# Global Operating Environment

# Assessing the Global Operating Environment

easuring the "strength" of a military force—the extent to which that force can accomplish missions-requires examination of the environments in which the force operates. Aspects of one environment may facilitate military operations; aspects of another may work against them. A favorable operating environment presents the U.S. military with obvious advantages; an unfavorable operating environment may limit the effect of U.S. military power. The capabilities and assets of U.S. allies, the strength of foes, the region's geopolitical environment, and the availability of forward facilities and logistics infrastructure all factor into whether an operating environment is one that can support U.S. military operations.

When assessing an operating environment, one must pay particular attention to any U.S. treaty obligations in the region. A treaty defense obligation ensures that the legal framework is in place for the U.S. to maintain and operate a military presence in a particular country. In addition, a treaty partner usually yields regular training exercises and interoperability as well as political and economic ties.

Additional factors—including the military capabilities of allies that might be useful to U.S. military operations; the degree to which the U.S. and allied militaries in the region are interoperable and can use, for example, common means of command, communication, and other systems; and whether the U.S. maintains key bilateral alliances with nations in the region—also affect the operating environment. Likewise, nations where the U.S.

has stationed assets or permanent bases and countries from which the U.S. has launched military operations in the past may provide needed support to future U.S. military operations. The relationships and knowledge gained through any of these factors would undoubtedly make future U.S. military operations in a region easier and help to ensure a positive operating environment.

In addition to U.S. defense relations within a region, other criteria—including the quality of the local infrastructure, the area's political stability, whether or not a country is embroiled in any conflicts, and the degree to which a nation is economically free—should also be considered.

Then there are low-likelihood, highconsequence events that, although they occur infrequently, can still radically alter conditions in ways that affect U.S. interests. Massive natural disasters like Typhoon Tip (1979)1 or the explosion of Mount Tambora (1816)2 can displace populations, upend regional power arrangements, or destroy critical infrastructure. The eruption of Mount Pinatubo did just that in 1991, causing so much damage to Clark Airbase and Subic Bay Naval Station that the cost, combined with diplomatic frictions between the U.S. and the Philippines, led the U.S. to abandon these strategic facilities.3 A massive solar flare could have a similar impact on a much larger scale because of the world's dependence on electrical power. Scientists, analysts, planners, and officials in public and commercial ventures study such things but

seldom take concrete action to mitigate their potential impact.

Today, the world has been shaken by the COVID-19 pandemic that has caused governments to spend extraordinary sums of money not only to manage the public health crisis, but also to mitigate its economic impact on their countries. Its attendant stresses have put terrific pressures on political establishments; caused governments to divert funding from other matters such as defense capabilities to the more immediate demands of the pandemic; and, given the threat of contagion, the adoption of mitigation measures that have led to the cancellation of military exercises, training events, and deployments. It remains to be seen what the long-term consequences will be, but for the assessed year of 2020, the COVID-19 pandemic has minimized activities that would normally keep military forces in a ready status, pressured related financial accounts, and caused problems for allied countries that

would otherwise work to ensure that their military forces are able to collaborate effectively.

The impact of the pandemic on specific countries will be addressed in the assessments of military readiness, political stability, and access to training, exercise, and operational basing opportunities.

Each of these factors contributes to an informed judgment as to whether a particular operating environment is favorable or unfavorable to future U.S. military operations. The operating environment assessment is meant to add critical context to complement the threat environment and U.S. military assessments that are detailed in subsequent sections of the *Index*.

A final note: The *Index of U.S. Military Strength* refers to all disputed territories by the names employed by the United States Department of State. This should not be interpreted as reflecting a position on any of these disputes.

### **Endnotes**

- Meghan Evans, "Earth's Strongest, Most Massive Storm Ever," Scientific American, October 12, 2012, https://www.scientificamerican.com/article/earths-strongest-most-massive-storm-ever/ (accessed May 17, 2020).
- 2. Robert Evans, "Blast from the Past: The Eruption of Mount Tambora Killed Thousands, Plunged Much of the World into a Frightful Chill and Offers Lessons for Today," *Smithsonian Magazine*, July 2002, https://www.smithsonianmag.com/history/blast-from-the-past-65102374/ (accessed May 17, 2020).
- 3. Philip Shenon, "U.S. Will Abandon Volcano-Ravaged Air Base, Manila Is Told," *The New York Times*, July 16, 1991, https://www.nytimes.com/1991/07/16/world/us-will-abandon-volcano-ravaged-air-base-manila-is-told.html (accessed May 17, 2020).

# Europe

## **Daniel Kochis**

uring the past year, America continued to reengage on European defense and the North Atlantic Treaty Organization (NATO) continued to operationalize new decisions, exercises, and structures to bolster collective defense, but the spring shock of the COVID-19 pandemic caused some defense exercises to be cancelled or postponed and necessitated the use of military resources for the pandemic response across Europe.1 External threats to European security include the continued risk of Russian aggression toward the eastern states of NATO, Russian activity in the Arctic, a growing Russian presence in the Mediterranean theater, and Russian efforts to destabilize Western cohesion. In addition, the threat to the transatlantic alliance posed by Chinese investments, technology, and propaganda efforts has begun to move toward center stage.

The 51 countries in the U.S. European Command (USEUCOM) area of responsibility include approximately one-fifth of the world's population, 10.7 million square miles of land, and 13 million square miles of ocean. Some of America's oldest (France) and closest (the United Kingdom) allies are found in Europe. The U.S. and Europe share a strong commitment to the rule of law, human rights, free markets, and democracy. During the 20th century, millions of Americans fought alongside European allies to defend these shared ideals—the foundations on which America was built.

America's economic ties to the region are likewise important. A stable, secure, and economically viable Europe is in America's economic interest. For more than 70 years, the U.S. military presence has contributed to regional security and stability, economically benefiting both Europeans and Americans. The economies of the member states of the European Union (EU), along with the United States, account for approximately half of the global economy. In addition, the U.S. and the EU's member countries are generally each other's principal trading partners.

Europe is also important to the U.S. because of its geographical proximity to some of the world's most dangerous and contested regions. From the eastern Atlantic Ocean to the Middle East, up to the Caucasus through Russia, and into the Arctic, Europe is enveloped by an arc of instability. The European region also has some of the world's most vital shipping lanes, energy resources, and trade choke points.

European basing for U.S. forces provides the ability to respond robustly and quickly to challenges to U.S. economic and security interests in and near the region. Russian naval activity in the North Atlantic and Arctic has necessitated a renewed focus on regional command and control and has led to increased operations by U.S. and allied air and naval assets in the Arctic. At the same time, Russia's strengthened position in Syria has led to a resurgence of Russian activity in the Mediterranean that has contributed to "congested" conditions.<sup>2</sup>

Speaking at an Atlantic Council meeting in March 2019, General Joseph F. Dunford, former Chairman of the U.S. Joint Chiefs of Staff, explained that the U.S. has two key advantages over adversaries: "our network of allies and partners, and the ability to project power where and when necessary to advance our national interest." Nowhere is the value of allies and U.S. basing more apparent than in the European operating environment.

**U.S. Reinvestment in Europe.** Russia's continued aggression in the region has caused the U.S. to reinvest in military capabilities on the continent. In April 2014, the U.S. launched Operation Atlantic Resolve (OAR), a series of actions meant to reassure U.S. allies in Europe, particularly those bordering Russia. Under OAR and funded through the European Deterrence Initiative (EDI), the U.S. has increased its forward presence in Europe (around 6,000 soldiers take part in OAR missions at any one time across 17 nations);4 invested in European basing infrastructure and prepositioned stocks and equipment and supplies; engaged in enhanced multinational training exercises; and negotiated agreements for increased cooperation with NATO allies.

European Deterrence Initiative. The Trump Administration's fiscal year (FY) 2021 request for EDI is \$4.5 billion, down from \$6 billion in FY 2020 and \$6.5 billion in FY 2019.5 In FY 2020, EDI-funded initiatives included, among others, the continuous U.S. rotational "presence of an Armored Brigade Combat Team (ABCT) with enablers, a Combat Aviation Brigade (CAB), and a Battalion to support NATO's enhanced forward presence (EFP)" along with enhancement of "Theater Anti-Submarine Warfare infrastructure," retention of F-15C fighter aircraft in Europe, "continued placement of prepositioned equipment," and an "increase in the training tempo" to improve the "overall readiness and interoperability of NATO's allies and partners."6

Testifying before the Senate Armed Services Committee in February 2020, General Tod Wolters was clear about the importance of EDI funding in returning the United States to a posture of deterrence:

Through EDI, we have enhanced our presence in the theater to assure Allies

and deter adversaries. Increases of forward-stationed and rotational forces continue to improve our posture and enable us to compete and win in a multi-domain crisis or conflict. EDI funding for exercises, training, and building partner capacity programs enhance the readiness and interoperability of U.S. and Alliance forces. EDI funds have also improved our ability to respond using prepositioned stocks and improved theater infrastructure. Together, these improvements enable the rapid deployment and sustainment of forces.<sup>7</sup>

EDI has supported infrastructure improvements across the region. One major EDI-funded project is a replacement hospital at Landstuhl, Germany. When completed in 2022, the new permanent facility "will provide state-of the-art combat and contingency medical support to service members from EUCOM, AFRICOM and CENTCOM." The importance of Landstuhl should not be underestimated. In early March, the facility was one of the first two U.S. laboratories overseas capable of testing for coronavirus. 9

In addition to EDI, since 2018, the Department of State has awarded \$277 million in grants through its European Recapitalization Incentive Program (ERIP) and repurposed funds to help U.S. allies in Europe replace Russian equipment with U.S.-made equipment. This has led to \$2.5 billion in equipment sales including Blackhawk procurement in Albania, Lithuania, and Slovakia; Stryker vehicles in North Macedonia; Bradley Fighting Vehicles in Croatia; Bell Huey II helicopters in Bosnia and Herzegovina; and F16 purchases in Bulgaria. 10

Forward Presence. In October 2019, the 2nd Armored Brigade Combat Team (ABCT) of the 1st Cavalry Division from Fort Hood, Texas, replaced the outgoing BCT in the "fifth iteration of an armored rotation in support of Atlantic Resolve." The BCT, consisting in part of 3,500 troops, 85 tanks, and 120 infantry fighting vehicles, deployed to sites across Belgium, Bulgaria, the Czech Republic, Denmark, Estonia,

Germany, Great Britain, Greece, Hungary, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Romania, and Slovakia.<sup>11</sup>

General Mark A. Milley, former Army Chief of Staff and now Chairman of the Joint Chiefs of Staff, has emphasized the value of ground forces in deterrence: "The air [and] maritime capabilities are very important, but I would submit that ground forces play an outsize role in conventional deterrence and conventional assurance of allies. Because your physical presence on the ground speaks volumes." 12

In addition to back-to-back rotations of armor, the U.S. has maintained a rotational aviation brigade in Europe since February 2017.13 In October 2019, the 3rd Combat Aviation Brigade, 3rd Infantry Division from Hunter Army Airfield, Georgia, arrived in Europe for a ninemonth rotation with "approximately 1,700 personnel; 50 UH-60 and HH-60 Black Hawks; 10 CH-47 Chinooks; 20 AH-64 Apaches; and more than 2,000 wheeled vehicles and pieces of equipment." The units of the aviation brigade were distributed to Belgium, Bulgaria, the Czech Republic, Denmark, Estonia, Germany, Great Britain, Greece, Hungary, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Romania and Slovakia.14

In May 2018, the U.S. began flying MQ-9 Reaper drones on unarmed reconnaissance flights out of Miroslawiec Air Base in Poland. The drones became fully operational in March 2019 when U.S. Air Force (USAF) officials stated that Poland was chosen for the MQ-9s because of its "strategic location." Runway work at Miroslawiec necessitated the temporary relocation of the MQ-9 drones to Campia Turzii Air Base in Romania in July 2019. It is expected that some MQ-9s will eventually be based out of Lask, Poland.

Since 2017, the U.S. has beefed up its presence in Norway as well. In September 2019, 700 Marines from the 2nd Battalion, 6th Marine Regiment deployed to the Norwegian towns of Setermoen and Vaernes, the sixth rotation of the Marine Rotational Force–Europe. However, the Pentagon announced the end of the rotations beginning in October 2020.<sup>18</sup>

The U.S. also continues to rotate a Sustainment Task Force of 900 personnel from 11 Army Reserve and National Guard units that concentrate on logistics and maintenance to improve readiness. The Sustainment Task Force includes "military police, ammunition handlers, movement control teams, truck drivers, maintenance, supply, fuelers and postal services." <sup>19</sup>

In July 2020, the United States announced plans to remove nearly 12,000 troops stationed in Germany, with 6,400 returning to the U.S. and 5,600 to be stationed elsewhere in Europe, principally Belgium and Italy.<sup>20</sup> Among the planned changes, the 2nd Cavalry Regiment based in Vilseck, Germany, would return to the United States; the 5th Battalion, 4th Air Defense Artillery Regiment, activated in November 2018 and currently based in Ansbach, would be moved to Belgium; and the 52nd fighter wing, currently based in Spangdahlem, would be based in Vicenza, Italy.<sup>21</sup> The Department of Defense announced plans to move EUCOM and Special Operations Command Europe (SOCEUR) from Stuttgart, Germany, to Mons, Belgium.<sup>22</sup> The Pentagon also announced plans for further rotational deployments "farther east on the continent in more strategic locations, such as near the Black Sea region," although no specific plans have yet been announced.<sup>23</sup> NATO's Supreme Headquarters Allied Powers Europe is based in Mons, and General Tod Wolters stated that the headquarters moves "will improve the speed and clarity of our decision-making and promote greater operational alignment."24

In August, the U.S. and Poland signed a Defense Cooperation agreement. Under this agreement, an additional 1,000 U.S. soldiers will rotate to the country, "to include the forward elements of the U.S. Army's V Corps headquarters and a Division headquarters, intelligence, surveillance and reconnaissance capabilities, and the infrastructure to support an armored brigade combat team and combat aviation brigade."<sup>25</sup> Poland reportedly will cover \$135 million annually to support the augmented presence.<sup>26</sup> The U.S. and Poland have also

agreed to establish a USAF airport of debarkation at Wroclaw–Strachowice Air Base, a U.S. Special Forces facility at Lubliniec, and a joint Combat Training Centre in Drawsko Pomorskie. The U.S. Army reportedly plans to transform "command headquarters in Poznan—known as a mission-command element—into a full-fledged division headquarters that would improve the military's ability to manage forces up and down the eastern flank." In October 2019, the Army "rebranded the headquarters as 1st Infantry Division (Forward), but to date no additional troops have been added since negotiations with Poland remain ongoing." 28

Operation Atlantic Resolve's naval component has consisted in part of increased deployments of U.S. ships to the Baltic and Black Seas. According to Admiral James Foggo III, Commander of U.S. Naval Forces in Europe and Africa, "The United States and NATO are active with more ships in the Black Sea Region. We provide deterrence through our military presence, our exercises, and the training we conduct with allies and partners there." In 2019, the U.S. spent 109 days in the Black Sea, an increase of four days from 2018.

Russian undersea activity has continued to increase, with EUCOM confirming "a 50 percent increase in the number of resources in the undersea that Russia committed to...out-of-area submarine operations" in the summer and fall of 2019 compared to the same period in 2018.<sup>30</sup> The Navy reestablished the Second Fleet, "responsible for the northern Atlantic Ocean," in May 2018, nearly seven years after it had been disbanded in 2011.<sup>31</sup> Second fleet reached full operational capability at the end of 2019.<sup>32</sup> The fleet was reestablished because of Russian militarization of the Arctic and led the BALTOPS exercise in June 2019.<sup>33</sup>

Prepositioned Stocks. The U.S. continues to preposition equipment in Europe across all services. Equipment and ammunition sufficient to support a division will continue to arrive in Europe through 2021.<sup>34</sup> The U.S. Air Force, Special Forces, and Marine Corps are beefing up prepositioned stocks; the Marine Corps Prepositioning Program in Norway is

emphasizing cold-weather equipment.<sup>35</sup> DOD proposed that EDI Army funding will further "continue the build of a division-sized set of prepositioned equipment with corps-level enablers that is planned to contain two ABCTs (one of which is modernized), two Fires Brigades, air defense, engineer, movement control, sustainment and medical units."<sup>36</sup>

In February 2020, General Gustave F. Perna, Commanding General of the U.S. Army Materiel Command, revealed that the U.S. is building an additional Army prepositioned stock that is set for Europe.<sup>37</sup> Also in February, General Tod Wolters testified before the Senate Armed Services Committee that "Army Prepositioned Stocks in Europe hold equipment and logistics for an Armored Brigade Combat Team and key enablers, facilitating increased lethality by rapidly integrating deployed units into operations."<sup>38</sup>

Impact of the Coronavirus. While the impact of Covid-19 was felt across the alliance, it did not alter NATO's ability to carry out the vital work of collective defense. "Our forces remain ready," stated NATO Secretary General Jens Stoltenberg on April 2, "and our crucial work goes on—including in our multinational battlegroups in the east of the alliance, NATO Air Policing and our maritime deployments."

Some members of NATO's military services did fall ill. In early March, Polish general Jarosław Mika was among attendees at a DEFENDER-Europe 20 conference in Wiesbaden, Germany, that caught the coronavirus. <sup>40</sup> In April, 50 French sailors aboard the aircraft carrier *Charles de Gaulle* were found to be positive for coronavirus, and by mid-April, hundreds of American sailors aboard the aircraft carrier USS *Theodore Roosevelt* had tested positive for COVID-19.<sup>41</sup>

Allied militaries across NATO were called upon to assist with civilian pandemic mitigation and response efforts. The French armed forces, for example, helped to set up additional capacity in the form of a field hospital, and the air force "evacuated patients from hospitals in Mulhouse and Colmar to military hospitals in Marseille and Toulon." Similarly, Sweden's

## NATO Excercises Cancelled in 2020 Due to Coronavirus

| Excercise                    | Original<br>Excercise Dates | Location(s)                            |
|------------------------------|-----------------------------|--|
| Asgard Skjold                | Spring                      | Norway                                 |
| Cold Response                | March 2-18                  | Norway                                 |
| Dynamic Front                | Spring                      | U.S., Germany, Latvia, and Poland      |
| Joint Warfighting Assessment | April 13-May 23             | Several European countries             |
| Juniper Cobra                | March 3-13                  | Israel                                 |
| Saber Strike                 | Spring                      | Estonia, Latvia, Lithuania, and Poland |
| Swift Response               | Spring                      | Bulgaria, Croatia, and Romania         |

**SOURCE:** Heritage Foundation research.

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armed forces built a field hospital at Uppsala.<sup>43</sup> In the United States, USNS *Comfort* and USNS *Mercy*, two naval hospital ships, docked in New York and Los Angeles, respectively, to assist with health care overcrowding.<sup>44</sup>

NATO's Euro-Atlantic Disaster Response Coordination Centre (EADRCC) helped to coordinate assistance based on requests and availability of supplies. The Czech Republic and Turkey, for example, "provided Italy and Spain with medical supplies such as masks, personal protection equipment and disinfectants."45 In April, NATO foreign ministers directed Supreme Allied Commander Wolters to help coordinate the matching of requests for aid with offers of assistance and to utilize excess airlift capacity to ease the transport of essential supplies across borders.46 According to Secretary General Stoltenberg, General Wolters "will also implement simplified procedures for rapid air mobility, in coordination with Eurocontrol, using the NATO call sign for military relief flights."47

NATO's Strategic Airlift Capability (SAC), "a multinational programme that provides assured access to strategic military airlift capability for its 12 member nations," 48 which include 10 NATO members and two Partnership for Peace Countries, 49 was leveraged for

pandemic response. Examples include cargo flights to bring essential medical supplies from South Korea to the Czech Republic, Hungary, Romania, and Slovakia; use of SAC to transport ICU beds to Dutch Sint Maarten in April; the partnering of an Italian team from NATO's Support and Procurement Agency with a private company to create printed 3-D connectors to convert snorkeling masks to ventilator masks. <sup>50</sup> In April, NATO's Kosovo Force (KFOR) helped to transport gowns, masks, and sanitizers to North and South Mitrovica in Kosovo. <sup>51</sup>

In addition to NATO facilitation, allies have banded together to assist one another during the pandemic. Poland and Albania, for example, have sent doctors to Italy; the German air force has helped to transport patients from France and Italy to German hospitals for treatment; Germany has donated ventilators to the U.K.; the U.S. Administration has "authorized a robust assistance package for Italy," Estonia has donated masks and disinfectant to Spain and Italy, and NATO's Support and Procurement Agency has provided field hospital tents and equipment to Luxembourg to increase capacity.<sup>52</sup>

Another important impact of the pandemic has been the cancellation or postponement

of exercises. In March, Cold Response 20, a major exercise in Norway focused on Arctic security, was cancelled and 1,500 American servicemembers were put into quarantine after coming into contact with an infected Norwegian servicemember. DEFENDER-Europe 20, which was to be "the U.S. Army's largest exercise in Europe in 25 years, ranging across ten countries and involving 37,000 troops from at least 18 countries, of which 20,000 soldiers [were to] be deployed from the United States to Europe," was significantly scaled back, and "linked exercises...Dynamic Front, Joint Warfighting Assessment, Saber Strike and Swift Response" were cancelled. 4

Despite these changes, the U.S. did exercise large movements of soldiers and equipment before the cancellation of DEFENDER-Europe 20. Beginning in January:

[T]he Army deployed approximately 6,000 Soldiers from the United States to Europe including a division headquarters and an armored brigade combat team. It has moved approximately 9,000 vehicles and pieces of equipment from Army Prepositioned Stocks and approximately 3,000 pieces of equipment via sea from the United States. And, in coordination with Allies and partners, it also completed movement of Soldiers and equipment from multiple ports to training areas in Germany and Poland.<sup>55</sup>

In early April, it was reported that "Canada and Germany have canceled [their] participation" in and that "Austria is considering not coming" and "Britain will substantially scale down [its] contribution" to the Aurora 20 exercise in Sweden because of COVID-19.<sup>56</sup>

**U.S. Nuclear Weapons in Europe.** In his 2020 EUCOM posture statement, General Tod Wolters reaffirmed that:

As long as nuclear weapons exist, NATO will remain a nuclear Alliance. The fundamental purpose of NATO's nuclear capability is to preserve peace, prevent coercion,

and deter aggression. The strategic forces of the Alliance are the supreme guarantee of the security of Allies and underwrite every U.S. military operation in Europe. Since 2015, the Alliance has placed increased emphasis on the role of nuclear capabilities in its overall deterrence and defense posture, and continues to adapt its posture to ensure its nuclear capabilities remain credible, coherent, resilient, and adaptable to the changing environment.<sup>57</sup>

It is believed that until the end of the Cold War, the U.S. maintained approximately 2,500 nuclear warheads in Europe. Unofficial estimates range between 150 and 200 warheads spread across bases in Italy, Turkey, Germany, Belgium, and the Netherlands. <sup>58</sup> In October 2019, reports surfaced that the U.S. was considering moving the roughly 50 tactical nuclear weapons stored at Incirlik Air Base in Turkey in light of ongoing tensions, but no decision has been made. <sup>59</sup> All of these weapons are free-fall gravity bombs designed for use with U.S. and allied dual-capable aircraft.

These bombs are undergoing a life extension program that is expected to add at least 20 years to their life span. The B61-12 bomb, according to U.S. officials, is "intended to be three times more accurate than its predecessors" and had been slated to begin production in March 2020. However, in September 2019, Charles Verdon, Deputy Administrator for Defense Programs at the National Nuclear Security Administration, announced that the life extension program for the new B61-12 gravity bomb could face an 18-month delay, which could shrink in the future, because of the need to replace certain parts.

# Important Alliances and Bilateral Relations in Europe

The United States has a number of important multilateral and bilateral relationships in Europe. First and foremost is the North Atlantic Treaty Organization, the world's most important and arguably most successful defense alliance.

## **Few NATO Members Follow Defense Spending Guidelines**

NATO members are expected to spend at least 2 percent of their GDP on defense, and at least 20 percent of their defense spending is supposed to go to equipment. Only the U.S. and seven other nations do both.





EQUIPMENT AS A PERCENTAGE OF DEFENSE EXPENDITURES, 2020

**NOTES:** Figures are estimates for 2020. Iceland is not listed because it has no military.

**SOURCE:** Press release, "Defence Expenditure of NATO Countries (2013–2020)," North Atlantic Treaty Organization, October 21, 2020, https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/10/pdf/pr-2020-104-en.pdf (accessed October 26, 2020).

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#### North Atlantic Treaty Organization.

NATO is an intergovernmental, multilateral security organization that was designed originally to defend Western Europe from the Soviet Union. It anchored the U.S. firmly

in Europe, solidified Western resolve during the Cold War, and rallied European support following the 9/11 terrorist attacks. NATO has been the bedrock of transatlantic security cooperation ever since its creation in 1949 and is likely to remain so for the foreseeable future.

Current NATO operations include Resolute Support, "a non-combat mission which provides training, advice and assistance to Afghan security forces and institutions"; Kosovo Force; Operation Sea Guardian, tasked with maintaining "maritime situational awareness, counter-terrorism at sea and support to capacity-building" in the Mediterranean; Airborne Surveillance and Interception Capabilities to meet Iceland's Peacetime Preparedness Needs (ASIC IPPN); NATO Air Policing over the Baltics, Albania, Montenegro, and Slovenia; airlift and sealift support to the African Union Mission in Somalia; "capacity-building support" and "expert training support" for the African Standby Force; and NATO Mission Iraq (NMI), "a non-combat training and capacity-building mission that involves several hundred NATO trainers."62 The 500-strong NMI was temporarily suspended in January 2020 following the death of Iranian General Qassem Soleimani. In February 2020, despite the suspension, NATO reportedly began to consider expanding the NMI to meet U.S. demands for a greater alliance presence in the Middle East.63

In recent years, NATO has placed a strong focus on military mobility and logistics in line with its 2014 Readiness Action Plan (RAP). The RAP was designed to reassure nervous member states and put in motion "longer-term changes to NATO's forces and command structure so that the Alliance will be better able to react swiftly and decisively to sudden crises."

In June 2018, NATO defense ministers agreed to the Four 30s plan to improve movement of troops in Europe by 2020. "Four 30s" derives from the plan's objective that NATO should be able to respond to any aggression with 30 battalions, 30 squadrons of aircraft, and 30 warships within 30 days. 65 "In 2019, Allies contributed all of the combat forces required for this initiative," and they "are now working to build and maintain the level of readiness of these forces and organise them into larger formations."

Enhanced Forward Presence. The four multinational battalions stationed in Poland and the Baltic States as part of the alliance's Enhanced Forward Presence (EFP) are the centerpiece of NATO's renewed focus on collective defense. Different countries serve as the lead nation for a designated supported country, providing overall coordination and the centerpiece force that is augmented by other contributing nations.

- The U.S. serves as the lead nation in Orzysz, Poland, near the Suwalki Gap. The U.S.-led battlegroup consists of 857 American troops and an armored cavalry squadron with combat service and support enablers augmented by 80 troops from Croatia, 120 from Romania, and 140 from the United Kingdom.<sup>67</sup>
- In Estonia, the United Kingdom serves as the lead nation, headquartered in Tapa. Its battlegroup consists of 800 troops in an armored infantry battalion with main battle tanks and armored fighting vehicles, supported by "self-propelled artillery and air defence assets, engineers, an intelligence, surveillance and reconnaissance group and logistic support elements," in addition to three staff officers from Denmark, and one Icelandic strategic communications civilian.<sup>68</sup>
- In Adazi, Latvia, Canada is the lead nation with 525 troops and armored fighting vehicles augmented by 21 troops from Albania, 55 from the Czech Republic, 166 from Italy, 10 from Montenegro, approximately 200 from Poland, 152 from Slovakia, 33 from Slovenia, and 350 from Spain.<sup>69</sup>
- In Rukla, Lithuania, Germany serves as the lead nation with 560 troops augmented by another 262 from Belgium, 188 from Croatia, 35 from the Czech Republic, 270 from the Netherlands, 120 from Norway, a contribution from Luxembourg, and one Icelandic public affairs civilian.<sup>70</sup>

EFP troops are under NATO command and control; a Multinational Division Headquarters Northeast located in Elblag, Poland, which reached full operational capability in December 2018, coordinates the four battalions. <sup>71</sup> In February 2017, the Baltic States signed an agreement to facilitate the movement of NATO forces among the countries. <sup>72</sup>

In addition, NATO has established eight Force Integration Units located in Sofia, Bulgaria; Tallinn, Estonia; Riga, Latvia; Vilnius, Lithuania; Bydgoszcz, Poland; Bucharest, Romania; Szekesfehervar, Hungary; and Bratislava, Slovakia. These new units "will help facilitate the rapid deployment of Allied forces to the Eastern part of the Alliance, support collective defence planning and assist in coordinating training and exercises."

At its July 2016 Warsaw summit, NATO also agreed to "develop tailored forward presence in the southeast part of the Alliance territory." According to the summit's official communiqué:

Appropriate measures, tailored to the Black Sea region and including the Romanian initiative to establish a multinational framework brigade to help improve integrated training of Allied units under Headquarters Multinational Division Southeast, will contribute to the Alliance's strengthened deterrence and defence posture, situational awareness, and peacetime demonstration of NATO's intent to operate without constraint. It will also provide a strong signal of support to regional security. Options for a strengthened NATO air and maritime presence will be assessed.<sup>74</sup>

The land component of NATO's tailored forward presence is a multinational framework brigade based in Craiova, Romania, under the control of Headquarters Multinational Division Southeast (HQ MND–SE) in Bucharest. HQ MND–SE achieved final operational capability in March 2018. The 5,000-strong brigade "still consists mainly of Romanian troops,

but they are supplemented by Bulgarian and Polish troops and headquarters staff from various other NATO states."<sup>77</sup> The U.S. and Romania jointly organize a biannual exercise named Saber Guardian, which is designed to improve the integration of multinational combat forces."<sup>78</sup> In the 2019 iteration, "[a]lmost 8,000 soldiers from six countries (Albania, Bosnia and Herzegovina, Bulgaria, Romania, Hungary and United States of America)" participated in exercises in Bulgaria, Hungary, and Romania.<sup>79</sup>

Addressing a NATO capability gap in aerial refueling, the Czech Republic joined the Multinational Multi-Role Tanker Transport Fleet (MMF) program, which also includes Belgium, Germany, Luxembourg, the Netherlands, and Norway, in October 2019. The first two of eight Airbus A330 Multi-Role Tanker Transport (MRTT) aircraft, which will help to offset some of Europe's reliance on the United States for aerial refueling services, are to be delivered to Eindhoven air base in the Netherlands in May 2020, with another four scheduled for delivery over the next three years; the other three will operate out of Cologne, Germany, with the first to be delivered in October 2020.80 The U.S. currently carries out 90 percent of NATO airto-air refuelings.81

Additionally, in November 2019, NATO announced a \$1 billion package to upgrade its Airborne Warning and Control System (AWACS) planes along with "an announcement that the first of five Global Hawk drones making up the Alliance Ground Surveillance program was en route from the United States to its future home base at Sigonella, Sicily."<sup>82</sup>

In 2018, NATO established two new commands: a joint force command for the Atlantic, based in Norfolk, Virginia, and a logistics and military mobility command. Sa These commands consist of a total of 1,500 personnel, with the logistics command headquartered in Ulm, Germany. Logistics have been a significant focus of the alliance in recent years. An internal alliance assessment in 2017 reportedly concluded that NATO's "ability to logistically support rapid reinforcement in the much-expanded territory covering SACEUR's

(Supreme Allied Commander Europe) area of operation has atrophied since the end of the Cold War."<sup>85</sup> In December 2019, EUCOM Commander General Tod Wolters stated that logistics deficiencies in Europe keep him up at night: "[W]hen I go to sleep at night, it's probably the last thought I have, that we need to continue to improve upon, and we are, from a road, rail, and air perspective, in getting large quantities of hardware and software from west to east on continent."<sup>86</sup>

In recent years, shortfalls in the alliance's ability to move soldiers and equipment swiftly and efficiently have occasionally been glaring. In January 2018, German border guards stopped six U.S. M109 Paladin howitzers en route from Poland to multinational exercises in Bavaria because the trucks being used to transport the artillery were allegedly too wide and heavy for German roadways. In addition, contractors driving the trucks were missing paperwork and trying to transport the howitzers outside of the allowed 9:00 p.m.-5:00 a.m. window. NATO has focused heavily on overcoming these barriers and is working with the European Union, which retains competencies that are critical to improving military mobility, particularly with respect to overcoming legal and regulatory hurdles.

Cyber Capabilities. NATO has stated that "a severe cyber-attack could lead [it] to invoke Article 5."87 Ultimately, the decision to invoke Article 5 will be a political decision. At the 2016 Warsaw summit, NATO recognized cyberspace as a domain of operations, and on August 31, 2018, it established a Cyberspace Operations Centre (CYOC) in Mons, Belgium, that will include 70 cyber experts when it becomes fully operational in 2023.88 The CYOC, according to NATO, "will provide situational awareness and coordination of NATO operational activity within cyberspace."89 In 2017, it was reported that NATO "is preparing to expand its satellite communications capability with contracts worth about \$1.85 billion later this year as it prepares to field a new fleet of drones."90 Its decision was driven in part by the acquisition of five Global Hawk surveillance drones, which

generate significant data; after delays, the first drone was delivered in 2019 to Sigonella Naval Air Station. Satellite communications are critical both for piloting the Global Hawks and for disseminating the surveillance data they collect in real time.

The alliance's Joint Air Power (JAP) Strategy, released in June 2018, highlighted the importance of cyber and space capabilities:

Increasing reliance on cyber and spacebased capabilities by Alliance forces presents vulnerabilities for adversaries to negate critical NATO capabilities through degradation, denial or destruction, whilst providing opportunities for the Alliance to integrate such capabilities with JAP for kinetic and non-kinetic effect. Both the resilience and exploitation of such capabilities is [sic] therefore a critical requirement that future development should address.<sup>92</sup>

Another related initiative, the NATO Industry Cyber Partnership, focuses on industry and the academic community:

NATO has also invested in strengthening its relationship with industry through the NATO Industry Cyber Partnership. This initiative, established in 2014, facilitates cooperation for the mutual benefit of both NATO and Allies' industry and academia. In 2019, industry continued to support NATO's cyber defence by providing real-time actionable cyber threat information, thereby enabling stakeholders to take rapid action to respond to threats.<sup>93</sup>

U.S. officials have raised concerns about the impact of Chinese 5G technology on the sharing of intelligence in Europe, stating that using Chinese state-controlled companies for next-generation wireless networks would be "nothing short of madness." The landscape in Europe for key decisions regarding Chinese technology in next-generation wireless networks is accelerating. Exactly how the

emerging patchwork approach to Chinese 5G technology in Europe will affect the European operating environment will become clearer in the coming years.

Ballistic Missile Defense. In July 2016, NATO members declared Initial Operational Capability of NATO ballistic missile defense (BMD), which offers a stronger capability to defend alliance populations, territory, and forces across the southern portion of Europe from a potential ballistic missile attack. An Aegis Ashore site in Deveselu, Romania, became operational in May 2016, and in April 2019, the U.S. announced the temporary deployment of a Terminal High Altitude Area Defense (THAAD) system to Romania while the Aegis Ashore system is being updated.95 An AN/TPY-2 forward-based early-warning BMD radar established at Kürecik, Turkey, has a range of up to 1,800 miles. The U.S. is also reportedly building a second undisclosed site near Malatya, expanding capability at that location.<sup>96</sup>

BMD-capable U.S. Aegis-equipped ships are forward deployed at Rota, Spain.97 In March 2020, the U.S. Navy announced support for basing an additional two destroyers at Rota, which would bring the total to six.98 The additional deployments, according to NATO Supreme Allied Commander Wolters, "would allow us the opportunity to continue to improve our ability to get indications and warnings in the potential battlespace and also dramatically improve our ability to better command and control."99 A second Aegis Ashore site in Redzikowo, Poland, which broke ground in May 2016, was expected to be operational in 2017 but has been beset by construction delays and may not become operational until 2022.100 Ramstein Air Base in Germany hosts a command center.<sup>101</sup>

The U.K. operates a BMD radar at RAF Fylingdales in England. In November 2015, the government "announced it would invest in a ground-based BMD radar, intended to enhance the coverage and effectiveness of the NATO BMD capability." <sup>102</sup> As of July 2017, it was reported that "[t]he UK's current and only ballistic missile defence (BMD) radar [was still] at RAF Fylingdales" but that the government

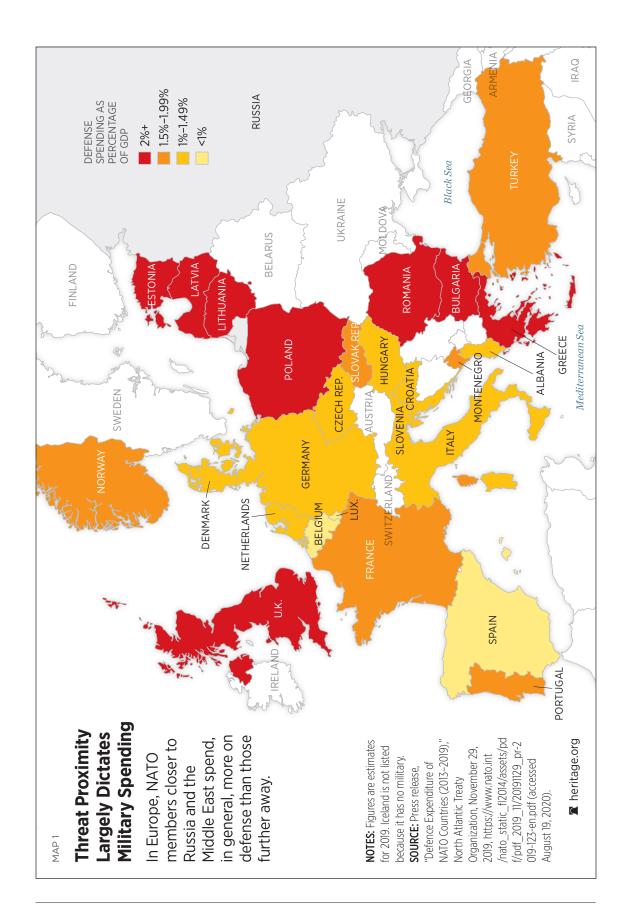
expects the new radar "to be in service by the mid-2020s" and "will also investigate further the potential of the Type 45 Destroyers to operate in a BMD role." <sup>103</sup>

In October 2017, ships from the U.S. and allies Canada, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom took part in a three-and-a-half-week Formidable Shield BMD exercise off the Scottish Coast.<sup>104</sup> Formidable Shield exercises were held again in 2019.<sup>105</sup> During Formidable Shield 19, a French FREMM frigate deployed an Aster-15 air defense missile for the first time to "to intercept a projectile travelling at a speed of over Mach 1," and a Canadian frigate engaged a supersonic target with an Evolved Sea Sparrow Missile for the first time.<sup>106</sup>

In January 2017, the Russian embassy in Norway threatened that if Norway contributes ships or radar to NATO BMD, Russia "will have to react to defend our security." <sup>107</sup> Norway operates four *Fridtjof Nansen*—class Aegis-equipped frigates that are not currently BMD capable. <sup>108</sup> A fifth Aegis-equipped frigate, the *Helge Ingstad*, collided with an oil tanker and was intentionally run aground in November 2018; although raised in 2019, it likely will be salvaged for parts rather than returned to service. <sup>109</sup>

Denmark, which agreed in 2014 to equip at least one frigate with radar to contribute to NATO BMD, reaffirmed this commitment in its recent Defence Agreement 2018–2023. 110 Russia's ambassador in Copenhagen has openly threatened Denmark for agreeing to contribute: "I do not believe that Danish people fully understand the consequences of what may happen if Denmark joins the American-led missile defense system. If Denmark joins, Danish warships become targets for Russian nuclear missiles." 111

In March 2019, the first of four Dutch *Iver Huitfeldt*–class frigates received a "SMART-L Multi-Mission radar upgrade, providing enhanced Air and Missile Defense capability." The SMART-L MM "is capable of detecting a very wide variety of air and space objects including stealth, short up to long range ballistic



missiles and space objects" and "capable of surveillance and tracking of Ballistic Missiles up to 2000 km while simultaneous[ly] maintaining the Air Defence capability." All four Dutch frigates will receive the radar upgrade, and the Netherlands announced plans to acquire the BMD-capable SM-3 surface-to-air missiles in 2018. In February 2019, the German Navy began a tender to upgrade radar on three F124 *Sachsen*-class frigates in order to contribute sea-based radar to NATO BMD.

In addition, it has been reported that Belgium intends to procure M-class frigates that "will be able to engage exo-atmospheric ballistic missiles."<sup>115</sup> A contract to develop a weapons suite for a joint Belgian and Dutch procurement of two multipurpose frigates apiece was awarded in February 2019, and the vessels are expected to enter service beginning in 2024.116 Spain currently operates four Aegis-equipped F-100 Alvaro de Bazan-class frigates, and "[t]wo more frigates are to come." 117 In April 2019, Spain signed an agreement to procure five F-110 multi-mission frigates; the first of these Aegis-equipped frigates will likely be deployed in 2026 and "will host the first naval solid-state S-band radar for the Spanish Navy."118 Finally, the Italian Navy is procuring seven multi-role offshore patrol vessels (PPAs) to be delivered from 2021 to 2026; the first of two BMD-capable PPAs in full configuration is scheduled for delivery in 2024.119

## **Quality of Armed Forces in the Region**

Article 3 of the 1949 North Atlantic Treaty, NATO's founding document, states that members at a minimum "will maintain and develop their individual and collective capacity to resist armed attack." Regrettably, only a handful of NATO members are living up to their Article 3 commitments.

In 2020, nine countries—Estonia (2.38 percent); Greece (2.58 percent); Latvia (2.32 percent); Lithuania (2.38 percent); Norway (2.03 percent); Poland (2.30 percent); Romania (2.38 percent); the United Kingdom (2.43 percent); and the United States (3.87 percent)—spent the required minimum of 2 percent of

gross domestic product (GDP) on defense, <sup>121</sup> and 16 NATO allies spent 20 percent of their defense budgets on "major new capabilities." <sup>122</sup> NATO defense spending continues to trend upward: "2019 marked the fifth consecutive year of growth in defence spending for European Allies and Canada, with an increase in real terms of 4.6% from 2018 to 2019." <sup>123</sup>

Germany. Germany remains an economic powerhouse that punches well below its weight in terms of defense. In 2020, it will spend only 1.57 percent of GDP on defense and 16.8 percent of its defense budget on equipment;124 however, this is an increase from 2019, when it spent only 1.38 percent of GDP on defense and 16.6 percent of its defense budget on equipment.125 In 2019, Germany officially reneged on its pledge to spend 2 percent of GDP in 2024, informing NATO that it would reach only 1.5 percent. 126 In November 2019, Defense Minister Annegret Kramp-Karrenbauer announced that Germany may not attain the 2 percent benchmark until 2031.127 Because of political constraints under the current coalition government, German defense spending is not likely to shift significantly until after the next election, which will be held before October 2021. Overall, the German military remains underfunded and underequipped. One former German diplomat has stated that without NATO, Germany "would have to double its defence budget to 3-3.5 per cent of GDP or risk being 'completely blind, deaf and defenceless."128

Germany continues to serve as the lead nation for NATO's EFP battalion in Lithuania, with 560 troops stationed there, and is investing \$110 million through 2021 in upgrading facilities in Lithuania, including barracks used by the multinational battalion. <sup>129</sup> The Luftwaffe has taken part in Baltic Air Policing more than any other nation's armed forces: 11 times, including most recently in the second half of 2018.

Germany maintains 70 troops in Kosovo as part of NATO's Kosovo Force and is the second-largest contributor to NATO's Resolute Support Mission in Afghanistan with 1,300 troops. <sup>130</sup> In February 2020, the Bundestag

extended the mandates for Germany's participation in NATO's Sea Guardian maritime security operation and Resolute Support Mission through March 2021. <sup>131</sup> German forces also participate in a number of U.N. peacekeeping missions including in Lebanon, Mali, and South Sudan. <sup>132</sup>

On March 11, 2020, after extending Germany's non-combat training mission in Iraq and its air-to-air refueling and air surveillance radar missions in support of the counter-ISIS coalition, the German government announced that it was ending its Tornado reconnaissance mission on March 31.133 Germany maintains approximately 90 soldiers in Iraq who are helping to train Kurdish forces. 134 An additional 30 soldiers were redeployed to Kuwait and Jordan in January 2020 after Qassem Soleimani was killed by a U.S. drone strike.135 In April 2017, the Bundeswehr established a new cyber command, which initially will consist of 260 staff but will number around 13,500 by the time it becomes fully operational in 2021.136

While Germany's forces have taken on additional roles in recent years, its overall military continues to suffer serious equipment and readiness issues. According to a January 2020 report, "just 15 percent of Germany's Tiger attack helicopters and only around 12 percent of its NH90 transport helicopters were mission capable as of November 2019."137 The readiness rate of Germany's fleet of 93 Tornado jets reportedly is less than 40 percent. 138 A February 2019 report stated that, on average, only 39 of 128 Eurofighters and 26 of 93 tornadoes were available for training and combat in 2018. 139 In addition to equipment problems, the Luftwaffe is facing a shortage of pilots, with only twothirds of combat pilot positions filled.140

The situation is not much better for either the army or the navy. Germany, which was the lead nation for NATO's Very High Readiness Joint Task Force (VJTF)<sup>141</sup> in 2019, "promised to have 44 Leopard 2 tanks and 14 Marder armoured infantry vehicles available for the task, yet in the event could only muster nine and three respectively."<sup>142</sup>

For five months in 2018, the German navy had no working submarines; all six of its Type 212–class submarines were in dry dock awaiting repairs or not ready for active service. <sup>143</sup> Equipment availability has since been classified and thus is not available in the Parliamentary Armed Forces Commissioner's 2019 annual report. <sup>144</sup>

In December 2017, Germany's F-125 Baden-Württemberg-class frigate failed sea trials because of "software and hardware defects."145 The frigate reportedly had "problems with its radar, electronics and the flameproof coating on its fuel tanks." It "was also found to list to the starboard" and lacked sufficiently robust armaments as well as the ability to add them.<sup>146</sup> Concerns have been raised about the frigate's lack of a surface-to-air missile system, a deficiency that leaves it fit only for "stabilization operations," and lack of sonar and torpedo tubes, which leaves it vulnerable to submarine attack. 147 The government returned the ship to the shipbuilder following delivery,148 and the redesigned Baden-Württemberg was belatedly commissioned in June 2019, the first of four F-125 frigates to be delivered through 2021.149 In January 2020, Germany announced a \$6.7 billion contract with a Dutch and German shipbuilder to build the next-generation MKS 180 frigate, the first of four (with the possibility of another two) to be delivered in 2027.150

Germany has increased the number of personnel on active duty in its army from 176,000 in 2016 to 182,000 in 2019:

The government recognizes that the force structure needs to expand in light of Germany's ambitious plans but is grappling with recruitment and retention issues. To address this, Berlin launched a new strategy in October 2019, designed to create a more flexible reserve cadre that can rapidly respond to territorial and collective-defence tasks.<sup>151</sup>

In March 2020, Germany announced that it will purchase 90 Eurofighter Typhoons and 45 F/A-18E/F Super Hornets to replace its fleet

of Tornados. <sup>152</sup> It will cost almost €9 billion to keep the Tornados in the air until their retirement, which is scheduled for 2030. <sup>153</sup> Their replacements will need to be able to carry both nuclear and conventional weapons, as the Tornadoes are dual-capable aircraft equipped to carry B61 tactical nukes in addition to conventional payloads. <sup>154</sup> The U.S. and Germany have already tested the Tornado's ability to carry the new B61-12 tactical nuke. <sup>155</sup> While not yet certified, Germany is planning on the Super Hornets as their dual-capable aircraft. <sup>156</sup> Of the 45 Super Hornets, 15 will be an EA-18 Growler electronic warfare variant. <sup>157</sup>

In February 2017, Germany decided to replace its short-range air defense systems. Once complete, this upgrade, which could cost as much as €3.3 billion by 2030, will help to close a gap in Europe's short-range air defense weapons that was identified in 2016. 158

Germany's procurement of A400M cargo aircraft has been beset by delays. In November 2019, Germany refused to accept delivery of two aircraft, "citing recurring technical problems with the military transporters." As of that same month, 31 of 53 aircraft ordered by Germany had been delivered, but they were found to have a host of technical problems that included incorrect nuts used on propellers and problems with "engine mounts, combustion chambers and engine flaps and for crack detection on various parts."159 In May 2018, the U.S. approved the sale of six C-130J Hercules aircraft and three KC-130J tankers to France and Germany, which are planning to create a joint capability.160

**France.** France has one of NATO's most capable militaries and retains an independent nuclear deterrent capability. Although France rejoined NATO's Integrated Command Structure in 2009, it remains outside the alliance's nuclear planning group. In 2020, France will spend 2.11 percent of GDP on defense and 26.5 percent of its defense budget on equipment, meeting both NATO benchmarks.<sup>161</sup>

In February 2020, the *Suffren*, the first of six new fifth-generation *Barracuda*-class nuclearpowered attack submarines, was floated for the first time. The vessel is expected to be commissioned late in 2020.<sup>162</sup> Construction began on the first of five defense and intervention frigates in October 2019, and "[t]he navy expects the ship to be pronounced operational in early 2025."<sup>163</sup>

France is upgrading its aerial refueling and airlift fleet. In September 2019, it received the first of two KC-130J Super Hercules. <sup>164</sup> It has also been introducing a dozen new A330 MRTT Multi-Role Tanker Transport aircraft, which were procured in 2018 and will be delivered through 2023. <sup>165</sup> By the end of 2020, all 15 French A400M Atlas military transport aircraft will have been upgraded to "tactical standard," and it is expected that an additional 10 aircraft will be procured by 2025. <sup>166</sup>

In January 2019, France signed a \$2.3 billion agreement with Dassault Aviation for development of the F4 standard upgrade to the Rafale fighter aircraft. The F4 Standard upgrade includes "a number of new features, the most important of which is an improvement in the aircraft's connectivity in both national and allied contexts, through software-defined radio, new links, and satellite communications."167 The 28 Rafales, to be delivered in 2023, "will include some F4 functionalities." Also in January, Armed Forces Minister Florence Parly announced a potential order of 30 additional Rafales at full F4 standard in 2023 for delivery between 2027 and 2030.168 France is also spending \$5 billion in 2020 on modernization of its sea-based and air-based nuclear deterrent.169

France established a 220-person Space Command under its air force in September 2019 and has committed to investing \$4.78 billion in its space capabilities by 2025. 170 France plans to have an "active defence" of its assets in space, including lasers and patrols of "nano-satellites," by 2023. "If our satellites are threatened," Armed Forces Minister Parly has explained, "we intend to blind those of our adversaries. We reserve the right and the means to be able to respond: that could imply the use of powerful lasers deployed from our satellites or from patrolling nano-satellites." 171

In December 2016, France opened a cyber-operational command.<sup>172</sup> The French Military Programming Law for 2019–2025, enacted in the summer of 2018, added "an additional 1.6 billion euros for cyber operations along with 1,500 additional personnel for a total of 4,000 cyber combatants by 2025," and in January 2019, France issued its "first doctrine for offensive cyber operations."<sup>173</sup>

France, which has the third-largest number of active-duty personnel in NATO, withdrew the last of its troops from Afghanistan at the end of 2014 (all of its combat troops had left in 2012) but remains engaged in the fight against the Islamic State with 1,000 troops deployed in Operation Chammal.<sup>174</sup> The January-April 2020 deployment of a carrier strike group led by the aircraft carrier Charles de Gaulle to the eastern Mediterranean in support of Operation Chammal was the fifth such deployment since 2014. 175 France has contributed to NATO deterrence missions in Eastern Europe, although 300 soldiers deployed to Estonia as part of NATO's Enhanced Forward Presence withdrew in August 2019.176

The French military is also very active in Africa, with more than 5,100 troops involved in anti-terrorism operations in Burkina Faso, Chad, Mali, Mauritania, and Niger as part of Operation Barkhane and more than 1,450 troops stationed in Djibouti, 900 in Côte d'Ivoire, 350 in Gabon, and 350 in Senegal. In addition, France has a close relationship with the United Arab Emirates. It has 650 troops stationed in the UAE,<sup>177</sup> and a 15-year defense agreement between the countries has been in effect since 2012.

