Threats to U.S. Vital Interests

Assessing Threats to U.S. Vital Interests

The United States is a global power with global interests. Scaling its military power to threats requires judgments with regard to the importance and priority of those interests, whether the use of force is the most appropriate and effective way to address the threats to those interests, and how much and what types of force are needed to defeat such threats.

This *Index* focuses on three fundamental, vital national interests:

- Defense of the homeland;

- Successful conclusion of a major war that has the potential to destabilize a region of critical interest to the U.S.; and

- Preservation of freedom of movement within the global commons: the sea, air, and outer space domains through which the world conducts business.

The geographical focus of the threats in these areas is further divided into three broad regions: Asia, Europe, and the Middle East.

This is not to say that these are America's only interests. Among many others, the U.S. has an interest in the growth of economic freedom in trade and investment, the observance of internationally recognized human rights, and the alleviation of human suffering beyond our borders. None of these interests, however, can be addressed principally and effectively by the use of military force, nor would threats to these interests result in material damage to the foregoing vital national interests. These additional American interests, however important

they may be, therefore are not used in this assessment of the adequacy of current U.S. military power.

Throughout this *Index,* we reference two public sources as a mechanism to check our work against that of other recognized professional organizations in the field of threat analysis: *The Military Balance,* published annually by the London-based International Institute for Strategic Studies,[1] and the annual *Worldwide Threat Assessment of the US Intelligence Community* (WWTA).[2] The latter serves as a reference point produced by the U.S. government against which each threat assessment in this *Index* was compared. We note any differences between assessments in this *Index* and the work of the two primary references in summary comments.

The juxtaposition of our detailed, reviewed analysis against both *The Military Balance* and the WWTA revealed two stark limitations in these external sources.

- *First, The Military Balance* is an excellent, widely consulted source, but it is only a count of military hardware without context in terms of equipment capability, maintenance and readiness, training, manpower, integration of services, doctrine, or the behavior of competitors—those that threaten the national interests—of the U.S. as defined in this *Index.*

- *Second,* the WWTA omits many threats, and its analysis of those it does address is limited. Moreover, it does not reference underlying strategic dynamics that are

Threat Categories

Behavior	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Capability	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL

key to the evaluation of threats and that may be more predictive of future threats than is a simple extrapolation of current events.

We suspect that this is a consequence of the U.S. intelligence community's withholding from public view its very sensitive assessments, which are derived from classified sources. Given the need to avoid compromising sources and methods of collection, such a policy is understandable, but it also causes the WWTA's threat assessments to be of limited value to policymakers, the public, and analysts working outside of the government. Perhaps surprisingly, The Heritage Foundation's *Index of U.S. Military Strength* may actually serve as a useful correction to the systemic deficiencies we found in these open sources.

Measuring or categorizing a threat is problematic because there is no absolute reference that can be used in assigning a quantitative score. Two fundamental aspects of threats, however, are germane to this *Index*: the threatening entity's desire or intent to achieve its objective and its physical ability to do so. Physical ability is the easier of the two to assess, but intent is quite difficult. A useful surrogate for intent is observed behavior, because this is where intent becomes manifest through action. Thus, a provocative, belligerent pattern of behavior that seriously threatens U.S. vital interests would be very worrisome. Similarly, a comprehensive ability to accomplish objectives even in the face of U.S. military power would cause serious concern for U.S. policymakers, while weak or very limited abilities would lessen U.S. concerns even if an entity behaved provocatively vis-à-vis U.S. interests.

Each categorization used in the *Index* conveys a word picture of how troubling a threat's

behavior and set of capabilities have been during the assessed year. The five ascending categories for observed behavior are:

- Benign,

- Assertive,

- Testing,

- Aggressive, and

- Hostile.

The five ascending categories for physical capability are:

- Marginal,

- Aspirational,

- Capable,

- Gathering, and

- Formidable.

These characterizations—behavior and capability—form two halves of an overall assessment of the threats to U.S. vital interests.

As noted, the following assessments are arranged by region (Europe, Middle East, and Asia) to correspond with the flow of the chapter on operating environments and then by U.S. vital interest (threat posed by an actor to the U.S. homeland, potential for regional war, and freedom of global commons) within each region. Each actor is then discussed in terms of how and to what extent its behavior and physical capabilities posed a challenge to U.S. interests in the assessed year.

Endnotes:

1. International Institute for Strategic Studies, *The Military Balance 2014: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2014); *The Military Balance 2015: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2015); *The Military Balance 2016: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2016); and *The Military Balance 2017: The Annual Assessment of Global Military Capabilities and Defence Economics* (London: Routledge, 2017).

2. James R. Clapper, Director of National Intelligence, "Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community," Select Committee on Intelligence, U.S. Senate, January 29, 2014, http://www.dni.gov/files/documents/Intelligence%20Reports/2014%20WWTA%20%20SFR_SSCI_29_Jan.pdf; James R. Clapper, Director of National Intelligence, "Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community," Select Committee on Intelligence, U.S. Senate, February 26, 2015, http://www.armed-services.senate.gov/imo/media/doc/Clapper_02-26-15.pdf; James R. Clapper, Director of National Intelligence, "Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community," Committee on Armed Services, U.S. Senate, February 9, 2016, https://www.armed-services.senate.gov/imo/media/doc/Clapper_02-09-16.pdf; Daniel R. Coats, Director of National Intelligence, "Statement for the Record: Worldwide Threat Assessment of the US Intelligence Community," Select Committee on Intelligence, U.S. Senate, May 11, 2017, https://www.dni.gov/files/documents/Newsroom/Testimonies/SSCI%20Unclassified%20SFR%20-%20Final.pdf.

Europe

The resurgence of an aggressive, belligerent Russia has thrown conventional post–Cold War thinking into the waste bin. Russian President Vladimir Putin's decision to invade Ukraine and annex Crimea has changed post–Cold War norms. From the Arctic to the Baltics, Ukraine, and the South Caucasus, Russia has proven to be the source of much instability in Europe. Despite economic problems, Russia continues to prioritize the rebuilding of its military and funding for its military operations abroad. Russia's military and political antagonism toward the United States continues unabated, and its efforts to undermine U.S. institutions and the NATO alliance are serious and troubling. Russia's aggressive stance in a number of theaters, including the Balkans, Georgia, Syria, and Ukraine, continues to contribute to destabilization and run counter to U.S. interests.

Russian Military Capabilities. According to the International Institute for Strategic Studies (IISS), among the key weapons in Russia's inventory are 324 intercontinental ballistic missiles; 2,700 main battle tanks; and more than 4,900 armored infantry fighting vehicles, 6,100 armored personnel carriers, and 4,316 pieces of artillery. The navy has one aircraft carrier; 62 submarines (including 13 ballistic missile submarines); five cruisers; 15 destroyers; 12 frigates; and 95 patrol and coastal combatants. The air force has 1,046 combat-capable aircraft. The IISS counts 270,000 members of the army. Russia also has a total reserve force of 2,000,000 for all armed forces.[1]

To avoid political blowback from military deaths abroad, Russia has increasingly deployed paid private volunteer troops trained at Special Forces bases and often under the command of Russian Special Forces. Russia has used such volunteers in Libya, Syria, and Ukraine because "[t]hey not only provide the Kremlin with plausible political deniability but also apparently take casualties the Russian authorities do not report."[2]

Another key development in Russian force structure occurred in July 2016 when Vladimir Putin signed a law creating a 340,000-strong (both civilian and military) National Guard over which he will have direct control[3] and which will be responsible for "enforcing emergency-situation regimes, combating terrorism, defending Russian territory, and protecting state facilities and assets."[4] According to reports, the National Guard was crafted by amalgamating "several different domestic security forces" under presidential control. Although Putin could issue a directive to deploy the force abroad,[5] forces are more likely to be used to stifle domestic dissent.

Hamstrung by low oil prices, economic sanctions, and deep structural issues, Russia's economy is projected to produce only tepid growth of 1.4 percent in 2017.[6] The combined impact of Western sanctions and Ukraine's decision to end delivery of military products and components to Russia in 2014 have hurt the ability of Russia's defense industries to access certain technology and components.[7] Overall, Russia's industrial capacity and capability remain problematic. In 2017, Russia's defense budget was cut 25.5 percent. "Despite the cut," however, "the 2017 budget will remain about 14.4% higher than the level of defence spending

seen in 2014 in nominal terms."[8] Nevertheless, the macroeconomic situation in Russia has had an impact on defense: "In real terms, projected total military expenditure is estimated to fall by 9.5% in 2017 and by 7.1% in 2018, and then by a more modest 1.7% in 2019."[9] Russia continues to seek cuts elsewhere to safeguard its procurement and modernization plans.[10]

Russia has been investing heavily in modernization of its armed forces, especially its nuclear arsenal and navy. As of December 2016, 60 percent of Russia's nuclear forces had been modernized.[11] According to the IISS:

> Upgrades to Russia's land- and sea-based strategic nuclear forces continue with plans to update 40 missiles a year. In 2015, 21 Yars intercontinental ballistic missiles (ICBMs) were delivered to the Strategic Missile Troops, along with about ten Bulava submarine-launched ballistic missiles (SLBMs) and the same number of Liner (upgraded Sineva) SLBMs.[12]

Russia has announced that the new RS-28 ballistic missile, commissioned in 2011, will come into service in 2018 as planned.[13] The armed forces also continue to undergo process modernization begun by Defense Minister Anatoly Serdyukov in 2008.[14] Russia projects that by the end of 2017, 62 percent of Russian military equipment in service will be modern.[15] In March 2017, Russia announced life extension programs for its *Akula*-class and *Oscar II*-class nuclear-powered submarines, which operate in both the Northern and Pacific Fleets.[16] However, problems remain:

> The naval shipbuilding industry has suffered from years of neglect and under investment; while the Ukraine crisis and the imposition of sanctions is starting to have an effect. The refurbishment of existing naval vessels is progressing, albeit at a slower, and more expensive, pace than originally envisaged. Although several new frigates, corvettes and submarines have already entered service, delivery of new vessels is behind schedule.[17]

