Global Operating Environment

Assessing the Global Operating Environment

Measuring 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 (e.g., can use 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 the 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 assessment and U.S. military assessment detailed in subsequent sections of the *Index*.

This *Index* will refer 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

After nearly a decade of attempted disengagement, the United States is beginning to reinvest military capability and political strength in Europe. The resurgence of Russia, brought into starkest relief in Ukraine, and the continued fight against the (IS) in Iraq, Syria, and Libya brought Europe back into the top tier of U.S. international interests. It is clear why the region matters to the U.S. 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.

Additionally, 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. Many of these ideas, the foundations on which America was built, were brought over by the millions of immigrants from Europe in the 17th, 18th, and 19th centuries. U.S. sacrifice for Europe has been dear. During the 20th century, millions of Americans fought for a free and secure Europe, and hundreds of thousands died.

America's economic ties to the region are likewise important. A stable, secure, and economically viable Europe is in America's economic interest. Regional security means economic viability and prosperity for both Europe and the U.S. For more than 70 years, the U.S. military presence in Europe has contributed to European stability, economically benefiting both Europeans and Americans. The economies of the 28 (soon to be 27[1]) member states of the European Union (EU), along with the United States, account for approximately half of the global economy. The U.S. and the members of the EU are each other's principal trading partners.

Geographical Proximity. Europe is 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 and up to the Caucasus through Russia and into the Arctic, Europe is ringed 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. Thus, European basing for U.S. forces provides the ability to respond robustly and quickly to challenges to U.S. interests in and near the region.

The Arctic. The *2017 Index of U.S. Military Strength* identified the Arctic as an important operating environment in Europe. This has not changed in the 2018 edition. If anything, Russian activity continues to increase tensions, while the U.S. remains poorly positioned to counter Russia's military buildup.

The Arctic region encompasses the lands and territorial waters of eight countries (Canada, Denmark, Finland, Iceland, Norway, Russia, Sweden, and the United States) spread across three continents. The region is home to some of the world's roughest terrain and waters and some of its harshest weather. The Arctic region is rich in minerals, wildlife, fish, and other natural resources and—importantly—hydrocarbons. Estimates that the region contains up to 13 percent of the world's undiscovered oil reserves and almost one-third of its undiscovered natural gas reserves may be low. In April

2017, the Norwegian Petroleum Directorate announced that the amount of undiscovered oil and gas in the Barents Sea is likely to be twice as large as previously estimated.[2]

The region represents one of the world's least populated areas, with sparse nomadic communities and very few large cities and towns. Although official population figures are nonexistent, the Nordic Council of Ministers estimates that the figure in 2013 was slightly in excess of 4 million,[3] making the Arctic's population slightly bigger than Oregon's and slightly smaller than Kentucky's. Approximately half of the Arctic population lives in Russia, which is ranked 114th ("mostly unfree") out of 180 countries in the *2017 Index of Economic Freedom*.[4]

The melting of Arctic ice during the summer months presents challenges for the U.S. in terms of Arctic security, but it also provides new opportunities for economic development. Less ice will mean new shipping lanes, increased tourism, and further exploration for natural resources. Many of the shipping lanes currently used in the Arctic are a considerable distance from search and rescue facilities, and natural resource exploration that would be considered routine in other locations is complex, costly, and dangerous in the Arctic.

The economic incentives for exploiting these shipping lanes are substantial and will drive Arctic nations to press their interests in the region. For example, using the Northern Sea Route (NSR) along the Russian coast cuts the distance between Rotterdam and Shanghai by 22 percent and saves hundreds of thousands of dollars in fuel costs per ship, especially when oil prices are high. Unlike in the Gulf of Aden, no pirates are currently operating in the Arctic, and piracy is unlikely to be a problem in the future.

There is still a long way to go, however, before the NSR becomes a viable option. In 2016, 19 ships made the journey over the top of Russia,[5] compared with the more than 16,833 that transited the Suez Canal,[6] and carried only 214,513 tons of cargo.[7] The NSR did see an increase in ships and cargo tonnage from 2015–2016, but volume remains well below the volume of just a few years ago. In 2013, 71 vessels carrying a total of 1,355,000 tons of cargo shipped along the route, indicating the unpredictability of future shipping trends in the Arctic.[8] While shipments between Asian and European ports across the NSR remain minimal, shipments between ports along the NSR in 2016 were 35 percent higher than they were in 2015.[9]

In June 2015, Russia adopted an Integrated Development Plan for the Northern Sea Route 2015–2030. The plan outlines expectations that NSR shipping volume will reach 80 million tons by 2030.[10]Although the current reality casts doubt on these projections, Russia considers the Arctic to be a region of special value and has accorded it high priority, going so far in 2016 as to give the Federal Security Service (FSB) full control of law enforcement activities along the NSR.[11]

The U.S. has an interest in stability and security in the Arctic because the U.S. is one of the eight Arctic nations. The American commitment to NATO is also relevant because four of the five Arctic littoral powers are in NATO.[12] The U.S., however, is not well positioned in the region. According to Admiral Paul Zukunft, Commandant of the U.S. Coast Guard, "if you look at this Arctic game of chess, if you will, [the Russians have] got us at checkmate, right from the very beginning if it does become a militarized domain."[13] The importance that each country places on operating in the Arctic is illustrated by the fact that Russia maintains a fleet of nearly 40 polar icebreakers, six of which are nuclear powered, while the U.S. Coast Guard sails only two—one of which is over 40 years old.[14]

Threats to Internal Stability. In recent years, Europe has faced turmoil and instability brought about by continued sluggish growth, high government debt, high unemployment, the threat of terrorist attacks, and a massive influx of migrants. Political fragmentation resulting from these pressures and disparate views on how to solve them threaten to erode stability even further.

Russia has sought to seed and inflame discord by weaponizing migrant flows. Former EUCOM Commander General Philip Breedlove said in 2016 that by intentionally targeting civilians in Syria, "Russia and the Assad regime are deliberately weaponizing migration in an attempt to overwhelm European structures and break European resolve."[15] The migrant crisis was partly a result of Russian actions, and the humanitarian, political, security, and societal ripples are only beginning to extend outward. Denmark's Defense Minister has underscored how Russian efforts to sow political fragmentation work: "[The Russians] know about internal relations between different NATO countries and are good at fingering sore points."[16]

Economic freedom in the eurozone is seriously undermined by the excessive government spending needed to support elaborate welfare states. Many eurozone countries pursue economic policies that hinder productivity growth and job creation, causing economic stagnation and rapidly increasing levels of public debt. Underperforming countries have not made the structural reforms needed for long-term adjustment. When asked to judge the current state of their national economies, 56 percent of respondents in the EU and 60 percent of respondents in the eurozone characterized it as "totally bad."[17] Investors are also pessimistic; a recent survey found that "one out of four investors now believes that at least one euro zone member state will quit the single currency in the next 12 months."[18] European leaders are desperately seeking a way to keep the eurozone together without addressing the root causes of the crisis.

Many among Europe's political elite believe that deeper European integration, not prudent economic policies, is the answer to Europe's problem, but there has been a public backlash against deeper political and economic integration across much of Europe. In a June 2016 referendum on EU membership, the United Kingdom voted to leave the European Union. In April 2016, Dutch voters voted against approving an EU–Ukraine Association agreement in a countrywide referendum, largely seen as a protest vote against the EU. Dissatisfaction with the EU is also evident in France where about half of its voters cast their ballots in the first round of presidential elections 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.[19] This outcome is hardly surprising; according to a 2016 Eurobarometer Poll, only 29 percent of people in France have a wholly positive view of the EU, and 31 percent have a negative view.[20]

In 2016, the eurozone grew by 1.8 percent,[21] a rate virtually unchanged from 2015's 1.7 percent. As slow recovery has taken hold, the manufacturing sector is performing especially well.[22] Growth and employment disparities, however, remain problematic. Unemployment across the 19-country bloc stands at 9.5 percent, the lowest rate since January 2009 but still very high. Greece has the highest unemployment rate in the EU: 23.1 percent; Spain's is 18.0 percent. And youth unemployment in the eurozone is 19.4 percent but reaches 45.2 percent in Greece, 41.5 percent in Spain, 35.2 percent in Italy, 28.8 percent in Croatia, and 25.4 percent in Portugal.[23]

In addition, Europe's banking sector is burdened by $1.2 trillion in nonperforming loans—three times the amount held by the U.S. banking sector.[24] The Italian banking sector's woes are especially troubling. In February, Italy's Parliament approved a law giving $21 billion in taxpayer money to help prop up troubled banks.[25] 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.

Since 2015, the continent has also had to deal with a large migrant crisis. 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. While a tenuous agreement with Turkey in March 2016 has largely capped migrant flows through the Balkans and Greece, arrivals have not stopped altogether. Rather, they have decreased and shifted to a different theater.

In the first three months of 2017, over 20,000 migrants arrived in Europe via the Mediterranean Sea, 80 percent landing in Italy.[26] This represents a significant drop from the first three months of 2016, when over 160,000 migrants arrived via the Mediterranean, yet the numbers are still significant. Instability in Libya, significant flows of migrants traveling from sub-Saharan Africa, and the relative closure of the route to Europe through Turkey mean that flows from North Africa are currently the primary route for migrants arriving in Europe. According to the EU's Frontex border agency, "While the number of migrants from Asia and the Middle East decreased, 2016 was marked with an increase in migratory pressure from Africa, in particular on the route from Libya to Italy." Frontex also notes that although 2016 saw a decrease in illegal border crossings from the previous year, the 511,371 detections of illegal border crossings in 2016 remains well above the 282,933 in 2014, the year before the migrant crisis began in earnest.[27]

The migrant crisis and the response of European governments have led to some increased instability. They have buoyed fringe political parties in some European nations and already have imposed financial, security, and societal costs. In Germany, for example, the Federal Ministry of Finance expects to spend over $86 billion from 2017–2020 "feeding, housing and training refugees as well as helping their home countries to stem the flow."[28] The Swedish government will spend at least €6.1 billion (approximately $7.9 billion) a year on migrants until 2020, well above initial estimates.[29]

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.[30] 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 on to the Greek and Turkish coast guards and to Frontex.[31]

Europe has also faced a series of terrorist attacks over the past year including a Christmas market attack in Berlin and high-profile attacks in London, Nice, and Stockholm. In May, 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.[32] 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 U.S. facilities overseas. In April 2016, for example, an IS sympathizer was convicted in the United Kingdom of planning to carry out terrorist attacks on U.S. military personnel stationed in the U.K.[33]

U.S. Returning to Europe. Continued Russian aggression in Ukraine and more aggressive air and naval patrolling incidents in the Baltic Sea region have 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."[34] 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, the U.S. returned a rotational armored brigade combat team (BCT) in January 2017. Moving 4,000 soldiers and 90 tanks back to Europe for a scheduled nine-month deployment exposed some logistics shortcomings.[35] Units from the BCT deployed to Bulgaria, Germany, Poland, Romania, and initially to the Baltic States.[36] Major General Timothy McGuire, Deputy Commanding General, U.S. Army Europe, characterized the deployment as "a tangible sign of the United

States' commitment to maintaining peace on this continent."[37] The BCT's training with allies included taking part in the Saber Guardian 17 exercises, which consisted of 40,000 troops from over 20 nations.[38]

It is important to note that basing limitations and the cost of permanently stationing large units overseas (especially when accompanied by families) led the Army to adopt a heel-to-toe rotational policy, according to which an armor brigade will arrive to replace one going back to the U.S. so that there is no break in coverage. The first iterations of this new policy revealed how much had been forgotten about the skills needed to execute such a deployment. Before its anticipated deployment in September 2017, for example, Dagger Brigade reportedly faced both equipment and manpower issues that made preparing for deployment especially challenging.[39]

In addition to back-to-back rotations of armor, the U.S. deployed an Aviation Brigade consisting of 2,200 soldiers and 86 aircraft for a nine-month rotation beginning in February 2017.[40] Based in Germany, the aviation brigade forward deployed five Black Hawks and 50 troops to Lielvarde Air Base in Latvia and five Black Hawks and 50 troops to Mihail Kogalniceanu Air Base in Romania. In April, eight F-35As deployed overseas for the first time to the U.K. for month-long training and maneuvers with British and Dutch forces.[41] At the end of April, two F-35s arrived at Amari airbase in Estonia for exercises.[42] The same month, a training deployment brought two F-35s to Bulgaria.[43] According to General Scaparrotti, the F-35 deployment "shows we are serious about territorial integrity and will defend our interests with the most advanced capabilities our nation has to offer."[44]

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."[45] A second site in Dülmen, Germany, opened in May 2017 and will hold equipment for an artillery brigade.[46] 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.[47]

The naval component of OAR 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. For example, BALTOPS 2016, the 44th iteration of exercises across the Baltic Sea region, involved more than 5,000 personnel, 43 ships, and more than 60 aircraft from Belgium, Denmark, Estonia, Finland, France, Germany, Italy, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Spain, Sweden, the United Kingdom, and the United States.[48]

