divided into several tiers, as illustrated below. These tiers represent a judgment about whether European states could operate independently of the U.S. military, not whether they should:

- **Tier 1 Missions—Low Reliance on the United States:** Most European states likely will not require aid from the United States for such missions as non-combatant evacuation, peacekeeping, foreign humanitarian assistance, counternarcotics, counterterrorism, security force assistance, counter illegal migration, air patrol, and maritime patrol missions—particularly in and around Europe.
- **Tier 2 Missions—Medium Reliance on the United States:** Most European states likely will require some aid from the United States for military engagement, security cooperation, deterrence, and assurance missions in parts of the Middle East and Africa. In these regions, most European militaries could face some challenges with airlift, aerial refueling, basing, and other issues over extensive geographic areas.
- **Tier 3 Missions—High Reliance on the United States:** Most European states likely will require significant aid from the United States for large-scale combat, particularly with Russia, China, and

Iran. In addition, European militaries likely will also require U.S. aid to effectively perform numerous missions (such as deterrence and assurance) in the Indo-Pacific.

Second, some European states—particularly larger powers such as the United Kingdom and France—will likely have the capability to conduct most types of missions at the lower end of the conflict continuum without U.S. military aid, particularly in the area of crisis response and limited contingency missions. Examples include noncombatant evacuations, peacekeeping, and foreign humanitarian assistance—especially in Europe, the Middle East, and Africa. In addition, major European states will also likely be able to conduct most types of military engagement, security cooperation, deterrence, and assurance missions—especially in Europe and, to a degree, in the Middle East and Africa as well. Examples include security force assistance, counternarcotics, counterterrorism, air patrol, and maritime patrol. European militaries may face resource issues, including shortfalls in the number of aircraft, naval vessels, personnel, or spare parts, which could stress their ability to fill several missions concurrently or for an extended duration. Nevertheless, they likely will not have significant capability gaps in accomplishing most of these missions, particularly in Europe.

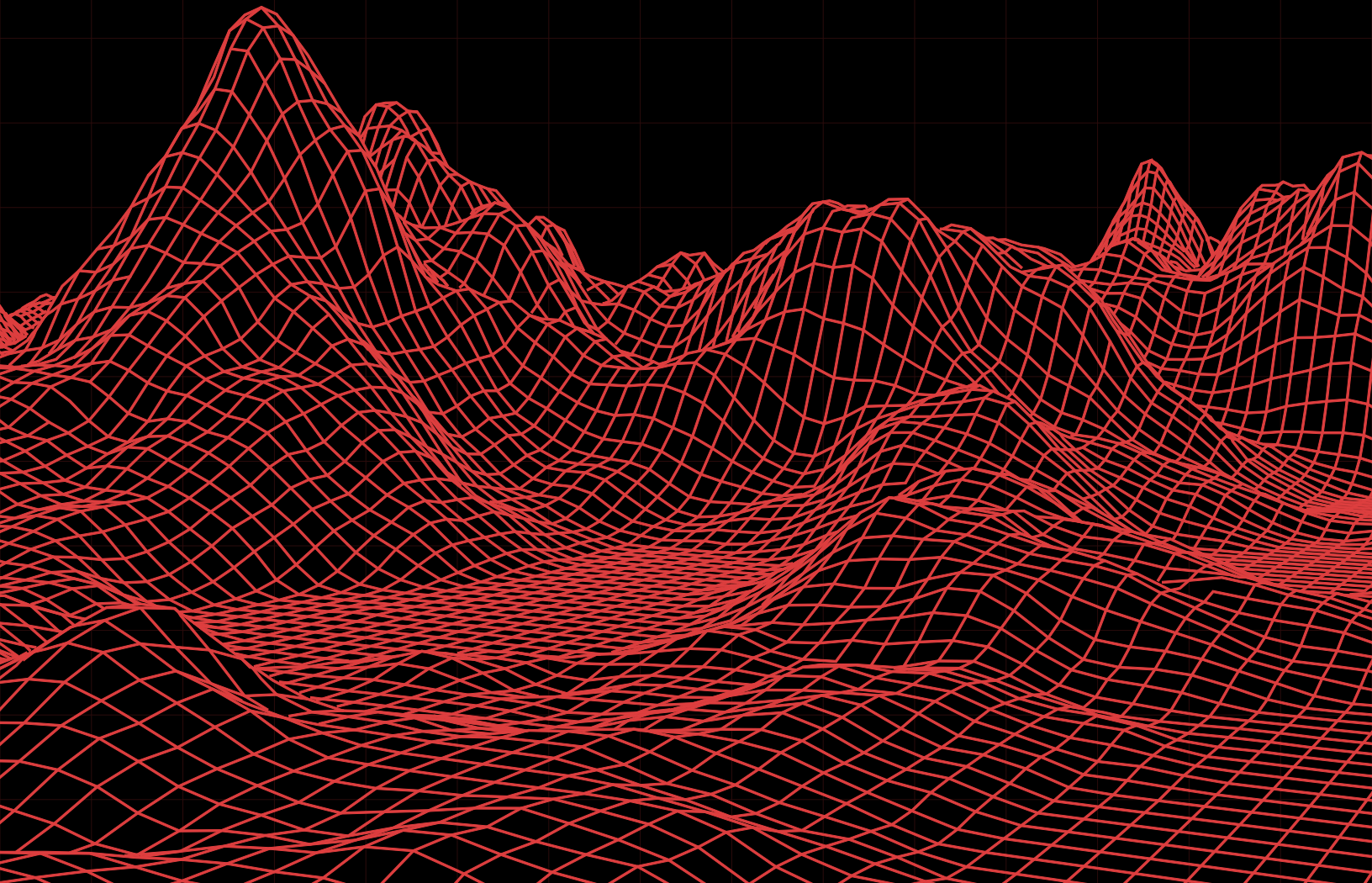
Third, European militaries—including the United Kingdom and France—will likely struggle with several types of missions without significant U.S. assistance. One is large-scale combat against Russia, China, and Iran, where European states still lack sufficient heavy maneuver forces, airlift, naval combatants, and support capabilities, such as logistics and fire support. Although European allies and partners of the United States plan to improve these capabilities by 2030, it is unclear whether they will be successful.¹¹¹ European challenges in conducting large-scale combat against peer—or near-peer—competitors may increase as Russia and especially China increase their

 **European militaries—including the United Kingdom and France—will likely struggle with several types of missions without significant U.S. assistance.**

conventional, nuclear, and even irregular capabilities. These challenges may be particularly notable with large-scale, high-end conflict at short notice given most European countries' persistent readiness challenges.

Another challenge will likely be missions in the Indo-Pacific, where European maritime and air forces lack sufficient airlift, aerial refueling, and basing to sustain operations. Countries such as France and the United Kingdom could mitigate basing challenges by reaching agreements with some countries in the region. These challenges contrast with the stated ambition from some European capitals. As the United Kingdom's integrated review noted, "we will pursue deeper engagement in the Indo-Pacific in support of shared prosperity and regional stability."¹¹² A French defense strategic document similarly concluded that "France is a nation of the Indo-Pacific."¹¹³ While both countries have significant economic and security interests in the region, and considerable economic and diplomatic tools they can bring to bear in defending them, their military capabilities are still lagging. As this analysis concluded, there will likely be significant limitations for European militaries in the Indo-Pacific.

CONCLUSIONS






As this analysis highlights, European allies and partners of the United States will likely be able to conduct a number of military missions by 2030 at the lower end of the conflict continuum.

For example, Europe's largest militaries will likely retain or improve their capacity to conduct crisis response and limited contingency missions—such as noncombatant evacuations, peacekeeping, and foreign humanitarian assistance—in Europe, the Middle East, and parts of Africa. They will also be able to handle most types of military engagement, security cooperation, deterrence, and assurance missions—such as security force assistance, counternarcotics, counterterrorism, air patrol, and maritime patrol—in Europe and, to an extent, in the Middle East and Africa. Modernization of strategic platforms such as combat air and surface combatants, as well as procurement of key enablers such as strategic and tactical airlift, aerial refueling, and ISR assets, will likely contribute to improvement at the lower end of the conflict spectrum.

Nevertheless, the shortfalls at the higher end of the conflict spectrum are concerning. By 2030, European states will likely still have difficulty conducting large-scale crisis management operations without assistance from the United States. They will also be unable to execute large-scale, high-end combat against peer—or near-peer—competitors, such as Russia and China. Despite a growing ambition to be more active in the Indo-Pacific, European militaries will likely require significant U.S. aid to effectively perform most missions in the region. These challenges are likely to increase as Russia, and especially China, enhance their own conventional, nuclear, and irregular capabilities.

Europe's limited progress is also tenuous. Delivering the promised forces and capabilities on schedule will require allies and partners to maintain—and even accelerate—momentum in increasing and improving the quality of their defense spending and adhering to their national defense plans as well as NATO targets. Although NATO cannot compel allies to meet their agreed targets, it needs to maintain pressure through regular assessments, to include the NATO secretary general's Annual Report and adjusting requirements in line with past progress and the evolving threat environment.¹

 **By 2030, European states will likely still have difficulty conducting large-scale crisis management operations without assistance from the United States.**

As the past six years have demonstrated, however, allies' forces and capabilities cannot recover from decades of underinvestment overnight. Legacy issues such as aging equipment, insufficient training at scale, and low stockpiles—which in turn create readiness and interoperability challenges—will take time to correct. Likewise, shifting the focus away from overseas crisis management operations and toward collective defense entails rebuilding, since many allies disbanded or pillaged larger units to create the lighter, more deployable units in demand. While NATO countries are reinvesting in their collective defense capabilities, this priority is competing with the reality of global, transnational challenges such as the Covid-19 pandemic and the need to integrate newer domains and emerging

technologies into their approach. Amid the economic pressures from Covid-19, there will also be a temptation to channel defense spending to health and social programs or to projects that support national defense industries even if these are not consistent with NATO targets. Another possible stressor on available forces is the increasing use of armed forces for domestic tasks, including counterterrorism and assisting with the pandemic.

Given the scale of the challenge, policymakers would be wise to consider other adjustments to increase the likelihood that European allies and partners can meet NATO's level of ambition and conduct a wider range of missions without U.S. assistance. As a start, this study recommends attention in four areas: metrics; NATO defense planning; procurement practices; and political will.

First, NATO should continue to revise its burden-sharing metrics to focus more on outcomes, including analyzing allies' ability to conduct specific missions. This could be done using the methods this report draws on, namely aggregating lessons learned from analyzing past operations and conducting future wargames and scenarios. These steps would be a natural task for NATO's Allied Command Transformation (ACT), which already hosts a lessons-learned portal.² Similarly, NATO could more closely monitor, and hold allies accountable for, how closely their national defense plans track with and prioritize NATO requirements. As it stands, some allies adhere closely to their NATO Defense Planning Process (NDPP) targets and use the NDPP to guide their national force planning. For others, particularly some larger allies, the NDPP is more of a guidepost and takes a back seat to national planning processes.

