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, but aspects of another may work against them. A favorable operating environment presents the U.S. military with obvious advantages; an unfavorable operating environment may limit the effect of U.S. military power. The capabilities and assets of U.S. allies, the strength of foes, the geopolitical environment of the region, and the availability of forward facilities and logistics infrastructure all factor into whether an operating environment is one that can support U.S. military operations.

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

Additional factors—including the military capabilities of allies that might be useful to U.S. military operations; the degree to which the U.S. and allied militaries in the region are interoperable and can use, for example,

common means of command, communication, and other systems; and whether the U.S. maintains key bilateral alliances with nations in the region—also affect the operating environment. Likewise, nations where the U.S. has 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 ease 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 assessments that are detailed in subsequent sections of the *Index*.

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

Over the past year, America's reengagement with Europe continued. The resurgence of Russia, brought into starkest relief in Ukraine, and the continued fight against the Islamic State (IS) in Iraq, Syria, and Libya brought Europe back into the top tier of U.S. international interests, and the U.S. increased its financial and military investment in support of European deterrence. The 51 countries in the U.S. European Command (EUCOM) 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. The U.S. and the members of the EU are also 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 U.S. and allied air and naval assets operating in the Arctic. In addition, Russia's strengthened position in Syria has led to a resurgence of Russian naval activity in the Mediterranean that has contributed to "congested" conditions.²

Threats to Internal Stability. In recent years, Europe has faced turmoil and instability brought about by high government debt, high unemployment, the threat of terrorist attacks, and a massive influx of migrants. Political fragmentation resulting from these pressures, disparate views on how to solve them, and a perceived lack of responsiveness among politicians threaten to erode stability even further, as centrist political parties and government institutions are seen as unable to deal effectively with the public's concerns.

Economic Factors. While Europe may finally have turned a corner with reasonable growth in 2017 (the eurozone grew by 2.5 percent), growth slowed again in the first quarter of 2018.³ Unemployment across the 19-country eurozone bloc stands at 8.5 percent; for all 28

EU members, it averages 7.1 percent.⁴ Greece has the EU's highest unemployment rate: 20.6 percent; Spain's is 16.1 percent, and Italy's is 11 percent.⁵ Average youth unemployment across the eurozone is even greater, standing at 17.3 percent.⁶

In addition to jobless youth, income disparities between older and younger Europeans have widened. A January 2018 International Monetary Fund report noted that "[i]nequality across generations...erodes social cohesion and polarizes political preferences, and may ultimately undermine confidence in political institutions."7 High government debt is another obstacle to economic vitality.8 Italy's debtto-GDP ratio is 131.8 percent. Greece's is even higher at 178.6 percent, and Portugal's is 125.7 percent. In addition, Europe's banking sector is burdened by \$1.17 trillion in nonperforming loans.9 The Italian banking sector's woes are especially troubling, followed by those of French and Spanish banks.10

The interconnectedness of the global economy and global financial system means that any new economic crisis in Europe will have profound impacts in the U.S. as well. Asked whether things were going in the right direction in the European Union, 49 percent of Europeans responded that they are going in the wrong direction, and 35 percent responded that they are headed in the right direction. ¹¹

Migrant Crisis. The biggest political issue in Europe and the most acute threat to stability is migration. An Ipsos Institute poll released in September 2017 found that 78 percent of Turks, 74 percent of Italians, 66 percent of Swedes, 65 percent of Germans, and 58 percent of French citizens believed that the number of migrants in their nations had become too large over the previous five years.12 Conflicts in Syria and Iraq, as well as open-door policies adopted by several European nations-importantly, Germany and Sweden in 2015-led large numbers of migrants from across Africa, Asia, and the Middle East to travel to Europe in search of safety, economic opportunity, and the benefits of Europe's most generous welfare states. Russia also sought to weaponize migrant flows

by intentionally targeting civilians in Syria "in an attempt to overwhelm European structures and break European resolve." ¹³

Germany registered 890,000 asylum seekers in 2015, 280,000 in 2016, and 186,644 in 2017.¹⁴ Today, one in eight people living in Germany is a foreign national, and half are from non-EU nations.¹⁵ Other European nations such as Austria, Italy, and Sweden have also taken in large numbers of migrants. Italy, for instance, has seen 600,000 migrants arrive since 2014.¹⁶

The impact of the migrant crisis is widespread and will continue for decades to come. Specifically, it has buoyed fringe political parties in some European nations and has imposed steep financial, security, and societal costs. The impact on budgets is significant. Germany reportedly plans to "spend close to \$90 billion to feed, house and train refugees between 2017 and 2020."17 The costs of this crisis, which affect both federal and state governments in Germany, include processing asylum applications, administrative court costs, security, and resettlement for those migrants who accept; in Germany, families receive up to \$3,540 to resettle back in their home countries.18 For a host of reasons, integrating migrants into European economies has fallen flat.19 "In Sweden and Norway, foreigners are three times more likely to be jobless than local people."20

A tenuous agreement with Turkey in March 2016 has largely capped migrant flows through the Balkans and Greece, but arrivals have not stopped altogether. Rather, they have decreased and shifted to the central and western Mediterranean. In May 2018, the EU Commission proposed that the EU's border force be increased from 1,200 to 10,000.21 Austria, Denmark, France, Germany, Norway, and Sweden have reintroduced and continue to maintain temporary border controls.²² An April 2018 YouGuv survey that asked "What are the top two issues facing the EU right now?" found immigration to be the top issue for people in Denmark, Finland, France, Germany, Greece, Italy, Lithuania, Poland, Sweden, and the United Kingdom, with terrorism the second most

important issue cited in every country but Italy.²³

A perceived lack of responsiveness from political elites has led to a loss of support among established political parties in many European countries.

- In France, in the first round of 2017's presidential elections, about half of voters cast their ballots for candidates espousing anti-EU views. In the second round, 9 percent cast a blank ballot (a protest vote), the highest level in the history of the Fifth Republic.²⁴
- In Austria, Sebastian Kurz of the People's Party became prime minister in December 2017 promising tighter immigration controls.
- In Germany, Chancellor Angela Merkel's center-right Christian Democratic Union/Christian Social Union (CDU/CSU) coalition and the center-left Social Democrats (SPD) lost seats in Parliament following elections in September 2017.²⁵ The nationalist, anti-immigrant AFD entered Parliament for the first time, winning 94 seats.²⁶ Nearly 1 million former CDU/CSU voters and nearly 500,000 SPD voters voted for the AFD.²⁷
- In Italy, the trend of eroding established parties continued in the March parliamentary elections, which saw the populist Five Star Movement emerge as the largest single party, followed by the nationalist Lega party, which campaigned heavily on the issue of immigration.

The migrant crisis has had a direct impact on NATO resources as well. In February 2016, Germany, Greece, and Turkey requested NATO assistance to deal with illegal trafficking and illegal migration in the Aegean Sea.²⁸ That month, NATO's Standing Maritime Group 2 deployed to the Aegean to conduct surveillance, monitoring, and reconnaissance of

smuggling activities, and the intelligence gathered was sent to the Greek and Turkish coast guards and to Frontex, the European Border and Coast Guard Agency.²⁹ NATO Strategic Direction South, a new NATO hub in Naples with a focus on threats emanating from the Middle East and North Africa region, was scheduled to become operational in July 2018.³⁰

Terrorism. Terrorism remains all too familiar in Europe, which has experienced a spate of terrorist attacks in the past two decades. March 2018 attacks in Carcassonne and Trèbes, France, cost four innocent lives³¹ and left 15 injured.32 The migrant crisis has increased the risk and exacerbated the already significant workload of European security services. In Germany alone, the estimated number of Salafists has doubled to 11,000 in just five years.33 In May 2017, the U.S. Department of State took the rare step of issuing a travel alert for all of Europe, citing the persistent threat from terrorism.34 Today, the State Department warns Americans to exercise increased caution in a number of Western European countries.35

Although terrorist attacks may not pose an existential threat to Europe, they do affect security and undermine U.S. allies by increasing instability, forcing nations to spend more financial and military resources on counterterrorism operations, and jeopardizing the safety of U.S. servicemembers, their families, and facilities overseas. In 2017, noting the challenges presented by an increasingly complex and fluid security situation in Europe, the International Institute for Strategic Studies (IISS) concluded that "[a]s a result of this blending of internal and external security tasks, the requirement for closer cooperation between civilian and military actors emerged as a more comprehensive challenge for domestic security than was anticipated."36

U.S. Reinvestment in Europe. Continued Russian aggression has caused the U.S. to turn its attention back to Europe and reinvest military capabilities on the continent. General Curtis M. Scaparrotti, Supreme Allied Commander and EUCOM Commander, has

described the change as "returning to our historic role as a warfighting command focused on deterrence and defense."³⁷

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, 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 and Baltic states.

European Deterrence Initiative. As cataloged by The Heritage Foundation, "Initial funding for the EDI in FY 2015 [when it was known as the European Reassurance Initiative] was \$985 million." Funding was renewed in FY 2016, but "the \$789 million authorization was \$196 million less than in FY 2015." The Obama Administration asked for a substantial increase in FY 2017, and funding "jumped to \$3.4 billion for the year." Under the Trump Administration, funding once again rose significantly to nearly \$4.8 billion in FY 2018, and the DOD requested \$6.5 billion for FY 2019.

Testifying in March 2018, General Scaparrotti was clear about the importance of EDI funding in returning to a posture of deterrence:

These resources, in addition to the base budget funding that supports USEUCOM, enable our headquarters and Service components to: 1) increase presence through the use of rotational forces; 2) increase the depth and breadth of exercises and training with NATO allies and theater partners; 3) preposition supplies and equipment to facilitate rapid reinforcement of U.S. and allied forces; 4) improve infrastructure at key locations to improve our ability to support steady state and contingency operations; and 5) build the capacity of allies and partners to contribute to their own deterrence and defense.³⁹

Forward Presence. In September 2017, the 2nd Armored Brigade Combat Team, 1st Infantry Division, replaced the outgoing BCT in a "heel to toe" rotation schedule. The BCT deployed to sites across Bulgaria, Germany, Hungary, Poland, and Romania, with the largest portion of the forces stationed in Poland.

In November 2017, Army Chief of Staff General Mark Milley 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 addition to back-to-back rotations of armor, the U.S. has maintained a rotational aviation brigade in Europe since February 2017. Although the brigade is based in Illesheim, Germany, five Black Hawk helicopters and 80 soldiers were forward deployed to Lielvarde Air Base in Latvia, five Black Hawks and 50 soldiers were forward deployed to Mihail Kogalniceanu Air Base in Romania, and 100 soldiers along with four Black Hawks and four Apache helicopters were forward deployed to Powidz, Poland, as of October 2017. The 4th Combat Aviation Brigade, 4th Infantry Division, was scheduled to take over the aviation brigade in August 2018.

In addition to rotational armored and aviation brigades, the U.S. has beefed up its presence in Norway. A 330-Marine rotational deployment will remain in Vaernes, Norway, through the end of 2018 to train and exercise with Norwegian forces.44 In June, the Norwegian government invited the U.S. to increase its presence to 700 Marines beginning in 2019, deploying on a five-year rotation and basing in the Inner Troms region in the Arctic rather than in central Norway.⁴⁵ Operation Atlantic Resolve's naval component has consisted in part of increased deployments of U.S. ships to the Baltic and Black Seas. Additionally, the Navy has taken part in bilateral and NATO exercises. In May 2018, the Navy announced the reestablishment of the Second Fleet, covering

the northern Atlantic, including the GIUK gap, formerly disbanded in 2011.⁴⁶

Prepositioned Stocks. The U.S. Army has prepositioned additional equipment across Europe as part of Operation Atlantic Resolve. A prepositioning site in Eygelshoven, Netherlands, opened in December 2016 and will store 1,600 vehicles including "M1 Abrams Tanks, M109 Paladin Self-Propelled Howitzers and other armored and support vehicles."47 A second site in Dülmen, Germany, opened in May 2017 and will hold equipment for an artillery brigade.48 Other prepositioning sites include Zutendaal, Belgium; 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 2021.49

Equipment and ammunition sufficient to support a division will continue to arrive in Europe through 2021. 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. Equipment.

Infrastructure Investments. The U.S. plans to use \$214.2 million of FY 2018 EDI funds to upgrade air bases in Europe.⁵² The U.S. plans additional temporary deployments of fifth-generation aircraft to European air bases. According to EUCOM, "we continuously look for opportunities for our fifth-generation aircraft to conduct interoperability training with our allies and partners in the European theater."53 Construction of hangers at Naval Air Station Keflavik in Iceland for U.S. P-8 sub-hunter aircraft will constitute a \$14 million investment.54 The U.S. has stated that it still has no plans for permanent basing of forces in Iceland and that the P-8s, while frequently rotating to Keflavik, will remain permanently based at Sigonella in Italy.55

Multinational Training. In FY 2017, according to General Scaparrotti, "USEUCOM conducted over 2,500 military-to-military engagements, including over 700 State Partnership Program events in 22 countries, and under Section 1251 authority, USEUCOM trained nine allies in 22 exercises." 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 U.S. At a time when most American servicemembers do not recall World War II or the Cold War, cementing bonds with allies in Europe is a vital task. Currently, 22 nations in Europe have a state partner in the U.S. National Guard.⁵⁷

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 2020.⁵⁸ Canada, Estonia, Latvia, Lithuania, and the U.K. also participate in JMTG-U.⁵⁹

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 put the current figure at between 150 and 200 warheads based in Italy, Turkey, Germany, Belgium, and the Netherlands.⁶⁰

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. In 2018, the U.S. will carry out tests of a new B61-12 gravity bomb, which Paul Waugh, Director of Air-Delivered Capabilities at the Air Force's nuclear division, says "ensures the current capability for the air-delivered leg of the U.S. strategic nuclear triad well into the future for both bombers and dual-capable aircraft supporting NATO." The B61-12, according to U.S. officials, is intended to be three times more accurate than earlier versions.