After years of delays, the Russian Navy expects to commission two stealth guided missile

frigates and a logistic ship in 2017.[18] However, according to some analysts, tight budgets and an inability to procure parts from Ukrainian industry make it unlikely that Russia will procure the 16 guided missile frigates in keeping with its stated intention.[19] The buildup of Russia's Northern Fleet has implications beyond the immediate theater. "In 2016," according to one report, "the aircraft carrier Kuznetsov transited from the Kola Peninsula and into the Mediterranean Sea to conduct strikes against targets in Syria in support of the Assad regime."[20] The carrier was joined in the Mediterranean by the "Pyotr Veliky nuclear-powered battle cruiser, anti-submarine destroyer Severomorsk, the destroyer Vice-Admiral Kulakov, a tug, a surveillance vessel and a tanker," all based out of the Kola peninsula.[21]

Transport remains a nagging problem, and Russia's Defense Minister has stressed the paucity of Russian transport vessels. In March, Russia reportedly needed to purchase civilian cargo vessels and use icebreakers to transport troops and equipment to Syria at the beginning of major operations in support of the Assad regime.[22]

Russian officials have announced a follow-on modernization program, the State Armament Program 2018–2025. Though budget shortfalls have hampered modernization efforts overall, analysts believe that Russia will continue to focus on developing high-end systems such as the S-500 surface-to-air missile system and T-50 fighter jet[23] and that, although "the new State Armaments Program to 2025 will be less well funded on the whole than its earlier version," it "will continue to support the modernization of the force structure with a special emphasis on high-technology assets."[24] Russia's new armaments program prioritizes nuclear modernization, submarine development, and fighter aircraft at the expense of procuring a new aircraft carrier and nuclear-powered destroyers, acquisition of which has been postponed.[25]

Russian Exercises. Russian military exercises, especially snap exercises, are a source of serious concern because they have masked

real military operations in the past. In 2013, Russia reintroduced snap exercises, which are conducted with little or no warning and often involve thousands of troops and pieces of equipment.[26] In February 2017, for example, Russia ordered snap exercises involving 45,000 troops, 150 aircraft, and 200 anti-aircraft pieces.[27]

Snap exercises have been used for military campaigns as well. According to General Curtis Scaparrotti, NATO Supreme Allied Commander and Commander, U.S. European Command (EUCOM), "the annexation of Crimea took place in connection with a snap exercise by Russia."[28] Snap exercises have practiced additional aggression against Ukraine. According to the IISS:

> The largest of these took place in August 2016, with three military districts—Southern, Western and Central—simultaneously put on alert, along with the Northern Fleet and the airborne troops. The aim of this inspection was to practise the concentration of forces in the southwestern part of Russia for potential contingencies in the Caucasus and against Ukraine.[29]

Snap exercises also provide Russian leadership with a hedge against unpreparedness or corruption. "In addition to affording combat-training benefits," the IISS reports, "snap inspections appear to be of increasing importance as a measure against corruption or deception. As a result of a snap inspection in the Baltic Fleet in June 2016, the fleet's commander, chief of staff and dozens of high-ranking officers were dismissed."[30]

In September, Russia and Belarus will conduct Zapad 2017, a massive exercise in Russia's Western military district, Kaliningrad, and Belarus, the last iteration of which took place in 2013. Former NATO Supreme Allied Commander General Philip Breedlove has estimated that 100,000 troops will take place in Zapad 17.[31] Russia has claimed that only 13,000 troops will participate and that only 3,000 of those troops and 280 pieces of equipment will be Russian.[32] Yet it plans to use around 4,000

train cars to transport troops to Belarus for the exercises—enough for around 30,000 troops—and additional forces are likely to be moved by air transport.[33] Russia reportedly "plans to involve chemical, biological, radiological and nuclear (CBKN) military units in the exercise."[34] Estonian Defence Minister Margus Tsahkna believes that Russia may plan to leave significant forces in Belarus following the exercises: "For Russian troops going to Belarus, it is a one-way ticket."[35]
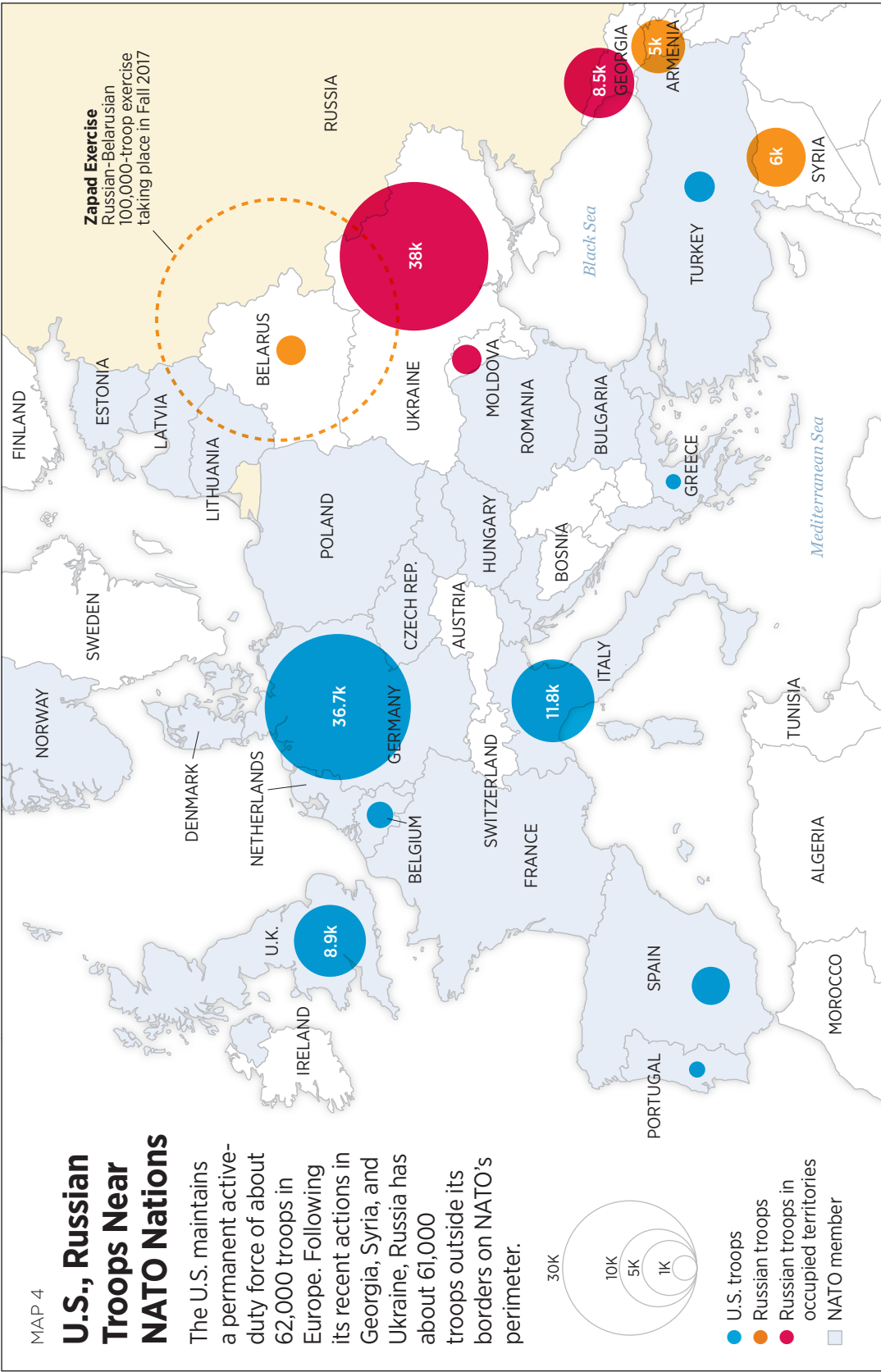
Zapad 17 will take part while Swedish exercises are concurrently ongoing with 19,000 troops, including American troops. According to Lieutenant General Ben Hodges, Commander of U.S. Army Europe, "We will be alert, we will be very vigilant. But we don't want it to turn into a face-off during their biggest exercise of the year."[36]

Threats to the Homeland

Russia is the only state adversary in the region that possesses the capability to threaten the U.S. homeland with both conventional and nonconventional means. Although there is no indication that Russia plans to use its capabilities against the United States absent a broader conflict involving America's NATO allies, the plausible potential for such a scenario serves to sustain the strategic importance of those capabilities. Russia's explicitly belligerent behavior during the past year further adds to the need for the U.S. to give due consideration to Russia's ability to place the security of the U.S. at risk.[37]

Russia's National Security Strategy, released in December 2015, describes NATO as a threat to the national security of the Russian Federation:

> The buildup of the military potential of the North Atlantic Treaty Organization (NATO) and the endowment of it with global functions pursued in violation of the norms of international law, the galvanization of the bloc countries' military activity, the further expansion of the alliance, and the location of its military infrastructure closer to Russian borders are creating a threat to national security.[38]

MAP 4

U.S., Russian Troops Near NATO Nations

The U.S. maintains a permanent active-duty force of about 62,000 troops in Europe. Following its recent actions in Georgia, Syria, and Ukraine, Russia has about 61,000 troops outside its borders on NATO's perimeter.

Zapad Exercise
Russian–Belarusian 100,000-troop exercise taking place in Fall 2017

RUSSIA

FINLAND
ESTONIA
LATVIA
LITHUANIA
BELARUS
UKRAINE
MOLDOVA
ROMANIA
BULGARIA
POLAND
CZECH REP.
AUSTRIA
HUNGARY
BOSNIA
SWEDEN
NORWAY
DENMARK
NETHERLANDS
GERMANY
BELGIUM
SWITZERLAND
FRANCE
ITALY
GREECE
U.K.
IRELAND
SPAIN
PORTUGAL
TUNISIA
ALGERIA
MOROCCO
TURKEY
GEORGIA
ARMENIA
SYRIA

Black Sea
Mediterranean Sea

8.5k
5k
6k
38k
36.7k
11.8k
8.9k

Scale:
30K
10K
5K
1K

- ● U.S. troops
- ● Russian troops
- ● Russian troops in occupied territories
- ▢ NATO member

▲ heritage.org

SOURCES: U.S. Department of Defense, Defense Manpower Data Center, September 2015, and Heritage Foundation research.