Second, NATO would do well to modernize the NDPP itself. This might entail incorporating more targets in emerging domains or giving greater focus to capabilities that enable multidomain integration, which are both essential to evolving the way NATO

plans and operates. NATO might also assign planning targets focused on the regional level, as these are more likely to align with national interests. Larger allies such as France, Germany, the United Kingdom, and Italy could serve as framework nations in these regional constructs. There is also potential for the United States and other major allies to direct more political support and energy toward executing on NATO Multinational High Visibility Projects (HVPs), which aim to address gaps outlined by the NATO Defense Priorities (NDP) using a top-down approach.³

Third, adjustments to NATO funding and procurement practices can help increase the likelihood that capability targets are met. NATO is currently funded by a mix of direct and indirect contributions. Indirect funding makes up the largest portion of funding and includes allies' national defense budgets and troop commitments to NATO. In contrast, direct funding—which includes common funding and joint funding—constitutes only 0.3 percent of NATO's total defense spending and covers the costs of NATO's command structure, current operations and missions, and military infrastructure. If allies agreed to marginally increase the common funding portion of their direct funding, this could be used to fill collective capability targets and alliance-wide shortfalls. Other mechanisms that have been suggested or attempted to more reliably fund high-impact and high-cost systems—such as integrated air defense for the Baltic or Black Sea regions—include the idea of a “NATO Bank” or pooled security assistance.⁴

Fourth is political will. While this issue is outside the scope of this report, as previously highlighted, it is the proverbial elephant in the room. If European partners and allies of the United States lack the political will to use military power, then no increase in defense spending or procurement will improve their ability to contribute to missions. Examples include a lack of strategic culture, low public support, cumbersome decisionmaking, and budget limitations. In this respect, understanding the factors that drive

allies' and partners' procurement and deployment decisions (or lack thereof) is essential to correcting the problem.

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APPENDIX 1

Examples of Military Operations Involving European Countries

NAME OF OPERATION	START DATE	END DATE	REGION	LOCATION	MULTILATERAL INSTITUTION / COUNTRY (E.G., EUROPEAN UNION, NATO)	MAIN TASKS
EUPOL COPPS	1-Jan-06	Ongoing	Middle East	Palestinian National Authority	European Union	Support Palestinian Civil Police/criminal justice reform, and improve prosecution-police cooperation.
EUFOR ALTHEA	2-Dec-04	Ongoing	Europe	Bosnia and Herzegovina	European Union	Support EU Comprehensive Strategy for BiH, support BiH authorities to ensure a Safe and Secure Environment (SASE), and organize training exercises with armed forces of BiH.
EUBAM – Moldova and Ukraine	7-Oct-05	Ongoing	Europe	Moldova	European Union	Contribute to peaceful settlement of Transnistrian conflict, assist implementation of Integrated Border Management, and assist fight against cross-border crime.
EUAM Ukraine	22-Jul-14	Ongoing	Europe	Ukraine	European Union	Advise civilian SSR efforts, support reform implementation, and coordinate between Ukrainian and international actors.
EUMM Georgia	1-Oct-08	Ongoing	Asia	Georgia	European Union	Prevent resurgence of conflict along Abkhazia/South Ossetia border, protect rights of border communities, and inform EU policy with respect to Georgia.
EULEX – Kosovo	4-Feb-08	Ongoing	Europe	Kosovo	European Union	Monitor selected trials in Kosovar justice system, build capacity of Kosovo Correctional Service, and support Kosovo Police on crowd/riot control.
EUBAM RAFAH	25-Nov-05	Ongoing	Middle East	Palestinian National Authority	European Union	Assist with border management activities at Rafah Crossing Point (on standby since 2007).
EUAM – Iraq	17-Oct-18	Ongoing	Middle East	Iraq	European Union	Provide strategic-level advice to Office of the National Security Adviser and Ministry of Interior for SSR in Iraq, and support EU Member State SSR activities.
EUNAVFOR MED (“Operation IRINI”)	31-Mar-20	Ongoing	Africa	Central Mediterranean	European Union	Implement UNSC arms embargo on Libya, and support conditions for permanent ceasefire.
EUTM Mali	17-Jan-13	Ongoing	Africa	Mali	European Union	Improve operational capacity of Malian Armed Forces, and support operationalization of G5 Sahel Joint Force.
EUCAP Sahel – Mali	15-Apr-14	Ongoing	Africa	Mali	European Union	Provide SSR assistance to police, gendarmerie, and national guard, conduct trainings for civilian law enforcement, and coordinate other international partners.
EUCAP Sahel – Niger	8-Aug-12	Ongoing	Africa	Niger	European Union	Support Nigerien security sector interoperability, strengthen capacity to fight organized crime/terrorism, and support capacity to manage migration flows.
EUAM RCA	9-Aug-20	Ongoing	Africa	Central African Republic	European Union	Provide strategic-level advice to CAR Ministry of Interior and Public Security and Internal Security Forces, support rule-of-law, and develop security sector integration
EUTM RCA	1-Jul-16	Ongoing	Africa	Central African Republic	European Union	Assist restructuring of Central African defense forces, and provide operational training and leadership education to officer and NCO corps.

EUTM Somalia	7-Apr-10	Ongoing	Africa	Somalia	European Union	Strengthen Somali federal defense institutions, educate Somali General Staff, and build capacity of Somali Defense Ministry.
EUCAP Somalia	1-Jul-12	Ongoing	Africa	Somalia	European Union	Support Somali maritime authorities, and strengthen maritime criminal justice processes.
EU NAVFOR – Somalia ("Operation Atalanta")	1-Dec-08	Ongoing	Africa	Somalia	European Union	Protect WFP, AMISOM vessels from Somali-based piracy, deter general piracy, monitor fishing activities off Somali coast, and support maritime security capacity-building efforts.
EUBAM Libya	1-May-13	Ongoing	Africa	Libya	European Union	Support Libyan authorities to develop Integrated Border Management (IBM) strategy, and train border officials.
EUPM – Bosnia and Herzegovina	1-Jan-03	30-Jun-12	Europe	Bosnia and Herzegovina	European Union	Train BiH police, build capacity to fight organized crime, and ensure police-prosecution cooperation
EUNAVFOR MED ("Operation Sophia")	22-Jun-15	31-Mar-20	Africa	Mediterranean Sea	European Union	Disrupt human trafficking, train Libyan Coast Guard/Navy, and contribute to arms embargo implementation.
CONCORDIA/FYROM	31-Mar-03	15-Dec-03	Europe	Republic of North Macedonia	European Union	Ensure implementation of 2003 Ohrid Framework Agreement, and prevent conflict between Macedonian Slavs and Albanians.
EUPOL Afghanistan	1-Jun-07	31-Dec-16	Asia	Afghanistan	European Union	Advise on reforms at Ministry of Interior, and professionalize Afghan National Police.
EUPOL PROXIMA/FYROM	15-Dec-03	14-Dec-05	Europe	Republic of North Macedonia	European Union	Assist in consolidation of law and order, fight against organized crime, and aid implementation of Ministry of Interior reforms.
EUPAT	15-Dec-05	15-Jun-06	Europe	Republic of North Macedonia	European Union	Advise police reform, police-judiciary cooperation, and professionalization.
EU SSR Guinea-Bissau	1-Jun-08	30-Sep-10	Africa	Guinea-Bissau	European Union	Develop implementation plans for SSR Strategy, and develop capacity-building plans.
EUFOR Tchad/RCA	28-Jan-08	15-Mar-09	Africa	Chad	European Union	Support civilian protection, facilitate humanitarian assistance, and protect UN personnel/installations.
EUJUST THEMIS	16-Jul-04	14-Jul-05	Asia	Georgia	European Union	Develop reform strategy for Georgian criminal justice legislation.
EUJUST LEX-Iraq	1-Jul-05	31-Dec-13	Middle East	Iraq	European Union	Professionalize Iraqi criminal justice system, deepen collaboration in criminal justice, and train Iraqi legal authorities.
EUAVSEC South Sudan	18-Jun-12	17-Jan-14	Africa	South Sudan	European Union	Strengthen aviation security at Juba International Airport, and advise Ministry of Transportation in establishment of aviation security organization.
EUMAM RCA	16-Mar-15	1-Jul-16	Africa	Central African Republic	European Union	Advise SSR efforts for the Central African Armed Forces.
ARTEMIS/DRC	12-Jun-03	1-Sep-03	Africa	Democratic Republic of the Congo	European Union	Stabilize conflict in Ituri Province/Bunia, and provide civilian/UN personnel protection.
EUPOL RD Congo	1-Jul-07	30-Sep-14	Africa	Democratic Republic of the Congo	European Union	Support and advise Congolese police leaders in drafting restructuring/reform plans.
EUSEC RD Congo	1-Jun-05	1-Jun-16	Africa	Democratic Republic of the Congo	European Union	Support Congolese authorities on SSR efforts to comply with democratic/humanitarian standards.
EUPOL Kinshasa (DRC)	1-Apr-05	1-Jun-07	Africa	Democratic Republic of the Congo	European Union	Advise and assist Congolese Integrated Police Unit (IPU) to ensure conformity with international rule of law standards.
EUFOR RD Congo	12-Jun-06	30-Nov-06	Africa	Democratic Republic of the Congo	European Union	Support MONUC operations to secure 2006 Congolese elections, with particular focus on Kinshasa.

EUFOR RCA	10-Feb-14	15-Mar-15	Africa	Central African Republic	European Union	Secure Bangui against armed rebel actors, and facilitate the delivery of humanitarian relief and the return of IDPs.
Aceh Monitoring Mission	15-Sep-05	15-Dec-06	Asia	Indonesia	European Union	Monitor implementation of Aceh Peace Agreement, and facilitate insurgent disarmament.
Resolute Support	1-Jan-15	Ongoing	Asia	Afghanistan	NATO	Support rule of law/good governance, force generation, recruitment, and training for Afghan security forces.
Kosovo Force (KFOR)	1-Jun-99	Ongoing	Europe	Kosovo	NATO	Professionalize multiethnic Kosovo Security Force, and support EU dialogue between Belgrade/Pristina.
Sea Guardian	1-Oct-16	Ongoing	Europe	Mediterranean Sea	NATO	Support maritime situational awareness, counterterrorism, and capacity-building.
NATO Mission Iraq	1-Jul-18	Ongoing	Middle East	Iraq	NATO	Provide counterterrorism training to Iraqi security forces to prevent re-emergence of the Islamic State.
Allied Protector	1-Mar-09	1-Aug-09	Africa	Gulf of Aden	NATO	Conduct counterpiracy, and improve commercial maritime safety in Horn of Africa.
Ocean Shield	17-Aug-09	15-Dec-16	Africa	Gulf of Aden	NATO	Conduct counterpiracy and capacity building for counterpiracy.
Active Endeavour	1-Oct-01	1-Oct-16	Africa	Mediterranean Sea	NATO	Counter terrorist activities in Mediterranean, secure trading routes, and engage in civilian rescue operations.
Unified Protector	23-Mar-11	31-Oct-11	Africa	Libya	NATO	Enforce Libyan arms embargo, no-fly-zone, and civilian protection.
International Security Assistance Force (ISAF)	1-Aug-03	28-Dec-14	Asia	Afghanistan	NATO	Support ANSF operations, build capacity of ANSF, and contribute to reconstruction efforts.
NATO Training Mission in Iraq (NTM-I)	30-Jul-04	31-Dec-11	Middle East	Iraq	NATO	Train, mentor, and assist Iraqi Security Forces, and develop long-term NATO-Iraq cooperation framework.
Pakistan Earthquake Relief	11-Oct-05	1-Feb-06	Asia	Pakistan	NATO	Establish air bridges to deliver aid to Pakistani earthquake victims, run field hospital to provide medical assistance, and provide engineering support for infrastructure reconstruction.
"Distinguished Games" Olympic Support	1-Jun-04	1-Sep-04	Europe	Greece	NATO	Provide CBRN assets to secure Olympics and AWACS support for security and surveillance.
Display Deterrence	1-Feb-03	1-May-03	Middle East	Turkey	NATO	Conduct AWACS flights to defend Turkish airspace, and defend airspace with PATRIOT missile deployments.
Allied Harmony	16-Dec-02	31-Mar-03	Europe	Republic of North Macedonia	NATO	Provide advisory elements to ensure country-wide stability.
Amber Fox	27-Sep-01	15-Dec-02	Europe	Republic of North Macedonia	NATO	Protect international monitors overseeing peace plan implementation.
Essential Harvest	27-Aug-01	26-Sep-01	Europe	Republic of North Macedonia	NATO	Disarm ethnic Albanian groups operating in North Macedonia.
Eagle Assist	9-Oct-01	16-May-02	North America	United States	NATO	Fly AWACS flights over United States airspace following September 11 attacks.
Allied Force	24-Mar-99	10-Jun-99	Europe	Serbia	NATO	Conduct coercive airstrikes against Serbian forces to prompt withdrawal from Kosovo.
Joint Guard/Joint Forge	20-Dec-96	2-Dec-04	Europe	Bosnia and Herzegovina	NATO	Deter resumption of hostilities, promote climate that facilitates peace, and support select civilian organizations.
Joint Endeavour	16-Dec-95	20-Dec-96	Europe	Bosnia and Herzegovina	NATO	Implement and enforce conditions of the Dayton Peace Accord.