Important Alliances and Bilateral Relations in Europe

The United States has a number of important multilateral and bilateral relationships

Initial Correlation of Ground Forces in the Vicinity of the Baltic States, 2017

	NATO Forces in Ba	ltic States	Western Military District	
	2 armored/mec	nanized	~ 8 motor rifle	
Major formations	(NATO EFP** and U.S. armored BDE)		~ 4 tank	
Brigade (BDE)			6 airborne/air assault	
equivalents*	6 infantry/mot	3 artillery		
	(Baltic states and U.S.	1 rocket artillery		
Weapon Systems (estimate	ed) NATO	Russia	Ratio (NATO : Russia)	
Main battle tanks	129	757	1:5.9	
Infantry fighting vehicles	280	1,276	1:4.6	
Self-propelled howitzers	32	342	1:10.7	
Rocket artillery	0	270	0:270	

^{*} Russian motor rifle, tank, and airborne/air assault regiments are considered equivalent to brigades.

NOTE: These figures are estimates of forces available in the initial days and weeks of a conventional fight. They include active units in the Western Military District and forces available in defense of the Baltic States.

SOURCE: RAND Corporation, "Assessing the Conventional Force Imbalance in Europe — Implications for Countering Russian Local Superiority," p. 9, Table 1, https://www.rand.org/pubs/research_reports/RR2402.html (accessed August 8, 2018).

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Russian Federation

in Europe. First and foremost is NATO, the world's most important and arguably most successful defense alliance.

The 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. Since its creation in 1949, NATO has been the bedrock of transatlantic security cooperation, and it 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."⁶⁴

NATO Response Force. Following the 2014 Wales summit, NATO announced the creation of a Very High Readiness Joint Task Force (VJTF) as part of the RAP to enhance the NATO Response Force (NRF). ⁶⁵ The VJTF is "a new Allied joint force that will be able to deploy within a few days to respond to challenges that arise, particularly at the periphery of NATO's territory. ⁶⁶ A rotational plan for the VJTF's land component was established to maintain this capability through 2023.

The VJTF also represents a significant improvement in deployment time. Part of the VJTF can deploy within 48 hours, which is a marked improvement over the month that its predecessor, the Immediate Response Force, needed to deploy.⁶⁸ According to an assessment

^{**} Enhanced Forward Presence.

NATO Capability to Gain Control of the Air Over Baltic States, 2017

Aircraft	NATO	Russia	
Fourth generation	5,094 2,928 U.S., 2,529 non-U.S.	1,251	
Fifth generation	363 159 F-22A (U.S. only), 20 B-2 (U.S. only), ~175 F-35A/B/C*	-	
Air Missile Defense			
Advanced long-range SAMs	_	17 regiments of SA-20/21 and SA-23 (approximately 272 launchers)	
Advanced medium-range SAMs	_ 3 brigades of SA-11/ (approximately 72 laund		
Advanced short-range SAMs	_	24+ battalions (approximately 288 launchers)	

^{*} May not yet be combat-ready.

NOTE: These figures are estimates of forces available in the initial days and weeks of a conventional fight. They include active units in the Western Military District and forces available in defense of the Baltic States.

SOURCE: RAND Corporation, "Assessing the Conventional Force Imbalance in Europe — Implications for Countering Russian Local Superiority," p. 9, Table 2, https://www.rand.org/pubs/research_reports/RR2402.html (accessed August 8, 2018).

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published by the Norwegian Institute of International Affairs, the entire NRF will undergo "a much more rigorous and demanding training program than the old NRF. Future NRF rotations will see many more snap-exercises and short notice inspections."

This does not mean, however, that the VJTF and NRF are without their problems. Readiness remains a concern. For instance, NATO reportedly believes that the VJTF would be too vulnerable during its deployment phase to be of use in Poland or the Baltics. Another concern is the 26,000-strong Initial Follow-on Forces Group (IFFG), which makes up the rest of the NRF and would deploy following the VJTF. The IFFG reportedly would need 30–45 days to deploy in the event of a conflict.

Denmark, France, Italy, Germany, the Netherlands, Norway, Poland, Spain, and the United Kingdom have a combined 334 battalions, but

only nine (three British, three French, and three German) could be combat ready within 30 days, and only five battalions from Italy (which is leading the land component of the NRF in 2018)⁷² could be combat ready within 10 days.⁷³

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 795 American troops⁷⁴ augmented by 72 from Croatia, 120 from Romania, and 130 from the United Kingdom.⁷⁵

- In Estonia, the United Kingdom serves as the framework nation with 800 troops in an armored infantry battalion along with main battle tanks and artillery and 200 troops from Denmark and one Coast Guard officer from Iceland.⁷⁶
- In Latvia, Canada is the framework nation with 450 troops and armored fighting vehicles augmented by 18 troops from Albania, 160 from Italy, 169 from Poland, 49 from Slovenia, 322 from Spain, and two headquarters staff officers from Slovakia.⁷⁷
- In Lithuania, Germany serves as the framework nation with 699 troops augmented by another 187 from Croatia, 266 from France, 224 from the Netherlands, and 28 from Norway.⁷⁸

EFP troops are under NATO command and control; a Multinational Division Head-quarters Northeast located in Elblag, Poland, coordinates the four battalions.⁷⁹ In February 2017, the Baltic States signed an agreement to facilitate the movement of NATO forces among the countries.⁸⁰

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

At the Warsaw summit, NATO also agreed to create a multinational framework brigade based in Craiova, Romania, under the control of Headquarters Multinational Division Southeast in Bucharest.⁸³ The HQ became operational in June 2017.⁸⁴ Reportedly, "the force will initially be built around a Romanian brigade of up to 4,000 soldiers, supported by troops from nine other NATO countries, and complementing a separate deployment of 900 U.S. troops who are already in place." Unfortunately, the

U.S. and allied naval presence in the Black Sea has declined significantly since 2014.

In February 2018, Canada announced that it was rejoining the NATO Airborne Warning and Control System (AWACS), which it had announced it was leaving in 2011, "with operational standdown coming in 2014." Addressing a NATO capability gap, Belgium, Germany, Luxembourg, the Netherlands, and Norway are jointly procuring eight A330 air-to-air refueling aircraft, to be deployed from 2020–2024.

This past year has seen a significant refocusing on logistics issues within the alliance. 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."88 NATO established two new commands in 2018: a joint force command for the Atlantic and a logistics and military mobility command.⁸⁹ These commands consist of a combined total of 1,500 personnel, with the logistics headquartered in Ulm, Germany.⁹⁰

In recent years, the 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.

Training Exercises. In order to increase interoperability and improve familiarity with allied warfighting capabilities, doctrines, and operational methods, NATO conducts frequent joint training exercises. NATO has increased the number of these exercises from 108 in 2017 to 180 in 2018. 91

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, yet they are not implemented uniformly. For example, day-to-day interaction between U.S. and allied officer corps and joint preparedness exercises have been more regular with Western European militaries than with frontier allies in Central Europe, although the situation has improved markedly since 2014.

Cyber Capabilities. Another key area in which NATO is seeking to bolster its capabilities is development of a robust response to increasing cyber threats and threats from space. In 2017, senior NATO officials stated that the alliance plans to spend \$3.24 billion "to upgrade its satellite and computer technology over the next three years." The alliance is seeking ways to work more closely with the EU on cyber issues, but "despite political-level agreement to work together, EU–NATO cyber cooperation remains difficult and the institutional options often limited."

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.⁹⁴

Ballistic Missile Defense. NATO announced the initial operating capability of the Ballistic Missile Defense (BMD) system in 2016.95 An Aegis Ashore site in Deveselu, Romania, became operational in May 2016.96 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.97 A second Aegis Ashore site in Redzikowo, Poland, which broke ground in May 2016, was expected to be operational in 2017,98 but Poland announced in March 2018 that construction of the site would be delayed two years, which means that it would not become operational until 2020.99 Ramstein Air Base in Germany hosts a command and control center. 100

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." Denmark, which agreed in 2014 to equip at least one frigate with radar to contribute to NATO BMD and made further progress in 2016 toward this goal, was threatened by Russia's ambassador in Copenhagen, who stated, "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." Penmark 2018 reiterated the nation's planned contribution to BMD.

The Dutch will equip four *Iver Huit-feldt*-class frigates with a SMART-L Multi-Mission/Naval (MM/N) D-band long-range radar, which is "capable of detecting exo-atmospheric targets up to 2,000 kilometers away." ¹⁰⁴ In December 2016, the German Navy announced plans to upgrade radar on three F124 *Sachsen*-class frigates in order to contribute sea-based radar to NATO BMD. ¹⁰⁵

The U.K. operates a BMD radar at RAF Fylingdales in England. In November 2015, the U.K. stated that it plans to build new ground-based BMD radar as a contribution. ¹⁰⁶ It expects the new radar to be in service by the mid-2020s. ¹⁰⁷ The U.K. reportedly will also "investigate further the potential of the Type 45 Destroyers to operate in a BMD role." ¹⁰⁸

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 the frigates.

In October 2017, the U.S. and allies from Canada, France, Germany, Italy, the Netherlands, Spain, and the United Kingdom took part in a three-and-a-half-week BMD exercise Formidable Shield off the Scottish Coast.¹¹⁰ It is intended that Formidable Shield will be a yearly exercise.¹¹¹

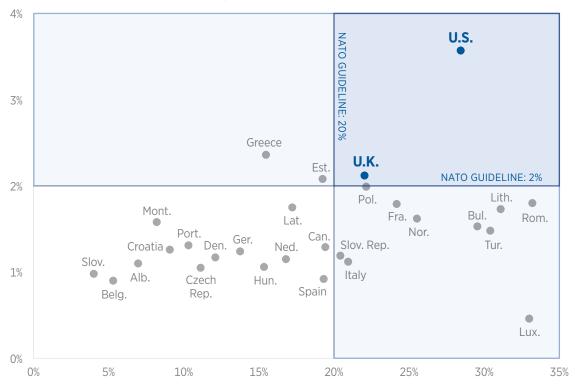
Quality of Armed Forces in the Region

As an intergovernmental security alliance, NATO is only as strong as its member states. A

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 the U.K. do both, though Estonia and Poland nearly meet both guidelines.





EQUIPMENT AS A SHARE OF DEFENSE EXPENDITURES, 2017

NOTES: Figures are estimates for 2017. Iceland is not listed because it has no military. **SOURCE:** NATO, "Defence Expenditures of NATO Countries (2010–2017)," March 15, 2018, https://www.nato.int/cps/ic/natohq/news_152830.htm (accessed July 16, 2018).

heritage.org

2017 RAND report found that France, Germany, and the U.K. would face difficulty in quickly deploying armored brigades to the Baltics in the event of a crisis. The report concludes that getting "deployments up to brigade strength would take...a few weeks in the French case and possibly more than a month in the British or German case" and that "[a] single armored brigade each appears to represent a maximum sustainable effort." In addition, there are "questions regarding their ability to operate at

the level required for a conflict with the Russians, whether because of training cutbacks, neglected skills, or limited organic support capabilities." The report further states that "the faster British, French, and German forces needed to get to the Baltics, the more direct assistance they would need from the United States in the form of strategic airlift."

Belgium, Britain, France, Germany, Luxembourg, Spain, and Turkey are procuring A400M air transports from Airbus; however, a report published in February 2018 noted an agreement that Airbus had signed to allow it to negotiate deals with individual nations to opt out of including features deemed too difficult to include. 113 Additionally, "the agreement recognizes that Airbus needs more time to deliver the plane than originally planned and paves the way for negotiations over a new delivery schedule." 114

Article 3 of the 1949 North Atlantic Treaty, NATO's founding document, states that at a minimum, members "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 commitment. In 2017, four countries spent the required 2 percent of gross domestic product (GDP) on defense—Estonia (2.08 percent); Greece (2.36 percent); the United Kingdom (2.12 percent); and the United States (3.57 percent)—and Poland spent almost the required amount (1.99 percent). During the past year, however, NATO defense spending continued to trend upward:

In 2017, the trend continued, with European Allies and Canada increasing their defence expenditure by almost 5%. Many Allies have put in place national plans to reach 2% [of GDP] by 2024 and are making progress towards that goal. In real terms, defence spending among European Allies and Canada increased by 4.87% from 2016 to 2017, with an additional cumulative spending increase of USD 46 billion for the period from 2015 to 2017, above the 2014 level.¹¹⁷

Germany. Germany remains an economic powerhouse that punches well below its weight in terms of defense. In 2017, it spent only 1.24 percent of GDP on defense and 13.75 percent of its defense budget on equipment. In February 2018, German Defense Minister Ursula von der Leyen stated, "We will need significantly more funds in coming years so the Bundeswehr (armed forces) can accomplish the missions and assignments that parliament gives

it."¹¹⁹ However, lackluster defense spending is unlikely to change; Germany plans to "lift its defence budget from €38.75bn this year to €42.65bn in 2021. With the economy set for continued expansion, military spending would still account for less than 1.5 per cent of GDP four years from now."¹²⁰

Federal elections in September 2017 led to months of negotiations on forming a coalition. The resulting three-party coalition made up of the Christian Democratic Union, Christian Social Union, and Social Democratic Party will not mean a significant change in terms of defense spending.121 Although Germany is beginning to take on a larger role within NATO as the framework nation for the NATO EFP in Lithuania and has taken some decisions to strengthen its military capabilities, its military remains underfunded and underequipped. An April 2017 RAND report stated that Germany "has only two battalions with equipment modern enough to serve as a worthy battlefield adversary for Russia."122

In addition to stationing troops in the Baltics, Germany is the second largest contributor to NATO's Kosovo Force (KFOR) mission¹²³ and the second largest contributor to the Resolute Support Mission in Afghanistan.¹²⁴ In March 2018, the Bundestag approved a bill that increased the maximum number of German troops that can deploy in support of Resolute Support by one-third, raising it to 1,300.¹²⁵ 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.¹²⁶

In March 2018, the German government also announced that it was planning to cut the number of German troops fighting ISIS in Iraq from 1,200 to 800 and expand its military training mission to include the Iraqi Army in addition to the Peshmerga. ¹²⁷ In addition to training, through the summer of 2017, Germany supplied Kurdish Peshmerga forces with 1,200 anti-tank missiles and 24,000 assault rifles as they fought against ISIS. ¹²⁸

German troops contribute to NATO's Very High Readiness Joint Task Force, as well as to Baltic Air Policing. ¹²⁹ Germany will take over the rotating head of the VJTF in January 2019. However, 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." ¹³⁰

The myriad examples of the deleterious state of Germany's armed forces are worrisome. At one point in late 2017 and early 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.131 In December 2017, Germany's F-125 Baden-Württemberg-class frigate failed sea trials because of "software and hardware defects."132 In addition, 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,"133 and lacked sufficiently robust armaments, as well as the ability to add them.134 Germany returned the ship to the shipbuilder following delivery.135

The Luftwaffe faces similar problems. At the end of 2017, for instance, none of the German air force's 14 transport aircraft were available for deployment. In 2017, according to a report from the German Defense Ministry, only 39 of 128 Eurofighters on average were available, usually for lack of spare parts and long maintenance periods. An even grimmer report in a German magazine in May 2018 found that a lack of missiles and problems with the Eurofighter air defense systems, which alerts pilots to potential attacks, meant that only four are ready for actual combat missions. Among other examples, only 26 of 93 Tornadoes are ready for action.