The document also clearly states that Russia will use every means at its disposal to achieve its strategic goals: "Interrelated political, military, military-technical, diplomatic, economic, informational, and other measures are being developed and implemented in order to ensure strategic deterrence and the prevention of armed conflicts."[39] In December 2014, Putin signed a new version of Russia's military doctrine emphasizing the claimed threat of NATO and global strike systems to Russia.[40]

Russian Strategic Nuclear Threat. Russia possesses the largest arsenal of nuclear weapons among the nuclear powers (when short-range nuclear weapons are included). It is one of the few nations with the capability to destroy many targets in the U.S. homeland and in U.S.-allied nations and to threaten and prevent free access to the commons by other nations. Russia has both intercontinental-range and short-range ballistic missiles and a varied nuclear weapons arsenal that can be delivered by sea, land, and air. It also is investing significant resources in modernizing its arsenal and maintaining the skills of its workforce.

Russia is currently relying on its nuclear arsenal to ensure its invincibility against any enemy, intimidate European powers, and deter counters to its predatory behavior in its "near abroad," primarily in Ukraine but also concerning the Baltic States.[41] This arsenal serves as a protective umbrella under which Russia can modernize its conventional forces at a deliberate pace. While its nuclear deterrent protects Russia from a large-scale attack, Russia also needs a modern and flexible military to fight local wars such as those against Georgia in 2008 and the ongoing war against Ukraine that began in 2014. Under Russian military doctrine, the use of nuclear weapons in conventional local and regional wars is seen as de-escalatory because it would cause an enemy to concede defeat. In May, for example, a Russian parliamentarian threatened that nuclear weapons might be used if the U.S. or NATO were to move to retake Crimea or defend eastern Ukraine.[42]

General Scaparrotti discussed the risks of Russian use of tactical nuclear weapons in his March 23, 2017, EUCOM posture statement: "Most concerning…is Moscow's substantial inventory of non-strategic nuclear weapons in the EUCOM AOR [Area of Responsibility] and its troubling doctrine that calls on the potential use of these weapons to escalate its way out of a failing conflict."[43]

Particularly worrisome are Moscow's plans for rail-based nuclear-armed missiles, which are very difficult to detect. The missiles are scheduled to begin testing in 2019 and to become operational in 2020. Russia reportedly plans to deploy five regiments with a total of 30 railroad ICBMs: six missiles per regiment.[44] The Defense Ministry states that the new armed forces structure is being created with the goal of increased flexibility, mobility, and readiness for combat in limited-scale conflicts. Strategic Rocket Forces are the first line of defense (and offense) against Russia's great-power counterparts.[45]

Russia has two strategies for nuclear deterrence. The first is based on a threat of massive launch-on-warning and retaliatory strikes to deter a nuclear attack; the second is based on a threat of limited demonstration and "de-escalation" nuclear strikes to deter or terminate a large-scale conventional war.[46] Russia's reliance on nuclear weapons is based partly on their small cost relative to conventional weapons (especially in terms of their effect) and on Russia's inability to attract sufficient numbers of high-quality servicemembers. Thus, Russia sees its nuclear weapons as a way to offset the lower quantity and quality of its conventional forces.

Moscow has repeatedly threatened U.S. allies in Europe with nuclear deployments and even preemptive nuclear strikes.[47] The Russians justify their aggressive behavior by pointing to deployments of U.S. missile defense systems in Europe even though these systems are not scaled or postured to mitigate Russia's advantage in ballistic missiles and nuclear weapons to any significant degree.

Russia continues to violate the Intermediate-Range Nuclear Forces (INF) Treaty,

which bans the testing, production, and possession of intermediate-range missiles.[48] In early 2017, Russia fully deployed the SSC-X-8 Cruise Missile in violation of the INF treaty. One battalion with the cruise missile remains at a missile test site in southern Russia, and another battalion with the missile deployed to an operational base in December 2016. U.S. officials acknowledge that the banned cruise missiles are no longer in the testing phase and now consider them to be fully operational.[49] In March, General Paul Selva, Vice Chairman of the Joint Chiefs of Staff, testified that Russia's cruise missile deployment "violates the spirit and intent of the Intermediate Nuclear Forces Treaty" and "presents a risk to most of our facilities in Europe."[50]

WWTA: The 2017 WWTA states that "Russia has developed a ground-launched cruise missile (GLCM) that the United States has declared is in violation of the Intermediate-Range Nuclear Forces (INF) Treaty." Moreover, "[d]espite Russia's ongoing development of other Treaty-compliant missiles with intermediate ranges, Moscow probably believes that the new GLCM provides sufficient military advantages that make it worth risking the political repercussions of violating the INF Treaty."[51]

Summary: The sizable Russian nuclear arsenal remains the only threat to the existence of the U.S. homeland emanating from Europe and Eurasia. While the potential for use of this arsenal remains low, the fact that Russia continues to threaten Europe with nuclear attack demonstrates that it will continue to play a central strategic role in shaping both Russia's military and political thinking and its level of aggressive behavior beyond its borders.

Threat of Regional War

To many U.S. allies, Russia does pose a threat. At times, this threat is of a military nature. At other times, Russia uses less conventional tactics such as cyber-attacks, utilization of energy resources, and propaganda. Today as in Imperial times, Russia's influence is exerted by both the pen and the sword. Organizations like the Collective Security Treaty Organization

(CSTO) or Eurasia Economic Union attempt to bind regional capitals to Moscow through a series of agreements and treaties.

Espionage is another tool that Russia uses in ways that are damaging to U.S. interests. In May 2016, a Russian spy was sentenced to prison for gathering intelligence for the Russian SVR intelligence agency while working as a banker in New York. The spy specifically transmitted intelligence on "potential U.S. sanctions against Russian banks and the United States' efforts to develop alternative energy resources."[52] In May 2016, a senior intelligence official from Portugal working for the Portuguese Security Intelligence Service was arrested for passing secrets to the Russian Federation, especially classified NATO intelligence and material.

Russian intelligence operatives are reportedly mapping U.S. telecommunications infrastructure around the United States near fiber optic cables.[53] In March 2017, the U.S. charged four people including two Russian intelligence officials with directing hacks of user data for Yahoo and Google accounts.[54] In December 2016, the U.S. expelled 35 Russian intelligence operatives, closed two compounds in Maryland and New York that were used for espionage, and levied additional economic sanctions against individuals who took part in interfering in the U.S. election.[55] Russia has also used its relations with friendly nations for espionage purposes. In April, Nicaragua began using a Russian-provided satellite station at Managua that the Nicaraguan government denies is for spying but is still of concern to the U.S.[56]

There are four areas of critical interest to the U.S. in the European region where Russia poses a direct threat: Central and Eastern Europe, the Arctic or High North, the Balkans, and the South Caucasus.

Russian Pressure on Central and Eastern Europe. Moscow poses a security challenge to members of NATO that border Russia. Although the likelihood of a conventional Russian attack against the Baltic States is low, primarily because it would trigger a NATO response, Russia has used nonconventional

means to apply pressure to and sow discord among these countries. The Baltic States continue to view Russia as a significant threat. Lithuania's 2017 National Security Threat Assessment states that Russia is currently "capable to conduct combat activities against the Baltic States with 24–48 hrs. notice."[57]

After World War I, the three Baltic nations of Estonia, Latvia, and Lithuania proclaimed their independence, and by 1923, the U.S. had granted full recognition to all three. In June 1940, as part of the Molotov–Ribbentrop Pact between Nazi Germany and Stalinist Russia, Soviet troops entered and occupied the three Baltic countries. A month later, acting U.S. Secretary of State Sumner Welles issued what was later to be known as the Welles Declaration, condemning Russia's occupation and stating America's refusal to recognize the legitimacy of Soviet control of these three states. The three states regained their independence with the end of the Cold War.

Due to decades of Russian domination, the Baltic States factor Russia into their military planning and foreign policy formulation in a way that is simply unimaginable in many Western European countries and North America. Estonia and Latvia have sizable ethnic Russian populations, and there is concern that Russia might exploit the situation as a pretext for aggression. This view is not without merit, considering Moscow's irredentist rhetoric and Russia's use of this technique to annex Crimea.

Russia has also demonstrated a willingness to use military force to change the borders of modern Europe. When Kremlin-backed Ukrainian President Viktor Yanukovych failed to sign an Association Agreement with the European Union (EU) in 2013, months of street demonstrations led to his ouster early in 2014. Russia responded by violating Ukraine's territorial integrity, sending troops, aided by pro-Russian local militia, to occupy the Crimean Peninsula under the pretext of "protecting Russian people." This led to Russia's eventual annexation of Crimea, the first such forcible annexation of territory in Europe since the Second World War.[58]

Russia's annexation of Crimea has de facto halved Ukraine's coastline, and Russia has claimed rights to underwater resources off the Crimean Peninsula.[59] Russia currently can supply Crimea only by air and sea. Construction has begun on a planned 11.8-mile bridge to connect the Crimean Peninsula with Russia by road and rail at a cost of $3.2 billion to $4.3 billion,[60] but there are significant doubts about the project's economic viability and timeline to completion, as well as the suitability of the strait as a site for a bridge.[61] Russia has deployed 28,000 troops to Crimea and has embarked on a major program to build housing, restore airfields, and install new radars there.[62] In addition, control of Crimea has allowed Russia to use the Black Sea as a platform to launch and support naval operations in the Gulf of Aden and the Eastern Mediterranean.[63] Russia has allocated $1 billion to modernize the Black Sea fleet by 2020 and has stationed additional warships there including two equipped with Caliber-NK long-range cruise missiles.[64] Caliber cruise missiles have a range of at least 2,500km, placing cities from Rome to Vilnius within range of Black Sea–based cruise missiles.[65] In August 2016, Russia deployed S-400 air defense systems with a potential range of around 250 miles to Crimea.[66]