Deliberate Force	30-Aug-95	20-Sep-95	Europe	Bosnia and Herzegovina	NATO	Conduct airstrikes against Bosnian Serb army positions.
Deny Flight	12-Apr-93	20-Dec-95	Europe	Bosnia and Herzegovina	NATO	Conduct aerial monitoring and compliance for no-fly-zone, provide close air support to UN troops, and conduct air strikes.
Barkhane	1-Aug-14	Ongoing	Africa	Burkina Faso	France	Prevent re-establishment of jihadist safe havens, train partner forces, and support humanitarian projects.
Serval	11-Jan-13	31-Jul-14	Africa	Mali	France	Halt jihadist advance in Mali, restore Malian territorial integrity, and secure French expats/ hostages.
Chammal	19-Sep-14	Ongoing	Middle East	Iraq	France	Contribute to Operation Inherent Resolve, and support local forces in counter-Islamic State activities.
Épervier	1-Feb-86	1-Aug-14	Africa	Chad	France	Protect French interests and expats in Chad, and provide logistical support to the Chadian armed forces.
Licorne	22-Sep-02	21-Jan-15	Africa	Ivory Coast	France	Protect French interests and expats in Cote d'Ivoire, and support United Nations Peacekeeping Mission and UNSC resolutions.
Tamour	1-Aug-12	27-Nov-13	Middle East	Jordan	France	Perform surgical operations, provide medical consults, and run vaccination campaigns in support of Jordanian humanitarian response efforts.
Amaryllis	8-Apr-94	14-Apr-94	Africa	Rwanda	France	Evacuate 1,250 civilians from Rwanda during 1994 Rwandan Genocide.
Triton	1-Nov-14	31-Jan-18	Europe	Mediterranean Sea	European Union	Support Italy with border control, surveillance, and search and rescue in the Central Mediterranean.
Mare Nostrum	18-Oct-13	31-Oct-14	Europe	Mediterranean Sea	Italy	Counter illegal migratory flows, safeguard human life, and engage in law enforcement operations against human traffickers and migrant smugglers
Themis	1-Feb-18	Ongoing	Europe	Mediterranean Sea	European Union	Support Italy with border control, maritime interdiction, and search and rescue operations.
2017 French presidential elections	N/A	7-May-17	Europe	France	France	Secure and deter attacks against May 2017 French presidential election.
2019 EU parliamentary elections	N/A	26-May-19	Europe	European Union	European Union	Secure and deter attacks against May 2019 European Union parliamentary elections.
Deadeye	30-Aug-95	31-Aug-95	Europe	Bosnia and Herzegovina	NATO	Neutralize Bosnian Serb air defenses and SAM sites to attain air superiority.
Mare Sicuro	12-Mar-15	Ongoing	Africa	Mediterranean Sea	Italy	Ensure maritime security vis-à-vis Libyan-based terrorist threats.
Corymbe	21-May-90	Ongoing	Africa	Gulf of Guinea	France	Support Gulf of Guinea maritime security, and support French land-based operations.
Atlantic Resolve	Mar-14	Ongoing	Europe	Eastern Europe/ Baltics	NATO	Demonstrate continued commitment to NATO collective security, and deter Russian aggression.
Black Sea Deterrence	2014 (est)	Ongoing	Europe	Black Sea	NATO	Demonstrate commitment to Black Sea security, and deter Russian aggression.
Enduring Freedom	7-Oct-01	28-Dec-14	Asia	Afghanistan	U.S.-led Coalition	Topple Afghan Taliban government, and counter global al-Qaeda activities in response to 9/11 attacks.
Iraqi Freedom	19-Mar-03	31-Dec-09	Middle East	Iraq	U.S.-led Coalition	Topple Ba'ath government in Iraq.
NATO air policing over Albania, Slovenia, and Montenegro	1-Jan-04	Ongoing	Europe	Albania	NATO	Assure collective air defense of NATO territory, and scramble fighters in response to threats.

NATO air policing over BENELUX	1-Jan-17	Ongoing	Europe	Belgium	NATO	Assure collective air defense of NATO territory, and scramble fighters in response to threats.
NATO air policing over Baltic States	1-Jan-04	Ongoing	Europe	Estonia	NATO	Assure collective air defense of NATO territory, particularly with regard to Russia.
NATO air policing over Iceland	1-May-08	Ongoing	Europe	Iceland	NATO	Assure collective air defense of NATO territory, and scramble fighters in response to threats.
Tailored Assurance Measures for Turkey	18-Dec-15	Ongoing	Middle East	Turkey	NATO	Assure security in light of security challenges in Turkish border, provide AWACS flights, engage in ISR activities and information sharing, and conduct maritime activities in Mediterranean.
Libelle	14-Mar-97	14-Mar-97	Europe	Albania	Germany	Evacuate German citizens from Tirana, Albania, following outbreak of riots.
Palliser	8-May-00	30-May-00	Africa	Sierra Leone	United Kingdom	Evacuate British civilians from Sierra Leone during civil war.
Poseidon	2006	Ongoing	Europe	Mediterranean Sea	European Union	Support Greece with border surveillance, migrant registration, and criminal interdiction.
Minerva, Indalo	1-Jul-12	Ongoing	Europe	Mediterranean Sea	European Union	Support Spain with border checks, migrant registration, and criminal interdiction.
Counter-Islamic State Operations	17-Oct-14	Ongoing	Middle East	Syria	U.S.-led Coalition	Intervene against the Islamic State, in response to rapid territorial gains in 2014.
Kipion	1980	Ongoing	Middle East	Persian Gulf	United Kingdom	Detect and destroy maritime UXO in the Persian Gulf.
Patwin	2013	2013	Asia	Philippines	United Kingdom	Support humanitarian response to Typhoon Haiyan.
UN Multidimensional Integrated Stabilization Mission in Mali	25-Apr-13	Ongoing	Africa	Mali	United Nations	Protect civilians, and support political reconciliation.
UN Interim Force in Lebanon	19-Mar-78	Ongoing	Middle East	Lebanon	United Nations	Monitor cessation of hostilities, and accompany Lebanese armed forces on southern deployments, including along Blue Line, to monitor Israeli withdrawal.
UN Peacekeeping Force in Cyprus	4-Mar-64	Ongoing	Europe	Cyprus	United Nations	Prevent recurrence of conflict, supervise ceasefire line, and maintain buffer zone between Cyprus National Guard and Turkish Cypriot forces.
UN Multidimensional Integrated Stabilization Mission in the Central African Republic	10-Apr-14	Ongoing	Africa	Central African Republic	United Nations	Protect civilians, support political reconciliation process, and deploy child/women protection advisers.
UN Disengagement Observer Force	31-May-74	Ongoing	Middle East	Israel	United Nations	Maintain ceasefire in the Golan Heights, and supervise implementation of the disengagement agreement.
1999 WMD Initiative	23-Apr-99	Ongoing	N/A	N/A	NATO	Counter WMD proliferation, and support NATO cooperation/education efforts to that end.

Source: CSIS research and analysis.

APPENDIX 2

Description of European Capabilities to Perform Missions

MILITARY MISSIONS	EUROPE (INCLUDING MEDITERRANEAN)	MIDDLE EAST	NORTH, WEST, EAST AFRICA	INDO-PACIFIC
CRISIS RESPONSE AND LIMITED CONTINGENCY MISSIONS				
Noncombatant evacuation operations	High, particularly because of geographic proximity	High, though could be more challenging in war-torn countries such as Iraq	Medium, though the French are fairly well positioned because of their posture in Francophone Africa	Medium, particularly with challenges like airlift and aerial refueling far from Europe
Peacekeeping	High, including in the Balkans	High, though could be more difficult with high levels of insurgency or terrorism	Medium, though could be more challenging in war-torn countries such as Libya and Somalia	Medium, particularly with the geographic distances and limited military posture
Foreign humanitarian assistance	High, including in the Balkans and in response to natural disasters such as earthquakes	High, though could be harder in countries such as Syria where governments do not have close relations with the regime	Medium, especially in parts of the Sahel and East Africa	Medium, especially with the significant geographic distances
MILITARY ENGAGEMENT, SECURITY COOPERATION, DETERRENCE, AND ASSURANCE MISSIONS				
Security force assistance	High, including in the Balkans	High, though could be more challenging in war-torn countries such as Iraq and Syria	High, especially for the United Kingdom and France	Medium, particularly with challenges in basing, airlift, logistics, and aerial refueling in the region
Counternarcotics	High, including in the Mediterranean	Medium, including with the opium trade coming out of Afghanistan	Medium, particularly in areas such as the Sahel that cover huge distances	Low, including in East, South, and Southeast Asia
Counter weapons of mass destruction	High, especially with competent special operations forces	High, especially with competent special operations forces	Medium especially with competent special operations forces	Low, including on the Korean Peninsula
Counter illegal migration	High, including along Europe's southern flank	Medium, especially migration through Turkey, Eastern Europe, and the Eastern Mediterranean	Medium, especially in areas such as the Sudan, Chad, Niger, and Mali	Low, including with illegal migration along maritime and land routes
Counterterrorism	High, including maritime counterterrorism missions in the Mediterranean	High, including special operations capabilities against the Islamic State	Medium, including with France and the United Kingdom	Low, particularly with basing and enabler challenges
Cyber	Medium, including against Russia	Medium, including against Iran	Medium, including against major powers operating in the region	Medium, including against China
Air patrol	High, including in the Mediterranean	High, though could be complicated by problems with overflight rights over countries such as Syria	Medium, though more difficult in covering huge expanses such as the Sahel	Low, particularly with such limited bases and enablers
Maritime patrol	High, including in the eastern and western Mediterranean, Black Sea, North Sea, Baltic Sea, and North Atlantic Ocean	High, especially in Persian Gulf, Red Sea, Gulf of Oman, Gulf of Aden, and Arabian Sea	Medium, especially in the Gulf of Aden, southern Mediterranean, and off Horn of Africa	Low, including in the Indian and Pacific Oceans
Deterrence	Medium, including eFP in Poland, tFP in Black Sea, Baltics, and Nordic countries	Medium, including activity in the Gulf of Aden, Arabia Sea, and Persian Gulf	Medium, though could become more difficult with Russian or Chinese expansion in the continent	Low, especially since there are too few capabilities over a huge area to deter countries such as China
Assurance	Medium, including assurance missions for Turkey	Medium, including activity in the Gulf of Aden, Arabia Sea, and Persian Gulf	Medium, though could become more difficult with Russian or Chinese expansion in the continent	Low, especially with a paucity of capabilities and limited posture
Crisis Management	Medium, including in the Balkans	Medium, including in countries such as Iraq	Medium, including with French operations in Francophone Africa	Low, though some countries such as France and the United Kingdom could support Asian partners such as Australia
LARGE-SCALE COMBAT				
Unilateral or multilateral combat	Low, since European countries would still need significant U.S. combat support against Russia	Low, since European missile defense capabilities are lagging	Low, though large-scale combat is unlikely in North, West, or East Africa any time soon	Low, especially with virtually no power projection capabilities

Source: CSIS research and analysis.