France is part of the EU-led Operation Sophia in the Mediterranean against human smuggling and migration and is involved in a few other maritime missions across the globe as well. <sup>178</sup> In Asia, for example, French naval forces occasionally conduct freedom-of-navigation operations in the South China Sea. <sup>179</sup> In April 2019, France sent a frigate, the *Vendemiaire*, through the Taiwan Strait on a freedom-of-navigation operation. <sup>180</sup> The French-led Maritime Situation Awareness in the Strait of Hormuz

(EMASOH) initiative to help patrol the waters near Iran is based out of Abu Dhabi and became operational on February 25, 2020.<sup>181</sup> France is expanding its presence in the eastern Mediterranean and conducted naval drills with Cyprus in October 2019.<sup>182</sup> Cyprus is planning to expand Evangelos Florakis naval base in Mari to host the French navy.<sup>183</sup>

Operation Sentinelle, launched in January 2015 to protect France from terrorist attacks, is the largest operational commitment of French forces, accounting for some 13,000 troops and reportedly costing "upwards of €400,000 per day."184 Frequent deployments, especially in Operation Sentinelle, have placed significant strains on French forces and equipment. "In early September 2017," according to the International Institute for Strategic Studies (IISS), "the chief of defense staff declared that the French armed forces have been used to '130% of their capacities and now need time to regenerate."185 France's 2017 Defense and National Security Strategic Review similarly noted that "simultaneous sustained operations and deployments are causing early wear and tear of human resources and equipment."186

Sentinelle deployments have had a negative effect on morale for a myriad of reasons. In March 2019, for example, at the height of the *gilets jaunes* (yellow vests) protests, soldiers temporarily took over guard duties at certain Paris buildings to free police. <sup>187</sup> To counteract the strain on soldiers, the government extended deployment pay to soldiers who took part and created a "medal for Protection of the Territory" for troops deployed for 60 days in Operation Sentinelle. <sup>188</sup>

The United Kingdom. America's most important bilateral relationship in Europe is the Special Relationship with the United Kingdom. In his famous 1946 "Sinews of Peace" speech—now better known as his "Iron Curtain" speech—Winston Churchill described the Anglo-American relationship as one that is based first and foremost on defense and military cooperation. From the sharing of intelligence to the transfer of nuclear technology, a high degree of military cooperation has helped

to make the Special Relationship between the U.S. and the U.K. unique.

In 2020, the U.K. will spend 2.43 percent of GDP on defense and 23.0 percent of its defense budget on equipment.189 In September 2019, the Treasury announced a defense budget increase of \$2.7 billion between 2019 and 2021, raising overall spending from £39 billion in 2019 to "over £41 billion" (\$53 billion) in 2021.190 The increase, however, is less than the £3.3 billion requested by the Ministry of Defence (MOD).191 In addition, more than 30 percent of the increased funding (\$910 million) "was earmarked to deal with an increase in pensions contributions," with most of the remaining £1.2 billion used for military modernization, "including investments in the Dreadnought-class nuclear-powered ballistic-missile submarine that will replace the Vanguard class; wider ship-building plans, such as the Type-26 and Type-31 frigates; and funding for cyber capabilities."192 The Financial Times reported in December 2019 that the chief of the Defence Staff had called an emergency meeting with the service chiefs to discuss a £1 billion FY 2021 budget shortfall that would cause "a squeeze on day-to-day deployments and training activities, which will jeopardise overall capability and operational readiness."193

In December 2018, the U.K. released its Modernising Defence Programme, which reaffirmed Britain's commitment to defense in post-Brexit Europe. The program noted plans to rebuild weapons stockpiles and "improve the readiness and availability of a range of key defence platforms, including: major warships, our attack submarines and helicopters." The report on the program also announced the creation of a £160 million transformation fund to develop "cutting-edge technologies." <sup>194</sup> A 2020 report from the National Audit Office, however, warned that the U.K.'s "10-year defense equipment plan shows there is a potential funding shortfall of up to £13 billion (U.S. \$15 billion)." <sup>195</sup>

On February 26, 2020, Prime Minister Boris Johnson announced a foreign policy, defense, security, and international development

review intended in part to "[d]efine the Government's ambition for the UK's role in the world and the long-term strategic aims for our national security and foreign policy" and "[s]et out the way in which the UK will be a problem-solving and burden-sharing nation, examining how we work more effectively with our allies."<sup>196</sup> The July 2020 deadline for this review, which will run parallel with a comprehensive spending review, was criticized as overly ambitious even before the outbreak of the COVID-19 pandemic.<sup>197</sup>

Though its military is small in comparison to the militaries of France and Germany, the U.K. maintains one of European NATO's most effective armed forces. Former Defence Secretary Michael Fallon stated in February 2017 that the U.K. will have an expeditionary force of 50,000 troops by 2025. This goal was reiterated in the MOD's 2018 report on the Modernising Defence Programme. However, U.K. defense forces remain plagued by vacancies. According to the IISS:

The personnel strength of the British armed forces continues to decrease, with an overall deficit of 7.6% in 2019, compared with 6.2% the previous year. Although recruitment initiatives continue, shortages remain in key specialist areas, including 18% of required Royal Air Force (RAF) pilots. The MoD routinely claims that it has enough personnel to meet operational requirements, and in the event of a largescale operation, such as a NATO Article 5 contingency, the army could probably draw on its reserves to bring its units to full strength. But the Royal Navy and RAF, with smaller reserves, might find it more problematic to generate the necessary personnel for a large-scale operation.<sup>200</sup>

The National Audit Office found that onethird of the U.K.'s 32 most important procurement projects were behind, with new equipment "on average more than two years late before it can be at full operating capability."<sup>201</sup> In April 2019, the U.K. reportedly was planning to upgrade only 148 of its 227 remaining Challenger 2 main battle tanks, cutting its fleet by one-third. The 79 other tanks would be used as a source of spare parts. The British Army had previously cut its tank forces by 40 percent in 2010. Description 2010.

In November 2018, former Defence Secretary Gavin Williamson announced a contract to order an additional 17 F-35B aircraft. The U.K. has taken delivery of 16 F-35Bs, and it is expected that 17 more will be delivered between 2020 and 2022. The MOD remains committed to purchasing 138 F-35s but has yet to decide which variants will complete the bloc. RAF F-35s based at Akrotiri, Cyprus, flew operational sorties for the first time in June 2019. The solution of the second second solutions and the second sec

In September 2019, the U.K. took delivery of the last of 160 Typhoon aircraft, which are expected to stay in service until 2040.<sup>208</sup> Project Centurion, a \$515.83 million Typhoon upgrade to integrate additional Storm Shadow long-range cruise missiles and Brimstone precision attack missiles, was completed in 2018, allowing the U.K. to retire its fleet of Tornado aircraft.<sup>209</sup> The U.K. also plans to invest \$2.6 billion in development of the Tempest, a sixth-generation fighter to be delivered in 2035.<sup>210</sup>

The RAF operates the largest fleet of air-to-air refuelers in Europe, which is noteworthy because of the severe shortage of this capability on the continent.<sup>211</sup> Along with the U.K., the U.S. has produced and jointly operated an intelligence-gathering platform, the RC-135 Rivet Joint aircraft, which has seen service in Mali, Nigeria, and Iraq and is now part of the RAF fleet.<sup>212</sup>

The U.K. operates seven C-17 cargo planes and has started to bring the European A400M cargo aircraft into service after years of delays. Britain will procure a total of 22 A400Ms by the early 2020s. In July 2019, the U.K. extended the out-of-service date for its fleet of 14 C-130Js (one C-130J C5 and 13 C-130J-30 C4s) to 2035; the fleet, which is critical to the U.K.'s special operations forces, is undergoing "a key structural upgrade programme." 214

The Sentinel R1, an airborne battlefield and ground surveillance aircraft, was due to be removed from the force structure in 2015, but its service is being extended at least to 2025, and the U.K. will soon start operating the P-8 Poseidon maritime patrol aircraft (MPA). The U.K. has procured nine P-8A maritime patrol aircraft, the first of which landed in Scotland in February 2020.215 A £132 million facility to house the P-8s is under construction at RAF Lossiemouth in Scotland, and P-8s will operate out of the facility by the end of 2020.216 The U.K. has relied on allied MPAs to fill a capability gap that began in 2010. In 2018, retired Air Vice-Marshal Andrew Roberts testified before a parliamentary committee that, "capable though the P-8 may be, the number of aircraft planned is undoubtedly inadequate to fulfil even the highest priority tasks likely to be assigned to the force in tension and hostilities."217

The Royal Navy has lost 40 percent of its fleet since the end of the Cold War.<sup>218</sup> Of the 55 ships that the Royal Navy has lost since the early 1980s, half are frigates, and the U.K. was operating only 13 as of 2018.<sup>219</sup> The Royal Navy's surface fleet is based on the new Type-45 destroyer and the older Type-23 frigate. The latter will be replaced by eight Type-26 Global Combat Ships sometime in the 2020s.<sup>220</sup> The Type-26 Global Combat Ships are meant to handle a flexible range of tasks, but whether all of their weapons capabilities will be funded remains unclear.221 The U.K. announced procurement of five T31e frigates to enter service in 2023, the year the first of the Type-23 frigates is slated to be phased out of service.<sup>222</sup>

HMS *Queen Elizabeth* is expected to become operational in 2021.<sup>223</sup> The U.K.'s *Queen Elizabeth*–class carriers will be the largest operated in Europe, and two of her class will be built. HMS *Price of Wales*, which will be the larger of the two carriers, was commissioned in December 2019 and will undergo fixed-wing sea trials with F-35s off the U.S. east coast in January 2021.<sup>224</sup> In July 2019, a leak in the *Queen Elizabeth* forced the carrier to return to port early from sea trials.<sup>225</sup> In January 2020, the carrier took part in sea trials with F-35s in

U.K. waters for the first time.  $^{226}$  While each carrier is capable of supporting 36 F-35s, the U.K. plans to procure only 48 F-35s for the foreseeable future.  $^{227}$ 

The Royal Navy is also introducing seven *Astute*-class attack submarines as it phases out its older *Trafalgar*-class subs. Crucially, the U.K. also maintains a fleet of 13 Mine Counter Measure Vessels (MCMVs) that deliver world-leading capability. As a supplement, the U.K. began minehunting and survey operations using unmanned surface vessels (USVs) in March 2020.<sup>228</sup>

Perhaps the Royal Navy's most important contribution is its continuous-at-sea, submarine-based nuclear deterrent based on the *Vanguard*-class ballistic missile submarine and the Trident missile. In July 2016, the House of Commons voted to renew Trident and approved the manufacture of four replacement submarines to carry the missile. The replacement submarines are not expected to enter service until 2028 at the earliest. <sup>229</sup> The U.K. plans to procure four new *Dreadnought*-class ballistic missile submarines at a cost of £31 billion with a completion date of 2028 for the first, HMS *Valiant*. <sup>230</sup>

The U.K. remains a leader inside NATO, serving as the lead nation for NATO's EFP in Estonia and as a contributing nation for the U.S.-led EFP in Poland. The Royal Air Force has taken part in Baltic Air Policing five times since 2004, including most recently from May–September 2019.<sup>231</sup> Four RAF Typhoons were deployed to Romania for four months in May 2017 to support NATO's Southern Air Policing mission, and another four were deployed from May–September 2018.<sup>232</sup> From November–December 2019, four U.K. typhoons and 120 personnel took part in Icelandic Air Policing.<sup>233</sup>

The U.K. also increased its already sizeable force in Afghanistan to 1,100 troops in 2018 and continues to support this deployment as part of NATO's Resolute Support Mission in addition to contributing to NATO's Kosovo Force.<sup>234</sup> U.K. forces are an active part of the anti-ISIS coalition, contributing 1,400 servicemembers to Operation Shader, which includes

400 servicemembers involved in training Iraqi security forces, and with RAF drones and aircraft carrying out 8,400 missions.<sup>235</sup>

Italy. Italy hosts some of the most important U.S. bases in Europe, including the headquarters of the Sixth Fleet. It also has NATO's fifth-largest military<sup>236</sup> and one of its more capable despite continued lackluster defense investment. Italy cut its procurement budget by 15 percent in 2019 but increased its overall defense budget, which included an additional 19 percent for maintenance and operations.237 Italy raised its defense spending in 2020 but still spent only 1.43 percent of GDP on defense; however, it spent 24.6 percent of its defense budget on equipment, meeting the second NATO spending benchmark.<sup>238</sup> Overall, "the procurement approval and delay in programme launch and the long-term 2019-2033 investment planning (with most of the budget concentrated from 2027-2028) is affecting defence programmes and international commitments."239

In June 2019, the government announced plans to invest \$8.1 billion in defense modernization through 2032. Some of the modernization projects receiving additional funds include procurements for 64 Centauro II 8x8 tank destroyers, 156 VBM Freccia 8x8 infantry combat vehicles, the M-345 jet trainer and HH-101 Combat Search and Rescue helicopter programs, and the NH90 Tactical Transport helicopter.<sup>240</sup> Italy plans to purchase 60 F-35As for the air force and 30 F-35Bs, with the F-35Bs to be divided equally between the air force and navy.241 The government will spend \$942 million on F-35 deliveries in 2020.242 A government-owned final assembly plant for the F-35 is located in Cameri, Italy.

Key naval procurements include plans for four U212A submarines, a special operations and diving operations/Submarine Rescue Ship platform, and a new anti-ship missile system.<sup>243</sup> Italy launched its tenth and final new FREMM frigate in January 2020.<sup>244</sup> Among other defense priorities are "protection of the defence infrastructure against cyber-attacks," the launch of new surveillance and

communications satellites, "the development and qualification programme for the ground-based air-defence MBDA Italia CAMM ER missile system," and "procurement of munition[s] for training and NATO reserve replenishment—for a long time neglected."

Italy's focus is the Mediterranean region where it participates in a number of stabilization missions including NATO's Sea Guardian and the EU's Operation Sophia (EUNAVFOR MED), as well as the Italian Navy's own Operation Mare Sicuro (Safe Sea) off the Libyan Coast. Additionally, 400 Italian troops take part in the Bilateral Mission of Assistance and Support in Misrata and Tripoli.<sup>246</sup>

Despite a southern focus, Italy contributes to Standing NATO Maritime Group Two.<sup>247</sup> It also has 166 troops deployed in the EFP battalion in Latvia, 895 in Afghanistan as part of NATO's Resolute Support mission, and a contingent of approximately 1,100 troops in Kuwait and Iraq taking part in Operation Prima Parthica, Italy's "[n]ational contribution to the Global Coalition Against DAESH."<sup>248</sup> In 2020, Italian Eurofighter jets operating out of Kuwait replaced Germany in a reconnaissance mission in support of the coalition to defeat the Islamic State.<sup>249</sup>

Italy is a major contributor to KFOR with 542 troops, second only to the United States. <sup>250</sup> The Italian Air Force has taken part in Baltic Air Policing three times, most recently in the first half of 2018. From May–August 2019, Italy's air force took part in NATO's enhanced Air Policing in Romania, having previously participated in "a four-month enhanced Air Policing deployment to Bulgaria in 2017." <sup>251</sup> The Italian Air Force also has deployed to Iceland to perform air patrols five times since 2013, most recently in October 2019 when four F-35As were deployed. <sup>252</sup>

**Poland.** Situated in the center of Europe, Poland shares a border with four NATO allies, a long border with Belarus and Ukraine, and a 144-mile border with Russia's Kaliningrad Oblast, a Russian enclave between Poland and Lithuania on the Baltic Sea. Poland also has a 65-mile border with Lithuania, making it the

only NATO member state that borders any of the Baltic States, and NATO's contingency plans for liberation of the Baltic States in the event of a Russian invasion reportedly rely heavily on Polish troops and ports.<sup>253</sup>

Poland has an active military force of 123,700, including a 61,200-strong army with 606 main battle tanks.<sup>254</sup> In November 2016, the parliament approved a new 53,000-strong territorial defense force (TDF) intended, in the words of Defense Minister Antoni Macierewicz, "to increase the strength of the armed forces and the defense capabilities of the country" and as "the best response to the dangers of a hybrid war like the one following Russia's aggression in Ukraine."255 The TDF is mostly volunteer; "its personnel combine their civilian careers with limited military service of a minimum of two days twice a month and an annual two-week camp."256 The TDF's planned 17 brigades will be distributed across the country.<sup>257</sup> The force, which currently numbers approximately 21,000, constitutes the fifth branch of the Polish military, subordinate to the Minister of Defense.<sup>258</sup>

Poland is also investing in cyber capabilities. "Plans for a 2,000-strong cyberdefence force were also unveiled in 2019," reports the IISS. "Centralised within the defence ministry, this force is due to be operational before 2025. A cyber component was also set up in the TDF in 2019." <sup>259</sup>

In 2020, Poland will spend 2.30 percent of GDP on defense and 25.7 percent of its defense budget on equipment, reaching both NATO benchmarks. <sup>260</sup> Increases in defense spending adopted in October 2017 should enable Poland to spending 2.5 percent of GDP on defense in 2030. <sup>261</sup> Poland is making major investments in military modernization and is planning to spend \$133 billion on new capabilities by 2035 pursuant to the government's new Technical Modernization Plan for 2021–2035, which was signed in October 2019. <sup>262</sup>

In January 2020, Poland signed a \$4.6 billion deal to purchase 32 F-35As, with deliveries to begin in 2024.<sup>263</sup> In March 2018, in the largest procurement contract in its history,

Poland signed a \$4.75 billion deal for two Patriot missile batteries.<sup>264</sup> In February 2019, Poland signed a \$414 million deal to purchase 20 high-mobility artillery rocket systems from the U.S. for delivery by 2023, and in April 2019, it signed a \$430 million deal to buy four AW101 helicopters, which will provide anti-submarine warfare and search-and-rescue capabilities and are to be delivered by the end of 2022.265 In February 2018, Poland joined an eight-nation "coalition of NATO countries seeking to jointly buy a fleet of maritime surveillance aircraft."266 In March 2020, the State Department approved "the potential \$100 million sale to Poland of 180 Javelin anti-tank guided missiles and associated equipment."267

Although Poland's focus is territorial defense, it has 350 troops deployed in Afghanistan as part of NATO's Resolute Support Mission and took part in Operation Inherent Resolve to defeat ISIS.<sup>268</sup> Poland's air force has taken part in Baltic Air Policing nine times since 2006, most recently operating four F-16s at Ämari Air Base in Estonia from January-April 2020.269 In 2020, Poland took the lead for NATO's VJTF, taking over from Germany. Of the force's 6,000 troops, half are Polish units.<sup>270</sup> Poland also is part of NATO's EFP in Latvia and has 249 troops in NATO's KFOR mission.<sup>271</sup> In January, the government announced that "there were no plans to withdraw" the 268 soldiers in Iraq assisting in NATO Mission Iraq and the U.S.-led coalition against ISIS and that "NATO commanders in Iraq have stressed the need for Poland to prepare for...reactivation" of both operations.<sup>272</sup>

**Turkey.** Turkey remains an important U.S. ally and NATO member, but the increasingly autocratic presidency of Recep Tayyip Erdogan and a thaw in relations between Turkey and Russia have introduced troubling challenges. Turkey has been an important U.S. ally since the closing days of World War II. During the Korean War, it deployed 15,000 troops to Korea and suffered 721 killed in action and more than 2,000 wounded. Turkey joined NATO in 1952, one of only two NATO members (the other was Norway) that had a land border with the Soviet

Union. Today, it continues to play an active role in the alliance, but not without difficulties.

Following an attempted coup in July 2016, thousands of academics, teachers, journalists, judges, prosecutors, bureaucrats, and soldiers were fired or arrested. As of February 2020, 80,000 people had been jailed, with an estimated 3,000 in solitary confinement, and nearly 150,000 civil servants and military members had been fired or suspended; the mass detentions led the government to announce in May 2019 that it was planning to build 100 new prisons.<sup>273</sup> As a response to the COVID-19 pandemic, Turkey has utilized early and temporary releases to lower the prison population by a third, but many political prisoners arrested after the failed coup were excluded from the releases.<sup>274</sup>

The post-coup crackdown has had an especially negative effect on the military; 17,500 officers have been dismissed since 2016, and "[t]he effect on officer morale of these continuing purges was exacerbated by the widespread suspicion that promotions and appointments were increasingly politicised, with outspoken supporters of Erdogan fast-tracked for promotion"<sup>275</sup>

Turkey's military is now suffering from a loss of experienced generals and admirals as well as an acute shortage of pilots. The dismissal of more than 300 F-16 pilots, for instance, which greatly exacerbated existing pilot shortages, led in 2017 to "a decree that threaten[ed] 330 former pilots with the revocation of their civil pilot license, unless they return[ed] to Air Force duty for four years."<sup>276</sup> Almost a third of the dismissed pilots "were commanders and veterans who were in charge of bases, fleets and squadrons."<sup>277</sup> A request to the U.S. that it send trainers was denied, as was a Turkish plan to utilize Pakistani trainers to fly the F-16.<sup>278</sup> In addition:

The shortage of pilots was not the only problem. Many of the veteran staff members, especially at the operations and logistics centers that help pilots fly successful missions, were also removed, hampering the close coordination

between the air and land elements of the air force. Hundreds of engineers on the ground were also removed.<sup>279</sup>

Erdogan's rapprochement with Russian President Vladimir Putin has brought U.S.-Turkish relations to an all-time low. In December 2017, Turkey signed a \$2.5 billion agreement with Russia to purchase S-400 air defense systems, and delivery began in July 2019.280 According to the IISS, "[t]he decision to purchase two S-400 air-defence systems from Russia was made by the president without detailed consultation with the armed forces about the possible technical and strategic repercussions."281 The U.S. suspended Turkey from the F-35 program in July 2019, stating that "[t]he F-35 cannot coexist with a Russian intelligence collection platform that will be used to learn about its advanced capabilities."282 Turkish plans to activate the S-400s in April 2020 were delayed by "several months" because of what one senior Turkish official reportedly characterized as "technical issues." 283

Eight Turkish defense firms make more than 800 components for the F-35, and suspension from the program could cost Turkey's defense industry as much as \$10 billion.<sup>284</sup> The U.S. stopped delivery of key parts and program materials to Turkish firms in early April 2019 and reportedly has offered to allow Turkey to purchase a Patriot missile battery if it cancels the S-400 sale, but "Turkey has said it will only agree to an offer if it includes technology transfer and joint production terms."<sup>285</sup>

Partly as a result of its manned aircraft issues, Turkey is investing heavily in armed drones. It currently has approximately 130 of these drones, and they have played a significant role in Turkish operations in Syria. <sup>286</sup>

In October 2019, Turkey launched a major offensive in Syria against the Kurdish-led Syrian Democratic Forces (SDF), in part to create a buffer zone near the Turkish border. The largest Kurdish armed faction within the SDF, the People's Protection Units (YPG), is an offshoot of the Kurdistan Workers' Party (PKK), a U.S.-designated terrorist group that has waged

war against Turkey off and on since 1984. The offensive led to the creation of a buffer zone jointly patrolled by Turkish and Russian forces following an agreement between Turkish President Erdogan and Russian President Putin in Sochi.

In February 2020, Russian-backed Syrian regime forces launched an attack on Idlib, the last remaining stronghold of forces opposed to Syrian President Bashar al-Assad. Turkish forces opposed the offensive and lost 36 soldiers before Turkey and Russia agreed to a cease-fire.<sup>287</sup> Turkey requested additional NATO support including "greater air support on the Turkish-Syrian border, more reconnaissance aircraft, surveillance drones, and more ships in the eastern Mediterranean."288 Following the Idlib offensive, Erdogan announced that Turkey would "no longer [be] able to hold refugees" and instead facilitated their movement to Turkey's borders with EU states, reneging on "a 2016 agreement with the EU to halt the flow of migrants in to Europe."289 Turkey's decision placed new strain on Turkish-Greek relations, with Greek officials voicing concern "that refugees infected with the coronavirus may be among the new wave of asylum seekers."290

Turkey and Greece remain at odds over Cyprus. Turkey is reportedly scouting a location for a naval base in the Turkish Republic of Northern Cyprus and began flying unmanned aerial vehicles (UAVs), some of them armed, out of Geçitkale Airport in December 2019. Turkey remains locked in a dispute with Greece over drilling rights off the Cypriot coast. The EU rejects Turkish claims, and France has sent warships to the region in support of Cyprus. <sup>292</sup>

U.S. security interests in the region lend considerable importance to America's relationship with Turkey. Turkey is home to Incirlik Air Base, a major U.S. and NATO air base, but it was reported early in 2018 that U.S. combat operations at Incirlik had been significantly reduced and that the U.S. was considering permanent reductions. In January 2018, the U.S. relocated an A-10 squadron from Incirlik

to Afghanistan to avoid operational disruptions. Restrictions on the use of Incirlik for operations in Syria have proven problematic: "[The] American operation to kill Islamic State leader Abu Bakr al-Baghdadi in Syria saw U.S. forces use a base in Iraq instead of the much closer Incirlik, requiring a round trip of many hours." In July 2019, Turkish Foreign Minister Mevlut Cavusoglu threatened that if the U.S. sanctioned Turkey over its purchase of S-400s, "U.S. use of two strategically vital bases [Incirlik and Kürecik] could be at risk." Germany's decision to leave the base in 2017 also has affected American views of Incirlik's value.

U.S. officials, however, have largely down-played tensions with Turkey. An official at EUCOM, for example, has stated that "Incirlik still serves as [a] forward location that enables operational capabilities and provides the U.S. and NATO the strategic and operational breadth needed to conduct operations and assure our allies and partners." <sup>296</sup> Incirlik's strategic value was on display again in May 2018 when an F-18 pilot taking part in air strikes against ISIS made an emergency landing there after suffering from hypoxia. <sup>297</sup>

One cause for optimism has been NATO's decision to deploy air defense batteries to Turkey and increased AWACS flights in the region after the Turkish government requested them in late 2015.<sup>298</sup> In December 2019, Spain announced a six-month extension of its air defense batteries deployed to Turkey (Italy, on the other hand, had previously announced that its air defense deployment to Turkey would be ended by December 31).299 Additionally, NATO AWACS aircraft involved in counter-ISIS operations have flown from Turkey's Konya Air Base.300 Turkey also hosts a crucial radar at Kürecik, which is part of NATO's BMD system, and the U.S. is reportedly building a second undisclosed site (site K) near Malatya, which is home to an AN/TPY-2 radar with a range of up to 1,800 miles.301

Turkey continues to maintain more than 600 troops in Afghanistan as part of NATO's Resolute Support Mission, making it the seventh-largest troop contributor out of 39 nations.<sup>302</sup> The Turks also have contributed to a number of peacekeeping missions in the Balkans, still maintain 371 troops in Kosovo, and have participated in counterpiracy and counterterrorism missions off the Horn of Africa in addition to deploying planes, frigates, and submarines during the NATO-led operation in Libya. Turkey has a 355,200-strong active-duty military,<sup>303</sup> which is NATO's second largest after that of the United States. However, in June 2019:

President Recep Tayyip Erdogan ratified a new law that reduced the length of compulsory military service from 12 to six months. On payment of a fee, compulsory service can be reduced further to one month of basic training. The changes were expected to reduce the overall size of the armed forces by around 35%, as part of Turkey's long-term plan to create compact and fully professional armed forces.<sup>304</sup>

Turkish defense procurement has become more convoluted and more directly tied to President Erdogan. A December 2017 decree placed the Undersecretariat for Defense Industries (SSB), which is responsible for procurement, under Erdogan's direct control. 305 Since then, Turkey's defense procurement has suffered from a "brain drain." In January 2019, it was reported that 272 defense officials and engineers had left for jobs overseas since the change. Of the 81 who responded to an SSB survey, "41 percent are in the 26–30 age group. This highlights a trend among the relatively young professionals to seek new opportunities abroad," one SSB official noted." 306

Other challenges include continued reliance on foreign components despite a focus on indigenous procurement. For example, Turkey's procurement of 250 new Altay main battle tanks, the first of which had been scheduled for delivery in May 2020, has been delayed indefinitely. The tank relies on a German-made engine and transmission, but because the technology transfer has not been approved, Turkey

is looking to produce domestic alternatives.<sup>307</sup> Similarly, Turkey's procurement of 50 T-129 attack helicopters will likely be delayed for more than four years because of the need to produce a domestic engine to replace one produced by American and British firms.<sup>308</sup> Additionally, the French government has blocked development of anti-ballistic missiles with Turkey because of Turkey's actions in Syria.<sup>309</sup>

Other major procurements include 350 T-155 Firtina 155mm self-propelled howitzers and six Type-214 submarines. The first of the submarines was launched in December 2019, and the program, which was delayed for six years by "technical and financial issues," is expected to deliver one submarine a year, "with all six submarines from the project set to be completed by 2027."<sup>310</sup>

In February 2019, Turkey announced upgrades of four *Preveze*-class submarines, to take place from 2023–2027. The same month, Turkey launched an intelligence-gathering ship, the TCG *Ufuk*, described by President Erdogan as the "eyes and ears of Turkey in the seas." In December 2019, the SSB released its "Strategic Plan 2019–2023," which specifies that by 2023, 75 percent of Turkish military needs will be supplied domestically and defense exports will be increased to \$10.2 billion (up from \$2 billion in 2018), although there are doubts about the feasibility of the latter goal. 313

The Baltic States. The U.S. has a long history of championing the sovereignty and territorial integrity of the Baltic States that dates back to the interwar period of the 1920s. Since regaining their independence from Russia in the early 1990s, Estonia, Latvia, and Lithuania have been staunch supporters of the transatlantic relationship. Although small in absolute terms, the three countries contribute significantly to NATO in relative terms.

Estonia. Estonia has been a leader in the Baltics in terms of defense, spending 2.38 percent of GDP on defense and 17.3 percent of its defense budget on equipment in 2020.<sup>314</sup> Estonia's development plan for 2021–2024, released in February 2020, details planned investments of \$216 million over four years

in early warning and intelligence and a plan for Estonian defense forces to have modern anti-tank weapons, along with command and communications systems, by 2024.<sup>315</sup>

Although Estonia's armed forces total only 6,700 active-duty service personnel (including the army, navy, and air force), 316 they are held in high regard by their NATO partners and punch well above their weight inside the alliance. Between 2003 and 2011, 455 served in Iraq. Perhaps Estonia's most impressive deployment has been to Afghanistan: More than 2,000 troops were deployed between 2003 and 2014 and sustained the second-highest number of deaths per capita among all 28 NATO members.

In 2015, Estonia reintroduced conscription for men ages 18–27, who must serve eight or 11 months before being added to the reserve rolls. The number of conscripts will increase from 3,200 to 4,000 by 2026. In case of the conscripts will increase from 3,200 to 4,000 by 2026.

Estonia has demonstrated that it takes defense and security policy seriously, focusing on improving defensive capabilities at home while maintaining the ability to be a strategic actor abroad. In October 2019, it was reported that Estonia was acquiring six South Korean-built howitzers at a cost of €20 million "after purchasing an initial 12 last year" at a cost of €46 million and that the U.S. "has recently helped Estonia acquire large-caliber ammunition, marine surveillance equipment, intelligence equipment, and communications equipment which the Estonian government has planned to buy themselves."319 In February 2020, the U.S. delivered 128 Javelin anti-tank weapons to Estonia.320

Additionally, in 2014, Estonia contracted with the Netherlands to purchase 44 used infantry fighting vehicles, the last of which was delivered in 2019. In June 2018, it signed a \$59 million deal to purchase short-range air defenses, with Mistral surface-to-air missiles to be delivered starting in 2020. In 2019, it received two C-145A tactical transport aircraft donated by the U.S. In May 2019, the first of three *Sandown*-class minehunters underwent sea trials following upgrades. In July 2019, Estonia signed a \$24 million deal to purchase

16,000 rifles from an American arms company, allowing it to phase out older Soviet and Israeli weapons. <sup>325</sup> And in April 2020, it signed a technical agreement with Finland and Latvia for joint armored vehicle development. <sup>326</sup>

According to Estonia's National Defence Development Plan for 2017–2026, "the size of the rapid reaction structure will increase from the current 21,000 to over 24,400." Estonia's cyber command became operational in August 2018 and is expected to include 300 people when it reaches full operational capability in 2023. 328

In 2017, Estonia and the U.S. strengthened their bilateral relationship by signing a defense cooperation agreement that builds on the NATO–Estonia Status of Forces Agreement, further clarifying the legal framework for U.S. troops in Estonia. <sup>329</sup> Cooperation continues to grow. In 2019, Estonian and American troops engaged in over 150 military-to-military engagements. <sup>330</sup>

Estonian forces contribute to a number of operations including 42 soldiers taking part in Resolute Support, "up to 210 service members being sent to NATO's Response Force (NRF), with an armored infantry company (within the Baltic Battalion), special operations forces, staff officers and a mine counter-measures vessel crew, and up to 24 service members towards the UK-led Joint Expeditionary Force."331 In November 2019, Estonia announced that the number of troops taking part in the Frenchled Operation Barkhane in Mali would be increased to 95 and that "Estonian special operations forces are set to join the new France-led Task Force Takuba in the Sahel in the second half of 2020."332 Estonian troops also take part in the U.S.-led Operation Inherent Resolve in Iraq along with NATO Mission Iraq, 333 although Estonian operations in NMI were temporarily suspended in early 2020 because of COVID-19.

*Latvia*. Latvia's recent military experience also has been centered on operations in Iraq and Afghanistan alongside NATO and U.S. forces. Latvia has deployed more than 3,000 troops to Afghanistan and between 2003 and 2008 deployed 1,165 troops to Iraq. In addition, despite

a military that consists of only 6,900 full-time servicemembers,<sup>334</sup> Latvia contributes to NA-TO's Resolute Support Mission in Afghanistan (40 troops); Operation Inherent Resolve in Iraq (six soldiers, temporarily transferred to Kuwait in January 2020); and NATO's VJTF,<sup>335</sup> as well as a number of EU flagged missions.

Latvia's 2016 National Defence Concept clearly defines Russia as a threat to national security and states that "[d]eterrence is enhanced by the presence of the allied forces in Latvia." To that end, Latvia is making a significant investment in military infrastructure: \$56 million annually through 2022, with two-thirds of this amount being used to upgrade Ādaži military base, headquarters of the Canadian-led EFP battlegroup. 337

In 2020, Latvia will spend 2.32 percent of GDP on defense and 26.0 percent of its defense budget on equipment.<sup>338</sup> In November 2018, it signed a deal for four UH-60M Black Hawk helicopters.<sup>339</sup> In 2018, Latvia also received the last of 47 M109 series 155mm self-propelled artillery systems purchased from Austria and signed a \$133 million agreement to purchase Spike precision-guided tactical missiles, the first of which were delivered in February 2020.<sup>340</sup> Latvia has also expressed interest in procuring a medium-range ground-based air-defense system (GBADS).

Lithuania. Lithuania is the largest of the three Baltic States, and its armed forces total 20,650 active-duty troops.341 It reintroduced conscription in 2015.342 Lithuania has also shown steadfast commitment to international peacekeeping and military operations. Between 2003 and 2011, it sent 930 troops to Iraq. Since 2002, around 3,000 Lithuanian troops have served in Afghanistan—a notable contribution that is divided between a special operations mission alongside U.S. and Latvian Special Forces and command of a Provisional Reconstruction Team (PRT) in Ghor Province, making Lithuania one of a handful of NATO members to have commanded a PRT. Lithuania also continued to contribute to NATO's KFOR and Resolute Support Missions in 2019 and NATO's VJTF in 2020.343

In 2020, Lithuania spent 2.28 percent of GDP on defense and 26.2 percent of its defense budget on equipment.<sup>344</sup> In April 2019, the U.S. and Lithuania signed a five-year "road map" defense agreement.<sup>345</sup> According to the Pentagon, the agreement will help "to strengthen training, exercises, and exchanges" and help Lithuania "to defend against malicious cyber intrusions and attacks." The two nations also pledged "to support regional integration and procurement of warfighting systems," including "integrated air and missile defense systems and capabilities to enhance maritime domain awareness."<sup>346</sup>

In October 2019, Lithuania announced plans to spend €300 million on six Black Hawk helicopters from the U.S., the first of which "would be delivered to Lithuania by the end of 2024." Procurement of Norwegian-made ground-based mid-range air defense systems armed with U.S.-made missiles, along with "training and integration of all components," should be completed by 2021. Additional procurements include 88 Boxer Infantry Fighting Vehicles, €145 million for 200 U.S.-made Oshkosh Joint Light Tactical Vehicles, additional missiles for the Javelin anti-tank system, and 21 PzH 2000 self-propelled howitzers. 349

### **Current U.S. Military Presence in Europe**

In 1953, because of the Soviet threat to Western Europe at the height of the Cold War, the U.S. had approximately 450,000 troops in Europe operating across 1,200 sites. During the early 1990s, both in response to a perceived reduction in the threat from Russia and as part of the so-called peace dividend following the end of the Cold War, U.S. troop numbers in Europe were slashed. Today, around 72,000 troops are stationed in Europe.<sup>350</sup>

EUCOM's stated mission is to conduct military operations, international military partnering, and interagency partnering to enhance transatlantic security and defend the United States as part of a forward defensive posture. EUCOM is supported by four service component commands (U.S. Naval Forces Europe [NAVEUR]; U.S. Army Europe [USAREUR];

U.S. Air Forces in Europe–Air Forces Africa [USAFE–AFAFRICA]; and U.S. Marine Forces Europe [MARFOREUR]) and one subordinate unified command (U.S. Special Operations Command Europe [SOCEUR]).

**U.S. Naval Forces Europe.** NAVEUR is responsible for providing overall command, operational control, and coordination for maritime assets in the EUCOM and Africa Command (AFRICOM) areas of responsibility. This includes more than 20 million square nautical miles of ocean and more than 67 percent of the Earth's coastline.

This command is currently provided by the U.S. Sixth Fleet, based in Naples, and brings critical U.S. maritime combat capability to an important region of the world. Some of the more notable U.S. naval bases in Europe include the Naval Air Station in Sigonella, Italy; the Naval Support Activity Base in Souda Bay, Greece; and the Naval Station at Rota, Spain.

In 2018, the Norfolk, Virginia-based Harry S. Truman Carrier Strike Group (CSG) executed no-notice deployments to the Mediterranean over the summer and the Norwegian Sea above the Arctic Circle in October; the Arctic deployment was the first for a CSG in 30 years. <sup>351</sup> In February 2020, General Wolters stated the importance of CSG deployments: "We see predictable Carrier Strike Group and Amphibious presence as key elements of an agile theater posture. The reactivation of U.S. Second Fleet provides necessary maritime command and control capability in the Atlantic, while reinforcing NATO's western flank."<sup>352</sup>

U.S. Army Europe. USAREUR was established in 1952. Then, as today, the U.S. Army formed the bulk of U.S. forces in Europe. USAREUR, overseeing 38,000 soldiers, is head-quartered in Wiesbaden, Germany. Permanently deployed forces include the 2nd Cavalry Regiment, based in Vilseck, Germany, 454 and the 173rd Airborne Brigade in Italy, with both units supported by the 12th Combat Aviation Brigade out of Ansbach, Germany. In November 2018, the 41st Field Artillery Brigade returned to Europe with headquarters in Grafenwoehr, Germany. 1555 In addition:

Operational and theater enablers such as the 21st Theater Sustainment Command, 7th Army Training Command, 10th Army Air and Missile Defense Command, 2nd Theater Signal Brigade, 66th Military Intelligence Brigade, the U.S. Army NATO Brigade, Installation Management Command–Europe and Regional Health Command–Europe provide essential skills and services that enable our entire force.<sup>356</sup>

The 1st Battalion, 6th Field Artillery, 41st Field Artillery Brigade was reactivated in September 2019 and is currently the only U.S. rocket artillery brigade in Europe and represents the first time in 13 years in which USAREUR has had the Multiple Launch Rocket System in its command; a second field artillery battalion will be reactivated in the fall of 2020. 357 The 5th Battalion, 4th Air Defense Artillery Regiment, was activated in November 2018 and is now based in Ansbach. 358

USAREUR also engages in major exercises with allies. In 2019, it participated in over 50 multinational exercises with 68,000 multinational participants in 45 countries.<sup>359</sup>

U.S. Air Forces in Europe–Air Forces Africa. USAFE–AFAFRICA provides a forward-based air capability that can support a wide range of contingency operations. It originated as the 8th Air Force in 1942 and flew strategic bombing missions over the European continent during World War II. Today, "USAFE directs air operations in a theater spanning three continents, covering more than 19 million square miles, containing 104 independent states, and possessing more than a quarter of the world's population and more than a quarter of the world's Gross Domestic Product." 360

Headquartered at Ramstein Air Base, "USAFE-AFAFRICA consists of one Numbered Air Force, seven main operating bases and 114 geographically separated locations." The main operating bases include the RAF bases at Lakenheath and Mildenhall in the U.K., Ramstein and Spangdahlem Air Bases in Germany, Lajes Field in the Azores, Incirlik Air Base in

Turkey, and Aviano Air Base in Italy. 362 Terrorist attacks against these installations remain a threat. In March and April 2020, five Tajik Nationals who came to Germany seeking refugee status were arrested for plotting terrorist attacks against U.S. Air Force bases and personnel on behalf of ISIS. 363

In March 2020, B-2 bombers and KC-10 refueling aircraft were deployed to Laje Field in Portugal's Azores "to conduct theater integration and flying training." <sup>364</sup> EUCOM stated that "[s]trategic bomber deployments to Europe provide theater familiarization for aircrew members and demonstrate U.S. commitment to allies and partners." <sup>365</sup>

U.S. Marine Forces Europe. MARFO-REUR was established in 1980. It was originally a "designate" component command, meaning that it was only a shell during peacetime but could bolster its forces during wartime. Its initial staff was 40 personnel based in London. By 1989, it had more than 180 Marines in 45 separate locations in 19 countries throughout the European theater. Today, the command is based in Boeblingen, Germany, and approximately 140 of the 1,500 Marines based in Europe are assigned to MARFOREUR. 366 It was also dual-hatted as Marine Corps Forces, Africa (MARFORAF), under U.S. Africa Command in 2008.

MARFOREUR supports the Norway Air Landed Marine Air Ground Task Force, the Marine Corps' only land-based prepositioned stock. The Corps has enough prepositioned stock in Norway "to equip a fighting force of 4,600 Marines, led by a colonel, with everything but aircraft and desktop computers," and the Norwegian government covers half of the costs of the prepositioned storage. The stores have been utilized for Operation Iraqi Freedom and current counter-ISIS operations, as well as for humanitarian and disaster response.<sup>367</sup> The prepositioned stock's proximity to the Arctic region makes it of particular geostrategic importance. In October 2018, Marines utilized the prepositioned equipment as part of Trident Juncture 18, the largest NATO exercise in 16 years, which included 50,000 troops from

31 nations.<sup>368</sup> The prepositioned stocks were also to factor heavily into the cancelled Cold Response 2020 exercise.<sup>369</sup>

Crucially, MARFOREUR provides the U.S. with rapid reaction capability to protect U.S. embassies in North Africa. The Special-Purpose Marine Air-Ground Task Force–Crisis Response–Africa (SPMAGTF–CR–AF) is currently located in Spain and Italy and provides a response force of 850 Marines, six MV-22 Ospreys, and three KC-130s.<sup>370</sup> The SPMAGTF helped with embassy evacuations in Libya and South Sudan and conducts regular drills with embassies in the region and exercises with several African nations' militaries.<sup>371</sup>

U.S. Special Operations Command Europe. SOCEUR is the only subordinate unified command under EUCOM. Its origins are in the Support Operations Command Europe, and it was based initially in Paris. This headquarters provided peacetime planning and operational control of special operations forces during unconventional warfare in EUCOM's area of responsibility.

SOCEUR has been headquartered in Panzer Kaserne near Stuttgart, Germany,<sup>372</sup> since 1967. It also operates out of RAF Mildenhall. In June 2018, U.S. Special Operations Command General Tony Thomas stated that the U.S. plans "to move tactical United States special operations forces from the increasingly crowded and encroached Stuttgart installation of Panzer Kaserne to the more open training grounds of Baumholder," a move that is expected to take a few years.<sup>373</sup>

Due to the sensitive nature of special operations, publicly available information is scarce. However, it has been documented that SOCEUR elements participated in various capacity-building missions and civilian evacuation operations in Africa; took an active role in the Balkans in the mid-1990s and in combat operations in the Iraq and Afghanistan wars; and most recently supported AFRICOM's Operation Odyssey Dawn in Libya. SOCEUR also plays an important role in joint training with European allies; since June 2014, it has maintained an almost continuous presence in the

Baltic States and Poland in order to train special operations forces (SOF) in those countries.

According to General Tod Wolters, SOF are essential to counter Russia's "below-the-threshold strategy." U.S. SOF in Europe "are another vital element of this approach working with European Allies and partners to enhance defense institutions, border security, and resilience to Russian malign attacks." The FY 2021 DOD EDI budget request included over \$40 million in declared special operations funding for various programs including intelligence enhancements, staging and prepositioning, and exercises with allies.

# Key Infrastructure and Warfighting Capabilities

One of the major advantages of having U.S. forces stationed in Europe is access to logistical infrastructure. For example, EUCOM supports the U.S. Transportation Command (TRANSCOM) with its array of air bases and access to ports throughout Europe. One of these bases, Mihail Kogalniceanu Air Base in Romania, is a major logistics and supply hub for U.S. equipment and personnel traveling to the Middle East region.<sup>376</sup>

Europe is a mature and advanced operating environment. America's decades-long presence in Europe means that the U.S. has tried and tested systems that involve moving large numbers of matériel and personnel into, inside, and out of the continent. This offers an operating environment that is second to none in terms of logistical capability. There are more than 166,000 miles of rail line in Europe (not including Russia), an estimated 90 percent of the roads are paved, and the U.S. enjoys access to a wide array of airfields and ports across the continent.

#### Conclusion

Overall, the European region remains a stable, mature, and friendly operating environment. Russia remains the preeminent military threat to the region, both conventionally and unconventionally. However, the threat posed by Chinese propaganda, influence operations, and investments in key sectors is also significant and needs to be addressed. Both NATO and many European countries apart from those in the alliance have reason to be increasingly concerned about the behavior and ambitions of both countries, although agreement on a collective response to these challenges remains elusive.

America's closest and oldest allies are located in Europe, and the region is incredibly important to the U.S. for economic, military, and political reasons. Perhaps most important, the U.S. has treaty obligations through NATO to defend the European members of that alliance. If the U.S. needs to act in the European region or nearby, there is a history of interoperability with allies and access to key logistical infrastructure that makes the operating environment in Europe more favorable than the environment in other regions in which U.S. forces might have to operate.

The past year saw continued U.S. reengagement with the continent, both militarily and politically, along with modest increases in European allies' defense budgets and capability investment. Despite allies' initial concerns, the U.S. has increased its investment in Europe,

and its military position on the continent is stronger than it has been for some time.

COVID-19 caught the U.S. and Europe off guard, led to disrupted or cancelled exercises, and caused the armed forces of Europe to take on new and unexpected roles in assisting with the response to the pandemic. The economic, political, and societal impacts of the pandemic are only beginning to be felt and will undoubtedly have to be reckoned with for years to come, in particular with respect to Europe's relationship with China. NATO utilized a host of resources in responding to the pandemic while continuing to ensure that the pandemic did not undermine the alliance's collective defense.

NATO's renewed focus on collective defense has resulted in a focus on logistics, newly established commands that reflect a changed geopolitical reality, and a robust set of exercises. NATO's biggest challenges derive from capability and readiness gaps for many European nations, continuing improvements and exercises in the realm of logistics, a tempestuous Turkey, disparate threat perceptions within the alliance, and the need to establish the ability to mount a robust response to both linear and nonlinear forms of aggression.

# Scoring the European Operating Environment

As noted at the beginning of this section, various considerations must be taken into account in assessing the regions within which the U.S. may have to conduct military operations to defend its vital national interests. Our assessment of the operating environment utilized a five-point scale that ranges from "very poor" to "excellent" conditions and covers four regional characteristics of greatest relevance to the conduct of military operations:

1. **Very Poor.** Significant hurdles exist for military operations. Physical infrastructure is insufficient or nonexistent, and the region is politically unstable. The U.S. military is poorly placed or absent, and alliances are nonexistent or diffuse.