Germany's army is similarly ill equipped and understaffed, with 21,000 vacant positions

in its officer corps.¹⁴¹ In February 2018, only 95 of 244 Leopard 2 tanks were in service.¹⁴² In December 2017, the Army outsourced helicopter training to a private company because the condition of its own helicopters prevented pilots from getting enough flight time.¹⁴³ In 2017, one-tenth of Germany's military helicopter pilots lost their licenses for lack of adequate flying time.¹⁴⁴

Germany is seeking a replacement for its 90 Tornado aircraft, set to be retired in 2030. In April 2018, three companies submitted bids to deliver the replacement, which the Luftwaffe plans will "enter service in about 2025." The Tornado replacement 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. ¹⁴⁶

Germany's military faces institutional challenges to procurement that include an understaffed procurement office with 1,300 vacancies, which is equal to 20 percent of its entire workforce, ¹⁴⁷ and the need for special approval by a parliamentary budget committee for any expenditure of more than €25 million. ¹⁴⁸

In February 2017, Germany and Norway announced joint development and procurement of naval anti-surface missiles. ¹⁴⁹ In October 2017, Germany announced plans to purchase five corvettes for its Navy at a total cost of €1.5 billion. ¹⁵⁰

The Bundeswehr plans to add 5,000 new soldiers to its ranks along with 1,000 civilians and 500 reservists by 2024.¹⁵¹ 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 2021.¹⁵²

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. Continued problems with the procurement of A400M cargo aircraft have raised questions about whether Germany will have replacement transport

aircraft ready before its C-160 fleet is due to be retired in 2021. According to one account, a "confidential German military report said there was a 'significant risk' that the A400M would not meet all its tactical requirements" in time to replace the aging C-160.¹⁵⁴

France. France sees itself as a global power, remains 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 spent 1.79 percent of GDP on defense in 2017 and 24.17 percent of defense spending on equipment, attaining one of two NATO benchmarks. ¹⁵⁵ The outlook for defense investment has improved following initial defense cuts under President Emmanuel Macron that led the Chief of Defense to resign in protest.

In July 2018, President Macron signed a law increasing defense spending over six years, including a \$2.1 billion increase for the current year, with France spending 2 percent of GDP on defense by 2025. One-third of the planned increases will not take effect until 2023, after the next French general election. 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 inflight refueling tankers, 28 Rafale fighter jets and 55 upgraded Mirage 2000 fighters."156

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 IISS, "but decrease thereafter—with these outlays likely to come at the expense of conventional procurements." France opened a cyber-operational command in December 2016. The Army plans to employ 2,600 cyber soldiers supported by 600 cyber experts, along with 4,400 reservists, and to invest €1 billion in this effort by 2019. ¹⁵⁸

France withdrew the last of its troops from Afghanistan at the end of 2014, although all French combat troops had left in 2012. As of April 2017, France had 1,100 soldiers deployed in the campaign against the Islamic State, along with 10 Rafale fighter jets and four CAESAR self-propelled howitzers. 159 By September 2017, French planes operating from bases in Jordan, the United Arab Emirates, and occasional maritime platforms had flown 7,136 missions, including 1,375 strikes and 2,152 targets neutralized.¹⁶⁰ French artillery has taken part in supporting the ground offensive against the IS since September 2016, 161 and France has helped to train Iraqi forces. Around 40 French Special Operations Forces on the ground are actively engaged in tracking down and locating some of the 1,700 French nationals that have joined ISIS.162

The September 2017 death of a Special Forces soldier was the first combat death in Operation Chammal (French operations in Iraq). 163 In April 2018, France joined the U.S. and U.K. in targeting the Assad regime over its use of chemical weapons. 164 According to French Air Force Chief of Staff Andre Lanata, the pace of Operation Chammal is having a deleterious impact on French forces. In addition to such other problems as a shortage of drones and refueling tankers, Lanata has stated that he is "having a hard time (recruiting and retaining personnel) in a number of positions, from plane mechanics to intelligence officers, image analysts and base defenders." 165

In Europe, France's deployment of 266 troops, along with armored fighting vehicles, to Lithuania¹⁶⁶ contributes to NATO's Enhanced Forward Presence. The French military is very active in Africa, with over 4,000 troops taking part in anti-terrorism operations in Burkina Faso, Chad, Mali, Mauritania, and Niger as part of Operation Barkhane.¹⁶⁷ France also has over 1,450 troops in Djibouti and troops in Côte d'Ivoire, Gabon, and Senegal.¹⁶⁸ In addition, France has a close relationship with the United Arab Emirates and stations 850 troops in the UAE; a 15-year defense agreement between the countries came into force in 2012.¹⁶⁹

France recently added 11,000 soldiers to its Army. To Operation Sentinelle, launched in January 2015 to protect the country from terrorist attacks, is the largest operational commitment of French forces and accounts for some 13,000 troops. To Operation Sentinelle soldiers helped to foil an attack near the Louvre museum in February 2017 and an attempted attack on a soldier patrolling Orly Airport in March 2017. In October, Sentinelle soldiers killed a terrorist who had killed two people at a train station in Marseille. To

Frequent deployments, especially in Operation Sentinelle, have placed significant strains on French forces and equipment. 174 "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 both extended deployment pay to soldiers taking part in and created a new "medal for Protection of the Territory" for troops deployed for 60 days in Operation Sentinelle. 176

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 the Special Relationship between the U.K. and the U.S. 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."177

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. Through 2015, defense spending had dropped to 2.08 percent of GDP,¹⁷⁸ and U.K. forces suffered as a consequence. In 2016, the U.K. moved to repair the damage in capability and capacity by increasing spending to 2.17 percent of GDP, with 22.56 percent of this devoted to equipment purchases.¹⁷⁹ In 2017, the U.K. spent 2.14 percent of GDP on defense and 22.03 percent of GDP on equipment.¹⁸⁰ In recent years, it has increased funding for its highly respected Special Forces.

Funding procurement is an issue. As noted by the Royal United Services Institute, "The 2015 SDSR bridged the gap between a 5% increase in the total budget and a 34% increase in procurement spending by promising substantial efficiency savings over its first five years." Those efficiencies were insufficient, and this led to a funding gap of £4.9 billion and £21 billion for the Ministry of Defence's decade-long procurement plans. A widely anticipated defense review, the Defence Modernisation Programme, is due out in mid-2018 and will take a fresh look at U.K. capabilities, requirements, and funding.

Though its military is small in comparison to the militaries of France and Germany, the U.K. maintains one of the most effective armed forces in European NATO. Former Defense Secretary Michael Fallon stated in February 2017 that the U.K. will have an expeditionary force of 50,000 troops by 2025. However, an April 2018 report from the National Audit Office found that the military was 8,200 people (5.7 percent) short of its required level, a shortfall that it will take at least five years to rectify. The same report also found a gap of 26 percent for intelligence analysts. 185

By 2020, if funding is sustained, the Royal Air Force (RAF) will operate a fleet of F-35 and Typhoon fighter aircraft, the latter being upgraded to carry out ground attacks. While the U.K. is committed to purchasing 138 F-35s, rising acquisition costs and defense budget pressure have led some, including the Deputy

Chief of the U.K. Defence Staff, to raise the possibility that the number of F-35s acquired might have to be cut.¹⁸⁶

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. With the U.K., the U.S. produced and has jointly operated an intelligence-gathering platform, the RC-135 Rivet Joint aircraft, that has already seen service in Mali, Nigeria, and Iraq and is now part of the RAF fleet.

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. 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 to at least 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, which will come into service in 2019.187 A £132 million facility to house the P-8s is under construction at RAF Lossiemouth in Scotland, 188 to be completed in 2020.189 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.¹⁹⁰

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 the Type-26 Global Combat Ship sometime in the 2020s. In total, 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, 12 of 13 Type-23 Frigates and all six Type-45 Destroyers were in port, leaving only one Royal Navy frigate on patrol.¹⁹¹

The U.K. will not have an aircraft carrier in service until the first *Queen Elizabeth*-class carrier enters service in the 2020s. This will

be the largest carrier operated in Europe. Two of her class will be built, and both will enter service. The *Queen Elizabeth* underwent sea trials in June 2017¹⁹² and was commissioned in December. ¹⁹³ By the end of 2017, the U.K. had taken delivery of 14 F-35Bs, the variant that will be operated jointly by the RAF and the Royal Navy. ¹⁹⁴ Additionally, the Royal Navy is introducing seven *Astute*-class attack submarines as it phases out its older *Trafalgar*-class. Crucially, the U.K. maintains a fleet of 13 Mine Counter Measure Vessels (MCMVs) 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.195 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."196

The U.K. remains a leader inside NATO, serving as framework nation for NATO's EFP in Estonia and as a contributing nation for the U.S.-led EFP in Poland. In March, the U.K. announced the first operational deployment of four Lynx Wildcat reconnaissance helicopters to Estonia for a period of four months.¹⁹⁷ The Royal Air Force has taken part in Baltic Air Policing four times, including most recently from April-August 2016.198 Four RAF Typhoons were deployed to Romania for four months in May 2017 to support NATO's Southern Air Policing mission,199 and another four were deployed from May-September 2018.²⁰⁰ "In the face of an increasingly assertive Russia," U.K. Defence Minister Gavin Williamson has stated, "the UK has significantly stepped

up its commitment to Europe and today I can confirm a further package of support, showing how we remain at the forefront on European security."²⁰¹

The U.K. also maintains a sizeable force of 500 troops in Afghanistan²⁰² as part of NATO's Resolute Support mission and contributes to NATO's Kosovo Force,²⁰³ Standing NATO Maritime Group 2, and Mine Countermeasures Group Two.²⁰⁴ 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 over its use of chemical weapons against civilians.²⁰⁵

Turkey. Turkey remains an important U.S. ally and NATO member, but the increasingly autocratic presidency of Recep Tayyip Erdogan and a recent 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 a total of 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.

Turkey is vitally important to Europe's energy security. It is the gateway to the resource-rich Caucasus and Caspian Basin and controls the Bosporus, one of the world's most important shipping straits. Several major gas and oil pipelines run through Turkey. As new oilfields are developed in the Central Asian states, and given Europe's dependence on Russian oil and gas, Turkey can be expected to play an increasingly important role in Europe's energy security.

On July 15, 2016, elements of the Turkish armed forces reportedly attempted a coup d'état against the increasingly Islamist-leaning leadership of President Erdogan. This was the fourth coup attempt since 1960 (the fifth if one counts the so-called postmodern coup in 1997). In each previous case, the military was successful, and democracy was returned to

the people; in this case, however, Erdogan immediately enforced a state of emergency and cracked down on many aspects of government, the military, and civil society. Following the failed coup attempt, thousands of academics, teachers, journalists, judges, prosecutors, bureaucrats, and soldiers were fired or arrested. As of April 2018, "More than 150,000 people have been detained and 110,000 civil servants dismissed since the coup attempt." ²⁰⁶

The post-coup crackdown has had an especially negative effect on the military. In April 2018, Erdogan announced the firing of an additional 3,000 military officers; more than 11,000 military members have been fired since the 2016 coup attempt. Turkey's military is now suffering from a loss of experienced generals and admirals as well as an acute shortage of pilots, and NATO Supreme Allied Commander General Scaparrotti has stated that Erdogan's military purges have "degraded" NATO's capabilities. 208

The failed plot has enabled Erdogan to consolidate more power. A referendum that was approved by a narrow margin in April 2017 granted the president's office further powers—such as eliminating the position of prime minister in the government—that came into effect following the June 2018 general election. ²⁰⁹ An interim report by election observers from the Organization for Security and Co-operation in Europe found an "unlevel playing field" and stated that the two sides of the campaign "did not have equal opportunities." ²¹⁰ Erdogan's response to the coup has further eroded Turkey's democracy, once considered a model for the region.

