# 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. Any decision as to whether an operating environment can or cannot support U.S. military operations depends on several factors: 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.

When assessing an operating environment, one must pay particular attention to any U.S. treaty obligations with countries in the region. A treaty defense obligation ensures that the legal framework is in place for the United States 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. Similarly, nations where the U.S. has already 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 facilitate future U.S. military operations in a region and contribute greatly to a positive operating environment.

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

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 power assessments that are detailed in subsequent sections of the *Index*.

Note: This *Index* refers to all disputed territories by the name employed by the United States Department of State and should not be seen as reflecting a position on any of these disputes.

## Europe

America's reengagement with Europe continues. The resurgence of Russia, fomenting instability from the Arctic to the Baltics, the Black Sea and South Caucasus, and increasingly the Mediterranean Sea, has brought Europe back into the top tier of U.S. international interests.

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 in defense of these shared ideals—the foundations on which America was built.

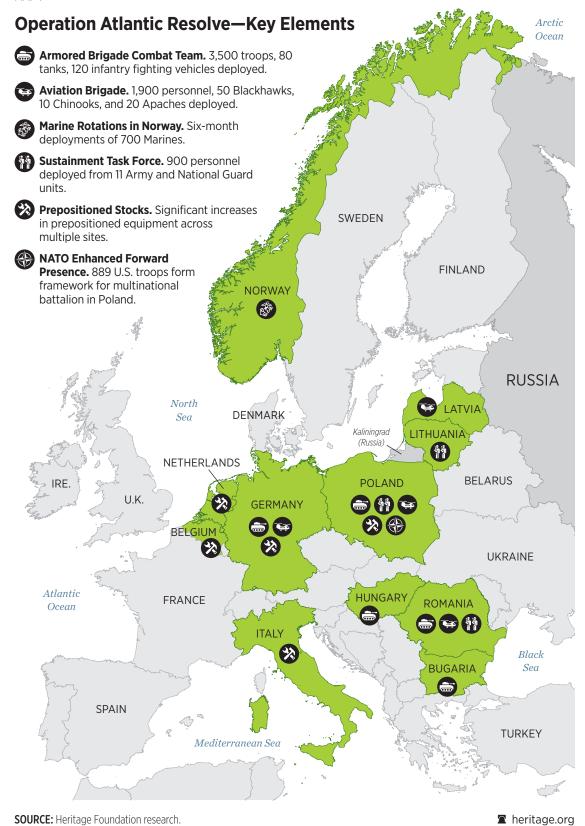
America's economic ties to the region are likewise important. A stable, secure, and economically viable Europe is in America's economic interest. For more than 70 years, the U.S. military presence has contributed to regional security and stability, economically benefiting both Europeans and Americans. The economies of the member states of the European Union (EU), now 28 but soon to be 27,¹ 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 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, and Russia's strengthened position in Syria has led to a resurgence of Russian naval 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, 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. General Curtis M. Scaparrotti, former Supreme Allied Commander, Europe, and Commander, U.S. European Command, has described the change as "returning to our historic role as a warfighting command focused on deterrence and defense."<sup>4</sup>



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);<sup>5</sup> 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. Under President Donald Trump, EDI funding has nearly doubled from the final year of the Obama Administration, with more than \$6.5 billion in funding enacted for the initiative in fiscal year (FY) 2019.6 The FY 2020 Department of Defense budget requests \$5.9 billion for EDI,7 roughly 10 percent less than the enacted amount for FY 2019.8 Of EDI's five lines of effort, Enhanced Prepositioning and Improved Infrastructure would see decreases under the FY 2020 budget request. In March 2019, acting DOD Comptroller Elaine McCusker explained that the decreases resulted from the amount of infrastructure and prepositioning work that has already been completed.9 Under the FY 2020 request, funds for presence and building partnership capacity would be increased, with funds for exercises and training more than doubled.10

Testifying in March 2019, General Scaparrotti was clear about the importance of EDI funding in returning the United States to a posture of deterrence:

The European Deterrence Initiative (EDI) provides funding to improve our deterrence posture and execute our deterrent initiatives and activities. First, EDI ensures that we position the right capabilities and refine the necessary infrastructure to respond to adversaries in a timely manner. Second, it underwrites our commitment to Article 5 and to the territorial integrity of all NATO nations. Third. EDI increases

the capability and readiness of U.S.
Forces, NATO allies, and regional partners so we can effectively deter adversary aggression and adventurism. USEUCOM has remained disciplined in nominating EDI projects that are consistent with Congressional guidance and follow five distinct lines of effort: increased presence, exercises and training, enhanced prepositioning, improved infrastructure, and building partnership capacity.<sup>11</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, AF-RICOM and CENTCOM." EDI funds are also contributing to the creation of the Joint Intelligence Analysis Center, which will consolidate intelligence functions formerly spread across multiple bases and "strengthen EUCOM, NATO and UK intelligence relationships." <sup>13</sup>

Forward Presence. In January 2019, the 1st Armored Brigade Combat Team (ABCT) of the 1st Infantry Division from Fort Riley, Kansas, replaced the outgoing BCT in the "fourth rotation of an armored brigade combat team in support of Atlantic Resolve." The BCT, consisting in part of 3,500 troops, 80 tanks, and 120 infantry fighting vehicles, deployed to sites across Bulgaria, Hungary, Poland, and Romania, with the largest portion of the forces stationed in Poland.<sup>14</sup>

Former Army Chief of Staff General Mark Milley 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." In April 2018, a U.S. Armored BCT exercised a road march on public roadways with 700 vehicles in Germany, the first time such a brigade-level moment had been conducted in 15 years. 16

In addition to back-to-back rotations of armor, the U.S. has maintained a rotational aviation brigade in Europe since February 2017.<sup>17</sup> The majority of the aviation brigade is located in Illesheim and Vilseck, Germany. Additionally, 13 helicopters and 60 soldiers are deployed to Lielvārde, Latvia; 17 helicopters and 150 soldiers are deployed to Powidz, Poland; and 14 helicopters and 100 soldiers are deployed to Mihail Kogălniceanu Air Base in Romania. The 1st Combat Aviation Brigade, 1st Infantry Division, took over the aviation brigade mission in February 2019.<sup>18</sup>

The U.S. has beefed up its presence in Norway as well. Rotation of 330 marines to Norway for six-month deployments began in 2017. In October 2018, the U.S. sent 700 Marines, an increase that coincided with the opening of a second training area in Norway's Troms region near Russia. In March 2019, a new deployment of 700 Marines arrived, the fifth unit to take part in the six-month rotation. With a focus on cold-weather training and mountain warfare, the Norwegian Marine deployment has allowed for training activities with Norway, Sweden, and the U.K. 20

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 is based in Poland but includes personnel deployed to Lithuania and Romania.<sup>21</sup>

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." The Navy also has taken part in bilateral and NATO exercises. U.S. Naval Forces Europe "executed a no-notice deployment of the Harry S. Truman (HST) Carrier Strike Group (CSG) to the Mediterranean in the

summer [of] 2018 and to the North Atlantic in the fall [of] 2018."<sup>23</sup>

In May 2018, the Navy announced the reestablishment of the Second Fleet, "responsible for the northern Atlantic Ocean," nearly seven years after it had been disbanded in 2011.<sup>24</sup> The fleet was reestablished because of Russian militarization of the Arctic and was scheduled to lead the BALTOPS exercise in June 2019.<sup>25</sup>

In his 2019 USEUCOM posture statement, General Scaparrotti raised the possibility of potential future forward deployments of enabler units: "The forward stationing of longrange fires and air defense units will further improve the lethality and resilience of USA-REUR forces." <sup>26</sup>

Prepositioned Stocks. The U.S. Army has prepositioned additional equipment across Europe as part of Operation Atlantic Resolve. A prepositioning site in Eygelshoven, the Netherlands, opened in December 2016 and stores 1,600 vehicles including "M1 Abrams Tanks, M109 Paladin Self-Propelled Howitzers and other armored and support vehicles."27 Exercises in March 2019 with 1,500 soldiers from Texas deploying rapidly to Europe drew on 700 pieces of equipment from Eygelshoven.<sup>28</sup> A second site in Dülmen, Germany, opened in May 2017 and holds equipment for an artillery brigade.<sup>29</sup> Other prepositioning sites include Zutendaal, Belgium; Livorno, Italy; Mannheim and Miesau, Germany; and Powidz, Poland. The Polish site, which has been selected by the Army for prepositioned armor and artillery, is expected to cost \$200 million (funded by NATO) and will open in 2021.30

Equipment and ammunition sufficient to support a division will continue to arrive in Europe through 2021.<sup>31</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>32</sup>

Multinational Training. In 2018, "USEU-COM conducted nearly 100 exercises with allies and partners from approximately 30 countries."<sup>33</sup> The combat training center at Hohenfels, Germany, is one of a very few located

outside of the continental United States at which large-scale combined-arms exercises can be conducted, and more than 60,000 U.S. and allied personnel train there annually.

U.S.–European training exercises further advance U.S. interests by developing links between America's allies in Europe and National Guard units back in the United States. At a time when most American servicemembers do not recall World War II or the Cold War, cementing bonds with allies in Europe is vital. Currently, 22 nations in Europe have state partners in the U.S. National Guard.<sup>34</sup>

Assistance to Ukraine. In addition to training with fellow NATO member states, the U.S. Joint Multinational Training Group-Ukraine (JMTG-U) will train up to five Ukrainian battalions a year through 2020 at the Yarvoriv Combat Training Center in the Lviv region. <sup>35</sup> Canada, Lithuania, and Poland also participate in JMTG-U. <sup>36</sup> In March 2019, Canada announced an extension of Operation UNIFIER, the Canadian training mission in Ukraine, through 2022. The mission has trained 10,800 Ukrainian personnel since its inception in September 2015. <sup>37</sup>

In April 2018, the U.S. delivered 210 Javelin anti-tank missiles and 37 Javelin launchers to Ukraine.<sup>38</sup> In July 2018, the U.S. announced a further \$200 million "in security cooperation funds for additional training, equipment and advisory efforts to build the defensive capacity of Ukraine's forces."39 In December 2018, NATO Secretary General Jens Stoltenberg announced that NATO was supplying Ukraine with secure communications equipment, encrypted radios, and GPS trackers through its "Command, Control, Communications and Computers (C4) Trust Fund for Ukraine, a support package announced in 2016 to assist Kiev in better providing for its own security."40 In July 2018, the same trust fund provided Ukraine with "state of the art" equipment to bolster the nation's cyber defenses.<sup>41</sup>

In October 2018, troops from Belgium, Denmark, Estonia, the Netherlands, Poland, Romania, the United Kingdom, and the United States took part in Clear Sky 2018, the first

large multinational air exercise to be held in Ukraine since Russia's invasion in 2014. U.S. Air Force Chief of Staff General David Goldfein explained that Clear Sky 2018 "showcased the strong bond between the U.S. and Ukraine and how far the Ukrainian air force has come in their path towards NATO interoperability." Lieutenant Colonel Robert Swertfager, State Partnership Director for the California Air National Guard, noted the "need to highlight differences, not just in record keeping and cross-functional equipment, but also laws," adding that "[t]hese are things we highlighted for Ukraine that they can take back to their Ministry of Defense and start working to change internal laws or doctrine within their own military" to enhance interoperability.42

**U.S.** Nuclear Weapons in Europe. 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 based in Italy, Turkey, Germany, Belgium, and the Netherlands.<sup>43</sup> All of these weapons are free-fall gravity bombs designed for use with U.S. and allied dual-capable aircraft. The bombs are undergoing a life extension program that is expected to add at least 20 years to their life span.<sup>44</sup>

In October 2018, the National Nuclear Security Administration stated that the new B61-12 gravity bomb had completed its final design review; production of the first unit is scheduled for March 2020.<sup>45</sup> Also in October 2018, the B61-12's guided tail kit assembly received approval to enter the production phase after a series of successful tests had been completed.<sup>46</sup> The B61-12, according to U.S. officials, is "intended to be three times more accurate than its predecessors."<sup>47</sup>

## 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 (NATO), the world's most important and arguably most successful defense alliance.