In June 2014, in an effort to bolster OAR's transatlantic security measures, the U.S. announced a $1 billion European Reassurance Initiative (ERI). For fiscal year (FY) 2017, the Obama Administration proposed that ERI funding be increased to $3.4 billion,[49] but a continuing resolution (CR) for FY 2017 hampered some ERI efforts and fostered uncertainty. A practical example is the addition of a 30mm cannon to Stryker vehicles. The upgraded vehicles for the "dragoons" resulted from a recognition that Russian upgrades have placed U.S. forces at an "unacceptable risk" without the cannon upgrade.[50] However, ammunition for the cannon is considered a new program and cannot be started under a CR. Colonel Glenn Dean, Program Manager for the Army's Stryker brigade combat team at Program Executive Office Ground Combat Systems, warned in April that "if the CR does not lift next month I will not have combat ammunition when I field that vehicle next year."[51] A budget request submitted in May sought $4.8 billion in ERI funds, an increase of $1.4 billion.[52]

Testifying in March 2017, General Scaparrotti was clear about the importance of ERI funding for returning to a posture of deterrence:

> Thanks in large measure to ERI, over the last 12 months EUCOM has made demonstrable progress. U.S. tanks have returned to European soil. U.S. F-15s and F-22s have demonstrated air dominance throughout the theater. U.S. naval forces have sailed throughout European waters. EUCOM has operationalized its Joint Cyber Center. With the approval of former Secretary [Ashton] Carter, EUCOM delivered the first new operational plan for the defense of Europe in over 25 years.
>
> ERI also supports high-end exercises and training, improved infrastructure, and enhanced prepositioning of equipment and supplies, while State Department and DOD funds build partner capacity throughout Europe.[53]

EUCOM states that ERI funding in 2017 will expand the scope of the "28 joint and multinational exercises, which annually train more than 18,000 U.S. personnel alongside 45,000 NATO Allies and Partnership for Peace personnel across 40 countries."[54] In 2016, the U.S. Air Force alone took part in 50 exercises and training deployments in the region.[55] In April 2017, U.S. F-22s and F-35s exercised in Virginia with Royal Air Force Typhoons and French Rafales to improve air combat integration involving advanced aircraft.[56] In June, U.S., British, Polish, Lithuanian, and Croatian troops taking part in Saber Strike 17 exercised securing the Suwalki Gap for the first time.[57]

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.[58]

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.[59] Canada, Estonia, Latvia, Lithuania, and the U.K. also participate in JMTG-U.[60] The U.S. also participates in the Ukrainian-hosted peacekeeping exercise Rapid Trident and the naval exercise Sea Breeze, held in the Black Sea.[61]

Nevertheless, U.S. commanders still do not have everything they need for proper deterrence. General Scaparrotti has testified that "I need intelligence, surveillance and reconnaissance in greater numbers than I have now because to deter properly I have to be able to have a good base line of Russia, in particular, so I know when things change and can posture my forces properly."[62] Because Russian exercises could provide cover for a planned invasion, the U.S. increased its presence in the Baltic region during Russia's planned Zapad exercises in September, including taking over air policing, positioning more ships in the Baltic Sea, and potentially deploying a Patriot missile battery temporarily to Lithuania.[63]

There also are nonmilitary threats to the territorial integrity of NATO countries that the alliance has only recently begun to find ways to address. The most likely threat may come not from Russian tanks rolling into a country but from Russian money, propaganda, and establishment of pro-Russia NGOs and other advocacy groups, all of which can be leveraged to undermine a state. Russia's aggressive actions in Ukraine have proven how effective these asymmetrical methods can be in creating instability, especially when coupled with conventional power projection.

U.S. Nuclear Weapons in Europe. The U.S. maintains tactical 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.[64]

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 it is anticipated will add at least 20 years to their life span.[65] In March 2017, the U.S. carried out a successful test 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 US strategic nuclear triad well into the future for both bombers and dual-capable aircraft supporting North Atlantic Treaty Organization (NATO)."[66]

In addition, NATO is a nuclear alliance. According to its July 2016 Warsaw Summit Communiqué:

> The circumstances in which NATO might have to use nuclear weapons are extremely remote. If the fundamental security of any of its members were to be threatened however, NATO has the capabilities and resolve to impose costs on an adversary that would be unacceptable and far outweigh the benefits that an adversary could hope to achieve.[67]

Important Alliances and Bilateral Relations in Europe

The United States has a number of important multilateral and bilateral relationships in Europe. First and foremost is NATO, the world's most important and arguably most successful defense alliance, but other relationships also have a significant impact on the ability of the U.S. to operate in and through the European region.

The North Atlantic Treaty Organization. NATO is an intergovernmental, multilateral security organization originally designed to defend Western Europe from the Soviet Union. It is the organization that 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.

Beginning in 2002, when alliance operations began in Afghanistan, NATO turned its focus toward out-of-area operations, including counterpiracy operations off the Horn of Africa and an intervention in Libya that led to the toppling of Muammar Qadhafi. More recently, Russian aggression has led to a recent renewed focus within NATO on collective defense alongside moderate increases in defense spending for some European NATO members.

NATO continues to refocus on collective defense, while some voices within the alliance are arguing for a greater focus on counterterrorism.[68] In February 2016, at the request of Germany, Greece, and Turkey, NATO's Standing NATO Maritime Group 2 (SNMG2) deployed to the Aegean Sea to help stop illicit trafficking in people, drugs, weapons, and other contraband in the Mediterranean. In October 2016, NATO's Operation Active Endeavor, created in 2011, was terminated and was succeeded by Operation Sea Guardian, which has a mission of "maritime situational awareness, counterterrorism and capacity building."[69]

Despite the ongoing debate within the alliance over the degree of threat posed by migrant flows and illicit activity in the Mediterranean Sea versus that of Russian aggression, it is clear that NATO continues to view Russia as a threat.[70]

The shift back to collective defense began at the 2014 Wales summit, when the alliance introduced a Readiness Action Plan (RAP) 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."[71] As part of the RAP, following the 2014 Wales summit, NATO announced the creation of a Very High Readiness Joint Task Force (VJTF), "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."[72] A rotational plan for the VJTF's land component was established to maintain this capability through 2023.[73] The VJTF also represents a significant improvement in deployment time. Part of the VJTF can deploy within 48 hours, a marked improvement over the month the VJTF's predecessor, the Immediate Response Force, needed to deploy.[74] According

CHART 1

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 four of the 28 countries—the U.S., the U.K., Poland, and Romania—do both.

NOTES: Figures are estimates for 2017 based on 2010 prices and exchange rates. Iceland is not listed because it has no military.
SOURCE: NATO, "Defence Expenditures of NATO Countries (2010–2017)," June 29, 2017, p. 3, http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2017_06/20170629_170629-pr2017-111-en.pdf (accessed July 25, 2017).

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to an assessment published by the Norwegian Institute of International Affairs, the entire NATO Response Force (NRF), of which the VJTF is a part, 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."[75]

This does not mean, however, that the VJTF and NRF are without their problems. For instance, NATO reportedly believes that the VJTF would be too vulnerable during its deployment phase to be utilized in Poland or the Baltics.[76] Another concern is the 26,000 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.[77]

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). In Estonia, the United Kingdom serves as the framework nation, with contributions from France in 2017 and Denmark in 2018. In Latvia, Canada is the framework nation, with Albania, Italy, Poland, Slovenia, Slovakia,[78] and Spain providing contributions. Germany serves as the framework nation in Lithuania, with contributions from Belgium, Luxembourg, the Netherlands, Norway, and Croatia and France beginning in 2018. In Poland, the United States serves as the framework nation, with Romania and the United Kingdom contributing troops.[79] EFP troops are under NATO command and control; a multinational divisional headquarters will be created in Elblag, Poland, to coordinate the battalions.[80] In February, the Baltic States signed an agreement to facilitate the movement of NATO forces among the countries.[81]

At its July 2016 Warsaw Summit, NATO agreed to create a multinational framework brigade based in Craiova, Romania, under the control of Headquarters Multinational Division Southeast.[82] In February 2017, following a defense minister–level meeting of the North Atlantic Council, NATO Secretary General Jens Stoltenberg announced that "[e]ight Allies have committed to provide brigade staff. And five Allies have committed land and air forces for training and air policing." Stoltenberg also announced new maritime measures that include "an increased NATO naval presence in the Black Sea for enhanced training, exercises and situational awareness, and a maritime coordination function for our Standing Naval Forces when operating with other Allied forces in the Black Sea region."[83] In April 2017, four Royal Air Force Typhoons arrived in Romania for a four-month air policing deployment.[84]

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. NATO has expressed plans to spend $3.24 billion "to upgrade its satellite and computer technology over the next three years."[85]

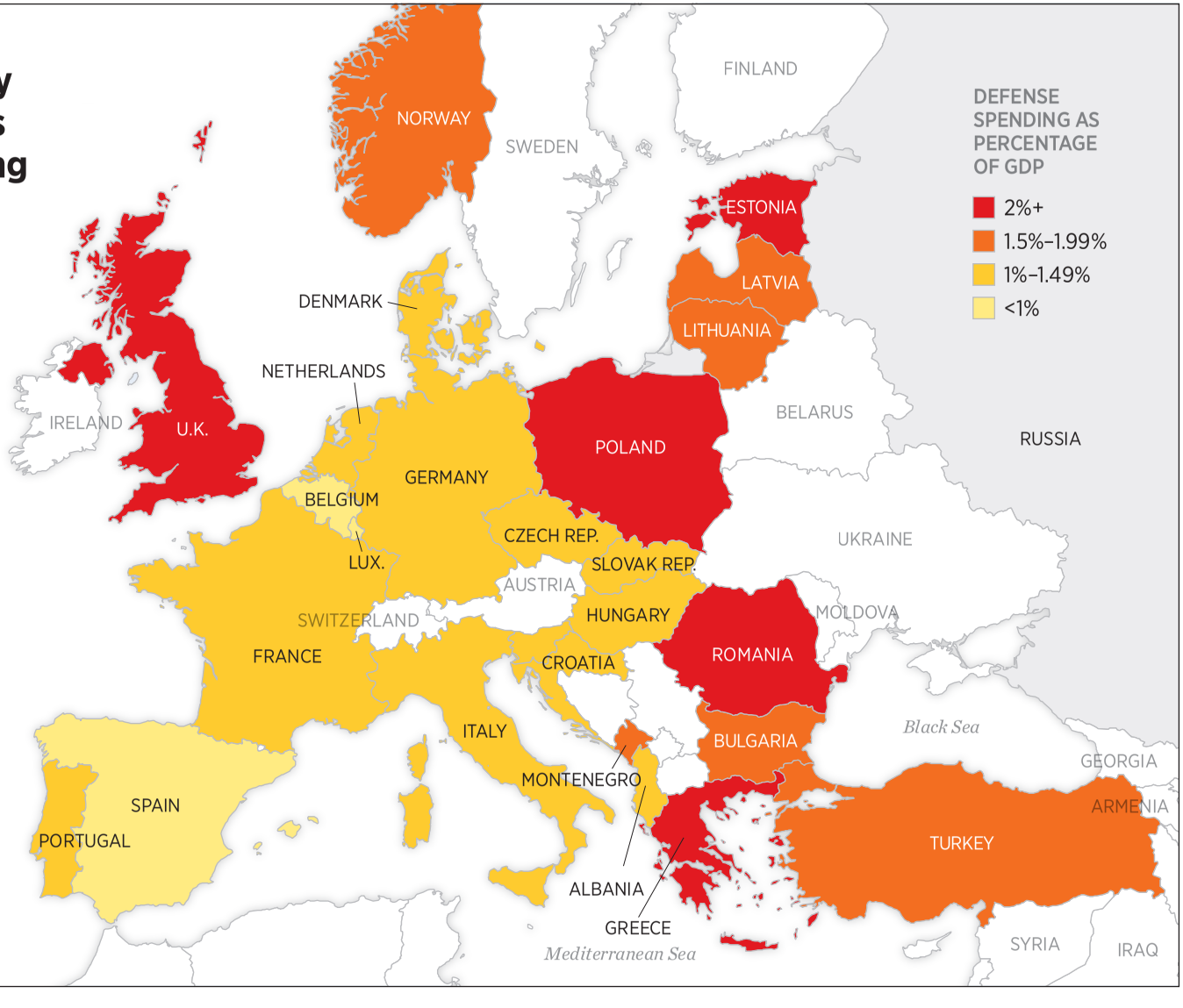
The broad threat that Russia poses to Europe's common interests makes military-to-military cooperation, interoperability, and overall preparedness for joint warfighting especially important in Europe, yet they are not uniformly implemented. For example, day-to-day interaction between U.S. and allied officer corps and joint preparedness exercises have been more regular with Western European militaries than with frontier allies in Central Europe, although the crisis in Ukraine has led to new exercises with eastern NATO nations. In the event of a national security crisis in Europe, first contact with an adversary might still expose America's lack of familiarity with allied warfighting capabilities, doctrines, and operational methods.