Senior government officials' erratic and at times hyperbolic statements alleging U.S. involvement in the coup, combined with Erdogan's rapprochement with Russian President Vladimir Putin, have 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. In April 2018, President Erdogan announced that delivery of the S-400s would be brought forward from 2020 to July 2019 and

raised the possibility of additional defense cooperation with Russia.²¹²

In April 2017, former Turkish Defense Minister and current Deputy Prime Minister Fikri Işık stated that no S-400s would be integrated into the NATO air defense systems. ²¹³ U.S. officials pointed out the ineffectiveness of older Russian-made air defenses in Syria, which failed to intercept any of the 105 missiles launched by U.S. and allied forces in retaliation for the Assad regime's use of chemical weapons in April 2018. ²¹⁴ Radars on Russia's newer S-400 systems deployed to Syria were active but did not engage the incoming strikes. ²¹⁵ Turkey, however, has stated that the purchase of the S-400s is a "done deal." ²¹⁶

Also in April 2018, construction began on a \$20 billion nuclear power plant in Mersin Province on Turkey's south central coast. The plant is being built by the Russian state corporation Rosatom. In March 2018, Turkey condemned the poisoning of a former Russian spy on British soil²¹⁷ but demurred from either naming Russia as the perpetrator or expelling Russian diplomats from Turkey.²¹⁸ Despite warmed relations, Turkish and Russian interests do not always neatly align, especially in Syria, where Turkey remains very much the junior player. In February 2018, for instance, Russia was assisting the Assad regime's targeting of forces that were supported by Turkey.²¹⁹

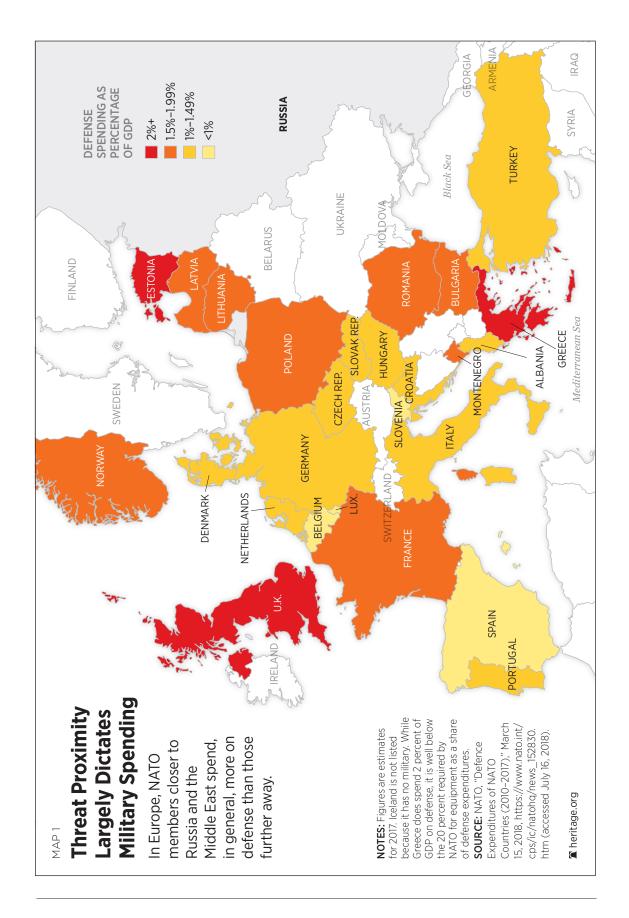
The U.S. decision in May 2017 to arm Syrian Kurds of the People's Protection Units (YPG) further angered Turkey, which considers the YPG to be connected to the Kurdistan Workers Party (PKK), long viewed by Ankara as its primary threat.²²⁰ In January 2018, Turkey launched a major offensive military operation near the Syrian city of Afrin. At issue was the creation of a "30,000-strong border security force in north-east Syria, built around the SDF [Syrian Democratic Forces]. In Ankara's eyes, this offers the YPG permanent title to the land it has carved out. Mr. Erdogan vowed to 'drown' and/or 'strangle' this 'army of terror before it is born."221 U.S. officials have expressed public consternation at Turkey's military engagement in Syria and coordination with Russia. In

April, Assistant Secretary of State for European and Eurasian Affairs Wess Mitchell voiced that uneasiness: "The ease with which Turkey brokered arrangements with the Russian military to facilitate the launch of its Operation Olive Branch in Afrin District, arrangements to which America was not privy, is gravely concerning."²²²

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.²²³ In January, 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."224

In addition to a drawdown in operations in the Middle East, Germany's decision to leave the base also has soured American views on Incirlik, ²²⁵ although U.S. officials sought to downplay tensions with Turkey after reports surfaced. An official at EUCOM, for example, 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."²²⁶

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. ²²⁷ In January 2018, deployments of NATO air defense batteries to Incirlik were extended until June. ²²⁸ In addition, after an initial period of vacillation in dealing with the threat from the Islamic State, a spate of IS attacks that rocked the country has led Turkey to play a bigger role in attacking the terrorist group, with NATO AWACS aircraft, for



example, that are taking part in counter-ISIS operations flying from Turkey's Konya Air Base.²²⁹ Turkey also hosts a crucial radar at Kurecik, which is part of NATO's BMD.²³⁰

While visiting Turkey in April, 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 NATO was making in the upgrading of Turkey's military infrastructure. The U.S. reportedly designated \$6.4 million to build out 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. 233

The Turks have deployed thousands of troops to Afghanistan and have commanded the International Security Assistance Force (ISAF) twice since 2002. Turkey continues to maintain more than 500 troops in Afghanistan as part of NATO's Resolute Support Mission, making it the sixth-largest troop contributor out of 39 nations. ²³⁴ The Turks also have contributed to a number of peacekeeping missions in the Balkans, still maintain 307 troops in Kosovo, ²³⁵ 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,236 making it NATO's second largest after that of the United States. Major current procurement programs include up to 250 new Altay main battle tanks, 350 T-155 Fırtına 155mm self-propelled howitzers, six Type-214 submarines, and more than 50 T-129 attack helicopters.²³⁷ Turkish submarine procurement has faced six-year delays, and the first submarine will not be delivered until 2021.238 Turkey has also upgraded its M60A3 main battle tanks and its M60T tanks.239 M60Ts taking part in Operation Olive Branch near Afrin were reportedly "equipped with laser warning receivers, situational awareness systems, and remotely operated weapon stations forming part of an indigenous upgrade package."240

In February, President Erdogan expressed a desire to utilize internal military procurements and upgrades, declaring that Turkey "will not buy any defence products, software, and systems from abroad that can be designed, produced, and developed in the country except those required urgently."²⁴¹

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 square differing goals in Syria without alienating Turkey.

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 was one of five NATO members to meet the 2 percent of GDP spending benchmark in 2017.242 Although the Estonian armed forces total only 6,600 active-duty service personnel (including the army, navy, and air force),243 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. ²⁴⁴ The number of Estonian conscripts will increase from 3,200 to 4,000 by 2026. ²⁴⁵

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. Procurements are expected to rise to \$210 million by 2020.246 One recent joint procurement is with neighboring Finland to acquire 12 South Korean-built howitzers by 2021.247 Estonia has purchased 44 used infantry fighting vehicles from the Netherlands, the last of which were delivered in 2018.248 In June 2018, Estonia signed a \$59 million deal to purchase short-range air defenses, with Mistral surface-to-air missiles to be delivered starting in 2020.249 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."250

Estonia has a Cyber Defence League, a reserve force that relies heavily on expertise found in the civilian sector, and is planning "to create our own full spectrum cyber command, from defence to offence."251 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 to further clarify the legal framework for U.S. troops in Estonia.²⁵² In 2019, the U.S. "intends to spend more than \$15 million to improve working conditions for special operations forces on missions in the Baltics" by upgrading operations and training facilities at an undisclosed site in Estonia.²⁵³

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 considering that only 5,310 of Latvia's troops are full-time servicemembers; the remainder are reserves.²⁵⁴ In 2018, Latvia added 710 soldiers to its armed forces.²⁵⁵

Latvia's 2016 National Defense 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 aims to strengthen the operational capability of the armed forces through "further integration of the National Guard within the Armed Forces, strengthening the Special Tasks Unit (special operations forces), as well as boosting early-warning capabilities, airspace surveillance and air defense." ²⁵⁷

Latvia plans that a minimum of 8 percent of its professional armed forces will be deployed at any one time but will train to ensure that no less than 50 percent will be combat-ready to deploy overseas if required. In 2018, Latvia met the NATO benchmark of 2 percent of GDP spent on defense, and it will also spend 43 percent of its defense budget on procurement in 2018.258 Also in 2018, Latvia received the first of three TPS-77 Multi-Role radars, 259 along with two unmanned aircraft systems, from the U.S.²⁶⁰ In addition, Latvia is procuring "second-hand M109 self-propelled artillery pieces from Austria and has selected the Stinger man-portable air-defense system."261 In January, Latvia announced plans to invest \$61.7 million through 2021 on military infrastructure, including the expansion of training areas.262

Lithuania. Lithuania is the largest of the three Baltic States, and its armed forces total 18,350 active-duty troops.²⁶³ It reintroduced conscription in 2015.264 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.²⁶⁵

In 2018, Lithuania reached the NATO benchmark of 2 percent GDP devoted to spending on defense. The government's 2018 National Threat Assessment clearly identifies Russia as the main threat to the nation. Ithuania is dedicating significant resources to procurement with a focus on land maneuver, indirect fire support, air defense radars, anti-tank weapons systems, and ground-based air defense.

Prime Minister Saulius Skvernelis has identified modernization as the armed forces' "number-one priority." Specifically, "Lithuania's government aims to acquire Boxer infantry fighting vehicles, PzH 2000 self-propelled howitzers and the Norwegian Advanced Surface to Air Missile System" by 2021 and "is also mulling plans to purchase transport and perhaps combat [helicopters]." In 2016, Lithuania reached an agreement to acquire 88 Boxer Infantry Fighting Vehicles, to be delivered by 2021.

Lithuania has also taken steps to mitigate the threat from Russia by reducing its dependence on Russian energy. Its decision to build a liquefied natural gas (LNG) import facility at Klaipėda has begun to pay dividends, breaking Russia's natural gas monopoly in the region. In 2016, Norway overtook Russia as the top exporter of natural gas to Lithuania.²⁷² In June 2017, a Lithuanian energy company signed an agreement to buy LNG directly from the U.S.273 In May 2017, the Baltic States agreed to connect their power grids (currently integrated with Belarus and Russia) with Poland's with the goal of creating a link to the rest of Europe and decreasing dependence on Russian energy.274

Russian cyber aggression against Lithuania in 2018 targeted "Lithuanian state institutions and the energy sector. In addition to these traditional cyber activities, a new phenomenon has been observed—a large-scale spread of ransomware programmes."²⁷⁵

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 alongside

the Kaliningrad Oblast. 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. ²⁷⁶

Poland has an active military force of 105,000, including a 61,200-strong army with 937 main battle tanks.²⁷⁷ In November 2016, Poland's Parliament approved a new 53,000-strong territorial defense force to protect infrastructure and provide training in "unconventional warfare tactics."²⁷⁸ The new force will be established by 2019²⁷⁹ and is the fifth branch of the Polish military, subordinate to the Minister of Defense.²⁸⁰ The territorial defense force will tackle 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."²⁸¹

The prioritization of this new force has ignited controversy in Polish defense circles.²⁸² Ninety percent of General Staff leadership and 80 percent of Army leadership left or were replaced following military reforms in 2016, introducing a measure of volatility into defense planning.²⁸³

In 2017, Poland spent 1.99 percent of GDP on defense and 22.14 percent on equipment, essentially reaching both NATO benchmarks. ²⁸⁴ In April, the Ministry of National Defence stated that its goal is to raise defense spending to 2.5 percent of GDP by 2030. ²⁸⁵ Poland is looking at major equipment purchases and is planning to spend an additional \$55 billion on modernization over the next 14 years. ²⁸⁶

In March 2018, Poland signed a \$4.75 billion deal for two Patriot missile batteries, the largest procurement contract in the nation's history.²⁸⁷ In addition, "Warsaw is negotiating with Washington to buy more Patriots, a new 360-degree radar and a low-cost interceptor missile as part of a second phase of modernization."²⁸⁸ In February, Poland joined an eight-nation "coalition of NATO countries seeking to jointly buy a fleet of maritime

surveillance aircraft."²⁸⁹ Additionally, Warsaw has "established a fund to bolster the defence-modernisation ambitions of neighbors under the Regional Security Assistance Program."²⁹⁰

Although Poland's focus is territorial defense, it has 247 troops deployed in Afghanistan as part of NATO's Resolute Support Mission.²⁹¹ In 2016, Polish F-16s began to fly reconnaissance missions out of Kuwait as part of the anti-IS mission Operation Inherent Resolve.²⁹² Approximately 60 soldiers deployed to Iraq in 2015 as trainers.²⁹³ Poland's air force has taken part in Baltic Air Policing seven times since 2006, most recently from September 2017.²⁹⁴ Poland also is part of NATO's EFP in Latvia and has 262 troops taking part in NATO's KFOR mission.²⁹⁵

Current U.S. Military Presence in Europe

Former head of U.S. European Command General Philip Breedlove has aptly described the role of U.S. basing in Europe:

The mature network of U.S. operated bases in the EUCOM AOR provides superb training and power projection facilities in support of steady state operations and contingencies in Europe, Eurasia, Africa, and the Middle East. This footprint is essential to TRANSCOM's global distribution mission and also provides critical basing support for intelligence, surveillance, and reconnaissance assets flying sorties in support of AFRICOM, CENT-COM, EUCOM, U.S. Special Operations Command, and NATO operations.²⁹⁶

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 65,000 active U.S. forces remain in Europe, ²⁹⁷ an 85 percent decrease

in personnel and 75 percent reduction in basing from the height of the Cold War.²⁹⁸

Until 2013, the U.S. Army had two heavy brigade combat teams in Europe, the 170th and 172nd BCTs in Germany; one airborne Infantry BCT, the 173rd Airborne Brigade in Italy; and one Stryker BCT, the 2nd Armored Cavalry Regiment in Germany, permanently based in Europe. Deactivation of the 170th BCT in October 2012, slightly earlier than the planned deactivation date of 2013, marked the end of a 50year period during which U.S. combat soldiers had been stationed in Baumholder, Germany. Deactivation of the 172nd BCT took place in October 2013. In all, this meant that more than 10,000 soldiers were removed from Europe. The U.S. has returned one armored BCT to Europe as part of continuous rotations; according to General Breedlove, "[t]he challenge EUCOM faces is ensuring it is able to meet its strategic obligations while primarily relying on rotational forces from the continental United States."299

As of April 2014, according to General Breedlove, the U.S. had only 17 main operating bases left in Europe, 300 primarily in Germany, Italy, the United Kingdom, Turkey, and Spain. In April 2017, EUCOM announced that additional closures proposed under the 2015 European Infrastructure Consolidation effort have been postponed while EUCOM conducts a review of U.S. force posture and future requirements. 301 Currently, the U.S. Army is scouting sites in lower Saxony in northern Germany for the potential basing of an additional 4,000 troops. 302

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 and one subordinate unified command: U.S. Naval Forces Europe (NAVEUR); U.S. Army Europe (USAREUR); U.S. Air Forces in Europe (USAFE); U.S. Marine Forces Europe (MARFOREUR); and 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.³⁰³

In 2017, the U.S. allocated over \$21 million to upgrade facilities at Keflavik Air Station in Iceland to enable operations of P-8 Poseidon aircraft in the region. The P-8 is capable of flying missions over the entirety of the GIUK (Greenland, Iceland, and United Kingdom) Gap, which has seen an increase in Russian submarine activity. The U.S. Navy expects to complete the replacement of P-3s with P-8s by FY 2019.