#### 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 terrorist attacks on 9/11. 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.

The past year saw continued focus on military mobility and logistics in line with NATO's 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. <sup>49</sup> The plan was endorsed at the July 2018 NATO summit in Brussels, Belgium, but the declaration "did not include Four Thirties initiative specifics, including which nations would contribute which types of forces and a timeframe for implementation." <sup>50</sup>

Enhanced Forward Presence. The centerpiece of NATO's renewed focus on collective defense is the four multinational battalions stationed in Poland and the Baltic States as part of the alliance's Enhanced Forward Presence (EFP).

- The U.S. serves as the framework nation in Orzysz, Poland, near the Suwalki Gap. The U.S.-led battlegroup consists of 889 American troops augmented by 69 from Croatia, 120 from Romania, and 140 from the United Kingdom.<sup>51</sup>
- In Estonia, the United Kingdom serves as the framework nation, headquartered in

Tapa with 800 troops in an armored infantry battalion along with main battle tanks and artillery and 300 French troops, 269 troops from Belgium, three staff officers from Denmark, and one Icelandic strategic communications civilian.<sup>52</sup>

- In Adazi, Latvia, Canada is the framework nation with 450 troops and armored fighting vehicles augmented by 21 troops from Albania, 60 from the Czech Republic, 160 from Italy, eight from Montenegro, approximately 200 from Poland, 152 from Slovakia, 50 from Slovenia, and 300 from Spain.<sup>53</sup>
- In Rukla, Lithuania, Germany serves as the framework nation with 540 troops augmented by another 230 from the Czech Republic, approximately 270 from the Netherlands, 13 from Norway, one Belgian staff officer, and one Icelandic public affairs civilian.<sup>54</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>55</sup> In February 2017, the Baltic States signed an agreement to facilitate the movement of NATO forces among the countries. <sup>56</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." <sup>57</sup>

At the July 2016 Warsaw summit, NATO also agreed to create a multinational framework brigade based in Craiova, Romania, under the control of Headquarters Multinational Division Southeast (HQ MND-SE) in Bucharest. 58 HQ MND-SE achieved final operational

capability in March 2018.<sup>59</sup> 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>60</sup>

Addressing a NATO capability gap, Belgium, Germany, Luxembourg, the Netherlands, and Norway are jointly procuring eight A330 airto-air refueling aircraft, to be deployed from 2020–2024. The U.S. currently carries out 90 percent of NATO air-to-air refuelings. 62

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." 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. These commands consist of a total of 1,500 personnel, with the logistics command headquartered in Ulm, Germany.

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.

Former Commander of U.S. Army Europe Lieutenant General Ben Hodges has described the importance of NATO's recent focus on ports. In addition to improving capabilities for loading and offloading equipment, utilizing different ports in Europe has helped to improve alliance resiliency. Focusing on only one port "would obviously communicate a vulnerability to the Russians or other potential adversaries," according to Hodges, "so we've used Gdansk.

We've used Bremerhaven. We've used Klaipeda in Lithuania. We've used Thessaloniki and Alexandropulis in Greece, and Constanta in Romania."<sup>66</sup> In May 2018, a U.S. ABCT arriving in Europe for a rotational deployment disembarked at Antwerp, Belgium, and practiced traveling overland to its deployment bases further east.<sup>67</sup>

**Training Exercises.** In order to increase interoperability and improve familiarity with allied warfighting capabilities, doctrines, and operational methods, NATO conducts frequent joint training exercises. The number of these exercises has increased from 108 in 2017 to 180 in 2018.

The broad threat that Russia poses to Europe's common interests makes military-to-military cooperation, interoperability, and overall preparedness for joint warfighting especially important in Europe. In October and November 2018, 50,000 troops from 31 nations (every NATO member state plus Finland and Sweden) took part in Trident Juncture 18, the largest NATO exercise since 2002.69 "At the core of the exercise," as described by Admiral James Foggo, Commander, Allied Joint Force Command, "is the NATO Response Force and within that, the 5000 person-plus Spearhead force, otherwise known as the VJTF or the Very High Readiness Joint Taskforce."70 A principal focus of the exercise "was NATO's ability to move personnel and armor quickly across Europe."71

In June 2018, 18,000 troops from Canada, Croatia, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, Macedonia, the Netherlands, Norway, Poland, Romania, Spain, the United Kingdom, and the U.S. took part in Saber Strike 18 across Estonia, Latvia, Lithuania, and Poland. The exercise focused on moving large numbers of troops and equipment across Europe and "integrat[ing] NATO command elements at multiple levels to practice coordination and command and control."

In September and October 2018, 5,500 troops from 20 nations including the U.S. took part in Saber Junction 2018 in Germany. The

exercise "was designed to assess the readiness of the 173rd Airborne Brigade to execute land operations in a joint, combined environment and to promote interoperability with participating allies and partner nations."<sup>73</sup>

**Cyber Capabilities.** 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>74</sup>

At the 2016 Warsaw summit, NATO recognized cyberspace as a domain of operations, and on August 31, 2018, it established a Cyberspace Operations Center (CYOC) in Mons, Belgium, that will include 70 cyber experts when it becomes fully operational in 2023.75 The CYOC, according to NATO, "will provide situational awareness and coordination of NATO operational activity within cyberspace."76 In 2017, NATO announced \$1.85 billion to expand its satellite communications capabilities.<sup>77</sup> 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.78

The alliance is seeking ways to work more closely with the EU on cyber issues, but "[d]espite political-level agreement to work together, EU–NATO cyber cooperation remains difficult and the institutional options often limited."<sup>79</sup> Nevertheless, cyber is recognized as a critical area of competition, and NATO is expanding its efforts to gain greater expertise and capability in this area. In 2018, Japan and Australia

became the first non-NATO countries outside of the EU to join the Cooperative Cyber Defence Centre of Excellence (CCDCOE) in Tallinn.<sup>80</sup>

Ballistic Missile Defense. NATO announced the initial operating capability of the Ballistic Missile Defense (BMD) system in 2016.81 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.82 Other components include a forward-based early-warning BMD radar at Kürecik, Turkey, and BMD-capable U.S. Aegis ships forward deployed at Rota, Spain.83 A second Aegis Ashore site in Redzikowo, Poland, which broke ground in May 2016, was expected to be operational in 2017 but because of "construction issues" is now not expected to become operational until 2020.84 Ramstein Air Base in Germany hosts a command and control center.85

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." Norway operates four Aegis *Fridtjof Nansen*–class Aegis-equipped frigates that are not currently BMD capable. A fifth Aegis-equipped frigate, the *Helge Ingstad*, collided with an oil tanker and was intentionally run aground in November 2018 and is almost certainly lost. B

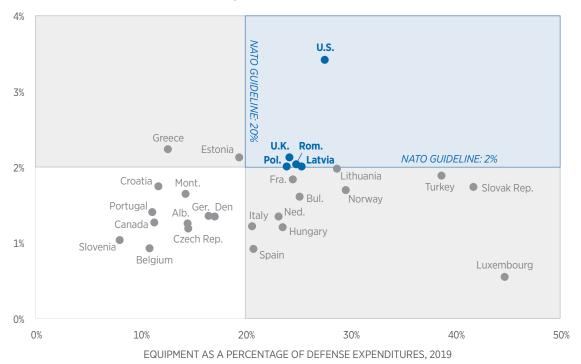
Denmark, which agreed in 2014 to equip at least one frigate with radar to contribute to NATO BMD, reaffirmed this commitment in the recent Defence Agreement 2018–2023. Russia's ambassador in Copenhagen has openly threatened Denmark for agreeing to contribute: "I do not believe that Danish people fully 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."

In March 2019, the first of four Dutch *Iver Huitfeldt*-class frigates received a SMART-L Multi-Mission/Naval (MM/N) D-band

### **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 four other nations do both, though Estonia and Lithuania nearly meet both guidelines.





**NOTES:** Figures are estimates for 2019. Iceland is not listed because it has no military. **SOURCE:** NATO, "Defence Expenditures of NATO Countries (2012–2019)," June 25, 2019, https://www.nato.int/nato\_static\_fl2014/assets/pdf/pdf 2019 06/20190625 PR2019-069-EN.pdf (accessed June 26, 2019).

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long-range radar upgrade, which is "designed to detect air, surface, and high-speed exo-atmospheric targets out to an instrumental range of 2,000 km." In February, 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.

The U.K. operates a BMD radar at RAF Fylingdales in England. In November 2015, the

U.K. government stated that it plans to build new ground-based BMD radar as a contribution. <sup>93</sup> It expects the new radar to be in service by the mid-2020s and reportedly will also "investigate further the potential of the Type 45 Destroyers to operate in a BMD role." <sup>94</sup> It also has been reported that Belgium intends to procure M-class frigates that "will be able to engage exo-atmospheric ballistic missiles."

Belgium and the Netherlands are jointly procuring four frigates. Spain currently operates four Aegis equipped F-100 *Alvaro de Bazan*–class frigates.<sup>96</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 BMD exercise called Formidable Shield off the Scottish Coast. <sup>97</sup> Formidable Shield exercises were held again in 2019. <sup>98</sup>

#### 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 2018, seven countries—Estonia (2.07 percent); Greece (2.22 percent); Latvia (2.03 percent); Lithuania (2.00 percent); Poland (2.05 percent); the United Kingdom (2.15 percent); and the United States (3.39 percent))—spent the required 2 percent of gross domestic product (GDP) on defense,100 and 16 NATO allies spent 20 percent of their defense budgets on "major new capabilities." 101 NATO defense spending continues to trend upward: "In real terms, defence spending among European Allies and Canada increased by almost 4% from 2017 to 2018. Furthermore, in the period from 2016 to 2018, they have contributed an additional cumulative spending of over USD 41 billion."102

**Germany.** Germany remains an economic powerhouse that punches well below its weight in terms of defense. In 2018, it spent only 1.23 percent of GDP on defense and 14.1 percent of its defense budget on equipment. <sup>103</sup> This year, Germany officially reneged on its pledge to spend 2 percent of GDP in 2024, informing NATO that it would reach only 1.5 percent. <sup>104</sup> Germany plans to raise defense spending to 1.3 percent of GDP in 2019 and 1.37 percent in 2020; however, under current budget plans, its defense spending will decline again to 1.25

percent in 2023.<sup>105</sup> Because of the political constraints under the current coalition government, which is likely to remain in office until 2021, German defense spending is not likely to shift significantly.