ENDNOTES

Executive Summary

- 1 Max Bergmann and Sienna Cicarelli, *Open a Bank* (Washington, DC: Atlantic Council, October 2020), <https://www.atlanticcouncil.org/content-series/nato20-2020/open-a-bank/>.

Chapter 1: Introduction

- 1 See, for example, Hugo Meijer and Stephen C. Brooks, "Illusions of Autonomy: Why European Cannot Provide for Its Security if the United States Pulls Back," *International Security* 45, no. 4 (Spring 2021): 7–43, doi:10.1162/isec_a_00405; Frédéric Mauro, *Strategic Autonomy under the Spotlight: The New Holy Grail of European Defence* (Brussels: Group for Research and Information on Peace and Security, 2018), <https://grip.org/strategic-autonomy-the-new-grail-of-european-defence/>; and Barry R. Posen, "Europe Can Defend Itself," *Survival* 62, no. 6 (December 2020): 7–34, doi:10.1080/00396338.2020.1851080.
- 2 See, for example, Andrew S. Bowen, "Russian Armed Forces: Capabilities," Congressional Research Service, June 30, 2020, <https://crsreports.congress.gov/product/pdf/IF/IF11589/3>.
- 3 See, for example, Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China: Annual Report to Congress* (Washington, DC: U.S. Department of Defense, 2020), <https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF>.
- 4 See, for example, Defense Intelligence Agency, *Iran Military Power* (Washington, DC: 2019), https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Iran_Military_Power_LR.pdf; Missile Defense Project, "Missiles of Iran," *Missile Threat*, CSIS, June 14, 2018, last modified July 16, 2020, <https://missilethreat.csis.org/country/iran/>.
- 5 North Atlantic Treaty Organization, *NATO 2030: United for a New Era* (Brussels, Belgium: November 2020), https://www.nato.int/nato_static_fl2014/assets/pdf/2020/12/pdf/201201-Reflection-Group-Final-Report-Uni.pdf.
- 6 See, for example, "Wales Summit Declaration, Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales," NATO, September 5, 2014, https://www.nato.int/cps/en/natohq/official_texts_112964.htm; European Defense Agency, *2020 CARD Report* (Brussels, Belgium: European Union, 2020), <https://eda.europa.eu/docs/default-source/reports/card-2020-executive-summary-report.pdf>.
- 7 On inputs, outputs, and outcomes see, for example, William T. Gormley, Jr. and David L. Weimer, *Organizational Report Cards* (Cambridge, MA: Harvard University Press, 1999).
- 8 See, for example, Raphael S. Cohen et al., *The Future of Warfare in 2030: Project Overview and Conclusions* (Santa Monica, CA: RAND, 2020), 14, https://www.rand.org/pubs/research_reports/RR2849z1.html.

- 9 Raphael Cohen et al., *The Future of Warfare in 2030: Project Overview and Conclusions* (Santa Monica, CA: RAND, 2020), 42, https://www.rand.org/pubs/research_reports/RR2849z1.html.
- 10 Ben Connable et al., *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units* (Santa Monica, CA: RAND, 2020), xi, https://www.rand.org/pubs/research_reports/RR2341.html.
- 11 See, for example, "Memorandum from the Director of Net Assessment, Office of the Secretary of Defense (Marshall) to Secretary of Defense Schlesinger, Subject: Net Assessment of U.S. and Soviet Ground Forces," Office of the Historian, Department of State, July 30, 1974, <https://history.state.gov/historicaldocuments/frus1969-76v35/d147>; Andrew W. Marshall, *Long-Term Competition with the Soviets: A Framework for Strategic Analysis* (Santa Monica, CA: RAND, April 1972), <https://www.rand.org/pubs/reports/R862.html>; Paul Bracken, "Net Assessment: A Practical Guide," *Parameters* 36, no. 1 (2006), 90–100, <https://press.armywarcollege.edu/parameters/vol36/iss1/1/>; Eliot A. Cohen, *Net Assessment: An American Approach* (Tel Aviv: Jaffee Center for Strategic Studies, April 1990), <https://www.jstor.org/stable/resrep08961>; Eliot A. Cohen, "Toward Better Net Assessment: Rethinking the European Conventional Balance," *International Security* 13, no. 1 (Summer 1988), 50–89, doi:10.2307/2538896.

Chapter 2: European Capabilities

- 1 NATO, *The Secretary General's Annual Report 2020* (Brussels: March 2021), https://www.nato.int/nato_static_fl2014/assets/pdf/2021/3/pdf/sgar20-en.pdf.
- 2 Ibid., Table 4.
- 3 Ibid., Table 2.
- 4 "Brussels Summit Communique: Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Brussels 14 June 2021," NATO, June 14, 2021, Para. 35, https://www.nato.int/cps/en/natohq/news_185000.htm.
- 5 NATO, *The Secretary General's Annual Report 2020*, Table 3.
- 6 John Deni, *Disband the NATO Response Force* (Washington, DC: Atlantic Council, October 2020), <https://www.atlantic-council.org/content-series/nato20-2020/disband-the-nato-response-force/>.
- 7 "Joint Intelligence, Surveillance, and Reconnaissance," NATO, March 12, 2021, https://www.nato.int/cps/en/natohq/topics_111830.htm.
- 8 Arie Church, "US Offers NATO Quick-Reaction Enablers," *Air Force Magazine*, June 23, 2015, <https://www.airforcemag.com/us-offers-nato-quick-reaction-enablers/>.
- 9 Interview with Germany military officials, March 2021.
- 10 "Brussels Summit Communique," NATO, paragraph 23.
- 11 John Deni, "Burden Sharing and NATO's 2 Percent Goal," *Carnegie Europe*, April 14, 2015, <https://carnegieeurope.eu/strategiceurope/59767>.
- 12 Gary Schaub, Jr. and André Ken Jakobsson, "Denmark in NATO: Paying for Protection, Bleeding for Prestige," *War on*

- the Rocks, July 17, 2018, <https://warontherocks.com/2018/07/denmark-in-nato-paying-for-protection-bleeding-for-prestige/>; and European Defense Agency, *Defense Data 2016–2017: Key Findings and Analysis* (Brussels: 2018), https://eda.europa.eu/docs/default-source/brochures/eda_defencedata_a4.pdf.
- 13 Interviews with European Defense Attachés, March 2021.
- 14 Heinrich Brauss, *NATO Beyond 70: Renewing a Culture of Readiness* (Tallinn, Estonia: International Center for Defence and Security–RKK/ICDS, November 2018), https://icds.ee/wp-content/uploads/2018/11/ICDS-Analysis_NATO-Beyond-70_Heinrich-Brauss_November-2018-1.pdf.
- 15 See, for example, David Schlapak and Michael Johnson, *Reinforcing Deterrence on NATO's Eastern Flank: Wargaming Defense of the Baltics* (Santa Monica, CA: RAND, 2016), https://www.rand.org/content/dam/rand/pubs/research_reports/RR1200/RR1253/RAND_RR1253.pdf; and John Gordon et al., *Army Fires Capability for 2025 and Beyond* (Santa Monica, CA: RAND, 2019), https://www.rand.org/content/dam/rand/pubs/research_reports/RR2100/RR2124/RAND_RR2124.pdf.
- 16 Gabe Starosta, *The Role of the US Air Force in the French Mission in Mali* (Washington, DC: Atlantic Council, November 2013), <https://www.atlanticcouncil.org/blogs/natosource/the-role-of-the-us-air-force-in-the-french-mission-in-mali/>; and "Royal Air Force Chinooks conduct heavy lift operations in Mali," Royal Air Force, January 15, 2021, <https://www.raf.mod.uk/news/articles/royal-air-force-chinooks-conduct-heavy-lift-operations-in-mali/>.
- 17 Steven Horrell, Magnus Nordenman, and Walter Slocombe, *Updating NATO's Maritime Strategy* (Washington, DC: Atlantic Council, July 5, 2016), <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/updating-nato-s-maritime-strategy/>.
- 18 Interviews with Defense Attachés.
- 19 Ibid.; and United Kingdom Ministry of Defence, *Defence in a Competitive Age* (London: March 2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/974661/CP411-Defence_Command_Plan.pdf.
- 20 Mike Ball, "Mine Countermeasures System Provided for Danish Navy USVs," *Unmanned Systems Technology*, January 29, 2021, <https://www.unmannedsystemstechnology.com/2021/01/mine-countermeasure-system-provided-for-danish-navy-usvs/>; and "Naval Group and Kership select ABC and FN Herstal as key partners for the Belgium and Netherlands min countermeasures program," Naval Group, November 6, 2020, <https://www.naval-group.com/en/naval-group-and-kership-select-abc-and-fn-herstal-key-suppliers-belgium-and-netherlands-mine>.
- 21 Stefano D'Urso, "Germany Set to Replace its P-3 Orion Maritime Patrol Aircraft with the P-8 Poseidon," *The Aviationist*, May 10, 2021, <https://theaviationist.com/2021/05/10/p-8-germany/>.
- 22 United Kingdom Ministry of Defence, *Defence in a Competitive Age*.
- 23 Joseph Trevithick, "Germany, France move ahead with joint C-130J unit amid budget woes and A400M delays," *The Drive*, May 8, 2018, <https://www.thedrive.com/the-war-zone/20697/germany-france-move-ahead-with-joint-c-130j-unit-amid-budget-woes-and-a400m-delays>.
- 24 "Multinational Multi-role Tanker and Transport Fleet," NATO, n.d., <https://www.nspa.nato.int/about/life-cycle-management/MMF>.
- 25 See, for example, Benjamin Lambeth, "Kosovo and the Continuing SEAD Challenge," *Air and Space Power Journal* (Summer 2002), <http://www.ausairpower.net/APJ-Lambeth-Mirror.html>; and Karl Mueller ed., *Precision and Purpose: Airpower in the Libyan Civil War* (Santa Monica, CA: RAND, 2015), https://www.rand.org/pubs/research_reports/RR676.html.
- 26 Frans Osinga, "European Security and the Significance of the F-35," *Joint Air Power Competence Centre Journal* 24 (2017): 46–53, <https://www.japcc.org/european-security-and-the-significance-of-the-f-35/>.
- 27 Joseph Speed and Panagiotis Stathopoulos, "Challenges of Future SEAD Operations," *Joint Air Power Competence Centre Journal* 27 (2018): 35–40, <https://www.japcc.org/challenges-of-future-sead-operations/>.
- 28 "Cyber Defence," NATO, May 2021, https://www.nato.int/cps/en/natohq/topics_78170.htm.
- 29 Interview with NATO military official, April 2021.
- 30 Ibid.
- 31 "NATO's Approach to Space," NATO, April 22, 2021, https://www.nato.int/cps/en/natohq/topics_175419.htm.
- 32 "Space Command," UK Ministry of Defence, April 1, 2021, <https://www.gov.uk/guidance/uk-space-command>.
- 33 Todd Harrison, Kaitlyn Johnson, Joe Moye, and Makena Young, *Space Threat Assessment 2021* (Washington, DC: CSIS, April 2021), <https://www.csis.org/analysis/space-threat-assessment-2021>.
- 34 Douglas Lute, "NATO Ballistic Missile Defense Capabilities," U.S. Mission to the North Atlantic Treaty Organization, April 17, 2015, <https://web.archive.org/web/20201018181154/https://nato.usmission.gov/nato-ballistic-missile-defense-capabilities/>.
- 35 "Brussels Summit Communique," NATO, paragraph 43.
- 36 Claire Mills, "The French Nuclear Deterrent," House of Commons Library Briefing Paper, November 20, 2020, <https://commonslibrary.parliament.uk/research-briefings/sn04079/>; and "Integrated Review of Security, Defence, Development and Foreign Policy 2021: nuclear deterrent," Government of the United Kingdom, March 17, 2021, <https://www.gov.uk/guidance/integrated-review-of-security-defence-development-and-foreign-policy-2021-nuclear-deterrent>.
- 37 Government of France, *Defence and National Security Strategic Review* (Paris: 2017), 53, <https://www.defense.gouv.fr/layout/set/popup/content/download/520198/8733095/version/2/file/DEFENCE+AND+NATIONAL+SECURITY+STRATEGIC+REVIEW+2017.pdf>; and Murielle Delaporte, "France in the Indo-Pacific: A Mediating Power?," *Breaking Defense*, March 11, 2021, <https://breakingdefense.com/2021/03/france-in-the-indo-pacific-a-mediating-power/>.
- 38 Government of France, *Defence and National Security Strategic Review*, 77. It is able to do so already in some small-scale crisis management missions, such as its Takuba