The U.S. Navy also keeps a number of submarines in the area that contribute to EU-COM's intelligence, surveillance, and reconnaissance (ISR) capacities, but with increased Russian naval activity, more are needed. Testifying in March 2018, General Scaparrotti stated that Russia's Arctic buildup and naval investments could put it in a position to control northern sea-lanes within three years. General Scaparrotti testified in 2017 that he did "not have the carrier or the submarine capacity that would best enable me" to address EUCOM requirements. Scaparrotti Scaparrotti stated that would best enable me to address EUCOM requirements.

U.S.-U.K. military cooperation helps the U.S. to keep submarine assets integrated into the European theater. The British Overseas Territory of Gibraltar, for example, frequently hosts U.S. nuclear-powered submarines. Docking U.S. nuclear-powered submarines in Spain is problematic and bureaucratic, making access to

Gibraltar's Z berths vital. Gibraltar is the best place in the Mediterranean to carry out repair work. U.S. nuclear submarines also frequently surface in Norwegian waters to exchange crew or take on supplies.

In addition, last year saw a significant uptick in U.S. and allied nuclear submarine portcalls in Norway, with the number of submarines reaching "3 to 4 per month."³⁰⁸ The U.S. Navy also has a fleet of Maritime Patrol Aircraft and Reconnaissance Aircraft that operate from U.S. bases in Italy, Greece, Spain, and Turkey and complement the ISR capabilities of U.S. submarines.

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. At the height of the Cold War, 277,000 soldiers and thousands of tanks, armored personnel carriers, and tactical nuclear weapons were positioned at the Army's European bases. USAREUR also contributed to U.S. operations in the broader region, such as the U.S. intervention in Lebanon in 1985 when it deployed 8,000 soldiers for four months from bases in Europe. In the 1990s, after the fall of the Berlin Wall, USAREUR continued to play a vital role in promoting U.S. interests in the region, especially in the Balkans.

USAREUR is headquartered in Wiesbaden, Germany. Its core is formed around the permanent deployment of two BCTs: 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. In addition, the U.S. Army's 21st Theater Sustainment Command has helped the U.S. military presence in Europe to become an important logistics hub in support of Central Command.

The 2nd Cavalry Regiment Field Artillery Squadron began training on a Q-53 radar system in 2017. The radar has been described as a "game changer." The unit is the first in the European theater to acquire this system, which is expected to help the Army monitor the border between NATO and Russia more effectively. In April 2018, the U.S. deployed the National Guard's 678th Air Defense Artillery Brigade

to Europe, the first such unit since drawdowns following the end of the Cold War.³¹⁰

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 88 geographically separated locations.311 The main operating bases are 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. These bases provide benefits beyond the European theater. For example, U.S. Air Force Colonel John Dorrian has said that "any actions by Turkey to shut down or limit U.S. air operations out of Incirlik would be disastrous for the U.S. anti-ISIS campaign." Incirlik is "absolutely invaluable," and "the entire world has been made safer by the operations that have been conducted there."312 Approximately 39,000 active-duty, reserve, and civilian personnel are assigned to USAFE along with 200 aircraft.313

The 2018 EUCOM posture statement describes the value of EDI funding for USAFE:

In the air domain, we leverage EDI to deploy theater security packages of bombers as well as 4th and 5th generation fighter aircraft to execute deterrence missions and train with ally and partner nation air forces. We are building prepositioned kits for the Air Force's European Contingency Air Operation Sets (ECAOS) and making improvements to existing Allied airfield infrastructure, which will afford us the ability to rapidly respond with air power in the event of a contingency.³¹⁴

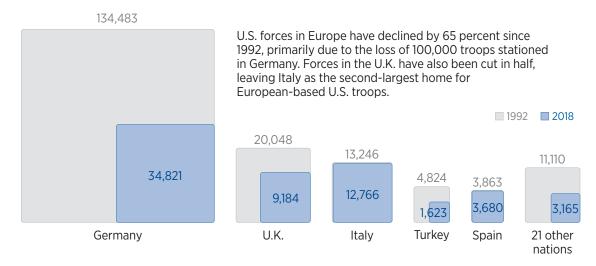
U.S. Marine Forces Europe. MARFO-REUR was established in 1980. It was originally a "designate" component command, meaning that it was only a shell during peacetime but could bolster its forces during wartime. Its

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 140 of the 1,500 Marines based in Europe are assigned to MARFOREUR. 315 It was also dual-hatted as Marine Corps Forces, Africa (MARFORAF), under U.S. Africa Command in 2008.

In the past, MARFOREUR has supported U.S. Marine units deployed in the Balkans and the Middle East. It also supports the Norway Air Landed Marine Air Ground Task Force, the Marine Corps' only land-based prepositioned stock. The Marine Corps has enough prepositioned stock in Norway to "to equip a fighting force of 4,600 Marines, led by a colonel, with everything but aircraft and desktop computers,"316 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 humanitarian and disaster response.317 The prepositioned stock's proximity to the Arctic region makes it of particular geostrategic importance. In 2016, 6,500 pieces of equipment from the stock were utilized for the Cold Response exercise. 318 The U.S. is currently studying whether equipment for 8,000 to 16,000 Marines could be stored in Norway and whether equipment could be stored in ways that would make it possible to deploy it more rapidly.319 Norway must approve any U.S. request to increase the amount of prepositioned material in the country.³²⁰

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) is currently located in Spain, Italy, and Romania and provides a response force of 1,550 Marines. Six of the unit's 12 Ospreys and three of its C-130s were sent back to the U.S. to bolster Marine capabilities in the U.S. 321 Marine Corps General Joseph Dunford, current Chairman of the Joints Chief of Staff, said in 2016 that this reduction in strength "does reduce the [unit's]

U.S. Presence in Europe Has Declined



NOTE: 2018 figures are as of March.

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 August 10, 2018).

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flexibility, it reduces the depth."³²² The SP-MAGTF helped with embassy evacuations in Libya and South Sudan and conducts regular drills with embassies in the region.

In July 2015, Spain and the United States signed the Third Protocol of Amendment to the U.S.–Spanish Agreement for Defense and Cooperation, which allows the U.S. Marine Corps to station up to 2,200 military personnel, 21 aircraft, and 500 nonmilitary employees permanently at Morón Air Base. The Defense Department stated that "a surge capability was included in the amendment of another 800 dedicated military crisis-response task force personnel and 14 aircraft at Morón, for a total of 3,500 U.S. military and civilian personnel and 35 aircraft."

The Marine Corps also maintains a Black Sea Rotational Force (BSRF) composed of approximately 400 Marines, based in Romania, that conduct training events with regional partners.

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 initially based 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, U.S. Special Operations Command Chief 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,"324 a move that is expected to take a few years.

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

The FY 2019 DOD budget request included just under \$200 million for various special operations programs and functions through EDI.³²⁵ This funding is intended to go to such projects as enhancement of special operations forces' staging capabilities and prepositioning in Europe, exercise support, enhancement of intelligence capabilities and facilities, and partnership activities with Eastern and Central European allies' special operations forces.

EUCOM has played an important role in supporting other combatant commands such as CENTCOM and AFRICOM. Of the 65,000 U.S. troops based in Europe, almost 10,000 are there to support other combatant commands. The facilities available in EUCOM allowed the U.S. to play a leading role in combating Ebola in western Africa during the 2014 outbreak.

In addition to CENTCOM and AFRICOM, U.S. troops in Europe have worked closely with U.S. Cyber Command (CYBERCOM) to implement Department of Defense cyber policy in Europe and to bolster the cyber defense capabilities of America's European partners. This work has included hosting a number of cyber-related conferences and joint exercises with European partners.

Cyber security in Europe has improved. This improvement includes operationalization of EUCOM's Joint Cyber Center in 2017. EUCOM has also supported CYBERCOM's work inside NATO by becoming a full member of the NATO Cooperative Cyber Defense Center of Excellence in Tallinn, Estonia.

Key Infrastructure and Warfighting Capabilities

One of the major advantages of having U.S. forces in Europe is the access to logistical infrastructure that it provides. For example, EUCOM supports the U.S. Transportation Command (TRANSCOM) with its array of air bases and access to ports throughout Europe. EUCOM supported TRANSCOM with work on the Northern Distribution Network (NDN), which supplied U.S. troops in Afghanistan during major combat operations there. Today, 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. 326

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. For example, there are more than 166,000 miles of rail line in Europe (not including Russia), and an estimated 90 percent of roads in Europe are paved. The U.S. enjoys access to a wide array of airfields and ports across the continent.

EDI has supported infrastructure improvements across the region. One major EDI-funded project is a replacement hospital at Landstuhl in Germany. When completed in 2022, the new permanent facility "will provide state-of the-art combat and contingency medical support to service members from EUCOM, AFRICOM and CENTCOM."³²⁷ EDI funds are also contributing to 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."³²⁸

Some of the world's most important shipping lanes are also in the European region. In fact, the world's busiest shipping lane is the English Channel, through which pass 500 ships a day, not including small boats and pleasure craft. Approximately 90 percent of the world's trade travels by sea. Given the high volume of

maritime traffic in the European region, no U.S. or NATO military operation can be undertaken without consideration of how these shipping lanes offer opportunity—and risk—to America and her allies. In addition to the English Channel, other important shipping routes in Europe include the Strait of Gibraltar; the Turkish Straits (including the Dardanelles and the Bosporus); the Northern Sea Route; and the Danish Straits.

The biggest danger to infrastructure assets in Europe would be any potential NATO conflict with Russia in one or more of NATO's eastern states. In such a scenario, infrastructure would be heavily targeted in order to deny or delay the alliance's ability to move the significant numbers of manpower, matériel, and equipment that would be needed to retake any territory lost during an initial attack.

Conclusion

Overall, the European region remains a stable, mature, and friendly operating environment. Russia remains the preeminent threat to the region, both conventionally and nonconventionally, and the impact of the migrant crisis, continued economic sluggishness, threat from terrorism, and political fragmentation increase the potential for internal instability. The threats emanating from the previously noted arc of instability that stretches from the eastern Atlantic Ocean to the Middle East and up to the Caucasus through Russia and into the Arctic have spilled over into Europe itself in

the form of terrorism and migrants arriving on the continent's shores.

America's closest and oldest allies are located in Europe. 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 initial concerns by allies, 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 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 continued underinvestment from European members, 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 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 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. The *2018 Index* again assesses the European Operating Environment as "favorable":

- 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				~	
Political Stability				~	
U.S. Military Posture			✓		
Infrastructure				~	
OVERALL				~	

Endnotes

- 1. On March 29, 2017, Great Britain began a two-year process of formal withdrawal from the EU by invoking Article 50 of the Treaty on European Union.
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- 5. Ibid.
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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 that are seeking to defend themselves. The U.S. also maintains a long-term interest in the Middle East that is related to 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, in addition to 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 religious extremists that are constantly vying for power, 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 modern-day borders often do not reflect the region's cultural, ethnic, or religious realities. Today's borders 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.¹

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.² 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, including in Bahrain, 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, 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 more than 60 percent of the region's inhabitants are less than 25 years old, this demographic bulge will continue to have a substantial effect on political stability across the region.

The Middle East contains more than half of the world's oil reserves and is the world's chief oil-exporting region. As the world's biggest oil consumer, the U.S. has a vested interest in maintaining the free flow of oil and gas from the region, even though the U.S. actually imports relatively little of its oil from the Middle East.³ 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 (the world's third largest economy) is the world's largest liquefied natural gas (LNG) importer, accounting for 32 percent of the global market share of LNG demand. 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. Although many oil-exporting countries recovered from the 2008 financial crisis and subsequent recession, they have since experienced the deepest economic downturn since the 1990s as a result of falling oil prices. 5 Various factors such as weak demand, infighting within the Organization of the Petroleum Exporting Countries (OPEC), and increased U.S. domestic oil production have contributed to these plunging oil prices.6

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 2011 Arab Spring uprisings, which 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 that began in early 2011 formed a regional sandstorm that eroded the foundations of many authoritarian regimes, erased borders, and destabilized many countries in the region. Even so, 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, these uprisings made slow progress toward democratic reform. At worst, they added to political instability, exacerbated economic problems, and contributed to the rise of Islamist extremists. Six years later, the economic and political outlooks remain bleak.7

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 Joint Comprehensive Plan of Action (JCPOA), Iran has exacerbated Shia-Sunni tensions to increase its influence on embattled regimes and undermine 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. U.S. economic sanctions have been restored to pre-JCPOA levels and in some cases have been expanded. While many of America's European allies publicly denounced the Administration's decision to withdraw, privately, most officials agree 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.