- 2. **Unfavorable.** A challenging operating environment for military operations is marked by inadequate infrastructure, weak alliances, and recurring political instability. The U.S. military is inadequately placed in the region.
- 3. Moderate. A neutral to moderately favorable operating environment is characterized by adequate infrastructure, a moderate alliance structure, and acceptable levels of regional political stability. The U.S. military is adequately placed.
- **4. Favorable.** A favorable operating environment includes good infrastructure, strong alliances, and a stable political

environment. The U.S. military is well placed for future operations.

5. Excellent. An extremely favorable operating environment includes well-established and well-maintained infrastructure; strong, capable allies; and a stable political environment. The U.S. military is exceptionally well placed to defend U.S. interests.

The key regional characteristics consist of:

- a. Alliances. Alliances are important for interoperability and collective defense, as allies are more likely to lend support to U.S. military operations. Various indicators that provide insight into the strength or health of an alliance include whether the U.S. trains regularly with countries in the region, has good interoperability with the forces of an ally, and shares intelligence with nations in the region.
- b. Political Stability. Political stability brings predictability for military planners when considering such things as transit, basing, and overflight rights for U.S. military operations. The overall degree of political stability indicates whether U.S. military actions would be hindered or enabled and considers, for example, whether transfers of power are generally peaceful and whether there have been any recent instances of political instability in the region.
- c. U.S. Military Positioning. Having military forces based or equipment and supplies staged in a region greatly facilitates

the United States' ability to respond to crises and, presumably, achieve successes in critical "first battles" more quickly. Being routinely present in a region also assists in maintaining familiarity with its characteristics and the various actors that might try to assist or thwart U.S. actions. With this in mind, we assessed whether or not the U.S. military was well positioned in the region. Again, indicators included bases, troop presence, prepositioned equipment, and recent examples of military operations (including training and humanitarian) launched from the region.

d. Infrastructure. Modern, reliable, and suitable infrastructure is essential to military operations. Airfields, ports, rail lines, canals, and paved roads enable the U.S. to stage, launch operations from, and logistically sustain combat operations. We combined expert knowledge of regions with publicly available information on critical infrastructure to arrive at our overall assessment of this metric.

For Europe, scores this year remained steady with no substantial changes in any individual categories or average scores:

- Alliances: 4-Favorable
- Political Stability: 4—Favorable
- U.S. Military Positioning: 4—Favorable
- Infrastructure: 4—Favorable

Leading to a regional score of: Favorable

### **Operating Environment: Europe**

|                       | VERY POOR | UNFAVORABLE | MODERATE | FAVORABLE | EXCELLENT |
|-----------------------|-----------|-------------|----------|-----------|-----------|
| Alliances             |           |             |          | ✓         |           |
| Political Stability   |           |             |          | ✓         |           |
| U.S. Military Posture |           |             |          | ✓         |           |
| Infrastructure        |           |             |          | ✓         | _         |
| OVERALL               |           |             |          | ✓         |           |

#### **Endnotes**

- 1. See, for example, Ryan Browne and Barbara Starr, "Major Military Exercise in Europe Canceled over Coronavirus Concerns," CNN, updated March 11, 2020, https://edition.cnn.com/2020/03/11/politics/us-military-europe-coronavirus/index.html (accessed May 25, 2020), Luke Coffey, "How the Coronavirus Affects NATO and Security," TRT World, March 17, 2020, https://www.trtworld.com/opinion/how-the-coronavirus-affects-nato-and-security-34629 (accessed May 25, 2020); Robin Emmott, "NATO Scales down Exercises Due to Coronavirus," Reuters, March 19, 2020, https://www.reuters.com/article/us-health-coronavirus-nato/nato-scales-down-exercises-due-to-coronavirus-idUSKBN21627V (accessed May 25, 2020); and Michał Oleksiejuk. "The Largest U.S.-Polish Military Exercise amid a Coronavirus Pandemic," Warsaw Institute, March 26, 2020, https://warsawinstitute.org/largest-u-s-polish-military-exercise-amid-coronavirus-pandemic/ (accessed May 25, 2020).
- 2. Trisha Thomas, "NATO: Russia Uses Syrian War to Boost Mediterranean Presence," Military.com, May 8, 2018, https://www.military.com/daily-news/2018/05/08/nato-russia-uses-syrian-war-boost-mediterranean-presence.html (accessed May 9, 2020).
- 3. David A. Wemer, "US Joint Chiefs Chairman Makes the Case for Keeping US Troops in Europe," Atlantic Council, March 21, 2019, https://www.atlanticcouncil.org/blogs/new-atlanticist/us-joint-chiefs-chairman-makes-the-case-for-keeping-us-troops-in-europe (accessed May 30, 2019).
- U.S. Army Europe, "Atlantic Resolve: America's Continued Commitment to European Security," https://www.eur.army.mil/ AtlanticResolve/ (accessed May 9, 2020).
- 5. Latvian Information Agency/Baltic News Service/TBT Staff, "Trump Proposes 25% Drop in Fund Designed to Deter Russia," *The Baltic Times*, February 12, 2020, https://www.baltictimes.com/trump\_proposes\_25\_\_drop\_in\_fund\_designed\_to\_deter\_russia/(accessed May 9, 2020).
- U.S. European Command, "FY 2020 European Deterrence Initiative (EDI) Fact Sheet," https://www.eucom.mil/ (accessed May 9, 2020).
- 7. General Tod D. Wolters, United States Air Force, Commander, United States European Command, statement before the Committee on Armed Services, U.S. Senate, February 25, 2020, p. 12, https://www.armed-services.senate.gov/imo/media/doc/Wolters 02-25-20.pdf (accessed May 9, 2020).
- General Curtis M. Scaparrotti, United States Army, Commander, United States European Command, statement before the Subcommittee on Military Construction, Veterans Affairs, and Related Agencies, Committee on Appropriations, U.S. Senate, May 2, 2017, unclassified "Resource Requirements—Addendum," p. [1], https://www.appropriations.senate.gov/imo/media/ doc/050217-Scaparrotti-Testimony.pdf (accessed May 9, 2020).
- Phil Stewart, "Military Deploys First Coronavirus Test Kits, Though Capacity Is Limited," Task & Purpose, March 6, 2020, https://taskandpurpose.com/news/military-deploys-coronavirus-test-kits (accessed May 9, 2020).
- Aaron Mehta, "Special US Fund to Replace Russian Equipment in Europe Is Shifting Its Strategy," *Defense News*, March 18, 2020, https://www.defensenews.com/global/europe/2020/03/18/special-us-fund-to-replace-russian-equipment-in-europe-is-shifting-its-strategy/ (accessed May 9, 2020).
- 11. U.S. Army Europe, "Fact Sheet: Atlantic Resolve Armored Rotation, 2nd Armored Brigade Combat Team, 1st Cavalry Division," September 1, 2019, https://www.eur.army.mil/Portals/19/documents/Fact%20Sheets/2ABCT1CDArmoredRotationFactSheet190911. pdf (accessed May 9, 2020).
- 12. Caroline Houck, "Army Chief: The US Needs More Troops in Europe," *Defense One*, November 15, 2017, https://www.defenseone.com/threats/2017/11/army-chief-us-needs-more-troops-europe/142580/ (accessed May 9, 2020).
- 13. This was announced early in 2016. See Reuters, "U.S. to Deploy Armored Brigade Combat Teams to Europe," March 30, 2016, https://www.reuters.com/article/us-usa-military-europe-idUSKCNOWW23P (accessed May 9, 2020). In early 2017, the Army initiated a program to rotate units from CONUS to Europe and back, emphasizing the heel-to-toe aspect, meaning that the replacing unit would arrive before departure of the current unit so as to achieve a constant presence in Europe. The program began in January 2017 with the 10th CAB, followed by the 1st CAB in November 2017 and the 4th CAB in June 2018. See Specialist Thomas Scaggs, "10th Combat Aviation Brigade Returns from Successful Rotation in Europe," U.S. Army, November 15, 2017, https://www.army.mil/article/196979/10th\_combat\_aviation\_brigade\_returns\_from\_successful\_rotation\_in\_europe (accessed May 9, 2020), and Staff Sergeant Adrian Patoka, "Third Atlantic Resolve Aviation Brigade Arrives in Europe," U.S. Department of Defense, June 22, 2018, https://www.defense.gov/News/Article/Article/1558059/third-atlantic-resolve-aviation-brigade-arrives-in-europe/ (accessed May 9, 2020).
- 14. U.S. Army Europe, "Fact Sheet: Atlantic Resolve Aviation Rotation, 3rd Combat Aviation Brigade, 3rd Infantry Division," September 1, 2019, https://www.eur.army.mil/Portals/19/documents/Fact%20Sheets/3CAB3IDAviationRotationFactSheet190911. pdf (accessed May 9, 2020).

- 15. Kyle Rempfer, "Air Force MQ-9 Reaper Drones Based in Poland Are Now Fully Operational," *Air Force Times*, March 5, 2019, https://www.airforcetimes.com/news/your-air-force/2019/03/05/air-force-mq-9-reaper-drones-based-in-poland-are-now-fully-operational/ (accessed May 9, 2020).
- 16. John Vandiver, "US Drones Make Temporary Move to Black Sea Region," *Stars and Stripes*, July 9, 2019, https://www.stripes.com/news/europe/us-drones-make-temporary-move-to-black-sea-region-1.589505 (accessed May 9, 2020).
- 17. John Vandiver, "Negotiations Between Washington, Poland Continue into 2020 Regarding Deployment of Additional US Troops," *Stars and Stripes*, January 13, 2020, https://www.stripes.com/news/negotiations-between-washington-poland-continue-into-2020-regarding-deployment-of-additional-us-troops-1.614683 (accessed May 9, 2020).
- 18. John Vandiver, "Marines to End Continuous Rotations to Norway," *Stars and Stripes*, August 6, 2020, https://www.stripes.com/news/marines-to-end-continuous-rotations-to-norway-1.640272#:-:text=The%20Marine%20Corps%20is%20ending%20 continuous%20rotations,starting%20this%20fall%2C%20officials%20said.&text=The%20decision%20was%20made%20in,in%20 Germany%20by%2012%2C000%20troops (accessed August 28, 2020).
- 19. U.S. Army Europe, "Fact Sheet: Atlantic Resolve Logistical Rotation, Sustainment Task Force," September 1, 2019, https://www.eur.army.mil/Portals/19/documents/Fact%20Sheets/LogisticalRotationFactSheet190911.pdf (accessed May 9, 2020).
- 20. C. Todd Lopez, "DOD Proposes Removing More Than 11,000 Troops from Germany," U.S. Department of Defense, July 29, 2020, https://www.defense.gov/Explore/News/Article/Article/2292311/dod-proposes-removing-more-than-11000-troops-from-germany/ (accessed August 28, 2020).
- 21. Justyna Gotkowska, "USA–Germany–NATO's Eastern Flank: Transformation of the US Military Presence in Europe," Centre for Eastern Studies *Commentary* No. 348, August 14, 2020, https://www.osw.waw.pl/sites/default/files/OSW\_Commentary\_348.pdf (accessed August 26, 2020).
- 22. Ibid.
- 23. Lopez, "DOD Proposes Removing More Than 11,000 Troops from Germany."
- 24. Ibid.
- 25. Press release, "Secretary of Defense Statement on Completion of the U.S.-Poland Enhanced Defense Cooperation Agreement Negotiations," U.S. Department of Defense, August 3, 2020, https://www.defense.gov/Newsroom/Releases/Release/Article/2297502/secretary-of-defense-statement-on-completion-of-the-us-poland-enhanced-defense/ (accessed August 28, 2020).
- 26. Marek Strzelecki and Adrian Krajewski, "Pompeo Signs Defense Agreement to Add 1,000 Troops to Poland," Bloomberg, August 15, 2020, https://www.bloomberg.com/news/articles/2020-08-15/pompeo-signs-defense-agreement-to-add-1-000-troops-to-poland (accessed August 28, 2020).
- 27. International Institute for Strategic Studies, *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2020), p. 78.
- 28. Vandiver, "Negotiations between Washington, Poland Continue into 2020."
- 29. Podcast, "On the Horizon: Navigating the European and African Theaters," Episode 7, March 25, 2019, https://www.stitcher.com/podcast/public-affairs-officer/on-the-horizon-navigating-the-european-and-african-theaters/e/59615532 (accessed May 11, 2020).
- 30. Testimony of General Tod D. Wolters, USAF, Commander, United States European Command, North Atlantic Treaty Organization Supreme Allied Commander Europe, in transcript, "Senate Armed Services Committee Hearing on United States European Command and United States Transportation Command Defense Authorization Request for Fiscal Year 2021," February 26, 2020, https://www.eucom.mil/news-room/transcript/41040/senate-armed-services-committee-hearing-on-united-states-european-command-and-united-states-transport (accessed May 11, 2020).
- 31. Idrees Ali, "With an Eye on Russia, U.S. Navy Re-Establishing Its Second Fleet," Reuters, May 4, 2018, https://www.reuters.com/article/us-usa-defense-navy-russia/with-an-eye-on-russia-u-s-navy-re-establishing-its-second-fleet-idUSKBNII52CJ (accessed May 11, 2020).
- 32. 13 News Now, "US Second Fleet Declares Full Operational Capability," updated January 1, 2020, https://www.13newsnow.com/article/news/national/military-news/us-2nd-fleet-declares-full-operational-capability/291-4dddcb02-5f8d-46c6-8c2c-62ba665b017b (accessed May 11, 2020).
- 33. Press release, "U.S. 2nd Fleet to Lead BALTOPS 2019," U.S. Navy, April 2, 2019, https://www.navy.mil/submit/display.asp?story\_id=109131 (accessed May 11, 2020).
- 34. U.S. Army Europe, "Army Prepositioned Stock–Europe," August 3, 2017, https://www.army.mil/standto/2017-08-03 (accessed May 11, 2020).

- 35. U.S. Department of Defense, Office of the Secretary of Defense (Comptroller), *Department of Defense Budget, Fiscal Year (FY)* 2019: European Deterrence Initiative, February 2018, p. 12, p. 13, and Table 3, "EDI Funding by Proposal," p. 23, http://comptroller. defense.gov/Portals/45/Documents/defbudget/fy2019/fy2019 EDI JBook.pdf (accessed May 11, 2020).
- 36. U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Department of Defense Budget, Fiscal Year (FY) 2021: European Deterrence Initiative*, February 2020, p. 12, https://comptroller.defense.gov/Portals/45/Documents/defbudget/fy2021/fy2021 EDI JBook.pdf (accessed May 9, 2020).
- 37. Sydney J. Freedberg Jr., "Army Adding New Arms Stockpile in Europe: Gen. Perna," *Breaking Defense*, February 4, 2020, https://breakingdefense.com/2020/02/army-adding-new-arms-stockpile-in-europe-gen-perna/ (accessed May 11, 2020).
- 38. Wolters, statement before Senate Armed Services Committee, February 25, 2020, p. 12.
- 39. Jim Garamone, "NATO Takes Steps to Combat Coronavirus," U.S. Department of Defense, April 6, 2020, https://www.defense.gov/ Explore/News/Article/Article/2139462/nato-takes-steps-to-combat-coronavirus/ (accessed May 11, 2020).
- 40. Reuters, "Top Polish General Has Coronavirus After German Conference: Defense Ministry," *U.S. News & World Report*, March 10, 2020, https://www.usnews.com/news/world/articles/2020-03-10/top-polish-general-has-coronavirus-defense-ministry (accessed May 11, 2020).
- 41. Xavier Vavasseur, "French Navy: 50 COVID-19 Cases Aboard Carrier Charles de Gaulle," U.S. Naval Institute News, April 10, 2020, https://news.usni.org/2020/04/10/french-navy-50-covid-19-cases-aboard-carrier-charles-de-gaulle (accessed May 11, 2020), and Matthew Impelli, "660 Crew Members on USS Theodore Roosevelt Test Positive for Coronavirus," *Newsweek*, April 17, 2020, https://www.newsweek.com/660-crew-members-uss-theodore-roosevelt-test-positive-coronavirus-1498612 (accessed April 20, 2020).
- 42. Tangi Salaün and John Irish, "French Army Moves up a Gear in War Against Coronavirus," Reuters, March 26, 2020, https://www.reuters.com/article/us-health-coronavirus-france-army/french-army-moves-up-a-gear-in-war-against-coronavirus-idUSKBN2ID2TY (accessed May 26, 2020), and Web24 News, "In Mulhouse, the Field Hospital Will Take Shape This Weekend," March 20, 2020, https://www.web24.news/u/2020/03/in-mulhouse-the-field-hospital-will-take-shape-this-weekend.html (accessed May 26, 2020).
- 43. Radio Sweden, "Swedish Armed Forces Offers Coronavirus Support with Field Hospital," March 18, 2020, https://sverigesradio.se/sida/artikel.aspx?programid=2054&artikel=7432866 (accessed May 9, 2020).
- 44. Michael Schwirtz, "The 1,000-Bed Comfort Was Supposed to Aid New York. It Has 20 Patients," *The New York Times*, April 7, 2020, https://www.nytimes.com/2020/04/02/nyregion/ny-coronavirus-usns-comfort.html (accessed May 9, 2020).
- 45. Fact sheet, "NATO's Response to the COVID-19 Pandemic," North Atlantic Treaty Organization, April 14, 2020, https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/4/pdf/200401-factsheet-COVID-19\_en.pdf (accessed May 13, 2020).
- 46. North Atlantic Treaty Organization, "Press Conference x [sic] by NATO Secretary General Jens Stoltenberg Following the Meeting of NATO Ministers of Foreign Affairs," North Atlantic Treaty Organization, last updated April 3, 2020, https://www.nato.int/cps/en/natohq/opinions 174925.htm?selectedLocale=en (accessed May 9, 2020).
- 47. Garamone. "NATO Takes Steps to Combat Coronavirus."
- 48. NATO Support and Procurement Agency, "COVID-19 Emergency Response Mission in Support to Romania," March 26, 2020, https://www.nspa.nato.int/en/news/news-20200326-4.htm (accessed May 11, 2020).
- 49. "In 2008, ten NATO member countries (Bulgaria, Estonia, Hungary, Lithuania, the Netherlands, Norway, Poland, Romania, Slovenia, and the United States) and two Partnership for Peace nations (Finland and Sweden) established SAC by signing the SAC Memorandum of Understanding (MoU)." NATO Support and Procurement Agency, "Strategic Airlift Capability (SAC)," https://www.nspa.nato.int/en/organization/NAMP/sac.htm (accessed May 11, 2020).
- 50. NATO Support and Procurement Agency, "COVID-19 Emergency Response Mission in Support to Romania," March 26, 2020, https://www.nspa.nato.int/en/news/news-20200326-4.htm (accessed April 9, 2020); Strategic Airlift Capability, "Strategic Airlift Capability Delivers Mobile Intensive Care Units to Sint Maarten," April 7, 2020, https://www.sacprogram.org/en/Pages/Strategic-Airlift-Capability-Delivers-Mobile-Intensive-Care-Units-to-Sint-Maarten.aspx (accessed May 11, 2020); and press release, "Coronavirus Response: NATO Allies Cooperate with Private Sector and Academia, Making 3D Printing an Essential Contribution in the Fight Against COVID 19 Pandemic," North Atlantic Treaty Organization, last updated April 2, 2020, https://www.nato.int/cps/en/natohq/news\_174797.htm?selectedLocale=en (accessed May 11, 2020).
- 51. Press release, "Coronavirus Response: KFOR Delivers Personal Protective Equipment to North and South Mitrovica," North Atlantic Treaty Organization, last updated April 8, 2020, https://www.nato.int/cps/en/natohq/news\_174979.htm?selectedLocale=en (accessed May 11, 2020).

- 52. Press release, "Coronavirus Response: Estonia Delivers Medical Supplies to Spain and Italy," North Atlantic Treaty Organization, last updated April 24, 2020, https://www.nato.int/cps/en/natohq/news\_175305.htm (accessed May 11, 2020); press statement by Michael R. Pompeo, U.S. Secretary of State, "U.S. Assistance to Italy," U.S. Department of State, April 11, 2020, https://www.state.gov/u-s-assistance-to-italy/ (accessed May 26, 2020); and fact sheet, "NATO's Response to the COVID-19 Pandemic."
- 53. Hope Hodge Seck, "Military Update: Coronavirus Cancellations and Closures," Military.com, March 17, 2020, https://www.military.com/daily-news/2020/03/17/military-update-coronavirus-cancellations-and-closures.html (accessed May 11, 2020).
- 54. Andrew A. Michta, "Without the U.S., European Defense Will Fall to Pieces," *The American Interest*, October 23, 2019, https://www.the-american-interest.com/2019/10/23/without-the-us-european-defense-will-fall-to-pieces/ (accessed May 11, 2020), and Seck, "Military Update: Coronavirus Cancellations and Closures."
- 55. U.S. Army, "DEFENDER–Europe 20 Modified in Size and Scope," March 16, 2020, https://www.army.mil/article/233715/defender\_europe 20 modified in size and scope (accessed May 11, 2020).
- 56. Associated Press, "Sweden Pushes Back After Allies Ditch Military Exercise," *Defense News*, April 1, 2020, https://www.defensenews.com/training-sim/2020/04/01/sweden-pushes-back-after-allies-ditch-military-exercise/ (accessed May 11, 2020).
- 57. Wolters, statement before Senate Armed Services Committee, February 25, 2020, p. 14.
- 58. See, for example, Malcolm Chalmers and Simon Lunn, "NATO's Tactical Nuclear Dilemma," Royal United Services Institute Occasional Paper, March 2010, p. 1, https://rusi.org/sites/default/files/201003\_op\_natos\_tactical\_nuclear\_dilemma.pdf (accessed May 11, 2020); Erin Connolly, "U.S. Nuclear Weapons in Europe," Center for Arms Control and Non-Proliferation, August 10, 2016, https://armscontrolcenter.org/u-s-nuclear-weapons-in-europe/ (accessed May 11, 2020); Nuclear Threat Initiative, "Nuclear Disarmament NATO," June 28, 2019, https://www.nti.org/analysis/articles/nato-nuclear-disarmament/ (accessed May 11, 2020); and Hans M. Kristensen and Matt Korda, "Status of World Nuclear Forces," Federation of American Scientists, current update April 2020, https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/ (accessed May 11, 2020).
- 59. John Vandiver, "US Reviewing Plans to Move Nuclear Weapons from Incirlik, Report Says," *Stars and Stripes*, October 15, 2019, https://www.stripes.com/news/europe/us-reviewing-plans-to-move-nuclear-weapons-from-incirlik-report-says-1.603116 (accessed May 9, 2020).
- Geoff Ziezulewicz, "B61-12 Life Extension Program Receives NNSA Approval," United Press International, August 2, 2016, http://www.upi.com/Business\_News/Security-Industry/2016/08/02/B61-12-life-extension-program-receives-NNSA-approval/3261470147434/ (accessed May 11, 2020).
- 61. Oriana Pawlyk, "Air Force Advances Testing of New Nuclear Gravity Bomb: General," Military.com, May 1, 2018, https://www.military.com/dodbuzz/2018/05/01/air-force-advances-testing-new-nuclear-gravity-bomb-general.html (accessed May 11, 2020), and Joe Gould and Aaron Mehta, "Nuclear Gravity Bomb and Warhead Upgrades Face New Delays," *Defense News*, September 4, 2019, https://www.defensenews.com/congress/2019/09/04/nuclear-gravity-bomb-and-warhead-upgrades-face-new-delays/ (accessed May 11, 2020).
- 62. North Atlantic Treaty Organization, "Operations and Missions: Past and Present," last updated April 25, 2019, https://www.nato.int/cps/en/natohq/topics\_52060.htm (accessed May 11, 2020), and North Atlantic Treaty Organization, "Iceland's 'Peacetime Preparedness Needs," https://shape.nato.int/icelands-peacetime-preparedness-needs (accessed May 11, 2020).
- 63. EURACTIVE.com with Reuters, "NATO Willing to Expand Iraqi Training Mission to Meet Trump Demand," EURACTIV, February 11, 2020, https://www.euractiv.com/section/defence-and-security/news/nato-willing-to-expand-iraqi-training-mission-to-meet-trump-demand/ (accessed May 11, 2020).
- 64. North Atlantic Treaty Organization, "Readiness Action Plan," last updated March 23, 2020, http://www.nato.int/cps/on/natohq/topics 119353.htm (accessed May 11, 2020).
- 65. Radio Free Europe/Radio Liberty, "NATO Agrees to 'Four 30s' Plan to Counter Russia," updated June 7, 2018, https://www.rferl.org/a/nato-ministers-expected-to-okay-four-thirties-initiative-stoltenberg/29275979.html (accessed May 11, 2020).
- 66. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 16, https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/3/pdf\_publications/sqar19-en.pdf (accessed May 10, 2020).
- 67. Fact sheet, "NATO's Enhanced Forward Presence," North Atlantic Treaty Organization, October 2019, https://www.nato.int/nato\_static\_fl2014/assets/pdf/pdf\_2019\_10/20191024\_1910-factsheet\_efp\_en.pdf (accessed May 11, 2020).
- 68. Ibid.
- 69. Ibid.
- 70. Croatian News Agency, "2nd Croatian Contingent Departs for NATO Mission in Lithuania," Total Croatia News, December 30, 2019, https://www.total-croatia-news.com/politics/40506-nato (accessed May 12, 2020); North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 15; and fact sheet, "NATO's Enhanced Forward Presence."

- 71. Mariusz Błaszczak, "Poland's Defense Minister: Making the Constant Effort to Strengthen Defense," *Defense News*, December 9, 2018, https://www.defensenews.com/outlook/2018/12/10/polands-defense-minister-making-the-constant-effort-to-strengthen-defense/ (accessed May 12, 2020), and North Atlantic Treaty Organization, Multinational Division North East, "Landcom Soldiers in Elbląg," February 22, 2018, https://mndne.wp.mil.pl/en/articlesnews-u/2018-02-226-landcom-soldiers-in-elblag/ (accessed May 12, 2020).
- 72. Baltic News Service, "Baltic Countries Sign Agreement on Fast Movement of NATO Forces," Latvian Information Agency, February 15, 2017, http://www.leta.lv/eng/defence\_matters\_eng/defence\_matters\_eng/news/CEB6CED4-EA2D-404C-8814-A8765D6BA915/ (accessed May 10, 2020).
- 73. North Atlantic Treaty Organization, Allied Joint Force Command, "NATO Force Integration Unit (NFIU) Fact Sheet," https://jfcbs. nato.int/page5725819/nato-force-integration-units/nato-force-integration-units-fact-sheet (accessed May 12, 2020).
- 74. Press release, "Warsaw Summit Communiqué Issued by the Heads of State and Government Participating in the Meeting of the North Atlantic Council in Warsaw 8–9 July 2016," North Atlantic Treaty Organization, last updated March 29, 2017, https://www.nato.int/cps/en/natohg/official texts 133169.htm (accessed May 12, 2020).
- 75. Boris Toucas, "NATO and Russia in the Black Sea: A New Confrontation?" Center for Strategic and International Studies, March 6, 2017, https://www.csis.org/analysis/nato-and-russia-black-sea-new-confrontation (accessed May 12, 2020), and press release, "Warsaw Summit Communiqué."
- 76. North Atlantic Treaty Organization, Headquarters Multinational Division South–East, "About," http://www.en.mndse.ro/about (accessed May 12, 2020).
- 77. Siemon T. Wezeman and Alexandra Kuimova, "Romania and Black Sea Security," Stockholm International Peace Research Institute *Background Paper*, December 2018, p. 9, https://www.sipri.org/sites/default/files/2018-12/bp\_1812\_black\_sea\_romania 0.pdf (accessed May 12, 2020).
- 78. Michigan National Guard, "Michigan Units Dash Hopes at Saber Guardian 19," June 19, 2019, https://minationalguard.dodlive.mil/michigan-units-dash-hopes-at-saber-guardian-19/ (accessed May 12, 2020).
- 79. Press release, "Exercise Saber Guardian 2019," Government of Romania, Ministry of National Defence, May 22, 2019, https://english.mapn.ro/cpresa/5094 Exercise-Saber-Guardian-2019 (accessed May 12, 2020).
- 80. NATO Support and Procurement Agency, "Czech Republic Joins Our Multi Role Tanker Transport Fleet (MMF)," October 25, 2019. https://www.nspa.nato.int/en/news/news-20191025-2.htm (accessed May 15, 2020), and "NATO Air-to-Air Refuelling," *European Security & Defence*, December 13, 2019, https://euro-sd.com/2019/12/articles/15526/nato-air-to-air-refuelling/ (accessed May 15, 2020).
- 81. Ciaran McGrath, "It's a Farce! £10.5Billion Fleet Cannot Refuel RAF Aircraft Mid-air—So We Rely on the US," *Express*, July 30, 2018, https://www.express.co.uk/news/uk/995845/hitch-raf-planes-voyagers-us-planes-air-to-air-refuelling-mid-air-refuelling (May 12, 2020).
- 82. Sebastian Sprenger, "NATO to Upgrade Its AWACS Surveillance Aircraft for \$1 Billion," *Defense News*, November 20, 2019, https://www.defensenews.com/global/europe/2019/11/20/nato-to-upgrade-its-awacs-surveillance-aircraft-for-1-billion/ (accessed May 12, 2020).
- 83. Jim Garamone, "NATO Approves Norfolk Joint Force Command, Defense Readiness Initiative," U.S. Army, June 8, 2018, https://www.army.mil/article/206683/nato\_approves\_norfolk\_joint\_force\_command\_defense\_readiness\_initiative (accessed May 12, 2020), and press release, "NATO Defence Ministers Take Decisions to Strengthen the Alliance," North Atlantic Treaty Organization, last updated February 15, 2018, https://www.nato.int/cps/ua/natohq/news\_152125.htm (accessed May 12, 2020).
- 84. Reuters, "Germany Chooses Ulm for New Proposed NATO Logistics Command," March 20, 2018, https://www.reuters.com/article/us-nato-germany/germany-chooses-ulm-for-new-proposed-nato-logistics-command-idUSKBNIGWIQM (accessed May 12, 2020).
- 85. Christopher Woody, "A Convoy of US Army Howitzers Got Stopped by German Police, and It Points to a Major Problem NATO Has in Europe," *Business Insider*, January 12, 2018, http://www.businessinsider.com/us-army-howitzers-stopped-in-germany-natologistics-problems-2018-1 (accessed May 12, 2020).
- 86. Christopher Woody, "Why the US's Top Military Commander in Europe Goes to Bed Thinking About How to Get Around the Continent," *Business Insider*, December 11, 2019, https://www.businessinsider.com/why-eucom-chief-thinks-about-getting-around-europe-before-bed-2019-12 (accessed May 12, 2020).
- 87. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 27. Article 5 of the North Atlantic Treaty states that "an armed attack against one or more of [NATO's member states] in Europe or North America shall be considered an attack against them all." The North Atlantic Treaty, Article 5, April 4, 1949, last updated April 10, 2019, http://www.nato.int/cps/en/SID-857936BB-66246E10/natolive/official texts 17120.htm (accessed May 12, 2020).

- 88. Press release, "Warsaw Summit Communiqué," and Robin Emmott, "NATO Cyber Command to Be Fully Operational in 2023," Reuters, October 16, 2018, https://www.reuters.com/article/us-nato-cyber/nato-cyber-command-to-be-fully-operational-in-2023-idUSKCNIMQ1Z9 (accessed May 12, 2020).
- 89. North Atlantic Treaty Organization, "Cyber Defence," last updated March 17, 2020, https://www.nato.int/cps/en/natohq/topics 78170.htm (accessed May 12, 2020).
- 90. Julian E. Barnes, "NATO Invests in More Bandwidth for New Data-Hungry Drones," *The Wall Street Journal*, March 27, 2017, https://www.wsi.com/articles/nato-invests-in-more-bandwidth-for-new-data-hungry-drones-1490601588 (accessed May 12, 2020).
- 91. Voice of America, "NATO to Receive First Northrop Surveillance Drone, Years Late," March 18, 2019, https://www.voanews.com/a/nato-to-receive-first-northrop-surveillance-drone-years-late/4837218.html (accessed May 12, 2020).
- 92. North Atlantic Treaty Organization, "NATO's Joint Air Power Strategy," June 26, 2018, https://www.nato.int/nato\_static\_fl2014/assets/pdf/pdf 2018 06/20180626 20180626-joint-air-power-strategy.pdf (accessed May 10, 2020).
- 93. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 27.
- 94. Dan Sabbagh, "Using Huawei in UK 5G Networks Would Be 'Madness,' US Says," *The Guardian*, January 13, 2020, https://www.theguardian.com/technology/2020/jan/13/using-huawei-in-uk-5g-networks-would-be-madness-us-says (accessed May 12, 2020).
- 95. Robin Emmott, "U.S. Activates Romanian Missile Defense Site, Angering Russians," Reuters, May 12, 2016, http://www.reuters.com/article/us-nato-shield-idUSKCN0Y30JX (accessed May 12, 2020), and press release, "USEUCOM Deploys THAAD System to Romania," U.S. European Command, April 11, 2019, https://www.eucom.mil/news-room/pressrelease/39562/useucom-deploys-thaad-system-to-romania (accessed May 12, 2020).
- 96. North Atlantic Treaty Organization, "NATO Ballistic Missile Defence Architecture as of 2019," https://www.nato.int/nato\_static\_fl2014/assets/pictures/2016\_07\_160711a-infographics-bmd/20170907\_170907-bmd03.jpg (accessed June 2, 2019), and Joseph Trevithick. "The U.S. Army Wants to Expand a Secretive Missile Defense Site in Turkey," The War Zone, May 25, 2107, http://www.thedrive.com/the-war-zone/10638/the-u-s-army-wants-to-expand-a-secretive-missile-defense-site-in-turkey (accessed May 12, 2020).
- 97. Fact sheet, "NATO Ballistic Missile Defence," North Atlantic Treaty Organization, July 2016, http://www.nato.int/nato\_static\_fl2014/assets/pdf/pdf\_2016\_07/20160630\_1607-factsheet-bmd-en.pdf (accessed May 12, 2020).
- 98. David B. Larter, "US Navy's Top Officer Declares Support for Basing 6 Destroyers in Spain," *Defense News*, March 5, 2020, https://www.defensenews.com/naval/2020/03/05/the-us-navys-top-officer-declares-support-for-basing-6-destroyers-in-spain/(accessed May 12, 2020), and transcript, "Joint Press Conference with NATO Secretary-General Jen Stoltenberg and the Chairman of the Tri-Presidency of Bosnia and Herzegovina, Mladen Ivanić," North Atlantic Treaty Organization, February 2, 2017, http://www.nato.int/cps/en/natohg/opinions 140549.htm (accessed May 12, 2020).
- 99. Larter, "US Navy's Top Officer Declares Support for Basing 6 Destroyers in Spain."
- 100. Megan Eckstein, "MDA, Army Withholding Pay as Aegis Ashore Poland Construction Still Drags," U.S. Naval Institute News, March 12, 2020, https://news.usni.org/2020/03/12/mda-army-withholding-pay-as-aegis-ashore-poland-construction-still-drags (accessed May 12, 2020); press release, "Warsaw Summit Communiqué"; and Emmott, "NATO Cyber Command to Be Fully Operational in 2023."
- 101. Fact sheet, "NATO Ballistic Missile Defence."
- 102. Ibid.
- 103. George Allison, "UK Looks to Industry for New Ground-Based Ballistic Missile Defence Radar Capability," *UK Defence Journal*, July 18, 2017, https://ukdefencejournal.org.uk/uk-issues-request-information-industry-new-ground-based-ballistic-missile-defence-radar/ (accessed May 12, 2020).
- 104. Megan Eckstein, "Navy, NATO Forces Conduct Integrated Air and Missile Defense Exercise off Scotland," U.S. Naval Institute News, updated October 16, 2017, https://news.usni.org/2017/10/16/navy-nato-forces-conduct-integrated-air-missile-defense-exercise-off-scotland (accessed May 12, 2020).
- 105. Press release, "U.S., Allies Conclude Formidable Shield 2019," U.S. Naval Forces Europe–Africa/U.S. 6th Fleet, May 20, 2019, https://www.navy.mil/submit/display.asp?story\_id=109642 (accessed May 12, 2020).
- 106. "Canada, France Achieve Supersonic Firsts During Missile Defense Drill off Scotland," *Naval Today*, May 21, 2019, https://navaltoday.com/2019/05/21/canada-france-achieve-supersonic-firsts-during-missile-defense-drill-off-scotland/ (accessed May 12, 2020).
- 107. Russian Embassy in Norway and Norway Today, "Russia Threatens Norway to Stay out of NATO Missile Defense," Atlantic Council, March 21, 2017, http://www.atlanticcouncil.org/blogs/natosource/russia-threatens-norway-to-stay-out-of-nato-missile-defense (accessed May 12, 2020).

- 108. Ronald O'Rourke, "Navy Aegis Ballistic Missile Defense (BMD) Program: Background and Issues for Congress," Congressional Research Service *Report for Members and Committees of Congress*, updated March 31, 2020, p. 2, https://fas.org/sgp/crs/weapons/RL33745.pdf (accessed May 12, 2020).
- 109. Kyle Mizokami, "Norway's Ruined Frigate Is Afloat Again and It Doesn't Look Good," *Popular Mechanics*, April 19, 2019, https://www.popularmechanics.com/military/navy-ships/a27154115/norways-ruined-frigate-is-afloat-again-and-it-doesnt-look-good/(accessed May 12, 2020).
- 110. Danish Government (Liberal Party, Liberal Alliance, and Conservatives); Social Democrats; Danish People's Party; and Social-Liberal Party, "Defence Agreement 2018–2013," https://www.fmn.dk/temaer/forsvarsforlig/Documents/danish-defence-agreement-2018-2023-pdfa.pdf (accessed May 12, 2020).
- 111. "Denmark Progresses in NATO Ballistic Missile Defense Role," *Defense News*, April 22, 2016, http://www.defensenews.com/story/defense/air-space/strike/2016/04/22/denmark-progresses-nato-ballistic-missile-defense-role/83391868/ (accessed May 12, 2020).
- 112. Xavier Vavasseur, "Thales SMART-L MM Radar Installed on HNLMS De Zeven Provinciën Frigate," *Naval News*, March 23, 2019, https://www.navalnews.com/naval-news/2019/03/thales-smart-l-mm-radar-installed-on-hnlms-de-zeven-provincien-frigate/(accessed May 12, 2020).
- 113. Xavier Vavasseur, "Leonardo to Supply New 127mm Main Guns for Netherlands Navy's LCF Frigates," *Naval News*, April 21, 2020, https://www.navalnews.com/naval-news/2020/04/leonardo-to-supply-new-127mm-main-guns-for-netherlands-navys-lcf-frigates/ (accessed May 12, 2020).
- 114. "Germany Issues RFI for New Radars for Sachsen-Class Air Defense Frigates," *Naval Today*, February 6, 2019, https://navaltoday.com/2019/02/06/germany-issues-rfi-for-new-radars-for-sachsen-class-air-defense-frigates/ (accessed May 12, 2020).
- 115. "Future Belgian Navy Frigates May Have Ballistic Missile Defense Capabilities," *Navy Recognition*, January 5, 2017, http://www.navyrecognition.com/index.php/news/defence-news/2017/january-2017-navy-naval-forces-giukdefense-industry-technology-maritime-security-global-news/4766-future-belgian-navy-frigates-may-have-ballistic-missile-defense-capabilities.html (accessed May 12, 2020).
- 116. "Thales to Develop Air Warfare Mission Suite for New Dutch, Belgian Frigates," *Naval Today*, February 28, 2019, https://navaltoday.com/2019/02/28/thales-to-develop-air-warfare-mission-suite-for-new-dutch-belgian-frigates/ (accessed May 12, 2020).
- 117. Lockheed Martin, "Aegis: The Shield of the Fleet," https://www.lockheedmartin.com/en-us/products/aegis-combat-system.html (accessed May 12, 2020).
- 118. "Lockheed Martin to Equip Spanish F-110 Frigates with New Radar System," *Naval Technology*, December 6, 2019, https://www.naval-technology.com/news/lockheed-martin-spain-f-110/ (accessed May 12, 2020). See also "Lockheed Martin to Equip Spanish Navy's Future Frigates with S-Band Radar," *Naval Today*, December 11, 2019, https://navaltoday.com/2019/12/11/lockheed-martin-to-equip-spanish-navys-future-frigates-with-s-band-radar/ (accessed May 12, 2020).
- 119. "PPA Class Multi-Purpose Offshore Patrol Vessels," *Naval Technology*, https://www.naval-technology.com/projects/ppa-class-multi-purpose-offshore-patrol-vessels/ (accessed April 21, 2020), and "PPA to Bring BMD Capability to Italian Navy in 2024," *Naval Recognition*, March 5, 2018, https://www.navyrecognition.com/index.php/news/defence-news/2018/march-2018-navy-naval-defense-news/6008-ppa-to-bring-bmd-capability-to-italian-navy-in-2024.html (accessed May 12, 2020).
- 120. The North Atlantic Treaty, Article 3.
- 121. Press release, "Defence Expenditure of NATO Countries (2013–2020)," North Atlantic Treaty Organization, October 21, 2020, p. 3, https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/10/pdf/pr-2020-104-en.pdf (accessed October 29, 2020).
- 122. Ibid.
- 123. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 38.
- 124. Press release, "Defence Expenditure of NATO Countries (2013–2020)," p. 3.
- 125. Press release, "Defence Expenditure of NATO Countries (2013–2019)," North Atlantic Treaty Organization, November 29, 2019, p. 3, https://www.nato.int/nato\_static\_fl2014/assets/pdf/pdf\_2019\_11/20191129\_pr-2019-123-en.pdf (accessed October 30, 2020).
- 126. Editorial, "Germany's Low Defence Spending Weakens Nato," *Financial Times*, April 21, 2019, https://www.ft.com/content/303ec9e8-5c3d-11e9-9dde-7aedca0a081a (accessed June 29, 2020).
- 127. Robin Emmott, "Germany Commits to NATO Spending Goal by 2031 for First Time," Reuters, November 7, 2019, https://www.reuters.com/article/us-germany-nato/germany-commits-to-nato-spending-goal-by-2031-for-first-time-idUSKBN1XH1IK (accessed May 12, 2020).

- 128. Editorial, "Germany's Low Defence Spending Weakens Nato."
- 129. Fact sheet, "NATO's Enhanced Forward Presence," and Reuters, "Germany Vows to Keep Troops in Lithuania, Invest More in Barracks," February 4, 2019, https://www.reuters.com/article/us-lithuania-nato/germany-vows-to-keep-troops-in-lithuania-invest-more-in-barracks-idUSKCN1PT1QN (accessed May 12, 2020).
- 130. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 113, and North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures," February 2020, https://www.nato.int/nato\_static\_fl2014/assets/pdf/2020/2/pdf/2020-02-RSM-Placemat.pdf (accessed May, 10, 2020).
- 131. Federal Government of Germany, "Bundeswehr Missions in Afghanistan and the Mediterranean Extended," February 19, 2020, https://www.bundesregierung.de/breg-en/service/bundeswehreinsaetze-1723246 (accessed May 12, 2020), and Maurizio Gambarini, "Germany to Extend Afghan Troop Mandate by 12 Months to March 2021," Deutsche Presse-Agentur, February 19, 2020, https://www.dpa-international.com/topic/germany-extend-afghan-troop-mandate-12-months-march-2021-urn%3Anewsml%3Adpa.com%3A20090101%3A200219-99-979848 (accessed May 12, 2020).
- 132. Federal Government of Germany, Federal Foreign Office, "UN Peace Missions and Germany's Engagement," February 5, 2020, https://www.auswaertiges-amt.de/en/aussenpolitik/internationale-organisationen/vereintenationen/germanys-engagement-unpeace-missions/229116 (accessed May 12, 2020).
- 133. Web24 News, "German Anti-IS Mission Without Tornadoes in the Future," March 11, 2020, https://www.web24.news/u/2020/03/german-anti-is-mission-without-tornadoes-in-the-future.html (accessed May 15, 2020).
- 134. Deutsche Welle, "German Defense Minister Pushes to Keep German Troops in Iraq," January 15, 2020, https://www.dw.com/en/german-defense-minister-pushes-to-keep-german-troops-in-iraq/a-52017916 (accessed May 12, 2020).
- 135. Sabine Siebold, "Germany Cuts Troop Numbers in Iraq After Soleimani Killing," Reuters, January 7, 2020, https://www.reuters.com/article/us-iraq-security-germany/germany-to-cut-troop-numbers-in-iraq-after-soleimani-killing-idUSKBN1Z60M9 (accessed May 12, 2020).
- 136. Nina Werkhäuser, "German Army Launches New Cyber Command," Deutsche Welle, April 1, 2017, http://www.dw.com/en/german-army-launches-new-cyber-command/a-38246517 (accessed May 12, 2020).
- 137. Joseph Trevithick, "Germany Has Fewer than 10 Tiger and 12 NH90 Helicopters Ready for Combat," The War Zone, January 2, 2020, https://www.thedrive.com/the-war-zone/31694/germany-has-fewer-than-10-tiger-and-12-nh90-helicopters-ready-for-combat (accessed May 12, 2020).
- 138. Andrea Shalal, "Exclusive: Germany Sees 8.86 Billion Euro Cost to Operate Tornado Jets to 2030," *Reuters*, April 10, 2019, https://www.reuters.com/article/us-germany-fighter-tornado-exclusive/exclusive-germany-sees-8-86-billion-euro-cost-to-operate-tornado-jets-to-2030-idUSKCN1RM219 (accessed May 12, 2020).
- 139. Dario Leone, "Germany's Air Force Is Dying: Everything You Need to Know," *The National Interest*, August 20, 2019, https://nationalinterest.org/blog/buzz/germanys-air-force-dying-everything-you-need-know-74791 (accessed May 12, 2020).
- 140. Volker Witting, "German Air Force Short on Pilots, Not Planes," Deutsche Welle, September 4, 2019, https://www.dw.com/en/german-air-force-short-on-pilots-not-planes/a-50278509 (accessed May 12, 2020).
- 141. One of four elements of the NATO Response Force (NRF) structure. North Atlantic Treaty Organization, "NATO Response Force," https://shape.nato.int/nato-response-force--very-high-readiness-joint-task-force (accessed May 24, 2020).
- 142. Ross Clark, "Germany's Military Has Become a Complete Joke," *The Spectator*, August 31, 2019, https://www.spectator.co.uk/article/germany-s-military-has-become-a-complete-joke (accessed May 12, 2020).
- 143. Andrea Shalal, "Germany Not Satisfied with Readiness of Submarines, Some Aircraft," Reuters, March 11, 2019, https://www.reuters.com/article/us-germany-arms/germany-not-satisfied-with-readiness-of-submarines-some-aircraft-idUSKBN1QS1G7 (accessed May 12, 2020).
- 144. Clark, "Germany's Military Has Become a Complete Joke."
- 145. Tyler Rogoway, "The German Navy Decided to Return Their Bloated New Frigate to the Ship Store This Christmas," The War Zone, December 23, 2017, http://www.thedrive.com/the-war-zone/17185/the-german-navy-has-decided-to-return-their-new-frigate-to-the-ship-store-this-christmas (accessed May 12, 2020).
- 146. William Wilkes, "German Engineering Yields New Warship That Isn't Fit for Sea," *The Wall Street Journal*, January 12, 2018, https://www.wsj.com/articles/german-engineering-yields-new-warship-that-isnt-fit-for-sea-1515753000 (accessed May 12, 2020).
- 147. John Beckner and Helmoed Heitman, "Is Germany's Navy Dead?" *The National Interest*, July 23, 2018, https://nationalinterest.org/blog/buzz/germanys-navy-dead-26566 (accessed May 12, 2020), and Clark, "Germany's Military Has Become a Complete Joke."

- 148. "Germany Returns Lead F125 Frigate to Builder, Report," Naval Today, December 22, 2017, https://navaltoday.com/2017/12/22/germany-returns-lead-f125-frigate-to-builder-report/ (accessed May 12, 2020).
- 149. ThyssenKrupp Marine Systems, "F125 'Baden-Württemberg': Germany's Most Modern Frigate Entered Service," June 17, 2019, https://www.defense-aerospace.com/article-view/release/203539/germany-commissions-first-f125-frigate-%E2%80%98baden\_wurttemberg%E2%80%99.html (accessed May 12, 2020).
- 150. "Damen Wins Giant Contract for Four German Navy Frigates," *The Maritime Executive*, January 14, 2020, https://www.maritime-executive.com/article/damen-wins-giant-contract-for-four-german-navy-frigates (accessed May 12, 2020).
- 151. International Institute for Strategic Studies, The Military Balance 2020, p. 76.
- 152. Charlie Gao, "Germany's Air Force Is Going All in on the F/A-18 Super Hornet," *The National Interest*, March 28, 2020, https://nationalinterest.org/blog/buzz/germanys-air-force-going-all-fa-18-super-hornet-138332 (accessed May 12, 2020).
- 153. Shalal, "Exclusive: Germany Sees 8.86 Billion Euro Cost to Operate Tornado Jets to 2030."
- 154. Douglas Barrie, "Dogfight over Berlin: Germany's Tornado Replacement Aspirations," International Institute for Strategic Studies, Military Balance Blog, December 21, 2017, https://www.iiss.org/blogs/military-balance/2017/12/berlin (accessed May 12, 2020).
- 155. Joseph Trevithick, "Nukes Drive Germany's Plan to Replace Tornados with Typhoons, Super Hornets, and Growlers," The War Zone, March 26, 2020, https://www.thedrive.com/the-war-zone/32768/nukes-drive-germanys-plan-to-replace-tornados-with-typhoons-super-hornets-and-growlers (accessed May 12, 2020).
- 156. Ibid.
- 157. Gao, "Germany's Air Force Is Going All in on the F/A-18 Super Hornet."
- 158. Andrea Shalal, "Germany to Move Ahead on New Short-Range Air Defense System," Reuters, February 2, 2017, http://www.reuters.com/article/us-germany-military-idUSKBN15H1Z9 (accessed May 12, 2020).
- 159. Reuters, "German Military Refuses to Take Delivery of Two Airbus A400M Planes," November 13, 2019, https://www.reuters.com/article/us-germany-military-airbus/german-military-refuses-to-take-delivery-of-two-airbus-a400m-planes-idUSKBN1XN157 (accessed May 12, 2020).
- 160. Joseph Trevithick, "Germany, France Move Ahead with Joint C-130J Unit amid Budget Woes and A400M Delays," The War Zone, 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 (accessed May 12, 2020).
- 161. Press release, "Defence Expenditure of NATO Countries (2013–2020)," p. 3.
- 162. Xavier Vavasseur, "French Navy SSN 'Suffren' Floated for the First Time," *Naval News*, February 11, 2020, https://www.navalnews.com/naval-news/2020/02/french-navy-ssn-suffren-floated-for-the-first-time/ (accessed May 12, 2020).
- 163. Christina Mackenzie, "Naval Group Starts Construction on France's Newest Frigate," *Defense News*, October 25, 2019, https://www.defensenews.com/global/europe/2019/10/25/naval-group-starts-construction-on-frances-newest-frigate/ (accessed May 12, 2020).
- 164. Ed Adamczyk, "France Receives Its First KC-130J Super Hercules Tanker," United Press International, September 20, 2019, https://www.upi.com/Defense-News/2019/09/20/France-receives-its-first-KC-130J-Super-Hercules-tanker/3561568998888/ (accessed May 13, 2020).
- 165. Press release, "France Orders Three More Airbus A330 MRTT Tankers," Airbus, December 13, 2018, https://www.airbus.com/newsroom/press-releases/en/2018/12/France-orders-three-more-Airbus-A330-MRTT-tankers.html (accessed May 13, 2020).
- 166. Christina Mackenzie, "French Air Force Receives First 'Tactical' A400M Transport Plane," *Defense News*, May 1, 2019, https://www.defensenews.com/global/europe/2019/05/01/french-air-force-receives-first-tactical-a400m-transport-plane/ (accessed May 13, 2020).
- 167. David Donald, "France Launches Rafale F4 Upgrade," AIN Online, January 24, 2019, https://www.ainonline.com/aviation-news/defense/2019-01-24/france-launches-rafale-f4-upgrade (accessed May 13, 2020).
- 168. Christina Mackenzie, "France Orders \$2.3 Billion Upgrade for Rafale Warplanes," *Defense News*, January 14, 2019, https://www.defensenews.com/global/europe/2019/01/14/france-orders-upgraded-rafale-warplanes-for-23-billion/ (accessed May 13, 2020).
- 169. Michael Rose, "Amid Arms Race, Macron Offers Europe French Nuclear Wargames Insight," Reuters, February 7, 2020, https://www.reuters.com/article/us-france-defence-macron/amid-arms-race-macron-offers-europe-french-nuclear-wargames-insight-idUSKBN201190 (accessed May 13, 2020).
- 170. Christina Mackenzie, "France Plans to Boost Its Self-Defense Posture in Space," *Defense News*, July 26, 2019, https://www.defensenews.com/global/europe/2019/07/26/france-plans-to-boost-its-self-defense-posture-in-space/ (accessed May 13, 2020).