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.'"<sup>106</sup>

Germany continues to serve as the framework nation for NATO's EFP battalion in Lithuania, with 540 troops stationed there. 107 The Luftwaffe has taken part 11 times in Baltic Air Policing, more than any other nation's armed forces, including most recently in the second half of 2018. Additionally, in January, Germany took over the lead for NATO's VJTF.<sup>108</sup> However, the political decision-making involved in deploying German VJTF forces could prove worrisome in case of a crisis.<sup>109</sup> An ominous internal Ministry of Defense report leaked in February 2018 questioned the readiness and ability of the brigade that will lead the VJTF, citing a lack of equipment. According to reports, "the brigade had only nine of 44 Leopard 2 tanks, and three of the 14 Marder armored personnel carriers that it needs. It is also missing night vision goggles, support vehicles, winter clothing and body armor."110

The 1st German/Netherlands Corps is also currently in charge of the land forces of the larger NATO Response Force. Germany maintains 100 troops in Kosovo as part of NATO's Kosovo Force (KFOR) 2 and is the second-largest contributor to NATO's Resolute Support Mission in Afghanistan, with 1,300 troops, a level made possible by an increase of one-third that was approved in March 2018. The Bundestag also extended the mandate for Germany's participation in NATO's Sea Guardian maritime security operation, as well as deployments in support of the U.N. peacekeeping mission in Mali and South Sudan and participation in the counter-ISIS coalition. <sup>114</sup>

In October 2018, Germany extended its non-combat training mission in Iraq, but it

is scheduled to end its reconnaissance and air-to-air refueling missions in support of the counter-ISIS coalition by October 31, 2019. 115 Germany has trained over 18,000 Peshmerga since 2015 and in August 2018 introduced a new training program for Iraqi forces at Taji, which will focus on "logistics, paramedic training and defusing explosive devices." 116 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. 117

While Germany's forces have taken on additional roles in recent years, its overall military continues to suffer serious equipment and readiness issues. In June 2018, it was reported that a Defense Ministry document revealed the state of German readiness: Only 39 of 128 German Typhoons, 26 of 93 Tornado aircraft, 12 of 62 Tiger attack helicopters, 16 of 72 CH-53 transport helicopters, 13 of 58 NH-90 transport helicopters, three of 15 A400M transport aircraft, 105 of 224 Leopard 2 tanks, five of 13 frigates, and no German submarines were ready for action. The same report also stated that the increased number of deployments and training events since 2014 was causing equipment to wear down at a faster rate.118

The myriad examples of Germany's lack of military readiness are worrisome. Despite plans to raise the number of active soldiers from 179,000 to 198,000 by 2024, for example, the military already suffers from acute manpower shortages including 21,000 vacant officer posts. <sup>119</sup> News reports in December 2018 cited a classified Defense Ministry plan to recruit Italians, Poles, and Romanians living in Germany to fill manpower gaps. <sup>120</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>121</sup> In December 2017, Germany's F-125 *Baden-Württemberg*–class frigate failed sea trials because of "software and hardware defects." <sup>122</sup> The frigate reportedly had "problems with its radar, electronics and the flameproof coating on

its fuel tanks. The vessel was also found to list to the starboard" and lacked sufficiently robust armaments as well as the ability to add them. <sup>123</sup> Concerns have been raised about the frigate's ability to defend against aerial attack, leaving it fit only for "stabilization operations." <sup>124</sup> Germany returned the ship to the shipbuilder following delivery. <sup>125</sup>

The German Army cannot deploy a single brigade without first cannibalizing equipment and materials from other units. 126 The Luftwaffe faces similar problems. Training for new Tornado pilots is three months behind, and "[t]he Luftwaffe's main forces—the Eurofighter and Tornado fighter jets and its CH-53 transport helicopters—are only available for use an average of four months a year—the rest of the time the aircraft are grounded for repairs and rearmament." 127

The Navy's planned acquisitions signal the growing importance of operations in the Baltic Sea. <sup>128</sup> Germany is seeking a replacement for its 90 Tornado aircraft, set to be retired in 2030. In January 2019, the F-35 was eliminated as a potential replacement, leaving the F/A-18E/F Super Hornet and the Eurofighter Typhoon. <sup>129</sup> The Tornado replacement, planned "to enter service in about 2025," <sup>130</sup> 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>131</sup>

Germany's military faces institutional challenges to procurement that include an understaffed procurement office with 1,100 vacancies, which is equal to 17 percent of its entire workforce, and the need for special approval by a parliamentary budget committee for any expenditure of more than €25 million. Because of vacancies and ineffective management, 10 percent of Germany's equipment budget went unspent in 2018. 133

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.<sup>134</sup>

Germany's procurement of A400M cargo aircraft has been beset by delays, although the nation did receive 10 A400M aircraft in 2018.135 A confidential German report reportedly raised doubts about "whether, when and how many mature deployable A400M will be available with the contractually required suite of tactical capabilities."136 A difficult-to-use mission-planning system was a significant problem flagged by the report. 137 The continued failure of the A400M to include all of the original requirements has led in part to further delays and the need for retrofits and upgrades to produced aircraft, which could take several years; the U.K.'s A400M fleet reportedly will not be fully capable until the middle of the next decade.138

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. 139

**France.** France has one of the most capable militaries within the NATO alliance 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. France increased its defense spending by 5 percent (\$2.1 billion more than 2017) in 2018 and further increased spending by 5 percent (\$2 billion more than 2018) in 2019.140 In 2018, France spent 1.82 percent of GDP on defense and 23.7 percent of defense spending on equipment, attaining one of two NATO benchmarks.141 In 2019, it plans to spend an extra \$1.46 billion more on equipment purchases than in 2018.142

In July 2018, President Emmanuel Macron signed the 2019–2025 military budget law, under which France's defense spending would reach 2 percent of GDP in 2025. However, one-third of the planned increases will not take effect until 2023 after the next French general election, with a budgetary review set for 2021. Much of the increased spending will be used for intelligence and military procurement, including "the acquisition of more than 1,700 armored vehicles for the Army as well

as five frigates, four nuclear-powered attack submarines and nine offshore patrol vessels for the Navy." Procurements for the Air Force would include "12 in-flight refueling tankers, 28 Rafale fighter jets and 55 upgraded Mirage 2000 fighters."<sup>143</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 28 Rafales, to be delivered in 2023, "will include some F4 functionalities." Also in January, French 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.<sup>144</sup>

France is upgrading its sea-based and airbased nuclear deterrent. "It is estimated the cost of this process will increase from \$4.4bn in 2017 to \$8.6bn per year in 2022–2025," according to the International Institute for Strategic Studies (IISS), "but decrease thereafter—with these outlays likely to come at the expense of conventional procurements." <sup>145</sup>

In December 2016, France opened a cyber-operational command. <sup>146</sup> The French Military Programming Law for 2019–2015, 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>147</sup>

France, which has the third-largest number of active-duty personnel in NATO, <sup>148</sup> withdrew the last of its troops from Afghanistan at the end of 2014, although all French combat troops had left in 2012. France has 1,100 soldiers deployed in the campaign against the Islamic State, along with 10 Rafale fighter jets and three CAESAR self-propelled howitzers. <sup>149</sup>

The September 2017 death of a Special Forces soldier was the first combat death in Operation Chammal (French operations in Iraq). <sup>150</sup> In April 2018, France joined the U.S. and U.K. in targeting the Assad regime for its use of chemical weapons. <sup>151</sup> In January 2019, President Macron stated that France would continue to be

"militarily engaged" in the Middle East through the end of 2019.  $^{152}$ 

In April 2019, 300 French troops, along with four Leclerc tanks and 20 IFVs, joined the U.K.-led NATO EFP battlegroup in Estonia, to remain until the end of August. <sup>153</sup> The French military is also very active in Africa, with more than 4,500 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, 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 to clamp down on human smuggling and migration and is involved in a few other maritime missions across the globe as well.<sup>154</sup> French naval forces occasionally conduct freedom of navigation operations in the South China Sea.<sup>155</sup> In April 2019, France sent a frigate, the Vendémiaire, through the Taiwan Strait on a freedom of navigation operation.156 In March 2019, a French carrier strike group that included the French aircraft carrier Charles de Gaulle following an 18-month refurbishment began a five-month deployment to the Mediterranean to support Operation Chammal, as well as to the Red Sea and Indian Ocean, making a port call in Singapore in May.157

Operation Sentinelle, launched in January 2015 to protect the country 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." Frequent deployments, especially in Operation Sentinelle, have placed significant strains on French forces and equipment. "In early September 2017," according to the 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." To counteract the strain on soldiers, the government extended

deployment pay to soldiers taking part in and created a "medal for Protection of the Territory" for troops deployed for 60 days in Operation Sentinelle.<sup>160</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. U.K. Prime Minister Margaret Thatcher made clear the essence of this Special Relationship when she first met U.S.S.R. President Mikhail Gorbachev in 1984: "I am an ally of the United States. We believe the same things, we believe passionately in the same battle of ideas, we will defend them to the hilt. Never try to separate me from them."161

In 2015, the U.K. conducted a Strategic Defence and Security Review (SDSR), the results of which have driven a modest increase in defense spending and an effort to reverse some of the cuts that had been implemented pursuant to the previous review in 2010. In 2018, the U.K. spent 2.15 percent of GDP on defense and 24.1 percent of its defense budget on equipment.<sup>162</sup> In October 2018, the Treasury announced an additional \$1.28 billion for the Ministry of Defence (MOD), in particular for cyber, anti-submarine warfare, and Dreadnought-class submarines.<sup>163</sup> Even though the MOD managed to save £5 billion over five years on "efficiencies," 164 funding procurement remains a long-term issue. A November 2018 report from the National Audit Office found a \$9.4 billion funding shortfall for the U.K.'s equipment program.165

In December 2018, the U.K. released its Defence Modernisation Programme, which reaffirmed Britain's commitment to defense in post-Brexit Europe: "As we leave the European Union, the UK will continue to protect the Euro-Atlantic region through our leading role in the Alliance." The program also 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>166</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 2025.167 This goal was reiterated in the MOD's 2018 report on the Defence Modernisation Programme.168 However, U.K. defense forces remain plagued by vacancies. "Under-staffing increased by 1.3% in 2018, an overall deficit of 6.2%, compared with 3.3% in 2016," according to the IISS. "There are particular deficiencies in numbers of pilots, intelligence specialists and engineers, especially nuclear engineers."169

In October 2018, because of a shortage of sailors, four of the Royal Navy's 13 frigates reportedly had not spent a day at sea.<sup>170</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.<sup>171</sup> The 79 other tanks would be scavenged for spare parts.<sup>172</sup> The British Army had previously cut its tank forces by 40 percent in 2010.<sup>173</sup>

In November 2018, former Defence Secretary Gavin Williamson announced a contract to order an additional 17 F-35B aircraft. The Royal Air Force (RAF), which has already taken delivery of 17 F-35Bs and has one additional plane on order, will have a fleet of 35 F-35Bs by the end of 2022. The MOD remains committed to purchasing 138 F-35s, but defense budget pressure has led some to raise the possibility that the number acquired might be cut. The January 2019, the RAF announced that initial operating capability had been reached both for the F-35B and for the Typhoon fighter aircraft,

which received additional Storm Shadow long-range cruise missiles and Brimstone precision attack missiles under the \$546 billion Project Centurion upgrades. The U.K. also plans to invest \$2.6 billion in development of the Tempest, a sixth-generation fighter to be delivered in 2035. The Edward Tempest, a sixth-generation fighter to be delivered in 2035.

The RAF recently brought into service a new fleet of air-to-air refuelers, which is particularly noteworthy because of the severe shortage of this capability in Europe. 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 already seen service in Mali, Nigeria, and Iraq and is now part of the RAF fleet.<sup>178</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 fleet of 22 A400Ms by the early 2020s. The 2015 SDSR recommended keeping 14 C-130Js in service even though they initially were going to be removed from the force structure.