Task Force in Mali.

- 39 French Ministry of Defence, *Strategic Update 2021* (Paris: 2021), 11–14, 24, 42, <https://www.defense.gouv.fr/content/download/605304/10175711/file/strategic-update%202021.pdf>.
- 40 French Ministry of Defence, *Draft Military Planning Law 2019/2025: Synopsis* (Paris: 2018), [https://www.defense.gouv.fr/content/download/523961/9053454/file/MPL%202019-2025%20-%20Synopsis%20\(EN\).pdf](https://www.defense.gouv.fr/content/download/523961/9053454/file/MPL%202019-2025%20-%20Synopsis%20(EN).pdf); and “The French armed forces are planning for high-intensity war,” *The Economist*, April 3, 2021, <https://www.economist.com/europe/2021/03/31/the-french-armed-forces-are-planning-for-high-intensity-war>.
- 41 Stephanie Pezard, Michael Shurkin, and David Ochmanek, *A Strong Ally Stretched Thin: An Overview of France’s Defense Capabilities from a Burdensharing Perspective* (Santa Monica, CA: RAND, 2021), https://www.rand.org/pubs/research_reports/RRA231-1.html.
- 42 French Ministry of Defence, *Strategic Update 2021*, 28.
- 43 French Ministry of Defence, *Military Planning Law: Synopsis*.
- 44 Whether or not that number will be reached depends on the outcome of next year’s presidential election. The Covid-19 pandemic is not expected to have a major effect on spending; Alice Pannier, “France,” in *Collective Collapse or Resilience? European Defense Priorities in the Pandemic Era*, Corentin Brustlein ed. (Paris: IFRI, 2021), 23–29, <https://www.ifri.org/en/publications/etudes-de-lifri/focus-strategique/collective-collapse-or-resilience-european-defense>.
- 45 Interview with French official, March 9, 2021.
- 46 “LOI n° 2018-607 du 13 juillet 2018 relative à la programmation militaire pour les années 2019 à 2025 et portant diverses dispositions intéressant la défense (1) [Law no 2018-607 of July 13, 2018, relating to military programming for the years 2019 to 2025 and bearing various defense provisions (1)],” French National Assembly, July 13, 2018, <https://www.legifrance.gouv.fr/jorf/id/JORF-TEXT000037192797>; and Christina Mackenzie, “France, Italy update their joint air-defense weapon for faster missiles,” *Defense News*, March 24, 2021, <https://www.defensenews.com/global/europe/2021/03/24/france-italy-update-their-joint-air-defense-weapon-for-faster-missiles/>.
- 47 “Avis fait au nom de la commission de la défense nationale et des forces armées sur le projet de loi de finances pour 2021 (n° 3360) [Opinion made on behalf of the National Defense Commission and of the armed forces on the finance bill for 2021 (no. 3360)],” French National Assembly, October 21, 2020, https://www.assemblee-nationale.fr/dyn/15/rapports/cion_def/l15b3465-tvii_rapport-avis#_Toc256000004; and “La programmation militaire [The military programming],” French National Assembly.
- 48 Clement Charpentreau, “French Air Force Recieves first modernized Mirage 2000D,” *Aerotime Hub*, January 11, 2021, <https://www.aerotime.aero/26913-french-air-force-receives-first-modernized-mirage-2000d>.
- 49 Interview with French military officials, April 2021.
- 50 “The French armed forces are planning for high-intensity war,” *The Economist*.
- 51 French Ministry of Defence, *Military Planning Law: Synopsis*.
- 52 French National Assembly, *Avis fait au nom de la commission de la défense*.
- 53 Christina Mackenzie, “Naval Group delivers French frigate with bolstered capabilities,” *Defense News*, April 16, 2021, <https://www.defensenews.com/naval/2021/04/16/naval-group-delivers-french-frigate-with-bolstered-capabilities/>.
- 54 International Institute for Strategic Studies (IISS), *The Military Balance 2018* (London, United Kingdom: Routledge, 2018), 102–107, <https://www.iiiss.org/publications/the-military-balance>; and interview with French official, March 9, 2021.
- 55 The A400Ms even were recently certified as capable of aerial refueling for helicopters, in addition to aircraft: Christina Mackenzie, “French A400M completes helicopter-refueling drills,” *Defense News*, April 2, 2021, <https://www.defensenews.com/global/europe/2021/04/20/french-a400m-completes-helicopter-refueling-drills/>.
- 56 Andrew Chuter and Sebastian Sprenger, “British military looks to the ‘Eurotank’ as it weighs its hardware options,” *Defense News*, January 11, 2021, <https://www.defensenews.com/global/europe/2021/01/11/british-military-looks-to-the-eurotank-as-it-weighs-its-hardware-options/>.
- 57 Interview with French official, March 9, 2021.
- 58 Government of France, *Strategic Review of Cyber Defence* (Paris: February 2018), <http://www.sgsn.gouv.fr/uploads/2018/03/revue-cyber-resume-in-english.pdf>.
- 59 Stéphane Taillat, “Signaling, victory, and strategy in France’s military cyber doctrine,” *War on the Rocks*, May 8, 2019, <https://warontherocks.com/2019/05/signaling-victory-and-strategy-in-frances-military-cyber-doctrine/>.
- 60 Arthur Laudrain, “France’s ‘strategic autonomy’ takes to space,” IISS, August 14, 2019, <https://www.iiiss.org/blogs/military-balance/2019/08/france-space-strategy#:~:text=It%20aims%20to%20ensure%20France's,satellite%20a%20target%2C%20among%20others>.
- 61 IISS, *The Military Balance 2018*.
- 62 Laudrain, “France’s ‘strategic autonomy’”; and “Avis fait au nom de la commission de la défense [Opinion made on behalf of the defense committee],” French National Assembly.
- 63 Missile Defense Project, “Sol-Air Moyenne Portée/Terrestre (SAMP/T),” *Missile Threat*, CSIS, June 15, 2016, last modified June 15, 2018, <https://missilethreat.csis.org/defsys/samp-t/>.
- 64 Mackenzie, “France, Italy update their joint air-defense.”
- 65 Government of the United Kingdom, *Global Britain in a Competitive Age*.
- 66 Ibid.
- 67 Ibid.
- 68 Paul O’Neill, *Global Britain: A New Era in Transatlantic Relations* (Washington, DC: CSIS, April 2021), <https://www.csis.org/analysis/security-northern-europe-biden-era#0%E2%80%99Neill>.
- 69 Ibid.
- 70 UK Ministry of Defence, *Defence in a Competitive Age*.

- 71 Ibid.
- 72 "Defense Review: British Army to be cut to 72,500 troops by 2025," BBC, March 22, 2021, <https://www.bbc.com/news/uk-56477900>.
- 73 Ibid.
- 74 Interviews with UK defense officials, April 2021.
- 75 Ibid.
- 76 Ibid.
- 77 Douglas Barrie, Ben Barry, Henry Boyd, and Nick Childs, "The UK's new model forces," IISS, March 24, 2021, <https://www.iiss.org/blogs/analysis/2021/03/uk-defence-command-paper>.
- 78 Ibid.; and interviews with UK defense officials, April 2021.
- 79 Mark Nicol, "Death of the faithful Hercules," Daily Mail, February 26, 2021, <https://www.dailymail.co.uk/news/article-9305589/Death-Hercules-Entire-fleet-transporter-plane-favoured-SAS-grounded.html>.
- 80 Ibid.
- 81 UK Ministry of Defence, *Defence in a Competitive Age*.
- 82 George Allison, "New Royal Navy surveillance ship being developed," UK Defence Journal, March 25, 2021, <https://ukdefencejournal.org.uk/new-royal-navy-surveillance-ship-being-developed/>.
- 83 UK Ministry of Defence, *Defence in a Competitive Age*.
- 84 Ibid.
- 85 Ibid.
- 86 Ibid.
- 87 Ibid.
- 88 Heather Williams, "U.K. Nuclear Weapons: Beyond the Numbers," War on the Rocks, April 6, 2021, <https://warontherocks.com/2021/04/u-k-nuclear-weapons-beyond-the-numbers/>.
- 89 Barbara Kunz, "The Real Roots of Germany's Defense Spending Problem," War on the Rocks, July 24, 2018, <https://warontherocks.com/2018/07/the-real-roots-of-germanys-defense-spending-problem/>.
- 90 Christian Mölling and Claudia Major, *Germany and Defense: The Next Five Years* (Washington, DC: CSIS, April 29, 2021), <https://www.csis.org/analysis/security-northern-europe-biden-era#Major>.
- 91 Daniel Heinrich, "SIPRI: Germany Significantly Increase Military Spending," Deutsche Welle, April 26, 2020, <https://www.dw.com/en/sipri-germany-significantly-increases-military-spending/a-53250926>.
- 92 Federal Ministry of Defense, *White Paper 2016 on German Security Policy and the Future of the Bundeswehr*, (Berlin: 2016), <https://issat.dcaf.ch/download/111704/2027268/2016%20White%20Paper.pdf>; and Federal Ministry of Defense, *Konzeption der Bundeswehr* (Berlin: July 2018), <https://www.bmvg.de/resource/blob/26544/9ceddf6df2f48ca87aa0e-3ce2826348d/20180731-konzeption-der-bundeswehr-data.pdf>.
- 93 Sebastian Sprenger, "Germany unveils growth plan for the Bundeswehr," Defense News, September 5, 2018, <https://www.defensenews.com/global/europe/2018/09/05/germany-unveils-growth-plan-for-the-bundeswehr/>; and interviews with German military officers.
- 94 Interviews with German defense officials, April 2021.
- 95 Interviews with German military officials.
- 96 Ibid.
- 97 Ibid.
- 98 Ibid.
- 99 Sebastian Sprenger, "German Government cites US ties in choice of F-18 planes for nuclear, jamming missions," Defense News, April 22, 2020, <https://www.defensenews.com/global/europe/2020/04/22/german-government-cites-us-ties-in-choice-of-f-18-planes-for-nuclear-jamming-missions/>.
- 100 Gareth Jennings, "Germany seeks new STH bids from Boeing, Lockheed Martin," Janes, January 27, 2021, <https://www.janes.com/defence-news/news-detail/germany-seeks-new-sth-bids-from-boeing-lockheed-martin>.
- 101 Sebastian Sprenger, "Germany shelves new anti-missile weapon and turns to drone defense," Defense News, March 23, 2021, <https://www.defensenews.com/global/europe/2021/03/23/germany-shelves-new-anti-missile-weapon-and-turns-to-drone-defense/>.
- 102 Interviews with German defense officials, April 2021.
- 103 Marcus Koeckner, "Germany to order 35 U.S. jets to replace 1970s Tornados," Stars and Stripes, April 2020.
- 104 Ibid.
- 105 Italian Ministry of Defense, *White Paper for International Security and Defense* (Rome: 2015), 38, https://www.difesa.it/Primo_Piano/Documents/2015/07_Luglio/White%20book.pdf; and interview with Italian official, March 16, 2021.
- 106 "Documento Programmatico Pluriennale Della Difesa per il Triennio 2020-2022," Italian Ministry of Defense, 2020, 3-5, https://www.camera.it/temi/documentazione/temi/pdf/1241085.pdf?_1627972817812; *ibid.*, 37.
- 107 Andrea Gilli, Alessandro R. Ungaro, Alessandro Marrone, "The Italian White Paper for International Security and Defence," *RUSI Journal* 160, no. 6 (2015), 34-41, doi:10.1080/03071847.2015.1122978.
- 108 "Documento Programmatico Pluriennale," Italian Ministry of Defense, 33.
- 109 Tom Kington, "Italy defense budget rebounds despite coronavirus crisis," Defense News, October 28, 2020, <https://www.defensenews.com/global/europe/2020/10/28/italy-defense-budget-rebounds-despite-covid-crisis/>.
- 110 Ibid.
- 111 Christina Mackenzie, "France, Italy update their joint air-defense weapon for faster missiles," Defense News, March 24, 2021, <https://www.defensenews.com/global/europe/2021/03/24/france-italy-update-their-joint-air-defense-weapon-for-faster-missiles/>.
- 112 "Documento Programmatico Pluriennale," Italian Ministry of Defense.
- 113 Tom Kington, "Italy's Navy-Air Force tussle over the F-35 comes to a head," Defense News, October 21, 2020, <https://www.defensenews.com/global/europe/2020/10/21/italys-navy-air-force-tussle-over-the-f-35-comes-to-a-head/>.