- 171. Rachel Cordery, "French Defence Minister Announces Anti-Satellite Laser Weapons," Air Force Technology, July 26, 2019, https://www.airforce-technology.com/news/french-anti-satellite-laser-weapon/ (accessed May 13, 2020).
- 172. Marine Pennetier, "Under Threat, France Grooms Army Hackers for Cyber Warfare," Reuters, April 5, 2017, https://www.reuters.com/article/us-france-cyber/under-threat-france-grooms-army-hackers-for-cyber-warfare-idUSKBN1771B2 (accessed May 13, 2020).
- 173. Arthur P. B. Laudrain, "France's New Offensive Cyber Doctrine," Lawfare, February 26, 2019, https://www.lawfareblog.com/frances-new-offensive-cyber-doctrine (accessed May 13, 2020).
- 174. International Institute for Strategic Studies, *The Military Balance 2019: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2019), p. 66, and Republic of France, Ministry of Armed Forces, "Operational Deployments of the French Armed Forces," updated March 10, 2020, https://www.defense.gouv.fr/english/operations/rubriques\_complementaires/carte-des-operations-et-missions-militaires (accessed May 13, 2020).
- 175. Press release, "Mission Foch: First Week of Operations in Chammal for the Carrier Strike Group," Republic of France, Ministry of Armed Forces, updated February 6, 2020, https://www.defense.gouv.fr/english/operations/maritime/groupe-aeronaval/mission-foch-premiere-semaine-d-operations-en-chammal-pour-le-groupe-aeronaval (accessed May 13, 2020).
- 176. Baltic News Service, "300 French Troops to Arrive in Tapa Next Week," Estonian Public Broadcasting, April 16, 2019, https://news.err.ee/930721/300-french-troops-to-arrive-in-tapa-next-week (accessed May 13, 2020).
- 177. Republic of France, Ministry of Armed Forces, "Operational Deployments of the French Armed Forces."
- 178. Ibid. and European Union, EUNAVFOR MED, Operation Sophia, "About Us," https://www.operationsophia.eu/about-us/ (accessed May 13, 2020).
- 179. Caitlin Doornbos, "French Aircraft Carrier Set for Lengthy Patrol of Mediterranean, Indo-Pacific," *Stars and Stripes*, February 25, 2019, https://www.stripes.com/news/french-aircraft-carrier-set-for-lengthy-patrol-of-mediterranean-indo-pacific-1.570282 (accessed May 13, 2020).
- 180. Idrees Ali and Phil Stewart, "Exclusive: In Rare Move, French Warship Passes Through Taiwan Strait," Reuters, April 24, 2019, https://www.reuters.com/article/us-taiwan-france-warship-exclusive-idUSKCN1S027E (accessed May 13, 2020).
- 181. Joanne Stocker, "France Declares Strait of Hormuz Military Mission Fully Operational," *The Defense Post*, February 27, 2020, https://www.thedefensepost.com/2020/02/27/france-declares-emasoh-strait-of-hormuz-military-mission-fully-operational/ (accessed May 27, 2020).
- 182. France 24, "France Joins Cyprus for Naval Manoeuvres amid Turkey Gas Dispute," October 12, 2019, https://www.france24.com/en/20191012-france-joins-cyprus-for-naval-manoeuvres-amid-turkey-gas-dispute (accessed May 13, 2020).
- 183. "Cyprus Plans Mari Naval Base Expansion to Host French Navy Ships," *Naval News*, May 23, 2019, https://www.navalnews.com/naval-news/2019/05/cyprus-plans-mari-naval-base-expansion-to-host-french-navy-ships/ (accessed May 13, 2020).
- 184. Republic of France, Ministry of Armed Forces, "Operational Deployments of the French Armed Forces," and Lindsey Tramuta, "Will Paris Feel Safer With Its New Municipal Police Force?" *Conde Nast Traveler*, March 8, 2019, https://www.cntraveler.com/story/will-paris-feel-safer-with-its-new-municipal-police-force (accessed May 13, 2020).
- 185. International Institute for Strategic Studies, *The Military Balance 2018: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2018), p. 74.
- 186. Republic of France, Ministry of Armed Forces, *Defense and National Security Strategic Review 2017*, p. 24, https://cd-geneve.delegfrance.org/Strategic-review-of-Defence-and-national-security-2017 (accessed May 13, 2020).
- 187. Agence France-Presse, "French Soldiers to Patrol Streets During Next 'Yellow Vest' Protest," The Local, March 21, 2019, https://www.thelocal.fr/20190321/french-soldiers-will-be-on-duty (accessed May 13, 2020).
- 188. "On the Frontline with Operation Sentinelle," *Politico*, December 29, 2016, http://www.politico.eu/interactive/french-soldiers-deployed-operation-sentinelle-paris-terror-attacks/ (accessed May 13, 2020).
- 189. Press release, "Defence Expenditure of NATO Countries (2013–2020)," p. 3.
- 190. Yasmin Tadjdeh, "News from DSEI: UK Defense Budget on the Upswing," *National Defense*, September 11, 2019, https://www.nationaldefensemagazine.org/articles/2019/9/11/uk-defense-budget-on-the-upswing (accessed May 13, 2020).
- 191. Helen Warrell and George Parker, "Funding Crisis Raises Concerns on Armed Forces Readiness," *Financial Times*, December 18, 2019, https://www.reddit.com/r/ukpolitics/comments/ecr8pb/funding\_crisis\_raises\_concerns\_on\_armed\_forces/ (accessed May 13, 2020).
- 192. Douglas Barrie, "UK Defence-Budget Boost Provides Short-Term Relief, but Uncertainty Looms," International Institute for Strategic Studies, Military Balance Blog, September 20, 2019, https://www.iiss.org/blogs/military-balance/2019/09/uk-defence-budget-boost (accessed May 13, 2020).

- 193. Warrell and Parker, "Funding Crisis Raises Concerns on Armed Forces Readiness."
- 194. United Kingdom Ministry of Defence, *Mobilising, Modernising & Transforming Defense: A Report on the Modernising Defence Programme*, pp. 10 and 4, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/765879/ModernisingDefenceProgramme report 2018 FINAL.pdf (accessed May 13, 2020).
- 195. Andrew Chuter, "UK Should Rethink Deadline for Defense, Foreign Policy Review, Says Former National Security Adviser," *Defense News*, March 19, 2020, https://www.defensenews.com/global/europe/2020/03/19/uk-should-rethink-deadline-for-defense-foreign-policy-review-says-former-national-security-adviser/ (accessed May 13, 2020).
- 196. Prime Minister Boris Johnson, "Integrated Review of Security, Defence, Development and Foreign Policy: Written statement–HCWS126," February 26, 2020, https://www.parliament.uk/business/publications/written-questions-answers-statements/written-statement/Commons/2020-02-26/HCWS126/ (accessed May 13, 2020).
- 197. Andrew Chuter, "British Prime Minister Sets Deadline for Defense, Foreign Policy Review," *Defense News*, February 26, 2020, https://www.defensenews.com/global/europe/2020/02/26/british-prime-minister-sets-deadline-for-defense-foreign-policy-review/ (accessed May 13, 2020), and Chuter, "UK Should Rethink Deadline for Defense, Foreign Policy Review, Says Former National Security Adviser."
- 198. Steve McCarthy, "Britain's Defense Capabilities and the Future of Transatlantic Security," Atlantic Council, February 28, 2017, http://www.atlanticcouncil.org/blogs/natosource/britain-s-defense-capabilities-and-the-future-of-transatlantic-security (accessed May 13, 2020).
- 199. United Kingdom Ministry of Defence, *Mobilising, Modernising & Transforming Defense: A Report on the Modernising Defence Programme*, p. 9.
- 200. International Institute for Strategic Studies, *The Military Balance 2020*, p. 85.
- 201. Reuters, "Equipment Delays Threatening UK Military Capability: Report," March 18, 2020, https://www.reuters.com/article/us-britain-military-delays/equipment-delays-threatening-uk-military-capability-report-idUSKBN21500F (accessed May 13, 2020).
- 202. Army Technology, "UK Reportedly Plans to Cut Challenger 2 Battle Tank Fleet Size," April 23, 2019, https://www.army-technology.com/news/uk-challenger-2-battle-tank-fleet/ (accessed May 13, 2020).
- 203. David Axe, "British Army Is Planning to Upgrade Just 148 of Its 227 Challenger 2 Tanks," *The National Interest*, April 21, 2019 https://nationalinterest.org/blog/buzz/british-army-planning-upgrade-just-148-its-227-challenger-2-tanks-53587 (accessed May 13, 2020).
- 204. F. Stephen Larrabee, Stuart E. Johnson, John Gordon IV, Peter A. Wilson, Caroline Baxter, Deborah Lai, and Calin Trenkov-Wermuth, *NATO and the Challenges of Austerity* (Santa Monica, CA: RAND Corporation, 2012), pp. 7 and 13, https://www.rand.org/content/dam/rand/pubs/monographs/2012/RAND\_MG1196.pdf (accessed June 30, 2020). Prepared for the Office of the Secretary of Defense by the RAND National Defense Research Institute.
- 205. Andrew Chuter, "UK Defense Chief: F-35 Jets Are 'Ready for Operations," *Defense News*, January 10, 2019, https://www.defensenews.com/global/europe/2019/01/10/uk-defense-chief-f-35-jets-are-ready-for-operations/ (accessed May 13, 2020).
- 206. Dominic Nicholls, "Britain's New F35 Stealth Jets Used on Operations for the First Time," *The Telegraph*, June 25, 2019, https://www.telegraph.co.uk/news/2019/06/24/britains-new-f35-stealth-jets-used-operations-first-time/ (accessed May 13, 2020).
- 207. Ibid.
- 208. Ed Adamczyk, "Britain's Royal Air Force Receives Last Typhoon Fighter on Order from BAE," United Press International, September 27, 2019, https://www.upi.com/Defense-News/2019/09/27/Britains-Royal-Air-Force-receives-last-Typhoon-fighter-on-order-from-BAE/7821569598752/ (accessed May 13, 2020).
- 209. Andrew Chuter, "The British Air Force Is Upgrading Its Typhoon Fighter Jets to Keep Them Fighting Until 2040," *Military Times*, August 9, 2019, https://www.businessinsider.com/british-air-force-sensor-upgrades-typhoon-fighter-jets-2019-8 (accessed May 13, 2020).
- 210. Chuter, "UK Defense Chief: F-35 Jets Are 'Ready for Operations."
- 211. Alan Warnes, "NATO Air-to-Air Refuelling," *European Security & Defence*, December 13, 2019, https://euro-sd.com/2019/12/articles/15526/nato-air-to-air-refuelling/ (accessed May 13, 2020).
- 212. George Allison, "A Guide to the UK's RC-135 Rivet Joint Surveillance Aircraft," *UK Defence Journal*, January 7, 2018, https://ukdefencejournal.org.uk/guide-rc-135-rivet-joint/ (accessed May 13, 2020).
- 213. Air Force Technology, "RAF's A400M Atlas Airdrops Record-Breaking Heavy Cargo Load," November 23, 2018, https://www.airforce-technology.com/news/a400m-atlas-airdrops-load/ (accessed May 13, 2020).

- 214. "Out-of-Service Date RAF Hercules Transporters Extended to 2035," *Scramble Magazine*, July 25, 2019, https://www.facebook.com/Scramblemagazine/posts/out-of-service-date-raf-hercules-transporters-extended-to-2035on-24-july-2019-uk/2935734566453058/ (accessed May 15, 2020).
- 215. BBC News, "First of RAF's New UK Submarine Hunters Lands in Scotland," February 4, 2020, https://www.bbc.com/news/uk-scotland-north-east-orkney-shetland-51356381 (accessed May 13, 2020).
- 216. "Plans Released for Upgrades at RAF Lossiemouth," *The Highland Times*, September 25, 2019, http://www.thehighlandtimes.com/news/2019/09/25/plans-released-for-upgrades-at-raf-lossiemouth/ (accessed May 13, 2020).
- 217. David Axe, "The Royal Air Force Needs More Patrol Planes," *The National Interest*, January 1, 2020, https://nationalinterest.org/blog/buzz/royal-air-force-needs-more-patrol-planes-110231 (accessed May 13, 2020), and George Allison, "Planned Force of Nine P-8 Poseidon Aircraft 'Insufficient to Guarantee Continuous Cover," *UK Defence Journal*, July 18, 2018, https://ukdefencejournal.org.uk/planned-force-of-nine-p-8-poseidon-aircraft-insufficient-to-guarantee-continuous-cover/ (accessed May 27, 2020).
- 218. David B. Larter, "In a Naval Confrontation with Iran, Great Britain Can Find Neither Ships nor Friends," *Defense News*, July 25, 2019, https://www.defensenews.com/naval/2019/07/25/in-a-naval-confrontation-with-iran-great-britain-can-find-neither-ships-nor-friends/ (accessed May 13, 2020).
- 219. Ibid. and Tony Diver and Dominic Nicholls, "Sailor Shortage Means Four of Navy's 13 Frigates Have Not Spent a Single Day at Sea This Year, MoD Data Reveal," *The Telegraph*, October 18, 2018, https://www.telegraph.co.uk/news/2018/10/18/sailor-shortage-means-four-navys-13-frigates-have-not-spent/ (accessed May 13, 2020).
- 220. Diver and Nicholls, "Sailor Shortage Means Four of Navy's 13 Frigates Have Not Spent a Single Day at Sea This Year, MoD Data Reveal."
- 221. David Axe, "The Royal Navy's New Type 26 Frigate Could Be One Killer Warship," *The National Interest*, August 11, 2019, https://nationalinterest.org/blog/buzz/royal-navy%E2%80%99s-new-type-26-frigate-could-be-one-killer-warship-72876 (accessed May 13, 2020).
- 222. United Kingdom Ministry of Defence, Defence Contracts Online, "MoD Announces Procurement Programme for T31e Frigates," n.d., https://www.contracts.mod.uk/do-features-and-articles/mod-announces-procurement-programme-for-t31e-frigates/ (accessed May 13, 2020), and Alan West, "The Royal Navy's Five New Frigates Isn't Enough to Keep Britain Safe," *The Spectator*, September 21, 2019, https://www.spectator.co.uk/article/the-royal-navy-s-five-new-frigates-isn-t-enough-to-keep-britain-safe (accessed May 13, 2020).
- 223. Tim Cooper, "HMS Queen Elizabeth Closer to Becoming Operational as Carrier Leaves for Trials," Forces.net, January 24, 2020, https://www.forces.net/news/hms-queen-elizabeth-leave-first-flight-trials-uk-waters (accessed May 13, 2020).
- 224. James Hirst, "Prince Charles Attends Commissioning of HMS Prince of Wales," Forces.net, December 10, 2019, https://www.forces.net/news/prince-charles-attend-commissioning-hms-prince-wales (accessed May 13, 2020), and Berenice Baker and Harry Lye, "HMS Prince of Wales to Begin F-35 Trials in January 2021: Exclusive," *Naval Technology*, March 2, 2020, https://www.naval-technology.com/news/hms-prince-of-wales-to-begin-f-35-trials-in-january-2021-exclusive/ (accessed May 13, 2020).
- 225. BBC News, "HMS Queen Elizabeth: Leak Forces Aircraft Carrier to Abandon Sea Trials," July 10, 2019, https://www.bbc.com/news/uk-england-hampshire-48933881 (accessed May 13, 2020).
- 226. Xavier Vavasseur, "HMS Queen Elizabeth Set Sails for F-35B Trials in UK Waters," *Naval News*, January 28, 2020, https://www.navalnews.com/naval-news/2020/01/hms-queen-elizabeth-set-sails-for-f-35b-trials-in-uk-waters/ (accessed May 13, 2020).
- 227. David Axe, "Attention Navy Fans, Britain's Type 26 Frigate Is Nearly Here," *The National Interest*, September 1, 2019, https://nationalinterest.org/blog/buzz/attention-navy-fans-britains-type-26-frigate-nearly-here-77006 (accessed May 14, 2020), and Dominic Nicholls, "Britain's New F35 Stealth Jets Used on Operations for the First Time," *The Telegraph*, June 25, 2019, https://www.telegraph.co.uk/news/2019/06/24/britains-new-f35-stealth-jets-used-operations-first-time/ (accessed May 14, 2020).
- 228. Harry Lye, "Royal Navy to Begin Unmanned Minehunting Operations," *Naval Technology*, January 14, 2020, https://www.navaltechnology.com/news/royal-navy-to-begin-unmanned-minehunting-operations/ (accessed May 14, 2020).
- 229. Reuters, "Trident: UK Parliament Backs Nuclear-Armed Submarine Fleet Renewal," Australian Broadcasting Corporation News, July 18, 2016, http://www.abc.net.au/news/2016-07-19/uk-parliament-backs-trident-nuclear-submarine-renewal/7640160 (accessed May 14, 2020).
- 230. Claire Mills, "Replacing the UK's Strategic Nuclear Deterrent: Progress of the Dreadnought Class," House of Commons Library, Briefing Paper No. 8010, February 11, 2020, pp. 4 and 7, https://researchbriefings.files.parliament.uk/documents/CBP-8010/CBP-8010.pdf (accessed May 14, 2020).

- 231. David Cenciotti, "RAF Typhoon Jets Deploy to Estonia to Support Baltic Air Policing with NATO's 70th Anniversary Logo on Their Tails," The Aviationist, April 25, 2019, https://theaviationist.com/2019/04/25/raf-typhoon-jets-deploy-to-estonia-to-support-baltic-air-policing-with-natos-70th-anniversary-logo-on-their-tails/ (accessed May 14, 2020).
- 232. News release, "UK's NATO Southern Air Policing Mission to Begin in May," U.K. Ministry of Defence and The Rt. Hon. Sir Michael Fallon MP, March 27, 2017, https://www.gov.uk/government/news/uks-nato-southern-air-policing-mission-to-begin-in-may (accessed May 14, 2020), and George Allison, "Typhoons Return to Black Sea NATO Air Policing Mission," *UK Defence Journal*, April 25, 2018, https://ukdefencejournal.org.uk/typhoons-return-to-black-sea-nato-air-policing-mission/ (accessed May 14, 2020).
- 233. George Allison, "British Jets Complete Icelandic Air Policing Mission," *UK Defence Journal*, December 11, 2019, https://ukdefencejournal.org.uk/british-jets-complete-icelandic-air-policing-mission/ (accessed May 14, 2020).
- 234. North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures," and North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 113.
- 235. Government of the United Kingdom, "UK Action to Combat Daesh," https://www.gov.uk/government/topical-events/daesh/about (accessed May 14, 2020), and Dan Sabbagh, "UK's Air War Against Isis Ends After Five Years," *The Guardian*, March 16, 2020, https://www.theguardian.com/world/2020/mar/16/uk-air-war-isis-ends-five-years (accessed May 14, 2020).
- 236. International Institute for Strategic Studies, *The Military Balance 2019*, p. 66.
- 237. Tom Kington, "Italy's Defense Spending Rises in 2019, but Procurement Drops," *Defense News*, July 10, 2019, https://www.defensenews.com/global/europe/2019/07/10/italys-defense-spending-rises-in-2019-but-procurement-drops/ (accessed March 26, 2020).
- 238. Press release, "Defence Expenditure of NATO Countries (2013-2020)," p. 3.
- 239. Luca Peruzzi, "Italy's New Defence Budget Plan: What Is New?" *European Security & Defence*, September 19, 2019, https://euro-sd.com/2019/09/articles/14456/italys-new-defence-budget-plan-what-is-new/ (accessed May 14, 2020).
- 240. "Italian Cabinet Agrees €7.2 Bn for Defense Procurement Programs," Defense-Aerospace.com, June 14, 2019, https://www.defense-aerospace.com/article-view/release/203417/.html (accessed May 14, 2020).
- 241. David Cenciotti and Stefano D'Urso, "Third Italian F-35B Goes to the Italian Air Force. And the Italian Navy Is Not Happy at All," The Aviationist, February 26, 2020, https://theaviationist.com/2020/02/26/third-italian-f-35b-goes-to-the-italian-air-force-and-the-italian-navy-is-not-happy-at-all/ (accessed May 14, 2020).
- 242. Kington, "Italy's Defense Spending Rises in 2019, but Procurement Drops."
- 243. Peruzzi, "Italy's New Defence Budget Plan: What Is New?" *European Security & Defense*, September 19, 2019, https://euro-sd. com/2019/09/articles/14456/italys-new-defence-budget-plan-what-is-new/ (accessed March 26, 2020).
- 244. Xavier Vavasseur, "Fincantieri Launched the Italian Navy's Tenth and Final FREMM Frigate," *Naval News*, January 27, 2020, https://www.navalnews.com/naval-news/2020/01/fincantieri-launched-the-italian-navys-tenth-and-final-fremm-frigate/ (accessed May 14, 2020).
- 245. Peruzzi, "Italy's New Defence Budget Plan: What Is New?"
- 246. North Atlantic Treaty Organization, Allied Maritime Command, "OSG Focused Operations-Force Composition," https://mc.nato. int/missions/operation-sea-guardian/focused-operations-force-composition (accessed May 14, 2020), and Italian Ministry of Defence, "Military Operations," https://www.difesa.it/EN/Operations/Pagine/MilitaryOperations.aspx (accessed May 15, 2020).
- 247. North Atlantic Treaty Organization, Allied Maritime Command, "Standing NATO Maritime Group Two (SNMG2)," https://mc.nato.int/SNMG2 (accessed May 15, 2020).
- 248. Fact sheet, "NATO's Enhanced Forward Presence"; North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures"; Italian Ministry of Defence, "Military Operations," http://www.difesa.it/EN/Operations/Pagine/MilitaryOperations.aspx (accessed June 29, 2020); and Italian Ministry of Defense, "Operation 'Prima Parthica," http://www.difesa.it/EN/Operations/InternationalOperations/Prima Parthica/Pagine/default.aspx (accessed June 20, 2020).
- 249. Nicholas Fiorenza and Paolo Valpolini, "Germany to End Anti-IS Tornado Reconnaissance Mission," *Jane's Defence Weekly*, March 17, 2020, https://www.crows.org/news/494573/Germany-to-end-anti-IS-Tornado-reconnaissance-mission.htm (accessed April 24, 2020).
- 250. North Atlantic Treaty Organization, The Secretary General's Annual Report: 2019, March 19, 2020, p. 113.
- 251. North Atlantic Treaty Organization, Allied Air Command, "Italian Eurofighters to Enhance Air Policing Capabilities over Romania," April 29, 2019, https://ac.nato.int/archive/2019/italian-eurofighters-enhance-air-policing-capabilities-over-romania (accessed May 15, 2020).

- 252. David Cenciotti, "Italy's F-35s Have Completed the NATO's [sic] Icelandic Air Policing Mission," The Aviationist, October 25, 2019, https://theaviationist.com/2019/10/25/italys-f-35s-have-completed-the-natos-icelandic-air-policing-mission/ (accessed May 15, 2020).
- 253. Daniel Kochis, "Poland: The Lynchpin of Security on NATO's Front Lines," Heritage Foundation *Issue Brief* No. 4455, August 17, 2015, http://www.heritage.org/research/reports/2015/08/poland-the-lynchpin-of-security-on-natos-front-lines.
- 254. International Institute for Strategic Studies, The Military Balance 2020, p. 134.
- 255. Christian Davies, "New Polish Military Force Worries Political Opposition," *Politico*, updated February 17, 2017, http://www.politico.eu/article/new-polish-military-force-worries-political-opposition/ (accessed May 23, 2020).
- 256. International Institute for Strategic Studies, *The Military Balance 2020*, p. 79.
- 257. Błaszczak, "Poland's Defense Minister: Making the Constant Effort to Strengthen Defense."
- 258. International Institute for Strategic Studies, *The Military Balance 2020*, p. 79; International Institute for Strategic Studies, *The Military Balance 2018*, p. 135; and Charlie Gao, "This Is How Poland Plans to Fight Russia in a War," *The National Interest*, March 3, 2018, http://nationalinterest.org/blog/the-buzz/how-poland-plans-fight-russia-war-24731 (accessed May 23, 2020).
- 259. International Institute for Strategic Studies, The Military Balance 2020, p. 79.
- 260. Press release, "Defence Expenditure of NATO Countries (2013-2020)," p. 3.
- 261. International Institute for Strategic Studies, The Military Balance 2020, p. 81.
- 262. Polish Ministry of National Defence, "PLN 524 Billion for the Modernization of the Polish Military by 2035," defense-aerospace, October 10, 2019, https://www.defense-aerospace.com/articles-view/release/3/206630/poland-launches-%24133-bn-defense-modernization-plan.html (accessed June 29, 2020).
- 263. Jaroslaw Adamowski, "Poland Inks \$4.6 Billion Contract for F-35 Fighter Jets," *Defense News*, January 31, 2020, https://www.defensenews.com/global/europe/2020/01/31/poland-inks-46-billion-contract-for-f-35-fighter-jets/ (accessed May 10, 2020).
- 264. Lidia Kelly, "Poland Signs \$4.75 Billion Deal for U.S. Patriot Missile System Facing Russia," Reuters, March 28, 2018, https://www.reuters.com/article/us-raytheon-poland-patriot/poland-united-states-sign-4-75-billion-deal-on-patriot-missiles-idUSKBN1H417S (accessed May 10, 2020).
- 265. Associated Press, "Poland to Pay \$414M for US-Made Rocket Launching System," February 10, 2019, https://www.apnews.com/573c2f35ffea4cbfb65edb90aa22c0ff (accessed May 10, 2020), and Jarosław Adamowski, "Poland Acquires AW101 Helos for Navy Under \$430M Deal," *Defense News*, April 29, 2019, https://www.defensenews.com/global/europe/2019/04/29/poland-acquires-aw101-helos-for-navy-under-430m-deal/?utm\_source=clavis (accessed May 10, 2020).
- 266. Aaron Mehta, "Poland, Canada Join NATO Members in Potential Maritime Surveillance Aircraft Buy," *Defense News*, February 15, 2018, https://www.defensenews.com/smr/munich-security-forum/2018/02/15/poland-canada-join-nato-members-in-potential-maritime-surveillance-aircraft-buy/ (accessed May 10, 2020).
- 267. "US Approves Sale to Poland of 180 Javelin Guided Missiles," *The Defense Post*, March 5, 2020, https://www.thedefensepost.com/2020/03/05/us-sale-poland-javelin-missiles-approved/ (accessed May 10, 2020).
- 268. North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures."
- 269. Baltic News Service, "Number of NATO Jets Policing Baltic Airspace Back Down to 8," Estonian Public Broadcasting, January 2, 2020, https://news.err.ee/1019567/number-of-nato-jets-policing-baltic-airspace-back-down-to-8 (accessed May 10, 2020).
- 270. Press release, "Poland Takes Charge of NATO High Readiness Force," North Atlantic Treaty Organization, last updated December 30, 2019, https://www.nato.int/cps/en/natohg/news 172334.htm (accessed June 29, 2020).
- 271. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, March 19, 2020, pp. 15 and 113.
- 272. Polish Press Agency, "NATO Suggests Poland Prepare to Resume Iraq Operation–MoD," *The First News*, January 14, 2020, https://www.thefirstnews.com/article/nato-suggests-poland-prepare-to-resume-iraq-operation---mod-9801 (accessed May 10, 2020).
- 273. Reuters, "Turkey Ramps up Gulen Crackdown with Nearly 700 Arrests," February 18, 2020, https://www.reuters.com/article/us-turkey-security-gulen/turkey-ramps-up-gulen-crackdown-with-nearly-700-arrests-idUSKBN20C0ES (accessed May 23, 2020), and Aram Ekin Duran, "Turkey Holds Thousands in Solitary in Erdogan's Prisons," Deutsche Welle, May 7, 2019, https://www.dw.com/en/turkey-holds-thousands-in-solitary-in-erdogans-prisons/a-48640213 (accessed May 23, 2020).
- 274. Ali Kucukgocmen, "Turkey Plans Prisoner Release, Excluding Those Jailed on Post-Coup Terrorism Charges," Reuters, April 7, 2020, https://www.reuters.com/article/us-health-coronavirus-turkey-prisoners/turkey-plans-prisoner-release-excluding-those-jailed-on-post-coup-terrorism-charges-idUSKBN21P1WW (accessed April 13, 2020).
- 275. International Institute for Strategic Studies, *The Military Balance 2020*, pp. 81 and 82.

- 276. Aaron Stein, "Turkey's Fighter Pilot Problems," Atlantic Council, September 8, 2017, https://www.atlanticcouncil.org/blogs/menasource/turkey-s-fighter-pilot-problems/ (accessed May 23, 2020), and Nordic Monitor, "Turkey's Defense Minister Admits Fighter Pilot Shortage After Mass Purge," January 2019, https://www.nordicmonitor.com/2019/01/turkeys-defense-minister-admits-fighter-pilot-shortage-after-mass-purge/ (accessed May 23, 2020).
- 277. Abdullah Bozkurt, "Turkish Air Force Crippled After Mass Purge of Pilots by Erdoğan Government," Nordic Monitor, January 8, 2020, https://www.nordicmonitor.com/2020/01/the-turkish-air-force-crippled-after-mass-purge-of-pilots-by-erdogan-government/ (accessed May 23, 2020).
- 278. Michael Peck, "Turkey: How One Country Destroyed Their Own Air Force," *The National Interest*, January 2, 2020, https://nationalinterest.org/blog/buzz/turkey-how-one-country-destroyed-their-own-air-force-110581 (accessed May 23, 2020).
- 279. Bozkurt, "Turkish Air Force Crippled After Mass Purge of Pilots by Erdoğan Government."
- 280. Reuters, "Turkey Says Russian S-400 Missile Delivery Brought Forward to July 2019," April 4, 2018, https://www.reuters.com/article/us-russia-turkey-missiles/turkey-says-russian-s-400-missile-delivery-brought-forward-to-july-2019-idUSKCN1HB0IU (accessed May 23, 2020), and Reuters, "Russia to Start Deliveries of S-400 to Turkey in July: Ifax," April 24, 2019, https://www.reuters.com/article/us-turkey-security-russia-idUSKCN1S01H5 (accessed May 23, 2020).
- 281. International Institute for Strategic Studies, *The Military Balance 2020*, p. 82.
- 282. Anthony Capaccio, "U.S. Suspends Turkey's Role in F-35 over Russian Missile System," Bloomberg, July 17, 2019, https://www.bloomberg.com/news/articles/2019-07-17/white-house-says-turkey-s-role-in-f-35-program-now-impossible (accessed May 23, 2020).
- 283. Menekse Tokyay, "Turkey Postpones S-400 Missile Activation Date," *Arab News*, April 22, 2020, https://www.arabnews.com/node/1663066 (accessed May 23, 2020).
- 284. Lockheed Martin, "F-35 Lightning II: Turkey: Industrial Participation," https://www.f35.com/global/participation/turkey-industrial-participation (accessed May 23, 2020); David Welna, "U.S.-Turkey Standoff over F-35 Escalates as Each Side Waits for the Other to Blink," NPR, April 3, 2019, https://www.npr.org/2019/04/03/709222963/u-s-turkey-standoff-over-f-35-escalates-as-each-side-waits-for-the-other-to-blin (accessed May 23, 2020); and Burak Ege Bekdil, "How Turkey's Industry Could Suffer from the S-400 Deal with Russia," *Defense News*, April 11, 2019, https://www.defensenews.com/industry/2019/04/11/how-turkeys-industry-could-suffer-from-the-s-400-deal-with-russia/ (accessed May 23, 2020).
- 285. Welna, "U.S.-Turkey Standoff over F-35 Escalates as Each Side Waits for the Other to Blink," and Tuvan Gumrukcu and Orhan Coskun "Turkey Says U.S. Offering Patriot Missiles if S-400 Not Operated," Reuters, March 10, 2020, https://www.reuters.com/article/us-turkey-security-usa/turkey-says-us-offering-patriot-missiles-if-s-400-not-operated-idUSKBN20X1l8 (accessed May 23, 2020).
- 286. David Axe, "Turkey Is the Middle East's Newest Drone Super Power," *The National Interest*, April 9, 2020, https://nationalinterest.org/blog/buzz/turkey-middle-easts-newest-drone-super-power-142242 (accessed May 23, 2020).
- 287. BBC News, "Syria War: Russia and Turkey Agree Idlib Ceasefire," March 5, 2020, https://www.bbc.com/news/world-middle-east-51747592 (accessed May 23, 2020).
- 288. Al Jazeera, "Erdogan Demands 'Concrete Support' from EU, NATO over Syria," March 9, 2020, https://www.aljazeera.com/news/2020/03/erdogan-demands-concrete-support-eu-nato-syria-200309183710499.html (accessed May 23, 2020).
- 289. Deutsche Welle, "Turkey Will Not Stop Refugees 'Who Want to Go to Europe," February 28, 2020, https://www.dw.com/en/turkey-will-not-stop-refugees-who-want-to-go-to-europe/a-52568981 (accessed May 23, 2020).
- 290. Anthee Carassava, "Greece Fears Turkey Plans to Send Streams of Migrants Infected with Coronavirus to Europe," Voice of America, April 12, 2020, https://www.voanews.com/europe/greece-fears-turkey-plans-send-streams-migrants-infected-coronavirus-europe (accessed May 23, 2020).
- 291. "Turkey Plans to Establish Naval Base in Cyprus," *Daily Sabah*, December 25, 2019, https://www.dailysabah.com/politics/2019/12/25/turkey-plans-to-establish-naval-base-in-cyprus (accessed May 24, 2020), and Reuters, "Turkish Drones Escorting Drill Ships to Fly from Turkish Cypriot Airport: Report," December 13, 2019, https://www.reuters.com/article/us-turkey-defence-cyprus/turkish-drones-escorting-drill-ships-to-fly-from-turkish-cypriot-airport-report-idUSKBN1YH2DZ (accessed May 24, 2020).
- 292. Middle East Monitor, "France Sends Warships to Mediterranean to Deter Turkey," January 30, 2020, https://www.middleeastmonitor.com/20200130-france-sends-warships-to-mediterranean-to-deter-turkey/ (accessed May 24, 2020).
- 293. Dorian Jones, "US Military Base in Turkey Has Uncertain Future," Voice of America, November 26, 2019, https://www.voanews.com/europe/us-military-base-turkey-has-uncertain-future (accessed May 24, 2020).

- 294. John Vandiver, "Turkey Hints at Pulling Access to Incirlik and Kurecik if US Acts over Russian Weapons Purchase," *Stars and Stripes*, July 23, 2019, https://www.stripes.com/news/turkey-hints-at-pulling-access-to-incirlik-and-kurecik-if-us-acts-over-russian-weapons-purchase-1.591490 (accessed May 9, 2020).
- 295. Georgi Gotev, "Turkey Warns It Could Kick out US from Incirlik Nuclear Base," EURACTIV, December 11, 2019, https://www.euractiv.com/section/defence-and-security/news/turkey-warns-it-could-kick-out-us-from-incirlik-nuclear-base/ (accessed May 24, 2020).
- 296. Oriana Pawlyk, "Air Force General Downplays Possible Restrictions at Incirlik," Military.com, March 18, 2018, https://www.military.com/daily-news/2018/03/18/air-force-general-plays-down-possibility-restrictions-incirlik.html (accessed May 24, 2020).
- 297. Tyler Rogoway, "F/A-18E Pilot Had Hypoxia Symptoms After Diversion to Incirlik Air Base During Syria Mission," The War Zone, May 7, 2018, https://www.thedrive.com/the-war-zone/20690/f-a-18e-pilot-found-hypoxic-after-diversion-to-incirlik-air-base-during-syria-mission (accessed May 24, 2020).
- 298. North Atlantic Treaty Organization, "AWACS: NATO's 'Eyes in the Sky," last updated March 17, 2020, https://www.nato.int/cps/en/natolive/topics\_48904.htm (accessed May 24, 2020).
- 299. Sevil Erkuş, "Spain Extends Patriot Deployment Since NATO Ally's Security Is Crucial: Ambassador," *Hurriyet Daily News*, December 16, 2019, https://www.hurriyetdailynews.com/spain-extends-patriot-deployment-since-nato-allys-security-is-crucial-ambassador-149868 (accessed May 24, 2020), and Tom Kington, "Italy to Remove Its Air-Defense Assets from Turkey by Year's End," *Defense News*, October 25, 2019, https://www.defensenews.com/global/europe/2019/10/25/italy-to-remove-its-air-defense-assets-from-turkey-by-years-end/ (accessed May 24, 2020).
- 300. Simon Newton, "AWACS: The Intelligence Behind the Fight Against Islamic State," Forces Network, December 19, 2018, https://www.forces.net/news/awacs-intelligence-behind-fight-against-islamic-state (accessed May 24, 2020).
- 301. North Atlantic Treaty Organization, "NATO Ballistic Missile Defence Architecture as of 2019," https://www.nato.int/nato\_static\_fi2014/assets/pictures/2016\_07\_160711a-infographics-bmd/20170907\_170907-bmd03.jpg (accessed May 24, 2020), and Trevithick. "The U.S. Army Wants to Expand a Secretive Missile Defense Site in Turkey."
- 302. North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures."
- 303. International Institute for Strategic Studies, *The Military Balance 2020*, p. 153.
- 304. Ibid., p. 81.
- 305. Burak Ege Bekdil, "Turkey's Erdogan Decrees Sweeping Defense Procurement Takeover," *Defense News*, December 27, 2017, https://www.defensenews.com/industry/2017/12/27/turkeys-erdogan-decrees-sweeping-defense-procurement-takeover/ (accessed May 24, 2020).
- 306. Burak Ege Bekdil, "Turkish 'Brain Drain': Why Are Defense Industry Officials Ditching Their jobs in Turkey for Work Abroad?" *Defense News*, January 8, 2019, https://www.defensenews.com/industry/2019/01/08/turkish-brain-drain-why-are-defense-industry-officials-ditching-their-jobs-in-turkey-for-work-abroad/ (accessed May 24, 2020).
- 307. "Turkey's Altay Tank, ATAK Helicopter Held up Due to Engine Non-availability," DefenseWorld.net, January 9, 2020, https://www.defenseworld.net/news/26142/Turkey\_\_\_s\_Altay\_Tank\_\_ATAK\_Helicopter\_Held\_up\_Due\_to\_Engine\_Non\_availability#. XpStV\_hKjlU (accessed May 24, 2020).
- 308. Ibid.
- 309. Sevil Erkuş, "France 'Hampers Eurosam Missile System Due to Political Reasons'" *Hurriyet Daily News*, January 6, 2020, https://www.hurriyetdailynews.com/france-hampers-eurosam-missile-system-due-to-political-reasons-150657 (accessed June 2, 2020).
- 310. International Institute for Strategic Studies, *The Military Balance 2016: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2016), pp. 147–148, and "Turkish 1st Type 214 Class Submarine Launched," *Naval Today*, December 23, 2019, https://navaltoday.com/2019/12/23/turkish-1st-type-214-class-submarine-launched/ (accessed May 24, 2020).
- 311. Xavier Vavasseur, "Turkish Industry to Conduct Mid-Life Upgrade of Preveze-Class Submarines," *Naval News*, February 10, 2019, https://www.navalnews.com/naval-news/2019/02/turkish-industry-to-conduct-mid-life-upgrade-of-preveze-class-submarines/(accessed June 29, 2020).
- 312. "Turkey Launches Test and Evaluation Ship TCG Ufuk," *Naval Today*, February 11, 2019, https://navaltoday.com/2019/02/11/turkey-launches-test-and-evaluation-ship-tcg-ufuk/ (accessed May 24, 2020), and Can Kasapoglu, "'The Blue Homeland': Turkey's Largest Naval Drill," Anadolu Agency, February 27, 2019, https://www.aa.com.tr/en/analysis/-the-blue-homeland-turkey-s-largest-naval-drill/1404267 (accessed May 24, 2020).

- 313. Burak Ege Bekdil, "Turkey Reveals Path to Boost Defense and Aerospace Exports by \$10.2B in 2023," *Defense News*, December 10, 2019, https://www.defensenews.com/industry/2019/12/10/turkey-reveals-path-to-boost-defense-and-aerospace-exports-by-102b-in-2023/ (accessed May 24, 2020).
- 314. Press release, "Defence Expenditure of NATO Countries (2013–2020)," p. 3.
- 315. Sten Hankewitz, "Estonia's New Defence Development Plan Will Increase Investments in Communication and Awareness," *Estonian World*, February 21, 2020, https://estonianworld.com/security/estonias-new-defence-development-plan-will-increase-investments-in-communication-and-awareness/ (accessed May 24, 2020).
- 316. International Institute for Strategic Studies, *The Military Balance 2020*, p. 100.
- 317. Simon Newton, "Why NATO's Military Might Is Focused on Estonia," Forces Network, May 11, 2015, https://www.forces.net/news/tri-service/why-natos-military-might-focused-estonia (accessed May 24, 2020).
- 318. Republic of Estonia, Ministry of Defence, and Republic of Estonia, Defence Forces, "National Defence Development Plan 2017–2026," http://www.kaitseministeerium.ee/riigikaitse2026/arengukava/eng/ (accessed May 24, 2020).
- 319. Estonian Public Broadcasting, "Paper: More Military Equipment to Be Bought from South Korea," October 3, 2019, https://news.err. ee/987854/paper-more-military-equipment-to-be-bought-from-south-korea (accessed May 24, 2020).
- 320. Press release, "U.S. Delivers Javelin Missiles to Estonia," U.S. Embassy in Estonia, April 2, 2020, https://ee.usembassy.gov/press-release-u-s-delivers-javelin-missiles-to-estonia/ (accessed May 24, 2020).
- 321. Paul McLeary, "Estonia Inks 'Big' New US Defense Deal, Eyes on Russia," *Breaking Defense*, July 9, 2019, https://breakingdefense.com/2019/07/estonia-inks-big-us-defense-deal-eyes-on-russia/ (accessed May 24, 2020).
- 322. Associated Press, "Estonia to Buy Missiles, Air Defense System in \$59M Deal," *Defense News*, June 12, 2018, https://www.defensenews.com/air/2018/06/12/estonia-to-buy-missiles-air-defense-system-in-50m-deal/ (accessed May 24, 2020).
- 323. Scramble Magazine, Facebook, February 4, 2019, https://www.facebook.com/photo/?fbid=2626384680721383&set=a.216124641747411 (accessed June 29, 2020).
- 324. Xavier Vavasseur, "Babcock Completes Upgrade of 1st Estonian Navy MCM Vessel," *Naval News*, February 3, 2019, https://www.navalnews.com/naval-news/2019/02/babcock-completes-upgrade-of-1st-estonian-navy-mcm-vessel/ (accessed June 29, 2020).
- 325. McLeary, "Estonia Inks 'Big' New US Defense Deal, Eyes on Russia."
- 326. Army Technology, "Estonia Joins Finland and Latvia on Armoured Vehicle Development," April 7, 2020, https://www.army-technology.com/news/estonia-finland-latvia-armoured-vehicle-development/ (accessed June 29, 2020).
- 327. Republic of Estonia, Ministry of Defence, and Republic of Estonia, Defence Forces, "National Defence Development Plan 2017–2026."
- 328. Monica M. Ruiz, "To Bolster Cybersecurity, the US Should Look to Estonia," *Wired*, February 14, 2020, https://www.wired.com/story/opinion-to-bolster-cybersecurity-the-us-should-look-to-estonia/ (accessed May 24, 2020).
- 329. U.S. Embassy in Estonia, "Signing of Defense Cooperation Agreement—Remarks by Ambassador James D. Melville," Tallinn, Estonia, January 17, 2017, https://ee.usembassy.gov/signing-defense-cooperation-agreement-remarks-ambassador-james-d-melville/ (accessed May 24, 2020).
- 330. Press release, "U.S. Delivers Javelin Missiles to Estonia."
- 331. North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures," and Estonian Public Broadcasting, "Up to 160 Estonian Troops Committed to International Operations for 2020," November 6, 2019, https://news.err.ee/1000123/up-to-160-estonian-troops-committed-to-international-operations-for-2020 (accessed May 24, 2020).
- 332. Fergus Kelly, "Estonia Special Forces to Join France-Led Takuba Mission in Mali, Defense Ministry Says," The Defense Post, November 13, 2019, https://www.thedefensepost.com/2019/11/13/estonia-special-forces-task-force-takuba-mali-france/(accessed May 24, 2020).
- 333. International Institute for Strategic Studies, *The Military Balance 2020*, p. 101.
- 334. Ibid., p. 122.
- 335. North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures"; International Institute for Strategic Studies, *The Military Balance 2020*, p. 123; Reuters, "Denmark and Latvia to Move Some Troops from Iraq After Iranian Missile Strikes," January 8, 2020, https://www.reuters.com/article/us-iraq-security-denmark/denmark-and-latvia-to-move-some-troops-from-iraq-after-iranian-missile-strikes-idUSKBN1Z72AG (accessed May 24, 2020); and press release, "Poland Takes Charge of NATO High Readiness Force."

- 336. Raimonds Bergmanis, Minister of Defence, Republic of Latvia, "The National Defence Concept," approved by Cabinet of Ministers May 24, 2016, and adopted by Parliament June 16, 2016, p. 8, http://mepoforum.sk/wp-content/uploads/2017/01/Latvia-national-defence-concept-2016-en.pdf (accessed May 24, 2020).
- 337. News release, "Latvia Plans to Invest the Average of €50 Million a Year in the Development of Military Infrastructure over the Next Four Years," Republic of Latvia, Ministry of Defence, February 26, 2019, https://www.mod.gov.lv/en/news/latvia-plans-invest-average-eu50-million-year-development-military-infrastructure-over-next (accessed June 30, 2020).
- 338. Press release, "Defence Expenditure of NATO Countries (2013–2020)," p. 3.
- 339. Army Technology, "Latvia to Purchase UH-60M Black Hawk Helicopters from US for €175m," August 23, 2018, https://www.army-technology.com/news/latvia-purchase-uh-60m-black-hawk-helicopters-us-e175m/ (accessed June 29, 2020).
- 340. Dylan Malyasov, "Latvia Receives Final Self-Propelled Howitzer from Austria," *Defence Blog*, modified October 18, 2018, https://defence-blog.com/army/latvia-receives-final-self-propelled-howitzer-from-austria.html (accessed June 29, 2020), and Julia Simpson, "Latvia Takes Delivery of New Spike Missile Variants," Political Lore, February 1, 2020, https://www.politicallore.com/latvia-takes-delivery-of-new-spike-missile-variants/21553 (accessed June 29, 2020).
- 341. International Institute for Strategic Studies, *The Military Balance 2020*, p. 123.
- 342. "Lithuania's Defence Budget: Expanded and Expanding," *The Baltic Times*, February 28, 2018, https://www.baltictimes.com/lithuania s defence budget expanded and expanding/ (accessed May 24, 2020).
- 343. North Atlantic Treaty Organization, *The Secretary General's Annual Report: 2019*, p. 113, and Busra Nur Bilgic Cakmak, "Poland to Take Charge of NATO High Readiness Force," Anadolu Agency, December 30, 2019, https://www.aa.com.tr/en/europe/poland-to-take-charge-of-nato-high-readiness-force/1687587#:~:text=The%20Polish%20army%20will%20take,over%20to%20Turkey%20 in%202021 (accessed June 29, 2020).
- 344. Press release, "Defence Expenditure of NATO Countries (2013–2020)," p. 3.
- 345. Sebastian Sprenger, "Lithuania Is First Baltic Nation to Sign US Defense-Cooperation Pact," *Defense News*, April 3, 2019, https://www.defensenews.com/global/europe/2019/04/03/lithuania-is-first-baltic-nation-to-sign-us-defense-cooperation-pact/(accessed May 24, 2020).
- 346. News release, "U.S., Lithuania Detail Roadmap for Cooperation Through 2024," U.S. Department of Defense, April 2, 2019, https://dod.defense.gov/News/Article/Article/1803578/us-lithuania-detail-roadmap-for-cooperation-through-2024/ (accessed May 24, 2020).
- 347. Saulius Jakučionis, "Lithuania to Buy Six American Black Hawk Helicopters for Around €300m," Lithuanian Radio and Television, October 18, 2019, https://www.lrt.lt/en/news-in-english/19/1107999/lithuania-to-buy-six-american-black-hawk-helicopters-for-around-eur300m (accessed May 10, 2020).
- 348. Air Force Technology, "Lithuania to Buy Additional NASAMS Air Defence Missiles from Norway," January 4, 2019, https://www.airforce-technology.com/news/lithuania-nasams-defence-missiles-norway/ (accessed May 9, 2020).
- 349. "Lithuania Will Procure 200 US JLTV Joint Light Tactical Vehicles from Oshkosh Defense," *Army Recognition*, November 24, 2019, https://www.armyrecognition.com/november\_2019\_global\_defense\_security\_army\_news\_industry/lithuania\_will\_procure\_200\_us\_jltv\_joint\_light\_tactical\_vehicles\_from\_oshkosh\_defense.html (accessed May 9, 2020); IHS Global, Inc., "Lithuania Acquires Sitaware Frontline for Boxer IFVs," Association of the United States Army, Resource Guide, August 10, 2018, https://ausa.inloop.com/en/article/116983/lithuania-acquires-sitaware-frontline-for-boxer-ifvs (accessed May 10, 2020); Army Technology, "Lithuania Procures Additional Missiles for Javelin Anti-Tank System," February 21, 2019, https://www.army-technology.com/news/lithuania-missiles-javelin-anti-tank/ (accessed May 10, 2020); and Dylan Malyasov, "Lithuania Receives Its First Upgraded PzH 2000 Self-Propelled Howitzers," *Defence Blog*, December 16, 2018, https://defence-blog.com/news/lithuania-receives-its-first-upgraded-pzh-2000-self-propelled-howitzers.html (accessed May 10, 2020).
- 350. Howard Altman, "U.S. Military May Be Hunkering Down for COVID-19, but Shooting War Continues in Ukraine," *Military Times*, March 30, 2020, https://www.militarytimes.com/news/your-military/2020/03/30/us-military-may-be-hunkered-down-by-covid-19-but-shooting-war-continues-in-ukraine/ (accessed May 9, 2020).
- 351. General Curtis M. Scaparrotti, United States Army, Commander, United States European Command, statement on USEUCOM posture before the Committee on Armed Services, U.S. Senate, March 5, 2019, p. 15, https://www.armed-services.senate.gov/imo/media/doc/Scaparrotti\_03-05-19.pdf (accessed May 10, 2020), and press release, "Truman Strike Group Returns Home from Eight-Month Deployment," U.S. Fleet Forces Command, December 17, 2018, https://www.navy.mil/submit/display.asp?story\_id=108134 (accessed May 10, 2020).
- 352. Wolters, statement before Senate Armed Services Committee, February 25, 2020, p. 13.
- 353. U.S. Army Europe, "Mission & History," https://www.eur.army.mil/Mission-History/ (accessed May 10, 2020).