The Sentinel R1, an airborne battlefield and ground surveillance aircraft, originally 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 will come into service in November.<sup>180</sup> In January 2019, RAF members began P-8 training in the U.S. 181 A £132 million facility to house the P-8s is under construction at RAF Lossiemouth in Scotland, to be completed in 2020. 182 In the meantime, the U.K. has relied on allied MPAs to fill the gap; in 2017, 17 MPAs from the U.S., Canada, France, Germany, and Norway deployed to RAF Lossiemouth.<sup>183</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>184</sup> The U.K. operates only 19 frigates and destroyers, which most experts agree is dangerously low for the commitment asked of the Royal Navy (in the 1990s, the fleet numbered nearly 60 surface combatants). In December 2017, 12 of 13 Type-23 frigates and all six Type-45 destroyers were in port, leaving only one Royal Navy frigate on patrol. <sup>185</sup> In August 2017, because of a shortage of surface combatants, the U.K. was forced to send a minesweeper to escort two Russian submarines through the English Channel. <sup>186</sup>

The U.K. will not have an aircraft carrier in service until the first Queen Elizabeth-class carrier enters service next year.<sup>187</sup> This will be the largest carrier operated in Europe, and two of her class will be built. In September 2018, the Queen Elizabeth underwent development trials off the Maryland coast that included flight trials with F-35Bs landing and taking off from the carrier's deck.188 HMS Queen Elizabeth will return to the U.S. in late 2019 for additional sea and flight trials.189 The Royal Navy is also introducing seven Astute-class attack submarines as it phases out its older Trafalgar-class subs. Crucially, the U.K. maintains a fleet of 13 Mine Counter Measure Vessels (MC-MVs) that deliver world-leading capability and play an important role in Persian Gulf security contingency planning.

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. However, the replacement submarines are not expected to enter service until 2028 at the earliest. 190 In March 2018, Prime Minister Theresa May announced a £600m increase for procurement of the new Dreadnought-class submarines, stating that the extra funds "will ensure the work to rebuild the UK's new world-class submarines remains on schedule."191

The U.K. remains a leader inside NATO, serving as the framework nation for NATO's EFP in Estonia and as a contributing nation for the U.S.-led EFP in Poland. In April, four RAF Typhoons were sent to Estonia to begin

Britain's fifth Baltic Air Policing deployment. 192 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. 193 The U.K. took part in Icelandic Air Policing in 2018 for the first time in over a decade because of a previous diplomatic dispute.194 The U.K. also increased its already sizeable force in Afghanistan to 1,100 troops in 2018 as part of NATO's Resolute Support Mission and contributes to NATO's Kosovo Force, Standing NATO Maritime Group 1, and Mine Countermeasures Group One. 195 U.K. forces are an active part of the anti-ISIS coalition, and the U.K. joined France and the U.S. in launching airstrikes against the Assad regime in April 2018 in response to its use of chemical weapons against civilians. 196

Italy. Italy hosts some of the U.S.'s most important bases in Europe, including the headquarters of the Sixth Fleet. It also has NATO's fifth-largest military<sup>197</sup> and one of its more capable ones despite continued lackluster defense investment. In 2018, Italy spent only 1.15 percent of GDP on defense, but it did spend 21.1 percent of its defense budget on equipment, meeting the second NATO spending benchmark.<sup>198</sup> Italy cut a further \$512.3 million from defense spending in 2019 and suspended NH-90 helicopter procurements and, as a result, the CAMM-ER (Common Anti-Air Modular Missile-Extended Range) missile system as well.<sup>199</sup>

Home to a developed and mature defense industry, Italy spent approximately \$5.7 billion on procurement in 2018, including purchases of four Special Forces Chinook helicopters. 200 The Italian Navy is undergoing a long-term replacement program that will include seven multipurpose patrol ships, new U212A submarines, a submarine rescue vehicle, and a new anti-ship missile system. 201 Italy launched the eighth of 10 planned FREMM frigates in February 2019 and also plans to purchase 60 F-35As for the air force and 30 F-35Bs for naval aviation. 202

A government-owned final assembly plant for the F-35 is located in Italy, which "was about to take delivery of its 12 F-35" as of March 2019.<sup>203</sup> Italian Defense Minister Elisabetta Trenta of the Five Star Movement was reviewing the program in June 2018, and the Five Star Movement had gone on record previously against Italy's planned order, but in March 2019, the leader of Italy's powerful junior coalition partner defended the nation's planned F-35 purchase.<sup>204</sup>

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. <sup>205</sup> Italy's Operation Mare Sicuro has been active off the Libyan coast, and Italy has donated patrol boats to the Libyan coast guard. <sup>206</sup> Additionally, 283 Italian troops take part in the bilateral Mission of Assistance of Support in both Misrata and Tripoli. <sup>207</sup> These efforts have borne fruit; In February 2019, Central Mediterranean migrant crossings reached a nine-year low. <sup>208</sup>

Despite a southern focus, Italy contributes to NATO's EFP battalion in Latvia with 160 troops and (second only to the United States) KFOR with 542 troops. <sup>209</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>210</sup> In March 2019, the Italian Air Force deployed to Iceland to perform air patrols for the fourth time since 2013. <sup>211</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 liberating the Baltic States in the event of a Russian invasion reportedly rely heavily on Polish troops and ports. <sup>212</sup>

Poland has an active military force of 117,800, including a 61,200-strong army

with 637 main battle tanks.<sup>213</sup> In November 2016, Poland's Parliament approved a new 53,000-strong territorial defense force intended, in the words of Poland's Defense Minister, "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."214 The planned 17 brigades of the Territorial Defense Forces will be distributed across the country.215 Scheduled "to reach the full manpower by 2019," the Territorial Defense Forces constitute the fifth branch of the Polish military, subordinate to the Minister of Defense,216 and will deal with hybrid threats, linking "the military closely to society, so that there will be someone on hand in the event of an emergency to organize our defenses at the local level."217 Prioritization of the Territorial Defense Forces, which had a budget similar to the Polish Navy's in 2018,218 remains controversial in Polish defense circles.

In 2018, Poland spent 2.05 percent of GDP on defense and 26.5 percent of its defense budget on equipment, reaching both NATO benchmarks.<sup>219</sup> Pursuant to increases in defense spending adopted in October 2017, Poland should be spending 2.5 percent of GDP on defense in 2030.<sup>220</sup> Poland is making major investments in military modernization and is planning to spend \$48.7 billion on new capabilities by 2026, as assumed by the Armed Forces Technological Modernisation Plan (TMP) 2017–2026 signed in February 2019.<sup>221</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>222</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, <sup>223</sup> 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. <sup>224</sup> In February 2018, Poland joined an eight-nation "coalition of NATO countries seeking to jointly buy a fleet of maritime surveillance aircraft." <sup>225</sup> Poland

has also expressed interest in purchasing 32 F-35 fighter jets.<sup>226</sup>

Poland seeks a permanent U.S. presence, offering \$2 billion to support it. <sup>227</sup> Although Poland's focus is territorial defense, it has 303 troops deployed in Afghanistan as part of NATO's Resolute Support Mission and took part in Operation Inherent Resolve to defeat ISIS. <sup>228</sup> Poland's air force has taken part in Baltic Air Policing eight times since 2006, most recently from January–May 2019. <sup>229</sup> Poland also is part of NATO's EFP in Latvia, <sup>230</sup> has 100 troops in NATO Mission Iraq, <sup>231</sup> has a frigate in Standing NATO Maritime Group One (SNMG1), <sup>232</sup> and has 240 troops in NATO's KFOR mission. <sup>233</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 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.

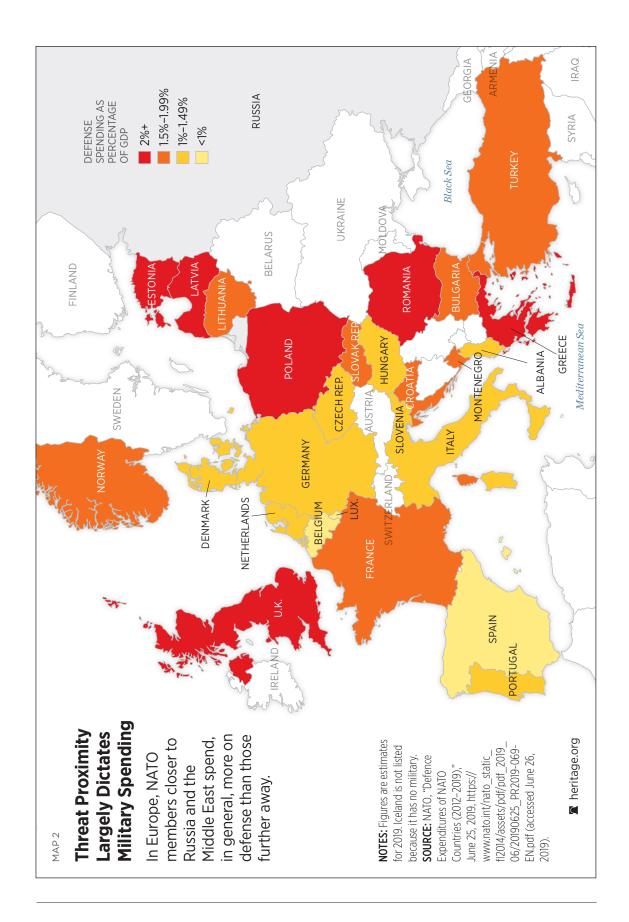
Following an attempted coup in July 2016, thousands of academics, teachers, journalists, judges, prosecutors, bureaucrats, and soldiers were fired or arrested. As of April 2019, 77,000 people had been jailed, and nearly 170,000 civil servants and military members had been fired or suspended; the mass detentions led the government in December 2017 to announce plans to build 228 new prisons over five years. 234 The post-coup crackdown has had an especially negative effect on the military. In April 2019, Turkey announced the detention of 210 additional military members including five colonels, seven lieutenant colonels, 14 majors, and 33 captains.<sup>235</sup> In April 2019, the Turkish Defense Ministry reported that 16,540 military personnel have been dismissed since the coup attempt.236

Turkey's military is now suffering from a loss of experienced generals and admirals as well as an acute shortage of pilots, and former NATO Supreme Allied Commander, Europe, General Scaparrotti has stated that Erdogan's military purges have "degraded" NATO's military capabilities.237 The dismissal of more than 300 F-16 pilots, for instance, led to an August 2017 emergency decree in which the government recalled retired fighter pilots by threatening to revoke their civil pilot licenses; as of January 2019, only 40 had returned. 238 In January 2019, Turkish Defense Minister Hulusi Akar admitted that pilots are overworked: "When we conduct ground operations, our air force, with great heroism and sacrifice, successfully hits its targets, with one pilot assuming tasks that five pilots are supposed to do."239

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 Russia began delivery of the S-400 system to Turkey in July 2019. U.S. officials, including Secretary of State Mike Pompeo, have expressed grave concerns about this purchase and have stated that Turkey will not receive F-35 jets if it acquires the S-400. 241

U.S. Administration officials and Members of Congress have threatened Turkey with potential sanctions because of the purchase. <sup>242</sup> In March 2019, Katie Wheelbarger, Acting Assistant Secretary of Defense for International Security Affairs, summarized the threat: "The S-400 is a computer. The F-35 is a computer. You don't hook your computer to your adversary's computer and that's basically what we would be doing." <sup>243</sup> While training of Turkish pilots on the aircraft in the U.S. reportedly continues, <sup>244</sup> it is hard to envision a scenario in which Turkey continues with the S-400 purchase and receives the F-35.

Eight Turkish defense firms make more than 800 components for the F-35, and some U.S. officials have suggested that American sanctions could cost Turkish defense industry as much as \$10 billion.<sup>245</sup> The U.S. stopped



delivery of key parts and program materials to Turkish firms in early April and reportedly has offered to allow Turkey to purchase a Patriot missile battery if it cancels the S-400 sale, an offer that Turkish officials have declined in part because of the exclusion of a technology-sharing pact.<sup>246</sup>

One result of the strain in U.S.–Turkish relations caused by the S-400 purchase has been an underappreciated strengthening of U.S.–Greek relations. In May 2018, the U.S. began to operate MQ-9 Reaper drones out of Greece's Larisa Air Base in flights that continued through August 2019.<sup>247</sup> The U.S. and Greece are in discussions about possibly using Larisa for KC-135 Stratotanker or UAV flights and expanding training at the base.<sup>248</sup> In October 2018, Greek Defense Minister Panos Kammenos raised the possibility that the U.S. might "deploy military assets in Greece on a more permanent basis, not only in Souda Bay but also in Larissa, in Volos, in Alexandroupoli."