Ballistic Missile Defense. At the Warsaw summit, NATO announced the initial operating capability of the Ballistic Missile Defense (BMD) system.[86] An Aegis Ashore site in Deveselu, Romania, became operational in May 2016.[87] Other components include a forward-based early-warning BMD radar at Kürecik, Turkey; BMD-capable U.S. Aegis ships forward deployed at Rota, Spain;[88] and a second Aegis Ashore site in Redzikowo, Poland, which broke

MAP 1

Threat Proximity Largely Dictates Military Spending

In Europe, NATO members closer to Russia and the Middle East spend, in general, more on defense than those further away.



NOTES: Figures are estimates for 2017. Iceland is not listed because it has no military. While Greece does spend 2 percent of GDP on defense, it is well below the 20 percent required by NATO for equipment as a share of defense expenditures.
SOURCE: NATO, "Defence Expenditures of NATO Countries (2010–2017)," June 29, 2017, p. 3, http://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2017_06/20170629_170629-pr2017-111-en.pdf (accessed July 25, 2017).

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ground in May 2016 and is expected to be operational next year.[89] Ramstein Air Base in Germany hosts a command and control center.[90]

In January, the Russian embassy in Norway threatened that if the country contributes ships or radar to NATO BMD, Russia "will have to react to defend our security."[91] 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."[92]

In 2011, the Netherlands announced "plans to upgrade four air-defense frigates with extended long-range missile defense early-warning radars."[93] A decision on a BMD upgrade path for Dutch *Iver Huitfeldt*-class frigates is expected next year according to Chief of the Naval Staff Rear Admiral Frank Trojahn.[94] 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.[95] In November 2015, the U.K. stated that it plans to build new ground-based BMD radar as a contribution.[96] It also has been reported that Belgium intends to procure M-class frigates that "will be able to engage ex-atmospheric ballistic missiles."[97] Belgium and the Netherlands are jointly procuring the frigates, although the Dutch position on BMD capabilities is not entirely clear. NATO BMD is expected to be fully operational by 2025.[98]

Quality of Armed Forces in the Region

As an intergovernmental security alliance, NATO is only as strong as its member states. Of NATO's 29 members, 27 are European. European countries collectively have more than 2 million men and women in uniform, yet by some estimates, only 100,000 of them—a mere 5 percent—have the capability to deploy beyond their national borders.[99]

A 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. There are also 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."[100]

Article 3 of the 1949 North Atlantic Treaty, NATO's founding document, states that members at a minimum will "maintain and develop their individual and collective capacity to resist armed attack."[101] Only a handful of NATO members can say that they are living up to their Article 3 commitment. In 2016, only five of 28 NATO member states (Estonia, Greece, Poland, the U.S., and the U.K.) spent the required 2 percent of gross domestic product (GDP) on defense.[102] Recently, NATO total defense expenditures have moved in an upward direction. In 2015, 15 NATO members increased defense spending in real terms; in 2016, 16 NATO allies raised defense spending as a share of GDP. Put another way, in 2016, NATO members collectively increased spending by 3.8 percent, or $10 billion (not including the U.S.).[103] The number of members meeting the 2 percent benchmark is expected to increase to eight by 2018 with Latvia, Lithuania, and Romania meeting the benchmark.

Germany. Germany took a major step forward within NATO by serving as the framework nation for the EFP in Lithuania. Germany has 450 troops and 200 vehicles, including 30 tanks, stationed there.[104] In addition to stationing troops in the Baltics, Germany is the second largest contributor to NATO's Kosovo Force (KFOR) mission and the third largest

contributor to the Resolute Support mission in Afghanistan.[105] German troops also contribute to NATO's Very High Readiness Joint Task Force, as well as to Baltic Air Policing, with Germany's air force completing back-to-back deployments out of Amari Air Base in Estonia beginning in August 2016.[106]

In November, the Bundestag approved a yearlong extension of the mandate for Germany to participate in missions against IS in the Middle East. Six German Tornados fly reconnaissance missions out of Incirlik Air Base in Turkey. A German refueling tanker also flies out of Incirlik.[107] In 2016, German Tornadoes flew 692 missions and the tanker aircraft flew 315 missions in support of the anti-IS coalition. Germans also have crewed participating AWACS aircraft and have helped to train and equip Peshmerga forces in Iraq.[108] Despite tensions with Turkey, 240 German soldiers remain based at Incirlik, and a further 15–20 Germans stationed at Konya air base are taking part in NATO AWACS missions.[109] However, German contributions come with caveats. According to one report, "German forces are not authorized for combat missions and the contribution is capped at 1,200 soldiers."[110]

In 2017, Germany increased its defense spending by €2 billion, although overall spending reached only 1.22 percent of GDP; spending on equipment increased from 14.5 percent in 2016 to 16.2 percent in 2017 but was still below the NATO benchmark of 20 percent.[111] The German Bundeswehr plans to have spent €130 billion on armaments by 2030.[112] In May 2017, the government announced an $832 million contract to upgrade 102 Leopard 2 tanks from 2019–2023.[113] According to an inspector general's report, however, only 38 percent of Tornado fighters and 52 percent of Eurofighters are fully operational, only one of three A400M Transport Aircraft and four of 14 Mk 41 Sea King helicopters are fully operational, and the Sea Kings are so outdated that repairs must rely on "unconventional spare parts." Army systems are generally in better condition; 79 percent of Germany's Leopard 2 Main Battle Tanks are fully operational.[114]

Germany's military faces institutional challenges to procurement, including an understaffed procurement office and the need for special approval by a parliamentary budget committee for any expenditure of more than €25 million.[115] In recent years, Germany has put in place a number of joint procurement agreements:

> Joint procurement and maintenance programs with Norway on submarines, Lockheed transport aircraft with France, tanker aircraft with Benelux and Norway and drones with France and Italy are all under way. While not all details on these plans are fixed, the defense spending on aircrafts and submarines alone will amount to several billion euros. In addition, Germany is creating joint military structures together with Romania and the Czech Republic. With the United Kingdom, Berlin is currently working on a defense roadmap to deepen cooperation.[116]

In February, Germany and Norway announced joint development and procurement of naval anti-surface missiles.[117] In October, Germany announced plans to purchase five corvettes for its Navy at a total cost of €1.5 billion.[118]

The Bundeswehr plans to add 5,000 new soldiers to its ranks along with 1,000 civilians and 500 reservists by 2024.[119] In April 2017, the Bundeswehr established a new cyber command, which initially will consist of 260 staff but eventually will number around 13,500 by the time it becomes fully operational in 2021.[120] The Army is a consistent target of cyber-attacks and was subjected to 284,000 such attacks within the first nine weeks of 2017 alone, according to new cyber command head Ludwig Leinhos.[121]

In February, Germany decided to replace its short-range air defense systems, a move that could cost as much as €3.3 billion by 2030; once complete, the upgrade will help to close a gap in Europe's short-range air defense weapons identified in 2016.[122] A report that surfaced in May revealed problems with the procurement of A400M cargo aircraft and has raised questions about whether or not Germany will

have replacement transport aircraft ready by 2021, the year its C-160 fleet is due to be retired.[123]

Germany also faces the financial and security challenges associated with a very large influx of migrants. In April, Chancellor Angela Merkel stated there was "no doubt" that some refugees are a security threat to Germany.[124] The country spent €21.7 billion on migrants in 2016, funds that otherwise might have been spent on military capabilities more directly relevant to NATO.[125]

Although Germany is beginning to take on a larger role within NATO and has taken some decisions to strengthen its military capabilities, the 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."[126] As long as the public appetite for greater investment in defense and a greater role for Germany as a military power remains tepid, the country will continue to punch below its weight in the security realm.

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. Whether current levels of funding will be sustained, however, is not certain. In July, French Chief of Defense General Pierre de Villiers resigned because of President Emmanuel Macron's budget plan, which would cut military spending by $979 million.[127]

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, as well as to invest €1 billion in this effort, by 2019.[128] French Defense Minister Jean-Yves Le Drian stated in December that "[t]he threats will grow. The frequency and sophistication of attacks is increasing without respite."[129] The French Ministry of Defense faced 24,000 external attacks in 2016, double the number faced in 2015.[130]

France withdrew the last of its troops from Afghanistan at the end of 2014, although all French combat troops had left in 2012. All told, France lost 89 soldiers and had 700 wounded in Afghanistan.[131] In September 2014, France launched Opération Chammal, the name given to the French contribution to the campaign against the so-called Islamic State. France currently has 1,200 soldiers deployed in Opération Chammal.[132]As of the end of January 2017, French planes operating from bases in Jordan and the United Arab Emirates, along with naval aircraft launched from the aircraft carrier *Charles De Gaulle*, had dropped 2,300 bombs against the IS, twice as many as French forces dropped during operations in Libya in 2011.[133] French artillery has taken part in supporting the ground offensive against the IS since September 2016.[134] The pace of the Chammal operation is having a deleterious impact on French forces according to French Air Force Chief of Staff Andre Lanata. 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."[135]

In Europe, France has deployed 300 troops, along with infantry fighting vehicles and Leclerc main battle tanks, to Estonia,[136] contributing to NATO's Enhanced Forward Presence. French troops will deploy to Lithuania in 2018 as part of the battlegroup stationed in that nation.[137] In addition, 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.[138] France also has over 1,450 troops in Djibouti, along with Mirage fighters, and troops in Côte d'Ivoire, Gabon, and Senegal.[139]

France recently added 11,000 soldiers to its Army.[140] In January 2015, France launched Operation Sentinelle, deploying 11,000 troops to protect the country from terrorist attacks; it is

the largest operational commitment for French forces.[141] 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.[142] Along with its successes, however, the operation has placed significant strains on French forces. In a typical year, French soldiers deploy for eight months, two of them as part of Operation Sentinelle. To counteract the strain, the government extended deployment pay to soldiers taking part in Sentinelle and created a new "medal for Protection of the Territory" for troops deployed for 60 days in Sentinelle.[143]

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. Then-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 then-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."[144]

Since the 9/11 terrorist attacks, the United Kingdom has proven itself to be America's number one military partner. For example, Britain provided 46,000 troops for the 2003 invasion of Iraq. At the height of this commitment, the U.K. also deployed 10,000 troops to one of the deadliest parts of Afghanistan—an area that at its peak accounted for 20 percent of the country's total violence—while many other NATO allies operated in the relative safety of the North.

In 2015, the U.K. conducted a defense review, 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,[145] 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.[146] 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. Defense Secretary Michael Fallon stated in February 2017 that the U.K. will have an expeditionary force of 50,000 troops by 2025.[147] In recent years, it has increased funding for its highly respected Special Forces.

Provided funding is sustained, by 2020, 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. 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, which 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 defense review 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. The U.S. and U.K. are in discussions with regard to filling the U.K.'s antisubmarine gap until the new P-8s come into service in 2019.[148] In November 2015, a French

maritime patrol aircraft had to assist the Royal Navy in searching for a Russian submarine off the coast of Scotland.[149]

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). Nevertheless, the Royal Navy still delivers a formidable capability.

The U.K. will not have an aircraft carrier in service until the first *Queen Elizabeth*-class carrier enters service in the 2020s, although the aircraft meant to operate from them have yet to be acquired. This will be the largest carrier operated in Europe. Two of her class will be built, and both will enter service. 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.[150]

The U.K. remains a leader inside NATO, taking over temporary responsibility for the VJTF in January and contributing 3,000 troops.[151] In March, 800 British troops arrived in Estonia, where the U.K. is the framework nation for NATO's EFP battalion in that country.[152] U.K. troops also contribute to the American-led battalion in Poland. The Royal Air Force has taken part in Baltic Air Policing four times, including most recently from April–August 2016.[153] In May 2017, four RAF Typhoons deployed to Romania for a four-month deployment supporting NATO's Southern Air Policing mission.[154]

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 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. In July 2017, it was reported that "about 50,000 people [had] been arrested and 150,000 state workers including teachers, judges and soldiers, [had] been suspended in the crackdown under emergency rule which was imposed soon after the attempted military takeover."[155] As of April, 10,732 police officers, 7,463 members of the military, and 168 generals

had been arrested.[156] The post-coup crackdown has had an especially negative effect on the military. 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.[157]

Although all opposition parties condemned the coup attempt, the failed plot has enabled Erdogan to consolidate more power. A referendum that was approved by a narrow margin in April granted the president's office further powers—such as eliminating the position of prime minister in the government—most of which will come into effect in 2019 after presidential elections.[158] 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."[159] Erdogan's response to the coup has further eroded Turkey's democracy, once considered a model for the region. In March, Turkey blocked some cooperation between NATO and partner countries over a controversy with Austria related to the referendum.[160]

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. The U.S. decision in May 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), which Ankara has long regarded as its primary threat.[161]

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. Although Turkish officials have threatened to close access to the base, they have not yet done so.[162] 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.[163] 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.