- 354. In July, the U.S. Department of Defense announced plans to move the 2nd Cavalry Regiment from Vilseck to the United States.
- 355. U.S. Army Europe, "Fact Sheet: U.S. Army Europe," June 7, 2019, https://www.eur.army.mil/Portals/19/documents/Fact%20 Sheets/USArmyEuropeFactSheet190804.pdf (accessed June 29, 2020); Lacey Justinger, "41st Field Artillery Brigade Returns to Germany," U.S. Army, November 30, 2018, https://www.army.mil/article/214491/41st\_field\_artillery\_brigade\_returns\_to\_germany (accessed June 29, 2020); and U.S. Army, 7th Army Training Command, "41st Field Artillery Brigade," https://www.7atc.army.mil/41FA/ (accessed May 10, 2020).
- 356. U.S. Army Europe, "Fact Sheet: U.S. Army Europe," June 7, 2019.
- 357. Kinsey Lindstrom, "Rockets Return to Europe," U.S. Army, January 10, 2020, https://www.army.mil/article/231553/rockets\_return\_to\_europe (accessed May 9, 2020).
- 358. William Morris, "Europe Missile Defense Command Upgraded as Army Announces Leadership Moves," *Stars and Stripes*, April 17, 2019, https://www.stripes.com/news/europe/europe-missile-defense-command-upgraded-as-army-announces-leadership-moves-1.577276 (accessed May 9, 2020).
- 359. U.S. Army Europe, "Fact Sheet: U.S. Army Europe," May 19, 2020, https://www.eur.army.mil/Portals/19/documents/Fact%20 Sheets/USArmyEuropeFactSheet200519.pdf?ver=2020-05-19-050725-770 (accessed June 29, 2020).
- 360. U.S. Air Forces in Europe and U.S. Air Forces Africa, "USAFE-AFAFRICA Mission," https://www.usafe.af.mil/About-Us/Mission-and-Organization/ (accessed June 292, 2020).
- 361. Fact sheet, "U.S. Air Forces in Europe–Air Forces Africa," U.S. Air Force, July 16, 2015, https://www.af.mil/About-Us/Fact-Sheets/Display/Article/609838/united-states-air-force-in-europe/ (accessed May 9, 2020).
- 362. Ibid.
- 363. Radio Free Europe/Radio Liberty, "Germany Arrests Four Tajik Nationals Suspected of Plotting Terrorist Attack," April 15, 2020, https://www.rferl.org/a/germany-arrests-four-tajik-nationals-suspected-of-plotting-terrorist-attack/30555712.html (accessed May 9, 2020).
- 364. Press release, "U.S. Air Force B-2s Return to Europe," United States European Command, March 9, 2020, https://www.eucom.mil/news-room/pressrelease/41085/u-s-air-force-b-2s-return-to-europe (accessed May 9, 2020).
- 365. Ed Adamczyk, "B-2 Bombers Deploy to Europe," United Press International, March 9, 2020, https://www.upi.com/Defense-News/2020/03/09/B-2-bombers-deploy-to-Europe/5961583771118/ (accessed May 9, 2020).
- 366. U.S. European Command, "Our Forces: U.S. Marine Forces Europe," https://www.eucom.mil/about/our-forces/u-s-marine-forces-europe (accessed May 9, 2020).
- 367. Military.com, "Marines May Move Even More Combat Gear into Norwegian Caves," June 16, 2017, https://www.military.com/defensetech/2017/06/16/marines-combat-gear-norwegian-caves (accessed May 9, 2020).
- 368. Gunnery Sergeant Jason Fudge, "Marines, Sailors Build Bridge in Norway During Exercise Trident Juncture 18," U.S. Marine Corps, November 3, 2018, https://www.marines.mil/News/News-Display/Article/1681732/marines-sailors-build-bridge-in-norway-during-exercise-trident-juncture-18/ (accessed May 9, 2020).
- 369. Michael T. Klare, "US troops Are Heading North to Train on What Could Be the Next World War Battlefield," *Business Insider,* February 24, 2020, https://www.businessinsider.com/us-troops-heading-north-for-cold-response-2020-arctic-exercise-2020-2 (accessed May 9, 2020).
- 370. Todd South, "Marines Run Long-Range Insertion, Urban Attack with Portuguese in 'Wild Crocodile II," *Marine Corps Times*, January 13, 2020, https://www.marinecorpstimes.com/news/your-marine-corps/2020/01/13/marines-wild-crocodile-ii-runs-long-range-insertion-urban-attack-with-portuguese/ (accessed May 9, 2020), and Matthew Cox, "6 Years After Benghazi, a Marine Commander Says Conditions May Soon Allow a US Diplomatic Return to Libya," *Business Insider*, December 17, 2018, https://www.businessinsider.com/conditions-improving-for-us-diplomatic-return-to-libya-2018-12 (accessed May 9, 2020).
- 371. Martin Egnash, "Legacy of Benghazi: Marine Force Stays Ready for Quick Africa Deployment," *Stars and Stripes*, January 14, 2019, https://www.stripes.com/news/legacy-of-benghazi-marine-force-stays-ready-for-quick-africa-deployment-1.564342 (accessed May 9, 2020).
- 372. In July, the U.S. Department of Defense announced plans to move SOCEUR from Stuttgart to Mons, Belgium.
- 373. John Vandiver, "Special Forces, SEAL Units to Join Mix of Elite Troops at Rural Baumholder," *Stars and Stripes*, June 13, 2018, https://www.stripes.com/news/special-forces-seal-units-to-join-mix-of-elite-troops-at-rural-baumholder-1.532491 (accessed May 9, 2020).
- 374. Wolters, statement before Senate Armed Services Committee, February 25, 2020, pp. 3 and 15. Emphasis in original.

- 375. U.S. Department of Defense, Office of the Under Secretary of Defense (Comptroller), *Department of Defense Budget Fiscal Year* (FY) 2021: European Deterrence Initiative, pp. 22–40.
- 376. Dan Stoutamire, "Romanian Air Base Proving Crucial as US Hub Ahead of Major Exercises," *Stars and Stripes*, April 18, 2017, https://www.stripes.com/news/romanian-air-base-proving-crucial-as-us-hub-ahead-of-major-exercises-1.464105#.WPZirOR1rcs (accessed May 9, 2020).

## Middle East

### Luke Coffey and Nicole Robinson

Strategically situated at the intersection of Europe, Asia, and Africa, the Middle East has long been an important focus of United States foreign policy. U.S. security relationships in the region are built on pragmatism, shared security concerns, and economic interests, including large sales of U.S. arms to countries in the region to help them defend themselves. The U.S. also has a long-term interest in the Middle East that derives from the region's economic importance as the world's primary source of oil and gas.

The region is home to a wide array of cultures, religions, and ethnic groups, including Arabs, Jews, Kurds, Persians, and Turks, among others. It also is home to the three Abrahamic religions of Judaism, Christianity, and Islam as well as many smaller religions like the Bahá'í, Druze, Yazidi, and Zoroastrian faiths. The region contains many predominantly Muslim countries as well as the world's only Jewish state.

The Middle East is deeply sectarian, and these long-standing divisions, exacerbated by the constant vying for power by religious extremists, are central to many of the challenges that the region faces today. In some cases, these sectarian divides go back centuries. Contemporary conflicts, however, have less to do with these histories than they do with modern extremist ideologies and the fact that today's borders often do not reflect cultural, ethnic, or religious realities. Instead, they are often the results of decisions taken by the British, French, and other powers during and soon

after World War I as they dismantled the Ottoman Empire.<sup>1</sup>

In a way not understood by many in the West, religion remains a prominent fact of daily life in the modern Middle East. At the heart of many of the region's conflicts is the friction within Islam between Sunnis and Shias. This friction dates back to the death of the Prophet Muhammad in 632 AD.<sup>2</sup> Sunni Muslims, who form the majority of the world's Muslim population, hold power in most of the Arab countries in the Middle East.

Viewing the Middle East's current instability through the lens of a Sunni-Shia conflict, however, does not show the full picture. The cultural and historical division between Arabs and Persians has reinforced the Sunni-Shia split. The mutual distrust between many Sunni Arab powers and Iran, the Persian Shia power, compounded by clashing national and ideological interests, has fueled instability in such countries as Iraq, Lebanon, Syria, and Yemen. The COVID-19 coronavirus exposed Sunni-Shia tensions when Sunni countries in the region blamed "Shia backwardness," likely referencing the licking of religious shrines, as the reason for the rapid spread of the virus in Iran.3 Sunni extremist organizations such as al-Qaeda and the Islamic State (IS) have exploited sectarian and ethnic tensions to gain support by posing as champions of Sunni Arabs against Syria's Alawite-dominated regime and other non-Sunni governments and movements.

Regional demographic trends also are destabilizing factors. The Middle East contains one

of the world's youngest and fastest-growing populations. In most of the West, this would be viewed as an advantage, but not in the Middle East. Known as "youth bulges," these demographic tsunamis have overwhelmed many countries' inadequate political, economic, and educational infrastructures, and the lack of access to education, jobs, and meaningful political participation fuels discontent. Because almost two-thirds of the region's inhabitants are less than 30 years old, this demographic bulge will continue to have a substantial effect on political stability across the region.<sup>4</sup>

The Middle East contains more than half of the world's oil reserves and is the world's chief oil-exporting region.5 As the world's largest producer and consumer of oil,6 the U.S., even though it actually imports relatively little of its oil from the Middle East, has a vested interest in maintaining the free flow of oil and gas from the region. Oil is a fungible commodity, and the U.S. economy remains vulnerable to sudden spikes in world oil prices. During the COVID-19 crisis, oil prices plunged to below zero in April 2020 after stay-at-home orders caused a severe imbalance between supply and demand. This unprecedented drop in demand sparked an oil price war between Saudi Arabia and Russia. U.S. oil producers were forced to cut back production, and "[i]f prices don't regain stability, analysts' biggest fear is that the U.S. energy sector won't be able to bounce back."7 In the Middle East, the plummet in oil prices will cause significant shocks. Exporters that are heavily dependent on oil revenues will experience a decline in gross domestic product (GDP), and importers will suffer from reduced foreign investment, remittances, tourism, and grants from exporters.8

Because many U.S. allies depend on Middle East oil and gas, there is also a second-order effect for the U.S. if supply from the Middle East is reduced or compromised. For example, Japan is both the world's third-largest economy and second-largest importer of liquefied natural gas (LNG). The U.S. itself might not be dependent on Middle East oil or LNG, but the economic consequences arising from a

major disruption of supplies would ripple across the globe.

Financial and logistics hubs are also growing along some of the world's busiest transcontinental trade routes. One of the region's economic bright spots in terms of trade and commerce is in the Persian Gulf. The emirates of Dubai and Abu Dhabi in the United Arab Emirates (UAE), along with Qatar, are competing to become the region's top financial center.

The economic situation in the Middle East is part of what drives the political environment. The lack of economic freedom was an important factor leading to the Arab Spring uprisings, which began in early 2011 and disrupted economic activity, depressed foreign and domestic investment, and slowed economic growth.

The COVID-19 pandemic will have massive repercussions for the entire region, affecting economies and possibly shaking political systems in the aftermath of the crisis. 10 For example, the pandemic is likely to exacerbate Lebanon's political instability, fuel conflict between rival political factions competing to secure scarce medical resources for their supporters, and aggravate tensions between Lebanese citizens and desperate refugees who have flooded in from neighboring Syria. Iraq faces similar challenges. Newly appointed Prime Minister Mustafa al-Kadhimi will have to address the crippling economic crisis and social unrest while also managing the brewing conflict between Iran and the United States.11

The political environment has a direct bearing on how easily the U.S. military can operate in a region. In many Middle Eastern countries, the political situation remains fraught with uncertainty. The Arab Spring uprisings (2010–2012) formed a sandstorm that eroded the foundations of many authoritarian regimes, erased borders, and destabilized many countries in the region. Yet the popular uprisings in Tunisia, Libya, Egypt, Bahrain, Syria, and Yemen did not usher in a new era of democracy and liberal rule, as many in the West were hoping. At best, they made slow progress toward democratic reform; at worst, they added to political instability, exacerbated economic

problems, and contributed to the rise of Islamist extremists.

Today, the economic and political outlooks remain bleak. In some cases, self-interested elites have prioritized regime survival over real investment in human capital, exacerbating the material deprivation of youth in the region as unresolved issues of endemic corruption, high unemployment, and the rising cost of living have worsened. Frustrated with the lack of progress, large-scale protests re-emerged in 2019 in Lebanon, Iraq, Egypt, Sudan, Algeria, and other countries. The protests in Lebanon and Iraq could even affect the operational environment for U.S. forces in the region. 14

There is no shortage of security challenges for the U.S. and its allies in this region. Using the breathing space and funding afforded by the July 14, 2015, Joint Comprehensive Plan of Action (JCPOA),15 for example, Iran has exacerbated Shia-Sunni tensions to increase its influence on embattled regimes and has undermined adversaries in Sunni-led states. In May 2018, the Trump Administration left the JCPOA after European allies failed to address many of its serious flaws including its sunset clauses.16 A year later, in May 2019, Iran announced that it was withdrawing from certain aspects of the JCPOA.<sup>17</sup> Since then, U.S. economic sanctions have been crippling Iran's economy as part of the U.S. Administration's "Maximum Pressure Campaign" meant to force changes in Iran's behavior, particularly with regard to its support of terrorist organizations and refusal to renounce a nascent nuclear weapons program.18

While many of America's European allies publicly denounced the Administration's decision to withdraw from the JCPOA, most officials agree privately that the agreement is flawed and needs to be fixed. America's allies in the Middle East, including Israel and most Gulf Arab states, supported the U.S. decision and welcomed a harder line against the Iranian regime. <sup>19</sup>

Tehran attempts to run an unconventional empire by exerting great influence on substate entities like Hamas (the Palestinian territories); Hezbollah (Lebanon); the Mahdi

movement (Iraq); and the Houthi insurgents (Yemen). The Iranian Quds Force, the special-operations wing of Iran's Islamic Revolutionary Guard Corps, has orchestrated the formation, arming, training, and operations of these sub-state entities as well as other surrogate militias. These Iran-backed militias have carried out terrorist campaigns against U.S. forces and allies in the region for many years. On January 2, 2020, President Trump ordered an air strike that killed General Qassem Suleimani, the leader of the Iranian Quds Force, and Abu Mahdi al-Muhandis, the leader of the Iraqi Shia paramilitary group, who were responsible for carrying out attacks against U.S. personnel in Iraq.

In Afghanistan, Tehran's influence on some Shiite groups is such that thousands have volunteered to fight for Bashar al-Assad in Syria. <sup>20</sup> Iran also provided arms to the Taliban after it was ousted from power by a U.S.-led coalition<sup>21</sup> and has long considered the Afghan city of Herat, near the Afghan–Iranian border, to be within its sphere of influence.

Iran already looms large over its weak and divided Arab rivals. Iraq and Syria have been destabilized by insurgencies and civil war and may never fully recover; Egypt is distracted by its own internal problems, economic imbalances, and the Islamist extremist insurgency in the Sinai Peninsula; and Jordan has been inundated by a flood of Syrian refugees and is threatened by the spillover of Islamist extremist groups from Syria. <sup>22</sup> Meanwhile, Tehran has continued to build up its missile arsenal, now the largest in the Middle East; has intervened to prop up the Assad regime in Syria; and supports Shiite Islamist revolutionaries in Yemen and Bahrain. <sup>23</sup>

In Syria, the Assad regime's brutal repression of peaceful demonstrations early in 2011 ignited a fierce civil war that has led to the deaths of more than half a million people in addition to displacing more than 5.6 million refugees in Turkey, Lebanon, Jordan, Iraq, and Egypt and millions more people internally within Syria. <sup>24</sup> The large refugee populations created by this civil war could become a reservoir of potential recruits for extremist

groups. The Islamist Hay'at Tahrir al-Sham (formally known as the al-Qaeda-affiliated Jabhat Fateh al-Sham and before that as the al-Nusra Front) and the self-styled Islamic State (formerly known as ISIS or ISIL and before that as al-Qaeda in Iraq), for example, used the power vacuum created by the war to carve out extensive sanctuaries where they built proto-states and trained militants from a wide variety of other Arab countries, Central Asia, Russia, Europe, Australia, and the United States.<sup>25</sup>

At the height of its power, with a sophisticated Internet and social media presence and by capitalizing on the civil war in Syria and sectarian divisions in Iraq, the IS was able to recruit over 25,000 fighters from outside the region to join its ranks in Iraq and Syria. These foreign fighters included thousands from Western countries, including the United States. In 2014, the U.S. announced the formation of a broad international coalition to defeat the Islamic State. Early in 2019, the territorial "caliphate" had been destroyed by a U.S.-led coalition of international partners.

Arab–Israeli tensions are another source of instability in the region. The repeated breakdown of Israeli–Palestinian peace negotiations has created an even more antagonistic situation. Hamas, the Palestinian branch of the Muslim Brotherhood that has controlled Gaza since 2007, seeks to transform the conflict from a national struggle over sovereignty and territory into a religious conflict in which compromise is denounced as blasphemy. Hamas invokes jihad in its struggle against Israel and seeks to destroy the Jewish state and replace it with an Islamic state.

# Important Alliances and Bilateral Relations in the Middle East

The U.S. has strong military, security, intelligence, and diplomatic ties with several Middle Eastern nations, including Israel, Egypt, Jordan, and the six members of the Gulf Cooperation Council (GCC).<sup>26</sup> Because the historical and political circumstances that led to the creation of NATO have largely been absent

in the Middle East, the region lacks a similarly strong collective security organization.

When it came into office, the Trump Administration proposed the idea of a multilateral Middle East Strategic Alliance with its Arab partners. The initial U.S. concept, which included security, economic cooperation, and conflict resolution and deconfliction, generated considerable enthusiasm, but the project was sidelined by a diplomatic dispute involving Saudi Arabia, the UAE, and Qatar. Middle Eastern countries traditionally have preferred to maintain bilateral relationships with the U.S. and generally have shunned multilateral arrangements because of the lack of trust among Arab states.

This lack of trust manifested itself in June 2017 when the Kingdom of Saudi Arabia, the United Arab Emirates, Bahrain, Egypt, and several other Muslim-majority countries cut or downgraded diplomatic ties with Qatar after Doha was accused of supporting terrorism in the region. <sup>29</sup> All commercial land, air, and sea travel between Qatar and these nations has been severed, and Qatari diplomats and citizens have been evicted. Discussions between Qatar and GCC members to resolve the dispute began in October 2019 but broke down in February 2020. Political tensions among the Gulf States remain high. <sup>30</sup>

This is only the most recent example of how regional tensions can transcend the Arab–Iranian or Israeli–Palestinian debate. In 2014, several Arab states recalled their ambassadors to Qatar to protest Doha's support for Egypt's Muslim Brotherhood movement. <sup>31</sup> It took eight months for the parties involved to resolve this dispute so that relations could be fully restored. In addition, Qatar has long supported Muslim Brotherhood groups, as well as questionable Islamist factions in Syria and Libya, and has often been viewed as too close to Iran, a major adversary of Sunni Arab states in the Gulf.

Bilateral and multilateral relations in the region, especially with the U.S. and other Western countries, are often made more difficult by their secretive nature. It is not unusual for

governments in this region to see value (and sometimes necessity) in pursuing a relationship with the U.S. while having to account for domestic opposition to working with America: hence the perceived need for secrecy. The opaqueness of these relationships sometimes creates problems for the U.S. when it tries to coordinate defense and security cooperation with European allies (mainly the United Kingdom and France) that are active in the region.

Military training is an important part of these relationships. The principal motivations behind these exercises are to ensure close and effective coordination with key regional partners, demonstrate an enduring U.S. security commitment to regional allies, and train Arab armed forces so that they can assume a larger share of responsibility for regional security.

Israel. America's most important bilateral relationship in the Middle East is with Israel. Both countries are democracies, value free-market economies, and believe in human rights at a time when many Middle Eastern countries reject those values. With support from the United States, Israel has developed one of the world's most sophisticated air and missile defense networks.<sup>32</sup> No significant progress on peace negotiations with the Palestinians or on stabilizing Israel's volatile neighborhood is possible without a strong and effective Israeli–American partnership.

After years of strained relations during the Obama Administration, ties between the U.S. and Israel improved significantly during the first two years of the Trump Administration. In May 2018, the U.S. moved its embassy from Tel Aviv to a location in western Jerusalem.<sup>33</sup> On January 28, 2020, President Trump unveiled his Israeli–Palestinian peace proposal.<sup>34</sup> The plan accords a high priority to Israeli security needs, recognizes Israel's vital interest in retaining control of the border with Jordan, and clears the way for U.S. recognition of Israeli sovereignty over many settlements and Jewish holy sites in the disputed territory of the West Bank.<sup>35</sup>

**Saudi Arabia.** After Israel, the U.S. military relationship is deepest with the Gulf

States, including Saudi Arabia, which serves as de facto leader of the GCC. America's relationship with Saudi Arabia is based on pragmatism and is important for both security and economic reasons, but it has come under intense strain since the murder of Saudi dissident and *Washington Post* journalist Jamal Ahmad Khashoggi, allegedly by Saudi security services, in Turkey in 2018.

The Saudis enjoy huge influence across the Muslim world, and roughly 2 million Muslims participate in the annual Hajj pilgrimage to the holy city of Mecca. Riyadh has been a key partner in efforts to counterbalance Iran. The U.S. is also the largest provider of arms to Saudi Arabia and regularly, if not controversially, sells munitions needed to resupply stockpiles expended in the Saudi-led campaign against the Houthis in Yemen.

**Gulf Cooperation Council.** The countries of the GCC (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE) are located close to the Arab-Persian fault line and are therefore strategically important to the U.S.<sup>36</sup> The root of Arab-Iranian tensions in the Gulf is Tehran's ideological drive to export its Islamist revolution and overthrow the traditional rulers of the Arab kingdoms. This ideological clash has further amplified long-standing sectarian tensions between Shia Islam and Sunni Islam. Tehran has sought to radicalize Shia Arab minority groups to undermine Sunni Arab regimes in Saudi Arabia, Kuwait, and Bahrain. It also sought to incite revolts by the Shia majorities in Iraq against Saddam Hussein's regime and in Bahrain against the Sunni al-Khalifa dynasty. Culturally, many Iranians look down on the Gulf States, many of which they see as artificial entities carved out of the former Persian Empire and propped up by Western powers.

The GCC's member countries often have difficulty agreeing on a common policy with respect to matters of security. This reflects both the organization's intergovernmental nature and its members' desire to place national interests above those of the GCC. The recent dispute regarding Qatar illustrates this difficulty.

Another source of disagreement involves the question of how best to deal with Iran. On one end of the spectrum, Saudi Arabia, Bahrain, and the UAE take a hawkish view of the threat from Iran. Oman and Qatar, the former of which prides itself on its regional neutrality and the latter of which shares natural gas fields with Iran, view Iran's activities in the region as less of a threat and maintain cordial relations with Tehran. Kuwait tends to fall somewhere in the middle. Intra-GCC relations also can be problematic.

**Egypt.** Egypt is another important U.S. military ally. As one of only two Arab countries that maintain diplomatic relations with Israel (the other is Jordan), Egypt is closely enmeshed in the Israeli–Palestinian conflict and remains a leading political, diplomatic, and military power in the region.

Relations between the U.S. and Egypt have been problematic since the 2011 downfall of President Hosni Mubarak after 30 years of rule. The Muslim Brotherhood's Mohamed Morsi was elected president in 2012 and used the Islamist-dominated parliament to pass a constitution that advanced an Islamist agenda. Morsi's authoritarian rule, combined with rising popular dissatisfaction with falling living standards, rampant crime, and high unemployment, led to a massive wave of protests in June 2013 that prompted a military coup in July. The leader of the coup, Field Marshal Abdel Fattah el-Sisi, pledged to restore democracy and was elected president in 2014 and again in 2018 in elections that many considered to be neither free nor fair.

Sisi's government faces major political, economic, and security challenges. Rare anti-government protests broke out for two weeks in September 2018 despite a ban on demonstrations, and waves of arrests and detainments followed in a massive crackdown that shut down protests.<sup>37</sup> The demonstrations exposed Egypt's tenuous stability, and support for President Sisi appears to be waning.

#### Quality of Armed Forces in the Region

The quality and capabilities of the region's armed forces are mixed. Some countries spend

billions of dollars each year on advanced Western military hardware; others spend very little. According to the Stockholm International Peace Research Institute (SIPRI), "Saudi Arabia is by far the largest military spender in the region, with an estimated total of \$61.9 billion in 2019." If defense spending is measured as a percentage of GDP, the leader in the region is Oman, which spent 8.8 per cent of its GDP on the military in 2019, followed closely by Saudi Arabia at 8.0 percent.<sup>39</sup>

Historically, figures on defense spending for the Middle East have been very unreliable, and the lack of data has worsened. For 2019, there were no available data for Qatar, Syria, the United Arab Emirates, and Yemen according to the SIPRI.<sup>40</sup>

Different security factors drive the degree to which Middle Eastern countries fund, train, and arm their militaries. For Israel, which fought and defeated Arab coalitions in 1948, 1956, 1967, 1973, and 1982, the chief potential threats to its existence are now posed by an Iranian regime that has called for Israel to be "wiped off the map." 41 States and non-state actors in the region have responded to Israel's military dominance by investing in asymmetric and unconventional capabilities to offset its military superiority.<sup>42</sup> For the Gulf States, the main driver of defense policy is the Iranian military threat combined with internal security challenges; for Iraq, it is the internal threat posed by insurgents and terrorists.

The Israel Defense Forces (IDF) are considered to be one of the most capable military forces in the Middle East. Recently, Iran and other Arab countries have spent billions of dollars in an effort to catch up with Israel, and the result has been an arms race that could threaten Israel's qualitative military edge (QME). Iran is steadily improving its missile capabilities and could soon have access to the global arms trade if the U.N. conventional arms embargo is allowed to expire as scheduled in October 2020.<sup>43</sup> In response, other Arab countries are "procuring and upgrading cutting-edge U.S., Russian and European systems in bulk, including amphibious assault ships, missile

boats, submarines, multirole fighter aircraft, precision munitions, air and missile defenses as well as radar and cyber technologies."44

Israel funds its military sector heavily and has a strong national industrial capacity supported by significant funding from the U.S. Combined, these factors give Israel a regional advantage despite limitations of manpower and size. In particular, the IDF has focused on maintaining its superiority in missile defense, intelligence collection, precision weapons, and cyber technologies. The Israelis regard their cyber capabilities as especially important and use cyber technologies for a number of purposes, including defending Israeli cyberspace, gathering intelligence, and carrying out attacks. defending intelligence, and carrying out attacks.

Israel maintains its qualitative superiority in medium-range and long-range missile capabilities and fields effective missile defense systems, including Iron Dome and Arrow, both of which the U.S. helped to finance. Israel also has a nuclear weapons capability (which it does not publicly acknowledge) that increases its strength relative to other powers in the region and has helped to deter adversaries as the gap in conventional capabilities has been reduced.

After Israel, the most technologically advanced and best-equipped armed forces are found in the Gulf Cooperation Council. Previously, the export of oil and gas meant that there was no shortage of resources to devote to defense spending, but the collapse of crude oil prices has forced oil-exporting countries to adjust their defense spending patterns. At present, however, GCC nations still have the region's best-funded (even if not necessarily the most effective) Arab armed forces. All GCC members boast advanced defense hardware that reflects a preference for U.S., U.K., and French equipment.

Saudi Arabia maintains the GCC's most capable military force. It has an army of 75,000 soldiers and a National Guard of 100,000 personnel reporting directly to the king. The army operates 900 main battle tanks including 370 U.S.-made M1A2s. Its air force is built around American-built and British-built

aircraft and consists of more than 429 combatcapable aircraft including F-15s, Tornados, and Typhoons.<sup>47</sup>

In fact, air power is the strong suit of most GCC members. Oman operates F-16s and Typhoons. In 2018, the U.S. government awarded Lockheed Martin a \$1.12 billion contract to produce 16 new F-16 Block 70 aircraft (Lockheed Martin's newest and most advanced F-16 production configuration) for the Royal Bahraini Air Force. Qatar operates French-made Mirage fighters and is buying 24 Typhoons from the U.K. 49

Middle Eastern countries have shown a willingness to use their military capability under certain and limited circumstances. The navies of the GCC members rarely deploy beyond their Exclusive Economic Zones, but Kuwait, Bahrain, the UAE, Saudi Arabia, and Qatar have participated in and in some cases have commanded Combined Task Force 152, formed in 2004 to maintain maritime security in the Persian Gulf. 50 Since 2001, Jordan, Egypt, Bahrain, and the UAE have supplied troops to the U.S.-led mission in Afghanistan. The UAE and Qatar deployed fighters to participate in NATO-led operations over Libya in 2011, although they did not participate in strike operations. All six GCC members also joined the U.S.-led anti-ISIS coalition, albeit to varying degrees, with the UAE contributing the most in terms of air power.<sup>51</sup> Air strikes in Syria by members of the GCC ended in 2017.

With 438,500 active personnel and 479,000 reserve personnel, Egypt has the largest Arab military force in the Middle East.<sup>52</sup> It possesses a fully operational military with an army, air force, air defense, navy, and special operations forces. Until 1979, when the U.S. began to supply Egypt with military equipment, Cairo relied primarily on less capable Soviet military technology.<sup>53</sup> Since then, its army and air force have been significantly upgraded with U.S. military weapons, equipment, and warplanes.

Egypt has struggled with increased terrorist activity in the Sinai Peninsula, including attacks on Egyptian soldiers, attacks on foreign tourists, and the October 2015 bombing

of a Russian airliner departing from the Sinai. The Islamic State's "Sinai Province" terrorist group has claimed responsibility for all of these actions.<sup>54</sup>

Jordan is a close U.S. ally and has small but effective military forces. The principal threats to its security include terrorism, turbulence spilling over from Syria and Iraq, and the resulting flow of refugees. While Jordan faces few conventional threats from its neighbors, its internal security is threatened by Islamist extremists returning from fighting in the region who have been emboldened by the growing influence of al-Qaeda and other Islamist militants. As a result, Jordan's highly professional armed forces have focused in recent years on border and internal security.

Considering Jordan's size, its conventional capability is significant. Jordan's ground forces total 86,000 soldiers and include 100 British-made Challenger 1 tanks. Forty-seven F-16 Fighting Falcons form the backbone if its air force,<sup>55</sup> and its special operations forces are highly capable, having benefitted from extensive U.S. and U.K. training. Jordanian forces have served in Afghanistan and in numerous U.N.-led peacekeeping operations.

Iraq has fielded one of the region's most dysfunctional military forces. After the 2011 withdrawal of U.S. troops, Iraq's government selected and promoted military leaders according to political criteria.<sup>56</sup> Shiite army officers were favored over their Sunni, Christian, and Kurdish counterparts, and former Prime Minister Nouri al-Maliki chose top officers according to their political loyalties. Politicization of the armed forces also exacerbated corruption within many units, with some commanders siphoning off funds allocated for "ghost soldiers" who never existed or had been separated from the army for various reasons.<sup>57</sup> It is unclear whether new Prime Minister Mustafa al-Kadhimi will follow the same model, but both the Iranian foreign minister and the United States have welcomed the appointment.58

The promotion of incompetent military leaders, poor logistical support due to corruption and other problems, limited operational mobility, and weaknesses in intelligence, reconnaissance, medical support, and air force capabilities have combined to weaken the effectiveness of the Iraqi armed forces. In June 2014, for example, the collapse of up to four divisions that were routed by vastly smaller numbers of Islamic State fighters led to the fall of Mosul.<sup>59</sup> The U.S. and its allies responded with a massive training program for the Iraqi military that led to the liberation of Mosul on July 9, 2017.<sup>60</sup>

## Current U.S. Military Presence in the Middle East

Before 1980, the limited U.S. military presence in the Middle East consisted chiefly of a small naval force that had been based at Bahrain since 1958. The U.S. "twin pillar" strategy relied on prerevolutionary Iran and Saudi Arabia to take the lead in defending the Persian Gulf from the Soviet Union and its client regimes in Iraq, Syria, and South Yemen, 61 but the 1979 Iranian revolution demolished one pillar, and the December 1979 Soviet invasion of Afghanistan increased the Soviet threat to the Gulf.

In January 1980, President Jimmy Carter proclaimed in a commitment known as the Carter Doctrine that the United States would take military action to defend oil-rich Persian Gulf States from external aggression. In 1980, he ordered the creation of the Rapid Deployment Joint Task Force (RDJTF), the precursor to U.S. Central Command (USCENTCOM), which was established in January 1983.<sup>62</sup>

Up until the late 1980s, America's "regional strategy still largely focused on the potential threat of a massive Soviet invasion of Iran." After the collapse of the Soviet Union, Saddam Hussein's Iraqi regime became the chief threat to regional stability. Iraq invaded Kuwait in August 1990, and the United States responded in January 1991 by leading an international coalition of more than 30 nations to expel Saddam's forces from Kuwait. CENTCOM commanded the U.S. contribution of more than 532,000 military personnel to the coalition's armed forces, which totaled at least 737,000.64

This marked the peak U.S. force deployment in the Middle East.

Confrontations with Iraq continued throughout the 1990s as Iraq continued to violate the 1991 Gulf War cease-fire. Baghdad's failure to cooperate with U.N. arms inspectors to verify the destruction of its weapons of mass destruction and its links to terrorism led to the U.S. invasion of Iraq in 2003. During the initial invasion, U.S. forces reached nearly 192,000,65 joined by military personnel from coalition forces. Apart from the "surge" in 2007, when President George W. Bush deployed an additional 30,000 personnel, the number of American combat forces in Iraq fluctuated between 100,000 and 150,000.66

In December 2011, the U.S. officially completed its withdrawal of troops, leaving only 150 personnel attached to the U.S. embassy in Iraq.67 In the aftermath of IS territorial gains in Iraq, however, the U.S. redeployed thousands of troops to the country to assist Iraqi forces against IS and help build Iraqi capabilities. Despite calls from the Iraqi parliament to expel U.S. troops after the January 2020 air strike that killed General Qassem Suleimani, U.S. forces remain in Iraq and have "consolidated their basing" and "deployed new missile defenses."68 Today, approximately 5,200 U.S. troops are based in Iraq. Escalating attacks by Iran-backed militias against U.S. forces in 2020 could influence future troop deployment.69

In addition, the U.S. continues to maintain a limited number of forces in other locations in the Middle East, primarily in GCC countries. Rising naval tensions in the Persian Gulf prompted additional deployments of troops, Patriot missile batteries, and combat aircraft to the Gulf in late 2019 to deter Iran, although reductions in U.S. forces were subsequently announced in May 2020.<sup>70</sup> The move might indicate a shifting strategy to counter Iran or an assessment by U.S. officials of a reduced risk as Iran continues to mitigate the economic and political effects of COVID-19.

Currently, tens of thousands of U.S. troops are serving in the region. "Due to the

fluctuating nature of U.S. military operations in the region," according to one study, "it is not possible to put together a complete picture of the entirety of U.S. forces' deployment." Nevertheless, information gleaned from open sources reveals the following:

- Kuwait. Over 16,000 U.S. personnel are based in Kuwait and are spread among Camp Arifjan, Ahmad al-Jabir Air Base, and Ali al-Salem Air Base. A large depot of prepositioned equipment and a squadron of fighters and Patriot missile systems are also deployed to Kuwait.<sup>72</sup>
- UAE. About 4,000 U.S. personnel are deployed at Jebel Ali port, Al Dhafra Air Base, and naval facilities at Fujairah. Jebel Ali port is the U.S. Navy's busiest port of call for aircraft carriers. U.S. Air Force personnel who are stationed in the UAE use Al Dhafra Air Base to operate fighters, unmanned aerial vehicles (UAVs), refueler aircraft, and surveillance aircraft. The United States also has regularly deployed F-22 Raptor combat aircraft to Al Dhafra and recently deployed the F-35 combat aircraft because of escalating tensions with Iran. Patriot missile systems are deployed for air and missile defense. 73
- Oman. In 1980, Oman became the first Gulf State to welcome a U.S. military base. Today, it provides important access in the form of over 5,000 aircraft overflights, 600 aircraft landings, and 80 port calls annually. The number of U.S. military personnel in Oman has fallen to about 200, mostly from the U.S. Air Force. According to the Congressional Research Service, "the United States reportedly can use—with advance notice and for specified purposes-Oman's military airfields in Muscat (the capital), Thumrait, Masirah Island, and Musnanah," as well as (pursuant to a March 2019 Strategic framework Agreement) the ports of Al Dugm and Salalah.74

- Bahrain. Approximately 5,000 U.S. military personnel are based in Bahrain. Bahrain is home to Naval Support Activity Bahrain and the U.S. Fifth Fleet, so most U.S. military personnel there belong to the U.S. Navy. A significant number of U.S. Air Force personnel operate out of Shaykh Isa Air Base, where F-16s, F/A-18s, and P-8 surveillance aircraft are stationed. U.S. Patriot missile systems also are deployed to Bahrain. The deep-water port of Khalifa bin Salman is one of the few facilities in the Gulf that can accommodate U.S. aircraft carriers. <sup>75</sup>
- Saudi Arabia. The U.S. withdrew the bulk of its forces from Saudi Arabia in 2003. After the October 2019 attacks on Saudi Arabia's oil and natural gas facilities, the U.S. Defense Department deployed 3,000 additional troops and sent radar and missile systems to improve air defenses, an air expeditionary wing to support fighter aircraft, and two fighter squadrons in an effort to deter future attacks.76 This large-scale military buildup to counter Iran was reduced in May 2020 after the U.S. removed two Patriot missile batteries and dozens of troops that were deployed during the troop buildup.<sup>77</sup> The six-decade-old United States Military Training Mission to the Kingdom of Saudi Arabia, the four-decade-old Office of the Program Manager of the Saudi Arabian National Guard Modernization Program, and the Office of the Program Manager-Facilities Security Force are based in Eskan Village Air Base approximately 13 miles south of the capital city of Riyadh.78
- **Qatar.** Approximately 10,000 U.S. personnel, mainly from the U.S. Air Force, are deployed in Qatar.<sup>79</sup> The U.S. operates its Combined Air Operations Center at Al Udeid Air Base, which is one of the world's most important U.S. air bases. It is also the base from which the anti-ISIS campaign was headquartered. Heavy bombers,

- tankers, transports, and ISR (intelligence, surveillance, and reconnaissance) aircraft operate from Al Udeid Air Base, which also serves as the forward headquarters of CENTCOM. The base houses prepositioned U.S. military equipment and is defended by U.S. Patriot missile systems. So far, the recent diplomatic moves by Saudi Arabia and other Arab states against Doha have not affected the United States' relationship with Qatar.
- **Jordan.** According to CENTCOM, Jordan "is one of [America's] strongest and most reliable partners in the Levant sub-region." Although there are no U.S. military bases in Jordan, the U.S. has a long history of conducting training exercises in the country. Due to recent events in neighboring Syria, in addition to other military assets like fighter jets and air defense systems, "approximately 2,910 U.S. military personnel are deployed to Jordan." <sup>81</sup>

CENTCOM "directs and enables military operations and activities with allies and partners to increase regional security and stability in support of enduring U.S. interests." Execution of this mission is supported by four service component commands (U.S. Naval Forces Middle East [USNAVCENT]; U.S. Army Forces Middle East [USARCENT]; U.S. Air Forces Middle East [USAFCENT]; and U.S. Marine Forces Middle East [MARCENT]) and one subordinate unified command (U.S. Special Operations Command Middle East [SOCCENT]).

U.S. Naval Forces Central Command.
USNAVCENT is the maritime component of USCENTCOM. With its forward head-quarters in Bahrain, it is responsible for commanding the afloat units that rotationally deploy or surge from the United States in addition to other ships that are based in the Gulf for longer periods.
USNAVCENT conducts persistent maritime operations to advance U.S. interests, deter and counter disruptive countries,

defeat violent extremism, and strengthen partner nations' maritime capabilities in order to promote a secure maritime environment in an area encompassing about 2.5 million square miles of water.

- U.S. Army Forces Central Command. USARCENT is the land component of USCENTCOM. Based in Kuwait, USARCENT is responsible for land operations in an area that totals 4.6 million square miles (1.5 times larger than the continental United States).
- U.S. Air Forces Central Command.
   USAFCENT is the air component of
   USCENTCOM. Based in Qatar, USAFCENT
   is responsible for air operations and for
   working with the air forces of partner
   countries in the region. It also manages an
   extensive supply and equipment prepositioning program at several regional sites.
- U.S. Marine Forces Central Command. MARCENT is the designated Marine Corps service component for USCENTCOM. Based in Bahrain, MARCENT is responsible for all Marine Corps forces in the region.
- U.S. Special Operations Command Central. SOCCENT is a subordinate unified command under USCENTCOM. Based in Qatar, SOCCENT is responsible for planning special operations throughout the USCENTCOM region, planning and conducting peacetime joint/combined special operations training exercises, and orchestrating command and control of peacetime and wartime special operations.

In addition to the American military presence in the region, two U.S. allies—the United Kingdom and France—play an important role that should not be overlooked.

The U.K.'s presence in the Middle East is a legacy of British imperial rule. The U.K. has

maintained close ties with many countries that it once ruled and has conducted military operations in the region for decades. Approximately 1,350 British service personnel are based throughout the region. This number fluctuates with the arrival of visiting warships.<sup>83</sup>

The British presence in the region is dominated by the Royal Navy. Permanently based naval assets include four mine hunters and one Royal Fleet Auxiliary supply ship. Generally, there also are frigates or destroyers in the Gulf or Arabian Sea performing maritime security duties.84 In addition (although such matters are not the subject of public discussion), U.K. attack submarines operate in the area. In April 2018, as a sign of its long-term maritime presence in the region, the U.K. opened a base in Bahrain-its first overseas military base in the Middle East in more than four decades.85 The U.K. has made a multimillion-dollar investment in modernization of the Dugm Port complex in Oman to accommodate its new Queen Elizabeth-class aircraft carriers.86

The U.K. has a sizeable Royal Air Force (RAF) presence in the region as well, mainly in the UAE and Oman. A short drive from Dubai, Al-Minhad Air Base is home to a small contingent of U.K. personnel, and small RAF detachments in Oman support U.K. and coalition operations in the region. Although considered to be in Europe, the U.K.'s Sovereign Base Areas of Akrotiri and Dhekelia in Cyprus have supported U.S. military and intelligence operations in the past and will continue to do so.

The British presence in the region extends beyond soldiers, ships, and planes. A British-run staff college operates in Qatar, and Kuwait chose the U.K. to help run its own equivalent of the Royal Military Academy at Sandhurst.<sup>87</sup> The U.K. also plays a very active role in training the Saudi Arabian and Jordanian militaries.

The French presence in the Gulf is smaller than the U.K.'s but still significant. France opened its first military base in the Gulf in 2009. Located in the emirate of Abu Dhabi, it was the first foreign military installation built by the French in 50 years.<sup>88</sup> The French have

650 personnel based in the UAE, along with six Rafale fighter jets, as well as military operations in Kuwait and Qatar. French ships have access to the Zayed Port in Abu Dhabi, which is big enough to handle every ship in the French Navy except the aircraft carrier *Charles De Gaulle*.

Military support from the U.K. and France has been particularly important in Operation Inherent Resolve, a U.S.-led joint task force formed to combat the Islamic State in Iraq and Syria. In March 2020, France and the U.K. announced that they would be reducing their footprint in Iraq. France is suspending its anti-terrorism training operations and bringing home troops to support the government's effort to combat COVID-19. The U.K. temporarily redeployed troops back to the U.K. as a result of COVID-19 but will resume its training of Iraqi forces once the situation permits.90 There have been concerns that the IS might exploit COVID-19 to gain strength if Iraqi security forces do not remain vigilant, particularly along the Iraqi-Syria border.91 The situation will be a test to measure Iraq's effectiveness in managing its own security challenges without the support of coalition forces.

Another important actor in Middle East security is the small East African country of Djibouti. Djibouti sits on the Bab el-Mandeb Strait, through which an estimated 6.2 million barrels of oil a day transited in 2018 (the most recent year for which U.S. Energy Administration data are available) and which is a choke point on the route to the Suez Canal. Pa An increasing number of countries recognize Djibouti's value as a base from which to project maritime power and launch counterterrorism operations. The country is home to Camp Lemonnier, which can hold up to 4,000 personnel and is the only permanent U.S. military base in Africa.

China is also involved in Djibouti and has its first permanent overseas base there, which can house 10,000 troops and which Chinese marines have used to stage live-fire exercises featuring armored combat vehicles and artillery. France, Italy, and Japan also have presences of varying strength in Djibouti.<sup>94</sup>

# Key Infrastructure and Warfighting Capabilities

The Middle East is critically situated geographically. Two-thirds of the world's population lives within an eight-hour flight from the Gulf region, making it accessible from most other regions of the globe. The Middle East also contains some of the world's most critical maritime choke points, such as the Suez Canal and the Strait of Hormuz.

Although infrastructure is not as developed in the Middle East as it is in North America or Europe, during a decades-long presence, the U.S. has developed systems that enable it to move large numbers of matériel and personnel into and out of the region. According to the Department of Defense, at the height of U.S. combat operations in Iraq during the Second Gulf War, the U.S. presence included 165,000 servicemembers and 505 bases. Moving personnel and equipment out of the country was "the largest logistical drawdown since World War II" and included redeployment of "the 60,000 troops who remained in Iraq at the time and more than 1 million pieces of equipment ahead of their deadline."95

The condition of the region's roads varies from country to country. For example, 100 percent of the roads in Israel, Jordan, and the UAE are paved. Other nations such as Oman (49.3 percent); Saudi Arabia (21.5 percent); and Yemen (8.7 percent) have poor paved road coverage according to the most recent information available. 96 Rail coverage is also poor.

The U.S. has access to several airfields in the region. The primary air hub for U.S. forces is Al Udeid Air Base in Qatar. Other airfields include Ali Al Salem Air Base, Kuwait; Al Dhafra, UAE; Al Minhad, UAE; Isa, Bahrain; Eskan Village Air Base, Saudi Arabia; Muscat, Oman; Thumrait, Oman; and Masirah Island, Oman, in addition to the commercial airport at Seeb, Oman. In the past, the U.S. has used major airfields in Iraq, including Baghdad International Airport and Balad Air Base, as well as Prince Sultan Air Base in Saudi Arabia.

The fact that the U.S. has access to a particular air base today, however, does not mean

that it will be made available for a particular operation in the future. For example, because of their more cordial relations with Iran, it is highly unlikely that Qatar and Oman would allow the U.S. to use air bases in their territory for strikes against Iran unless they were first attacked themselves.

The U.S. has access to ports in the region, perhaps most importantly in Bahrain, as well as a deep-water port, Khalifa bin Salman, in Bahrain and naval facilities at Fujairah, UAE.97 The UAE's commercial port of Jebel Ali is open for visits from U.S. warships and prepositioning of equipment for operations in theater.98 In March 2019, "Oman and the United States signed a 'Strategic Framework Agreement' that expands the U.S.-Oman facilities access agreements by allowing U.S. forces to use the ports of Al Dugm...and Salalah."99 The location of these ports outside the Strait of Hormuz makes them particularly useful. Approximately 90 percent of the world's trade travels by sea, and some of the busiest and most important shipping lanes are located in the Middle East. Tens of thousands of cargo ships travel through the Strait of Hormuz and the Bab el-Mandeb Strait each year.