Nevertheless, 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. According to U.S. officials, "Turkey has been making it harder to conduct air operations at the base, such as requesting the U.S. suspend operations to allow high-ranking Turkish officials to use the runway. Officials said this sometimes halts U.S. air operations for more than a day."250 Germany's decision to leave the base also has affected American views of Incirlik's value. Other tensions stem from an August 2018 petition promoted by a Turkish legal organization with ties to the ruling party. The group was seeking to execute a search warrant at Incirlik and to arrest American personnel who, according to the petition, at one time were assigned to the base and allegedly had participated in the failed 2016 coup.<sup>251</sup>

U.S. officials, however, have largely down-played tensions with Turkey. An official at EU-COM, 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>252</sup> Incirlik's strategic value was on display again in May 2018 when an F-18 pilot taking part in airstrikes against ISIS made an emergency landing there after suffering from hypoxia.<sup>253</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. 254 NATO members Italy and Spain currently deploy air defense batteries to Turkey. 255 Additionally, NATO AWACS aircraft involved in counter-ISIS operations have flown from Turkey's Konya Air Base. 256 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. 257

While visiting Turkey in April 2018, NATO Secretary General Jens Stoltenberg stated that "Turkey is a highly valued NATO Ally, and Turkey contributes to our shared security, our collective defence, in many different ways." Stoltenberg also referenced the significant financial investment that NATO was making in the upgrading of Turkey's military infrastructure.<sup>258</sup> Turkey continues to maintain more than 593 troops in Afghanistan as part of NA-TO's Resolute Support Mission, making it the seventh-largest troop contributor out of 39 nations.<sup>259</sup> The Turks also have contributed to a number of peacekeeping missions in the Balkans, still maintain 246 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,260 which is NATO's second largest after that of the United States.

The failed coup plot enabled Erdogan to consolidate more power. A December 2017 decree placed the Undersecretariat for Defense Industries (SSB) responsible for procurement under Erdogan's direct control.261 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."262 Other challenges include a sputtering economy, weakened lira,263 and 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 are scheduled to be ready in May 2020, relies on a German-made engine and transmission.264

Other major procurements include 350 T-155 Firtina 155mm self-propelled howitzers, six Type-214 submarines, and more than 50 T-129 attack helicopters. <sup>265</sup> Turkish submarine procurement has faced six-year delays, and the first submarine will not be delivered until 2021. <sup>266</sup> In February 2019, Turkey announced upgrades of four *Preveze*-class submarines, to take place from 2023–2027. <sup>267</sup> 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." <sup>268</sup>

Geographically and geopolitically, Turkey remains a key U.S. ally and NATO member. It has been a constructive and fruitful security partner for decades, and maintaining the relationship is in America's interest. The challenge for U.S. and NATO policymakers will be to navigate Erdogan's increasingly autocratic leadership, discourage Ankara's warming relations with Russia, and find a way to resolve the S-400 standoff.

**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, the Baltic States 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 and, with defense spending equal to 2.07 percent of GDP, was one of seven NATO members to meet the first NATO benchmark in 2018.<sup>269</sup> In March 2019, the Defense Ministry announced that "[a] total of EUR 585 million has been set aside for defence expenditures, representing 2.16% of the forecast GDP."<sup>270</sup>

Although the Estonian armed forces total only 6,600 active-duty service personnel (including the army, navy, and air force),<sup>271</sup> 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 deployed between 2003 and 2014, sustaining 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 Estonian 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. One recent joint procurement is with neighboring Finland to acquire 12 South Korean-built howitzers by 2023.274 In 2014, Estonia contracted with the Netherlands to purchase 44 used infantry fighting vehicles, the last of which have been delivered.275 In June 2018, it signed a \$59 million deal to purchase shortrange air defenses, with Mistral surface-toair missiles to be delivered starting in 2020.276 In 2019, Estonia received two C-145A tactical transport aircraft donated by the U.S.<sup>277</sup> In May, the first of three Sandown-class minehunters underwent sea trials following upgrades.<sup>278</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."<sup>279</sup> In February 2019, the Defense Ministry approved its development plan for 2020–2023, which in part details plans to spend over \$48 million on the Estonian Defence League: "The equipment and armaments of the Defence Forces and the Defence League are being upgraded—new firearms, communications and IT equipment, clothing, flak jackets and bulletproof vests are being procured."<sup>280</sup>

Estonia's cyber command became operational in August 2018 and is expected to include 300 people when it reaches full operational capability in 2023. <sup>281</sup> The Estonian Defence League also has a Cyber Defence Unit, a reserve force that relies heavily on expertise found in the civilian sector and whose mission is "to protect Estonia's high-tech way of life, including protection of information infrastructure and supporting broader objectives of national defence." <sup>282</sup>

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>283</sup> Estonia's defense budget for 2019 reflects that Estonia was to receive €14 million from NATO's Security Investment Program to improve staging facilities at Tapa where the NATO EFP is located and €9 million "for increasing training opportunities at the central training area."<sup>284</sup>

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, it has contributed to a number of other international peacekeeping and military missions. These are significant numbers when one considers that only 6,210 of Latvia's troops are full-time servicemembers; the remainder are reserves.<sup>285</sup>

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." The concept requires a 6,500-strong peacetime military force, a level that Latvia has not yet achieved; Latvia added 640 soldiers to its armed forces in 2018 and plans "to recruit up to 710" more by the end of 2019.

In 2018, Latvia spent 2.03 percent of GDP on defense, slightly higher than the NATO benchmark of 2 percent, and spent 35.4 percent of its defense budget on equipment.<sup>288</sup> In November 2018, it signed a deal for four UH-60M Black Hawk helicopters.<sup>289</sup> In addition, Latvia has purchased 47 M109 self-propelled artillery pieces from Austria and Stinger man-portable air-defense missile systems (MANPADs) from Denmark.<sup>290</sup> Latvia has also expressed interest in procuring a medium-range ground-based air-defense system (GBADS) and is investing \$56 million annually through 2022 on military infrastructure, with two-thirds of this amount being spent to upgrade Ādaži military base, headquarters of the Canadian-led EFP battlegroup.291

Lithuania. Lithuania is the largest of the three Baltic States, and its armed forces total 19,850 active-duty troops.<sup>292</sup> It reintroduced conscription in 2015.293 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 only a handful of NATO members to have commanded a PRT. Lithuania continues to contribute to NATO's KFOR and Resolute Support Missions. 294

In 2018, Lithuania reached the NATO benchmark of 2 percent of GDP devoted to spending on defense and spent 30.6 percent of its defense budget on equipment.<sup>295</sup> The government's 2019 National Threat Assessment

clearly identifies Russia as the main threat to the nation. <sup>296</sup> In April 2019, the U.S. and Lithuania signed a five-year "road map" defense agreement. <sup>297</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>298</sup>

Prime Minister Saulius Skvernelis has identified modernization as the armed forces' "number-one priority." Lithuania is procuring Norwegian-made ground-based mid-range air defence systems armed with U.S.-made missiles by 2021. Additional procurements include 88 Boxer Infantry Fighting Vehicles through 2021, additional missiles for the Javelin anti-tank system, and 21 PzH 2000 self-propelled howitzers. Lithuania is also seeking to purchase 200 Oshkosh Joint Light Tactical Vehicles by 2023.

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

At its peak in 1953, because of the Soviet threat to Western Europe, 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 68,000 troops are stationed in Europe.<sup>303</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 [USAFE]; 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.

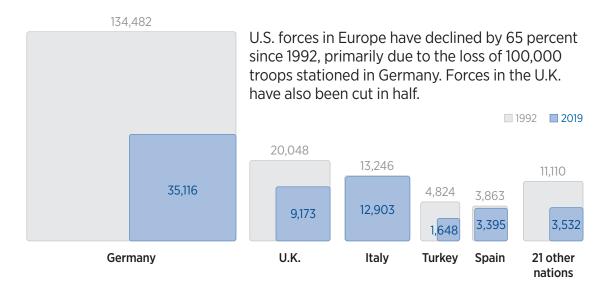
This command is currently provided by the U.S. Sixth Fleet, based in Naples, and brings critical U.S. maritime combat capability to an important region of the world. Some of the more notable U.S. naval bases in Europe include the Naval Air Station in Sigonella, Italy; the Naval Support Activity Base in Souda Bay, Greece; and the Naval Station at Rota, Spain. Naval Station Rota is home to four capable Aegis-equipped destroyers.<sup>304</sup>

A special focus for NAVEUR this year includes "enhancement to the Theater's Anti-Submarine Warfare through the procurement of additional equipment and the improvement to theater infrastructure" and a naval logistics hub. <sup>305</sup> 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>306</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 35,000 soldiers, is headquartered in Wiesbaden, Germany. Permanently deployed forces include the 2nd Cavalry Regiment, based in Vilseck, Germany, and the 173rd Airborne Brigade in Italy, with both units supported by the 12th Combat Aviation Brigade out of Ansbach, Germany. Additionally, in November 2018, the 41st Field Artillery Brigade returned to Europe, with headquarters in Grafenwoehr, Germany. 307 In addition:

Operational and theater enablers such as the 21st Theater Sustainment Command, 7th Army Training Command, 10th Army

### **U.S. Maintains Significantly Smaller Presence in Europe**



**NOTES:** 2019 figures are as of March. "21 other nations" include non-listed NATO members with American forces. **SOURCES:** U.S. Department of Defense, Defense Manpower Data Center, "DoD Personnel, Workforce Reports & Publications: Historical Reports—Military Only—1950, 1953–1999," https://www.dmdc.osd.mil/appj/dwp/dwp\_reports.jsp (accessed August 10, 2018), and U.S. Department of Defense, Defense Manpower Data Center, "DoD Personnel, Workforce Reports & Publications: Military and Civilian Personnel by Service/Agency by State/Country," https://www.dmdc.osd.mil/appj/dwp/dwp\_reports.jsp (accessed July 1, 2019).

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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>308</sup>

USAREUR will add 1,500 soldiers by 2020, including "two multiple launch rocket system battalions" and "a short-range air defense battalion." The 5th Battalion, 4th Air Defense Artillery Regiment, was activated in November 2018 and is now based in Ansbach. The rotational National Guard 174th Air Defense Artillery Brigade has replaced the National Guard 678th ADAB, which first deployed in April 2018 in the first such deployment since the end of the Cold War. 311

**U.S. Air Forces in Europe.** USAFE provides a forward-based air capability that can support a wide range of contingency operations. USAFE originated as the 8th Air Force in 1942 and flew strategic bombing missions over the European continent during World War II.

Headquartered at Ramstein Air Base, US-AFE has seven main operating bases along with 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. 312

**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. 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.314 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 NATO's exercise Trident Juncture 18, the largest NATO exercise in 16 years, which included 50,000 troops from 31 nations.315

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. The SPMAGTF helped with embassy evacuations in Libya and South Sudan and conducts regular drills with embassies in the region and exercises with a host of African nations' militaries. The SPMAGTF is a superior of African nations' militaries.

In September 2018, the Marine Corps ended a consistent rotation of 700 marines to the Black Sea Rotational Force (BSRF).<sup>318</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, since 1967. It also operates out of RAF Mildenhall. In June 2018, former 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>319</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 AF-RICOM'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 in those countries.