Turkey's military contribution to international security operations still sets it apart from many of the nations of Western Europe. From August 2016–March 2017, Turkey conducted Operation Euphrates Shield, a military intervention in Syria with the goal of creating secure zones along the border that served primarily to stop YPG militias from gaining territory near the Turkish border.[164] Turkish officials have expressed anger over America's backing of Kurdish rebel forces fighting the IS in Syria, and the objectives of Operation Euphrates Shield and proposed future Turkish military involvement in Syria have been called into question because of their lack of alignment with U.S. and other nations' objectives.[165]

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.[166] The Turks also have contributed to a number of peacekeeping missions in the Balkans, still maintain 313 troops in Kosovo,[167] 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,[168] making it NATO's second largest after that of the United States. A number of major procurement programs in the works 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.[169]

With respect to procurement, the biggest area of contention between Turkey and NATO is Turkey's selection of a missile defense

system. In September 2013, Turkey selected China Precision Machinery Import–Export Corporation (CPMIEC) for a $3.44 billion deal to provide the system. NATO has said that no Chinese-built system could be integrated into any NATO or American missile defense system. U.S. officials also have warned that any Turkish company that acts as a local subcontractor in the program would face serious U.S. sanctions because CPMIEC has been sanctioned under the Iran, North Korea, and Syria Nonproliferation Act.[170] In November 2015, Turkey cancelled the contract with CPMIEC.[171]

In April 2017, Turkey's Foreign Minister stated that the country had an agreement in principle to purchase Russian-made S-400 systems.[172] However, it remains to be seen whether the sale actually goes through, how many units are purchased, and how the S-400s fit into Turkey's overall air defenses.[173] In April, Turkish Defense Minister Fikri Işık stated that no S-400s would be integrated into the NATO air defense systems.[174]

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 and discourage Ankara's warming relations with Russia 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 is one of five NATO members to meet the 2 percent of GDP spending benchmark.[175] Although the Estonian armed forces total only 6,400 active-duty service personnel (including the army, navy, and air force),[176] they are held in high regard by their NATO partners and punch well above their weight inside the alliance. Since 1996, almost 1,500 Estonian soldiers have served in the Balkans. 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 and 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.[177]

Estonia has demonstrated that it takes defense and security policy seriously, focusing its defense policy 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.[178] One recent joint procurement is with neighboring Finland to acquire 12 South Korean–built howitzers by 2021.[179] Over the next few years, Estonia will increase from one to two the number of brigades in its order of battle; it also is making efforts to increase its rapid reaction reserve force from 18,000 to 21,000 troops by 2022.[180] This increase and modernization includes the recently created Cyber Defence League, a reserve force that relies heavily on expertise found in the civilian sector. In 2017, in an explicit step to strengthen their bilateral relationship, Estonia and the U.S. signed 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.[181]

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, Latvia 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.[182]

In July 2016, Latvia's Parliament approved a new National Defense Concept that builds on the 2012 iteration to chart a path to a bright future for the Latvian National Armed Forces. The document 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."[183] The concept lays out a plan for the future that is described as "strengthening the operational capability of the National Armed Forces, the 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."[184]

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 2017, Latvia spent 1.7 percent of GDP on defense, a 22 percent increase over 2016.[185] The government has stated that the NATO benchmark of 2 percent of GDP in defense spending will be met by 2018, and the National Defense Concept lays out a plan to spend no less than 20 percent of the budget on new equipment.[186]

Lithuania. Lithuania is the largest of the three Baltic States, and its armed forces total 17,030 active-duty troops.[187] Lithuania has also shown steadfast commitment to international peacekeeping and military operations. Between 1994 and 2010, more than 1,700 Lithuanian troops were deployed to the Balkans as part of NATO missions in Bosnia, Croatia, and Kosovo. Between 2003 and 2011, Lithuania sent 930 troops to Iraq. Since 2002, just under 3,000 Lithuanian troops have served in Afghanistan, a notable contribution 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.[188]

Lithuanian Defense Minister Raimundas Karoblis has stated that Russia's propaganda campaign against Lithuania is a serious threat: "There are real parallels with Crimea's annexation [from Ukraine].... We are speaking of a danger to the territorial integrity of Lithuania."[189] In April 2017, a Lithuanian security services exercise sought to counter a scenario in which Russian special operations forces infiltrated Lithuania after a train traveling through the country broke down and "little green men" disembarked.[190] Also in April, U.S. forces trained with Lithuanian troops with the goal of integrating U.S. forces and capabilities into Lithuanian defense planning.[191] Lithuania's most recent intelligence service threat assessment stated that upgrades to Russia's military in neighboring Kaliningrad mean that an invasion of a Baltic country can be launched in as little as 24 hours, sharpening Baltic State concerns about NATO's Article 5 commitment to member states.[192]

In 2017, Lithuania will spend around 1.8 percent of GDP on defense. In February, the State Defense Council proposed 2.07 percent of GDP for defense in 2018; procurements to modernize its military include howitzers, infantry fighting vehicles, air defense systems, and (potentially) transport helicopters.[193]

In addition, Lithuania's 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.[194] In June 2017, a Lithuanian energy company signed an agreement to buy LNG directly from the U.S.[195] In May, 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.[196]

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 are reported to rely heavily on Polish troops and ports.[197]

Poland has an active military force of almost 100,000, including a 48,000-strong army with 985 main battle tanks.[198] In November, Poland's Parliament approved a new 53,000-strong territorial defense force to protect infrastructure and train in "unconventional warfare tactics."[199] The force will cost €800 million (roughly $1.04 billion) over three years. It remains to be seen whether the new force will eventually operate under the existing defense command structure and whether the investment in money and manpower would not be better utilized elsewhere.[200] Ninety percent of General Staff leadership and 80 percent of Army leadership has left or has been replaced following recent military reforms, introducing a measure of volatility into defense planning.[201]

Poland spent 2 percent of GDP on defense in 2016 and nearly 26 percent on equipment, reaching both NATO benchmarks.[202] In April, the defense ministry stated a goal to raise defense spending to the level of 2.5 percent of GDP by 2030.[203] Poland is looking at major equipment purchases including new maritime patrol aircraft and U.S.-made missile defense systems.[204]

Although Poland's focus is territorial defense, it has 192 troops deployed in Afghanistan as part of NATO's Resolute Support Mission.[205] In 2016, Polish F-16s began to fly reconnaissance missions out of Kuwait as part of the anti-IS mission Operation Inherent Resolve.[206] Approximately 60 soldiers deployed to Iraq in 2015 as trainers.[207] Poland's air force has taken part in Baltic Air Policing seven times since 2006, most recently beginning in May 2017 when four F-16s from the Netherlands took over.[208] Poland is part of NATO's EFP in Latvia and has 258 troops taking part in NATO's KFOR mission.[209]

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:

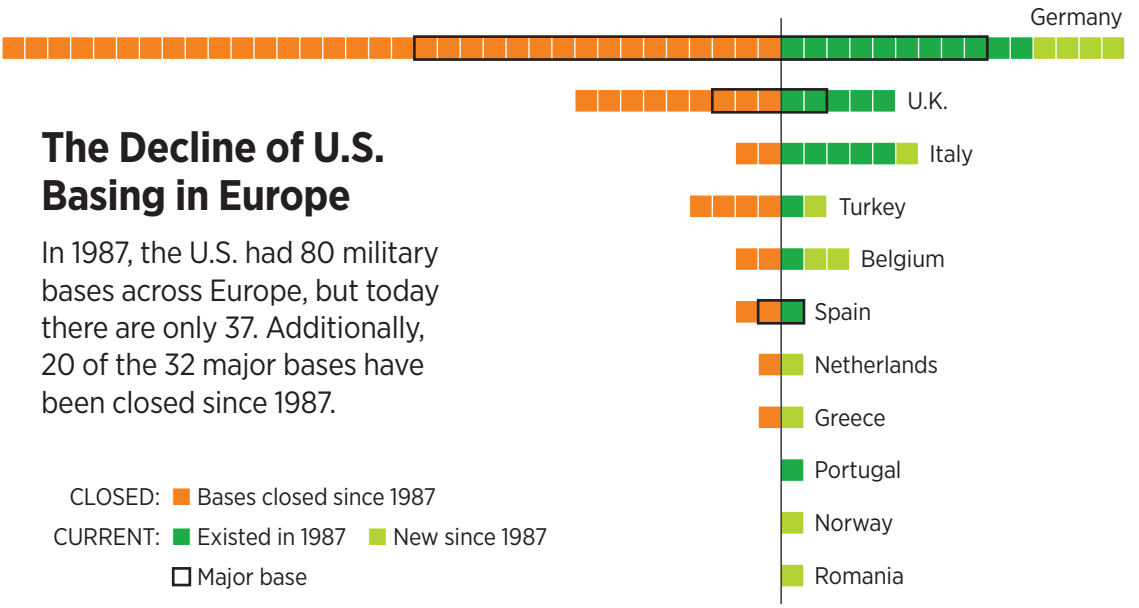
> The mature network of U.S. operated bases in the EUCOM AOR provides superb training and power projection facilities in support of steady state operations and contingencies in Europe, Eurasia, Africa, and the Middle East. This footprint is essential to TRANSCOM's global distribution mission and also provides critical basing support for intelligence, surveillance, and reconnaissance assets flying sorties in support of AFRICOM, CENTCOM, EUCOM, U.S. Special Operations Command, and NATO operations.[210]

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 62,000 U.S. forces remain in Europe, an 85 percent decrease in personnel and 75 percent reduction in basing from the height of the Cold War.[211]

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 Calvary Regiment in Germany, permanently based in Europe. Deactivation of the 170th BCT in October 2012, slightly earlier than the planned date of 2013, marked the end of a 50-year 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."[212]

The U.S. is on pace to have only 17 main operating bases left in Europe,[213] primarily in Germany, Italy, the United Kingdom, Turkey, and Spain. The number of U.S. installations has declined steadily since the Cold War when

CHART 2



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in 1990, for example, the U.S. Army alone had more than 850 sites in Europe. Today, the total number for all services is approximately 350. In January 2015, the Department of Defense announced the outcome of its European Infrastructure Consolidation review, under which 15 minor sites across Europe were to be closed.[214] The proposed closures would save $500 million annually, but carrying them out would cost $1.4 billion.[215] In April, EUCOM announced that these base closures were now under review: "Considering the current European security environment, it is a prudent measure to review some of the decisions under the January 2015 European Infrastructure Consolidation effort."[216] Currently, the U.S. Army is scouting sites in lower Saxony in northern Germany for the potential basing of an additional 4,000 troops.[217]

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.[218] In addition, the USS *Mount Whitney*, a *Blue Ridge*-class command ship, is permanently based in the region.[219] This ship provides a key command-and-control platform that was employed successfully during the early days of the recent Libyan operation.

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.[220] With a combat radius of 1,200 nautical miles, 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.[221]

The U.S. Navy also keeps a number of submarines in the area that contribute to EUCOM's intelligence, surveillance, and reconnaissance (ISR) capacities, but with increased Russian naval activity, more are needed. In March, General Scaparrotti testified that he did not "have the carrier or the submarine capacity that would best enable me to do my job in EUCOM."[222] Strong 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. 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. In December, P-8s operating out of Italy searched for Russian subs near NATO's Standing Maritime Group assigned to the Mediterranean.[223]

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. The core of USAREUR 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.

Recently, the 2nd Cavalry Regiment Field Artillery Squadron began training on a Q-53 radar system, described as a "game changer."[224] 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.

Beginning in January, the 3rd Armored Combat Team, 4th Infantry Division from Colorado began rotating into Europe for nine months, raising the number of Army BCTs in Europe to three.[225] In May, an Army battalion of around 600 soldiers took part in an exercise to deploy to Europe on short notice as part of U.S. efforts to practice swift redeployments to Europe.[226]

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, USAFE has seven main operating bases along with 88 geographically separated locations.[227] 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, speaking about the "invaluable" importance of Incirlik Air Base to anti-IS operations in Syria and Iraq, USAF Colonel John Dorrian has said that "the entire world has been made safer by the operations that have been conducted there."[228] Approximately 39,000 active-duty, reserve, and civilian personnel are assigned to USAFE along with 200 aircraft.[229]

U.S. Marine Forces Europe. MARFOREUR 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.[230] 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. MARFOREUR 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 support a force of 13,000 Marines for 30 days, and the Norwegian government covers half of the costs of the prepositioned storage. 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.[231]

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. SPMAGTF has KC-130J Hercules and V-22 Osprey aircraft, but six of the 12 Ospreys were sent back to the U.S. in 2016 as a result of defense budget cuts. Marine Corps General Joseph Dunford, current Chairman of the Joints Chief of Staff, said that this reduction in strength "does reduce the [unit's] flexibility, it reduces the depth."[232]

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 non-military 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 Moron, for a total of 3,500 U.S. military and civilian personnel and 35 aircraft."[233] In January 2017, 285 Marines began a rotational deployment to Vaernes, Norway, to train and exercise with Norwegian forces.[234] The presence of the Marines led some Russian officials to threaten that Norway could become a target for Russian strategic weapons.[235]

The Marine Corps maintains a Black Sea Rotational Force (BSRF) composed of approximately 400 Marines that rotate to the Black Sea region (based in Romania) to conduct training events with regional partners.[236]

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. In 1955, the headquarters was reconfigured as a joint task force and renamed Support Operations Task Force Europe (SOTFE) and later Special Operations Task Force

Europe. When French President Charles de Gaulle forced American troops out of France in 1966, SOTFE relocated to its current headquarters in Panzer Kaserne near Stuttgart, Germany, in 1967. It also operates out of RAF Mildenhall. In 1982, it was redesignated for a fourth time as U.S. Special Operations Command Europe.