In eastern Ukraine, Russia has helped to foment and sustain a separatist movement. Backed, armed, and trained by Russia, separatist leaders in eastern Ukraine have declared the so-called Lugansk People's Republic and Donetsk People's Republic. Russia has backed separatist factions in the Donbas region of eastern Ukraine with advanced weapons, technical and financial assistance, and Russian conventional and special operations forces. Russian-backed separatists daily violate the September 2014 and February 2015 cease-fire agreements, known respectively as Minsk I and Minsk II.[67] Of the 10,000 deaths produced by the war, approximately a third have occurred since the signing of Minsk II.[68] Alexander Hug, chief of the Organization for Security and Co-operation in Europe (OSCE) Special Monitoring Mission (SMM) to Ukraine,

described the fighting in and around Avdiivka in January 2017 as "the worst fighting we've seen in Ukraine since 2014 and early 2015."[69] Ukrainian troops have been on the receiving end of Russian propaganda. In February, for instance, Ukrainian troops received text messages with such threats as "You are just meat to your commanders," "Your body will be found when the snow melts," and "You're like the Germans in Stalingrad."[70]

The Minsk cease-fire agreements have led to the de facto partition of Ukraine and have created a frozen conflict that remains both deadly and advantageous for Russia. General Scaparrotti described the seriousness of the situation in his 2017 EUCOM posture statement:

> Recently in eastern Ukraine, Russia controls the battle tempo, again ratcheting up the number of daily violations of the cease fire and—even more concerning—directing combined Russian-separatist forces to target civilian infrastructure and threaten and intimidate OSCE monitors in order to turn up the pressure on Ukraine. Furthermore, Moscow's support for so-called "separatists" in eastern Ukraine destabilizes Kyiv's political structures....[71]

Extensive Russian cyber-attacks against Ukraine (more than 6,500 in the last two months of 2016 alone) have targeted government ministries, as well as the energy grid and industrial processes such as the monitoring of oil and gas pipelines.[72] Russia is also employing espionage and misinformation to derail Ukraine. In October 2016, for example, Ukraine announced that it had arrested a Ukrainian on charges of spying for Russian military intelligence.[73] Moscow's poor track record in implementing cease-fires should raise doubts among those who expected that Russia would not use its influence to control the separatists in eastern Ukraine.

Russia is still in violation of the 2008 peace agreement signed to end the war against Georgia. Russian troops are still based in areas where they are not supposed to be, and Moscow continues to prevent international observers from crossing into South Ossetia and Abkhazia even though they patrol freely in the rest of Georgia.

In Moldova, Russia supports the breakaway enclave of Transnistria, where yet another frozen conflict festers to Moscow's liking. According to EUCOM's 2017 posture statement:

> Russia has employed a decades-long strategy of indirect action to coerce, destabilize, and otherwise exercise a malign influence over other nations. In neighboring states, Russia continues to fuel "protracted conflicts." In Moldova, for example, Russia has yet to follow through on its 1999 Istanbul summit commitments to withdraw an estimated 1,500 troops—whose presence has no mandate—from the Moldovan breakaway region of Transnistria. Russia asserts that it will remove its force once a comprehensive settlement to the Transnistrian conflict has been reached. However, Russia continued to undermine the discussion of a comprehensive settlement to the Transnistrian conflict at the 5+2 negotiations.[74]

Whether in Georgia, eastern Ukraine, or Moldova, it is in Russia's interests to keep these conflicts frozen. Russia derives much of its regional influence from these conflicts, and bringing them to a peaceful conclusion would decrease Russia's influence in the region.

The other countries in Central and Eastern Europe also see Russia as a threat, although to varying degrees. Most tend to rely almost completely on Russia for their energy resources, some have felt the sharp end of Russian aggression in the past, and all were once in the Warsaw Pact and fear being forced back into a similar arrangement. Such historical experiences inevitably have shaped Russia's image throughout Central and Eastern Europe.

In November 2016, Russia announced that deployments of advanced mobile S-400 air defense systems and mobile short-range ballistic missile systems including Iskander missiles in the Kaliningrad Oblast exclave would be permanent.[75] There have been reports that it has deployed tactical nuclear weapons in Kaliningrad.[76] Russia also has outfitted a missile brigade in Luga, Russia, a mere 74 miles from

the Estonian city of Narva, with Iskander missiles.[77] Recently, Russian military officials have reportedly asked manufacturers to increase the range of the Iskander missiles and improve their accuracy.[78] Moreover, Russia is not deploying missiles only in Europe. In November 2016, Russia announced that it had stationed Bal and Bastion missile systems on the Kurile islands of Iturup and Kunashir, which are also claimed by Japan.[79]

Russia has deployed additional troops and capabilities near its western borders. Bruno Kahl, head of the German Federal Intelligence Service, stated in March 2017 that "Russia has doubled its fighting power on its Western border, which cannot be considered as defensive against the West."[80] In January, Russia's defense ministry announced that four S-400 air defense systems would be deployed to the Western Military District in 2017.[81] In January 2016, Commander in Chief of Russian Ground Forces General Oleg Salyukov announced that four new ground divisions would be formed in 2016, three of which would be based in the Western Military District, allegedly in response to "intensified exercises of NATO countries."[82] According to an assessment published by the Carnegie Endowment for International Peace, "The overall effect is to produce a line of substantial Russian combat forces along the western border, including opposite Belarus. By contrast with the ad hoc arrangements of the early stages of the conflict with Ukraine, these new forces are permanently established."[83]

WWTA: The WWTA states that Russian "strategic objectives in Ukraine—maintaining long-term influence over Kyiv and frustrating Ukraine's attempts to integrate into Western institutions—will remain unchanged in 2017" and that Vladimir Putin "is likely to maintain pressure on Kyiv through multiple channels, including through Russia's actions in eastern Ukraine, where Russia arms so-called 'separatists.'" In addition, Moscow "seeks to undermine Ukraine's fragile economic system and divided political situation to create opportunities to rebuild and consolidate Russian influence in Ukrainian decision making." The

WWTA also states that "[s]ettlement talks over the breakaway region of Transnistria will continue, but any progress is likely to be limited to smaller issues."[84]

Summary: NATO members in Eastern and Central Europe view Russia as a threat, a fear that is not unfounded considering Russian aggression against Ukraine and Georgia. The threat of conventional attack against a NATO member by Russia remains low but cannot be ruled out entirely. Russia's grasp and use of unconventional warfare against neighboring countries should remain a top issue for U.S. and NATO planners.

Militarization of the High North. The Arctic region is home to some of the roughest terrain and harshest weather found anywhere in the world. Increasingly, the melting of Arctic ice during the summer months is causing new challenges for the U.S. in terms of Arctic security. Many of the shipping lanes currently used in the Arctic are a considerable distance from search and rescue (SAR) facilities, and natural resource exploration that would be considered routine in other locations is complex, costly, and dangerous in the Arctic.

The U.S. is one of five littoral Arctic powers and one of only eight countries with territory located above the Arctic Circle, the area just north of 66 degrees north latitude that includes portions of Norway, Sweden, Finland, Russia, Canada, Greenland, Iceland, and the United States.
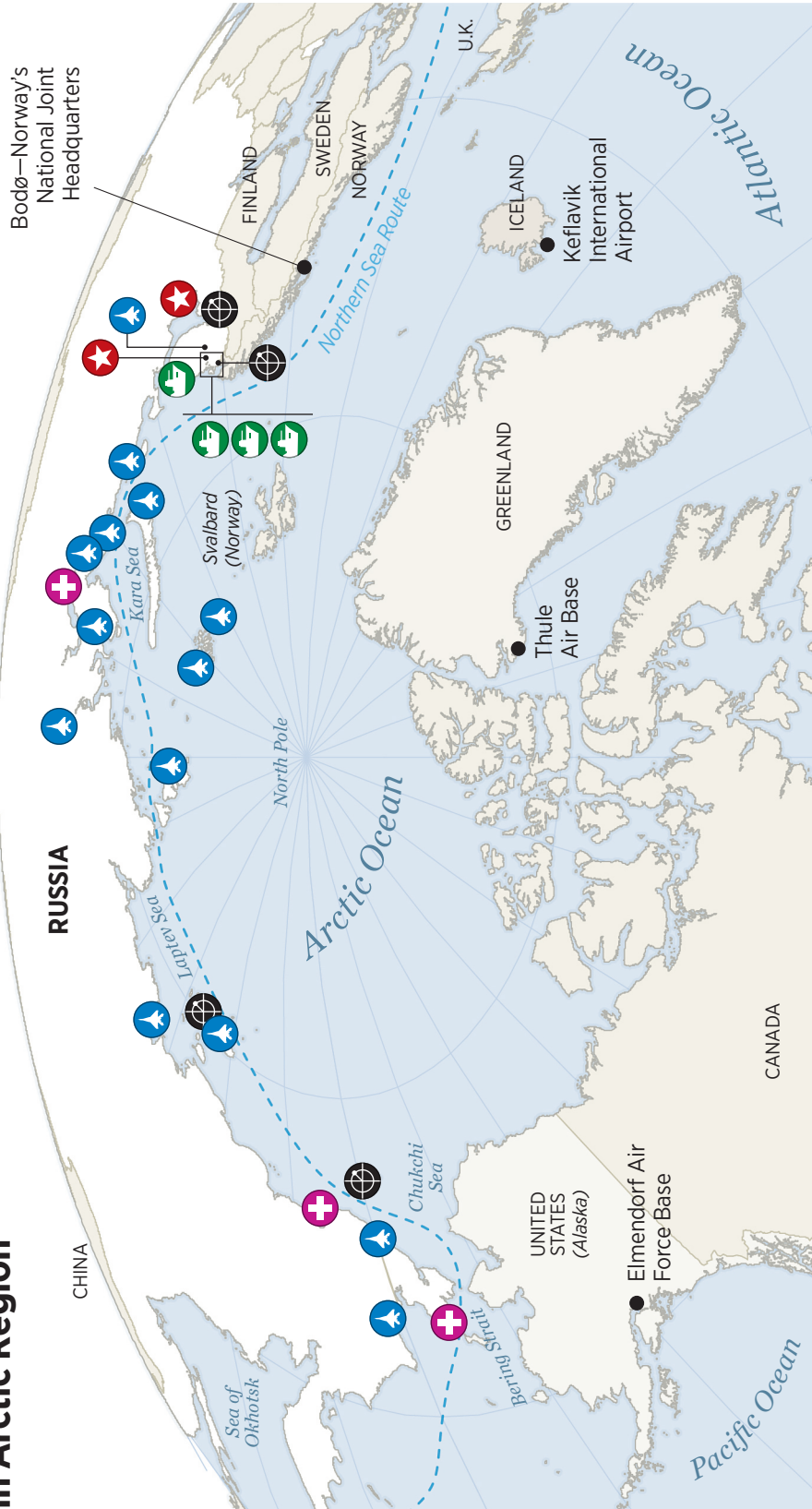
Arctic actors take different approaches to military activity in the region. Although the security challenges currently faced in the Arctic are not yet military in nature, there is still a requirement for military capability in the region that can support civilian authorities. For example, civilian SAR and response to natural disasters in such an unforgiving environment can be augmented by the military.