According to General Scaparrotti, "USEU-COM and USSOCOM work together to employ SOF in Europe, where their unique access and capabilities can be utilized to compete below the level of armed conflict." The FY 2020 DOD budget request included over \$100 million for various special operations programs and functions through EDI. This funding is intended to go to such projects as enhancement of special operations forces' staging capabilities and prepositioning in Europe, exercise support, and partnership activities with Eastern and Central European allies' special operations forces. <sup>321</sup>

# Key Infrastructure and Warfighting Capabilities

One of the major advantages of having U.S. forces 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. 322

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 roads in Europe 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. 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.

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, ranging from "very poor" to "excellent" conditions and covering 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 in the region 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 provide insight into the strength or health of an alliance. These 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: 3—Moderate
- Infrastructure: 4-Favorable

Leading to a regional score of: Favorable

## **Operating Environment: Europe**

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

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## Middle East

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 the region's 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 of many Arab/Sunni powers and the Persian/Shia power (Iran), compounded by clashing national and ideological interests, has fueled instability in such countries as Iraq, Lebanon, Syria, and Yemen. 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.

Current 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 the inadequate political, economic, and educational infrastructures in many countries, 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>3</sup>

The Middle East contains more than half of the world's oil reserves and is the world's chief oil-exporting region.<sup>4</sup> As the world's biggest oil consumer,<sup>5</sup> 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.

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).<sup>6</sup> 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 found 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 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 formed a regional 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. Years later, the economic and political outlooks remained bleak.

There is no shortage of security challenges for the U.S. and its allies in this region. Using the breathing space and funding afforded to it by the July 14, 2015, Joint Comprehensive Plan of Action (JCPOA),9 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 the serious flaws in the deal like the sunset clauses. 10 A year later, in May 2019, Iran announced that it was withdrawing from certain aspects of the JCPOA.11 U.S. economic sanctions have been restored to pre-JCPOA levels and in some cases have been expanded.12

While many of America's European allies publicly denounced the Administration's decision to withdraw, most officials agree privately that the JCPOA was 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>13</sup>

Tehran attempts to run an unconventional empire by exerting great influence on sub-state entities like Hamas (Palestinian territories); Hezbollah (Lebanon); the Mahdi movement (Iraq); and the Houthi insurgents (Yemen). In Afghanistan, Tehran's influence on some Shiite groups is such that thousands have volunteered to fight for Bashar al-Assad in Syria. <sup>14</sup> Iran also provided arms to the Taliban after it was ousted from power by a U.S.-led coalition <sup>15</sup> and has long considered the Afghan city

of Herat, near the Afghan–Iran 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. 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. To

In Syria, the Assad regime's brutal repression of peaceful demonstrations in early 2011 ignited a fierce civil war that has led to the deaths of more than half a million people; displaced more than 5.6 million refugees in Turkey, Lebanon, Jordan, Iraq, and Egypt; and displaced millions more people internally within Syria.<sup>18</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.19

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 U.S. In 2014, the U.S. announced the formation of a broad international coalition to defeat the Islamic State. By

early 2019, thanks to the international coalition led by the U.S., the territorial "caliphate" had been destroyed.

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>20</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. <sup>21</sup> 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. <sup>22</sup> 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>23</sup> All commercial land, air, and sea travel between Qatar and these nations has been severed, and Qatari diplomats and citizens have been evicted.

This is the most recent example of how regional tensions can transcend the Arab–Iranian or Israeli–Palestinian debate. 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.

Nor is this the first time that something like this has happened, albeit on a much smaller scale. In 2014, a number of Arab states recalled their ambassadors to Qatar to protest Doha's support for Egypt's Muslim Brotherhood movement.<sup>24</sup> It took eight months to resolve this dispute before relations could be fully restored.

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 U.K. 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>25</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>26</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>27</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. His government faces major political, economic, and security challenges.

### 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, and others spend very little. Saudi Arabia is by far the region's largest military spender in terms of budget size. As a percentage of GDP, Oman leads the way in the region, spending 12.1 percent on defense in 2017, the most recent year for which data are available.<sup>28</sup>

Historically, figures on defense spending for the Middle East have been very unreliable, and the lack of data has worsened. For 2018, there were no available data for Qatar, Syria, the United Arab Emirates, and Yemen according to the Stockholm International Peace Research Institute.<sup>29</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 from the map." 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.31 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 widely considered to be the most capable military force in the Middle East. On a conventional level, the IDF consistently surpasses other regional military forces.<sup>32</sup> Other countries, such as Iran, have developed asymmetric tactics and have built up the military capabilities of proxy groups to close the gap in recent years, but the quality and effectiveness of the IDF's technical capacity and personnel remain unparalleled.

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.<sup>33</sup> 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.<sup>34</sup>

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.<sup>35</sup> It 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 407 combat-capable aircraft including F-15s, Tornados, and Typhoons.<sup>36</sup>

In fact, air power is the strong suit of most GCC members. Oman operates F-16s and Typhoons. According to *Defense Industry Daily*, "The UAE operates the F-16E/F Desert Falcon, which holds more advanced avionics than any F-16 variant in the US inventory." Qatar operates French-made Mirage fighters and is buying 24 Typhoons from the UK.

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.39 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>40</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. 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. 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>43</sup>

Jordan is a close ally of the United States 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. Sixty-one F-16 Fighting Falcons form the backbone of its air force,<sup>44</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. Shiite army officers were favored over their Sunni, Christian, and Kurdish counterparts, and 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. 46

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, which were routed by vastly smaller numbers of Islamic State fighters, led to the fall of Mosul.<sup>47</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>48</sup>

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

Before 1980, the United States maintained a limited military presence in the Middle East that 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,<sup>49</sup> 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 that the United States would take military action to defend oil-rich Persian Gulf States from external aggression, a commitment known as the Carter Doctrine. In 1980, he ordered the creation of the Rapid Deployment Joint Task Force (RDJTF), the precursor to USCENTCOM, which was established in January 1983.<sup>50</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. 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,<sup>53</sup> 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.<sup>54</sup>

In December 2011, the U.S. officially completed its withdrawal of troops, leaving only 150 personnel attached to the U.S. embassy in Iraq. <sup>55</sup> In the aftermath of IS territorial gains in Iraq, however, the U.S. has redeployed thousands of troops to the country. Today, approximately 5,200 U.S. troops are based in Iraq. <sup>56</sup>

In addition, the U.S. continues to maintain a limited number of forces in other locations in the Middle East, primarily in GCC countries. Currently, tens of thousands of U.S. troops are serving in the region. Their exact disposition is not made public because of "host nation sensitivities," <sup>57</sup> but information gleaned from open sources reveals the following:

- **Kuwait.** Approximately 13,500 U.S. personnel are based in Kuwait and are spread among Camp Arifjan, Ahmad al-Jabir Air Base, and Ali al-Salem Air Base. <sup>58</sup> A large depot of prepositioned equipment and a squadron of fighters and Patriot missile systems are also deployed to Kuwait.
- **UAE.** About 5,000 U.S. personnel, mainly from the U.S. Air Force, are stationed in the UAE, primarily at Al Dhafra Air Base. Their main mission in the UAE is to operate fighters, unmanned aerial vehicles (UAVs), refueling aircraft, and surveillance aircraft. The United States also has regularly deployed F-22 Raptor combat aircraft to Al Dhafra. Patriot missile systems are deployed for air and missile defense.<sup>59</sup>
- **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."<sup>60</sup>

- Bahrain. Approximately 7,000 U.S. military personnel are based in Bahrain. Bahrain is home to the 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-3 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>61</sup>
- of its forces from Saudi Arabia in 2003.
  Little information on the number of U.S. military personnel currently based there is available. However, 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. 62
- **Qatar.** Approximately 10,000 U.S. personnel, mainly from the U.S. Air Force, are deployed in Qatar.<sup>63</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 aircraft operate from Al Udeid Air Base, which also serves as the forward headquarters of CENT-COM. 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 our 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, more than 2,700 U.S. military personnel are deployed to Jordan. 65

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 encompassing 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 1,000 British service personnel are based throughout the Gulf, including in Iraq. This number fluctuates with the arrival of visiting warships.<sup>67</sup>

The British presence in the region is dominated by the Royal Navy. As of May 2017, there were "around half a dozen Royal Navy ships and units deployed in the region and well over 1,200 men and women." This presence includes "four Mine Counter Measures vessels, supported by one Royal Fleet Auxiliary ship," that "will continue to be permanently located and supported from the new UK Mina Salman Support Facility" in Bahrain, which is also "expected to be able to host the Queen Elizabeth class and Type 45 destroyers as well as frigates and mine-hunters."68 In 2019, a frigate, the HMS Montrose, was also stationed in Bahrain to conduct operations in the Indian Ocean.<sup>69</sup> 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.<sup>70</sup> The U.K. has made a multimillion-dollar investment in modernization of the Duqm Port complex in Oman to accommodate its new Queen Elizabethclass aircraft carriers.71

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 in the future.

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>72</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. The French have 650 personnel based in the UAE, along with six Rafale fighter jets, and maintain a small presence in Qatar and around 500 troops in Iraq as part of Operation Inherent Resolve. 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*.

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 4.8 million barrels of oil a day transited in 2016 (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. 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 the U.S.'s only permanent military base in Africa, Camp Lemonnier, which can hold up to 4,000 personnel.

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>77</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, a decades-long presence means that the U.S. has tried-and-tested systems that involve moving 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 the 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."78

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. <sup>79</sup> 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.80 The UAE's commercial port of Jebel Ali is open for visits from U.S. warships and prepositioning of equipment for operations in theater.81 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."82 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:

b The Suez Canal. In 2018, more than 1.1 billion tons of cargo transited the canal, averaging about 50 ships each day. 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 for Europe in terms of oil transportation. 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. 44 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 90,000-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>85</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 18.5 million b/d in 2016," according to the U.S. Energy Information Administration.86 Most of these crude oil exports go to Asian markets, particularly Japan, India, South Korea, and China.87 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 has repeatedly threatened to close the strategic strait if Iran is attacked.
- Bab 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>88</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. <sup>89</sup> 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 who 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.

Thanks to its decades of military operations in the Middle East, the U.S. has tried-andtested 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 utilizes a five-point scale, ranging from "very poor" to "excellent" conditions and covering 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. Various indicators provide insight into the strength or health of an alliance. These 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 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>90</sup>

In summary, 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
- Political Stability: 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		✓			
U.S. Military Posture			✓		
Infrastructure			✓		
OVERALL			<b>✓</b>		

#### **Endnotes**

- For example, Sir Mark Sykes, Britain's lead negotiator with the French on carving up the Ottoman Empire in the Middle East, during a 1916 meeting in Downing Street 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).
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## Asia

yer 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 200 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. In 2018, almost 40 percent of U.S. trade in goods was with Asia,¹ which hosts nine of the world's 10 busiest seaports and 60 percent of global maritime traffic.² As the U.S. Department of Defense (DOD) 2019 *Indo-Pacific Strategy Report* notes, "America's annual two-way trade with the region is \$2.3 trillion, with U.S. foreign direct investment of \$1.3 trillion in the region – more than China's, Japan's, and South Korea's combined."<sup>3</sup>

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 October 2017, it was reported to be America's second-largest trading partner in services.<sup>4</sup> Disruption in Asia can affect the production

of things like cars, aircraft, and computers around the world, as well as the global financial system.

Asia is of more than just economic concern, however. Seven of the world's 10 largest standing armies 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. According to the DOD *Indo-Pacific Strategy Report*:

USINDOPACOM currently has more than 2,000 aircraft; 200 ships and submarines; and more than 370,000 Soldiers, Sailors, Marines, Airmen, DoD civilians, and contractors assigned within its area of responsibility. The largest concentration of forces in the region are [sic] in Japan and the ROK. A sizable contingent of forces (more than 5,000 on a day-to-day basis) are also based in the U.S. territory of Guam....<sup>6</sup>

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 is 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 many regional states' reluctance to align with great powers that one should consider the lack of a politicalsecurity 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 (AD-MM-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 "mini-lateral" 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 and evolving relationships with other nations in the region like India, 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 establishing 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.