[vy-air-force-tussle-over-the-f-35-comes-to-a-head/](#). Italy also participates in the sixth-generation Tempest fighter program.

- 114 "Documento Programmatico Pluriennale," Italian Ministry of Defense.
- 115 Luca Peruzzi, "New Ships, Submarines and Weapon Systems For Italian Navy," *Naval News*, November 23, 2020, <https://www.navalnews.com/naval-news/2020/11/new-ships-submarines-and-weapon-systems-for-italian-navy/>.
- 116 Ibid.
- 117 Tom Kington, "Fincantieri to build two new German-design submarines for the Italian navy," *Defense News*, February 26, 2021, <https://www.defensenews.com/global/europe/2021/02/26/fincantieri-to-build-two-new-german-design-submarines-for-the-italian-navy/>; and "Documento Programmatico Pluriennale," Italian Ministry of Defense, 91.
- 118 "Documento Programmatico Pluriennale," Italian Ministry of Defense, 74–8.
- 119 Interview with Italian defense official, March 16, 2021.
- 120 Interview with Italian official, March 16, 2021.
- 121 "Comando per le Operazioni in Rete (COR)," Italian Ministry of Defense, <https://www.difesa.it/SMD/COR/Pagine/default.aspx>.
- 122 "Documento Programmatico Pluriennale," Italian Ministry of Defense, 53, 67, 85, 107.
- 123 Mackenzie, "France, Italy update their joint air-defense."

Chapter 3: European Missions

- 1 See, for example, John Gordon IV et al., *Army Fires Capabilities for 2025 and Beyond* (Santa Monica, CA: RAND, 2020), https://www.rand.org/pubs/research_reports/RR2124.html; Raphael S. Cohen et al., *The Future of Warfare in 2030* (Santa Monica, CA: RAND, 2020), https://www.rand.org/pubs/research_reports/RR2849z1.html; David Ochmanek et al., *U.S. Military Capabilities and Forces for a Dangerous World* (Santa Monica, CA: RAND, 2017), https://www.rand.org/pubs/research_reports/RR1782-1.html; Hal Brands, *Dealing with Allies in Decline: Alliance Management and U.S. Strategy In An Era of Global Power Shifts* (Washington, DC: Center for Strategic and Budgetary Assessments, 2017), <https://csbaonline.org/research/publications/dealing-with-allies-in-decline-alliance-management-and-u.s.-strategy-in-an->; and IDC Herzliya, *War Game: The U.S.–Iran Crisis* (Herzliya, Israel: IDC Herzliya, July 28, 2019). Also see, for example, the "Zebra Sword" exercise in December 2020; Schriever Wargames 2020; USAREUR Defense Europe 2020 exercise; Poland's Winter (Zima) Command Post Exercise (CPX) in January 2021; NATO's BALTOPS 2020; and other wargames and scenarios.
- 2 U.S. Department of Defense, *DOD Dictionary of Military and Associated Terms* (Washington, DC: U.S. Department of Defense, January 2021), 144, <https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/dictionary.pdf>.
- 3 Ashley J. Tellis et al., *Measuring National Power in the Postindustrial Age* (Santa Monica, CA: RAND, 2000), 133, https://www.rand.org/pubs/monograph_reports/MR1110.html; and Peter Paret, "Military Power," *Journal of Military History*

53, no. 3 (July 1989), 240, doi:10.2307/1985872.

- 4 U.S. Department of Defense, *Joint Operations, Joint Publication 3-0* (Washington, DC: U.S. Department of Defense, October 22, 2018), https://www.jcs.mil/Portals/36/Documents/Doctrine/pubs/jp3_0ch1.pdf?ver=2018-11-27-160457-910; and Stephen Biddle, *Military Power: Explaining Victory and Defeat in Modern Battle* (Princeton, NJ: Princeton University Press, 2004), 2.
- 5 Cohen, *The Future of Warfare in 2030*, 42.
- 6 Mario Esteban and Miguel Otero-Iglesias, eds., *Europe in the Face of U.S.–China Rivalry* (Madrid: French Institute of International Relations, Mercator Institute for China Studies, Swedish Institute of International Affairs, Real Institute Elcano, January 2020), https://meric.org/sites/default/files/2020-04/200123_ETNC_Report.pdf; and Cohen, *The Future of Warfare in 2030*, 43.
- 7 See, for example, Biddle, *Military Power*; Albert O. Hirschman, *National Power and the Structure of Foreign Trade*, Second Edition (Berkeley: University of California Press, 1980); Tellis, *Measuring National Power in the Postindustrial Age*; and Robert Gilpin, *War and Change in World Politics* (New York: Cambridge University Press, 1981).
- 8 See, for example, "Wales Summit Declaration, Issued by the Heads of State and Government participating in the meeting of the North Atlantic Council in Wales," NATO, September 5, 2014, https://www.nato.int/cps/en/natohq/official_texts/112964.htm; and European Defense Agency, 2020 CARD Report (Brussels, Belgium: European Union, 2020), <https://eda.europa.eu/docs/default-source/reports/card-2020-executive-summary-report.pdf>.
- 9 Basil Liddell Hart, *Strategy* (New York: Meridian, 1991), 321–322, 353–360; Michael Howard, "The Forgotten Dimensions of Strategy," in Howard, *The Causes of War* (Cambridge: Harvard University Press, 1983), 101–9; Hirschman, *National Power and the Structure of Foreign Trade*; John J. Mearsheimer, "Assessing the Conventional Balance: The 3:1 Rule and Its Critics," *International Security* 13, no. 4 (Spring 1989): 54–89; Biddle, *Military Power*, 2; and Jonathan Schroden, "Why Operations Assessments Fail—It's Not Just the Metrics," *Naval War College Review* 64, no. 4 (Autumn 2011): 1–14, <https://digital-commons.usnwc.edu/nwc-review/vol64/iss4/8/>.
- 10 U.S. General Accounting Office, *Measuring Military Capability: Progress, Problems, and Future Direction* (Washington, DC: United States General Accounting Office, February 1986), <https://www.gao.gov/products/129224>.
- 11 Biddle, *Military Power*, 5.
- 12 Some scholars have argued that forces can be designed to conducted offensive operations but not defensive efforts. Charles Glaser and Chaim Kaufmann, "What is the Offense–Defense Balance and How Can we Measure It," *International Security* 22, no. 4 (Spring 1998): 44–82, <https://www.belfercenter.org/publication/what-offense-defense-balance-and-how-can-we-measure-it>.
- 13 U.S. Department of Defense, *Joint Operations*, xvii.
- 14 On the conflict continuum see U.S. Department of Defense, *Competition Continuum, Joint Doctrine Note 1-19* (Washington, DC: U.S. Department of Defense, June 3, 2019), https://www.jcs.mil/Portals/36/Documents/Doctrine/jdn_jg/

[jdn1_19.pdf](#).