Russia has taken steps to militarize its presence in the region. In March, a decree signed by Russian President Putin gave the Federal Security Service (FSB) additional powers to confiscate land "in areas with special objects for land use, and in the border areas."[85] Russia's

MAP 5

Russia Maintains Strong Base Presence in Arctic Region

Bodø—Norway's National Joint Headquarters

⊕ Rescue centers*

⊕ Joint bases

✈ Air bases

✈ Naval bases

★ Headquarters

ICELAND
Keflavik International Airport

FINLAND
SWEDEN
NORWAY
U.K.

Northern Sea Route

Svalbard (Norway)

Kara Sea

GREENLAND

Thule Air Base

North Pole

Arctic Ocean

Atlantic Ocean

RUSSIA

Laptev Sea

CHINA

Sea of Okhotsk

Chukchi Sea

CANADA

UNITED STATES (Alaska)

Elmendorf Air Force Base

Bering Strait

Pacific Ocean

* Rescue centers have potential for dual-purpose use as military installations.
SOURCE: Heritage Foundation research.

⌂ heritage.org

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Arctic territory is included within this FSB-controlled border zone. In a parade on May 9, 2017, Russia showcased its Pantsir-SA SAM system, which is designed to operate in the Arctic. The system began firing trials in June.[86] In addition, the Arctic-based Northern Fleet accounts for two-thirds of the Russian Navy. A new Arctic command was established in 2015 to coordinate all Russian military activities in the Arctic region.[87] Two Arctic brigades have been formed, and Russia is planning to form Arctic Coastal Defense divisions,[88] which will be under the command of the Northern Fleet and stationed in the Kola Peninsula and in Russia's eastern Arctic.[89]

Russia is also investing in Arctic bases. Its base on Alexandra Land, which will be commissioned in 2017,[90] can house 150 soldiers autonomously for up to 18 months.[91] In addition, old Soviet-era facilities have been reopened. The airfield on Kotelny Island, for example, has been put into use for the first time in almost 30 years.[92] The base will house 250 people and will have air defense missiles.[93]

In fact, air power in the Arctic is increasingly important to Russia, which has 14 operational airfields in the Arctic along with 16 deep-water ports.[94] The 45th Air Force and Air Defense Army of the Northern Fleet was formed in December 2015, and Russia reportedly has placed radar and S-300 missiles on the Arctic bases at Franz Joseph Land, New Siberian Islands, Novaya Zemlya, and Severnaya Zemlya.[95]

Russia's ultimate goal is to have a combined Russian armed force deployed in the Arctic by 2020, and it appears that Moscow is on track to accomplish this.[96] Russia is developing equipment optimized for Arctic conditions like the Mi-38 helicopter[97] and three new nuclear icebreakers to add to the 40 icebreakers already in service (six of which are nuclear).[98] Admiral Paul F. Zukunft, Commandant of the U.S. Coast Guard, has expressed concern that "Russia probably is going to launch two icebreaking corvettes with cruise missiles on them over the course of the next several years."[99] Russia's Northern Fleet is also building newly refitted submarines including "a newly converted Belgorod nuclear submarine in 2018 to carry out "special missions."[100] Construction on the vessel had been suspended in 2000 when the *Kursk*, its sister submarine, sank. According to Russian media reports, the submarine "will be engaged in studying the bottom of the Russian Arctic shelf, searching for minerals at great depths, and also laying underwater communications."[101] In May, Russia announced that its buildup of the Northern Fleet's nuclear capacity is intended "to phase 'NATO out of [the] Arctic.'"[102]

Russia's Maritime Doctrine of Russian Federation 2020, adopted in July 2015, lists the Arctic as one of two focal points along with the Atlantic, a point emphasized by Deputy Prime Minister Dmitry Rogozin.[103] In April 2016, a Russian Severodvinsk submarine participated in Arctic exercises that involved 20 vessels and fired a Kalibr cruise missile that reportedly hit a target on land.[104]

Also in April 2016, Russian and Chechen paratroopers took part in separate military exercises in the Arctic. It was not the first time that these exercises had taken place. In 2014, 90 paratroopers landed on Barneo ice camp in the Arctic; in 2015, 100 paratroopers from Russia, Belarus, and Tajikistan took part in exercises on Barneo.[105] In advance of the April 2016 exercises, personnel and equipment were transferred through Longyearbyen airport on Svalbard, over which Norway has sovereignty. The use of the airport likely violated the Svalbard Treaty, which demilitarized the islands.[106]

WWTA: The WWTA assesses that "as the Arctic becomes more open to shipping and commercial exploitation," the "risk of competition over access to sea routes and resources, including fish, will include countries traditionally active in the Arctic as well as other countries that do not border on the region but increasingly look to advance their economic interests there."[107]

Summary: While NATO has been slow to turn its attention to the Arctic, Russia continues to develop and increase its military capabilities in the region. The likelihood of armed

conflict remains low, but physical changes in the region mean that the posture of players in the Arctic will continue to evolve. It is clear that Russia intends to exert a dominant influence. In the words of EUCOM's 2017 posture statement, "Russia is reasserting its military prowess and positioning itself for strategic advantage in the Arctic."[108]

Threat from Russian Propaganda. Russia has consistently used propaganda to garner support for its foreign policies. The 2016 Concept of the Foreign Policy of the Russian Federation makes clear the Russian government's aims in using mass media to further its foreign policy objectives:

> Russia seeks to ensure that the world has an objective image of the country, develops its own effective ways to influence foreign audiences, promotes Russian and Russian-language media in the global information space, providing them with necessary government support, is proactive in international information cooperation, and takes necessary steps to counter threats to its information security. New information and communication technology is used to this end.[109]

Russian media are hardly independent. Russia ranked 148th out of 180 countries in Reporters Without Borders' *2017 World Press Freedom Index,* the same as its ranking in the 2016 edition.[110] Specifically:

> What with draconian laws and website blocking, the pressure on independent media has grown steadily since Vladimir Putin's return to the Kremlin in 2012. Leading independent news outlets have either been brought under control or throttled out of existence. As TV channels continue to inundate viewers with propaganda, the climate has become increasingly oppressive for those who try to maintain quality journalism or question the new patriotic and neo-conservative. More and more bloggers are receiving prisons sentences for their activity on online social networks. The leading human rights NGOs have been declared "foreign agents." The oppressive climate at the national level encourages powerful provincial officials far from Moscow to crack down even harder on their media critics.[111]

Much of Moscow's propaganda is meant for domestic Russian audiences, who still rely widely on television for their news. Russia's leaders are reportedly looking to overhaul TV to improve its ability to attract young audiences who have been turning increasingly to social media and online news for information.[112] Widespread demonstrations against corruption in March were striking not only because they occurred in over 100 cities and towns across Russia, but also because they were heavily attended by young Russians, who are not as affected by TV-based propaganda.[113]

In addition to retaining power internally, Russia's leaders are working actively to influence audiences abroad. In 2016, Russia allocated $900 million toward propaganda efforts.[114] Russian propaganda TV network RT received around $310 million in state funding in 2016.[115] While its overall budget is expected to stay the same in 2017, RT will receive an extra $19 million to start a French-language TV channel to complement an existing French-language website.[116]

In EUCOM's 2016 posture statement, General Breedlove described how Russian propaganda works: "Russia overwhelms the information space with a barrage of lies that must be addressed by the United States more aggressively in both public and private sectors to effectively expose the false narratives pushed daily by Russian-owned media outlets and their proxies."[117] British Defence Secretary Michael Fallon sees Russia as "a country that in weaponizing misinformation has created what we might now see as the post-truth age."[118]

In Ukraine, examples abound. For instance, Russian media have promoted the false claims that Russia is simply defending ethnic Russians in Ukraine from far-right thugs, that the government in Kyiv is to blame for the violence that has enveloped parts of the country, and that the U.S. has instigated unrest in Ukraine.[119] In 2014, after a civilian airliner was shot down by Russian-backed separatists, Russian propaganda put out stories alleging that the plane was shot down by the Ukrainian government.[120]

Nor are Russian propaganda efforts limited only to TV channels. There are widespread reports that the Russian government has paid people to post comments to Internet articles that parrot the government's propaganda.[121] People working in so-called troll factories with English-language skills are reportedly paid more.[122] Twitter has been used in Ukraine to disseminate false or exaggerated Russian government claims. The 2017 EUCOM posture statement includes several instructive examples of Russian propaganda efforts:

> Examples include Russia's outright denial of involvement in the lead up to Russia's occupation and attempted annexation in Crimea; attempts to influence elections in the United States, France and elsewhere; its aggressive propaganda campaigns targeting ethnic Russian populations among its neighbors; and cyber activities directed against infrastructure in the Baltic nations and Ukraine.[123]