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.[237]

The FY 2018 DOD budget request included over $105 million for various special operations programs and functions through ERI. 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 partnership activities with Eastern and Central European allies' special operations forces.[238]

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.

In the past year, there have been significant improvements in cyber security in Europe. This improvement includes operationalization of EUCOM's Joint Cyber Center.[239] 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 it provides to logistical infrastructure. For example, EUCOM supports the U.S. Transportation Command (TRANSCOM) with its array of airbases 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.[240]

Europe is a mature and advanced operating environment. America's decades-long presence there 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 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.

ERI has supported infrastructure improvements across the region. Two major projects funded include 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."[241] ERI 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."[242]

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.

Strait of Gibraltar. The Strait of Gibraltar connects the Mediterranean Sea with the Atlantic Ocean and separates North Africa from Gibraltar and Spain on the southernmost point of the Iberian Peninsula. The strait is about 40 miles long and approximately eight miles wide at its narrowest point. More than 200 cargo vessels pass through the Strait of Gibraltar every day, carrying cargoes to Asia, Europe, Africa, and the Americas.

The strait's proximity to North Africa, combined with its narrowness, has presented security challenges for U.S. and allied warships. In 2002, Moroccan security forces foiled an al-Qaeda plot to attack U.S. and U.K. naval ships in the Strait of Gibraltar using the same tactics that had been used in the attack on the USS *Cole*. A 2014 article in the al-Qaeda English-language publication *Resurgence* urged attacks on oil tankers and cargo ships crossing the Strait of Gibraltar as a way to cause "phenomenal" damage to the world economy.[243]

The Turkish Straits (Including the Dardanelles and the Bosporus). These straits are long and narrow: 40 and 16 miles long, respectively, with the narrowest point in the Bosporus, which connects the Black Sea with the Sea of Marmara, only 765 yards wide. Approximately 46,000 ships each year transit the straits, including more than 5,600 tankers.[244]

The 1936 Montreux Convention gave Turkey control of the Bosporus and placed limitations on the number, transit time, and tonnage of naval ships from non–Black Sea countries that can use the straits and operate in the Black Sea.[245] This places limitations on U.S. Navy operation in the Black Sea. The U.S. Navy spent 207 days in the Black Sea in 2014, 150 days in 2015, and only 58 days in 2016.[246]

GIUK Gap. This North Atlantic naval corridor between Greenland, Iceland, and the United Kingdom is strategically vital. During the Cold War, Soviet submarines, bombers, and reconnaissance aircraft traversed the GIUK Gap to gain access to the Atlantic Ocean from the northern Russian coast. Recent increased Russian activity through and near the GIUK Gap has led the U.S. to return military assets to Keflavik in southwest Iceland.

The Danish Straits. Consisting of three channels connecting the Baltic Sea to the North Sea via the Kattegat and Skagerrak seas, the Danish Straits are particularly important to the Baltic Sea nations as a way to import and export goods. This is especially true for Russia, which increasingly has been shipping its crude oil exports to Europe through its Baltic ports.[247] Russian oil companies have announced plans to stop the use of foreign ports on the Baltic Sea to export crude by 2018, saying that they will focus instead on increased use of Russian ports.[248] More than 125,000 ships per year transit these straits.[249]

Geostrategic Islands in the Baltic Sea. Three other critically important locations are the Åland Islands (Finnish); Gotland Island (Swedish); and Borholm Island (Danish). The Åland Islands have been demilitarized since the 1856 Treaty of Paris ending the Crimean War and have always been considered the most important geostrategic piece of real estate in the Baltic Sea. Gotland Island is strategically located halfway between Sweden and Latvia in the middle of the Baltic Sea. Sweden maintained a

permanent military garrison on the island for hundreds of years until 2005. At the height of the Cold War, 15,000–20,000 Swedish military personnel were stationed on Gotland.[250] Today, Sweden is standing up a 300-strong Battle Group Gotland, to be fully established on the island by 2018. In 2017, Sweden will spend $45 million to improve the battlegroup's preparedness and anti-aircraft capabilities.[251] The military facilities will need to be reconstituted, as most were sold for civilian use after 2005. In September 2017, around 1,000 U.S. forces will take part in the Aurora exercise in and around Gotland.[252] Bornholm Island is strategically located at the mouth of the Baltic Sea.

In March 2015, Russia carried out a large-scale training exercise with up to 33,000 soldiers, which included the capture of the Åland, Gotland, and Borholm islands as part of its scenario. Reinforcing the Baltic region would be nearly impossible without control of these islands.

The biggest danger to infrastructure assets in Europe pertains to 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. In such a scenario, the shortcomings of NATO's force posture would become obvious.

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. NATO continued its steady progression toward strengthening its deterrence posture in the East and reaffirmed that it remains a nuclear alliance. NATO's biggest challenges pertain to continued underinvestment from European members, a tempestuous Turkey, and a return to collective defense that is undermined by disparate threat perceptions within the alliance.

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 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.

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				✓	

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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 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 current instability in the Middle East through the lens of a Sunni–Shia conflict, however, does not show the full picture. The cultural and historical division between Persians and Arabs 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 have exploited sectarian and ethnic tensions to gain support by posing as champions of Sunni Arabs against Iran, 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. This is true 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.[4] Qatar is the second largest supplier of LNG to Japan. In 2016, another U.S. ally in Asia—South Korea, the world's 15th largest economy[5]—depended on the Middle East for 82 percent of its imports of crude oil.[6] 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.[7] 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.[8]

Nevertheless, the Middle East is full of economic extremes. For example:

- Qatar is the world's wealthiest country in terms of gross domestic product (GDP) per capita; Yemen, a mere 700 miles away, ranks 198th.[9]

- Saudi Arabia has 265 billion barrels of proven oil reserves. It shares a nearly 500-mile border with Jordan, which has just 1 million barrels of proven oil reserves.

- According to the *2017 Index of Economic Freedom*, published by The Heritage Foundation, the UAE ranks 8th in the world in terms of economic freedom; Iran, located just across the Persian Gulf, ranks 155th.[10]

These disparities are made worse by government corruption across most of the region, which not only squanders economic and human resources, but also restricts economic competition and hinders the development of free enterprise.

The economic situation is part of what drives the Middle East's political environment. The lack of economic freedom was an important factor leading to the 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.[11]

There is no shortage of security challenges for the U.S. and its allies in this region. Iran has exacerbated Shia–Sunni tensions to increase its influence on embattled regimes and undermine adversaries in Sunni-led states. 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 many have even volunteered to fight for Basher al-Assad in Syria.[12] Iran also provided arms to the Taliban after it was ousted from power by a U.S.-led coalition[13] and has long considered the Afghan city of Herat, near the Afghan–Iranian border, to be within its sphere of influence.

The Iran nuclear agreement has strengthened Tehran's ability to establish regional hegemony. Tehran has recovered approximately $100 billion in frozen assets that will boost its economy and enhance its strategic position, military capabilities, and support for surrogate networks and terrorist groups.[14] This economic transfusion will enable Tehran to tilt the regional balance of power even further in its favor.

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 increased its naval provocations in the Persian Gulf, intervened to prop up the Assad regime in Syria, and reinforced Shiite Islamist revolutionaries in Yemen and Bahrain.[15]

In Syria, the Assad regime's brutal repression of peaceful demonstrations in early 2011 ignited a fierce civil war that has led to the deaths of more than half a million people[16] and displaced about 4.8 million refugees in Turkey, Lebanon, Jordan, Iraq, and Egypt.[17] More than 6.3 million people are internally displaced within Syria.[18] The destabilizing spillover effects of this civil war include the creation of large refugee populations that could become a reservoir of potential recruits for extremist groups. In Jordan, where King Abdullah's regime has been buffeted by Arab Spring protests and adverse economic trends, Syrian refugees now account for more than 10 percent of the population. This has placed even more strain on Jordan's small economy, scarce water resources, and limited social services, creating rising resentment among the local population.

In 2015, more than 1 million migrants and refugees from across the Middle East crossed into Europe—the largest numbers of migrating people that Europe has seen since World War II.[19] This has sparked a crisis as countries struggle to cope with the massive influx and its social, economic, and political ramifications.

Thanks to the power vacuum created by the ongoing civil war in Syria, Islamist extremist groups, including the al-Qaeda–affiliated Jabhat Fateh al-Sham (formally known as al-Nusra Front) and the self-styled Islamic State (IS), formerly known as ISIS or ISIL and before that as al-Qaeda in Iraq, have carved out extensive sanctuaries where they are building proto-states and training militants from a wide variety of other Arab countries, Central Asia, Russia, Europe, Australia, and the United States. With a sophisticated Internet and social media presence and by capitalizing on the civil war in Syria and sectarian divisions in Iraq, the IS has been able to recruit over 25,000 fighters from outside the region to join its ranks in Iraq and Syria. These foreign fighters include over 4,500 citizens from Western nations, including approximately 250 U.S. citizens.[20]

In late 2013, the IS exploited the Shia-dominated Iraqi government's heavy-handed alienation, marginalization, and repression of the Sunni Arab minority in Iraq to reinvigorate its insurgency and seize territory. In the summer of 2014, the IS spearheaded a broad Sunni uprising against Baghdad. The assault was incredibly effective, and by the end of the year, the IS controlled one-third of Iraq and one-third of Syria—a land mass roughly equal to the area of Great Britain—where the extremist group ruled upward of 9 million people. The self-proclaimed caliphate lost its final major redoubt in Iraq's second largest city, Mosul, and its so-called capital city located in Raqqa, Syria, is currently under siege by Syrian Democratic Forces. The Peshmerga militia of the Kurdistan Regional Government, an autonomous area in northeastern Iraq, took advantage of the chaos caused by the collapse of the Iraqi security forces and occupied the city of Kirkuk, which Kurds have long considered to be rightfully theirs—a claim rejected by the central government in Baghdad. The IS continues to attack the Shia-dominated government in Baghdad, massacre Shia civilians and Sunnis who disagree with it, and terrorize religious and ethnic minorities in northern Iraq including the Christian community, Kurds, Turkmen, and Yazidis. In early 2016, Iraq's military and militia forces, backed by air power from the U.S.-led coalition and by Peshmerga forces, launched an offensive to retake Mosul.

On September 10, 2014, the U.S. announced the formation of a broad international coalition to defeat the Islamic State. Today, this coalition has 69 members including non-state organizations like NATO and INTERPOL. However, many of these members merely provide political support: Today, 9,000 troops contributed by 23 of the coalition's 69 member countries are on the ground in Iraq and Syria, and the bulk of these are from the U.S. (There are approximately 5,000 U.S. troops in Iraq and another 1,000 in Syria.) The U.S.-led air campaign has played a significant role in degrading IS capabilities, especially in support of the Mosul offensive, but even though the list of participants in this campaign (Australia, Bahrain, Belgium, Canada, Denmark, France, Jordan, Saudi Arabia, the Netherlands, Turkey, the United Arab Emirates, and the United Kingdom) is impressive, the U.S. conducts the vast majority of air strikes in Iraq and almost all of them in Syria.

Arab–Israeli tensions are another source of instability. The repeated breakdown of Israeli–Palestinian peace negotiations and the rise of the Hamas regime in Gaza in a 2007 coup have created an even more antagonistic situation. Hamas, the Palestinian branch of the Muslim Brotherhood, 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.

Although elected to power with only 44 percent of the vote in the 2006 elections (elections were due to be held in 2014 but have since been suspended indefinitely), Hamas has since forced its radical agenda on the people of Gaza. This has led in turn to diminished public support and a high degree of needless suffering. Hamas provoked wars with Israel in 2008, 2009, 2012, and 2014 and continues to threaten Israel and representatives of Egypt, Jordan, and the Palestinian Authority who have signed peace agreements with Israel. As long as Hamas remains imbued with its Islamist extremist ideology that advocates the destruction of Israel and retains a stranglehold over Gaza, achieving a sustainable Israeli–Palestinian peace agreement appears to be impossible.[21]

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).[22] 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 for comfort with 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 trying to coordinate defense and security cooperation with European allies active in the region (mainly the U.K. and France).