- 15 This framework was based, in part, on U.S. Department of Defense, *Joint Operations*. Many of these specific operations included multiple types of missions.
- 16 On NEOs see, for example, UK Ministry of Defence, *Non-Combatant Evacuation Operations*, *Joint Doctrine Publication* 3-51, Second Edition (Swindon, UK: UK Ministry of Defence, February 2013), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/979907/20210412-JDP_3_51_NEO_web_V2-0_1.pdf; and U.S. Department of Defense, *Joint Operations*, xx-xxi.
- 17 On peacekeeping, see U.S. Department of Defense, *Joint Operations*, xxi.
- 18 See, for example, James Dobbins et al., *Europe's Role in Nation-Building: From the Balkans to the Congo* (Santa Monica, CA: RAND, 2008), <https://www.rand.org/pubs/monographs/MG722.html>; and Dobbins et al., *The UN's Role in Nation-Building: From the Congo to Iraq* (Santa Monica, CA: RAND, 2005), <https://www.rand.org/pubs/monographs/MG304.html>.
- 19 U.S. Department of Defense, *Joint Operations*, 86.
- 20 "Pakistan Earthquake Relief Operation," NATO, October 27, 2010, https://www.nato.int/cps/en/natohq/topics_50070.htm.
- 21 U.S. Department of Defense, *Joint Operations*, VI-1-13.
- 22 Ibid., VI-3.
- 23 Small-scale crisis management missions include smaller deployments, such as peacekeeping and foreign humanitarian assistance. These missions are individually broken out, as highlighted in Figure 3.1.
- 24 See, for example, Christopher S. Chivvis, *Toppling Qaddafi: Libya and the Limits of Liberal Intervention* (New York: Cambridge University Press, 2014); Ivo H. Daalder and Michael E. O'Hanlon, *Winning Ugly: NATO's War to Save Kosovo* (Washington, DC: Brookings Institution Press, 2000); Benjamin S. Lambeth, *NATO's Air War for Kosovo: A Strategic and Operational Assessment* (Santa Monica, CA: RAND, 2001), https://www.rand.org/pubs/monograph_reports/MR1365.html; and Robert C. Owen, ed., *Deliberate Force: A Case Study in Effective Air Campaigning* (Maxwell Air Force Base, Alabama: Air University Press, January 2000).
- 25 See, for example, Chivvis, *Toppling Qaddafi*.
- 26 On deterrence see, for example, John J. Mearsheimer, *Conventional Deterrence* (Ithaca, NY: Cornell University Press, 1985); and Lawrence Freedman, *Strategy: A History* (New York: Oxford University Press, 2013), 157-167. On assurance see, for example, Michael Howard, "Reassurance and Deterrence: Western Defense in the 1980s," *Foreign Affairs* 61, no. 2 (Winter 1982/1983), 309-24; and David S. Yost, "Assurance and US Extended Deterrence in NATO," *International Affairs* 85, no. 4 (July 2009), 755-80, <https://www.jstor.org/stable/27695089>.
- 27 There are other types of operations that European and other states can perform, such as "hedging" (conducting actions to avoid an explicit confrontation with a potentially adversarial state, such as strengthening economic cooperation, while preparing for military confrontation by increasing military capabilities or posture) and "shaping" (conducting actions to help counter adversary actions, such as conducting influence operations).
- 28 These operations might also include "adaption" measures, such as the NFIU, Standing Naval Maritime Force, Aegis Ashore ballistic missile defense, CAOC, and logistics center.
- 29 U.S. Department of Defense, *Joint Operations*, VIII-1-30.
- 30 Biddle, *Military Power*, 6.
- 31 See, for example, David A. Ochmanek, *NATO's Future: Implications for U.S. Military Capabilities and Posture* (Santa Monica, CA: RAND, 2000), https://www.rand.org/pubs/monograph_reports/MR1162.html.
- 32 See, for example, David Ochmanek et al., *U.S. Military Capabilities and Forces for a Dangerous World* (Santa Monica, CA: RAND, 2017); Brands, *Dealing with Allies in Decline*; Cohen, *The Future of Warfare in 2030*; IDC Herzliya, *War Game*; and Gordon, *Army Fires Capabilities for 2025 and Beyond*.
- 33 Ochmanek, *NATO's Future*.
- 34 See, for example, the National Intelligence Community's explanation of estimative language in *National Intelligence Council, Iran: Nuclear Intentions and Capabilities* (Langley, VA: Office of the Director of National Intelligence, National Intelligence Council, November 2007), https://www.dni.gov/files/documents/Newsroom/Reports%20and%20Pubs/20071203_release.pdf.
- 35 Figure 3.2 does not attempt to quantify future performance. Quantitative metrics frequently provide false precision about future missions in which it is impossible to be exact. Nor does this section reach conclusions based on running one or more computer simulations of possible missions—including wars. While helpful, mathematical models of combat often focus primarily on material capabilities, such as the number and type of troops or weapons possessed by the warring sides. These types of simulations are also not practical to analyze a broad range of missions across the conflict continuum. Nevertheless, this chapter does incorporate the findings from these and other analyses into its findings. Examples of computer simulations include the Strategic and Force Evaluation (SAFE) model or the U.S. Army's Infantry Warrior Simulation (IWARS). Also see, for example, the Defense Department's simulation, *Janus*. On quantitative models see, for example, Edmund DuBois, Wayne Hughes, and Lawrence Low, *A Concise Theory of Combat* (Westport, CT: Greenwood, 1993); and Biddle, *Military Power*, 21.
- 36 Christopher A. Mouton et al., *Personnel Recovery in the AFRICOM Area of Responsibility: Cost-Effective Options for Improvement* (Santa Monica, CA: RAND, 2019), https://www.rand.org/pubs/research_reports/RR2161z1.html; and Christopher Mouton and John P. Godges, *Timelines for Reaching Injured Personnel in Africa* (Santa Monica, CA: RAND, 2016), https://www.rand.org/content/dam/rand/pubs/research_reports/RR1500/RR1536/RAND_RR1536.pdf.
- 37 Jane's World Air Forces, "Germany—Air Force," February 16, 2021.
- 38 International Institute for Strategic Studies, *The Military Balance 2021* (London, United Kingdom: Routledge, 2021), 66-163, <https://www.iiss.org/publications/the-military-balance>.

- 39 See, for example, Stacie L. Pettyjohn and Jennifer Kavanaugh, *Access Granted: Political Challenges to the U.S. Overseas Military Presence, 1945–2014* (Santa Monica, CA: RAND, 2016), https://www.rand.org/pubs/research_reports/RR1339.html.
- 40 See, for example, Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China: Annual Report to Congress* (Washington, DC: U.S. Department of Defense, 2020), ix, 15, 72, 128, <https://media.defense.gov/2020/Sep/01/2002488689/-1/-1/1/2020-DOD-CHINA-MILITARY-POWER-REPORT-FINAL.PDF>; and Christopher Colley, "A Future Chinese Indian Ocean Fleet?," *War on the Rocks*, April 2, 2021, <https://warontherocks.com/2021/04/a-future-chinese-indian-ocean-fleet/>.
- 41 While European states may not be able to deter Russia from all types of actions—such as offensive cyber attacks, disinformation, or irregular warfare in eastern Ukraine—the authors assess that European militaries can adequately perform most deterrence and assurance missions.
- 42 See, for example, Adrian Blazquez, *French Lessons in Africa: An Assessment of Three Key Military Capabilities for European Defense* (Prague: EUROPEUM Institute for European Policy, April 2020), <https://www.europeum.org/en/articles/detail/3402/eu-monitor-french-lessons-in-africa-an-assessment-of-three-key-military-capabilities-for-europe-an-defence>.
- 43 "France hits back claim it is 'abandoning' Mali by withdrawing troops," *France 24*, September 28, 2021, <https://www.france24.com/en/africa/20210928-france-hits-back-at-claim-it-is-abandoning-mali>. Angela Charlton and Carley Petesch, "France to Pull More than 2,000 Troops from Africa's Sahel," *Associated Press*, July 9, 2021, <https://apnews.com/article/europe-government-and-politics-france-e384891a63e6ac15c02177b2c095bf26>.
- 44 Corinne Archer, "French, Chadian Security Pledges at N'Djamena Summit Highly Unlikely to Reduce Terrorism in Sahel, Lake Chad Regions," *Jane's Country Risk Daily Report*, February 17, 2021; and Corinne Archer, "Uptick in Sahelian Tri-Border Attacks Likely Aimed at Deterring EU Force Ahead of Probably French Troop Drawdown," *Jane's Country Risk Daily Report*, January 6, 2021.
- 45 Christopher Chivvis, *The French War on Al Qaeda in Africa* (New York: Cambridge University Press, 2015).
- 46 Ministère des Armées, *Strategic Update 2021* (Paris: Ministère des Armées, 2021), <https://www.defense.gouv.fr/content/download/605304/10175711/file/strategic-update%202021.pdf>; Ministère des Armées, *France's Defence Strategy in the Indo-Pacific* (Paris: Ministère des Armées, 2020), <https://www.defense.gouv.fr/content/download/559608/9684004/file/France's%20Defence%20Strategy%20in%20the%20Indo-Pacific%20-%202019.pdf>; and Jane's World Air Forces, "France—Air Force," March 8, 2021.
- 47 Jane's World Navies, "France—Navy," September 28, 2020.
- 48 Joint Leaders Statement on AUKUS," Prime Minister of Australia, September 16, 2021, <https://www.pm.gov.au/media/joint-leaders-statement-aukus>.
- 49 See, for example, the Bersama Lima exercise in 2019, which involved more than 2,700 personnel, 9 ships, and more than 40 aircraft.
- 50 UK Ministry of Defence, *Defence In a Competitive Age*, 14.
- 51 "Carte des opérations et missions militaires [Map of military operations and missions]," Ministère des Armées [Ministry of Armed Forces], February 10, 2021, https://www.defense.gouv.fr/operations/rubriques_complementaires/carte-des-operations-et-missions-militaires.
- 52 Jane's Amphibious and Special Forces, "France—Special Operations Forces," January 13, 2021; Jane's Amphibious and Special Forces, "United Kingdom—Special Operations Forces," May 11, 2020; and Jane's Amphibious and Special Forces, "Germany—Special Operations Forces," October 6, 2020.
- 53 See, for example, exercises such as "EU MilCERT Interoperability Conference." Brooks Tigner, "Cyber Exercise Boosts EDA Members' Defence Data Exchanges," *Jane's Intelligence Review*, February 18, 2021.
- 54 See, for example, Jane's World Air Forces, "France—Air Force," March 8, 2021; Jane's World Air Forces, "United Kingdom—Air Force"; and Jane's World Air Forces, "Germany—Air Force," February 16, 2021.
- 55 See, for example, David B. Carter, "With Challenges Aplenty, Europe's Navies Are Coming to Grips with High-End Warfare," *Defense News*, June 22, 2020, <https://www.defensenews.com/smr/transatlantic-partner-ships/2020/06/22/with-challenges-aplenty-europes-navies-are-coming-to-grips-with-high-end-warfare/>.
- 56 Lee Willett, "NATO Deploys First Focused Maritime Operation of 2021," *Jane's Intelligence Review*, March 1, 2021.
- 57 Jane's World Navies, "Germany—Navy," April 30, 2020.
- 58 Author interviews with defense officials from the United States, United Kingdom, France, and Germany, 2021.
- 59 On interoperability see, for example, "Enhancing Interoperability: Train Together, Deploy Together," *European Defence Matters* 19 (2020), https://eda.europa.eu/docs/default-source/eda-magazine/edm19_web.pdf.
- 60 Jane's World Armies, "Germany—Army," April 23, 2020; Jane's World Armies, "France—Army," March 17, 2020; and Jane's World Armies, "United Kingdom—Army," February 21, 2020.
- 61 Author interview with defense officials from the United Kingdom, France, and Germany, February and March 2021.
- 62 Jane's World Navies, "France—Navy," September 28, 2020; Jane's World Navies, "United Kingdom—Navy," February 25, 2020; and Jane's World Navies, "Germany—Navy," April 30, 2020.
- 63 "First MMF Medical Evacuation Aircraft Accepted," OCCAR (Organisation Conjointe de Coopération en matière d'Armement/Organisation for Joint Armament Co-operation), November 19, 2020, <http://www.occar.int/first-mmf-medical-evacuation-aircraft-accepted?redirect=/programmes/mmfm%23news>.
- 64 Jane's All the World's Aircraft: Development and Production, "Aircraft—Fixed-Wing—Military—Lockheed Martin F-35 Lightning II," August 24, 2020.
- 65 Eric Tegler, "Switzerland's Federal Council Picks the F-35 as the Country's Next Fighter Citing Capability and Surprising-