Russian propaganda poses its greatest threat to NATO allies that have a significant ethnic Russian population: the Baltic States, especially Estonia and Latvia. Many ethnic Russians in these countries get their news through Russian-language media (especially TV channels) that parrot the official Russian state line, often interspersed with entertainment shows, making it more appealing to viewers. In 2014, Lithuania and Latvia temporarily banned certain Russian TV stations such as RTR Rossiya in light of Russian aggression in Ukraine,[124] and in March 2016, Latvia banned the Russian "news agency" and propaganda website Sputnik from operating in the country.[125] Lithuanian Defense Minister Raimundas Karoblis stated in April 2017 that he believed Russian disinformation, especially propaganda stating that the capital city of Vilnius never belonged to Lithuania, are meant to lay the groundwork for future "kinetic operations."[126]

The inability to reach ethnic Russians in their vernacular remains a glaring vulnerability for planners when thinking about Baltic security. In an effort to provide an independent, alternative Russian-language media outlet, Estonia, Latvia, and Lithuania are in various stages of planning and creating their own Russian-language programming to counter Russian propaganda efforts.[127] In September 2015, Estonia launched ETV+, a Russian-language TV channel.[128] Lithuania announced a temporary ban on the Russian state TV channel RTR Planeta in November 2016 and has limited the amount of Russian-language TV in the country.[129] Latvia has imposed similar temporary bans, including on Russian channel Rossiya RTR in April 2016, and has sought to help journalists counter Russian propaganda through workshops.[130]

Outside of the Baltics, in May 2016, Ukraine announced a long-term ban on a number of Russian TV channels, websites, and Russian media personnel.[131] The U.S., albeit belatedly, has also begun efforts to produce Russian-language programming. Current Time, a Russian-language network that is the result of collaboration between the Voice of America and Radio Free Europe/Radio Liberty, began broadcasting in February 2017. Its 24-hour broadcasts are "an eclectic mix of documentaries, human interest programming and traditional news shows."[132]

As General Scaparrotti testified in March, Russian propaganda and disinformation should be viewed as an extension of Russia's military capabilities: "The Russians see this as part of that spectrum of warfare, it's their asymmetric approach."[133] Russia has also sought to use misinformation to undermine NATO's Enhanced Forward Presence in the Baltics. In April, Russian hackers planted a false story about U.S. troops being poisoned by mustard gas in Latvia on the Baltic News Service's website.[134] Similarly, Lithuanian parliamentarians and media outlets began receiving e-mails in February containing a false story that German soldiers had sexually assaulted an underage Lithuanian girl.[135] U.S. troops stationed in Poland for NATO's EFP have been the target of similar Russian misinformation campaigns.[136]

WWTA: The WWTA states that "Russia is likely to sustain or increase its propaganda

campaigns."[137] It also makes clear the link between cyber operations and information operations: "Information from cyber espionage can be leaked indiscriminately or selectively to shape perceptions. Furthermore, even a technically secure Internet can serve as a platform for the delivery of manipulative content crafted by foes seeking to gain influence or foment distrust."[138]

Summary: Russia has used propaganda consistently and aggressively to advance its foreign policy aims. This is likely to remain an essential element of Russian aggression and planning. The potential for its use to stir up agitation in the Baltic States, to undermine NATO, and to expose fissures between Western states makes Russian propaganda a continued threat to regional stability and a possible threat to the NATO alliance.

Russian Destabilization in the South Caucasus. The South Caucasus sits at a crucial geographical and cultural crossroads and has proven to be strategically important, both militarily and economically, for centuries. Although the countries in the region (Armenia, Georgia, and Azerbaijan) are not part of NATO and therefore do not receive a security guarantee from the United States, they have participated to varying degrees in NATO and U.S.-led operations. This is especially true of Georgia, which aspires to join NATO.

Russia views the South Caucasus as part of its natural sphere of influence and stands ready to exert its influence in the region by force if necessary. In August 2008, Russia invaded Georgia, coming as close as 15 miles to the capital city of Tbilisi. Seven years later, several thousand Russian troops occupied the two Georgian provinces of South Ossetia and Abkhazia.

In 2015, Russia signed so-called integration treaties with South Ossetia and Abkhazia. Among other things, these treaties call for a coordinated foreign policy, creation of a common security and defense space, and implementation of a streamlined process for Abkhazians and South Ossetians to receive Russian citizenship.[139] The Georgian Foreign Ministry

criticized the treaties as a step toward "annexation of Georgia's occupied territories,"[140] both of which are still internationally recognized as part of Georgia. In March 2017, Putin approved an agreement with South Ossetia to incorporate "some military units" into the Russian Army, a development that Georgian authorities denounced as "yet another Russian provocation aimed at destabilizing the region."[141] In January, Russia announced tank drills in Abkhazia with over 2,000 troops, armored personnel carriers, and Russian T-72B3 tanks.[142] Russia has based 7,000 soldiers in Abkhazia and South Ossetia[143] and is regularly expanding its "creeping annexation" of Georgia.[144] In July 2015, Russian troops expanded the border of the occupied territories to include a piece of the Baku–Supsa pipeline, which carries oil from Azerbaijan to Supsa, Georgia, with a capacity of 100,000 barrels a day and is owned by British Petroleum.[145]

Towns are split in two and families are separated as a result of Russia's occupation and imposition of an internal border. In 2016 alone, 134 people were detained by Russian border guards for illegal crossings into South Ossetia.[146] In April 2017, South Ossetia held a referendum to change its name to the "Republic of South Ossetia-Alania." The referendum, along with elections in Abkhazia in March and South Ossetia in April, was widely unrecognized including by the U.S., Georgia, and NATO.[147]

Today, Moscow continues to exploit ethnic divisions and tensions in the South Caucasus to advance pro-Russian policies that are often at odds with America's or NATO's goals in the region, but Russia's influence is not restricted to soft power. In the South Caucasus, the coin of the realm is military might. It is a rough neighborhood surrounded by instability and insecurity reflected in terrorism, religious fanaticism, centuries-old sectarian divides, and competition for natural resources.

Russia maintains a sizable military presence in Armenia based on an agreement giving Moscow access to bases in that country for 49 years.[148] The bulk of Russia's forces, consisting of approximately 5,000 soldiers, dozens of

fighter planes and attack helicopters, and approximately 100 T-72 tanks, as well as S-300 and Buk M01 air defense systems, are based around the 102nd Military Base.[149] In 2015, Russia and Armenia signed a Combined Regional Air Defense System agreement. This past year, Armenia acquired Russian Iskander missiles, although there is "a lack of consensus among defense experts on who really controls these Armenian Iskander missiles—Moscow or Yerevan."[150] In addition to a joint air defense zone, Russia and Armenia signed a joint forces agreement in December 2016. Under this agreement, the initial term of which is five years, leadership of the combined force transfers to Russia's Southern Military District Commander during periods of hostility.[151]

Another source of regional instability is the Nagorno–Karabakh conflict, which began in 1988 when Armenia made territorial claims to Azerbaijan's Nagorno–Karabakh Autonomous Oblast.[152] By 1992, Armenian forces and Armenian-backed militias occupied 20 percent of Azerbaijan, including the Nagorno–Karabakh region and seven surrounding districts. A cease-fire agreement was signed in 1994, and the conflict has been described as frozen since then. Since August 2014, violence has increased noticeably along the Line of Contact between Armenian and Azerbaijani forces. Intense fighting in April 2016 left 200 dead.[153] In addition, Azerbaijani forces recaptured some of the territory lost to Armenia in the early 1990s, the first changes in the Line of Contact since 1994.[154] Recently, tensions have simmered, and smaller-scale fighting has continued to prove deadly. In June 2017, the International Crisis Group reported that "[a] year after Nagorno–Karabakh's April 2016 violent flare-up, Armenia and Azerbaijan are closer to war than at any point since the 1994 ceasefire."[155]

This conflict offers another opportunity for Russia to exert malign influence and consolidate power in the region. While its sympathies lie with Armenia, Russia is the largest supplier of weapons to both Armenia and Azerbaijan.[156] As noted by the late Dr. Alexandros Petersen, a highly respected expert on Eurasian security, it

is no secret "that the Nagorno–Karabakh dispute is a Russian proxy conflict, maintained in simmering stasis by Russian arms sales to both sides so that Moscow can sustain leverage over Armenia, Azerbaijan and by its geographic proximity Georgia."[157]

Following the outbreak of fighting, Russia expanded its influence in the region by brokering a shaky cease-fire that has largely held. By the time the OSCE Minsk Group, created in 1995 to find a peaceful solution to the Nagorno–Karabakh conflict, met, the Russian-brokered cease-fire was already in place.[158]

The South Caucasus might seem distant to many American policymakers, but the spillover effect of ongoing conflict in the region can have a direct impact on both U.S. interests and the security of America's partners, as well as on Turkey and other countries that are dependent on oil and gas transiting the region.

WWTA: The WWTA predicts that the "potential for large-scale hostilities [in the Nagorno–Karabakh region] will remain in 2017" and that the Georgian government will continue on the path of Euro-Atlantic integration.[159]

Summary: Russia views the South Caucasus as a vital theater and uses a multitude of tools that include military aggression, economic pressure, and the stoking of ethnic tensions to exert influence and control, usually to promote outcomes that are at odds with U.S. interests.