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. Iran also provided arms to the Taliban after it was ousted from power by a U.S.-led coalition and has long considered the Afghan city of Herat, near the Afghan–Iranian border, to be within its sphere of influence.

Iran already looms large over 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. 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) and has intervened to prop up the Assad regime in Syria and reinforced Shiite Islamist revolutionaries in Yemen and Bahrain.¹⁰

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 people¹¹ and displaced more than 5 million refugees in Turkey, Lebanon, Jordan, Iraq, and Egypt. Around 6.1 million people are internally displaced within Syria, which is down slightly from 6.3 million last year.12 Among the destabilizing spillover effects of this civil war is the creation of large refugee populations that could become a reservoir of potential recruits for extremist groups. Thanks to the power vacuum created by the ongoing civil war in Syria, Islamist extremist groups, including the Islamists Hay'at Tahrir al-Sham (formally known as the al-Qaeda-affiliated Jabhat Fateh al-Sham and before that as al-Nusra Front) and the self-styled Islamic State, formerly known as ISIS or ISIL and before that as al-Qaeda in Iraq, carved 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. 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 over 4,500 citizens from Western nations, including approximately 250 U.S. citizens.¹³

On September 10, 2014, the U.S. announced the formation of a broad international coalition to defeat the Islamic State. Since then, the IS has been substantially reduced. The self-proclaimed caliphate lost its final major redoubt in Iraq's second largest city, Mosul, in July 2017 and then lost its so-called capital city located in Raqqa, Syria, in October. Today, thanks to the international coalition led by the U.S., the IS controls less than 2 percent of the territory it once dominated.

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 members of the Gulf Cooperation Council (GCC). ¹⁴ Since 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. 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. 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 best 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 seen as being too close to Iran, a major adversary of Sunni Arab states in the Gulf.

This is not 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. 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. 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 motivation behind these exercises is 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. In 2017, the U.S. Naval Forces Central Command launched the largest maritime exercise ever launched across the Middle East to demonstrate global resolve in maintaining freedom of navigation and the free flow of maritime

commerce.¹⁵ This has been followed by subsequent, smaller, maritime exercises.

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. The commander of the U.S. Central Command (CENTCOM) noted that Middle Eastern partners have begun to take the threat from transnational Islamist extremist groups more seriously, especially as ISIS has gained momentum, increased in strength, and expanded its international influence. 16 Middle Eastern countries have also participated further afield in Afghanistan; since 2001, Jordan, Egypt, Bahrain, and the UAE have supplied troops to the U.S.-led mission there. During the 2011 NATO-led operation in Libya, U.S. allies Qatar, Jordan, and the UAE participated to varying degrees.

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. Israel has been designated as a Major Non-NATO ally (MN-NA)¹⁷ because of its close ties to the U.S. With support from the United States, it has developed one of the world's most sophisticated air and missile defense networks. ¹⁸ 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. ¹⁹

After years of strained relations during the Obama Administration, ties between the U.S. and Israel have improved significantly since President Donald Trump took office. In May 2018, the U.S. moved its embassy from Tel Aviv to a location in western Jerusalem.

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. 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. President Trump recently approved a \$110 billion arms sale to the Saudis.

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, making them strategically important to the U.S.20 The root of the 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 often has difficulty agreeing on a common policy on 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, both of which share 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. Inter-GCC relations also can be problematic.

Egypt. Egypt is another important U.S. military ally. As one of only two Arab countries (the other being Jordan) that maintain diplomatic relations with Israel, 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.21 His government faces major political, economic, and security challenges.

Quality of Armed Forces in the Middle East

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. Due to the drop in global oil prices, defense spending decreased in 2017 for oil-producing countries in the region while increasing for the non–oil-producing countries. For example, Saudi Arabia was by far the region's largest military spender despite dropping from \$81.9 billion in 2015 to \$76.79 billion in 2016—a decrease of 7 percent. On the other side of the Persian Gulf, defense spending in Iran has increased by 40 percent since implementation of the JCPOA.²²

Historically, figures on defense spending for the Middle East have been very unreliable, but the lack of data has worsened. For 2017, there were no available data for Kuwait, Qatar, Syria, the United Arab Emirates, and Yemen according to the Stockholm International Peace Research Institute.²³

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."24 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.25 For the Gulf States, the main driver of defense policy is the Iranian military threat combined with internal security challenges. For Iraq, the internal threat posed by insurgents and terrorists drives defense policy. In many ways, the Obama Administration's engagement with Tehran united Israel and its Arab neighbors against the shared threat of Iran.

The Israel Defense Forces (IDF) are widely considered the most capable military force in the Middle East. On a conventional level, the IDF consistently surpasses other regional military forces.26 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 IDF's quality and effectiveness remain unparalleled with regard to both technical capacity and personnel. This was demonstrated by Israel's 2014 military operations against Hamas in the Gaza Strip: After weeks of conflict, the IDF mobilized over 80,000 reservists, demonstrating the depth and flexibility of the Israeli armed forces.27

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.²⁸ The Israelis regard their cyber capabilities as especially important.

Cyber technologies are used for a number of purposes, including defending Israeli cyberspace, gathering intelligence, and carrying out attacks.²⁹ Israel maintains its qualitative superiority in medium-range and long-range missile capabilities.³⁰ It also fields effective missile defense systems, including Iron Dome and Arrow, both of which the U.S. helped to finance.³¹

Israel also has a nuclear weapons capability (which it does not publicly acknowledge) that increases its strength relative to other powers in the region. Israel's nuclear weapons capability 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 may force oil-exporting countries to adjust their defense spending patterns. At present, however, GCC nations still have the best-funded, although not necessarily the most effective, Arab armed forces in the region.

All GCC members boast advanced defense hardware with a preference for U.S., U.K., and French equipment. Saudi Arabia maintains the most capable military force in the GCC. 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 and British-built aircraft and consists of more than 338 combat-capable aircraft including F-15s, Tornados, and Typhoons.³²

In fact, air power is the strong suit of most GCC members. Oman operates F-16s and has purchased 12 Typhoons, which entered service in 2017. 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 recently bought 24 Typhoons from the UK. 4 The UAE and Qatar deployed fighters to participate in NATO-led operations over Libya

in 2011 (although they did not participate in strike operations). Beginning in early fall 2014, all six GCC members joined the U.S.-led anti-ISIS coalition, with the UAE contributing the most in terms of air power.³⁵ Air strikes in Syria by members of the GCC ended in 2017. The navies of the GCC members rarely deploy beyond their Exclusive Economic Zones, but all members (other than Oman) have participated in regional combined task forces led by the U.S.³⁶ In 2016, Oman and Britain launched a multimillion-dollar joint venture to develop Duqm as a strategic Middle Eastern port in the Indian Ocean to improve defense security and prosperity agendas.³⁷

With 438,500 active personnel and 479,000 reserve personnel, Egypt has the largest Arab military force in the Middle East.³⁸ 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.³⁹ 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, for all of which the Islamic State's "Sinai Province" terrorist group has claimed responsibility. The government's response to the uptick of violence has been severe: arrests of thousands of suspected Islamist extremists and restrictive measures such as a law criminalizing media reporting that contradicts official reports.⁴⁰

Jordan is a close U.S. ally with small but effective military forces. The principal threats to its security include ISIS, turbulence in Syria and Iraq, and the resulting flow of refugees. Jordan is currently home to more than 1.4 million registered and unregistered Syrian 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 been focused in recent years on border and internal security.

Considering Jordan's size, its conventional capability is significant. Jordan's ground forces total 74,000 soldiers and include 390 British-made Challenger I tanks. The backbone of its air force is comprised of 43 F-16 Fighting Falcons. ⁴¹ Jordan's 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. Then-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.

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. Since then, the U.S. and its allies have undertaken a massive training program for the Iraqi military, which led to the liberation of Mosul on July 9, 2017.

Current U.S. Military Presence in the Middle East

The United States maintained a limited military presence in the Middle East before

1980, chiefly a small naval force 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, 42 but the 1979 Iranian revolution demolished one pillar, and the December 1979 Soviet invasion of Afghanistan increased the Soviet threat to the Gulf. President Jimmy Carter proclaimed in January 1980 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 1983.43

Up until the late 1980s, a possible Soviet invasion of Iran was considered to be the most significant threat facing the U.S. in the Middle East. 44 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. CENT-COM commanded the U.S. contribution of more than 532,000 military personnel to the coalition's armed forces, which totaled at least 737,000.45 This marked the peak U.S. force deployment in the Middle East.

Confrontations with Iraq continued throughout the 1990s as a result of Iraqi violations of 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 150,000, joined by military personnel from coalition forces. Apart from the "surge" in 2007, when President George W. Bush deployed an additional 30,000 personnel, American combat forces in Iraq fluctuated between 100,000 and 150,000. In December 2011, the U.S. officially completed its withdrawal of troops, leaving

only 150 personnel attached to the U.S. embassy in Iraq.⁴⁷ In the aftermath of IS territorial gains in Iraq, the U.S. has redeployed thousands of troops to the country. Today, approximately 5,000 U.S. troops operate in Iraq.

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 political sensitivities,⁴⁸ but information gleaned from open sources reveals the following:

- Kuwait. Approximately 15,000 U.S. personnel are based in Kuwait and are spread among Camp Arifjan, Ahmed Al Jaber Air Base, and Ali Al Salem Air Base. 49 A large depot of prepositioned equipment and a squadron of fighters and Patriot missile systems are also deployed to Kuwait.
- **UAE.** In 2017, the U.S. and the UAE signed a new defense accord expanding the level of cooperation. Date 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.
- 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, and Masirah Island."⁵³

- Bahrain. Today, some 7,000 U.S. military personnel are based in Bahrain. ⁵⁴ 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. ⁵⁵ 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.
- Saudi Arabia. The U.S. withdrew the bulk 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. 56
- Qatar. Approximately 10,000 U.S. personnel, mainly from the U.S. Air Force, are deployed in Qatar. The U.S. operates its Combined Air Operations Center at Al Udeid Air Base, which is one of the most important U.S. air bases in the world. It is also the base from which the anti-ISIS campaign is headquartered. Heavy bombers, tankers, transports, and ISR aircraft operate from there. Al Udeid Air Base also serves as the forward headquarters of CENTCOM. The base also 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, approximately 2,300 troops, a squadron of F-16s, a Patriot missile battery, and M142 High Mobility Artillery Rocket Systems have been deployed in Jordan. ⁵⁹

CENTCOM's stated mission is to promote cooperation among nations; respond to crises; deter or defeat state and non-state aggression; support economic development; and, when necessary, perform reconstruction in order to establish the conditions for regional security, stability, and prosperity. Execution of this mission is supported by four service component commands and one subordinate unified command: U.S. Naval Forces Middle East (USARCENT); U.S. Army Forces Middle East (USARCENT); U.S. Air Forces Middle East (USAFCENT); U.S. Marine Forces Middle East (MARCENT); and U.S. Special Operations Command Middle East (SOCCENT).

U.S. Naval Forces Central Command is the maritime component of USCENT-COM. With its forward headquarters 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 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 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 is the designated Marine Corps service component for USCENTCOM. Based in Bahrain, USMARCENT is responsible for all Marine Corps forces in the region.
- U.S. Special Operations Command
 Central is a subordinate USCENTCOM
 unified command. 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 over which it once ruled and has conducted military operations in the region for decades. Approximately 1,200 British service personnel are based throughout the Gulf.

The British presence in the region is dominated by the Royal Navy. In terms of permanently based naval assets, there are four mine hunters and one Royal Fleet Auxiliary supply

ship. Generally, there also are frigates or destroyers in the Gulf or Arabian Sea performing maritime security duties. Although such matters are not the subject of public discussion, U.K. attack submarines also operate in the area. As a sign of its long-term maritime presence in the region, the U.K. opened its first overseas military base in the Middle East in more than four decades in Bahrain. The U.K. has also made a multimillion-dollar investment in modernization of the Duqm Port complex in Oman to accommodate the new U.K. *Queen Elizabeth*-class aircraft carriers. Last of the strong season of the Duqm Port complex in Oman to accommodate the new U.K. *Queen Elizabeth*-class aircraft carriers.

The U.K. also has a sizeable Royal Air Force (RAF) presence in the region, 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. The U.K. also operates small RAF detachments in Oman that 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. ⁶² 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 is still significant. France opened its first military base in the Gulf in 2009, in Abu Dhabi in the UAE. This was the first foreign military installation built by the French in 50 years. ⁶³ In total, the French have 650 personnel based in the country along with eight Rafale fighter jets. ⁶⁴ French ships have access to the Zayed Port, 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. It 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. It is home to the U.S.'s only permanent military base in Africa, Camp Lemonnier, with its approximately 4,000 personnel. In 2017, China chose Djibouti as the location for its first permanent overseas base, which can house 10,000 troops and which Chinese marines have used to stage live-fire exercises featuring armored combat vehicles and artillery. Saudi Arabia also announced in 2016 that it would build a base in Djibouti. France, Italy, Germany, and Japan already have presences of varying strength there.

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 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. For example, 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 an enormous undertaking-"the largest logistical drawdown since World War II"65—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."66

The condition of roads in the region 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. ⁶⁷ Rail coverage is also poor. For instance, Saudi Arabia has only 563 miles of railroads. ⁶⁸ By comparison, New Hampshire, which is roughly 1 percent the size of Saudi Arabia, had 489 freight rail miles alone in 2015 (the most recent year for which Association of American Railroads data are available). ⁶⁹ In Syria, years of civil war have wreaked havoc on the rail system. ⁷⁰

The U.S. has access to several airfields in the region. The primary air hub for U.S. forces is at 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. Just because 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, it is highly unlikely that Qatar and Oman would allow the U.S. to use air bases in their territory for strikes against Iran.