Military training is an important part of these relationships. The main 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. Last year, the U.S. Naval Forces Central Command launched the world's largest maritime exercise across the Middle East to demonstrate global resolve in maintaining freedom of navigation and the free flow of maritime commerce.[23] This has been followed by subsequent, albeit 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 as ISIS has gained momentum, increased in strength, and expanded its international influence.[24] 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.

In addition to military training, U.S. defense relations are underpinned by huge defense equipment deals. U.S. military hardware (and, to a lesser extent, British and French hardware) is preferred across the region because of its effectiveness and symbolic value as a sign of a close security relationship, and much of it has been combat tested. For example, Kuwait, the UAE, Jordan, and Saudi Arabia combined have more than 400 F-15, F-16, and F/A-18 jet fighter aircraft. Following the Iran nuclear deal, threatened Arab states undertook military buildups and a flood of arms purchases. The U.S. approved $33 billion worth of weapons sales to its Gulf Cooperation Council allies between May 2015 and March 2016. During his first overseas visit, President Trump announced a new $110 billion arms deal with Saudi Arabia.[25] U.S. arms deals with GCC countries include ballistic missile defense systems, attack helicopters, advanced frigates, and anti-armor missiles. The use of U.S.-made hardware helps with interoperability and lays the foundation for longer-term regional engagement and cooperation.

Iran continues to incite violence against Israel by providing thousands of increasingly long-range rockets to Hamas, Palestine Islamic Jihad, and Hezbollah, all of which are committed to destroying Israel. Additionally, Iran has escalated its threats against Arab neighbors in the Persian Gulf by funding, training, equipping, and supporting anti-government militant groups in an attempt to undermine various Arab regimes.

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 countries in the Middle East reject those values. Israel has been designated as a Major Non-NATO ally (MNNA)[26] because of its close ties to the U.S. With support from the United States, Israel has developed one of the world's most sophisticated air and missile defense networks.[27] 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.[28]

In March 2015, incumbent Prime Minister Benjamin Netanyahu soundly defeated his chief rival faction, the center-left Zionist Union. Netanyahu's reelection enabled him to criticize the July 2015 U.S. nuclear agreement with Iran from a position of strength and further strained political relations with the Obama Administration. However, with the election of President Trump, U.S.–Israeli relations are as strong as they have been in years if not decades.

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. The United States started to play a more active role in the Persian Gulf after the U.K. completed the withdrawal of its military presence from bases "east of Suez" in 1971. 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. As noted, President Trump recently approved a $110 billion arms sale to the Saudis.

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. Roughly 2 million Muslims participate in the annual Hajj pilgrimage to the holy city of Mecca. Saudi Arabia owns the world's second largest oil reserves and is the world's foremost oil exporter. The uninterrupted flow of Saudi oil exports is crucial for fueling the global economy.

Riyadh has been a key partner in efforts to counterbalance Iran. Saudi Arabia also has played a growing role in countering the al-Qaeda terrorist network. Until 2003, Riyadh was in denial about Saudi connections to the 9/11 attacks. However, after Saudi Arabia was targeted by al-Qaeda terrorist attacks on its own soil, the government began to cooperate more closely in combating al-Qaeda.[29] After the death of King Abdullah, his half-brother, Crown Prince Salman, ascended to the throne in late January 2015.

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.[30] 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 states carved out of the former Persian Empire and propped up by Western powers.

Long-standing Iranian territorial claims in the Gulf add to Arab–Persian tensions.[31] For example, Iran has long considered Bahrain to be part of its territory, a claim that has strained bilateral relations and contributed to Bahrain's decision to break diplomatic ties after the attack on the Saudi embassy in Tehran in early 2016.[32] Iran also occupies the small but strategically important islands of Abu Musa, Greater Tunb, and Lesser Tunb (also claimed by the UAE) near the Strait of Hormuz.

The GCC often has problems agreeing on a common policy on matters of security. This reflects both the organization's intergovernmental nature and the desire of its members to place national interests above those of the GCC. The recent events regarding Qatar illustrate 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 good relations with Tehran. Kuwait tends to fall somewhere in the middle. Inter–GCC relations also can be problematic. The UAE, Bahrain, and Saudi Arabia have been at odds with Qatar over Qatar's support for the Muslim Brotherhood, which they see as a threat to internal security, and Qatar has recently decreased its overt support for the organization in order to strengthen relations with its GCC partners.

Apart from Bahrain, the GCC countries have weathered the political turbulence of the Arab Spring relatively well. Many of their citizens enjoy a high standard of living (made possible by millions of foreign workers and the export of oil and gas), which makes it easier for them to tolerate authoritarian rule. Of the six GCC states, Bahrain fared the worst during the 2011 popular uprisings due to persistent Sunni–Shia sectarian tensions worsened by Iranian antagonism and the increased willingness of Shiite youths to protest what they see as discrimination by the al-Khalifa monarchy.

Egypt. Egypt is another important U.S. military ally. As one of only two Arab countries (the other being Jordan) that have 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. His government faces major political, economic, and security challenges. Egypt's limping economy has been badly damaged by more than five years of political turbulence and violence that has reduced tourism revenues, deterred foreign investment, and raised the national debt. The new regime also faces an emboldened ISIS, which launched waves of attacks in North Sinai including the destruction of a Russian airliner over the Sinai Peninsula in October 2015.[33] Occasional attacks continue today.

The July 2013 coup led by el-Sisi against the Muslim Brotherhood–backed Morsi regime strained relations with the Obama Administration and resulted in a temporary hold on U.S. military assistance to Egypt. U.S. assistance was eventually restored in 2015, but diplomatic relations remain strained. Cairo demonstrated its initial displeasure by buying Russian arms financed by Saudi Arabia in late 2013. Bilateral relations with the U.S. slowly started to improve after Egypt's military made good on its promises to hold elections in 2014. President Trump's willingness to work with el-Sisi has further improved U.S.–Egyptian relations.

Lebanon and Yemen. The United States has developed cooperative defense

arrangements with Lebanon and Yemen, two states that face substantial threats from Iranian-supported terrorist groups as well as from al-Qaeda and the Islamic State. The United States has provided arms, equipment, and training for the Lebanese Armed Forces (LAF), which has found itself increasingly challenged by Sunni Islamist extremist groups, including the IS, in addition to the long-term threat posed by Hezbollah. Hezbollah has emerged as Lebanon's most powerful military force, adding to GCC fears about growing Iranian influence in Lebanon. In early 2016, Saudi Arabia cut off its funding for $4 billion worth of military aid to Lebanon because the country did not condemn attacks on Saudi diplomatic missions in Iran, thereby intensifying the proxy war with Iran.[34]

Washington's security relationship with Yemen has grown since the 9/11 attacks. Yemen, Osama bin Laden's ancestral homeland, faces major security threats from al-Qaeda in the Arabian Peninsula (AQAP), one of the most dangerous al-Qaeda affiliates.

The overall political and security situation in Yemen deteriorated further in 2014–2016. In January 2015, the Houthis, a militant Shiite group based in northern Yemen and backed by Iran,[35] overran the capital city of Sana'a and forced the internationally recognized government led by President Abd Rabbu Mansour Hadi to resign. The Houthis solidified their control throughout the North and West of Yemen, and President Hadi fled to Riyadh. Backed by the U.S., the U.K., and France, Saudi Arabia formed a coalition of 10 Sunni countries and led an air campaign against Houthi forces that began in March 2015. The coalition has rolled back the Houthis but is no closer to reinstating the internationally recognized government in Sana'a.

The Yemeni conflict has become a proxy war between Saudi Arabia and Iran. Riyadh supports the Yemeni government, and Iran has provided money, arms, and training to the Houthi rebels, who belong to the Zaidi sect of Shia Islam. The unstable political situation in Yemen caused the United States to evacuate its embassy and withdraw its special operations forces in 2015, severely undermining U.S. counterterrorism and intelligence capabilities in the country. The growing chaos enabled AQAP to expand its presence and establish a "mini-state" spanning more than 350 miles of coastline.[36] The IS entered Yemen in March 2015; however, estimates suggest that the number of IS personnel in Yemen is in the hundreds, while al-Qaeda numbers in the thousands.[37] Under President Trump, the U.S. has taken a more robust role in Yemen with its counterterrorism operations. For example, in March 2017 alone, the U.S. conducted more than 70 strikes in Yemen—double the total number of U.S. strikes in all of 2016.[38]

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 2016 for oil-producing countries in the region while increasing for the non–oil-producing countries. Saudi Arabia was by far the region's largest military spender despite dropping from $81.9 billion in 2015 to $56.9 billion in 2016—a decrease of 30 percent. By 2015, Iraq's defense spending had increased by 536 percent when compared to 2006. However, like other oil-producing countries in the region, Iraq decreased its defense spending by 14.1 percent in 2016 even though large parts of the country remain under IS control.[39] It is too early to tell how the lifting of European Union and U.S. sanctions will affect Iran's military expenditure, but Tehran is expected to increase spending.

Historically, figures on defense spending for the Middle East have been very unreliable, but the lack of data has worsened. For 2016, there were no available data for Kuwait, Qatar, Syria, the United Arab Emirates, and Yemen according to a report by the Stockholm International Peace Research Institute.[40]

Different security factors drive the degree to which Middle Eastern countries fund, train,

and arm their militaries. For Israel, which defeated Arab coalitions in wars 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."[41] As a result of Israel's military dominance, states and non-state actors in the region have invested in asymmetric and unconventional capabilities to offset Israel's military superiority.[42] 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.[43] 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,[44] but the IDF's quality and effectiveness remain unparalleled with regard to both technical capacity and personnel.[45] 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.[46]

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.[47] In particular, the IDF has focused on maintaining its superiority in missile defense, intelligence collection, precision weapons, and cyber technologies.[48] The Israelis regard their cyber capabilities as especially important. In early 2016, the IDF unveiled a new five-year plan, worth roughly $78.6 billion, to enhance cyber-protected and networked combat capabilities in order to augment the IDF's capacity to fight in multiple theaters.[49] Cyber technologies are used for a number of purposes, including defending Israeli cyberspace, gathering intelligence, and carrying out attacks.[50] Israel maintains its qualitative superiority in medium-range and long-range missile capabilities.[51] It also fields effective missile defense systems, including Iron Dome and Arrow, both of which the U.S. helped to finance.[52] U.S. spending on Israel's air and missile defense has soared in the past decade, from $133 million in 2006 to $488 million in 2016.[53]

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.[54]

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.

The GCC established a joint expeditionary force called the Peninsula Shield Force (PSF), which has had only modest operational success and has never met its stated ambition of deploying tens of thousands of soldiers. Created in 1984, its main purpose today is to counter Iran's military buildup and help maintain internal security. The PSF first deployed a modest force of 3,000 troops to help liberate Kuwait during the first Gulf War. Its most recent deployment was to Bahrain in 2011 to help restore order after Iranian-backed Shiite protests brought the country to a standstill and threatened the monarchy.[55] Internal divisions inside the GCC, especially among Qatar, UAE, and Saudi Arabia, have prevented the PSF from playing a more active role 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.[56] These aircraft flew missions over Yemen against Houthi rebels in 2009–2010, during Operation Decisive Storm in Yemen beginning in March 2015, and most recently over Syria as part of the U.S.-led fight against ISIS.[57] Both Saudi Arabia[58] and the UAE[59] have hundreds of Storm Shadow air-launched cruise missiles (known as Black Shaheen in the UAE) in their inventories. These weapons proved highly effective when the British and French used them during the air campaign over Libya in 2011.

In fact, air power is the strong suit of most GCC members. Oman operates F-16s and has purchased 12 Typhoons, on track to be delivered 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."[60] Qatar operates French-made Mirage fighters. 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.[61] However, air strikes in Syria by members of the GCC decreased substantially 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.[62] 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.[63]

Even with the billions of dollars invested each year by members of the GCC, most see security ties with the United States as crucial for their security. As former U.S. Defense Secretary Robert Gates once noted, the Saudis will "fight the Iranians to the last American."[64]

Egypt has the largest Arab military force in the Middle East, with 438,500 active personnel and 479,000 reserve personnel in its armed forces.[65] 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.[66] Since then, its army and air force have been significantly upgraded with U.S. military weapons, equipment, and warplanes.

Egypt substantially increased troop deployments and military operations in 2015 following the onslaught of Islamist and insurgent activity at its borders. This has been the case especially with respect to Libya, where the Egyptian air force has conducted a number of air strikes in the past two years aimed at terrorist targets there.[67] It has also sought closer security cooperation with other North African states to improve border and internal security.[68]

The most visible expression of U.S. influence in Cairo is military aid, which was withheld in some areas after the 2013 military coup but reinstated in 2015. Since 1948, the U.S. has provided Egypt with more than $77 billion in foreign aid.[69] Recently, this support has helped Egypt to procure Apache attack helicopters, F-16s, Harpoon ship-to-ship missile systems, and M1A1 tank kits.

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.[70]

Jordan is a close U.S. ally with small but effective military forces. Its principal security

threats 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. In January 2016, King Abdullah announced that Jordan had reached the saturation point in its ability to take in more Syrian refugees.[71] 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. Nevertheless, Jordan's conventional capability is significant considering its size.