Russia's Actions in Syria. Although Russia has had a military presence in Syria for decades, in September 2015, it became the decisive actor in Syria's ongoing civil war, having saved Bashar al-Assad from being overthrown and having strengthened his hand militarily, thus enabling government forces to retake territory lost during the war. In January 2017, Russia signed an agreement with the Assad regime to expand the naval facility at Tartus (Russia's only naval base on the Mediterranean) "under a 49-year lease that could automatically renew for a further 25 years." The planned expansion reportedly would "provide simultaneous berthing for up to 11 warships, including nuclear-powered vessels, more than doubling its present known capacity."[160]

The agreement also includes upgrades to the Hmeymim air base at Latakia, including repairs to a second runway.[161] Russia deployed the S-400 anti-aircraft missile system to Hmeymim in late 2015.[162]

Russia's actions in Syria provide a useful propaganda tool. In May 2016, for example, one hundred journalists toured Palmyra, a city that Russia had helped Assad's forces retake with air strikes and Special Forces troops.[163] In addition, Russia is using Syria as a testing ground for new weapons systems while obtaining valuable combat experience for its troops. According to Lieutenant General Ben Hodges, Commander, U.S. Army Europe, Russia has used its intervention in Syria as a "live-fire training opportunity."[164] In February 2017, Russian Defense Minister Sergei Shoigu claimed that Russia had tested 162 weapons systems in Syria.[165] Despite this display of Russian arms in Syria, however, Russian weapons exports have remained flat, in part because India and China are developing more weapons systems domestically.[166] In 2016, Russian arms exports rose slightly to $15 billion, up from $14.5 billion in 2015 but still lower than $15.7 billion in 2013.[167]

Russia's activities in Syria have allowed Assad to stay in power and have made achievement of a peaceful political settlement with rebel groups nearly impossible. They also have undermined American policy in the Middle East, including by frequently targeting forces backed by the U.S. As summarized in EUCOM's 2017 posture statement:

> Russia's military intervention has changed the dynamics of the conflict, bolstered the Bashar al-Assad regime, targeted moderate opposition elements, and compounded human suffering in Syria, and complicated U.S. and coalition operations against the Islamic State of Iraq and Syria (ISIS). Russia has used this chaos to establish a permanent presence in the Middle East and eastern Mediterranean.[168]

The Putin regime will likely seek to link cooperation in Syria with a softening of U.S. policy in Europe, especially with regard to economic sanctions.

Russian pilots have occasionally acted dangerously in the skies over Syria. In one incident in May 2017, a Russian fighter jet intercepted a U.S. KC-10 tanker, performing a barrel roll over the top of the KC-10.[169] That same month, Russia stated that U.S. and allied aircraft would be banned from flying over large areas of Syria because of a deal agreed to by Russia, Iran, and Turkey. The U.S. responded that the deal does not "preclude anyone from going after terrorists wherever they may be in Syria."[170] The U.S. and Russia have a deconfliction hotline to avoid mid-air collisions and incidents. In April, Russia threatened to cut the line following U.S. cruise missile strikes against a Syrian airbase.[171] In May, Lieutenant General Jeffrey Harrigian, Commander of U.S. Air Forces Central Command, reported increased use of the line as a result of stepped up operations near Raqqa.[172]

WWTA: The WWTA concludes that "Moscow's deployment of combat assets to Syria in late 2015 helped change the momentum of the conflict."[173] It further concludes that "Russia will continue to look to leverage its military support to the Asad regime to drive a political settlement process in Syria on its terms"; that "Moscow has demonstrated that it can sustain a modest force at a high-operations tempo in a permissive, expeditionary setting while minimizing Russian casualties and economic costs"; and that "Moscow is also likely to use Russia's military intervention in Syria, in conjunction with efforts to capitalize on fears of a growing ISIS and extremist threat, to expand its role in the Middle East."[174]

Summary: While not an existential threat to the U.S., Russia's intervention in Syria ensures that any future settlement will be run through Moscow and will include terms consistent with Russian strategic interests. Russia's intervention in Syria has helped to keep Assad in power, has further entrenched Russia's military position in the region, and has greatly degraded the impact of U.S. policy in Syria, often seeking to counteract U.S. actions and targeting U.S.-backed forces on the ground.

The Balkans. Security has improved dramatically in the Balkans since the 1990s, but violence

based on religious and ethnic differences remains an ongoing possibility. These tensions are exacerbated by sluggish economies, high unemployment, and political corruption. According to the 2017 EUCOM posture statement, "[t]he Balkans' stability since the late 90's masks political and socio-economic fragility," and Russia's influence in the region has led to further destabilization: "In the Balkans, Russia exploits ethnic tensions to slow progress on European and transatlantic integration. In 2016, Russia overtly interfered in the political processes of both Bosnia–Herzegovina and Montenegro."[175]

Senior members of the Russian government have cited NATO enlargement in the Balkans as one of the biggest threats to Russia.[176] In June 2017, Montenegro became NATO's 29th member state, joining Albania and Croatia as NATO member states in the Balkans. Russia stands accused of being behind a failed plot to break into Montenegro's parliament on election day in 2016, assassinate its former prime minister, and install a pro-Russian government. Russia has denied involvement in the plot, but Montenegro's chief prosecutor has named two Russian citizens as the alleged organizers and has characterized the plot as the work of "nationalists from Russia."[177]

After Russia annexed Crimea, the Montenegrin government backed European sanctions against Moscow and even implemented its own sanctions. Nevertheless, Russia has significant economic influence in Montenegro and in 2015 sought unsuccessfully to gain access to Montenegrin ports for the Russian navy to refuel and perform maintenance.

Serbia in particular has long served as Russia's foothold in the Balkans. Both Russia and Serbia are Orthodox countries, and Russia wields huge political influence in Serbia. Moscow backed Serbian opposition to Kosovo's independence in 2008 and continues to use Kosovo's independence to justify its own actions in Crimea, South Ossetia, and Abkhazia. Russian media are active in the country, broadcasting in Serbian.[178]

Serbia and Russia have signed a strategic partnership agreement focused on economic issues. Russia's inward investment is focused on the transport and energy sectors. Except for those in the Commonwealth of Independent States, Serbia is the only country in Europe that has a free trade deal with Russia. It therefore seemed odd when Russia decided to scrap the South Stream gas pipeline, likely costing Serbia billions of euros of inward investment and thousands of local jobs. Even with the negative impact of the South Stream cancellation, however, Serbia will likely continue to consider Russia its closest ally.

Serbia's current president is trying to walk a fine line, promising closer ties with Russia, after speaking out against sanctions imposed on Russia because of its actions in Ukraine,[179] while also promising to continue on the path to EU integration.[180] In October, the Russian ambassador to Serbia warned of damage to bilateral economic relations if Serbia were to join the EU.[181] With 80 percent of its gas coming from Russia, Serbia remains dependent on Russian energy. In January, seeking to diversify its energy supply, Serbia signed a memorandum of understanding with Bulgaria to develop an energy link between the two nations.[182]

The Russian–Serbian military relationship is similarly close. Russia signed an agreement with Serbia to allow Russian soldiers to be based at Niš airport, which Serbia has used to meddle in northern Kosovo.[183] Serbia has observer status in the Collective Security Treaty Organization, Russia's answer to NATO, and has signed a 15-year military cooperation agreement with Russia that includes the sharing of intelligence, military officer exchanges, and joint military exercises. The situation in Ukraine has not changed Serbian attitudes regarding military cooperation with Russia. During a state visit in October 2014, Putin was honored with the largest Serbian military parade since the days of Yugoslavia.[184] The two countries have also carried out military training exercises, and Serbia has inquired about obtaining Russia's S-300 surface-to-air missile system.[185] Following a May 2017 visit to Russia, Serbian Defense Minister Zoran Djordjevic stated that Russia had agreed to deliver

six MiG-29s, 30 T-72 tanks, and 30 BRDM-2 armored vehicles to Serbia.[186]

In November 2016, Serbia hosted a joint exercise named Slavic Brotherhood with Belarus and Russia that consisted of 700 troops. However, Serbia still exercises far more without Russia than with Russia: "In 2016, out of 26 training exercises only two are with Russia. Out of 21 multinational training drills in 2015, the Serbian military participated in only two with Russia."[187] Like Russia, Serbia is a member of NATO's Partnership for Peace program. Additionally, Serbia has been part of the U.S. National Guard's State Partnership Program, partnering with the State of Ohio since 2006.

Russia is also active in Bosnia and Herzegovina—specifically, the ethnically Serb Republika Srpska, one of two substate entities inside Bosnia and Herzegovina that emerged from that country's civil war in the 1990s.

Bosnia and Herzegovina is on the path to joining the transatlantic community but has a long way to go. It negotiated a Stabilization and Association Agreement with the EU, but the agreement is not in force because key economic and political reforms have not been implemented. In 2010, NATO offered Bosnia and Herzegovina a Membership Action Plan, but progress on full membership has been stalled because immovable defense properties are still not controlled by the Ministry of Defense. Moscow knows that exploiting internal ethnic and religious divisions among the Serb, Bosniak, and Croat populations is the easiest way to prevent Bosnia and Herzegovina from entering the transatlantic community.

Republika Srpska's leader, Milorad Dodik, has long advocated independence for the region and has enjoyed a very close relationship with the Kremlin. Recent events in Ukraine, especially the annexation of Crimea, have inspired more separatist rhetoric in Republika Srpska. In many ways, Russia's relationship with Republika Srpska is akin to its relationship with Georgia's South Ossetia and Abkhazia autonomous regions: more like a relationship with another sovereign state than a relationship with a semiautonomous region inside Bosnia

and Herzegovina. When Putin visited Serbia in October 2014, Dodik was treated like a head of state and invited to Belgrade to meet with him. More recently, in September 2016, Dodik was treated as a head of state on a visit to Moscow just days before a referendum that chose January 9 as Republika Srpska's "statehood day," a date filled with religious and ethnic symbolism for the Serbs.[188] Republika Srpska hosted its "statehood day" in defiance of a ruling by Bosnia's federal constitutional court that both the celebration and the referendum establishing it were illegal.[189] The U.S. sanctioned Dodik in January 2017, saying that "by obstructing the Dayton accords, Milorad Dodik poses a significant threat to the sovereignty and territorial integrity of Bosnia–Herzegovina."[190] Dodik has further promised to hold a referendum on independence by the end of 2018.[191]

Russia has also cast doubt on the future of the European-led peacekeeping operations in Bosnia and Herzegovina. Russian Foreign Minister Sergei Lavrov said in January that "We have reminded our Western partners multiple times that it's getting indecent to retain in Bosnia and Herzegovina, which is considered to be an independent state, the so-called Office of the High representative" that was created by the Dayton accords.[192] Russia, which holds veto power in the U.N. Security Council, abstained in November 2015 during the annual vote on extending the peacekeeping mission.[193] This was the first time in 14 years that it failed to vote for this resolution. When a U.N. resolution extending the mandate of the EUFOR ALTHEA mission to Bosnia and Herzegovina was adopted unanimously in 2016, Russia's U.N. representative condemned alleged "anti-Serbian bias" and again urged that international monitors be removed from the country.[194]

The situation with Kosovo remains fragile, but an EU-led rapprochement between Kosovo and Serbia has shown signs of modest success. In January, a train traveling from Belgrade to Mitrovica, a heavily Serb town in Kosovo, was stopped at the Kosovar border. The Russian-made train was "painted in the colors of the Serbian flag and feature[d] pictures of

churches, monasteries, and medieval towns, as well as the words 'Kosovo is Serbian' in 21 languages."[195] The incident raised tensions in the region significantly.