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.

**Japan.** The U.S.–Japan defense relationship is the linchpin of the American 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, however, 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.

A similar policy decision was made in 2014 regarding Japanese arms exports. Until then, for a variety of economic and political reasons, Tokyo had chosen to rely on domestic or licensed production to meet most of its military requirements while essentially banning defense-related exports. The relaxation of these export rules in 2014 enabled Japan, among other things, to pursue (ultimately unsuccessfully) an opportunity to build new state-of-the-art submarines in Australia for the Australians and a seemingly successful effort to sell amphibious search and rescue aircraft to the Indian navy.8 Japan has also supplied multiple patrol vessels to the Philippine and Vietnamese coast guards and is exploring various joint development opportunities with the U.S. and a few other nations.

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 DOD civilian employees in Japan under the rubric of U.S. Forces Japan (USFJ). These forces include, among other things, a forward-deployed carrier battle group centered on the USS *Ronald Reagan*; an amphibious assault ship at Sasebo; 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. The array of major bases provides 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 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 a variety of expenses, 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 is also covering nearly all of the expenses related to relocation of the Futenma Marine Corps Air Station from its crowded urban location to a less densely populated part of the island and facilities in Guam to accommodate some Marines being moved off the island.

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 Japan'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. In 2012, for example, South Korea decided at the last minute not to sign an agreement to share sensitive military data, including details about the North Korean threat to both countries.11 In December 2014, the U.S., South Korea, and Japan signed a military data-sharing agreement limited to information on the North Korean military threat and requiring both allies to pass information through the United States military. This was supplemented in 2016 by a Japan-ROK bilateral agreement on sharing military intelligence. In August 2019, South Korea announced it would not extend the General Security of Military Information Agreement, an intelligence-sharing agreement.

South Korean–Japanese relations took another 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 a Japanese air force plane further exacerbated tensions.

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.

Current command arrangements for the U.S. and ROK militaries are for CFC to 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,<sup>12</sup> and there is little indication that this will change in the foreseeable future.

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 rotated several divisions, for example, to fight alongside Americans in Vietnam. In the first Gulf War, the Iraq War, and Afghanistan, however, South Korea limited its contributions to noncombatant forces and monetary aid.

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 regularly engaged in major exercises with their ROK counterparts, including the Key Resolve and Foal Eagle series, both of which involved the actual deployment of a substantial number of forces and were partly intended 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. This decision was made without consulting the Department of Defense, U.S. Forces Korea, or allies South Korea and Japan. As of mid-2019, the U.S. and South Korea have cancelled 11 exercises and imposed constraints on additional exercises. General Robert Abrams, Commander, U.S. Forces Korea, testified in February that he had reduced the "size, scope, volume, and timing" of allied military exercises in Korea.<sup>13</sup> Despite this, "We have observed no significant changes to size, scope, or timing of [North Korea's] ongoing exercises."14 He added that Pyongyang's annual Winter Training Cycle involved one million troops.<sup>15</sup>

The ROK government provides substantial resources to defray the costs of U.S. Forces Korea. "In February 2019, U.S. and ROK negotiators announced a preliminary one-year 'Special Measures Agreement' (SMA) for dividing the cost of hosting U.S. troops in South Korea that increased South Korea's contribution by approximately 8%, to \$924 million." In addition, "The U.S. military is relocating its forces farther south from bases near the border with North Korea, with South Korea paying \$9.7 billion for construction of new large-scale military facilities."16 The 2019 bilateral Special Measures Agreement negotiations were particularly contentious. The U.S. had demanded an increase of 50 percent-100 percent in South Korea's contribution. Washington eventually agreed to an 8 percent increase in return for renegotiating the agreement every year rather than every five years.

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 states, 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 security treaty.

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,17 and these advisers remain there as part of a continuing advise-and-assist mission. Other continuing support over the past year has included the presence of 12 aircraft, eight unmanned ISR platforms, three medium-lift helicopters, and one medium-lift airplane.18

The Philippines continues to have problems with Islamist insurgencies and terrorists in its

South. This affects the government's priorities and, potentially, its stability. Although not a direct threat to the American homeland, it also bears on the U.S. military footprint in the Philippines and the type of cooperation that the two militaries undertake. In addition to the current threat from ISIS-affiliated groups like the ASG, trained ISIS fighters returning to the Philippines could pose a threat similar to that of the "mujahedeen" who returned from Afghanistan after the Soviet war there in the 1980s.

Thousands of U.S. troops participate in combined exercises with Philippine troops, most notably as a part of the annual Balikatan exercises. In all, 261 activities with the Philippines were planned for 2018, "slowly expanding parameters of military-to-military cooperation." In 2019, in addition to American and Philippine forces, Balikatan involved more than 60 Australian Defence Force personnel and the deployment of American F-35Bs embarked on an amphibious assault ship. In all, activities with the Philippines were scheduled to increase in 2019 from 261 military engagements to 281.

One long-standing difference between the U.S. and the Philippines involves the application of the U.S.-Philippine Mutual Defense Treaty to disputed islands in the South China Sea. The U.S. has long maintained that the treaty does not extend American obligations to disputed areas and territories, but Filipino officials occasionally have held otherwise.<sup>21</sup> The U.S.-Philippine Enhanced Defense Cooperation Agreement (EDCA) does not settle this question, but tensions in the South China Sea, most recently around the most developed island claimed by the Philippines, Pag-asa,<sup>22</sup> have highlighted Manila's need for support from Washington. Moreover, the U.S. government has long made it clear that any attack on Philippine government ships or aircraft, or on the Philippine armed forces, would be covered under the treaty, "thus separating the issue of territorial sovereignty from attack on Philippine military and public vessels."23 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>24</sup>

In 2016, the Philippines elected a very unconventional President, Rodrigo Duterte, to a six-year term. His rhetorical challenges to current priorities in the U.S.–Philippine alliance have raised questions about both the trajectory of the alliance and initiatives that are important to it. With the support of the Philippine government at various levels, however, the two militaries have continued to work together with some adjustment in the size and purpose of their cooperation.<sup>25</sup>

**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>26</sup> These were supplemented by the 2012 Joint Vision Statement for the Thai–U.S. Defense Alliance.<sup>27</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 US.<sup>28</sup>

U.S.-Thai relations have been strained since 2006. Domestic unrest and two coups in Thailand limited the extent of U.S.-Thai military cooperation, as U.S. law prohibits funding for

many kinds of assistance to a foreign country in which a military coup deposes a duly elected head of government. Nonetheless, the two states managed to cooperate in joint military exercises and counterterrorism operations, and elections held in Thailand in March 2019 should allow full restoration of the two countries' military-to-military relations.

Thailand has also been drawing closer to the People's Republic of China (PRC). This process, underway since the end of the Vietnam War, is accelerating partly because of expanding economic relations between the two states. As of 2016, China was the second-largest destination for Thailand's exports and the leading source of its imports.<sup>29</sup> Relations are also expanding because of the aforementioned complications in U.S.–Thai relations arising from coups in Thailand.

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 have been buying Chinese military equipment for many years. Purchases in recent years have included significant buys of battle tanks and armored personnel carriers. The englishment of the same of the englishment of the englishm

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. There has been discussion of a possible China-Thai arms factory in Thailand, as well as Chinese repair and maintenance facilities to service Chinese-made equipment. 33

**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 to rotate additional United States Air Force units and Marines through northern Australia. <sup>34</sup> Eventually expected to total some 2,500 by 2020, a record number of approximately 1,700 marines are set to deploy in 2019 as part of the eighth rotation through Darwin. <sup>35</sup> Reports indicate that, building on improvements in the 2018 rotation, this one will be the most capable to date. It will include 10 Osprey tiltrotor aircraft, four Viper attack helicopters, and three Venom utility helicopters. <sup>36</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>37</sup> The Air Force has deployed F-22 fighter aircraft and bombers to northern Australia for joint training exercises.<sup>38</sup> 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>39</sup>

The two nations' chief defense and foreign policy officials meet annually (most recently in July 2018) 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>40</sup> Australia has also granted the United States access to a number of joint

facilities, including space surveillance facilities at Pine Gap and naval communications facilities on the North West Cape of Australia.<sup>41</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>42</sup>

**Singapore.** Although Singapore is not a security treaty ally of the United States, it is a key security partner in the region. The close U.S.–Singapore defense relationship was formalized in 2005 with the Strategic Framework Agreement (SFA) and expanded in 2015 with the U.S.–Singapore Defense Cooperation Agreement (DCA).

The 2005 SFA was the first agreement of its kind since the end of the Cold War. It built on the 1990 Memorandum of Understanding Regarding United States Use of Facilities in Singapore, as amended, which allows for U.S. access to Singaporean military facilities.<sup>43</sup> The 2015 DCA established "high-level dialogues between the countries' defense establishments" and a "broad framework for defense cooperation in five key areas, namely in the military, policy, strategic and technology spheres, as well as cooperation against non-conventional security challenges, such as piracy and transnational terrorism."

In October 2017, it was announced that "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. <sup>45</sup> Singapore has also announced an intention to buy the F-35, which would make it the fourth in the region to do so, next to three American treaty allies. <sup>46</sup>

**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. 47 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,48 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.49 At the time of the visit in November 2016, both sides claimed to have satisfied their respective legal requirements.<sup>50</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 portend a longer-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,<sup>51</sup> 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.52

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 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." It also states that it is U.S. policy "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>55</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>56</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:

- 1. 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;
- **5.** has not altered its position regarding sovereignty over Taiwan;
- **6.** will not exert pressure on Taiwan to negotiate with the PRC.<sup>57</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 DOD to consider ship visits to Taiwan as part of the FY 2018 National Defense Authorization Act. Coupled with the Taiwan Travel Act passed in 2018, 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,"58 and is scheduled for implementation under a three-year "2018-2020 Plan of Action for United States-Viet Nam Defense Cooperation" agreed upon in 2017.59

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.60 Vietnam is also considering purchasing American UAVs for its Coast Guard. 61 Discussions of bigger-ticket items like P-3 maritime patrol aircraft, although conducted 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."62

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>63</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. The military-to-military relationship, however, suffered a setback in 2018 when Vietnam abruptly cancelled 15 defense activities with the U.S. that were slated for 2019.<sup>64</sup>

There has been an increase in cooperation between the two nations' coast guards. In March 2018, the U.S. Embassy and Consulate in Hanoi announced an official transfer that "comprises 20 million dollars' worth of infrastructure and equipment including a training center, a maintenance facility, a boat lift, vehicles, a navigation simulator, and six brand-new fast-response Metal Shark boats—capable of reaching up to 50 knots." Beginning in 2017 and through the spring of 2019, the U.S. delivered to Vietnam 18 of these patrol boats. In early 2018, 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.

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 include Malaysian assistance in the reconstruction of Afghanistan and involvement in counter-piracy operations "near the Malacca Strait and...off the Horn of Africa." Each year, the U.S. and Malaysia participate jointly in dozens of bilateral and multilateral exercises to promote effective cooperation across a range of missions. <sup>67</sup> 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, he 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."68 To this end, in 2018, Malaysia for the first time sent a warship to participate in U.S.-led RIMPAC exercises.<sup>69</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.