Jordan's ground forces total 74,000 soldiers and include 390 British-made Challenger 1 tanks. The backbone of its air force is comprised of 43 F-16 Fighting Falcons.[72] 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. Although security and stability operations continue, Iraqi Prime Minister Haider al-Abadi announced the liberation of Mosul on July 9, 2017.[73]

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,[74] 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, established in January 1983.[75]

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.[76] 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 Iraqi forces from Kuwait. CENTCOM commanded the U.S. contribution of more than 532,000 military personnel to the coalition armed forces, which totaled at least 737,000.[77] 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.[78] In December 2011, the U.S. officially completed its withdrawal of troops, leaving only 150 personnel attached to the U.S. embassy in Iraq.[79] In the aftermath of IS territorial gains in Iraq, the U.S. has redeployed thousands of troops to Iraq. Today, approximately 5,000 troops are helping with the anti-IS effort in that country.

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,[80] but information gleaned from open sources reveals the following:

- **Kuwait.** Approximately 17,500 U.S. personnel are based in Kuwait. (The U.S. routinely maintains 15,000 troops in Kuwait but recently added another 2,500 in support of the anti-IS campaign in Iraq.[81]) These forces are spread among Camp Arifjan, Ahmed Al Jaber Air Base, and Ali Al Salem Air Base. A large depot of prepositioned equipment and a squadron of fighters and Patriot missile systems are also deployed to Kuwait.

- **UAE.** According to CENTCOM, about 4,000 U.S. personnel,[82] 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.[83] Patriot missile systems are deployed for air and missile defense.

- **Oman.** Since 2004, Omani facilities reportedly have not been used for air support operations in either Afghanistan or Iraq, and 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."[84]

- **Bahrain.** The oldest U.S. military presence in the Middle East is found in Bahrain. Today, some 8,000 U.S. military personnel are based there.[85] 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.[86] 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.[87]

- **Qatar.** Approximately 10,000 U.S. personnel, mainly from the U.S. Air Force, are deployed in Qatar.[88] 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.

It is too soon to say how recent diplomatic moves by Saudi Arabia and other Arab states against Doha will affect the United States' relationship with Qatar, if at all. U.S. military relationships in the region have been known for their flexibility and pragmatism. In the short term, the Saudi-led GCC ban on commercial travel and shipping to Qatar might adversely affect America's ability to keep the base supplied with food and other essentials. The U.S. will be able to overcome this challenge, but at a cost. If the travel restrictions continue, the U.S. will eventually have to weigh the benefits of maintaining the base against the cost of doing so.

- **Jordan.** According to CENTCOM, Jordan "is one of our strongest and most reliable partners in the Levant sub-region."[89] 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 2000 troops, a squadron of F-16s, a Patriot missile battery, and M142 High Mobility Artillery Rocket Systems have been deployed in Jordan.[90]

In addition, there have been media reports that the U.S. government operates a secret UAV base in Saudi Arabia from which drone attacks against militants in Yemen are launched.[91] There also are reports of an American base on Yemen's Socotra Island, which is located near the coast of Somalia, being used for counterterrorism operations off the Horn of Africa and Yemen.[92]

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.

CENTCOM is supported by four service component commands and one subordinate unified command: U.S. Naval Forces Middle East (USNAVCENT); 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.** USNAVCENT is the maritime component of USCENTCOM. 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.** USARCENT is the land component of USCENTCOM. Based in Kuwait, it is responsible for land operations in an area encompassing 4.6 million square miles (1.5 times larger than the continental United States).

- **U.S. Air Forces Central Command.** USAFCENT is the air component of USCENTCOM. Based in Qatar, it is responsible for air operations and for working with the air forces of partner countries in the region. Additionally, USAFCENT manages an extensive supply and equipment prepositioning program at several regional sites.

- **U.S. Marine Forces Central Command.** USMARCENT is the designated Marine Corps service component for USCENTCOM. Based in Bahrain, it is responsible for all Marine Corps forces in the region.

- **U.S. Special Operations Command Central.** SOCCENT is a subordinate USCENTCOM unified command. Based in Qatar, it 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. broke ground on an $11 million headquarters for its Maritime Component Command at Bahrain's Salman Naval Base in 2014[93] and recently announced a multimillion-dollar investment to modernize the Duqm Port complex in Oman to accommodate the U.Ks new *Queen Elizabeth*-class aircraft carriers.[94]

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.[95] 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.[96] In total, the French have 650 personnel based in the country along with eight Rafale fighter jets.[97] 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 nearly 4.7 million barrels of oil a day transit 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 2016, Djibouti granted China a 10-year lease on land to build China's first permanent overseas base, which will have the capacity to house 10,000 troops and is just across a bay from Camp Lemonnier. 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 geographically situated in a critical location. 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.

While 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, there were 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"[98]—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."[99]

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 percent), Saudi Arabia (21.5 percent), and Yemen (8.7 percent), have poor paved road coverage according to the most recent information available.[100] Rail coverage is also poor. For instance, Saudi Arabia has only 563 miles of railroads.[101] By comparison, New Hampshire, which is roughly 1 percent the size of Saudi Arabia, has about the same amount in freight rail miles alone.[102] In Syria, six years of civil war has wreaked havoc on the rail system.[103]

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; Masirah Island, Oman; and use of 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 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 Naval Support Activity Bahrain has undertaken a $260 million expansion project that will enable the homeporting of littoral combat ships by 2018 in one of the world's busiest waterways.[104] The U.S. also has access to a deep-water port, Khalifa bin Salman, in Bahrain and naval facilities at Fujairah, UAE.[105] The UAE's commercial port of Jebel Ali is open for visits from U.S. warships and prepositioning of equipment for operations in theater.[106]

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, the Strait of Hormuz and the Bab el-Mandeb Strait combined have over 65,000 cargo ships travelling through them each year.[107] 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 2016, 974 million tons of cargo transited the canal, averaging 46 ships each day.[108] 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.

MAP 2

Middle East Oil Transit Choke Points

Almost 20 percent of the world's traded oil passes through the Strait of Hormuz, making it the busiest passageway for oil tankers in the world.

The Bab el-Mandeb Strait is an important route for Persian Gulf exports to Europe and was the site of a anti-ship missile attack by Houthi rebels in Yemen on the HSV-2 *Swift* in 2016.

SOURCE: Heritage Foundation research and media reports.

heritage.org

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.[109]

- **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. Nearly 17 million barrels of oil per day, "about 30% of all seaborne-traded oil," pass through the strait for an annual total of more than 6 billion barrels of oil. Most of these crude oil exports go to Asian markets, particularly Japan, India, South Korea, and China.[110]

The shipping routes through the Strait of Hormuz are particularly vulnerable to disruption, given the extremely narrow 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. Oil tankers transport approximately 4.7 million barrels of oil per day through the strait.[111] The Bab el-Mandeb Strait is 18 miles wide at its narrowest point, limiting passage to two channels for inbound and outbound shipments.[112]

  Over the past decade, piracy off the coast of Somalia has dominated the focus of international maritime security efforts. Recently, however, the frequency of pirate attacks in the region has reached its lowest point since 2006, according to the International Maritime Bureau's global piracy report. Pirate activity, however, continues to threaten international trade and the safety of the international commons.[113]

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. An area that was once considered relatively stable, mainly due to the ironfisted rule of authoritarian regimes, is now highly unstable and a breeding ground for terrorism. Overall security in the region has deteriorated in recent years. Conflicts in Iraq, Libya, Syria, and Yemen have worsened, with Islamic State or al-Qaeda fighters playing major roles. The regional dispute with Qatar has made U.S. relations in the region even more complex and difficult to manage. The Russian and Iranian interventions in Syria have greatly complicated the fighting there. Egypt faces a growing insurgency in the Sinai that is gradually spreading. Iraq has managed to stem the advance of and actually to push back the Islamic State but needs substantial help to defeat it.

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, which officers (and often royals) from the Middle East regularly attend, 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 it to 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 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 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 if 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 who 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.[114]

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 has fallen lower and is in danger of falling to "poor" because of increasing 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: **1—Very Poor**
- 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

1. For example, Sir Mark Sykes, Britain's lead negotiator with the French on carving up the Ottoman Empire in the Middle East, during a 1916 meeting in Downing Street pointed to the map and told the Prime Minister that for Britain's sphere of influence in the Middle East, "I should like to draw a line from the *e* in Acre [modern-day Israel] to the last *k* in Kirkuk [modern-day Iraq]." See James Barr, *A Line in the Sand: Britain, France, and the Struggle That Shaped the Middle East* (London: Simon & Schuster U.K., 2011), pp. 7–20. See also Margaret McMillan, *Paris 1919: Six Months That Changed the World* (New York: Random House, 2003).
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Asia

Since 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, whether it was imperial Japan in Asia or the Soviet Union in Europe.

In the 21st century, Asia's importance to the United States will continue to grow. Already, 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.[1] 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 the legacy of conflict. Both of the two major "hot" wars fought by the United States during the Cold War were in Asia: Korea and Vietnam. 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 Chinse 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—enmities 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 that one should consider the lack of a political–security architecture, or even much of an economic one, 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. Also, despite attempts, there is still no Asia-wide free trade agreement, although the Trans-Pacific Partnership, if it proceeds without the U.S., and the Regional Comprehensive Economic Partnership would help to remedy this gap to some extent.

Similarly, there is no equivalent of NATO, 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," not an alliance) or discussion forums like the ASEAN Regional Forum and the ASEAN Defense Ministers-Plus Meeting have been far weaker. Nor did an Asian equivalent of the Warsaw Pact arise. 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.

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, Afghanistan, Pakistan, and Singapore and evolving relationships with other nations in the region like India, Vietnam, Malaysia, and Indonesia. The U.S. also has a robust unofficial relationship with Taiwan.

The United States enjoys the benefit of sharing common weapons and systems with many

of its allies, which facilitates interoperability. Many nations, for example, have equipped their ground forces with M-16/M-4–based infantry weapons (and share the 5.56mm caliber); 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 capable of sharing 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 acclimates various forces to operating together and familiarizes both American and local commanders with each other's standard operating procedures (SOPs), as well as training and tactics.

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 its 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,"[2] 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. In 2015, this changed. The U.S. and Japan revised their defense cooperation guidelines, and the Japanese passed legislation needed to allow Japan 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 regarding Japanese arms exports in 2014. 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 Australia, and possible sales of amphibious search and rescue aircraft to the Indian navy. Japan has also sold 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 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).[3] These forces include a forward-deployed carrier battle group centered on the USS *Ronald Reagan*; a submarine tender; an amphibious assault ship at Yokosuka; and the bulk of the Third Marine Expeditionary Force (III MEF) on Okinawa. U.S. forces exercise regularly with their Japanese counterparts; in recent years,

this collaboration has expanded 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 on 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 currently provides some $2 billion annually to support the cost of USFJ.[4] 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, based on the view that Japan's constitution, legal decisions, and popular attitudes all forbid such a shift, generally resisted this effort. Attempts to expand Japan's range of defense activities, especially away from the home islands, have often been vehemently opposed by Japan's neighbors, especially China and South Korea, due to unresolved differences on issues ranging from territorial claims and boundaries to historical grievances and Japanese visits 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.[5] 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 2017, the United States maintained some 23,411 troops in Korea,[6] 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 an American officer 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, while 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 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.[7]

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 non-combatant 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 there are now few Americans deployed on the Demilitarized Zone (DMZ).

Washington generally maintains "more than 28,000 American troops" in the ROK.[8] 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."[9]

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 THAAD, 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 around 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 were often centers of controversy, as they were reminders of the colonial era. 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 in the first part of 2015, but the U.S. presence in Mindanao continues at reduced levels.

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 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, 258 activities with the Philippines are planned for 2017, including other "joint and service-to-service exercises."[10]

In 2014, the United States and the Philippines announced a new Enhanced Defense Cooperation Agreement (EDCA), which allows for an expanded American presence in the archipelago,[11] and in early 2016, they agreed on five specific bases subject to the agreement. Subsequent agreement has been reached to begin with Basa Air Base in Pampanga, central Luzon, the main Philippine island.[12] 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) forces. 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. This is an important step, as the Philippine military has long been one of the region's weakest despite the need to defend an incredibly large expanse of ocean, shoreline, and territory.

One long-standing difference between the U.S. and the Philippines has been 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.[13] 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."[14]

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.[15]

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 U.S.–Thai relations. 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.

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.

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 the leader of Jemaah Islamiyah, Hambali, in 2003.[16]

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 because of expanding economic relations between the two states. Between 2005 and 2010, the value of trade between the two states doubled. Today, China is Thailand's second leading trading partner.[17]

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[18] 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[19] as well as armored personnel carriers. In 2017, Thailand made the first of three planned submarine purchases in one of the most expensive arms deals in its history.[20] 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. Thai–Chinese military relations may have accelerated as a result of the U.S. restrictions imposed in the wake of Thailand's political instability.