The U.S. has access to ports in the region, perhaps most importantly in Bahrain. The U.S. also has access to a deep-water port, Khalifa bin Salman, in Bahrain and naval facilities at Fujairah, UAE.⁷¹ The UAE's commercial port of Jebel Ali is open for visits from U.S. warships and prepositioning of equipment for operations in theater.⁷²

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. For example, tens of thousands of cargo ships travel through the Strait of Hormuz and the Bab el-Mandeb Strait each year. Given the high volume of maritime traffic in the region, no U.S. military operation can be undertaken without consideration of how

these shipping lanes offer opportunity and risk to America and her allies. The major shipping routes include:

• The Suez Canal. In 2017, more than 1 billion tons of cargo transited the canal, averaging 48 ships each day. The 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. The canal 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. 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.⁷⁵

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 oil chokepoint," according to the U.S. Energy Information Administration, "because its daily oil flow of about 17 million barrels per day in 2015, accounted for 30% of all seaborne-traded crude oil and other liquids. The volume that traveled through this vital choke point increased to 18.5 million b/d in 2016." Most of these crude oil exports go to Asian markets, particularly Japan, India, South Korea, and China.76

The shipping routes through the Strait of Hormuz are particularly vulnerable to disruption, given the extreme narrowness of the passage and its proximity to Iran. Tehran has repeatedly threatened to close the strategic strait if Iran is attacked. While attacking shipping in the strait would drive up oil prices, Iran would also lose, both because it depends on the Strait of Hormuz to export its own crude oil and because such an attack would undermine Tehran's relations with such oil importers as China, Japan, and India. Tehran also would pay a heavy military price if it provoked a U.S. military response.

• 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. In 2016, oil tankers transported approximately 4.8 million barrels of oil per day through the strait. The Bab el-Mandeb Strait is 18 miles wide at its narrowest point, limiting passage to two channels for inbound and outbound shipments.

Maritime Prepositioning of Equipment and Supplies. The U.S. military has deployed non-combatant 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 areas. 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 due to 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 appears to have been seriously weakened, what its successor will be like is unclear. While Iraq has restored its territorial integrity after the defeat of ISIS, the political situation and future relations between Baghdad and the U.S. remain uncertain in the wake of the recent election victory of Muqtada al-Sadr. The regional dispute with Qatar has made U.S. relations in the region even more complex and difficult to manage, although it has not stopped the U.S. military from operating. The Russian, Iranian, and Turkish interventions in Syria have greatly complicated the fighting there.

Many of the borders created after World War I are under significant stress. In countries like Iraq, Libya, Syria, and Yemen, the supremacy of the nation-state is being challenged by non-state actors that wield influence, power, and resources comparable to those of small states. The main security and political challenges in the region are linked inextricably to the unrealized aspirations of the Arab Spring,

surging transnational terrorism, and the potential threat of Iran. 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 decades of U.S. military operations in the Middle East, the U.S. has tried-and-tested procedures for operating in the region. Bases and infrastructure are well established. The logistical processes for maintaining a large force forward deployed thousands of miles away from the homeland are well in place. Unlike in Europe, all of these processes have recently been tested 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 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.
- c. U.S. Military Positioning. Having military forces based or equipment and supplies staged in a region greatly facilitates the ability of the United States to respond to crises and, presumably, achieve success in critical "first battles" more quickly. Being routinely present in a region also assists in maintaining familiarity with its characteristics and the various actors that

might assist or thwart U.S. actions. With this in mind, we assessed whether or not the U.S. military was well positioned in the region. Again, indicators included bases, troop presence, prepositioned equipment, and recent examples of military operations (including training and humanitarian) launched from the region.

d. Infrastructure. Modern, reliable, and suitable infrastructure is essential to military operations. Airfields, ports, rail lines, canals, and paved roads enable the U.S. to stage, launch, and logistically sustain combat operations. We combined expert knowledge of regions with publicly available information on critical infrastructure to arrive at our overall assessment of this metric.⁷⁹

In summary, the U.S. has developed an extensive network of bases in the region and has acquired substantial operational experience in combatting regional threats, but many of its allies are hobbled by political instability, economic problems, internal security threats, and mushrooming transnational threats. Although the 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			✓		

Endnotes

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Asia

C ince the founding of the American republic, Asia has been a key area of interest for the United States 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 it was inimical to American interests to allow any single nation to dominate Asia, Asia constituted too important a market and was 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. Already, approximately 40 percent of U.S. trade in goods is in Asian markets. Asia is a key source of vital natural resources and a crucial part of the global value chain in areas like electronic components. It is America's second largest trading partner in services. Disruption in Asia, as occurred with the March 2011 earthquake in Japan, affects 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. Several of the world's largest militaries are in Asia, including those of China, India, North and South Korea, Pakistan, Russia, and Vietnam. The United States also maintains a network of treaty alliances and security

partnerships, as well as a significant military presence, in Asia. Five Asian states (China, North Korea, India, Pakistan, and Russia) possess nuclear weapons.

The region is a focus of American security concerns both because of the presence of substantial military forces and because of its legacy of conflict. Both of the two major "hot" wars fought by the United States during the Cold War (Korea and Vietnam) were fought in Asia. Moreover, the Asian security environment is unstable. For one thing, the Cold War has not ended in Asia. Of the four states divided between Communism and democracy by the Cold War, three (China, Korea, and Vietnam) were 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 refers to the disputed areas under a different name. 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 completely healing. Similarly, a Chinese claim that much of the Korean Peninsula was once Chinese territory aroused reactions in both Koreas. The end of the Cold War did little to resolve any of these underlying disagreements.

It is in this light and in light of the 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 Defence Arrangement (involving the United Kingdom, Australia, New Zealand, Malaysia, and Singapore in an "arrangement" rather than an alliance) or discussion forums like the ASE-AN Regional Forum and the ASEAN Defense Ministers-Plus Meeting have been far weaker. In addition, there 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.

Nor is there much of an 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 22 rounds of negotiations. When implemented, these agreements will help to remedy the lack of regional integration.

Important Alliances and Bilateral Relations in Asia

For the United States, the keys to its position in the Western Pacific are its alliances

with Japan, the Republic of Korea (ROK), the Philippines, Thailand, and Australia. These five alliances are supplemented by very close security relationships with New Zealand and Singapore and evolving relationships with other nations with interests 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 that results 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); field F-15 and F-16 combat aircraft; and employ LINK-16 data links. Australia, Japan, and South Korea are partners in the 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 next year. Consequently, in the event of conflict, the 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 in 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 between the two allies and others in the region.

Since the end of World War II, Japan's defense policy has been distinguished by Article 9 of the Japanese constitution. This article, 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 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 on "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. For a variety of economic and political reasons, Tokyo had chosen until then 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.4 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 (i.e., the atomic bombings of Hiroshima and Nagasaki) has forestalled much

public interest in obtaining an independent nuclear deterrent. Similarly, throughout the Cold War, Japan relied on the American conventional and nuclear commitment to deter Soviet and Chinese aggression.

As part of its relationship with Japan, the United States maintains some 54,000 military personnel and another 8,000 Department of Defense civilian employees in Japan under the rubric of U.S. Forces Japan (USFJ).⁵ 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 practicing amphibious operations together.

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 provides "nearly \$2 billion per year to offset the cost of stationing U.S. forces 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 had sought to expand Japanese participation in international security affairs. Japan's political system, grounded in Japan's constitution, legal decisions, and popular attitudes, generally resisted this effort. Attempts to expand Japan's range of defense activities, especially away from the home islands, have also 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. 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 sufficient to torpedo efforts to improve defense cooperation between Seoul and Tokyo, a fact highlighted in 2012 by South Korea's last-minute decision not to sign an agreement to share sensitive military data, including details about the North Korean threat to both countries.7 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. Similar controversies, rooted in history as well as in contemporary politics, have also affected Sino-Japanese relations and, to a lesser extent, Japanese ties to some Southeast Asian states.

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.

As of March 2018, the United States had some 24,915 troops in Korea,⁸ the largest concentration of American forces on the Asian mainland. 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 the process of transferring 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.⁹

The domestic political constraints under which South Korea's military operates are less stringent than those that govern the operations of the Japanese military. Thus, South Korea rotated several divisions to fight alongside Americans in Vietnam. In the first Gulf War, the Iraq War, and Afghanistan, South Korea limited its contributions to noncombatant forces and monetary aid. The focus of South Korean defense planning remains 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 few Americans are now deployed on the Demilitarized Zone (DMZ).

Washington is officially committed to maintaining 28,500 American troops in the ROK. These forces regularly engage in major exercises with their ROK counterparts, including the Key Resolve and Foal Eagle series, both of which involve the actual deployment of a substantial number of forces and are partly intended to deter Pyongyang, as well as to give U.S. and ROK forces a chance to practice operating together. The ROK government also provides substantial resources to defray the costs of U.S. Forces-Korea. It pays approximately half of all non-personnel costs for U.S. forces stationed in South Korea, amounting to \$821 million in 2016, and "is paying \$9.74 billion for the relocation of several U.S. bases within the country and construction of new military facilities."10

With new governments in place in both the U.S. and South Korea, the health of the alliance at the political level will need to be monitored closely for impact on the operational levels. The two could diverge on issues such as North Korea sanctions policy, the timing of engagement with North Korea, deployment of the Terminal High-Altitude Area Defense (THAAD) system, and ROK-Japan relations.

The Philippines. America's oldest defense relationship in Asia is with the Philippines. The United States seized the Philippines from the Spanish over 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 was granted 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. The Philippines, after a lengthy debate,

rejected the treaty, compelling American withdrawal from Philippine bases. Coupled with 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, closure of the bases was not seen as fundamentally damaging to 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 assisted the Philippines in countering 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), closed 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. The presence of these 200-300 American advisers proved very valuable to the Philippines in its 2017 battle against Islamist insurgents in Marawi.11

The Philippines continues to have serious 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 are planned for 2018, "slowly

expanding parameters of military-to-military cooperation."¹²

In 2014, the United States and the Philippines announced a new Enhanced Defense Cooperation Agreement (EDCA) that allows for an expanded American presence in the archipelago,13 and in early 2016, they agreed on five specific bases that are subject to the agreement. Under the EDCA, U.S. forces will rotate through these locations on an expanded basis, allowing for a more regular presence (but not new, permanent bases) in the islands and more joint training with the Armed Forces of the Philippines (AFP). The agreement also facilitates the provision of humanitarian assistance and disaster relief. The United States also agreed to improve the facilities it uses and to transfer and sell more military equipment to the AFP to help it modernize. In 2018, construction began on facilities at one of the bases covered, Basa Air Base in Pampanga, central Luzon, the main Philippine island.14

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.15 The EDCA does not settle this question, but tensions in the South China Sea, including in recent years at Scarborough Shoal, have highlighted Manila's need for greater support from and cooperation with Washington. Moreover, the U.S. government has long been explicit 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."16

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.-Philippines alliance have raised questions about 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 continue to work together with some adjustment in the size and purpose of their cooperation.¹⁷

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. These were supplemented by the 2012 Joint Vision Statement for the Thai-U.S. Defense Alliance. In 2003, Thailand was designated a "major, non-NATO ally," giving 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, a variety of American aircraft were based in Thailand, ranging 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 2018, after a brief period of reduced U.S. commitment due to objections over Thailand's 2014 coup, the U.S. doubled the size of its troop deployment.

U.S.-Thai relations have been strained in recent years as a result of domestic unrest and two coups in Thailand. This strife has limited the extent of U.S.-Thai military cooperation, as U.S. law prohibits U.S. 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 continue to cooperate, including in joint military exercises and counterterrorism. The Counter Terrorism Information Center (CTIC)

continues to allow the two states to share vital information about terrorist activities in Asia. Among other things, the CTIC reportedly played a key role in the capture of Jemaah Islamiyah leader Hambali (Riduan Isamuddin) in 2003.¹⁹

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. Today, China is Thailand's leading trading partner.²⁰ Relations are also expanding because of complications in U.S.–Thai relations arising from the Thai coups in 2014 and 2016.

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. Recent purchases include two significant buys of battle tanks as well as armored personnel carriers. 22

In 2017, Thailand made the first of three planned submarine purchases in one of the most expensive arms deals in its history. ²³ Submarines could be particularly critical to Sino–Thai relations because the training and maintenance required will entail greater Chinese military presence at Thai military facilities. For a number of years, there has been discussion of a joint arms factory in Thailand and Chinese repair and maintenance facilities needed to service Chinese-made equipment. ²⁴

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. These ties 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 subsequently 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. Eventually expected to total some 2,500 troops by 2020, a record number of more than 1,500, along with Osprey aircraft and howitzers, have been deployed in 2018. During the six months they are in Australia, "the rotation will include additional equipment and assets such as AH-1W Super Cobra helicopters, UH-1Y Venom helicopters, F/A-18 Hornet aircraft and MC-130 Hercules aircraft." ²⁶

The U.S. and Australia are also working to upgrade air force and naval facilities in the area to "accommodate stealth warplanes and long-range maritime patrol drones" as well as provide refueling for visiting warships.²⁷ The Air Force has deployed F-22 fighter aircraft to northern Australia for joint training exercises, and there have been discussions about rotational deployments of other assets to that part of the country as well.28 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 the sharing of space information data among the U.S., Australia, the U.K., and Canada.29

The two nations' chief defense and foreign policy officials meet annually 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.³⁰ 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.³¹

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.³²

Singapore. Although Singapore is not a security treaty ally of the United States, it is a key security partner in the region. Their close 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.33 The 2015 DCA establishes "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."34 Singapore trains 1,000 service personnel a year on American-produced equipment like F-15SG and F-16C/D fighter aircraft and CH-47 Chinook and AH-64 Apache helicopters.35

New Zealand. For much of the Cold War, U.S. defense ties with New Zealand were similar to those between America and Australia. 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.³⁶

In 2013, U.S. Secretary of Defense Chuck Hagel and New Zealand Defense Minister Jonathan Coleman announced the resumption of military-to-military cooperation,³⁷ 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.³⁸ At the time of the visit in November 2016, both sides claimed to have satisfied their respective legal requirements.³⁹ 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.