Given the high volume of maritime traffic in the region, no U.S. military operation can be undertaken without consideration of how these shipping lanes offer opportunity and risk to America and her allies. The major shipping routes include:

• The Suez Canal. In 2019, more than 1.2 billion tons of cargo transited the canal, averaging 51 ships each day. O Considering that the canal itself is 120 miles long but only 670 feet wide, this is an impressive amount of traffic. The Suez Canal is important to Europe because it provides a means of access to oil from the Middle East. It also serves as an important strategic asset, as it is used routinely by the U.S. Navy to move surface combatants between the Mediterranean Sea and the Red Sea. Thanks to a bilateral arrangement between Egypt and the United States, the

- U.S. Navy enjoys priority access to the canal. <sup>101</sup> However, the journey through the narrow waterway is no easy task for large surface combatants. The canal was not constructed with the aim of accommodating 100,000-ton aircraft carriers and therefore exposes a larger ship to attack. For this reason, different types of security protocols are followed, including the provision of air support by the Egyptian military. <sup>102</sup>
- Strait of Hormuz. The Strait of Hormuz is a critical oil-supply bottleneck and the world's busiest passageway for oil tankers. The strait links the Persian Gulf with the Arabian Sea and the Gulf of Oman. "The Strait of Hormuz is the world's most important chokepoint, with an oil flow of 18 million b/d [barrels per day] in 2016," according to the U.S. Energy Information Administration.<sup>103</sup> Most of these crude oil exports go to Asian markets, particularly Japan, India, South Korea, and China. 104 Given the extreme narrowness of the passage and its proximity to Iran, shipping routes through the Strait of Hormuz are particularly vulnerable to disruption. Tehran repeatedly attacked oil tankers in May and June 2019 and continues to harass U.S. naval ships.105
- el-Mandeb Strait. The Bab el-Mandeb Strait is a strategic waterway located between the Horn of Africa and Yemen that links the Red Sea to the Indian Ocean. Exports from the Persian Gulf and Asia destined for Western markets must pass through the strait en route to the Suez Canal. Because the Bab el-Mandeb Strait is 18 miles wide at its narrowest point, passage is limited to two channels for inbound and outbound shipments.<sup>106</sup>

Maritime Prepositioning of Equipment and Supplies. The U.S. military has deployed noncombatant maritime prepositioning ships (MPS) containing large amounts of military equipment and supplies in strategic locations from which they can reach areas of conflict relatively quickly as associated U.S. Army or Marine Corps units located elsewhere arrive in the area. The British Indian Ocean Territory of Diego Garcia, an island atoll, hosts the U.S. Naval Support Facility Diego Garcia, which supports prepositioning ships that can supply Army or Marine Corps units deployed for contingency operations in the Middle East.

#### Conclusion

For the foreseeable future, the Middle East region will remain a key focus for U.S. military planners. Once considered relatively stable, mainly because of the ironfisted rule of authoritarian regimes, the area is now highly unstable and a breeding ground for terrorism.

Overall, regional security has deteriorated in recent years. Even though the Islamic State (or at least its physical presence) appears to have been defeated, the nature of its successor is unclear. Iraq has restored its territorial integrity after the defeat of ISIS, but the political situation and future relations between Baghdad and the U.S. will remain difficult as long as a government that is sympathetic to Iran is in power. The regional dispute with Qatar has made U.S. relations in the region even more complex and difficult to manage, although it has not stopped the U.S. military from operating.

Many of the borders created after World War I are under significant stress. In countries like Iraq, Libya, Syria, and Yemen, the supremacy of the nation-state is being challenged by non-state actors that wield influence, power, and resources comparable to those of small states. The region's principal security and political challenges are linked to the unrealized aspirations of the Arab Spring, surging transnational terrorism, and meddling by Iran, which seeks to extend its influence in the Islamic world. These challenges are made more difficult by the Arab–Israeli conflict, Sunni–Shia sectarian divides, the rise of Iran's Islamist revolutionary nationalism, and the proliferation of Sunni Islamist revolutionary groups. COVID-19 will likely exacerbate these economic, political, and regional crises, which may destabilize the post-pandemic operational environment for U.S. forces.

Thanks to its decades of military operations in the Middle East, the U.S. has tried-and-tested procedures for operating in the region. Bases and infrastructure are well established, and the logistical processes for maintaining a large force forward deployed thousands of miles away from the homeland are well in place. Moreover, unlike in Europe, all of these processes have been tested recently in combat. The personal links between allied armed forces are also present. Joint training exercises improve interoperability, and U.S. military educational courses regularly attended by officers (and often royals) from the Middle East allow the U.S. to influence some of the region's future leaders.

America's relationships in the region are based pragmatically on shared security and economic concerns. As long as these issues remain relevant to both sides, the U.S. is likely to have an open door to operate in the Middle East when its national interests require that it do so.

### Scoring the Middle East Operating Environment

As noted at the beginning of this section, various aspects of the region facilitate or inhibit the ability of the U.S. to conduct military operations to defend its vital national interests against threats. Our assessment of the operating environment uses a five-point scale that ranges from "very poor" to "excellent"

conditions and covers four regional characteristics of greatest relevance to the conduct of military operations:

1. **Very Poor.** Significant hurdles exist for military operations. Physical infrastructure is insufficient or nonexistent, and the

region is politically unstable. In addition, the U.S. military is poorly placed or absent, and alliances are nonexistent or diffuse.

- 2. **Unfavorable.** A challenging operating environment for military operations is marked by inadequate infrastructure, weak alliances, and recurring political instability. The U.S. military is inadequately placed in the region.
- **3. Moderate.** A neutral to moderately favorable operating environment is characterized by adequate infrastructure, a moderate alliance structure, and acceptable levels of regional political stability. The U.S. military is adequately placed.
- **4. Favorable.** A favorable operating environment includes good infrastructure, strong alliances, and a stable political environment. The U.S. military is well placed for future operations.
- 5. Excellent. An extremely favorable operating environment includes well-established and well-maintained infrastructure, strong and capable allies, and a stable political environment. The U.S. military is exceptionally well placed to defend U.S. interests.

The key regional characteristics consist of:

- a. Alliances. Alliances are important for interoperability and collective defense, as allies are more likely to lend support to U.S. military operations. Indicators that provide insight into the strength or health of an alliance include whether the U.S. trains regularly with countries in the region, has good interoperability with the forces of an ally, and shares intelligence with nations in the region.
- Political Stability. Political stability brings predictability for military planners when considering such things as transit,

- basing, and overflight rights for U.S. military operations. The overall degree of political stability indicates whether U.S. military actions would be hindered or enabled and reflects, for example, whether transfers of power are generally peaceful and whether there have been any recent instances of political instability in the region.
- c. U.S. Military Positioning. Having military forces based or equipment and supplies staged in a region greatly facilitates the ability of the United States to respond to crises and, presumably, achieve success in critical "first battles" more quickly. Being routinely present in a region also assists in maintaining familiarity with its characteristics and the various actors that might assist or thwart U.S. actions. With this in mind, we assessed whether or not the U.S. military was well positioned in the region. Again, indicators included bases, troop presence, prepositioned equipment, and recent examples of military operations (including training and humanitarian) launched from the region.
- d. Infrastructure. Modern, reliable, and suitable infrastructure is essential to military operations. Airfields, ports, rail lines, canals, and paved roads enable the U.S. to stage, launch, and logistically sustain combat operations. We combined expert knowledge of regions with publicly available information on critical infrastructure to arrive at our overall assessment of this metric.<sup>108</sup>

The U.S. has developed an extensive network of bases in the Middle East region and has acquired substantial operational experience in combatting regional threats. At the same time, however, many of its allies are hobbled by political instability, economic problems, internal security threats, and mushrooming transnational threats. Although the region's overall score remains "moderate," as it was last year,

it is in danger of falling to "poor" because of political instability and growing bilateral tensions with allies over the security implications of the nuclear agreement with Iran and how best to fight the Islamic State.

With this in mind, we arrived at these average scores for the Middle East (rounded to the nearest whole number):

- Alliances: 3-Moderate
- $\bullet \quad \text{Political Stability:} \ \textbf{2-Unfavorable} \\$
- U.S. Military Positioning: 3-Moderate
- Infrastructure: 3—Moderate

Leading to a regional score of: Moderate

# **Operating Environment: Middle East**

|                       | VERY POOR | UNFAVORABLE | MODERATE | FAVORABLE | EXCELLENT |
|-----------------------|-----------|-------------|----------|-----------|-----------|
| Alliances             |           |             | ✓        |           |           |
| Political Stability   |           | <b>✓</b>    |          |           |           |
| U.S. Military Posture |           |             | ✓        |           |           |
| Infrastructure        |           |             | ✓        |           |           |
| OVERALL               |           |             | <b>✓</b> |           |           |

#### **Endnotes**

- 1. For example, during a 1916 meeting in Downing Street, Sir Mark Sykes, Britain's lead negotiator with the French on carving up the Ottoman Empire in the Middle East, pointed to the map and told the Prime Minister that for Britain's sphere of influence in the Middle East, "I should like to draw a line from the e in Acre [modern-day Israel] to the last k in Kirkuk [modern-day Iraq]." See James Barr, A Line in the Sand: Britain, France, and the Struggle That Shaped the Middle East (London: Simon & Schuster U.K., 2011), pp. 7–20. See also Margaret McMillan, Paris 1919: Six Months That Changed the World (New York: Random House, 2003).
- 2. S.B., "What Is the Difference Between Sunni and Shia Muslims?" *The Economist*, May 29, 2013, http://www.economist.com/blogs/economist-explains/2013/05/economist-explains-19/ (accessed May 18, 2020).
- Tzvi Joffre, "Iranian Shias Lick, Kiss Shrines in Defiance of Coronavirus Outbreak," *The Jerusalem Post*, March 2, 2020, https://www.jpost.com/middle-east/iranian-shias-lick-kiss-shrines-in-defiance-of-coronavirus-outbreak-619428 (accessed May 20, 2020), and Nicole Robinson, "Middle East Coronavirus Data Sketchy, Leaving Populaces to Suffer," Heritage Foundation *Commentary*, April 7, 2020, https://www.heritage.org/middle-east/commentary/middle-east-coronavirus-data-sketchy-leaving-populaces-suffer (accessed May 18, 2020).
- 4. Sabahat Khan, "MENA's Youth Bulge Is a Regional Security Challenge," *The Arab Weekly*, April 2, 2018, https://thearabweekly.com/menas-youth-bulge-regional-security-challenge (accessed May 18, 2020).
- 5. Organization of the Petroleum Exporting Countries, "OPEC Share of World Crude Oil Reserves, 2018," https://www.opec.org/opec\_web/en/data\_graphs/330.htm (accessed May 18, 2020).
- 6. Table, "The 10 Largest Oil Producers and Share of Total World Oil Production in 2019," and table, "The 10 Largest Oil Consumers and Share of Total World Oil Consumption in 2017," in U.S. Department of Energy, Energy Information Administration, "What Countries Are the Top Producers and Consumers of Oil?" last updated April 1, 2020, https://www.eia.gov/tools/faqs/faq.php?id=709&t=6 (accessed May 18, 2020).
- 7. Martha C. White, "Will Oil's Price Slump Be Worse for the Economy than the Effects of Coronavirus?" NBC News, updated April 22, 2020, https://www.nbcnews.com/business/energy/will-oil-s-price-slump-be-worse-economy-effects-coronavirus-n1189001 (accessed May 18, 2020).
- 8. Rabah Arezki and Ha Nguyen, "Coping with a Dual Shock: COVID-19 and Oil Prices," World Bank *Brief*, April 14, 2020, https://www.worldbank.org/en/region/mena/brief/coping-with-a-dual-shock-coronavirus-covid-19-and-oil-prices (accessed May 18, 2020).
- 9. Focus Economics, "The World's Top 10 Largest Economies," updated January 2020, https://www.focus-economics.com/blog/the-largest-economies-in-the-world (accessed May 18, 2020), and Jessica Jaganathan, "China Overtakes Japan as World's Top Natural Gas Importer," Reuters, November 12, 2018, https://www.reuters.com/article/china-japan-lng/china-overtakes-japan-as-worlds-top-natural-gas-importer-idUSL4N1XN3LO (accessed May 18, 2020).
- 10. Robinson, "Middle East Coronavirus Data Sketchy, Leaving Populace to Suffer."
- 11. Alissa J. Rubin, "Iraq Chooses New Prime Minister, an Ex-Intelligence Chief Backed by U.S.," *The New York Times*, May 6, 2020, https://www.nytimes.com/2020/05/06/world/middleeast/iraq-prime-minister-mustafa-khadimi.html (accessed May 19, 2020).
- 12. See, for example, The Heritage Foundation, "The 'Arab Spring': Heritage Foundation Recommendations," Heritage Foundation *WebMemo* No. 3222, April 13, 2011, https://www.heritage.org/middle-east/report/the-arab-spring-heritage-foundation-recommendations.
- 13. Marwan Muasher, "Is This the Arab Spring 2.0?" Carnegie Endowment for International Peace *Commentary*, October 30, 2019, https://carnegieendowment.org/2019/10/30/is-this-arab-spring-2.0-pub-80220 (accessed May 19, 2020).
- 14. James Phillips and Nicole Robinson, "Protesters in Iraq Have Legitimate Grievances," Heritage Foundation *Commentary*, October 9, 2019, https://www.heritage.org/middle-east/commentary/protesters-iraq-have-legitimate-grievances, and James Phillips and Nicole Robinson, "Why Protests Rocking Lebanon Forced the Prime Minister," Heritage Foundation *Commentary*, October 30, 2019, https://www.heritage.org/middle-east/commentary/why-protests-rocking-lebanon-forced-out-the-prime-minister.
- 15. See U.S. Department of the Treasury, Resource Center, "Joint Plan of Action (JPOA) Archive and Joint Comprehensive Plan of Action (JCPOA) Archive," last updated October 30, 2018, https://www.treasury.gov/resource-center/sanctions/Programs/Pages/jpoa\_archive.aspx (accessed May 19, 2020).
- 16. James Phillips, "U.S. Iran Policy After the Demise of the Nuclear Deal," Heritage Foundation *Backgrounder* No. 3335, August 6, 2018, https://www.heritage.org/middle-east/report/us-iran-policy-after-the-demise-the-nuclear-deal, and John Irish and Robin Emmot, "Europeans Push Last Bid to Salvage Iran Deal, but Work on Plan B," Reuters, May 3, 2018, https://www.reuters.com/article/us-iran-nuclear-europe/europeans-push-last-bid-to-salvage-iran-deal-but-work-on-plan-b-idUSKBN1I42ES (May 19, 2020).

- 17. James Griffiths, Joshua Berlinger, and Sheena McKenzie, "Iranian Leader Announces Partial Withdrawal from Nuclear Deal," CNN, updated May 8, 2019, https://www.cnn.com/2019/05/08/middleeast/iran-nuclear-deal-intl/index.html (accessed May 19, 2020).
- 18. U.S. Department of the Treasury, "Resource Center: Iran Sanctions," last updated February 2, 2020, https://www.treasury.gov/resource-center/sanctions/programs/pages/iran.aspx (accessed May 19, 2020), and Peter Brooks, Brett D. Schaefer, and James Phillips, "Iran Nuclear Deal: Next Steps," Heritage Foundation *Issue Brief* No. 5030, January 29, 2020, https://www.heritage.org/middle-east/report/iran-nuclear-deal-next-steps.
- 19. Robert Berger, "Israel Welcomes Trump's 'Bold' Decision to Leave Iran Deal," Voice of America, May 9, 2018, https://www.voanews.com/middle-east/israel-welcomes-trumps-bold-decision-leave-iran-deal (accessed May 19, 2020), and "Saudi Arabia Welcomes US Withdrawal from Iran Nuclear Deal," *Arab News*, updated May 9, 2018, http://www.arabnews.com/node/1299156/saudi-arabia (accessed May 19, 2020).
- 20. Sune Engel Rasmussen and Zahra Nader, "Iran Covertly Recruits Afghan Shias to Fight in Syria," *The Guardian*, June 30, 2016, https://www.theguardian.com/world/2016/jun/30/iran-covertly-recruits-afghan-soldiers-to-fight-in-syria (accessed May 19, 2020).
- 21. BBC News, "Hague Fury as 'Iranian Arms' Bound for Taliban Seized," March 9, 2011, http://www.bbc.com/news/uk-12694266 (accessed May 10, 2020).
- 22. Chris Massaro, "US Has the Military Might, but Iran Will Lean on Proxies and Militias If They Get Dragged into the Conflict," Fox News, May 20, 2019, https://www.foxnews.com/world/us-military-might-iran-proxies-militias-conflict (accessed May 19, 2020); Bruce Clingan, "Commentary: The U.S. Is Right to Restore Aid to Egypt," Reuters, July 30, 2018, https://www.reuters.com/article/us-clingan-egypt-commentary/commentary-the-u-s-is-right-to-restore-aid-to-egypt-idUSKBNIKKIYE (accessed May 19, 2020); and Fact Sheet, "Jordan," United Nations High Commissioner for Refugees, October 2019, https://data2.unhcr.org/en/documents/download/72076 (accessed May 19, 2020).
- 23. Fact Sheet, "Jordan."
- 24. Bethan McKernan, "Past Month 'Deadliest on Record' for Syrian Civilians Killed in US-Led Air Strikes," *Independent*, May 23, 2017, http://www.independent.co.uk/news/world/middle-east/syria-war-us-air-strikes-civilian-death-toll-deadliest-on-record-isis-donald-trump-a7751911.html (accessed May 19, 2020), and United Nations High Commissioner for Refugees, "Syria Emergency," updated April 19, 2018, https://www.unhcr.org/en-us/syria-emergency.html (accessed May 19, 2020).
- 25. Les Picker, "Where Are ISIS's Foreign Fighters Coming From?" National Bureau of Economic Research *Digest*, June 2016, p. 6, https://www.nber.org/digest/jun16/jun16.pdf (accessed May 19, 2020).
- 26. Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates.
- 27. Luke Coffey and James Phillips, "The Middle East Strategic Alliance: An Uphill Struggle," Heritage Foundation *Issue Brief*, No. 5056, April 7, 2020, https://www.heritage.org/middle-east/report/the-middle-east-strategic-alliance-uphill-struggle.
- 28. Joshua Meservey, "The Saudi-Qatari Dispute: Why the U.S. Must Prevent Spillover into East Africa," Heritage Foundation *Backgrounder* No. 3268, November 29, 2017, https://www.heritage.org/africa/report/the-saudi-qatari-dispute-why-the-us-must-prevent-spillover-east-africa.
- 29. Tamara Qiblawi, Mohammed Tawfeeq, Elizabeth Roberts, and Hamdi Alkhshali, "Qatar Rift: Saudi, UAE, Bahrain, Egypt Cut Diplomatic Ties," CNN, updated July 27, 2017, https://www.cnn.com/2017/06/05/middleeast/saudi-bahrain-egypt-uae-qatar-terror/index.html (accessed May 19, 2020).
- 30. Alexander Cornwell, "Saudi-Qatar Talks to End Lengthy Gulf Dispute Falter: Sources," Reuters, February 11, 2020, https://www.reuters.com/article/us-gulf-qatar/saudi-qatar-talks-to-end-lengthy-gulf-dispute-falter-sources-idUSKBN2050Z8 (accessed May 19, 2020).
- 31. Frank Gardner, "Gulf Ambassadors Pulled from Qatar over 'Interference'," BBC News, March 5, 2014, https://www.bbc.com/news/world-middle-east-26447914 (accessed May 19, 2020).
- 32. Pieter D. Wezeman, "Conventional Strategic Military Capabilities in the Middle East," EU Non-Proliferation Consortium *Background Paper*, July 2011, p. 8, https://www.sipri.org/sites/default/files/2016-03/Conventional-strategic-military-capabilities-in-the-Middle-East.pdf (accessed May 19, 2020).
- 33. Isabel Kershner, "9 Things to Know About Jerusalem as U.S. Embassy Opens," *The New York Times*, May 13, 2018, https://www.nytimes.com/2018/05/13/world/middleeast/israel-jerusalem-us-embassy.html (accessed May 19, 2020).
- 34. Peace to Prosperity: A Vision to Improve the Lives of the Palestinian and Israeli People, The White House January 2020, https://www.whitehouse.gov/wp-content/uploads/2020/01/Peace-to-Prosperity-0120.pdf (accessed May 19, 2020).
- 35. James Phillips, "Palestinians Miss Opportunity by Rejecting Trump Peace Plan," Heritage Foundation *Commentary*, January 31, 2020, https://www.heritage.org/middle-east/commentary/palestinians-miss-opportunity-rejecting-trump-peace-plan.

- 36. The GCC was founded in 1981 to offset the threat from Iran, which became hostile to Sunni-led Arab states after its 1979 revolution.
- 37. Declan Walsh, "Rare Protests Against Egypt's Leader Erupt in Cairo and Elsewhere," *The New York Times*, September 20, 2019, https://www.nytimes.com/2019/09/20/world/middleeast/anti-government-protests-egypt.html (accessed May 19, 2020), and Vivian Yee and Nada Rashwan, "Egypt's Harsh Crackdown Quashes Protest Movement," *The New York Times*, October 4, 2019, https://www.nytimes.com/2019/10/04/world/middleeast/egypt-protest-sisi-arrests.html (accessed May 19, 2020).
- 38. Nan Tian, Alexandra Kuimova, Diego Lopes da Silva, Pieter D. Wezeman, and Siemon T. Wezeman, "Trends in World Military Expenditure, 2019," Stockholm International Peace Research Institute *Fact Sheet*, April 2020, p. 9, https://www.sipri.org/sites/default/files/2020-04/fs 2020 04 milex 0.pdf (accessed June 26, 2020).
- 39. Figure 4, "Military Spending as a Share of Gross Domestic Product, by Country, 2019," in ibid., p. 10.
- 40. Ibid., p. 9.
- 41. Nazila Fathi, "Wipe Israel 'Off the Map' Iranian Says," *The New York Times*, October 27, 2005, http://www.nytimes.com/2005/10/26/world/africa/26iht-iran.html? r=0 (accessed May 19, 2020).
- 42. Ibid.
- 43. "The embargo limits all U.N. member states from selling weaponry—including battle tanks, armored combat vehicles, large caliber artillery systems, combat aircraft, attack helicopters, warships, missiles or missile systems and spare parts—to the Islamic Republic." U.S. Institute of Peace, The Iran Primer, "Part 1: U.S. on U.N. Arms Embargo on Iran," updated June 24, 2020, https://iranprimer.usip.org/blog/2020/may/11/part-1-us-arms-embargo (accessed June 26, 2020).
- 44. Jewish Institute for National Security of America, Gemunder Center U.S.–Israel Security Policy Project, *Arming Israel to Defeat Iranian Aggression: Frontloading Weapons Delivery*, November 2019, pp. 14–16, esp. p. 15, https://jinsa.org/wp-content/uploads/2019/11/Arming-Israel-to-Defeat-Iranian-Aggression-1.pdf (accessed June 26, 2020).
- 45. T. S. Allen, "Here Is How Israel's Military Dominates the Battlefield," *The National Interest*, February 27, 2018, http://nationalinterest.org/blog/the-buzz/here-how-israels-military-dominates-the-battlefield-24679 (accessed May 19, 2020).
- 46. See, for example, Gil Press, "6 Reasons Israel Became a Cybersecurity Powerhouse Leading the \$82 Billion Industry," *Forbes*, July 18, 2017, https://www.forbes.com/sites/gilpress/2017/07/18/6-reasons-israel-became-a-cybersecurity-powerhouse-leading-the-82-billion-industry/#d458614420aa (accessed June 26, 2020), and "Israel Is a Small Country, but a Cyber Superpower, Says Ex-CIA Director at CyberTech 2018," NoCamels, January 20, 2018, http://nocamels.com/2018/01/israel-cyber-superpower-cia-cybertech-2018/ (accessed May 19, 2020).
- 47. International Institute for Strategic Studies, *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2020), pp. 373–374.
- 48. News release, "Lockheed Martin Awarded Contract to Build F-16 Block 70 Aircraft for Bahrain," Lockheed Martin, June 25, 2018, https://news.lockheedmartin.com/2018-06-25-Lockheed-Martin-Awarded-Contract-to-Build-F-16-Block-70-Aircraft-for-Bahrain?\_ ga=2.3223408.1543096780.1588692655-1467716092.1546629521 (accessed May 19, 2020).
- 49. Reuters, "Qatar Goes Ahead with \$6.7 Billion Typhoon Combat Jets Deal with UK's BAE Systems," December 10, 2017, https://www.reuters.com/article/us-britain-qatar-typhoons/qatar-goes-ahead-with-6-7-billion-typhoon-combat-jets-deal-with-uks-bae-systems-idUSKBN1E40QM (accessed May 19, 2020).
- 50. U.S. Naval Forces Central Command, Combined Maritime Forces–U.S. 5th Fleet, "Combined Maritime Forces," https://www.cusnc. navy.mil/Combined-Maritime-Forces/ (accessed May 19, 2020).
- 51. Helene Cooper and Anne Barnard, "Jordan and Emirates Carry out Airstrikes in Syria Against ISIS," *The New York Times*, February 10, 2015, www.nytimes.com/2015/02/11/world/middleeast/united-arab-emirates-resume-airstrikes-against-isis.html (accessed May 19, 2020).
- 52. International Institute for Strategic Studies, *The Military Balance 2020*, p. 345.
- 53. GlobalSecurity.org, "Egypt Military Guide: Introduction," last modified April 4, 2012, http://www.globalsecurity.org/military/world/egypt/intro.htm (accessed May 19, 2020).
- 54. Reuters and Jack Khoury, "Isis Claims Responsibility for Attack That Killed 15 Egyptian Military Personnel," *Haaretz*, February 16, 2019, https://www.haaretz.com/middle-east-news/egypt/15-egyptian-military-personnel-killed-or-wounded-in-sinai-attack-army-says-1.6938947 (accessed May 19, 2020), and Jason Hanna, Michael Martinez, and Jennifer Deaton, "ISIS Publishes Photo of What It Says Is Bomb that Downed Russian Plane," CNN, updated November 19, 2015, https://www.cnn.com/2015/11/18/middleeast/metrojet-crash-dabig-claim/index.html (accessed May 19, 2020).
- 55. International Institute for Strategic Studies, *The Military Balance 2020*, pp. 357–359.

- See, for example, Florence Gaub, "An Unhappy Marriage: Civil–Military Relations in Post-Saddam Iraq," Carnegie Endowment for International Peace Middle East Center, January 13, 2016, https://carnegieendowment.org/files/ACMR-Gaub-final.pdf (accessed May 19, 2020).
- 57. Reuters, "Iraq Says It Found 50,000 'Ghost Soldiers' on Payroll," December 1, 2014, https://www.reuters.com/article/us-mideast-crisis-iraq-soldiers-idUSKCN0JF2RZ20141201 (accessed May 19, 2020).
- 58. Alissa J. Rubin, "Iraq Chooses New Prime Minister, an Ex-Intelligence Chief Backed by U.S.," and Maya Gebeilly, "Ex-Spy Chief Becomes Iraq PM Amid Fiscal, Virus Crises," *Barron's*, May 6, 2020, https://www.barrons.com/news/iraq-gets-new-government-amid-fiscal-coronavirus-crises-01588805403?tesla=y (accessed May 21, 2020).
- 59. Ned Parker, Isabel Coles, and Raheem Salman, "Special Report: How Mosul Fell—An Iraqi General Disputes Baghdad's Story," Reuters, October 14, 2014, https://www.reuters.com/article/us-mideast-crisis-gharawi-special-report/special-report-how-mosul-fell-an-iraqi-general-disputes-baghdads-story-idUSKCN0I30Z820I4I014 (accessed May 19, 2020).
- 60. Tim Arango and Michael R. Gordon, "Iraqi Prime Minister Arrives in Mosul to Declare Victory over ISIS," *The New York Times*, July 9, 2017, https://www.nytimes.com/2017/07/09/world/middleeast/mosul-isis-liberated.html (accessed May 19, 2020).
- 61. During 1967 and 1990, South Yemen, officially known as the People's Democratic Republic of Yemen, was a socialist state in the southeastern provinces of the present-day Republic of Yemen.
- 62. U.S. Central Command, "About Us: U.S. Central Command History," http://www.centcom.mil/ABOUT-US/HISTORY/ (accessed May 19, 2020).
- 63. Ibid.
- 64. Lieutenant Colonel Joseph P. Englehardt, *Desert Shield and Desert Storm: A Chronology and Troop List for the 1990–1991 Persian Gulf Crisis*, U.S. Army War College, Strategic Studies Institute *Special Report* AD-A234 743, March 25, 1991, p. 5, https://apps.dtic.mil/dtic/tr/fulltext/u2/a234743.pdf (accessed May 19, 2020).
- 65. Associated Press, "A Timeline of Iraq War, Troop Levels," Internet Archive, updated May 25, 2011, https://web.archive.org/web/20141023033147/http://www.huffingtonpost.com/2008/04/07/a-timeline-of-iraq-war-tr\_n\_95534.html (accessed May 19, 2020).
- 66. BBC News, "Iraq War in Figures," December 14, 2011, http://www.bbc.com/news/world-middle-east-11107739 (accessed May 19, 2020).
- 67. Reuters, "Timeline: Invasion, Surge, Withdrawal; U.S. Forces in Iraq," December 18, 2011, http://www.reuters.com/article/2011/12/18/us-iraq-usa-pullout-idUSTRE7BH08E20111218 (accessed May 19, 2020).
- Christopher M. Blanchard, "Iraq and U.S. Policy," Congressional Research Service In Focus No. 10404, updated April 9. 2020, https://crsreports.congress.gov/product/pdf/IF/IF10404 (accessed May 19, 2020).
- 69. Kenneth Katzman, Kathleen J. McInnis, and Clayton Thomas, "U.S.-Iran Conflict and Implications for U.S. Policy," Congressional Research Service *Report for Members and Committees of Congress*, updated May 8, 2020, pp. 8 and 14, https://fas.org/sgp/crs/mideast/R45795.pdf (accessed June 25, 2020).
- 70. Gordon Lubold and Michael C. Bender, "U.S. to Remove Patriot Missile Batteries from Saudi Arabia," *The Wall Street Journal*, updated May 7, 2020, https://www.wsj.com/articles/u-s-to-remove-patriot-missile-batteries-from-saudi-arabia-11588867916 (accessed May 19, 2020).
- 71. Matthew Wallin, "U.S. Bases and Military Facilities in the Middle East," American Security Project *Fact Sheet*, June 2018, p. 1, https://www.americansecurityproject.org/wp-content/uploads/2018/07/Ref-0213-US-Military-Bases-and-Facilities-Middle-East. pdf (accessed June 25, 2020).
- 72. Kenneth Katzman, "Kuwait: Governance, Security, and U.S. Policy," Congressional Research Service *Report for Members and Committees of Congress*, updated December 4, 2019, pp. 8, 9, and 11, https://fas.org/sgp/crs/mideast/RS21513.pdf (accessed May 19, 2020).
- 73. Kenneth Katzman, "The United Arab Emirates (UAE): Issues for U.S. Policy," Congressional Research Service *Report for Members and Committees of Congress*, updated March 3, 2020, p. 18, https://crsreports.congress.gov/product/pdf/RS/RS21852 (accessed May 19, 2020).
- 74. Kenneth Katzman, "Oman: Politics, Security, and U.S. Policy," Congressional Research Service *Report for Members and Committees of Congress*, updated January 27, 2020, p. 15, https://crsreports.congress.gov/product/pdf/RS/RS21534 (accessed May 19, 2020).
- 75. Kenneth Katzman, "Bahrain: Unrest, Security, and U.S. Policy," Congressional Research Service *Report for Members and Committees of Congress*, February 24, 2020, pp. 16–21, https://crsreports.congress.gov/product/pdf/RS/95-1013 (accessed May 19, 2020).

- Press release, "DOD Statement on Deployment of Additional U.S. Forces and Equipment to the Kingdom of Saudi Arabia,"
   U.S. Department of Defense, October 11, 2019, https://www.defense.gov/Newsroom/Releases/Release/Article/1987575/dod-statement-on-deployment-of-additional-us-forces-and-equipment-to-the-kingdo/ (accessed May 19, 2020).
- 77. Lubold and Bender, "U.S. to Remove Patriot Missile Batteries from Saudi Arabia."
- 78. Captain Marie Harnley, "Wing Leadership Visits Eskan Village," U.S. Air Forces Central Command, July 5, 2013, http://www.afcent.af.mil/Units/379thAirExpeditionaryWing/News/Display/tabid/5382/Article/350180/wing-leadership-visits-eskan-village.aspx (accessed May 19, 2020).
- 79. General Joseph L. Votel, Commander, U.S. Central Command, statement on "The Posture of U.S. Central Command" before the Committee on Armed Services, U.S. Senate, March 13, 2018, p. 31, http://www.centcom.mil/Portals/6/Documents/Transcripts/Votel 03-13-18.pdf (accessed May 19, 2020).
- 80. U.S. Army Central, "Eager Lion," STAND-TO! The Official Focus of the U.S. Army, April 11, 2018, https://www.army.mil/standto/2018-04-11 (accessed May 19, 2020).
- 81. Jeremy M. Sharp, "Jordan: Background and U.S. Relations," Congressional Research Service *Report for Members and Committees of Congress*, updated December 4, 2019, p. 12, https://crsreports.congress.gov/product/pdf/RL/RL33546 (accessed May 19, 2020).
- 82. U.S. Central Command, "About Us: CENTCOM Mission and Command Priorities," https://www.centcom.mil/ABOUT-US/ (accessed May 19, 2020).
- 83. Louisa Brook-Holland, "UK Forces in the Middle East Region," House of Commons Library *Briefing Paper* No. 08794, January 14, 2020, p. 2, https://researchbriefings.files.parliament.uk/documents/CBP-8794/CBP-8794.pdf (accessed May 19, 2020).
- 84. News release, "UK Minister Breaks Ground on Royal Navy HQ in Bahrain," Royal Navy, April 28, 2014, https://www.royalnavy.mod. uk/news-and-latest-activity/news/2014/april/28/140428-hq-in-bahrain (accessed May 19, 2020).
- 85. Associated Press (Malak Harb), "U.K. Opens Persian Gulf Military Base in Bahrain," Bloomberg, updated April 5, 2018, https://www.bloomberg.com/news/articles/2018-04-05/uk-opens-persian-gulf-naval-base-in-bahrain (accessed May 19, 2020).
- 86. U.K. Ministry of Defence and The Rt. Hon. Sir Michael Fallon, MP, "Multi-Million Pound Joint Venture Announced Between Britain and Oman," March 30, 2016, https://www.gov.uk/government/news/multi-million-pound-joint-venture-announced-between-britain-and-oman (accessed May 19, 2020).
- 87. Frank Gardner, "'East of Suez': Are UK Forces Returning?" BBC News, April 29, 2013, http://www.bbc.com/news/uk-22333555 (accessed May 19, 2020).
- 88. Harriet Alexander, "Where Are the World's Major Military Bases?" *The Telegraph*, July 11, 2013, http://www.telegraph.co.uk/news/uknews/defence/10173740/Where-are-the-worlds-major-military-bases.html (accessed May 19, 2020).
- 89. International Institute for Strategic Studies, *The Military Balance 2020*, p. 383.
- 90. Shawn Snow, "Training in Iraq Halted, Smaller Bases Consolidating[,] Some Coalition Troops Homeward Bound over COVID-19 Concerns," *Military Times*, March 20, 2020, https://www.militarytimes.com/flashpoints/2020/03/20/training-in-iraq-halted-smaller-bases-consolidating-some-coalition-troops-homeward-bound-over-covid-19-concerns/ (accessed May 19, 2020), and Associated Press, "France Pulls out Military Forces in Iraq amid Virus Demands," March 25, 2020, https://apnews.com/77a45e7c9a6fb44d6e19c90f9a8ad2c6 (accessed May 19, 2020).
- 91. Omar Sattar, "Islamic State Seeks Comeback Under Cover of Coronavirus," Al-Monitor, April 9, 2020, https://www.al-monitor.com/pulse/originals/2020/04/iraq-islamic-state-us-coalition-terrorism.html (accessed May 19, 2020).
- 92. U.S. Department of Energy, Energy Information Administration, "Today in Energy: The Bab el-Mandeb Strait Is a Strategic Route for Oil and Natural Gas Shipments," August 27, 2019, https://www.eia.gov/todayinenergy/detail.php?id=41073 (accessed May 19, 2020).
- 93. U.S. Navy, Commander, Navy Installations Command, "Welcome to Camp Lemonnier, Djibouti: Installation Information," https://www.cnic.navy.mil/regions/cnreurafcent/installations/camp\_lemonnier\_djibouti.html (accessed May 19, 2020).
- 94. Associated Press, "The New Military Powerhouse on the Red Sea: Tiny Djibouti," *Haaretz*, April 10, 2018, https://www.haaretz.com/middle-east-news/the-new-military-powerhouse-on-the-red-sea-tiny-djibouti-1.5990505 (accessed May 19, 2020).
- 95. Donna Miles, "Centcom Undertakes Massive Logistical Drawdown in Afghanistan," U.S. Department of Defense, June 21, 2013, http://archive.defense.gov/news/newsarticle.aspx?id=120348 (accessed May 19, 2020).
- 96. U.S. Central Intelligence Agency, *The World Factbook 2018*, "Roadways: Country Comparison Ranking," https://www.cia.gov/library/publications/the-world-factbook/fields/385.html (accessed May 19, 2020).
- 97. Katzman, "Bahrain: Unrest, Security, and U.S. Policy," pp. 17–18, and Katzman, "The United Arab Emirates (UAE): Issues for U.S. Policy," p. 19.

- 98. Katzman, "The United Arab Emirates (UAE): Issues for U.S. Policy," p. 18.
- 99. Katzman, "Oman: Politics, Security, and U.S. Policy," p. 15.
- 100. Suez Canal Authority, "Navigation Statistics: Yearly Statistics," 2019, https://www.suezcanal.gov.eg/English/Navigation/Pages/NavigationStatistics.aspx (accessed May 19, 2020).
- 101. Michael Wahid Hanna, "Getting over Egypt: Time to Rethink Relations," *Foreign Affairs*, November/December 2015, https://www.foreignaffairs.com/articles/egypt/getting-over-egypt (accessed May 19, 2020).
- 102. Associated Press, "US Carrier Crosses Suez Canal into Red Sea," *The Times of Israel*, November 8, 2013, http://www.timesofisrael.com/us-carrier-crosses-suez-canal-into-red-sea/ (accessed May 19, 2020).
- 103. U.S. Department of Energy, Energy Information Administration, "Today in Energy: Three Important Oil Trade Chokepoints Are Located Around the Arabian Peninsula," August 4, 2017, https://www.eia.gov/todayinenergy/detail.php?id=32352 (accessed May 19, 2020). Emphasis in original.
- 104. U.S. Department of Energy, Energy Information Administration, "World Oil Transit Chokepoints," July 25, 2017, p. 4, https://www.eia.gov/international/content/analysis/special\_topics/World\_Oil\_Transit\_Chokepoints/wotc.pdf (accessed May 19, 2020), and October 15, 2019, update, http://www.eia.gov/beta/international/analysis\_includes/special\_topics/World\_Oil\_Transit\_Chokepoints/wotc.pdf (accessed May 19, 2020).
- 105. James Phillips, "Iran's Naval Provocations Are Designed to Boost the Revolutionary Guards," Heritage Foundation *Commentary*, April 27, 2020, https://www.heritage.org/middle-east/commentary/irans-naval-provocations-are-designed-boost-the-revolutionary-guards.
- 106. U.S. Department of Energy, Energy Information Administration, "Today in Energy: Three Important Oil Trade Chokepoints Are Located Around the Arabian Peninsula."
- 107. Seth J. Frantzman, "Is Iran's Influence in Iraq Growing, or Has It Reached a Plateau?" *The Jerusalem Post*, January 2, 2019, https://www.jpost.com/Middle-East/Is-Irans-influence-in-Iraq-growing-or-has-it-reached-a-plateau-576104 (accessed May 19, 2020).
- 108. See, for example, World Bank, "Logistics Performance Index: Quality of Trade and Transport-Related Infrastructure (1=Low to 5=High)," 2007–2018, https://data.worldbank.org/indicator/lp.lpi.infr.xq (accessed May 18, 2020).

# Asia

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E ver since the founding of the American Republic, Asia has been a key U.S. area of interest for both economic and security reasons. One of the first ships to sail under an American flag was the aptly named Empress of China, which inaugurated America's participation in the lucrative China trade in 1784. In the more than 230 years since then, the United States has worked under the strategic assumption that allowing any single nation to dominate Asia would be inimical to American interests. Asia constitutes too important a market and is too great a source of key resources for the United States to be denied access. Thus, beginning with U.S. Secretary of State John Hay's "Open Door" policy toward China in the 19th century, the United States has worked to prevent the rise of a regional hegemon in Asia, whether it was imperial Japan or the Soviet Union.

In the 21st century, Asia's importance to the United States will continue to grow. Asia is a key source of vital natural resources and a crucial part of the global value chain in areas like electronic components. As of March 2020, six of America's top 15 trading partners were found in Asia: China (third), Japan (fourth), South Korea (sixth), Taiwan (10th), India (13th), and Vietnam (15th).¹ Disruption in Asia can affect the production of goods like cars, aircraft, and computers around the world, as well as the global financial system.

The COVID-19 pandemic that originated in China and swept through the world in early 2020 has wreaked havoc on the global economy, disrupting supply chains and defense budgets

across the region. It has led to the cancellation of several series of military exercises and created new challenges for America's ongoing efforts to secure a peace deal between the Taliban and the government in Afghanistan.

Asia is of more than just economic concern, however. Several of the world's largest militaries are in Asia, including those of China, India, North and South Korea, Pakistan, Russia, and Vietnam. The United States also maintains a network of treaty alliances and security partnerships, as well as a significant military presence, in Asia, and five Asian states (China, North Korea, India, Pakistan, and Russia) possess nuclear weapons.

The region is a focus of American security concerns both because of the presence of substantial military forces and because of its legacy of conflict. Both of the two major "hot" wars fought by the United States during the Cold War (Korea and Vietnam) were fought in Asia. Moreover, the Asian security environment is unstable. For one thing, the Cold War has not ended in Asia. Of the four states divided between Communism and democracy by the Cold War, three (China, Korea, and Vietnam) are in Asia. Neither the Korean situation nor the China–Taiwan situation was resolved despite the fall of the Berlin Wall and the collapse of the Soviet Union.

The Cold War itself was an ideological conflict layered atop long-standing—and still lingering—historical animosities. Asia is home to several major territorial disputes, among them:

- Northern Territories/Southern Kuriles (Japan and Russia);
- Senkakus/Diaoyutai/Diaoyu Dao (Japan, China, and Taiwan);
- Dok-do/Takeshima (Korea and Japan);
- Paracels/Xisha Islands (Vietnam, China, and Taiwan);
- Spratlys/Nansha Islands (China, Taiwan, Vietnam, Brunei, Malaysia, and the Philippines);
- Kashmir (India and Pakistan); and
- Aksai Chin and parts of the Indian state of Arunachal Pradesh (India and China).

Even the various names applied to the disputed territories reflect the fundamental differences in point of view, as each state uses different names when referring to the disputed areas. Similarly, different names are applied to the various major bodies of water: for example, "East Sea" or "Sea of Japan" and "Yellow Sea" or "West Sea." China and India do not even agree on the length of their disputed border, with Chinese estimates as low as 2,000 kilometers and Indian estimates generally in the mid-3,000s.

These disputes over names also reflect the broader tensions rooted in historical animosities that still scar the region. Most notably, Japan's actions leading up to and during World War II remain a major source of controversy, particularly in China and South Korea where debates over issues such as what should be incorporated in textbooks and governmental statements prevent old wounds from healing. Similarly, a Chinese claim that much of the Korean Peninsula was once Chinese territory aroused reactions in both Koreas. The end of the Cold War did little to resolve any of these underlying disagreements.

It is in this light and in light of the reluctance of many states in the region to align

with great powers that one should consider the lack of a political-security architecture. There is no equivalent of NATO in Asia despite an ultimately failed mid-20th century effort to forge a parallel multilateral security architecture through the Southeast Asia Treaty Organization (SEATO). Regional security entities like the Five Power Defense Arrangement (involving the United Kingdom, Australia, New Zealand, Malaysia, and Singapore in an "arrangement" rather than an alliance) or discussion forums like the ASEAN Regional Forum (ARF) and the ASEAN Defence Ministers Meeting-Plus (ADMM-Plus) have been far weaker. There also is no Asian equivalent of the Warsaw Pact.

Instead, Asian security has been marked by a combination of bilateral alliances, mostly centered on the United States, and individual nations' efforts to maintain their own security. In recent years, these core aspects of the regional security architecture have been supplemented by "minilateral" consultations like the U.S.–Japan–Australia and India–Japan–Australia trilaterals and the quadrilateral security dialogue involving all four countries.

Nor is there much of an economic architecture undergirding East Asia. Despite substantial trade and expanding value chains among the various Asian states, as well as with the rest of the world, formal economic integration is limited. There is no counterpart to the European Union or even to the European Economic Community, just as there is no parallel with the European Coal and Steel Community, the precursor to European economic integration.

The Association of Southeast Asian Nations (ASEAN) is a far looser agglomeration of disparate states, although they have succeeded in expanding economic linkages among themselves over the past 50 years through a range of economic agreements like the ASEAN Free Trade Area (AFTA). Less important to regional stability has been the South Asia Association of Regional Cooperation (SAARC), which includes Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka. The SAARC is largely ineffective, both because of

the lack of regional economic integration and because of the historical rivalry between India and Pakistan.

With regard to Asia-wide free trade agreements, the 11 countries remaining in the Trans-Pacific Partnership (TPP) after U.S. withdrawal subsequently modified and signed it. The Regional Comprehensive Economic Partnership—the ASEAN-centric agreement that includes China, Japan, South Korea, India, Australia, and New Zealand—has gone through 25 rounds of negotiations. When fully implemented, these agreements will help to remedy the lack of regional economic integration.

# Important Alliances and Bilateral Relations in Asia

The keys to America's position in the Western Pacific are its alliances with Japan, the Republic of Korea (ROK), the Philippines, Thailand, and Australia, supplemented by very close security relationships with New Zealand and Singapore, an emerging strategic partnership with India, and evolving relationships with regional partners in Southeast Asia like Vietnam, Malaysia, and Indonesia. The U.S. also has a robust unofficial relationship with Taiwan. In South Asia, American relationships with Afghanistan and Pakistan are critical to regional peace and security.

The United States also benefits from the interoperability gained from sharing common weapons and systems with many of its allies. Many nations, for example, have equipped their ground forces with M-16/M-4-based infantry weapons and share the 5.56mm caliber ammunition; they also field F-15 and F-16 combat aircraft and employ LINK-16 data links. Australia, Japan, and South Korea are partners in production of the F-35 Joint Strike Fighter; Australia and Japan have already taken delivery of aircraft, and South Korea is due to take delivery soon. And partners like India and Australia operate American-made P8 surveillance aircraft and C-17 transport aircraft.

Consequently, in the event of conflict, the region's various air, naval, and even land forces will be able to share information in such key areas as air defense and maritime domain awareness. This advantage is further expanded by the constant ongoing range of both bilateral and multilateral exercises, which acclimate various forces to operating together and familiarize both American and local commanders with each other's standard operating procedures (SOPs), as well as training, tactics, and (in some cases) war plans. America has also signed "enabling" military agreements with several regional partners that allow for access to each other's military facilities, the sharing of intelligence and encrypted communications and equipment, and refueling each other's warships at sea.

While it does not constitute a formal alliance, in November 2017, Australia, Japan, India, and the U.S. reconstituted their quadrilateral security dialogue, popularly known as "the Quad." Officials from the four countries agreed to meet in the quadrilateral format twice a year to discuss ways to strengthen strategic cooperation and combat common threats. In 2019, the group held its first meeting at the ministerial level and added a counterterrorism tabletop exercise to its agenda. In 2020, officials from the four countries participated in a series of conference calls to discuss responses to the COVID-19 pandemic that also included government representatives from New Zealand, South Korea, and Vietnam.

Japan. The U.S.-Japan defense relationship is the linchpin of America's network of relations in the Western Pacific. The U.S.-Japan Treaty of Mutual Cooperation and Security, signed in 1960, provided for a deep alliance between two of the world's largest economies and most sophisticated military establishments, and changes in Japanese defense policies are now enabling an even greater level of cooperation on security issues, both between the two allies and with other countries in the region.

Since the end of World War II, Japan's defense policy has been distinguished by Article 9 of the Japanese constitution, which states in part that "the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes." In effect, this article prohibits the use of force by Japan's governments as an instrument of national policy. It also has led to several other associated policies.

One such policy is a prohibition against "collective self-defense." Japan recognized that nations have a right to employ their armed forces to help other states defend themselves (i.e., to engage in collective defensive operations) but rejected that policy for itself: Japan would employ its forces only in defense of Japan. This changed in 2015. The U.S. and Japan revised their defense cooperation guidelines, and the Japanese passed legislation to enable their military to exercise limited collective self-defense in certain cases involving threats to both the U.S. and Japan, as well as in multilateral peacekeeping operations. In recent years, Japan has increased security cooperation with other Indo-Pacific democracies. This has included enhancing security agreements, participating in more multilateral military exercises, and providing ships to Southeast Asian coast guard forces.

Tokyo relies heavily on the United States for its security. In particular, it depends on the United States to deter both conventional and nuclear attacks on the home islands. The combination of the pacifist constitution and Japan's past (the atomic bombings of Hiroshima and Nagasaki, which ended World War II in the Pacific) has forestalled much public interest in obtaining an independent nuclear deterrent. Similarly, throughout the Cold War, Japan relied on the American conventional and nuclear commitment to deter Soviet and Chinese aggression.

As part of its relationship with Japan, the United States maintains some 54,000 military personnel and another 8,000 Department of Defense civilian employees in Japan under the rubric of U.S. Forces Japan (USFJ).<sup>3</sup> These forces include, among other things, a forward-deployed carrier battle group centered on the USS *Ronald Reagan*; an amphibious ready group at Sasebo centered on the LHA-6 *America*, an aviation-optimized amphibious assault

ship; and the bulk of the Third Marine Expeditionary Force (III MEF) on Okinawa. U.S. forces exercise regularly with their Japanese counterparts, and this collaboration has expanded in recent years from air and naval exercises to include joint amphibious exercises.

The American presence is supported by a substantial American defense infrastructure throughout Japan, including Okinawa. These major bases provide key logistical and communications support for U.S. operations throughout the Western Pacific, cutting travel time substantially compared with deployments from Hawaii or the West Coast of the United States. They also provide key listening posts to monitor Russian, Chinese, and North Korean military operations. This capability is supplemented by Japan's growing array of space systems, including new reconnaissance satellites.