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, Australian forces committed to the North Africa campaign were not returned to defend the continent—despite British promises to do so. 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.[21] Eventually expected to total some 2,500 troops, the initial deployments of 1,250 Marines and their equipment, including up to 13 aircraft, have been based near the northern city of Darwin.[22] The two sides concluded negotiations over the terms of the full deployment late in 2016, and it is now estimated that deployment will be complete by 2020.[23] 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.[24] 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 sharing of space information data among the U.S., Australia, the U.K., and Canada.[25]

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.[26] 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.[27]

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.[28]

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.[29] 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."[30]

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 the 2012 Washington Declaration, while not restoring full security ties, allowed the two nations to resume high-level defense dialogues.

In 2013, U.S. Secretary of Defense Chuck Hagel and New Zealand Defense Minister Jonathan Coleman announced the resumption of military-to-military cooperation,[31] 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.[32] At the time of the visit in November 2016,[33] both sides claimed to have satisfied their respective legal requirements. The Prime Minister of New Zealand 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."[34]

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, subsequently 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:

> [I]n negotiating the third Joint Communiqué with the PRC, the United States:

1. has not agreed to set a date for ending arms sales to Taiwan;
2. has not agreed to hold prior consultations with the PRC on arms sales to Taiwan;
3. will not play any mediation role between Taipei and Beijing;
4. has not agreed to revise the Taiwan Relations Act;
5. has not altered its position regarding sovereignty over Taiwan;
6. will not exert pressure on Taiwan to negotiate with the PRC.[35]

Although the United States sells Taiwan a variety of military equipment, 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 or its territories.

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 American security partners and diversify the geographical spread of its forward-deployed forces.

Since shortly after the normalization of diplomatic relations between the two countries in 1995, the U.S. and Vietnam also have normalized their defense relationship, albeit very slowly. 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."[36]

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.[37] Others, including P-3 maritime patrol aircraft, discussed since the relaxation of the embargo three years ago have yet to be concluded. Lifting the embargo does, however, expand the potential of the relationship and better positions the U.S. to compete with Chinese and Russian positions there.

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.[38] During Vietnamese Prime Minister Nguyen Xuan Phuc's visit to Washington in 2017, the U.S. and Vietnam recommitted to this initiative and pledged to implement it expeditiously. President Trump and Prime Minister Phuc also pledged to strengthen defense ties under the 2011 and 2015 foundational documents.[39]

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. remains, like others among Vietnam's security partners, officially limited to one port call a year with an additional one to two calls on Vietnamese bases

negotiable. The U.S. has not docked a warship at the Vietnamese military base at Cam Ranh Bay since the end of the Vietnam War, but it has used the international port there a number of times since it was opened in 2016.[40]

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.[41] The U.S. occasionally flies P-3 and/or P-8 patrol aircraft out of Malaysian bases in Borneo.

The U.S.–Indonesia defense relationship was revived in 2005 following a period of estrangement caused by American human rights concerns. It now includes regular joint exercises, port calls, and sales of weaponry. The U.S. is also working closely with Indonesia's defense establishment to institute reforms in Indonesia's strategic defense planning processes. 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, Islamist extremism and terrorism need to be carefully monitored. Similar to the case with the Philippines, the return of ISIS fighters to their homes in Indonesia (and Malaysia) could further complicate operating environments.

The U.S. is working across the board at modest levels of investment to help build Southeast Asia's maritime security capacity.[42] Most notable in this regard is the Maritime Security Initiative (MSI) announced by Secretary of Defense Ashton Carter in 2015.[43]

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 (FATA), where they regrouped and started an insurgency in Afghanistan in 2003.

In August 2003, NATO joined the war in Afghanistan and assumed control of the International Security Assistance Force (ISAF). 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 currently number around 352,000 (including army and police).[44] 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 February 2017, more than 13,400 U.S. and NATO forces were stationed in Afghanistan. Most U.S. and NATO forces are stationed at bases in Kabul and Bagram, with tactical advise-and-assist teams located there, in Mazar-i-Sharif, Herat, Kandahar, and Laghman.[45]

In 2014, President Obama pledged to cut U.S. force levels to around 5,500 by the end of 2015 and then to zero by the end of 2016, but he reversed himself the following year, announcing that the U.S. instead would maintain this force level when he departed office. He revised his pledge again in 2016 to say that he would keep 8,400 in place, leaving any further reductions up to his successor. In August 2017, while declining to announce specific troop levels, President Trump announced that "conditions on the ground" would guide the new strategy for Afghanistan.[46]

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 significantly deteriorated 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.

Escalation of the U.S. drone strike campaign in Pakistan's border areas from 2009–2012 led to the significant degradation of al-Qaeda's ability to plot, plan, and train for terrorist attacks. The U.S. began to curtail drone strikes in 2013, largely as a result of Pakistan's growing complaints that the drone campaign infringed on its sovereignty and criticism from international human rights organizations about the number of civilian casualties. All told, there have been over 400 drone strikes since January 2008, including the strike that killed Taliban leader Mullah Akhtar Mansour in Baluchistan province in May 2016.

The U.S. provides significant amounts of military aid to Pakistan and "reimbursements" in the form of coalition support funds (CSF) for Pakistan's military deployments and operations along the border with Afghanistan. Pakistan has some 150,000 troops stationed in regions bordering Afghanistan and recently conducted a robust military campaign against Pakistani militants in North Waziristan. From FY 2002–FY 2018, the U.S. has provided almost $8 billion in security-related assistance and more than $14 billion in CSF funds to Pakistan.[47] While $1 billion in CSF reimbursements was authorized for Pakistan in 2015, the U.S. withheld $300 million because of Pakistan's failure to crack down on the Haqqani network. 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.

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 and following three successful summit-level meetings between President Obama and Indian Prime Minister Narendra Modi. During President Obama's January 2015 visit to India, the two sides agreed to renew and upgrade their 10-year Defense Framework Agreement. Under the Defense Trade and Technology Initiative (DTTI) launched in 2012, the U.S. and India are cooperating on development of six very specific "pathfinder" technology projects.[48] During Prime Minister Modi's visit to the U.S. in June 2016, the two sides welcomed finalization of the text of a

logistics-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 logistics 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.[49] New Delhi and Washington regularly hold joint exercises across all services, including an annual naval exercise in which Japan will now participate on an annual basis and in which Australia and Singapore have also participated in the past.

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; 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. In particular, no Asian militaries have engaged in high-intensity air or naval combat, so the quality of their personnel, training, or equipment is likewise unclear.

Based on examinations of equipment, however, it is assessed that several Asian allies and friends have substantial 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 556, respectively) than their British opposite numbers (227, 19, and 267, respectively).[50] Similarly, South Korea fields a larger military of tanks, principal surface combatants, and combat-capable aircraft (more than 2,434, 23, and 567, respectively) than their German counterparts (306, 15, and 209, respectively).[51]

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, Seoul and Washington began to deploy America's Terminal High-Altitude Area Defense (THAAD) missile defense system on the peninsula in 2017, but newly elected liberal South Korean President Moon Jae-in demanded a halt pending a lengthy environmental impact assessment. Moon subsequently reversed himself after North Korea's second ICBM test in July 2017, deciding to allow temporary deployment. South Korea also continues to pursue an indigenous missile defense capability.

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 countries[52] 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 five conventional submarines (including one with air-independent propulsion systems), six frigates, and six missile-armed corvettes. In addition, 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 (six G550 aircraft) and a tanker fleet of KC-130s that can help to extend range or time on station.

At the other extreme, the Armed Forces of the Philippines (AFP) 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 base defense budget of only $2.7 billion[53] 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 last squadron of fighter aircraft (1960s-vintage F-5 fighters) was decommissioned in 2005; the Philippine Air Force (PAF) has had to employ its S-211 trainers as fighters and ground attack aircraft. The most modern ships in the Philippine navy are three former U.S. *Hamilton*-class Coast Guard cutters; its other main combatant is a World War II destroyer escort, one of the world's oldest serving warships.

Current U.S. Presence in Asia

U.S. Pacific Command. PACOM is the oldest and largest of American unified commands. Established on January 1, 1947, PACOM, "together with other U.S. government agencies, protects and defends the United States, its territories, allies, and interests."[54] To this end, the U.S. seeks to preserve a "geographically distributed, operationally resilient, and politically sustainable" regional force posture within the PACOM area of responsibility that can effectively deter any potential adversaries.[55]

PACOM's area of responsibility includes not only 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.[56]

Under PACOM 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. Among others, it administers the 25th Infantry Division headquartered in Hawaii, U.S. Army Japan, and U.S. Army Alaska.[57]

- **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 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.[58] Other forces that regularly come under PACAF command include B-52, B-1, and B-2 bombers.

- **U.S. Pacific Fleet.** PACFLT normally controls all U.S. naval forces committed

to the Pacific, which usually represents 60 percent of the Navy's fleet. It is organized into Seventh Fleet, headquartered in Japan, and Third Fleet, headquartered in California. Seventh Fleet comprises the forward-deployed element of PACFLT and includes the only American carrier strike group (CTF-70) and amphibious group (CTF-76) home-ported abroad, ported at Yokosuka and Sasebo, Japan, respectively. The Third Fleet's area of responsibility (AOR) spans the West Coast of the United States to the International Date Line and includes the Alaskan coastline and parts of the Arctic. In recent years, this boundary between the two fleets' areas of operation have 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. Since 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 very high profile as a result of five well-publicized operations in the South China Sea.

- **U.S. Marine Forces Pacific.** MARFORPAC controls elements of the U.S. Marine Corps operating in the Asia–Pacific region. Its headquarters are in Hawaii. 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 PACOM, provides the Fleet Marine Forces to PACFLT, and provides Marine forces for U.S. Forces Korea (USFK).[59]

- **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. Until 2015, this included Joint Special Operations Task Force–Philippines (JSOTF–P), 500–600 soldiers assisting Manila in combatting Islamist insurgencies in the southern Philippines such as Abu Sayyaf. SOCPAC forces also support various operations in the region other than warfighting, such as counterdrug operations, counterterrorism training, humanitarian assistance, and demining activities.

- **U.S. Forces Korea and U.S. Eighth Army.** Because of the unique situation on the Korean Peninsula, two subcomponents of PACOM, 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 PACOM 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 PACOM's counterpart in that region of the world, U.S. Central Command (CENTCOM). As of May 2016, these forces included:

- **Resolute Support Mission,** including U.S. Forces Afghanistan.[60]

- **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 10/10th Mountain Division,** 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.[61]

- **Five Train, Advise, Assist Commands** in Afghanistan, each of which is a multinational force tasked with improving local capabilities to conduct operations.[62]

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.[63]

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

MAP 3

The Tyranny of Distance

Steam times are in parentheses.

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).

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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.[64] 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, as well as a Marine Expeditionary Strike Group (ESG) centered on the USS *Bonhomme Richard*, 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.[65]

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. However, outside the context of the EDCA, the U.S. deployed E/A-18G Growler electronic attack, A-10 Warthog close air support aircraft, and Pavehawk helicopters to the Philippines in 2016.[66] 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,[67] 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 two new Littoral Combat Ships (LCS) (with the option of hosting two more) and a rotating squadron of F-16 fighter aircraft.[68]

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."[69] The Marines do not constitute a permanent presence in Australia, in keeping with Australian sensitivities about permanent American bases on Australian soil.[70] 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.[71]

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. There are also several elements of the U.S. global space surveillance and communications infrastructure on the island, as well as basing facilities for the B-2 bomber.

Conclusion

The Asian strategic environment is extremely expansive, as it spans half the globe, with 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.

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, more quickly achieve successes in critical "first battles." Being routinely present in a region also assists in maintaining familiarity with its characteristics and the various actors who 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.[72]

For Asia, we arrived at these average scores:

- Alliances: **4—Favorable**
- Political Stability: **3—Moderate**
- U.S. Military Positioning: **4—Favorable**
- Infrastructure: **4—Favorable**

Aggregating to a regional score of: **Favorable**

Operating Environment: Asia

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

Endnotes

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Conclusion: Scoring the Global Operating Environment

The U.S. 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 it must account for the range of conditions 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); where it might operate from; 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 *2018 Index of U.S. Military Strength*, despite significant shifts in the scoring of the Asia Operating Environment.

Global Operating Environment

VERY POOR	UNFAVORABLE	MODERATE	FAVORABLE	EXCELLENT

The Middle East Operating Environment remained "moderate" in 2018. The region remains plagued by instability, substantial internal security challenges, and spreading, extremely violent transnational threats.

The Europe Operating Environment also did not see categorical changes in any of its scores, remaining "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.

Although overall scoring for the Asia Operating Environment remained at "favorable"

from the *2017 Index* to the *2018 Index*, political instability in Thailand and a new government in South Korea caused the political stability score to drop from "favorable" to "moderate." Uncertainty regarding the future of U.S. alliances in the region also prompted a decrease from "excellent" to "favorable" in that category.