- ly—Cost,” *Forbes*, July 2, 2021, <https://www.forbes.com/sites/erictiegler/2021/07/02/switzerlands-federal-council-picks-the-f-35-as-the-countrys-next-fighter-citing-capability-and-surprisingly-cost/?sh=606af233acdd>.
- 66 “Team Tempest,” UK Royal Air Force, n.d., <https://www.raf.mod.uk/what-we-do/team-tempest/>.
- 67 Todd Harrison, Kaitlyn Johnson, Makena Young, *Defense Against the Dark Arts in Space: Protecting Space Systems from Counterspace Weapons* (Washington, DC: CSIS, February 2021), 4, <https://www.csis.org/analysis/defense-against-dark-arts-space-protecting-space-systems-counterspace-weapons>; Todd Harrison et al., *Space Threat Assessment 2020* (Washington, DC: CSIS, March 2020), 49, <https://www.csis.org/analysis/space-threat-assessment-2020>; and Florence Parly, “Presentation of the Defense Space Strategy,” *SatelliteObservation.net*, July 25, 2019, English translation from: <https://satelliteobservation.net/2019/07/27/frances-new-space-defense-strategy/>.
- 68 Harrison et al., *Space Threat Assessment 2020*, 52.
- 69 Nathan Strout, “One Military Space Agency’s Plan for 1,000 New Satellites by 2026,” *C4ISRNet*, January 21, 2020, <https://www.c4isrnet.com/battlefield-tech/space/2020/01/21/one-military-space-agencys-plan-for-1000-new-satellites-by-2026/>.
- 70 Gordon, *Army Fires Capabilities for 2025 and Beyond*, 18.
- 71 “Latest Tornado-G Multiple Rocket Launchers Arrive for Troops in Russia’s South,” *Tass*, April 6, 2021, <https://tass.com/defense/1274683#:~:text=Troops%20in%20Russia's%20south%20received,Military%20District%20reported%20on%20Tuesday>; Jane’s World Armies, “Russian Federation—Army,” May 28, 2020; and IISS, *The Military Balance 2021* (London, United Kingdom: Routledge, 2021), 192, <https://www.iiss.org/publications/the-military-balance>.
- 72 Jill Hruby, *Russia’s New Nuclear Weapon Delivery Systems: An Open-Source Technical Review* (Washington, DC: Nuclear Threat Initiative, November 2019), <https://www.nti.org/analysis/reports/russias-new-nuclear-weapon-delivery-systems-open-source-technical-review/>; and Tim Robinson, “From Sanger to Avangard—Hypersonic Weapons Come of Age,” *Aerospace*, October 22, 2019, <https://www.aerosociety.com/news/from-saenger-to-avangard-hypersonic-weapons-come-of-age/>.
- 73 Roger McDermott, “Russian Navy Prioritizes Tsirkon Hypersonic Missiles,” *Jamestown Foundation, Eurasia Daily Monitor* 17, no. 83, June 10, 2020, <https://jamestown.org/program/russian-navy-prioritizes-tsirkon-hypersonic-missiles/>; and Hruby, *Russia’s New Nuclear Weapon Delivery Systems*; and IISS, *Military Balance 2021*.
- 74 See, for example, Timothy M. Bonds et al., *America’s Strategy-Resource Mismatch: Addressing the Gaps Between U.S. National Strategy and Military Capacity* (Santa Monica, CA: RAND, 2019), 25–8, https://www.rand.org/pubs/research_reports/RR2691.html; and Scott Boston, Michael Johnson, Nathan Beauchamp-Mustafaga, and Yvonne K. Crane, *Assessing the Conventional Force Imbalance in Europe: Implications for Countering Russian Local Superiority* (Santa Monica, CA: RAND, 2018), https://www.rand.org/pubs/research_reports/RR2402.html.
- 75 David Shlapak and Michael W. Johnson, *Reinforcing Deterrence on NATO’s Eastern Flank: Wargaming the Defense of the Baltics* (Santa Monica, CA: RAND, 2016), https://www.rand.org/pubs/research_reports/RR1253.html.
- 76 See, for example, Curtis M. Scaparrotti et al., *Moving Out: A Comprehensive Assessment of European Military Mobility* (Washington, DC: Atlantic Council, April 2020), <https://www.atlanticcouncil.org/in-depth-research-reports/report/moving-out-a-comprehensive-assessment-of-european-military-mobility/>.
- 77 Jane’s World Armies, “Russian Federation—Army,” May 28, 2020.
- 78 IISS, *The Military Balance 2021*, 67.
- 79 Jane’s World Air Forces, “Russian Federation—Air Force,” December 11, 2020.
- 80 Gordon, *Army Fires Capabilities for 2025 and Beyond*.
- 81 Ochmanek, *U.S. Military Capabilities and Forces for a Dangerous World*, 38.
- 82 Jane’s World Armies, “Germany—Army,” March 2, 2021.
- 83 United Kingdom, *Global Britain In a Competitive Age*.
- 84 See, for example, Ochmanek, *U.S. Military Capabilities and Forces for a Dangerous World*.
- 85 Jane’s Sentinel Security Assessment—Western Europe, “United Kingdom—Strategic Weapons Systems,” February 20, 2020; and Jane’s Sentinel Security Assessment—Western Europe, “France—Strategic Weapons Systems,” March 13, 2020. Also see the United Kingdom’s evolving nuclear deterrent in United Kingdom, *Global Britain In a Competitive Age*, 76–8.
- 86 Jane’s Sentinel Security Assessment—Western Europe, “France—Strategic Weapons Systems,” March 13, 2020.
- 87 IISS, *The Military Balance 2021*, 67, 70; and “NATO Nuclear Deterrence,” NATO, February 2020, https://www.nato.int/nato_static_fl2014/assets/pdf/2020/2/pdf/200224-fact-sheet-nuclear-en.pdf.
- 88 Ochmanek, *U.S. Military Capabilities and Forces for a Dangerous World*, 46.
- 89 Defense Security Cooperation Agency, *Poland—High Mobility Artillery Rocket System (HIMARS) and Related Support and Equipment* (Washington, DC: U.S. Department of Defense, November 29, 2018), <https://www.dsca.mil/press-media/major-arms-sales/poland-high-mobility-artillery-rock-et-system-himars-and-related>.
- 90 Philip M. Breedlove, *Toward Effective Air Defense In Northern Europe* (Washington, DC: Atlantic Council, March 2018), <https://www.atlanticcouncil.org/in-depth-research-reports/issue-brief/toward-effective-air-defense-in-northern-europe/>.
- 91 Author interview with Polish defense officials, February 2021.
- 92 Robert Dalsjö, Christofer Berglund, and Michael Jonsson, *Bursting the Bubble: Russian A2/AD in the Baltic Sea Region*, FOI-R-4651-SE (Stockholm, Sweden: FOI, March 2019), <https://www.foi.se/rest-api/report/FOI-R--4651--SE>.
- 93 United Nations Security Council, “Identical Letters Dated 7 April 2021 from Permanent Representative of Israel to the

- United Nations Addressed to the Secretary-General and the President of the Security Council," S/2021/338, April 8, 2021, <https://digitallibrary.un.org/record/3907877?ln=en>; and Jeremy Binnie, "Israel Says Iranian Missile Could Have 5,000 Kilometer Range," *Jane's Defence Weekly*, April 21, 2021, <https://www.janes.com/defence-news/news-detail/israel-says-iranian-missile-could-have-5000-km-range>.
- 94 Defense Intelligence Agency, *Iran Military Power: Ensuring Regime Survival and Securing Regional Dominance* (Washington, DC: Defense Intelligence Agency, 2019), https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Iran_Military_Power_LR.pdf.
- 95 Author interview with NATO defense officials, February 2021.
- 96 Jane's Sentinel Security Assessment—Western Europe, "France—Strategic Weapon Systems," March 13, 2020.
- 97 See, for example, Sebastian Sprenger, "Germany Joins Nascent European Push to Shoot Down Hypersonic Missiles," *Defense News*, November 30, 2020, <https://www.defensenews.com/global/europe/2020/11/30/germany-joins-nascent-european-push-to-shoot-down-hypersonic-missiles/>; and author interview with NATO defense officials, July 2021.
- 98 IISS, *The Military Balance 2021*, 347, 371, 376; Clayton Thomas, Jeremy M. Sharp, Christopher M. Blanchard, and Christina L. Arabia, *Arms Sales in the Middle East: Trends and Analytical Perspectives for U.S. Policy*, CRS Report No. R44984 (Washington, DC: Congressional Research Service, November 2020), <https://crsreports.congress.gov/product/details?prodcode=R44984>; and Kenneth Katzman, *The United Arab Emirates (UAE): Issues for U.S. Policy*, CRS Report No. RS21852 (Washington, DC: Congressional Research Service, November 2019), <https://crsreports.congress.gov/product/details?prodcode=RS21852>.
- 99 Gordon, *Army Fires Capabilities for 2025 and Beyond*.
- 100 Ochmanek, *U.S. Military Capabilities and Forces for a Dangerous World*, 74–5.
- 101 See, for example, David Ochmanek, *Restoring the Power Projection Capabilities of the U.S. Armed Forces* (Santa Monica, CA: RAND, 2017), <https://www.rand.org/pubs/perspectives/PE260.html>.
- 102 Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China*.
- 103 See, for example, Karen M. Sutter and Michael D. Sutherland, "China's 14th Five-Year Plan: A First Look," (Washington, DC: Congressional Research Service, January 5, 2021), <https://crsreports.congress.gov/product/pdf/IF/IF11684>.
- 104 Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China*.
- 105 Ibid., ix, 72, 76; U.S.–China Economic and Security Review Commission, *2020 Report to Congress* (Washington, DC: U.S. Government Publishing Office, 2020), <https://www.uscc.gov/annual-report/2020-annual-report-congress>; author interview with NATO defense officials, July 2021; and IISS, *The Military Balance 2021* (London, United Kingdom: Routledge, 2021), 66–163, <https://www.iiss.org/publications/the-military-balance>.
- 106 UK Ministry of Defence, *Defence In a Competitive Age*, 9.
- 107 Brands, *Dealing with Allies in Decline*, 22–3.

- 108 UK Ministry of Defence, *Defence In a Competitive Age*, 9; and Office of the Secretary of Defense, *Military and Security Developments Involving the People's Republic of China*.
- 109 Eric Heginbotham et al., *The U.S. China Military Scorecard: Forces, Geography, and the Evolving Balance of Power, 1996 – 2017* (Santa Monica, CA: RAND, 2015), xxv–xxvi, https://www.rand.org/pubs/research_reports/RR392.html.
- 110 Murielle Delaporte, "France In The Indo-Pacific: A Mediating Power?," *Breaking Defense*, March 11, 2021, <https://breakingdefense.com/2021/03/france-in-the-indo-pacific-a-mediating-power/>.
- 111 Scaparrotti and Bell, *Moving Out*.
- 112 United Kingdom, *Global Britain In a Competitive Age*, 22.
- 113 Ministère des armées, *France's Defence Strategy in the Indo-Pacific* (Paris: French Ministère des armées, 2020), 5, <https://www.defense.gouv.fr/content/download/559608/9684004/file/France's%20Defence%20Strategy%20in%20the%20Indo-Pacific%20-%202019.pdf>.

Chapter 4: Conclusions

- 1 NATO, *The Secretary General's Annual Report* (Brussels: March 2021), https://www.nato.int/cps/en/natohq/opinions_182236.htm.
- 2 "Joint Analysis & Lessons Learned Centre," NATO, n.d., <https://www.jallc.nato.int>.
- 3 "High Visibility Projects," NATO, n.d., <https://diweb.hq.nato.int/kme/Pages/default.aspx>.
- 4 Max Bergmann and Siena Cicarelli, *Open a Bank* (Washington, DC: Atlantic Council, October 14, 2020), <https://www.atlanticcouncil.org/content-series/nato20-2020/open-a-bank/>; and John Bowden, "US military aid to Baltic nations for 2020 hits \$175M, Estonia says," *The Hill*, December 23, 2019, <https://thehill.com/policy/defense/475745-us-military-aid-to-baltic-nations-totals-175m-estonia-says>.

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