The Japanese government "pays roughly \$2 billion per year to defray the cost of stationing U.S. military personnel in Japan." These funds cover approximately 75 percent of the cost of deployed U.S. forces, including utility and labor costs at U.S. bases, improvements to U.S. facilities in Japan, and the cost of relocating training exercises away from populated areas in Japan. Japan paid nearly all of the cost of new U.S. military facilities at Futenma and Iwakuni, as well as a third of the cost of new facilities in Guam. Japan purchases 90 percent of its weapons and defense systems from the United States.

At least since the 1990 Gulf War, the United States has sought to expand Japanese participation in international security affairs. Japan's political system, grounded in the country's constitution, legal decisions, and popular attitudes, has generally resisted this effort. Similarly, attempts to expand Japan's range of defense activities, especially away from the home islands, have often been vehemently opposed by Japan's neighbors, especially China and South Korea, because of unresolved differences on issues ranging from territorial claims and boundaries to historical grievances, including visits by Japanese leaders to the Yasukuni Shrine, a controversial memorial to Japan's

war dead that includes some who are deemed war criminals for their conduct in World War II. Even with the incremental changes allowing for broader Japanese defense contributions, these issues will doubtless continue to constrain Japan's contributions to the alliance.

These historical issues have been serious enough to torpedo efforts to improve defense cooperation between Seoul and Tokyo. South Korean-Japanese relations took a major downturn in 2018 when the South Korean Supreme Court ruled that Japanese companies could be forced to pay occupation reparations. In December 2018, an incident between a South Korean naval ship and Japanese air force plane further exacerbated tensions. Japan responded in July 2019 by imposing restrictions on exports to South Korea of three chemicals that are critical to the production of semiconductors and smartphones.7 In turn, Seoul threatened to withdraw from the bilateral General Security of Military Information Agreement (GSOMIA), which enables the sharing of classified intelligence and military information on the North Korean nuclear and missile threat. The Moon Jae-in administration relented and maintained the agreement, but there was public criticism of U.S. pressure.

Republic of Korea. The United States and the Republic of Korea signed their Mutual Defense Treaty in 1953. That treaty codified the relationship that had grown from the Korean War, when the United States dispatched troops to help South Korea defend itself against invasion by Communist North Korea. Since then, the two states have forged an enduring alliance supplemented by a substantial trade and economic relationship that includes a free trade agreement.

The U.S. is committed to maintaining 28,500 troops on the Korean Peninsula. This presence is centered mainly on the U.S. 2nd Infantry Division, rotating brigade combat teams, and a significant number of combat aircraft.

The U.S.-ROK defense relationship involves one of the more integrated and complex command-and-control structures. A United Nations Command (UNC) established in 1950

was the basis for the American intervention and remained in place after the armistice was signed in 1953. UNC has access to a number of bases in Japan in order to support U.N. forces in Korea. In concrete terms, however, it only oversaw South Korean and American forces as other nations' contributions were gradually withdrawn or reduced to token elements.

In 1978, operational control of frontline South Korean and American military forces passed from UNC to Combined Forces Command (CFC). Headed by the American Commander of U.S. Forces Korea, who is also Commander, U.N. Command, CFC reflects an unparalleled degree of U.S.–South Korean military integration. Similarly, the system of Korean Augmentees to the United States Army (KATUSA), which places South Korean soldiers into American units assigned to Korea, allows for an atypical degree of tactical-level integration and cooperation.

Under current command arrangements for the U.S. and ROK militaries, CFC would exercise operational control (OPCON) of all forces on the peninsula in time of war; peacetime control rests with respective national authorities, although the U.S. exercises peacetime OPCON over non-U.S., non-ROK forces located on the peninsula. In 2003, South Korean President Roh Moo-hyun, as agreed with the U.S., began to transfer wartime operational control from CFC to South Korean commanders, thereby establishing the ROK military as fully independent of the United States. This decision engendered significant opposition within South Korea and raised serious military questions about the transfer's impact on unity of command. Faced with various North Korean provocations, including a spate of missile tests as well as attacks on South Korean military forces and territory in 2010, Washington and Seoul agreed in late 2014 to postpone wartime OPCON transfer and adopt a conditions-based rather than timeline-based policy. President Moon Jae-in has advocated for an expedited OPCON transition before the end of his administration in 2021, but critical prerequisite conditions, including improvement in South

Korean forces and a decrease in North Korea's nuclear program, have yet to be met.<sup>8</sup>

The domestic political constraints under which South Korea's military operates are less stringent than those that govern the operations of the Japanese military. South Korea has fought alongside the United States in every conflict since the Korean War. Seoul sent 300,000 troops to the Vietnam War, and 5,000 of its soldiers were killed. At one point, it fielded the third-largest troop contingent in Iraq after the United States and Britain. It also has conducted anti-piracy operations off the coast of Somalia and has participated in peace-keeping operations in Afghanistan, East Timor, and elsewhere.

South Korean defense planning remains focused on North Korea, especially as Pyongyang has deployed its forces in ways that optimize a southward advance and has carried out several penetrations of ROK territory over the years by ship, submarine, commandos, and drones. The sinking of the South Korean frigate *Cheonan* and shelling of Yongpyeong-do in 2010, which together killed 48 military personnel, wounded 16, and killed two civilians, have only heightened concerns about North Korea.

Over the past several decades, the American presence on the peninsula has slowly declined. In the early 1970s, President Richard Nixon withdrew the 7th Infantry Division, leaving only the 2nd Infantry Division on the peninsula. Those forces have been positioned farther back so that there are now few Americans deployed on the Demilitarized Zone (DMZ).

Traditionally, U.S. military forces have engaged regularly in major exercises with their ROK counterparts, including the Key Resolve and Foal Eagle series, both of which involved the deployment of substantial numbers of forces and were intended partly to deter Pyongyang, as well as to give U.S. and ROK forces a chance to practice operating together. However, after the 2018 U.S.—North Korean Summit, President Donald Trump unilaterally announced that he was cancelling major bilateral military exercises because he thought they were provocative and expensive. This decision

was made without consulting the Department of Defense, U.S. Forces Korea, or allies South Korea and Japan. As of early 2020, the U.S. and South Korea have cancelled 14 exercises and have imposed constraints on additional exercises. The outbreak of COVID-19 in South Korea in 2020 led to additional curtailment of training activity, risking further degradation of allied deterrence and defense capabilities, but Seoul's rapid and effective epidemic response measures should eventually make it possible to ease some training restrictions.

The ROK government provides substantial resources to defray the costs of U.S. Forces Korea. The bilateral, cost-sharing Special Measures Agreement has offset the non-personnel costs of stationing U.S. forces in South Korea since 1991 and is renegotiated every five years. In the most recent agreement, in February 2019, South Korea agreed to increase its share of the cost to \$924 million, an increase of approximately 8 percent. Later in 2019, President Trump demanded a fivefold increase of \$5 billion a year, which Administration officials reportedly "justif[ied]...by saying it reflects the costs South Korea would incur if it takes operational control of combined U.S.-South Korean forces in the case of a conflict." This caused strains in the alliance, and on April 1, 2020, 4,000 South Korean workers were furloughed without pay. As of May 2020, the two sides had not resolved the negotiating impasse.

South Korea spends 2.6 percent of its gross domestic product (GDP) on defense—more than is spent by any European ally. Seoul absorbs costs not covered in the cost-sharing agreement, including paying \$10 billion, or 93 percent, of the cost of constructing Camp Humphreys, the largest U.S. base on foreign soil. During the past four years, South Korea has purchased \$13 billion in arms from the United States.<sup>11</sup>

**The Philippines.** America's oldest defense relationship in Asia is with the Philippines. The United States seized the Philippines from the Spanish more than a century ago as a result of the Spanish–American War and a subsequent conflict with Philippine indigenous forces.

Unlike other colonial powers, however, the U.S. also put in place a mechanism for the Philippines to gain its independence, transitioning through a period as a commonwealth until the archipelago received full independence in 1946. Just as important, substantial numbers of Filipinos fought alongside the United States against Japan in World War II, establishing a bond between the two peoples. Following World War II and after assisting the newly independent Filipino government against the Communist Hukbalahap movement in the 1940s, the United States and the Philippines signed a mutual defense treaty (MDT).

For much of the period between 1898 and the end of the Cold War, the largest American bases in the Pacific were in the Philippines, centered on the U.S. Navy base in Subic Bay and the complex of airfields that developed around Clark Field (later Clark Air Base). While the Philippines have never had the ability to provide substantial financial support for the American presence, the unparalleled base infrastructure provided replenishment and repair facilities and substantially extended deployment periods throughout the East Asian littoral.

These bases, being reminders of the colonial era, were often centers of controversy. In 1991, a successor to the Military Bases Agreement between the U.S. and the Philippines was submitted to the Philippine Senate for ratification. After a lengthy debate, the Philippines rejected the treaty, compelling American withdrawal from Philippine bases. Given the effects of the 1991 eruption of Mount Pinatubo, which devastated Clark Air Base and damaged many Subic Bay facilities, and the end of the Cold War, it was not felt that closure of the bases would fundamentally damage America's posture in the region.

Moreover, despite the closing of the American bases and consequent slashing of American military assistance, U.S.—Philippine military relations remained close, and assistance began to increase again after 9/11 as U.S. forces supported Philippine efforts to counter Islamic terrorist groups, including the Abu Sayyaf

Group (ASG), in the South of the archipelago. From 2002-2015, the U.S. rotated 500-600 special operations forces regularly through the Philippines to assist in counterterrorism operations. That operation, Joint Special Operations Task Force-Philippines (JSOTF-P), ended during the first part of 2015. The U.S. presence in Mindanao continued at a reduced level until the Trump Administration, alarmed by the terrorist threat there, began Operation Pacific Eagle-Philippines (OPE-P). The presence of 200-300 American advisers proved very valuable to the Philippines in its 2017 battle against Islamist insurgents in Marawi,12 and these advisers remain there as part of a continuing advise-and-assist mission. During the fourth quarter of 2019:

U.S. military support to the AFP... consisted primarily of advise and assist operations and intelligence, surveillance, and reconnaissance support. [U.S. Indo-Pacific Command] stated that this support led to the neutralization of two "significant [ISIS-EA] targets" this quarter. U.S. military contractors also provided casualty evacuation support to Philippine troops wounded fighting ISIS-EA in the remote, mountainous regions of the Sulu archipelago.<sup>13</sup>

This is all critical context for the current state of crisis in the U.S.–Philippines alliance. In February of 2020, Philippine President Rodrigo Duterte issued formal notice for the termination of the Philippines–United States Visiting Forces Agreement (VFA). The VFA is an instrument of the MDT. It comprises the procedures governing the deployment of U.S. forces and equipment to the Philippines. It also governs the application of domestic Philippine law to U.S. personnel, which is the most substantive part of the VFA and historically its most controversial.

The VFA undergirds a wide range of around 280 annual exercises between the U.S. and the Philippines. Its termination means the arrangements for each of these exercises or

groups of exercises will have to be negotiated individually. The U.S. conducts exercises with militaries throughout Southeast Asia on this basis. It does not conduct as many with them as it does with the Philippines, however. The loss of the VFA will slow their rate, condition their composition, and expose each element to political pressures in the Philippines. It will inhibit plans to implement base improvement and sharing arrangements under the U.S.—Philippine Enhanced Defense Cooperation Agreement (EDCA). And it will complicate situations in which the U.S. must respond quickly and in an integral way with Philippine forces, as in the case of Marawi in 2017.

Beyond the insurgency threat, the U.S. government has long made it clear that any attack on Philippine government ships or aircraft, or on the Philippine armed forces—by the PRC, for instance—would be covered under the MDT treaty.14 This makes it incumbent on the U.S.-consistent with its constitutional procedures—to come to the defense of the Philippines. In March 2019, Secretary of State Mike Pompeo reiterated this position and reaffirmed that the South China Sea is part of the Pacific for purposes of the treaty's application.<sup>15</sup> Termination of the VFA will make this more difficult-even at what has been a time of increasing Chinese pressure on the Philippine claims and territories under its jurisdiction in the South China Sea.

The history of U.S.–Philippines defense ties is a demonstration of both Philippine vulnerability as well as the relationship's resilience. In fact, until early 2020, the U.S. and the Philippines productively worked through waves created in their relationship by the election of Duterte four years ago. <sup>16</sup> The termination of the VFA will be a setback in that effort, but the long history of U.S.–Philippines history and vagaries of domestic politics offer hope for a solution that will continue to facilitate close U.S.–Philippines military cooperation.

**Thailand.** The U.S.-Thai security relationship is built on the 1954 Manila Pact, which established the now-defunct SEATO, and the 1962 Thanat-Rusk agreement.<sup>17</sup> These were

supplemented by the 2012 Joint Vision Statement for the Thai–U.S. Defense Alliance.<sup>18</sup> (In 2003, Thailand was designated a "major, non-NATO ally," a status that gave it improved access to American arms sales.)

Thailand's central location has made it an important component of the network of U.S. alliances in Asia. During the Vietnam War, American aircraft based in Thailand ranged from fighter-bombers and B-52s to reconnaissance aircraft. In the first Gulf War and again in the Iraq War, some of those same air bases were essential for the rapid deployment of American forces to the Persian Gulf. Access to these bases remains critical to U.S. global operations.

U.S. and Thai forces exercise together regularly, most notably in the annual Cobra Gold exercises, first begun in 1982. This builds on a partnership that began with the dispatch of Thai forces to the Korean War, where over 1,200 Thai troops died out of some 6,000 deployed. The Cobra Gold exercises are among the world's largest multilateral military exercises. In 2019, it involved roughly 10,000 troops from nine countries, including 4,500 from the U.S.<sup>19</sup>

U.S.-Thailand relations have been strained since 2006. A coup that year and another in 2014 limited military-to-military relations for more than 10 years. In part, this was due to standing U.S. law prohibiting assistance to governments resulting from coups against democratically elected governments. Some of it was due to policy choices by the U.S. government. The U.S. and Thailand, however, have managed to salvage much of their military-to-military cooperation despite this, and now look to normalize relations. This has been made possible by two developments. One, in 2019, Thailand held elections and installed a new civilian government. And two, Washington's new, concerted strategic focus on great-power competition with China. As a result, the U.S. accepted the Thai's flawed electoral model as an opportunity to boost the relationship.

Since the new Thai government was installed in July 2019, the U.S. has moved forward with \$575 million in new arms sales, including

60 Stryker armored vehicles (with more to come) and eight AH-6i reconnaissance helicopters, as well as hellfire missiles and other munitions, launchers, and equipment.<sup>20</sup> And in November 2019, Secretary of Defense Mark Esper and Thai Prime Minister/Defense Minister Prayut Chan-o-cha signed the Joint Vision Statement 2020 for the U.S.-Thai Defense Alliance. The new joint statement is similar to the 2012 version. It is a messaging document intended to stress the current relevancy of the military alliance, the founding documents of which can seem anachronistic when read alone. Indeed, this was an intensification of the Trump Administration's attempt to improve U.S.-Thai relations, which since early on sought to get around barriers imposed by its form of government and the previous U.S. Administration.

On the very same day, however, that the U.S.-Thai agreement was signed, Prayut also agreed to step up defense cooperation with China,<sup>21</sup> thereby underscoring the challenge in U.S.-Thailand relations. Thailand has been drifting from the U.S., and toward China, for many years. This process, underway since the end of the Vietnam War, has been accelerating partly because of expanding economic relations between the two states. Relations, however, are also expanding because of the aforementioned complications in U.S.-Thai relations arising from the political situation in Thailand, and a general difference in threat perception concerning China. The U.S. considers China its greatest long-term security challenge. Thailand has no such concerns.

Relations between the Thai and Chinese militaries also have improved over the years. Intelligence officers began formal meetings in 1988. Thai and Chinese military forces have engaged in joint naval exercises since 2005, joint counterterrorism exercises since 2007, and joint marine exercises since 2010 and conducted their first joint air force exercises in 2015. The Thais do more bilateral exercises with the Chinese than any other military in Southeast Asia. The Thais have been buying Chinese military equipment for many years. Purchases

in recent years have included significant buys of battle tanks and armored personnel carriers. According to the Stockholm International Peace Research Institute (SIPRI), from 2006–2019, China has been a bigger supplier than the U.S., although behind Sweden and Ukraine. Among these purchases, in 2017, Thailand made the first of three planned submarine purchases in one of the most expensive arms deals in its history. Submarines could be particularly critical to Sino–Thai relations because the attendant training and maintenance will require a greater Chinese military presence at Thai military facilities.

**Australia.** Australia is one of America's most important allies in the Asia-Pacific. U.S.-Australia security ties date back to World War I, when U.S. forces fought under Australian command on the Western Front in Europe, and deepened during World War II when, after Japan commenced hostilities in the Western Pacific (and despite British promises), Australian forces committed to the North Africa campaign were not returned to defend the continent. As Japanese forces attacked the East Indies and secured Singapore, Australia turned to the United States to bolster its defenses, and American and Australian forces cooperated closely in the Pacific War. Those ties and America's role as the main external supporter for Australian security were codified in the Australia-New Zealand-U.S. (ANZUS) pact of 1951.

A key part of the Obama Administration's "Asia pivot" was rotation of additional United States Air Force units and Marines through northern Australia. After seven years of increasingly larger rotations, the goal of a 2,500-Marine six-month rotation was reached in 2019. The 2019 contingent was the most capable to date. Among other equipment accompanying the Marines were 22 Osprey tiltrotor aircraft, helicopters, and advanced radars. The 2020 deployment went ahead with only 1,200 Marines and less equipment for reasons associated with the COVID-19 crisis. <sup>28</sup>

The U.S. and Australia have also worked to upgrade air force and naval facilities in the area

to "accommodate stealth warplanes and longrange maritime patrol drones" and to provide refueling for visiting warships.<sup>29</sup> Among other things, they are actively partnering on the development of a joint naval base on Papua New Guinea's Manus Island.<sup>30</sup>

Since 2017, U.S.-Australia air force cooperation—an original key element of the "pivot"—has been particularly prominent in Australia's Northern Territory. In 2019, Enhanced Air Cooperation (EAC), a program operated out of Australia's northern bases, "focused...on fifth-generation fighter integration, aero-medical evacuation and aircraft maintenance" and "involved U.S. F-22 Raptor, F-35B Lightning II, F-16 Fighting Falcon and F-15 Eagle fighters, B-52 strategic bombers and C-130J Super Hercules transports..." 31

Meanwhile, the two nations engage in a variety of security cooperation efforts, including joint space surveillance activities. These were codified in 2014 with an agreement that allows space information data to be shared among the U.S., Australia, the U.K., and Canada.<sup>32</sup>

The two nations' chief defense and foreign policy officials meet annually (most recently in August 2019) in the Australia–United States Ministerial (AUSMIN) process to address such issues of mutual concern as security developments in the Asia–Pacific region, global security and development, and bilateral security cooperation. <sup>33</sup> Australia has also granted the United States access to a number of joint facilities, including space surveillance facilities at Pine Gap, which has been characterized as "arguably the most significant American intelligence-gathering facility outside the United States," <sup>34</sup> and naval communications facilities on the North West Cape of Australia. <sup>35</sup>

Australia and the United Kingdom are two of America's closest partners in the defense industrial sector. In 2010, the United States approved Defense Trade Cooperation Treaties with Australia and the U.K. that allow for the expedited and simplified export or transfer of certain defense services and items between the U.S. and its two key partners without the need for export licenses or other approvals under

the International Traffic in Arms Regulations. This also allows for much greater integration among the American, Australian, and British defense industrial establishments.<sup>36</sup>

**Singapore.** Singapore is America's closest non-ally partner in the Western Pacific. The agreements which support the security relationship are the 2015 U.S.-Singapore Defense Cooperation Agreement (DCA)—which is an update of a similar 2005 agreement—and the 1990 Memorandum of Understanding Regarding United States Use of Facilities in Singapore—which was renewed in 2019 for another 15 years. Pursuant to these agreements and other understandings, Singapore hosts U.S. naval ships and aircraft, as well as the principle logistics support node for the U.S. Seventh Fleet.

Singapore trains "approximately 1,000 military personnel in the United States each year" on American-produced equipment like F-15SG and F-16C/D fighter aircraft and CH-47 Chinook and AH-64 Apache helicopters. Singapore has most recently been approved to buy the F-35, which makes it the fourth country in the region to do so (the others being American allies Australia, Japan, and South Korea).

**New Zealand.** For much of the Cold War, U.S. defense ties with New Zealand were similar to those between America and Australia. In 1986, as a result of controversies over U.S. Navy employment of nuclear power and the possible deployment of U.S. naval vessels with nuclear weapons, the U.S. suspended its obligations to New Zealand under the 1951 ANZUS Treaty. Defense relations improved, however, in the early 21st century as New Zealand committed forces to Afghanistan and dispatched an engineering detachment to Iraq. The 2010 Wellington Declaration and 2012 Washington Declaration, while not restoring full security ties, allowed the two nations to resume high-level defense dialogues.<sup>39</sup> As part of this warming of relations, New Zealand rejoined the multinational U.S.-led RIMPAC (Rim of the Pacific Exercises) naval exercises in 2012 and has participated in each iteration since then.

In 2013, U.S. Secretary of Defense Chuck Hagel and New Zealand Defense Minister Jonathan Coleman announced the resumption of military-to-military cooperation, and in July 2016, the U.S. accepted an invitation from New Zealand to make a single port call, reportedly with no change in U.S. policy to confirm or deny the presence of nuclear weapons on the ship.<sup>40</sup> At the time of the visit in November 2016, both sides claimed to have satisfied their respective legal requirements.<sup>41</sup> The Prime Minister expressed confidence that the vessel was not nuclear-powered and did not possess nuclear armaments, and the U.S. neither confirmed nor denied this. The visit occurred in a unique context, including an international naval review and relief response to the Kaikoura earthquake, but the arrangement may ultimately serve as a model for long-term solution to the nuclear impasse between the two nations. Since then, there have been several other ship visits by the U.S. Coast Guard, and in 2017, New Zealand lent the services of one its naval frigates to the U.S. Seventh Fleet following a deadly collision between the destroyer USS Fitzgerald and a Philippine container ship that killed seven American sailors.42

New Zealand is a member of the elite "five eyes" intelligence alliance with the U.S., Canada, Australia, and the U.K.

**Taiwan.** When the United States shifted its recognition of the government of China from the Republic of China (on Taiwan) to the People's Republic of China (PRC, the mainland), it also declared certain commitments concerning the security of Taiwan. These commitments are embodied in the Taiwan Relations Act (TRA) and the subsequent "Six Assurances."

The TRA is an American law and not a treaty. Under the TRA, the United States maintains programs, transactions, and other relations with Taiwan through the American Institute in Taiwan (AIT). Except for the Sino–U.S. Mutual Defense Treaty, which had governed U.S. security relations with Taiwan and was terminated by President Jimmy Carter following the shift in recognition to the PRC, all other treaties and international agreements made between

the Republic of China and the United States remain in force.

Under the TRA, it is the policy of the United States "to provide Taiwan with arms of a defensive character." The TRA also states that the U.S. "will make available to Taiwan such defense articles and services in such quantity as may be necessary to enable Taiwan to maintain a sufficient self-defense capability." The U.S. has implemented these provisions of the TRA through sales of weapons to Taiwan.

The TRA states that it is also U.S. policy "to consider any effort to determine the future of Taiwan by other than peaceful means, including by boycotts or embargoes, a threat to the peace and security of the Western Pacific area and of grave concern to the United States" and "to maintain the capacity of the United States to resist any resort to force or other forms of coercion that would jeopardize the security, or the social or economic system, of the people on Taiwan."<sup>45</sup> To this end:

The President is directed to inform the Congress promptly of any threat to the security or the social or economic system of the people on Taiwan and any danger to the interests of the United States arising therefrom. The President and the Congress shall determine, in accordance with constitutional processes, appropriate action by the United States in response to any such danger.<sup>46</sup>

Supplementing the TRA are the "Six Assurances" issued by President Ronald Reagan in a secret July 1982 memo, later publicly released and the subject of a Senate hearing. These assurances were intended to moderate the third Sino–American communiqué, itself generally seen as one of the "Three Communiqués" that form the foundation of U.S.–PRC relations. These assurances of July 14, 1982, were that:

In negotiating the third Joint Communiqué with the PRC, the United States:

 has not agreed to set a date for ending arms sales to Taiwan;

- 2. has not agreed to hold prior consultations with the PRC on arms sales to Taiwan:
- 3. will not play any mediation role between Taipei and Beijing;
- 4. has not agreed to revise the Taiwan Relations Act;
- has not altered its position regarding sovereignty over Taiwan;
- 6. will not exert pressure on Taiwan to negotiate with the PRC.<sup>47</sup>

Although the United States sells Taiwan a variety of military equipment and sends observers to its major annual exercises, it does not engage in joint exercises with the Taiwan armed forces. Some Taiwan military officers, however, attend professional military education institutions in the United States. There also are regular high-level meetings between senior U.S. and Taiwan defense officials, both uniformed and civilian.

The United States does not maintain any bases in Taiwan. In 2017, however, the U.S. Congress authorized the U.S. Department of Defense to consider ship visits to Taiwan as part of the FY 2018 National Defense Authorization Act (NDAA). Coupled with other recently passed legislation, including the 2018 Taiwan Travel Act and successive NDAAs, Congress is sending strong signals of support for greater military-to-military interaction. This could lead to a significant increase in the number and/or grade of American military officers visiting Taiwan in the coming years.

Vietnam, Malaysia, and Indonesia. The U.S. has security relationships with several key Southeast Asian countries. None of these relationships is as extensive and formal as America's relationship with Singapore and its treaty allies, but all are of growing significance. The U.S. "rebalance" to the Pacific incorporated a policy of "rebalance within the rebalance" that included efforts to expand relations with this second tier of America's security partners and diversify the geographical spread of forward-deployed U.S. forces. This requirement remains in effect.

Since shortly after the normalization of diplomatic relations between the two countries in 1995, the U.S. and Vietnam also have gradually normalized their defense relationship. The relationship was codified in 2011 with a Memorandum of Understanding Advancing Bilateral Defense Cooperation that covers five areas of operations, including maritime security. The MOU was updated with the 2015 Joint Vision Statement on Defense Cooperation, which includes a reference to "cooperation in the production of new technologies and equipment" and is implemented under a three-year 2018-2020 Plan of Action for United States-Viet Nam Defense Cooperation agreed upon in 2017.48

The most significant development with respect to security ties over the past several years has been the relaxation of the ban on sales of arms to Vietnam. The U.S. lifted the embargo on maritime security–related equipment in the fall of 2014 and then ended the embargo on arms sales completely in 2016. The embargo had long served as a psychological obstacle to Vietnamese cooperation on security issues, but lifting it does not necessarily change the nature of the articles that are likely to be sold.

Transfers to date have been to the Vietnamese Coast Guard. These include the provision under the Excess Defense Articles (EDA) program of a decommissioned Hamilton-class cutter and 18 Metal Shark patrol boats, as well as infrastructure support.<sup>49</sup> Two dozen more such boats are on order, and in 2019, the U.S. contracted to provide six unmanned aerial vehicles (UAVs) to Vietnam for its Coast Guard.50 Discussions of bigger-ticket items like P-3 maritime patrol aircraft, although discussed since the relaxation of the embargo, have yet to be concluded. In his 2019 force posture statement, INDOPACOM Commander Admiral Philip Davidson cited as a priority "enhancing Vietnam's maritime capacity, which will be bolstered by Vietnam's acquisition of Scan Eagle UAVs, T-6 trainer aircraft, and a second U.S. Coast Guard cutter."51 The cutter was subsequently announced by Secretary of Defense Mark Esper the following November in a visit to Vietnam.<sup>52</sup>

The Cooperative Humanitarian and Medical Storage Initiative (CHAMSI) is designed to enhance cooperation on humanitarian assistance and disaster relief by, among other things, prepositioning related American equipment in Da Nang, Vietnam.<sup>53</sup> During Vietnamese Prime Minister Nguyen Xuan Phuc's visit to Washington in 2017, the U.S. and Vietnam reaffirmed their commitment to this initiative, which is being implemented. In 2018, Vietnam participated in RIMPAC for the first time.

There have been two high-profile port calls to Vietnam since 2018. Early that year, the USS *Carl Vinson* visited Da Nang with its escort ships in the first port call by a U.S. aircraft carrier since the Vietnam War, and another carrier, USS *Theodore Roosevelt*, visited Da Nang in March 2020. These are significant signals from Vietnam about its receptivity to partnership with the U.S. military—messages very subtly underscored by Vietnam's 2019 Viet Nam National Defence white paper.<sup>54</sup>

Nevertheless, significant limits on the U.S.–Vietnam security relationship persist, including a Vietnamese defense establishment that is very cautious in its selection of defense partners, party-to-party ties between the Communist Parties of Vietnam and China, and a Vietnamese foreign policy that seeks to balance relationships with all major powers. The U.S., like others among Vietnam's security partners, remains officially restricted to one port call a year, with an additional one to two calls on Vietnamese bases being negotiable.

The U.S. and Malaysia, despite occasional political differences, "have maintained steady defense cooperation since the 1990s." Examples of this cooperation include Malaysian assistance in the reconstruction of Afghanistan and involvement in anti-piracy operations "near the Malacca Strait and...off the Horn of Africa" as well as "jungle warfare training at a Malaysian facility, bilateral exercises like Kris Strike, and multilateral exercises like Cobra Gold, which is held in Thailand and involves thousands of personnel from several Asian countries plus the United States." The U.S.

has occasionally flown P-3 and/or P-8 patrol aircraft out of Malaysian bases in Borneo.

The U.S. relationship with Malaysia was strengthened under President Barack Obama and has continued on a positive trajectory under the Trump Administration. During former Prime Minister Najib Razak's 2017 visit to Washington, Najib and President Trump committed to strengthening their two countries' bilateral defense ties, including cooperation in the areas of "maritime security, counterterrorism, and information sharing between our defense and security forces." They also "committed to pursu[ing] additional opportunities for joint exercises and training."56 To this end, in 2018, Malaysia for the first time sent a warship to participate in U.S.-led RIMPAC exercises.<sup>57</sup> The new government in Malaysia is not likely to reverse these gains. Close U.S.-Malaysia defense ties can be expected to continue, albeit quietly.

The U.S.-Indonesia defense relationship was revived in 2005 following a period of estrangement caused by American concerns about human rights. It now includes regular joint exercises, port calls, and sales of weaponry. Because of their impact on the operating environment in and around Indonesia, as well as the setting of priorities in the U.S.-Indonesia relationship, the U.S. is also working closely with Indonesia's defense establishment to institute reforms in Indonesia's strategic defense planning processes.

U.S.-Indonesia military cooperation is encompassed by two agreements, the 2010 Framework Arrangement on Cooperative Activities in the Field of Defense and the 2015 Joint Statement on Comprehensive Defense Cooperation,<sup>58</sup> as well as the 2010 Comprehensive Partnership. These agreements encompass "more than 200 bilateral military engagements a year" and cooperation in six areas: "maritime security and domain awareness; defense procurement and joint research and development; peacekeeping operations and training; professionalization; HA/DR [High Availability/Disaster Recovery]; and countering transnational threats such as terrorism and piracy."59

The agreements also frame multiple arms transfers. Most significantly, in 2018, the United States carried through on the transfer of 24 refurbished F-16s to Indonesia under its EDA program and a sale of eight new Apache helicopters. In November 2019, it was reported that Indonesia was planning "to submit a request to buy two squadrons of Lockheed Martin F-16 Block 72 fighters by January 2020." 60

The U.S. is working across the board at modest levels of investment to help build Southeast Asia's maritime security capacity. In August 2018, for example, Secretary of State Mike Pompeo announced the commitment of \$290.5 million in Foreign Military Financing to strengthen maritime security, HA/DR, and peacekeeping capabilities in Southeast Asia. Perhaps most notable, however, is the Maritime Security Initiative (MSI) announced by Secretary of Defense Ashton Carter as the Southeast Asia Maritime Security Initiative in 2015, which pledged \$425 million in equipment and training for Southeast Asia over a five-year period and was authorized by Congress in 2016 for a five-year term from 2016-2020. The 2019 National Defense Authorization Act reauthorized the program through 2025, rebranding it the Indo-Pacific Maritime Security Initiative and making Bangladesh, Sri Lanka, and India eligible for funds.61

Afghanistan. On October 7, 2001, U.S. forces invaded Afghanistan in response to the September 11, 2001, terrorist attacks on the United States. This marked the beginning of Operation Enduring Freedom to combat al-Qaeda and its Taliban supporters. The U.S., in alliance with the U.K. and the anti-Taliban Afghan Northern Alliance forces, ousted the Taliban from power in December 2001. Most Taliban and al-Qaeda leaders fled across the border into Pakistan's Federally Administered Tribal Areas, where they regrouped and initiated an insurgency in Afghanistan in 2003.

In August 2003, NATO joined the war in Afghanistan and assumed control of the International Security Assistance Force (ISAF). In 2011, at the height of the war, there were troop-contributing nations and nearly

150,000 NATO and U.S. forces on the ground in Afghanistan.

On December 28, 2014, NATO formally ended combat operations and relinquished responsibility to the Afghan security forces, which numbered around 352,000 (including army and police). After Afghan President Ashraf Ghani signed a bilateral security agreement with the U.S. and a Status of Forces Agreement with NATO, the international coalition launched Operation Resolute Support to train and support Afghan security forces. Most U.S. and NATO forces are stationed at bases in Kabul, with tactical advise-and-assist teams located there and in Mazar-i-Sharif, Herat, Kandahar, and Laghman. Herat, Kandahar, and Laghman.

In August 2017, while declining to announce specific troop levels, President Trump recommitted America to the effort in Afghanistan and announced that "[c]onditions on the ground—not arbitrary timetables—will guide our strategy from now on."<sup>64</sup> He also suggested that his Administration would pursue a negotiated settlement with the Taliban.

In 2018, U.S. Special Envoy Zalmay Khalilzad initiated talks with the Taliban in Doha, Qatar, in an attempt to find a political solution to the fighting. After months of uncertainty, in February 2020, Ambassador Khalilzad and Taliban co-founder and chief negotiator Abdul Ghani Baradar signed a tentative peace agreement in Doha. There are three key points to the agreement:

First, the Taliban agreed that it will not allow al-Qaeda or any other transnational terrorist group to use Afghan soil. To this end, the Taliban agreed to "guarantees and enforcement mechanisms" to make sure that this remains the case. However, it remains unclear how the so-called guarantees and enforcement mechanisms will work in practice.

Second, the United States and its allies agreed to a timeline for the withdrawal of all forces from Afghanistan. In the short to medium term, U.S. forces will drop to 8,600—roughly the number of troops in Afghanistan when Trump entered office—from the 13,000 in country when negotiations began.

International coalition forces will reduce their troop presence proportionately. Then, if the U.S. assesses that the Taliban is upholding its end of the bargain, the remaining U.S. and international forces will withdraw nine and a half months later.

Third, and most important, talks within Afghanistan between the government and the Taliban will begin. This is the most crucial stage in the peace process. There will be no enduring and meaningful deal unless there is an agreement between the Afghan government and the Taliban. At the time this book was being prepared, because of continued Taliban attacks (albeit at reduced levels when compared to the period before the agreement in Doha), domestic political turmoil in Afghanistan following the 2019 presidential elections, and disagreements between the Afghan government and the Taliban regarding prisoner exchanges, there had been little progress. The COVID-19 global pandemic has added an additional hurdle.

Pakistan. During the early stages of the war in Afghanistan, the U.S. and NATO relied heavily on logistical supply lines running through Pakistan to resupply anti-Taliban coalition forces. Supplies and fuel were carried on transportation routes from the port at Karachi to Afghan–Pakistani border crossing points at Torkham in the Khyber Pass and Chaman in Baluchistan province. For roughly the first decade of the war, about 80 percent of U.S. and NATO supplies traveled through Pakistani territory. This amount has decreased progressively as the U.S. and allied troop presence has shrunk.

U.S.–Pakistan relations suffered an acrimonious rupture in 2011 when U.S. special forces conducted a raid on Osama bin Laden's hideout in Abbottabad not far from facilities run by the Pakistani military. In 2017, President Donald Trump suspended billions of dollars of U.S. military assistance to Pakistan and declared that "[w]e can no longer be silent about Pakistan's safe havens for terrorist organizations, the Taliban, and other groups that pose a threat to the region and beyond."

Between 2001 and 2016, Pakistan received approximately \$30 billion in aid and "reimbursements" from the U.S. in the form of coalition support funds (CSF) for its military deployments and operations along the border with Afghanistan. Pakistan has periodically staged offensives into the Federally Administered Tribal Areas, although its operations have tended to target anti-Pakistan militant groups like the Pakistani Taliban rather than those attacking Afghanistan and U.S.-led coalition forces operating there. In 2016, reflecting a trend of growing congressional resistance to military assistance for Pakistan, Congress blocked funds for the provision of eight F-16s to Pakistan.

According to the Congressional Research Service (CRS), U.S. aid appropriations and military reimbursements have fallen continuously since 2013, from \$2.60 billion in that year to \$2.18 billion in 2014, \$1.60 billion in 2015, \$1.20 billion in 2016, \$590 million in 2017, and \$108 million in 2018. This is primarily the product of a major drop in reimbursements from CSF, which once accounted for roughly half of all U.S. aid to Pakistan. This fell from \$1.20 billion in 2014 to \$700 million in 2015, \$550 million in 2016, and zero dollars in 2017, 2018, and 2019. Since 2015, U.S. Administrations have refused to certify that Pakistan has met requirements to crack down on the Haqqani Network, an Afghan terrorist group that resides in northern Pakistan. As the CRS notes, "The NDAA for FY2019 revamped the CSF program, authorizing \$350 million to support security enhancement activities along Pakistan's western border, subject to certification requirements that have not been met to date."66

As frustration with Pakistan has mounted on Capitol Hill, the Trump Administration has signaled a series of measures designed to hold Pakistan to account for its "double game."<sup>67</sup> In 2018, the U.S. military suspended all \$800 million in Coalition Support Funds "due to a lack of Pakistani decisive actions in support of the [U.S.] South Asia Strategy."<sup>68</sup> The Administration has also supported both Pakistan's addition to the Financial Action Task Force (FATF)

"grey list" for failing to fulfill its obligations to prevent the financing of terrorism and its designation as a "Countr[y] of Particular Concern under the International Religious Freedom Act of 1998 for having engaged in or tolerated 'systematic, ongoing, [and] egregious violations of religious freedom." <sup>69</sup> Throughout 2019 and early 2020, Pakistan lobbied to be taken off the FATF grey list while others argued for moving it to the organization's "black list." As of April 2020, Pakistan remained on the grey list.

India. During the Cold War, U.S.-Indian military cooperation was minimal except for a brief period during the Sino-Indian border war in 1962 when the U.S. supplied India with arms and ammunition. The rapprochement was short-lived, however, and the U.S. suspended aid to India following the Second Indo-Pakistan War of 1965. The Indo-U.S. relationship was again characterized by suspicion and mistrust, especially during the 1970s under the Nixon Administration. The principal source of tension was India's robust relationship with Moscow, with which it signed a major defense treaty in 1971, and the U.S. provision of military aid to Pakistan. America's ties with India hit a nadir during the 1971 Indo-Pakistani war when the U.S. deployed the aircraft carrier USS Enterprise toward the Bay of Bengal in a show of support for Pakistani forces.

Military ties between the U.S. and India have improved significantly over the past decade as the two sides have moved toward establishment of a strategic partnership based on their mutual concern about rising Chinese military and economic influence and converging interests in countering regional terrorism. The U.S. has contracted to supply between \$15 billion and \$20 billion worth of U.S. military equipment to India, including C-130J and C-17 transport aircraft, P-8 maritime surveillance aircraft, Chinook airlift helicopters, Apache attack helicopters, artillery batteries, and AN-TPQ-37 Firefinder radar. The two countries also have several information-sharing and intelligence-sharing agreements in place, including one that covers "white" or commercial shipping in the Indian Ocean.

Defense ties between the two countries are poised to expand further as India moves forward with an ambitious military modernization program. In 2015, the U.S. and India agreed to renew and upgrade their 10-year Defense Framework Agreement. During Prime Minister Narendra Modi's visit to the U.S. in June 2016, the two governments finalized the text of a logistics and information-sharing agreement that would allow each country to access the other's military supplies and refueling capabilities through ports and military bases. The signing of the agreement, formally called the Logistics Exchange Memorandum of Agreement (LEMOA), marked a major milestone in the Indo-U.S. defense partnership. During the June 2016 visit, the U.S. also designated India a "major defense partner," a designation unique to India that is intended to facilitate its access to American defense technology. Since then, Indian and U.S. warships have begun to offer each other refueling and resupply services at sea.

The Trump Administration subsequently reaffirmed this status<sup>70</sup> and has taken several additional steps to advance the defense relationship. A Communications and Information Security Memorandum of Agreement (CISMOA) negotiated in 2018 allows for the exchange of encrypted communications and communications equipment. Also in 2018, the Trump Administration granted India Strategic Trade Authorization-1 (STA-1), which eases export control regulations on arms sales to India, among other things. India is only the third Asian country after Japan and South Korea to be granted STA-1 status. The same year, India established a permanent naval attaché representative to U.S. Central Command in Bahrain, fulfilling a long-standing request from New Delhi.

New Delhi and Washington regularly hold joint annual military exercises across all services, including the Yudh Abhyas army exercises, Red Flag air force exercises, and Malabar naval exercise, which added Japan as a regular participant in 2012. In late 2019, India and the U.S. held their first "tri-service" military

exercise and signed an Industrial Security Annex agreement that will facilitate defense cooperation and the sharing of sensitive information with India's private defense sector.

During a trip to India in February 2020, President Trump signed an additional \$3.5 billion in defense deals, including arrangements for the sale of additional Apache attack helicopters and MH-60 Seahawk anti-submarine warfare helicopters. Negotiations on the last foundational enabling military cooperation agreement, the Basic Exchange and Cooperation Agreement (BECA), which would facilitate the exchange of geospatial intelligence and navigation services, are ongoing, and the agreement is likely to be signed in 2020.

#### Quality of Key Allied or Partner Armed Forces in Asia

Because of the lack of an integrated, regional security architecture along the lines of NATO, the United States partners with most of the nations in the Asian region on a bilateral basis. This means that there is no single standard to which all of the local militaries aspire; instead, there is a wide range of capabilities that are influenced by local threat perceptions, institutional interests, physical conditions, historical factors, and budgetary considerations.

Moreover, most Asian militaries have limited combat experience, particularly in high-intensity air or naval combat. Some, like Malaysia, have never fought an external war since gaining independence in the mid-20th century. The Indochina wars, the most recent high-intensity conflicts, are now nearly a half-century old. It is therefore unclear how well Asian militaries have trained for future warfare and whether their doctrine will meet the exigencies of wartime realities.

Based on examinations of equipment, however, we assess that several Asian allies and friends have substantial potential military capabilities supported by robust defense industries and significant defense spending. The defense budgets of Japan, South Korea, and Australia are estimated to be among the world's 15 largest, and the three countries' military forces field some of the world's most advanced weapons, including F-15s in the Japan Air Self Defense Force and ROK Air Force; airborne early warning (AEW) platforms; Aegis-capable surface combatants and modern diesel-electric submarines; and third-generation main battle tanks. As noted, all three nations are also involved in the production and purchase of F-35 fighters.

At this point, both the Japanese and Korean militaries are arguably more capable than most European militaries, at least in terms of conventional forces. Japan's Self Defense Forces, for example, field more tanks, principal surface combatants, and combat-capable aircraft (617, 51, and 546, respectively) than their British counterparts field (227, 20, and 222, respectively). Similarly, South Korea fields a larger military of tanks, principal surface combatants, and combat-capable aircraft (more than 2,321, 26, and 563, respectively) than their German counterparts field (225, 15, and 228, respectively).

Both the ROK and Japan are also increasingly interested in developing missile defense capabilities, including joint development and coproduction in the case of Japan. After much negotiation and indecision, South Korea deployed America's THAAD missile defense system on the peninsula in 2017. It is also pursuing an indigenous missile defense capability. As for Japan, its Aegis-class destroyers are equipped with SM-3 missiles, and it decided in 2017 to install the Aegis Ashore missile defense system to supplement its Patriot missile batteries.<sup>73</sup>

Australia also has very capable armed forces. They are smaller than NATO militaries but have major operational experience, having deployed both to Iraq and to Afghanistan as well as to help the Philippines with its Southern insurgency. Australia's military is currently involved in 13 different operations from the Middle East to the South China Sea.<sup>74</sup>

Singapore's small population and physical borders limit the size of its military, but in terms of equipment and training, it has Southeast Asia's largest defense budget<sup>75</sup> and

fields some of the region's highest-quality forces. Singapore's ground forces can deploy third-generation Leopard II main battle tanks, and its fleet includes four conventional submarines (to be replaced by four new, more capable submarines from Germany)76 and six frigates and six missile-armed corvettes. Its air force not only has F-15E Strike Eagles and F-16s, but also has one of Southeast Asia's largest fleets of airborne early warning and control aircraft (G550-AEW aircraft) and a squadron of KC-130 tankers that can help to extend range or time on station.<sup>77</sup> In January 2020, Singapore was cleared by the U.S. State Department to purchase 12 F-35 combat aircraft, with an initial order placed for four aircraft and an option to purchase an additional eight.

At the other extreme, the Armed Forces of the Philippines are among the region's weakest military forces. Having long focused on waging counterinsurgency campaigns while relying on the United States for its external security, the Philippines spent only 1.1 percent of GDP on its military in 2018 (the most recent year for which SIPRI data are available).78 In absolute numbers, its defense budget in 2019 was \$3.24 billion.79 The most modern ships in the Philippine navy are three former U.S. Hamilton-class Coast Guard cutters. In 2017, however, South Korea completed delivery of 12 light attack fighter aircraft to the Philippines; the Philippine air force had possessed no jet fighter aircraft since 2005 when the last of its F-5s were decommissioned. The Duterte government has expressed interest in supplementing its current fleet with a follow-on purchase of 12 more.80

The armed forces of American allies from outside the region, particularly those of France and the United Kingdom, should also be mentioned. France has overseas bases in New Caledonia and the South Pacific, locally based assets, and 2,900 personnel in the region.<sup>81</sup> It also conducts multiple naval deployments a year out of Metropolitan France. The U.K. is also very active in the region, and given its unparalleled integration with U.S. forces, can employ its capability directly in pursuit of shared objectives. It has a naval logistics facility in

Singapore and Royal Gurkhas stationed in Brunei and has been an integral part of a U.S.-led mission to monitor seaborne evasions.

#### Current U.S. Presence in Asia

**U.S. Indo-Pacific Command.** Established in 1947 as U.S. Pacific Command (PACOM), USINDOPACOM is the oldest and largest of America's unified commands. According to its Web site:

USINDOPACOM protects and defends, in concert with other U.S. Government agencies, the territory of the United States, its people, and its interests. With allies and partners, USINDOPACOM is committed to enhancing stability in the Asia-Pacific region by promoting security cooperation, encouraging peaceful development, responding to contingencies, deterring aggression, and, when necessary, fighting to win. This approach is based on partnership, presence, and military readiness.<sup>82</sup>

USINDOPACOM's area of responsibility (AOR) includes not only the expanses of the Pacific, but also Alaska and portions of the Arctic, South Asia, and the Indian Ocean. Its 36 nations represent more than 50 percent of the world's population and include two of the three largest economies and nine of the 10 smallest; the most populous nation (China); the largest democracy (India); the largest Muslim-majority nation (Indonesia); and the world's smallest republic (Nauru). The region is a vital driver of the global economy and includes the world's busiest international sealanes and nine of its 10 largest ports. By any meaningful measure, the Indo-Pacific is also the world's most militarized region, with eight of its 10 largest standing militaries and five of its declared nuclear nations.83

Under INDOPACOM are a number of component commands, including:

• **U.S. Army Pacific.** USARPAC is the Army's component command in the

Pacific. Headquartered in Hawaii and with approximately 80,000 soldiers, it supplies Army forces as necessary for various global contingencies and "has sent peacekeeping forces to the Sinai Peninsula, Haîti, East Timor, and Bosnia." Among its 12 subordinate commands are U.S. Army Japan, the 500th Military Intelligence Brigade, and U.S. Army Alaska.

- U.S. Pacific Air Force. PACAF is responsible for planning and conducting defensive and offensive air operations in the Asia–Pacific region. It has three numbered air forces under its command: 5th Air Force in Japan; 7th Air Force in Korea; and 11th Air Force, headquartered in Alaska. These air forces field two squadrons of F-15s, two squadrons of F-22s, five squadrons of F-16s, and a single squadron of A-10 ground attack aircraft as well as two squadrons of E-3 early-warning aircraft, tankers, and transports. Other forces that regularly come under PACAF command include B-52, B-1, and B-2 bombers.
- **U.S. Pacific Fleet.** PACFLT normally controls all U.S. naval forces committed to the Pacific, which usually represents 60 percent of the Navy's fleet. It is organized into Seventh Fleet, headquartered in Japan, and Third Fleet, headquartered in California. Seventh Fleet comprises the forward-deployed element of PACFLT and includes the only American carrier strike group (CTF-70, ported at Yokosuka, Japan) and amphibious group (CTF-76, ported at Sasebo, Japan) that are home-ported abroad. The Third Fleet's AOR spans the West Coast of the United States to the International Date Line and includes the Alaskan coastline and parts of the Arctic. In recent years, the involvement of the Third Fleet's five carrier strike groups in the Western Pacific has been eased by the blurring of this boundary between the two fleets' areas of operation under a concept called "Third Fleet Forward." Beginning

- in 2015, the conduct of Freedom of Navigation Operations (FONOPS) that challenge excessive maritime claims, a part of the Navy's mission since 1979, has assumed a higher profile as a result of several well-publicized operations in the South China Sea. Under the Trump Administration, the frequency of these operations has increased significantly.
- U.S. Marine Forces Pacific. With its headquarters in Hawaii, MARFORPAC controls elements of the U.S. Marine Corps operating in the Asia-Pacific region. Because of its extensive responsibilities and physical span, MARFORPAC controls two-thirds of Marine Corps forces: the I Marine Expeditionary Force (MEF), centered on the 1st Marine Division, 3rd Marine Air Wing, and 1st Marine Logistics Group, and the III Marine Expeditionary Force, centered on the 3rd Marine Division, 1st Marine Air Wing, and 3rd Marine Logistics Group. The I MEF is headquartered at Camp Pendleton, California, and the III MEF is headquartered on Okinawa, although each has various subordinate elements deployed at any time throughout the Pacific on exercises, to maintain presence, or engaged in other activities. MARFORPAC is responsible for supporting three different commands: It is the U.S. Marine Corps component of USINDOPACOM, provides the Fleet Marine Forces to PACFLT, and provides Marine forces for U.S. Forces Korea (USFK).
- U.S. Special Operations Command Pacific. SOCPAC has operational control of various special operations forces, including Navy SEALs; Naval Special Warfare units; Army Special Forces (Green Berets); and Special Operations Aviation units in the Pacific region, including elements in Japan and South Korea. It supports the Pacific Command's Theater Security Cooperation Program as well as other plans and contingency responses. SOCPAC

forces also support various operations in the region other than warfighting, such as counterdrug operations, counterterrorism training, humanitarian assistance, and demining activities.