The United States carried through on the transfer of 24 refurbished F-16s to Indonesia under its EDA program in 2018 and is talking with Indonesian officials about recapitalizing their aging and largely Russian-origin air force with new F-16s. <sup>70</sup> In 2018, the U.S. also completed delivery of eight Apache helicopters. The Navy characterized the August 2018 CARAT (Cooperation, Afloat Readiness and Training) exercise with Indonesia as "build[ing] upon more than 200 military exercises between the two partner nations." <sup>71</sup>

The U.S. is working across the board at modest levels of investment to help build Southeast Asia's maritime security capacity. Most notable in this regard is the Maritime Security Initiative (MSI) announced by Secretary of Defense Ashton Carter 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.72 In August 2018, Secretary of State Mike Pompeo announced the commitment of another \$290.5 million in Foreign Military Financing to strengthen maritime security, High Availability/Disaster Recovery (HA/DR), and peacekeeping capabilities in Southeast Asia.73

**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 (FATA), where they regrouped and started 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 50 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).74 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. As of May 2019, slightly more than 17,000 U.S. and NATO forces were stationed in Afghanistan. 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.75

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." According to the most recent available public information, the U.S. currently has around 14,000 troops in Afghanistan split between the NATO-led Resolute Support training mission and the U.S.-led Operation Freedom's Sentinel counterterrorism mission.

Since 2018, U.S. Special Envoy Zalmay Khalilzad has been leading talks with the Taliban in an attempt to find a political solution to the fighting, but there has been little progress. The Afghan government has not participated in the talks because the Taliban refuse to meet with them, and this has caused tension

between the U.S. and Afghan governments. Whether the U.S. will be able to bring all parties to the table and succeed in achieving a politically acceptable conclusion to the war remains an open question.

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 have grown more acrimonious since 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 addition, President Donald Trump has suspended U.S. military assistance to Pakistan and increased pressure on Islamabad for its continued support of the Taliban.

Since 2001, Pakistan has received roughly \$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, though 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 recent years, frustration with Pakistan's inaction toward such groups has led the U.S. to withhold ever-larger sums of reimbursement and support funds. 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 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 mostly 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 Haggani 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."77

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." 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." The Administration has also supported both Pakistan's addition to the Financial Action Task Force (FATF) "grey list" for failing to fulfil obligations to prevent the financing of terrorism and its designation on a special watch list for violations of religious freedom.

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, anti-submarine warfare 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 a milestone in the Indo-U.S. defense partnership. During that 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>80</sup> and has taken several

additional steps to advance the defense relationship. A Communications and Information Security Memorandum of Agreement (CIS-MOA), successfully negotiated in 2018, allows for the exchange of encrypted communications and communications equipment, and negotiations on the last "foundational" military cooperation agreement, the Basic Exchange and Cooperation Agreement (BECA), which would facilitate the exchange of geospatial intelligence and navigation services, are ongoing. 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. The Indian government and the Trump Administration are currently negotiating several prospective arms sales and military cooperation agreements, including the sale of armed MQ-9 Guardian/Predator-B unmanned drones to India.

## 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 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 40 years in the past. 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. Japan's, South Korea's, and Australia's defense budgets are estimated to be among the world's 15 largest, and their 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 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 (667, 49, and 547, respectively) than their British counterparts field (227, 20, and 250, respectively). Similarly, South Korea fields a larger military of tanks, principal surface combatants, and combat-capable aircraft (more than 2,514, 26, and 590, respectively) than their German counterparts field (236, 14, and 217, 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>83</sup>

Australia also has very capable armed forces. They are smaller than NATO militaries but have major operational experience, having deployed to both Iraq and Afghanistan as well as to help the Philippines with its Southern insurgency. Australia's military is today involved in 13 different operations from the Middle East to the South China Sea.<sup>84</sup>

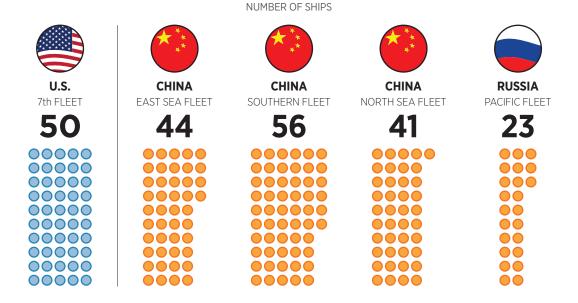
Singapore's small population and physical borders limit the size of its military, but in terms of equipment and training, it has Southeast Asia's largest defense budget85 and fields some of the region's highest-quality forces. For example, Singapore's ground forces can deploy third-generation Leopard II main battle tanks, and its fleet includes four conventional submarines (with four new, more capable submarines on their way from Germany to replace them86), including one with air-independent propulsion systems, as well as 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.87

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, like Thailand, spends only 1.4 percent of GDP on its military.88 In absolute numbers, its defense budget in 2019 is \$3.24 billion.89 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.90

## **U.S. Faces Daunting Force in Pacific**

The Eastern Hemisphere is home to the two most formidable naval threats to the U.S., China and Russia, and the bulk of this area is the responsibility of the U.S. Navy's 7th Fleet. The 7th Fleet must contend with all three of China's fleets in addition to Russia's Pacific Fleet.





**NOTES:** Figures are estimates. Figures exclude patrol boats and other vessels smaller than a frigate. **SOURCES:** International Institute for Strategic Studies, *The Military Balance 2019* (New York: Routledge, 2019), and Heritage Foundation research and analysis.

▲ heritage.org

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>91</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>92</sup>

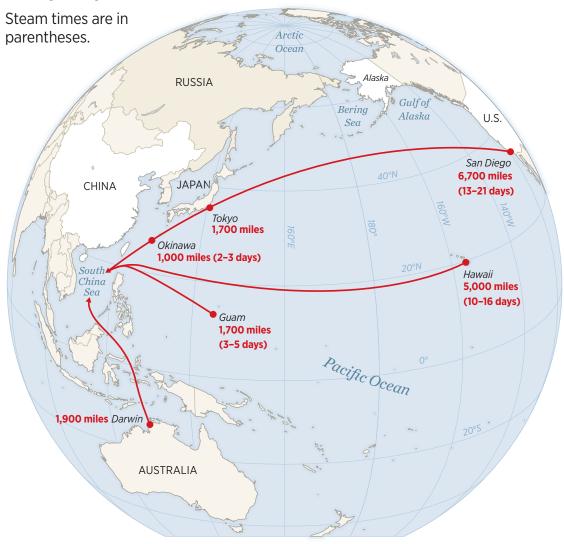
USINDOPACOM's area of responsibility (AOR) includes not only the expanses of the Pacific, but also Alaska and portions of the Arctic, South Asia, and the Indian Ocean. Its 36 nations represent more than 50 percent of the world's population and include two of the three largest economies and nine of the 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 sea-lanes and nine of its 10 largest ports. By any meaningful measure, the Indo-Pacific is also the world's most militarized region, with seven of its 10 largest standing militaries and six of its nuclear nations.93

Under INDOPACOM are a number of component commands, including:

- U.S. Army Pacific. USARPAC is the Army's component command in the Pacific. With 80,000 soldiers, it supplies Army forces as necessary for various global contingencies. It administers (among others) the 25th Infantry Division headquartered in Hawaii, U.S. Army Japan, and U.S. Army Alaska.<sup>94</sup>
- 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. <sup>95</sup> 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) and amphibious group (CTF-76) home-ported abroad, ported at Yokosuka and Sasebo, Japan, respectively. 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, this boundary between the two fleets' areas of operation has been blurred under a concept called "Third Fleet Forward." This has made it easier for the Third Fleet's five carrier strike groups to operate in the Western Pacific. 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

## The Tyranny of Distance



**SOURCE:** Heritage Foundation estimates based on data from Shirley A. Kan, "Guam: U.S. Defense Deployments," Congressional Research Service, April 29, 2014, Table 1, https://www.hsdl.org/?view&did=752725 (accessed January 13, 2015).

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, maintaining presence, or engaged in other activities. MARFORPAC is responsible for supporting three different commands: It is the U.S. Marine Corps component of USINDOPA-COM, provides the Fleet Marine Forces to PACFLT, and provides Marine forces for U.S. Forces Korea (USFK).<sup>96</sup>

- **U.S. Special Operations Command Pa**cific. 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 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 USINDOPACOM's counterpart in that region of the world, U.S. Central Command (CENTCOM). 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. 97
- Five Train, Advise, Assist Commands in Afghanistan, each of which is a multinational force tasked with improving local capabilities to conduct operations. 98

## 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. 99

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 for 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 2005. 100 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 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 major bases such as 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 Wasp, 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, with

a larger Army footprint than 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 nearly a 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 will allow for the rotation of American forces through Philippine military bases.

In 2016, the two sides agreed on an initial list of five bases in the Philippines that will be involved. 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. <sup>101</sup> 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. 102 In 2019, American F-16s based in South Korea deployed there for a 12-day exercise with Philippine fighter jets.<sup>103</sup>

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.

**Singapore.** The United States does not have bases in Singapore, but it is allowed access to several key facilities that are essential for supporting 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. A much-discussed element of the "Asia pivot" has been the 2011 agreement to deploy U.S. Marines to Darwin in northern Australia. While planned to amount to 2,500 Marines, the rotations fluctuate and have not yet reached that number. "In its mature state," according to the Australian Department of Defence, "the Marine Rotational Force-Darwin (MRF-D) will be a Marine Air-Ground Task Force...with a variety of aircraft, vehicles and equipment."104 In keeping with Australian sensitivities about permanent American bases on Australian soil, the Marines do not constitute a permanent presence in Australia. 105 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 in western Australia, including the space surveillance radar system there.106

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 12 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, as it includes half the globe and is characterized by a variety of political relationships among states that have 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 would pertain to supporting U.S. military operations. Various aspects of the region 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, ranging from "very poor" to "excellent" conditions and covering 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 in the region.
- **4. Favorable.** A favorable operating environment includes good infrastructure, strong alliances, and a stable political environment. The U.S. military is well placed in the region 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. Various indicators provide insight into the strength or health of an alliance. These 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 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. 107

For Asia, we arrived at these average scores:

- Alliances: 4—Favorable
- Political Stability: 4—Favorable
- 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**

- U.S. Department of Commerce data on total goods trade with Asia and total goods trade globally in 2018 indicate that slightly more than 39 percent of total U.S. goods trade in 2018 was with Asia. See Table, "2018: U.S. Trade in Goods with Asia," in U.S. Department of Commerce, U.S. Census Bureau, "Foreign Trade: Trade in Goods with Asia," https://www.census.gov/foreign-trade/balance/c0016.html (accessed June 30, 2019), and Table, "Year-to-Date Total Trade," in U.S. Department of Commerce, U.S. Census Bureau, "Foreign Trade: Top Trading Partners—December 2018," https://www.census.gov/foreign-trade/statistics/highlights/top/top1812yr.html (accessed June 30, 2019).
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# 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 *2020 Index*.

## **Global Operating Environment**

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

Scoring of the Global Security Environment remained "favorable" for the *2020 Index of U.S. Military Strength*, although scores increased for Asia and the Middle East in the political stability subcategory.

The Middle East Operating Environment remained "moderate" in the *2020 Index*. This shift reflects the continued decline of ISIS, the

Assad regime's consolidation of control over much of Syria, the ebbing flow of refugees out of Syria, and a common regional commitment to countering the destabilizing influence of Iran and its proxies.

The Europe Operating Environment did not see categorical changes in any of its scores and remains "favorable." The migrant crisis,

## **Global Operating Environment: Summary**

VERY POOR UNFAVORABLE MODERATE FAVORABLE EXCELLENT
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economic sluggishness, and political fragmentation increase the potential for instability, but the region remains generally stable and friendly to U.S. interests.

Overall scoring for the Asia Operating Environment remained "favorable" from the *2019 Index* to the *2020 Index*. The alliances, political stability, U.S. military posture, and infrastructure scores returned to "favorable" following the conclusion of South Korea's presidential election.