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 (the mainland), it 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, all other treaties and international agreements made between the Republic of China and the United States remain in force. (President Jimmy Carter terminated the Sino–U.S. Mutual Defense Treaty following the shift in recognition to the PRC.)

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."⁴⁰

The TRA requires the President to inform 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." It then states: "The President and the Congress shall determine, in accordance with constitutional processes, appropriate action by the United States in response to any such danger."

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

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

- has not agreed to set a date for ending arms sales to Taiwan;
- 2. has not agreed to hold prior consultations with the PRC on arms sales to Taiwan;
- 3. will not play any mediation role between Taipei and Beijing;

- 4. has not agreed to revise the Taiwan Relations Act;
- 5. has not altered its position regarding sovereignty over Taiwan;
- will not exert pressure on Taiwan to negotiate with the PRC.⁴¹

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

The United States does not maintain any bases in Taiwan. In 2017, however, the U.S. Congress authorized the U.S. Department of Defense to consider ship visits to Taiwan as part of the FY 2018 National Defense Authorization Act. 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 its 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.

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, and 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."

The most significant development in 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 lifted the ban completely when President Barack Obama visited Hanoi in 2016. This full 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 likely to be sold. The only transfer to have been announced is the provision under the Foreign Assistance Act of a decommissioned Hamilton-class Coast Guard cutter. 43 Others, including P-3 maritime patrol aircraft, discussed since the relaxation of the embargo three years ago have yet to be concluded. However, lifting the embargo does expand the potential of the relationship and better positions the U.S. to compete with Chinese and Russian positions in Vietnam.

The Joint Statement from President Obama's visit also memorialized a number of other improvements in the U.S.–Vietnam relationship, including the Cooperative Humanitarian and Medical Storage Initiative (CHAMSI), which will advance cooperation on humanitarian assistance and disaster relief by, among other things, prepositioning related American equipment in Danang, Vietnam.⁴⁴ During Vietnamese Prime Minister Nguyen Xuan Phuc's visit to Washington in 2017, the U.S. and Vietnam recommitted to this initiative, and it is being implemented.

There has been an increase in cooperation between the two nations' coast guards as well. In March 2018, the U.S. Embassy and Consulate in Hanoi announced an "official transfer at Region 4 Station on Phu Quoc Island" 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." In early 2018, the

USS *Carl Vinson* visited Da Nang with its escort ships, marking the first port call by a U.S. aircraft carrier since the Vietnam War.

There remain significant limits on the U.S.–Vietnam security relationship, 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 foreign policy that seeks to balance relationships with all major powers. The U.S., like others among Vietnam's security partners, remains officially limited to one port call a year, with an additional one to two calls on Vietnamese bases being negotiable.

The U.S. and Malaysia "have maintained steady defense cooperation since the 1990s" despite occasional political differences. Each year, they participate jointly in dozens of bilateral and multilateral exercises to promote effective cooperation across a range of missions.46 The U.S. occasionally flies P-3 and/or P-8 patrol aircraft out of Malaysian bases in Borneo. 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 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."47 To this end, in 2018, Malaysia for the first time sent a warship to participate in U.S.-led RIMPAC exercises. 48 Close U.S.-Malaysia defense ties can be expected to continue quietly under Malaysia's new government.

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 Excess Defense Articles program in 2018 and is talking with Indonesian officials about recapitalizing its aging and largely Russian-origin air force with new F-16s.⁴⁹ Indonesia has also begun to take delivery of eight Apache helicopters bought in 2012. The U.S. plans more than 200 cooperative military activities with Indonesia in 2018 and is looking for a way to resume its training of Indonesia's special forces (KOPASSUS).⁵⁰

The U.S. is working across the board at modest levels of investment to help build Southeast Asia's maritime security capacity.⁵¹ Most notable in this regard is the Maritime Security Initiative (MSI) announced by Secretary of Defense Ashton Carter in 2015.⁵²

Afghanistan. On October 7, 2001, U.S. forces invaded Afghanistan in response to the September 11, 2001, attacks on the United States. This marked the beginning of Operation Enduring Freedom to combat al-Qaeda and its Taliban supporters. The U.S., in alliance with the U.K. and the anti-Taliban Afghan Northern Alliance forces, ousted the Taliban from power in December 2001. Most Taliban and al-Qaeda leaders fled across the border into Pakistan's Federally Administered Tribal Areas, where they regrouped and 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). At the height of the war in 2011, 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).⁵³ 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 2018, more than 15,600 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.⁵⁴

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."⁵⁵ According to the most recent available public information, the U.S. currently has almost 8,500 troops in Afghanistan,⁵⁶ roughly the same level left in place by President Obama

Pakistan. During the war in Afghanistan, the U.S. and NATO relied heavily on logistical supply lines running through Pakistan to resupply coalition forces in Afghanistan. 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. During the initial years of the Afghan war, about 80 percent of U.S. and NATO supplies traveled through Pakistani territory. This amount decreased to around 50 percent-60 percent as the U.S. shifted to northern routes and when U.S.-Pakistan relations deteriorated significantly because of U.S. drone strikes, continued Pakistani support to Taliban militants, and the fallout surrounding the U.S. raid on Osama bin Laden's hideout in Abbottabad on May 2, 2011.

From October 2001 until December 2011, the U.S. leased Pakistan's Shamsi Airfield southwest of Quetta in Baluchistan province and used it as a base from which to conduct surveillance and drone operations against terrorist targets in Pakistan's tribal border areas. Pakistan ordered the U.S. to vacate the base shortly after NATO forces attacked Pakistani positions along the Afghanistan border, killing 24 Pakistani soldiers, on November 26, 2011.

Since 2001, Pakistan has received over \$30 billion in military 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 (FATA), though its operations have tended to target anti-Pakistan militant groups like the Pakistani Taliban rather than those targeting 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.

Meanwhile, 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, \$1.19 billion in 2016, an estimated \$0.53 billion in 2017, and \$0.35 billion requested for 2018.57 As frustration with Pakistan has coalesced on Capitol Hill, the Trump Administration has signaled a series of measures designed to hold Pakistan to account for its "double game." 58 "We can no longer be silent about Pakistan's safe havens for terrorist organizations," President Trump declared in August 2017. "We have been paying Pakistan billions and billions of dollars at the same time they are housing the very terrorists that we are fighting. But that will have to change and that will change immediately."59 Aside from withholding additional support funds, the Administration has 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. sided with India and supplied it with arms and ammunition. The rapprochement was short-lived, however, and mutual suspicion continued to mark the Indo–U.S. relationship because of India's robust

relationship with Russia and the U.S. provision of military aid to Pakistan, especially during the 1970s under the Nixon Administration. 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. and India have completed contracts worth approximately \$14 billion for the supply of U.S. military equipment to India, including C-130J and C-17 transport aircraft and P-8 maritime surveillance aircraft.

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), marks 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 ease its access to American defense technology. The Trump Administration subsequently reaffirmed this status.⁶⁰

New Delhi and Washington regularly hold joint military exercises across all services, including the annual Malabar naval exercise that added Japan as a regular participant in 2012. The Indian government and Trump Administration are currently negotiating several prospective arms sales and military cooperation agreements, including the sale of armed drones to India and the completion of two outstanding "foundational agreements," the Basic Exchange and Cooperation Agreement (BECA) and Communications and Information Security Memorandum of Agreement (CISOMA).

Quality of Allied 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, the lack of recent major conflicts in the region makes assessing the quality of Asian armed forces difficult. Most Asian militaries have limited combat experience, particularly in high-intensity air or naval combat. Some (e.g., 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 30 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, it is assessed 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. Each of their military forces fields 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 (690, 47, and 542, respectively) than their British opposite numbers (227, 19, and 258, respectively). Similarly, South Korea fields a larger military of tanks, principal surface combatants, and combat-capable aircraft (more than 2,514, 25, and 587, respectively) than their German counterparts (236, 14, and 211, 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. 63

Singapore's small population and physical borders limit the size of its military, but in terms of equipment and training, it has the largest defense budget among Southeast Asia's countries64 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, 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.65

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 AFP has one of the lowest budgets in the region-and one of the most extensive coastlines to defend. With a defense budget of only \$2.8 billion66 and forced to deal with a number of insurgencies, including the Islamist Abu Sayyaf and New People's Army, Philippine defense resources have long been stretched thin. 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 TA 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.⁶⁷

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.⁶⁸

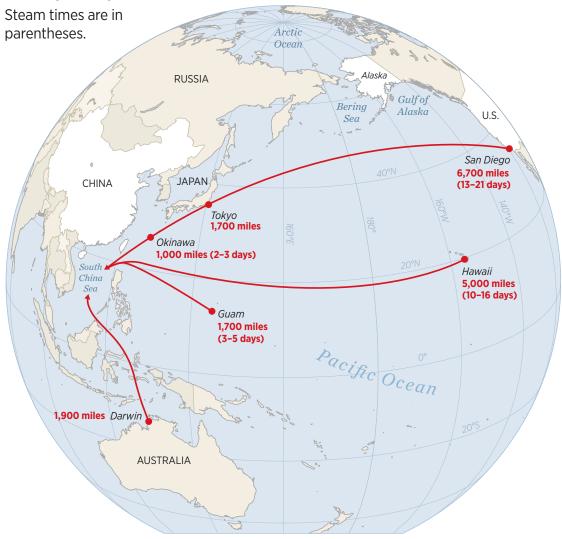
USINDOPACOM's area of responsibility (AOR) includes the expanses of the Pacific, but also Alaska and portions of the Arctic, South Asia, and the Indian Ocean. It includes 36 nations holding more than 50 percent of the world's population, two of the three largest economies, and nine of the 10 smallest; 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 Asia–Pacific is also the most militarized region in the world, with seven of its 10 largest standing militaries and five of its declared nuclear nations.⁶⁹

Under INDOPACOM are a number of component commands, including:

- U.S. Army Pacific. USARPAC is the Army's component command in the Pacific. It is comprised of 80,000 soldiers and 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.⁷⁰
- **U.S. Pacific Air Force.** PACAF is responsible for planning and conducting defensive and offensive air operations in the Asia–Pacific region. It has three numbered air forces under its command: 5th Air Force in Japan; 7th Air Force in Korea; and 11th Air Force, headquartered in Alaska. These air forces field two squadrons of F-15s, two squadrons of F-22s, five squadrons of F-16s, and a single squadron of A-10 ground attack aircraft, as well as two squadrons of E-3 early-warning aircraft, tankers, and transports. Other forces that regularly come under PACAF command include B-52, B-1, and B-2 bombers.
 - 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 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).

▲ heritage.org

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 eased the involvement of the Third Fleet's five carrier strike groups 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 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).72
- U.S. Special Operations Command Pacific. SOCPAC has operational control of various special operations forces, including Navy SEALs; Naval Special Warfare units; Army Special Forces (Green Berets); and Special Operations Aviation units in the Pacific region, including elements in Japan and South Korea. It supports the Pacific Command's Theater Security Cooperation Program as well as other plans and contingency responses. SOCPAC forces 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. It includes seven battalions of infantry, air defense artillery for counter-artillery missions, and explosive ordnance disposal across Afghanistan. It also includes three Army aviation battalions, a combat aviation brigade headquarters, and two additional joint task forces to provide nationwide surveillance support.⁷³

 Five Train, Advise, Assist Commands in Afghanistan, each of which is a multinational force tasked with improving local capabilities to conduct operations.⁷⁴

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.⁷⁵

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 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. Seized by Japan in World War II, it 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 operating from Andersen Air Force Base in 2005. These improvements have been accelerated and expanded even as China's A2/AD capabilities have raised doubts about the ability of the U.S. to sustain operations in the Asian littoral. The concentration of air and naval assets as well as logistical infrastructure, however, makes the island an attractive potential target in the event of conflict. The increasing reach of Chinese and North Korean ballistic missiles reflects this growing vulnerability.

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

Allied and 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.

At the present time, it would be extraordinarily difficult to maintain maritime domain awareness or space situational awareness 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. Clark Air Base had been closed earlier due to the

eruption of Mount Pinatubo; the costs of repairing the facility were deemed too high to be worthwhile. In 2014, however, with the growing Chinese 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.⁷⁷ Work at Basa Air Base is progressing.

It remains unclear precisely which 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.-Philippines defense ties, which most recently included the U.S. leaving behind men and matériel at Clark Air Base following annual exercises,78 as well as joint naval patrols and increased levels of assistance under the Maritime Security Initiative (MSI). Since July 2016, the Duterte government has shed doubt on the future of U.S.-Philippines military cooperation, but it continues to be robust at the operational level.

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 100,000-ton American aircraft carrier. In addition, 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."79 The Marines do not constitute a permanent presence in Australia, in keeping with Australian sensitivities about permanent American bases on Australian soil.80 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.81

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 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 start from 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.⁸²

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				✓	
Political Stability				✓	
U.S. Military Posture				✓	
Infrastructure				✓	
OVERALL				~	

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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 easy (or not) it will be to project and sustain combat power when engaged with the enemy.

Aggregating the three regional scores provides a Global Operating Environment score.

Global Operating Environment:

FAVORABLE

Global Operating Environment

	VERY POOR	UNFAVORABLE	MODERATE	FAVORABLE	EXCELLENT
Europe				~	
Middle East			✓		
Asia				✓	
OVERALL				~	

Scoring of the Global Security Environment remained "favorable" for the *2019 Index of U.S. Military Strength*, although scores increased

for Asia and the Middle East in the political stability subcategory.

Global Operating Environment

 VERY POOR
 UNFAVORABLE
 MODERATE
 FAVORABLE
 EXCELLENT

The Middle East Operating Environment remained "moderate" in the *2019 Index*. However, the score for regional political stability rose to "unfavorable" from "poor." 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 counter 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, 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 at "favorable" from the *2018 Index* to the *2019 Index*. The political stability score returned to "favorable" following the conclusion of South Korea's presidential election.