• U.S. Forces Korea and U.S. Eighth
Army. Because of the unique situation
on the Korean Peninsula, two subcomponents of USINDOPACOM—U.S. Forces
Korea (USFK) and U.S. Eighth Army—are
based in Korea. USFK, a joint headquarters led by a four-star U.S. general, is in
charge of the various U.S. military elements on the peninsula. U.S. Eighth Army
operates in conjunction with USFK as
well as with the United Nations presence
in the form of United Nations Command.

Other forces, including space capabilities, cyber capabilities, air and sealift assets, and additional combat forces, may be made available to USINDOPACOM depending on requirements and availability.

- U.S. Central Command—Afghanistan.
  Unlike the U.S. forces deployed in Japan and South Korea, there is no permanent force structure committed to Afghanistan; instead, forces rotate through the theater under the direction of U.S. Central Command (CENTCOM), USINDOPACOM's counterpart in that region of the world. As of January 2017, these forces included:
- **Resolute Support Mission,** including U.S. Forces Afghanistan.
- Special Operations Joint Task Force— Afghanistan. This includes a Special Forces battalion based out of Bagram Airfield and additional allied special operations forces at Kabul.
- 9th Air and Space Expeditionary
   Task Force. This includes the 155th Air
   Expeditionary Wing, providing air support from Bagram Airfield; the 451st Air

Expeditionary Group and 455th Expeditionary Operations Group, operating from Kandahar and Bagram Airfields, respectively, providing air support and surveillance operations over various parts of Afghanistan; and the 421st Expeditionary Fighter Squadron, providing close air support from Bagram Airfield.

- Combined Joint Task Force for Operation Freedom's Sentinel, centered on
  Bagram Airfield. This is the main U.S. national support element and has a primary
  focus on counterterrorism operations.<sup>84</sup>
- Five Train, Advise, and Assist Commands in Afghanistan, each of which is a multinational force tasked with improving local capabilities to conduct operations.

### Key Infrastructure That Enables Expeditionary Warfighting Capabilities

Any planning for operations in the Pacific will be dominated by the "tyranny of distance." Because of the extensive distances that must be traversed in order to deploy forces, even Air Force units will take one or more days to deploy, and ships measure steaming time in weeks. For instance, a ship sailing at 20 knots requires nearly five days to get from San Diego to Hawaii. From there, it takes a further seven days to get to Guam; seven days to Yokosuka, Japan; and eight days to Okinawa—if ships encounter no interference along the journey. 86

China's growing anti-access/area denial (A2/AD) capabilities, ranging from an expanding fleet of modern submarines to anti-ship ballistic and cruise missiles, increase the operational risk for deployment of U.S. forces in the event of conflict. China's capabilities not only jeopardize American combat forces that would flow into the theater for initial combat, but also would continue to threaten the logistical support needed to sustain American combat power during the subsequent days, weeks, and months.

American basing structure in the Indo-Pacific region, including access to key allied facilities, is therefore both necessary and increasingly at risk.

#### **American Facilities**

Much as it was in the 20th century, Hawaii remains the linchpin of America's ability to support its position in the Western Pacific. If the United States cannot preserve its facilities in Hawaii, both combat power and sustainability become moot. The United States maintains air and naval bases, communications infrastructure, and logistical support on Oahu and elsewhere in the Hawaiian Islands. Hawaii is also a key site for undersea cables that carry much of the world's communications and data, as well as satellite ground stations.

The American territory of Guam is located 4,600 miles farther west. Obtained from Spain as a result of the Spanish-American War, Guam became a key coaling station for U.S. Navy ships. It was seized by Japan in World War II, was liberated by U.S. forces in 1944, and after the war became an unincorporated, organized territory of the United States. Key U.S. military facilities on Guam include U.S. Naval Base Guam, which houses several attack submarines and possibly a new aircraft carrier berth, and Andersen Air Force Base, one of a handful of facilities that can house B-2 bombers. U.S. task forces can stage out of Apra Harbor, drawing weapons from the Ordnance Annex in the island's South Central Highlands. There is also a communications and data relay facility on the island.

Guam's facilities have improved steadily over the past 20 years. B-2 bombers, for example, began to operate from Andersen Air Force Base in March 2005. These improvements have been accelerated and expanded even as China's A2/AD capabilities have raised doubts about the ability of the U.S. to sustain operations in the Asian littoral. The concentration of air and naval assets as well as logistical infrastructure, however, makes the island an attractive potential target in the event of conflict. The increasing reach of Chinese and North Korean ballistic missiles reflects this growing vulnerability.

The U.S. military has noncombatant maritime prepositioning ships (MPS), which contain large amounts of military equipment and supplies, in strategic locations from which they can reach areas of conflict relatively quickly as associated U.S. Army or Marine Corps units located elsewhere arrive in the areas. U.S. Navy units on Guam and in Saipan, Commonwealth of the Northern Marianas, support prepositioning ships that can supply Army or Marine Corps units deployed for contingency operations in Asia.

#### Allied and Other Friendly Facilities

For the United States, access to bases in Asia has long been a vital part of its ability to support military operations in the region. Even with the extensive aerial refueling and replenishment skills of the U.S. Air Force and U.S. Navy, it is still essential for the United States to retain access to resupply and replenishment facilities, at least in peacetime. The ability of those facilities to survive and function will directly influence the course of any conflict in the Western Pacific region. Moreover, a variety of support functions, including communications, intelligence, and space support, cannot be accomplished without facilities in the region.

Today, maintaining maritime domain awareness or space situational awareness would be extraordinarily difficult without access to facilities in the Asia–Pacific region. The American alliance network is therefore a matter both of political partnership and of access to key facilities on allied soil.

**Japan.** In Japan, the United States has access to over 100 different facilities, including communications stations, military and dependent housing, fuel and ammunition depots, and weapons and training ranges, in addition to such major bases as the air bases at Misawa, Yokota, and Kadena and naval facilities at Yokosuka, Atsugi, and Sasebo. The naval facilities support the USS *Ronald Reagan* carrier strike group (CSG), which is home-ported in Yokosuka, and a Marine Expeditionary Strike Group (ESG) centered on the USS *America*, home-ported at Sasebo. Additionally, the

skilled workforce at places like Yokosuka is needed to maintain American forces and repair equipment in time of conflict. Replacing them would take years, if not decades.

This combination of facilities and workforce, in addition to physical location and political support, makes Japan an essential part of any American military response to contingencies in the Western Pacific. Japanese financial support for the American presence also makes these facilities some of the most cost-effective in the world.

The status of one critical U.S. base has been a matter of public debate in Japan for many years. The U.S. Marine Corps' Third Marine Expeditionary Force, based on Okinawa, is the U.S. rapid reaction force in the Pacific. The Marine Air-Ground Task Force, comprised of air, ground, and logistics elements, enables quick and effective response to crises or humanitarian disasters. To improve the political sustainability of U.S. forces by reducing the impact on the local population in that densely populated area, the Marines are relocating some units to Guam and less-populated areas of Okinawa. The latter includes moving a helicopter unit from Futenma to a new facility in a more remote location in northeastern Okinawa. Because of local resistance, construction of the Futenma Replacement Facility at Camp Schwab will not be complete until 2025, but the U.S. and Japanese governments have affirmed their support for the project.

South Korea. The United States also maintains an array of facilities in South Korea. The Army's footprint in South Korea is larger than its footprint in Japan, as the United States and South Korea remain focused on deterring North Korean aggression and preparing for any possible North Korean contingencies. The Army maintains four major facilities (which in turn control a number of smaller sites) at Daegu, Yongsan in Seoul, and Camps Red Cloud/Casey and Humphreys. These facilities support the U.S. 2nd Infantry Division, which is based in South Korea. Other key facilities include air bases at Osan and Kunsan and a naval facility at Chinhae near Pusan.

**The Philippines.** In 1992, the United States ended a nearly century-long presence in the Philippines when it withdrew from its base in Subic Bay as its lease there ended. The eruption of Mount Pinatubo had already forced the closure of Clark Air Base; the costs of repairing the facility were deemed too high to be worthwhile. In 2014, however, spurred by China's growing assertiveness in the South China Sea, including against Philippine claims such as Mischief Reef (seized in 1995) and Scarborough Shoal (2012), the U.S. and the Philippines negotiated the Enhanced Defense Cooperation Agreement, which allowed for the rotation of American forces through Philippine military bases.

In 2016, the two sides agreed on an initial list of five bases to be used in the Philippines. Geographically distributed across the country, they are Antonio Bautista Air Base in Palawaan, closest to the Spratlys; Basa Air Base on the main island of Luzon and closest to the hotly contested Scarborough Shoal; Fort Magsaysay, also on Luzon and the only facility on the list that is not an air base; Lumbia Air Base in Mindanao, where Manila remains in low-intensity combat with Islamist insurgents; and Mactan-Benito Ebuen Air Base in the central Philippines.88 In 2018, construction was completed on a humanitarian assistance and disaster relief warehouse located at Basa Air Base in Pampanga, central Luzon, the main Philippine island.89 In 2019, American F-16s based in South Korea deployed there for a 12-day exercise with Philippine fighter jets.90

It remains unclear precisely which additional forces would be rotated through the Philippines as a part of this agreement, which in turn affects the kinds of facilities that would be most needed. The base upgrades and deployments pursuant to the EDCA are part of a broader expansion of U.S.—Philippine defense ties begun under the Aquino government and continued under President Duterte with some adjustments throughout the first half of the Duterte administration. At the time this book was being prepared, the extent of U.S.—Philippines military cooperation, including

implementation of the EDCA, was in doubt as a result of Duterte's on-again, off-again interest in terminating the VFA.

**Singapore.** The United States does not have bases in Singapore, but it is allowed access to several key facilities that provide essential support for American forward presence. Since the closure of its facilities at Subic Bay, the United States has been allowed to operate the principal logistics command for the Seventh Fleet out of the Port of Singapore Authority's Sembawang Terminal. The U.S. Navy also has access to Changi Naval Base, one of the few docks in the world that can handle a 100,000ton American aircraft carrier. A small U.S. Air Force contingent operates out of Paya Lebar Air Base to support U.S. Air Force combat units visiting Singapore and Southeast Asia, and Singapore hosts Littoral Combat Ships (LCS) and a rotating squadron of F-16 fighter aircraft.

Australia. The most prominent element of the U.S. presence in Australia is the deployment of U.S. Marines to Darwin in northern Australia. In keeping with Australian sensitivities about permanent American bases on Australian soil, the Marines do not constitute a permanent presence in Australia. Similarly, the United States jointly staffs the Joint Defence Facility Pine Gap and the Joint Geological and Geophysical Research Station at Alice Springs and has access to the Harold E. Holt Naval Communication Station, including its space surveillance radar system, in western Australia. Similarly, in western Australia.

Finally, the United States is granted access to a number of facilities in Asian states on a contingency or crisis basis. Thus, U.S. Air Force units transited Thailand's U-Tapao Air Base and Sattahip Naval Base during the first Gulf War and during the Iraq War, but they do not maintain a permanent presence there.

Additionally, the U.S. Navy conducts hundreds of port calls throughout the region.

**Diego Garcia.** The American facilities on the British territory of Diego Garcia are vital to U.S. operations in the Indian Ocean and Afghanistan and provide essential support for operations in the Middle East and East Asia. The island is home to the seven ships of Maritime Prepositioning Squadron-2 (MPS-2), which can support a Marine brigade and associated Navy elements for 30 days. Several elements of the U.S. global space surveillance and communications infrastructure, as well as basing facilities for the B-2 bomber, are also located on the island.

#### Conclusion

The Asian strategic environment is extremely expansive. It includes half the globe and is characterized by a variety of political relationships among states that possess wildly varying capabilities. The region includes long-standing American allies with relationships dating back to the beginning of the Cold War as well as recently established states and some long-standing adversaries such as North Korea.

American conceptions of the region must therefore recognize the physical limitations imposed by the tyranny of distance. Moving forces within the region (never mind to it) will take time and require extensive strategic lift assets as well as sufficient infrastructure, such as sea and aerial ports of debarkation that can handle American strategic lift assets, and political support. At the same time, the complicated nature of intra-Asian relations, especially unresolved historical and territorial issues, means that the United States, unlike Europe, cannot necessarily count on support from all of its regional allies in responding to any given contingency.

# Scoring the Asia Operating Environment

As with the operating environments of Europe and the Middle East, we assessed the characteristics of Asia as they could be expected to facilitate or inhibit America's ability to conduct military operations to defend its vital national interests against threats. Our assessment of the operating environment utilized a five-point scale that ranges from "very poor" to "excellent" conditions and covers four regional characteristics of greatest relevance to the conduct of military operations:

- 1. **Very Poor.** Significant hurdles exist for military operations. Physical infrastructure is insufficient or nonexistent, and the region is politically unstable. The U.S. military is poorly placed or absent, and alliances are nonexistent or diffuse.
- 2. **Unfavorable.** A challenging operating environment for military operations is marked by inadequate infrastructure, weak alliances, and recurring political instability. The U.S. military is inadequately placed in the region.
- 3. Moderate. A neutral to moderately favorable operating environment is characterized by adequate infrastructure, a moderate alliance structure, and acceptable levels of regional political stability. The U.S. military is adequately placed.
- **4. Favorable.** A favorable operating environment includes good infrastructure, strong alliances, and a stable political environment. The U.S. military is well placed for future operations.
- 5. Excellent. An extremely favorable operating environment includes well-established and well-maintained infrastructure, strong and capable allies, and a stable political environment. The U.S. military is exceptionally well placed to defend U.S. interests.

The key regional characteristics consisted of:

**a. Alliances.** Alliances are important for interoperability and collective defense, as allies would be more likely to lend support to U.S. military operations. Indicators

that provide insight into the strength or health of an alliance include whether the U.S. trains regularly with countries in the region, has good interoperability with the forces of an ally, and shares intelligence with nations in the region.

- b. Political Stability. Political stability brings predictability for military planners when considering such things as transit, basing, and overflight rights for U.S. military operations. The overall degree of political stability indicates whether U.S. military actions would be hindered or enabled and reflects, for example, whether transfers of power in the region are generally peaceful and whether there have been any recent instances of political instability in the region.
- c. U.S. Military Positioning. Having military forces based or equipment and supplies staged in a region greatly facilitates the ability of the United States to respond to crises and, presumably, achieve successes in critical "first battles" more quickly. Being routinely present in a region also assists in maintaining familiarity with its characteristics and the various actors that might act to assist or thwart U.S. actions. With this in mind, we assessed whether or not the U.S. military was well positioned in the region. Again, indicators included bases, troop presence, prepositioned equipment, and recent examples of military operations (including training and humanitarian) launched from the region.
- d. Infrastructure. Modern, reliable, and suitable infrastructure is essential to military operations. Airfields, ports, rail lines, canals, and paved roads enable the U.S. to stage, launch operations from, and logistically sustain combat operations. We combined expert knowledge of regions with publicly available information on critical infrastructure to arrive at our overall assessment of this metric.<sup>94</sup>

For Asia, we arrived at these average scores (rounded to the nearest whole number):

• Alliances: 4—Favorable

• Political Stability: **3—Moderate** 

• U.S. Military Positioning: 4—Favorable

• Infrastructure: 4-Favorable

Aggregating to a regional score of:

**Favorable** 

# **Operating Environment: Asia**

|                       | VERY POOR | UNFAVORABLE | MODERATE | FAVORABLE | EXCELLENT |
|-----------------------|-----------|-------------|----------|-----------|-----------|
| Alliances             |           |             |          | <b>~</b>  |           |
| Political Stability   |           |             | ✓        |           |           |
| U.S. Military Posture |           |             |          | ✓         |           |
| Infrastructure        |           |             |          | ✓         |           |
| OVERALL               |           |             |          | ✓         |           |

#### **Endnotes**

- 1. Table, "March Total Trade," in U.S. Department of Commerce, U.S. Census Bureau, "Foreign Trade: Top Trading Partners—March 2020," https://www.census.gov/foreign-trade/statistics/highlights/top/top2003cm.html (accessed May 29, 2020).
- 2. "Aspiring sincerely to an international peace based on justice and order, the Japanese people forever renounce war as a sovereign right of the nation and the threat or use of force as means of settling international disputes. In order to accomplish the aim of the preceding paragraph, land, sea, and air forces, as well as other war potential, will never be maintained. The right of belligerency of the state will not be recognized." Constitution of Japan, Article 9, promulgated November 3, 1946, came into effect May 3, 1947, http://japan.kantei.go.jp/constitution\_and\_government\_of\_japan/constitution\_e.html (accessed May 29, 2020).
- 3. U.S. Forces, Japan, "Guidance from the Commander, U.S. Forces Japan: About USFJ," https://www.usfj.mil/About-USFJ/ (accessed May 29, 2020).
- 4. Emma Chanlett-Avery, Mark E. Manyin, Brock R. Williams, and Cathleen D. Cimino-Isaacs, "U.S.-Japan Relations," Congressional Research Service *In Focus* No. 10199, updated April 29, 2020, https://fas.org/sgp/crs/row/IF10199.pdf (accessed May 29, 2020).
- 5. Bruce Klingner, James Jay Carafano, and Walter Lohman, "Don't Break Alliances over Money," *The National Interest*, November 22, 2019, https://nationalinterest.org/blog/korea-watch/don't-break-alliances-over-money-98967 (accessed May 30, 2020).
- 6. Bruce Klingner, Jung Pak, and Sue Mi Terry, "Opinion: Trump Shakedowns Are Threatening Two Key U.S. Alliances in Asia," *Los Angeles Times*, December 16, 2019, https://www.latimes.com/opinion/story/2019-12-16/how-trump-is-threatening-alliances-in-asia (accessed May 30, 2020).
- 7. Bruce Klingner and Riley Walters, "The U.S. Must Limit Damage from the Japan–South Korea Trade Dispute," Heritage Foundation *Backgrounder* No. 3429, August 7, 2019, https://www.heritage.org/asia/report/the-us-must-limit-damage-the-japan-south-korea-trade-dispute.
- 8. Bruce Klingner, "Enhance South Korean Military Capabilities Before OPCON Transfer," Heritage Foundation *Backgrounder* No. 3452, December 2, 2019, https://www.heritage.org/asia/report/enhance-south-korean-military-capabilities-opcon-transfer.
- 9. NPR, "President Trump's Press Conference on North Korea Summit, Annotated," June 12, 2018, https://www.npr. org/2018/06/12/619192513/president-trumps-press-conference-on-north-korea-summit-annotated (accessed May 30, 2020).
- 10. Bloomberg, Reuters, Staff Report, "U.S., South Korea Defense Cost Talks Break Down over Trump's \$5 Billion Demand," *The Japan Times*, November 19, 2019, https://www.japantimes.co.jp/news/2019/11/19/asia-pacific/us-south-korea-defense-cost-talks-trump/#.XtZzwuRYbIU (accessed June 2, 2020).
- 11. Klingner, Carafano, and Lohman, "Don't Break Alliances over Money."
- 12. U.S. Department of Defense, Office of Inspector General; U.S. Department of State, Office of Inspector General; and U.S. Agency for International Development, Office of Inspector General, *Overseas Contingency Operations: Operation Inherent Resolve, Operation Pacific Eagle–Philippines*, Lead Inspector General Report to the United States Congress, October 1, 2017–December 31, 2017, pp. 99–100, https://media.defense.gov/2018/Jun/18/2001932643/-1/-1/1/FY2018\_LIG\_OCO\_OIR\_Q1\_12222017\_2.PDF (accessed May 30, 2020).
- 13. U.S. Department of Defense, Office of Inspector General; U.S. Department of State, Office of Inspector General; and U.S. Agency for International Development, Office of Inspector General, *Operations: Operation Pacific Eagle–Philippines*, Lead Inspector General Report to the United States Congress, October 1, 2019–December 31, 2019, p. 2, https://media.defense.gov/2020/Feb/12/2002247878/-1/-1/1/Q1FY2020\_LEADIG\_OPE-P\_REPORT.PDF (accessed May 30, 2020). Footnotes omitted.
- 14. Walter Lohman, "Scarborough Shoal and Safeguarding American Interests," Heritage Foundation *Issue Brief* No. 3603, May 14, 2012, p. 2, http://www.heritage.org/research/reports/2012/05/south-china-sea-dispute-between-china-and-the-philippines-safeguarding-americas-interests.
- 15. Transcript, "Remarks with Philippine Foreign Secretary Teodoro Locsin, Jr. at a Press Availability," Manila, Philippines, March 1, 2019, https://www.state.gov/remarks-with-philippine-foreign-secretary-teodoro-locsin-jr/ (accessed May 30, 2020).
- 16. Seth Robson, "US-Philippines Relations on an Uptick Ahead of Annual Balikatan Drills," *Stars and Stripes*, April 24, 2017, https://www.stripes.com/news/us-philippines-relations-on-an-uptick-ahead-of-annual-balikatan-drills-1.465104#.WSXN72jyu70 (accessed May 30, 2020).
- 17. Named for Thai Foreign Minister Thanat Khoman and U.S. Secretary of State Dean Rusk.
- 18. News release, "2012 Joint Vision Statement for the Thai–U.S. Defense Alliance," U.S. Department of Defense, November 15, 2012, http://archive.defense.gov/releases/release.aspx?releaseid=15685 (accessed May 30, 2020).

- 19. Carlos M. Vazquez II, "Cobra Gold, One of World's Largest Multinational Military Exercises, Kicks Off in Thailand," *Stars and Stripes*, February 13, 2019, https://www.stripes.com/news/cobra-gold-one-of-world-s-largest-multinational-military-exercises-kicks-off-in-thailand-1.568443 (accessed May 30, 2020).
- 20. Mike Yeo, "Thailand Approved to Acquire Stryker Infantry Carriers," *Defense News*, July 29, 2019, https://www.defensenews.com/global/asia-pacific/2019/07/29/thailand-approved-to-acquire-stryker-infantry-carriers/ (accessed May 30, 2020), and Aaron Mehta, "US Clears Attack Helicopters for Thailand, Plane Defenses for Qatar," *Defense News*, September 24, 2019, https://www.defensenews.com/global/asia-pacific/2019/09/24/us-clears-attack-helicopters-for-thailand-plane-defenses-for-qatar/ (accessed May 30, 2020).
- 21. Xinhua, "China, Thailand Agree to Enhance Military Cooperation," November 17, 2019, http://www.xinhuanet.com/english/2019-11/17/c 138562358.htm (accessed May 30, 2020).
- 22. Phuong Nguyen and Brittany Billingsley, "China's Growing Military-to-Military Engagement with Thailand & Myanmar," Center for Strategic and International Studies, Asia Program, cogitASIA blog, September 12, 2013, http://cogitasia.com/chinas-growing-military-to-military-engagement-with-thailand-and-myanmar/ (accessed May 30, 2020); Patpicha Tanakasempipat and Jutarat Skulpichetrat, "China, Thailand Joint Air Force Exercise Highlights Warming Ties," Reuters, November 14, 2015, https://uk.reuters.com/article/uk-china-thailand-military-idUKKBNOTDOCB20151124 (accessed May 30, 2020); and lan Storey, "Thailand's Military Relations with China; Moving from Strength to Strength," Yusof Ishak Institute Perspective, Issue: 2019, No. 43, May 22, 2019, https://www.iseas.edu.sg/images/pdf/ISEAS\_Perspective\_2019\_43.pdf (accessed June 29, 2020).
- 23. Zachary Abuza, "America Should Be Realistic About Its Alliance with Thailand," War on the Rocks, January 2, 2020, https://warontherocks.com/2020/01/america-should-be-realistic-about-its-alliance-with-thailand/ (accessed June 29, 2020).
- 24. Ibid.; Mike Yeo, "Thailand to Buy More Chinese Tanks, Reportedly for \$58M," Defense News, April 4, 2017, http://www.defensenews.com/articles/thailand-to-buy-more-chinese-tanks-reportedly-for-58m (accessed May 22, 2019); and Reuters, "Thailand in \$67-Million Deal to Buy Armored Personnel Carriers from China," June 14, 2017, https://www.reuters.com/article/us-thailand-china-defence-idUSKBN1950IH (accessed May 22, 2019).
- 25. Stockholm International Peace Research Institute, "SIPRI Arms Transfers Database," March 9, 2020, https://www.sipri.org/databases/armstransfers (accessed May 30, 2020).
- 26. Reuters, "Thailand Approves \$393-Mln Purchase of Chinese Submarines," April 24, 2017, http://in.reuters.com/article/thailand-china-idlNKBN17Q150 (accessed May 30, 2020), and Prashanth Parameswaran, "When Will Thailand's First China Submarine Arrive?" *The Diplomat*, January 31, 2017, http://thediplomat.com/2017/01/will-thailand-seal-its-china-submarine-deal-this-year/(accessed May 30, 2020).
- 27. Gina Harkins, "There Are Now 2,500 US Marines in Australia After Years of Buildup," Military.com, July 25, 2019, https://www.military.com/daily-news/2019/07/25/there-are-now-2500-us-marines-australia-after-years-buildup.html (accessed June 29, 2020).
- 28. Gidget Fuentes, "Delayed by Pandemic, Marines Send Smaller Force to Darwin to Test New Marine Warfighting Concepts with Aussies," U.S. Naval Institute News, June 22, 2020, https://news.usni.org/2020/06/22/delayed-by-pandemic-marines-send-smaller-force-to-darwin-to-test-new-marine-warfighting-concepts-with-aussies (accessed June 29, 2020).
- 29. Rob Taylor, "Darwin Evolves: U.S. Military Turns Australian Outpost into Asia Launchpad," *The Wall Street Journal*, May 24, 2018, https://www.wsj.com/articles/darwin-evolves-u-s-military-turns-australian-outpost-into-asia-launchpad-1527154203 (accessed May 30, 2020).
- 30. Australian Associated Press, "First Stage of Manus Naval Base Opens," *The Canberra Times*, August 24, 2019, https://www.canberratimes.com.au/story/6346365/first-stage-of-manus-naval-base-opens/?cs=14231 (accessed May 30, 2020).
- 31. Seth Robson, "US Air Power Is Growing Alongside Marine Corps in Australia's Northern Territory," *Stars and Stripes*, November 4, 2019, https://www.stripes.com/news/pacific/us-air-power-is-growing-alongside-marine-corps-in-australia-s-northern-territory-1.605860 (accessed May 30, 2020).
- 32. Gene Blevins, "Canada Formalizes Joint Space Operations with Australia, U.S. and U.K.," *The Globe and Mail*, September 22, 2014, https://www.theglobeandmail.com/news/national/canada-formalizes-joint-space-operations-with-australia-us-and-uk/article20735843/ (accessed May 22, 2019).
- 33. Australian Government, Department of Foreign Affairs and Trade, "AUSMIN—Australia–United States Ministerial Consultations," https://dfat.gov.au/geo/united-states-of-america/ausmin/Pages/ausmin-australia-united-states-ministerial-consultations.aspx (accessed May 30, 2020).
- 34. Kim Beazley, "Pine Gap at 50: The Paradox of a Joint Facility," Australian Strategic Policy Institute, *The Strategist*, August 30, 2017, https://www.aspistrategist.org.au/pine-gap-50-paradox-joint-facility/ (accessed May 30, 2020).

- 35. Stephen Smith, Minister of Defence and Deputy Leader of the House, Ministerial Statement on "Full Knowledge and Concurrence," Commonwealth of Australia, Parliamentary Debates, House of Representatives, June 26, 2013, pp. 7071–7075, http://parlinfo.aph.gov.au/parlInfo/genpdf/chamber/hansardr/4d60a662-a538-4e48-b2d8-9a97b8276c77/0016/hansard\_frag. pdf;fileType=application%2Fpdf (accessed May 30, 2020).
- 36. U.S. Department of State, "Fact Sheet: U.S. Defense Trade Cooperation Treaties with the United Kingdom and Australia," September 30, 2010, https://2009-2017.state.gov/r/pa/prs/ps/2010/09/148478.htm (accessed May 30, 2020), and U.S. Department of Defense, Office of the Under Secretary of Defense for Acquisition and Sustainment, "International Cooperation: Defense Trade Cooperation Treaties," https://www.acq.osd.mil/ic/DTCT.html (accessed May 30, 2020).
- 37. "Joint Statement by the United States of America and the Republic of Singapore," The White House, October 24, 2017, https://sg.usembassy.gov/remarks-president-trump-prime-minister-lee-singapore-joint-statements-october-23-2017/ (accessed May 30, 2020).
- 38. Valerie Insinna, "Singapore Gets the Green Light to Buy F-35s," *Defense News*, January 9, 2020, https://www.defensenews.com/air/2020/01/09/singapore-gets-the-green-light-to-buy-f-35s/ (accessed May 30, 2020), and Mike Yeo, "Singapore Moves to Buy Four F-35s, Possibly Eight More Afterward," *Defense News*, March 1, 2019, https://www.defensenews.com/digital-show-dailies/avalon/2019/03/01/singapore-moves-to-buy-four-f-35s-possibly-eight-more-afterward/ (accessed May 30, 2020).
- 39. See "Text of the Wellington Declaration," November 5, 2010, http://usnzcouncil.org/us-nz-issues/wellington-declaration/ (accessed May 30, 2020), and "Text of the Washington Declaration on Defense Cooperation Between the Department of Defense of the United States of America and the Ministry of Defense of New Zealand and the New Zealand Defense Force," June 19, 2012, http://usnzcouncil.org/us-nz-issues/washington-declaration/ (accessed May 30, 2020).
- Nick Simeone, "U.S., New Zealand Announce Expanded Defense Cooperation," U.S. Department of Defense, October 28, 2013, http://archive.defense.gov/news/newsarticle.aspx?id=121016 (accessed May 30, 2020), and David B. Larter, "In Port Visit, New Zealand and U.S. Seek to Bolster Military Ties," Navy Times, July 22, 2016, http://www.navytimes.com/story/military/2016/07/22/port-visit-new-zealand-and-us-seek-bolster-military-ties/87450022/ (accessed May 30, 2020).
- 41. Associated Press, "US Warship to Visit New Zealand as USS Sampson's Arrival Ends Stalemate on Nuclear Vessels," ABC News, October 18, 2016, http://www.abc.net.au/news/2016-10-18/new-zealand-to-end-stalemate-on-us-warships/7943252 (accessed May 30, 2020).
- 42. Press release, "U.S. Coast Guard Icebreaker to Visit Wellington," U.S. Embassy and Consulate in New Zealand, Cook Islands and Niue, February 24, 2020, https://nz.usembassy.gov/u-s-coast-guard-icebreaker-to-visit-wellington/ (accessed May 30, 2020), and Royal New Zealand Navy, "HMNZS TE KAHA–F77," http://navy.mil.nz/mtf/te-kaha/ (accessed May 30, 2020).
- 43. Taiwan Relations Act, Public Law 96-8, 96th Cong., April 10, 1979, Section 2, https://www.ait.org.tw/our-relationship/policy-history/key-u-s-foreign-policy-documents-region/taiwan-relations-act/ (accessed May 30, 2020). Section 18 specifies that "This Act shall be effective as of January 1, 1979."
- 44. Ibid., Section 3.
- 45. Ibid., Section 2.
- 46. Ibid., Section 3.
- 47. Shirley A. Kan, "China/Taiwan: Evolution of the 'One China' Policy—Key Statements from Washington, Beijing, and Taipei," Congressional Research Service *Report for Members and Committees of Congress*, October 10, 2014, pp. 43–44, https://www.fas.org/sgp/crs/row/RL30341.pdf (accessed May 30, 2020). Emphasis in original.
- 48. Aaron Mehta, "New US-Vietnam Agreement Shows Growth, Challenges," *Defense News*, June 1, 2015, http://www.defensenews.com/story/defense/policy-budget/budget/2015/06/01/us-vietnam-joint-vision-statement-signed-in-hanoi/28291963/ (accessed May 30, 2020), and "Joint Statement Between the United States of America and the Socialist Republic of Vietnam," The White House, November 12, 2017, https://www.whitehouse.gov/briefings-statements/joint-statement-united-states-america-socialist-republic-vietnam/ (accessed May 30, 2020).
- 49. Press release, "The United States Transfers Six Metal Shark Patrol Boats to Vietnam," U.S. Embassy and Consulate in Vietnam, March 29, 2018, https://vn.usembassy.gov/pr03292018/ (accessed May 30, 2020).
- 50. Transcript, "Telephonic Press Briefing with Admiral Karl L. Schultz, Commandant, United States Coast Guard," U.S. Department of State, October 21, 2019, https://www.state.gov/telephonic-press-briefing-with-admiral-karl-l-schultz-commandant-united-states-coast-guard/ (accessed May 30, 2020), and Mike Yeo, "These US Partners in the Asia-Pacific Are to Receive ScanEagle Drones," *Defense News*, June 5, 2019, https://www.defensenews.com/unmanned/2019/06/05/these-us-partners-in-the-asia-pacific-are-to-receive-scaneagle-drones/ (accessed May 30, 2020).

- 51. Admiral Philip S. Davidson, U.S. Navy, Commander, U.S. Indo-Pacific Command, statement "On U.S. Indo-Pacific Command Posture" before the Committee on Armed Services, U.S. Senate, February 12, 2019, p. 33, https://www.armed-services.senate.gov/imo/media/doc/Davidson 02-12-19.pdf (accessed May 30, 2020).
- 52. Phil Stewart and James Pearson, "U.S. to Provide Ship to Vietnam to Boost South China Sea Patrols," Reuters, November 20, 2019, https://www.reuters.com/article/us-vietnam-usa-military/u-s-to-provide-ship-to-vietnam-to-boost-south-china-sea-patrols-idUSKBN1XUOUP (accessed May 30, 2020).
- 53. "Joint Statement: Between the United States of America and the Socialist Republic of Vietnam," U.S. Indo-Pacific Command, May 23, 2016, http://www.pacom.mil/Media/News/News-Article-View/Article/779376/joint-statement-between-the-united-states-of-america-and-the-socialist-republic/ (accessed May 30, 2020).
- 54. Socialist Republic of Viet Nam, Ministry of National Defence, 2019 Viet Nam National Defence, October 2019, http://www.mod.gov.vn/wps/wcm/connect/08963129-c9cf-4c86-9b5c-81a9e2b14455/2019VietnamNationalDefence.pdf?MOD=AJPERES&CACHEID=08963129-c9cf-4c86-9b5c-81a9e2b14455 (accessed May 30, 2020).
- 55. [Name redacted], Specialist in Asian Affairs, "Malaysia: Background and U.S. Relations," Congressional Research Service Report for Members and Committees of Congress, May 18, 2017, pp. 9–10, https://www.everycrsreport.com/files/20170518\_R43505\_025187722d007dc55f7f86a9a6ea62e4985d07b3.pdf (accessed May 30, 2020).
- 56. "Joint Statement for Enhancing the Comprehensive Partnership Between the United States of America and Malaysia," The White House, September 13, 2017, https://www.whitehouse.gov/briefings-statements/joint-statement-enhancing-comprehensive-partnership-united-states-america-malaysia/ (accessed May 31, 2020).
- 57. Prashanth Parameswaran, "A First: Malaysia to Deploy Warship for RIMPAC 2018," *The Diplomat*, April 20, 2018, https://thediplomat.com/2018/04/a-first-malaysia-to-deploy-warship-for-rimpac-2018/ (accessed May 31, 2020).
- 58. News release, "Joint Statement Between the Ministry of Defense of the Republic of Indonesia and the Department of Defense of the United States of America," U.S. Department of Defense, May 31, 2019, https://www.defense.gov/Newsroom/Releases/Release/Article/1863375/joint-statement-between-the-ministry-of-defense-of-the-republic-of-indonesia-an/ (accessed May 31, 2020).
- 59. U.S. Department of Defense, *The Department of Defense Indo-Pacific Strategy Report: Preparedness, Partnerships and Promoting a Networked Region*, July 1, 2019, p. 37, https://media.defense.gov/2019/Jul/01/2002152311/-1/-1/1/DEPARTMENT-OF-DEFENSE-INDO-PACIFIC-STRATEGY-REPORT-2019.PDF (accessed May 31, 2020).
- 60. Mike Yeo, "Indonesia Eyes American F-16 Jets as It Moves to Secure Russian Su-35 Deal," *Defense News*, November 4, 2019, https://www.defensenews.com/global/asia-pacific/2019/11/04/indonesia-eyes-american-f-16-jets-as-it-moves-to-secure-russian-su-35-deal/ (accessed May 31, 2020).
- 61. Dzirhan Mahadzir, "Pentagon Asia Policy Chief Talks South East Asia Military Cooperation, U.S. South China Sea Operations," U.S. Naval Institute News, updated August 16, 2018. https://news.usni.org/2018/08/15/pentagon-asia-policy-chief-talks-south-east-asia-military-cooperation-u-s-south-china-sea-operations (accessed May 31, 2020), and Gregory B. Poling, "Congress Fires a Warning Shot to China with Defense Budget," *The Hill*, August 6, 2018, https://thehill.com/opinion/national-security/400527-congress-fires-a-warning-shot-to-china-with-defense-budget (accessed May 31, 2020).
- 62. U.S. Department of Defense, Enhancing Security and Stability in Afghanistan, December 2016, p. 33, https://dod.defense.gov/Portals/1/Documents/pubs/Afghanistan-1225-Report-December-2016.pdf (accessed May 31, 2020).
- 63. North Atlantic Treaty Organization, Resolute Support Mission, "Resolute Support Mission (RSM): Key Facts and Figures," February 2019, https://www.nato.int/nato\_static\_fl2014/assets/pdf/pdf\_2019\_02/20190215\_2019-02-RSM-Placemat.pdf (accessed May 31, 2020).
- 64. "Remarks by President [Donald] Trump on the Strategy in Afghanistan and South Asia," Fort Myer, Arlington, Virginia, August 21, 2017, https://www.whitehouse.gov/the-press-office/2017/08/21/remarks-president-trump-strategy-afghanistan-and-south-asia (accessed May 31, 2020).
- 65. Nahal Toosi, "Pakistan Terrorism Crackdown 'Necessary' to Trump's Afghanistan Strategy," *Politico*, August 22, 2017, https://www.politico.com/story/2017/08/22/pakistan-terrorism-crackdown-necessary-to-trumps-afghanistan-strategy-241885 (accessed June 2, 2020).
- 66. Table, "Direct Overt U.S. Aid Appropriations for and Military Reimbursements to Pakistan, FY2002–FY2020," Prepared by the Congressional Research Service for distribution to multiple congressional offices, March 12, 2019, note g, https://fas.org/sgp/crs/row/pakaid.pdf (accessed May 31, 2020).
- 67. Rosie Perper, "Nikki Haley Accuses Pakistan of Playing 'Double Game' with the US, Vows to Withhold \$255 Million in Aid," *Business Insider*, January 2, 2018, https://www.businessinsider.com/us-to-withhold-255-million-in-aid-to-pakistan-2018-1 (accessed May 31, 2020).

- 68. Phil Stewart and Idrees Ali, "Exclusive: Pentagon Cancels Aid to Pakistan over Record on Militants," Reuters, September 1, 2018, https://www.reuters.com/article/us-usa-pakistan-military-exclusive/exclusive-pentagon-cancels-aid-to-pakistan-over-record-on-militants-idUSKCN1LH3TA (accessed May 31, 2020).
- 69. Press statement by Michael R. Pompeo, U.S. Secretary of State, "United States Takes Action Against Violators of Religious Freedom," U.S. Department of State, December 20, 2019, https://www.state.gov/united-states-takes-action-against-violators-of-religious-freedom/ (accessed June 2, 2020).
- 70. Vivek Raghuvanshi, "Trump Administration Reaffirms India as Major Defense Partner," *Defense News*, April 19, 2017, http://www.defensenews.com/articles/trump-administration-reaffirms-india-as-major-defense-partner (accessed May 31, 2020).
- 71. International Institute for Strategic Studies, *The Military Balance 2020: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2020), pp. 158–160 and 280–283.
- 72. Ibid., pp. 109-110 and 287-289.
- 73. Marie Yamaguchi, "Japan to Buy Aegis Ashore Missile Defense Systems," *Defense News*, December 19, 2017, https://www.defensenews.com/land/2017/12/19/japan-to-buy-aegis-ashore-missile-defense-systems/ (accessed May 31, 2020).
- 74. Australian Government, Department of Defence, "Global Operations," http://www.defence.gov.au/Operations/ (accessed May 31, 2020).
- 75. Stockholm International Peace Research Institute, "Military Expenditure by Country, in Constant (2016) US\$ m., 2009–2017," 2018, https://www.sipri.org/sites/default/files/1\_Data%20for%20all%20countries%20from%201988%E2%80%932017%20in%20 constant%20%282016%29%20USD.pdf (accessed May 31, 2020).
- 76. Jeremy Koh, "Made for Singapore: First of Four Custom-Built RSN Submarines Launched in Germany," CNA, updated February 19, 2019, https://www.channelnewsasia.com/news/custom-submarine-for-singapore-navy-launched-germany-11254318 (accessed May 31, 2020).
- 77. International Institute for Strategic Studies, *The Military Balance 2020*, pp. 307–308.
- 78. World Bank, "Military Expenditure (% of GDP)," https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?view=chart (accessed June 1, 2020). The World Bank credits the Stockholm International Peace Research Institute's *Yearbook: Armaments, Disarmament and International Security* as its source and notes that "[u]se and distribution of these data are subject to Stockholm International Peace Research Institute (SIPRI) terms and conditions."
- 79. News release, "P188.2 Billion Allocated for Defense Department in 2019," Philippine Information Agency, February 11, 2019, https://pia.gov.ph/press-releases/1018345 (accessed June 1, 2020).
- 80. Jun Hyun-Suk, "Philippines President Visits Korea," *The Chosunilbo*, June 4, 2018, http://english.chosun.com/site/data/html\_dir/2018/06/04/2018060401451.html (accessed June 1, 2020).
- 81. Government of France, Directorate General for International Relations and Strategy, *France and Security in the Indo-Pacific*, https://www.defense.gouv.fr/content/download/532754/9176250/file/France%20and%20Security%20in%20the%20Indo-Pacific%20-%202018.pdf (accessed June 1, 2020).
- 82. U.S. Indo-Pacific Command, "About USINDOPACOM," http://www.pacom.mil/About-USINDOPACOM/ (accessed June 1, 2020).
- 83. International Institute for Strategic Studies, *The Military Balance 2020*, pp. 220–323.
- 84. Wesley Morgan, "Afghanistan Order of Battle: Coalition Combat and Advisory Forces in Afghanistan," Institute for the Study of War, January 1, 2017, p. 1, http://www.understandingwar.org/sites/default/files/ORBAT%20January%202017.pdf (accessed June 1, 2020).
- 85. U.S. Central Command, "Resolute Support," http://www.centcom.mil/operations-and-exercises/resolute-support/ (accessed June 1,2020)
- 86. Steaming times calculated using Marine Vessel Traffic, "Sea Distance Calculator," http://www.marinevesseltraffic.com/2013/07/distance-calculator.html (accessed June 1, 2020).
- 87. Air Force Technology, "B-2 Spirit Stealth Bomber," http://www.airforce-technology.com/projects/b2/ (accessed June 1, 2020).
- 88. News release, "Sixth United States-Philippines Bilateral Strategic Dialogue Joint Statement," U.S. Department of State, March 18, 2016, https://2009-2017.state.gov/r/pa/prs/ps/2016/03/254833.htm (accessed June 1, 2020).
- 89. News release, "U.S., Philippines Cut the Ribbon on Enhanced Defense Cooperation Agreement Project," U.S. Embassy in the Philippines, January 30, 2019, https://www.pacom.mil/Media/News/News-Article-View/Article/1744271/us-philippines-cut-the-ribbon-on-enhanced-defense-cooperation-agreement-project/ (accessed June 1, 2020).

- 90. Staff Sergeant Anthony Small, "US, Philippine AF Concludes [sic] Bilateral Air Contingency Exchange," U.S. Air Force, February 6, 2019, https://www.af.mil/News/Article-Display/Article/1749908/us-philippine-af-concludes-bilateral-air-contingency-exchange/ (accessed June 1, 2020).
- 91. See, for example, Wyatt Olson, "Deal to Bring More US Assets to Australia," *Stars and Stripes*, June 21, 2014, http://www.military.com/daily-news/2014/06/21/deal-likely-to-bring-more-us-military-assets-to-australia.html (accessed June 1, 2020).
- 92. Smith, Ministerial Statement on "Full Knowledge and Concurrence."
- 93. U.S. Marine Corps, "Maritime Pre-Positioning Force (MPF)," https://www.candp.marines.mil/Organization/MAGTF/Maritime-Pre-Positioning-Force-MPF/ (accessed June 29, 2020). "The MPF is organized into two Maritime Pre-positioning Ship Squadrons (MPSRON), with seven ships per Squadron (14 ships total). MPSRON-2 is based at Diego Garcia in the Indian Ocean, and MPSRON-3 is based in Guam and Saipan in the Western Pacific Ocean." Ibid.
- 94. For an example of a very accessible database, see World Bank, "Logistics Performance Index: Quality of Trade and Transport-Related Infrastructure (1=Low to 5=High)," http://data.worldbank.org/indicator/LP.LPI.INFR.XQ (accessed May 30, 2020).

# Conclusion: Scoring the Global Operating Environment

The United States is a global power with global security interests, and threats to those interests can emerge from any region. Consequently, the U.S. military must be ready to operate in any region when called upon to do so and must account for the range of conditions that it might encounter when planning for potential military operations. This informs its decisions about the type and amount of

equipment it purchases (especially to transport and sustain the force); the location or locations from which it might operate; and how easily it can or cannot project and sustain combat power when engaged with the enemy.

Aggregating the three regional scores provides a Global Operating Environment score of **FAVORABLE** in the *2021 Index*.

## **Global Operating Environment**

|             | VERY POOR | UNFAVORABLE | MODERATE | FAVORABLE | EXCELLENT |
|-------------|-----------|-------------|----------|-----------|-----------|
| Europe      |           |             |          | <b>~</b>  |           |
| Middle East |           |             | ✓        |           |           |
| Asia        |           |             |          | <b>~</b>  |           |
| OVERALL     |           |             |          | <b>~</b>  |           |

**Europe.** Overall, the European region remains a stable, mature, and friendly operating environment. Russia remains the preeminent military threat to the region, both conventionally and unconventionally, but China has become a significant presence through its propaganda, influence operations, and investments in key sectors. Both NATO and many

non-NATO European countries have reason to be increasingly concerned about the behavior and ambitions of both Russia and China, although agreement on a collective response to these challenges remains elusive.

The past year saw continued U.S. reengagement with the continent, both militarily and politically, along with modest increases in

# **Global Operating Environment: Summary**

| VERY POOR UNFAVORABLE MODERATE FAVORABLE EXCELLENT |
|--|
|--|

European allies' defense budgets and capability investment. Despite allies' initial concerns, the U.S. has increased its investment in Europe, and its military position on the continent is stronger than it has been for some time. The economic, political, and societal impacts of the COVID-19 pandemic are only beginning to be felt and will undoubtedly have to be reckoned with for years to come, especially with respect to Europe's relationship with China.

NATO's renewed focus on collective defense has resulted in a focus on logistics. The biggest challenges to the alliance derive from capability and readiness gaps for many European nations, the importance of continuing improvements and exercises in the realm of logistics, a tempestuous Turkey, disparate threat perceptions within the alliance, and the need to establish the ability to mount a robust response to both linear and nonlinear forms of aggression.

For Europe, scores this year remained steady, as they did in 2019 (assessed in the *2020 Index*), with no substantial changes in any individual categories or average scores. The *2021 Index* again assesses the European Operating Environment as "favorable."

The Middle East. Once considered relatively stable, mainly because of the ironfisted rule of authoritarian regimes, the Middle East is now highly unstable and a breeding ground for terrorism. Overall, regional security has deteriorated in recent years. Even though the Islamic State (or at least its physical presence) appears to have been defeated, the nature of its successor is unclear. Iraq's political situation and future relations between Baghdad and the United States will remain difficult as long as a government that is sympathetic to Iran is in power. The regional dispute with Qatar has made U.S. relations in the region even more complex and difficult to manage, although it has not stopped the U.S. military from operating.

The Middle East region's principal security and political challenges are surging transnational terrorism and meddling by Iran, which seeks to extend its influence in the Islamic world. The Arab–Israeli conflict, Sunni–Shia sectarian divides, the rise of Iran's Islamist revolutionary nationalism, and the proliferation of Sunni Islamist revolutionary groups all continue to keep the region at risk of war. America's relationships in the region are based pragmatically on shared security and economic concerns. As long as these issues remain relevant to both sides, the U.S. is likely to have an open door to operate in the Middle East when its national interests require that it do so.

Although circumstances in all measured areas vary throughout the year, in general terms, the *2021 Index* assesses the Middle East Operating Environment as "moderate," but the region's political stability continues to be "unfavorable" and will remain a dark cloud over everything else.

Asia. The Asian strategic environment includes half the globe and is characterized by a variety of political relationships among states that have wildly varying capabilities. This makes Asia far different from Europe, which in turn makes America's relations with the region different from its relations with Europe. American conceptions of Asia must recognize the physical limitations imposed by the tyranny of distance and the challenge of moving forces as necessary to respond to challenges from China and North Korea. The complicated nature of intra-Asian relations and the lack of an integrated, regional security architecture along the lines of NATO make defense of U.S. security interests more challenging than many Americans appreciate.

We continue to assess the Asia region as "favorable" to U.S. interests in terms of alliances, overall political stability, militarily relevant infrastructure, and the presence of U.S. military forces.

Summarizing the condition of each region enables us to get a sense of how they compare in terms of the challenge the U.S. would have in projecting military power and sustaining combat operations in each one. As a whole, the global operating environment currently maintains a score of "favorable," which means that the United States should be able to project