Macedonia has made great progress toward joining NATO but has been blocked by Greece because of a name dispute. Macedonia faced six months of unrest and massive protests after elections in December produced a hung Parliament. Tensions remain high. A coalition government took office in May. It includes two ethnic Albanian parties that are seeking concessions, including that Albanian be made a second language, as a condition of their continued support.[196]

Another challenge for the region is the increasing presence of the Islamic State and the rise of extremism. Thankfully, the region has not suffered a major attack from ISIS, but it has served as a fertile recruiting ground for the Islamic State. Several hundred fighters from the Balkans are in Iraq and Syria.[197] Most of these foreign fighters, who have formed a so-called Balkans Battalion for Islamic State, have come from Kosovo, but others can be traced back to Albania, Bosnia, and the Republic of Macedonia.

The closing of the Balkan route for migrants means that Islamist transit through the region no longer poses the threat that it once did. Some of the terrorists who perpetrated attacks in Paris in November 2015 and Brussels in 2016 are known to have transited through the Balkan Peninsula. However, the region remains fertile ground for Islamist ideology,[198] which is spread in part by Salafists operating in the region who are backed by countries like Saudi Arabia.[199]

The U.S. has invested heavily in the Balkans since the end of the Cold War. Tens of thousands of U.S. servicemembers have served in the Balkans, and the U.S. has spent billions of dollars in aid there, all in the hope of creating a secure and prosperous region that will someday be part of the transatlantic community.

WWTA: The WWTA notes that the tightening of border controls in the Balkans has led to a limitation of migration to Europe.[200]

Summary: The Balkans are being squeezed from three sides: by increased Russian involvement in internal affairs, ISIS using the region as a transit and recruiting ground, and continued economic sluggishness and unemployment. The region faced greater turmoil over the past year than it has for some time. Russia continues to inflame historic religious and ethnic tensions to maximize its influence and destabilize the region.

Threats to the Commons

Other than cyberspace and (to some extent) airspace, the commons are relatively secure in the European region. Despite periodic Russian aggressive maneuvers near U.S. and NATO vessels, this remains largely true with respect to the security of and free passage through shipping lanes in the region. The maritime domain is heavily patrolled by the navies and coast guards of NATO and NATO partner countries; except in remote areas in the Arctic Sea, search and rescue capabilities are readily available; maritime-launched terrorism is not a significant problem; and piracy is virtually nonexistent in the European region.

Sea. In May 2017, three Russian corvettes sailed four nautical miles off the Latvian coast within the Exclusive Economic Zone (EEZ) of Latvia; in April, a *Kilo*-class Russian submarine was detected near Latvian sea space.[201] Altogether, 209 Russian aircraft or naval vessels were detected near Latvian air or sea space in 2016.[202] Also in May, two Russian Su-24 fighters flew within 200 meters of a Dutch frigate, the HNLMS *Evertsen*.[203] On February 10, the USS *Porter*, a destroyer operating in international waters in the Black Sea, was buzzed by two Russian Su-24 fighters, followed by a solo Su-24 and finally by a Russian IL-38. The aircraft were flying with their transponders switched off and did not respond to radio requests to stop. A spokesperson for EUCOM said that such buzzing incidents are "always concerning because they could result in miscalculation or accident."[204]

Moreover, Russian aggressive actions in the sea-lanes extend beyond European waters. In

April, Russian surveillance ships followed the Carl Vinson Strike Group, which the U.S. had deployed near the Korean Peninsula in the Pacific.[205]

Russian threats to the maritime theater are not limited to surface vessels. In October 2015, news reports of Russian vessels operating aggressively near undersea communications cables raised concerns that Russia might be laying the groundwork for severing the cables in the event of a future conflict.[206] According to Admiral Michelle Howard, Commander, U.S. Naval Forces Europe, "We're seeing activity [by Russia] that we didn't even see when it was the Soviet Union."[207]

In July, Russia sailed its last remaining Typhoon-class nuclear submarine, the *Dmitry Donskoy*, from Severodvinsk across the entire length of Norway into the North Sea, past Denmark and Sweden, and into the Baltic Sea before sailing on to St. Petersburg. This was the first time a Typhoon-class submarine had sailed into the Baltic Sea. A Russian nuclear-powered cruiser armed with cruise missiles, surface-to-air missiles, torpedoes, and rocket launchers from the Northern Fleet joined the *Dmitry Donskoy* in St. Petersburg.[208]

Russian advances in submarine activity are likewise worrisome. Haga Lunde, the head of Norway's Intelligence Service, stated in February that "[w]e are seeing an increase in Russian submarine activity; also that their vessels are moving further west. Meanwhile, the submarine's technology has been so well developed that it is becoming increasingly difficult to detect them."[209]

Closer to the United States, Russia's naval vessels are being used for espionage. In March, a Russian spy ship was tracked 20 miles off the U.S. coast near the naval base at Kings Bay, Georgia. In February, the same vessel had sailed 30 miles off the coast of Connecticut, potentially near the U.S. submarine base at Groton.[210]

Airspace. Russia has continued its provocative military flights near U.S. and European airspace over the past year. In October 2016, two Russian TU-160 Blackjack bombers flew north of Norway, then northwest of Scotland, and on west of Ireland before flying into the Bay of Biscay off French and Spanish territory and then turning around and flying a similar route back to Russia. France, Norway, Spain, and the U.K. scrambled jets to intercept the bombers. Iceland's foreign ministry stated that the bombers had flown between 6,000 and 9,000 feet under a commercial aircraft flying from Reykjavik, Iceland, to Stockholm, Sweden.[211]

Aggressive Russian flying has also occurred near U.S. airspace. Over the course of four days in April 2017, Russian aircraft flew near the Alaskan coast in four separate incidents. In the first incident, two F-22s and an E-3 AWAC intercepted two Russian Tu-95 bombers. The next day, two Tu-95 bombers were tracked by a U.S. AWACS while a Russian IL-38 flew into Alaska's Air Defense Identification Zone and then left. In the third incident, two IL-38s identified by NORAD and a maritime patrol flew halfway up the Aleutian Islands. In the final incident, two Russian Tu-95s flew near Alaska and Canada before being intercepted by U.S. F-22s and Canadian CF-18s.[212] Soon afterward, on May 3, U.S. F-22s intercepted two Russian Tu-95 bombers and Su-35 fighter escorts flying within 50 miles of Alaska. This was the first time since 2015 that Russian bombers had flown near the U.S. escorted by fighter jets.[213]

Russian flights have also targeted U.S. ally Japan. In April, three Russian Tu-95 Bear Bombers and an IL-20 surveillance aircraft flew within 36 miles of the Japanese coast, and 14 Japanese fighters were scrambled to intercept them.[214] A similar incident occurred in January when three Russian Bear bombers, three refueling IL-78 aircraft, and two radar and communications A-50 AWACS flew near Japan. The bombers flew around Japan, and the incident caused NORAD to increase its threat posture from 5 to 4.[215]

The main threat from Russian airspace incursions, however, remains near NATO territory in Eastern Europe, specifically the Black Sea and Baltic regions. In May 2017, a Russian

Su-27 flew within 20 feet of a U.S. P-8A plane flying in international airspace over the Black Sea.[216] In the Baltics, NATO aircraft intercepted Russian military aircraft 110 times in 2016, down from a high of 160 intercepts in 2015 but far above the 43 recorded in 2013; NATO officials believe the decrease in 2016 could be due to Russia's shifting resources to the Syrian theater.[217] In May 2017, a plane carrying Russian Foreign Minister Lavrov, flying without a filed flight plan and without establishing radio contact, briefly violated Estonian airspace, very likely to send a political message.

That the provocative and hazardous behavior of the Russian armed forces or Russian-sponsored groups poses a threat to civilian aircraft in Europe was demonstrated by the downing of Malaysia Airlines Flight MH17, killing all 283 passengers and 15 crewmembers, over the skies of southeastern Ukraine. In addition, there have been several incidents involving Russian military aircraft flying in Europe without using their transponders. In February 2015, for example, civilian aircraft in Ireland had to be diverted or were prevented from taking off when Russian bombers flying with their transponders turned off flew across civilian air lanes.[218] Similarly, in March 2014, an Scandinavian Airlines (SAS) plane almost collided with a Russian signals intelligence (SIGINT) plane, the two coming within 90 meters of each other.[219] In a December 2014 incident, a Cimber Airlines flight from Copenhagen to Poznan nearly collided with a Russian intelligence plane that was flying with its transponder turned off.[220]

WWTA: The WWTA does not specifically mention threats to sea-lanes or airspace, but it does emphasize global displacement as an ongoing challenge: "Europe and other host countries will face accommodation and integration challenges in 2017, and refugees and economic migrants will probably continue to seek to transit to Europe."[221]

Summary: Russia's violation of the sovereign airspace of NATO member states is a probing and antagonistic policy that is designed both to test the defense of the alliance and as practice for potential future conflicts.

Similarly, Russian antagonistic behavior in international waters is a threat to freedom of the seas. Russia's reckless aerial activity in the region remains a threat to civilian aircraft flying in European airspace.

Space. Admiral Cecil Haney, head of U.S. Strategic Command, said in March 2015 that "[t]he threat in space, I fundamentally believe, is a real one."[222] Russia's space capabilities are robust, but Moscow "has not recently demonstrated intent to direct malicious and destabilizing actions toward U.S. space assets."[223] However, Admiral Haney testified in March 2015 that "Russian leaders openly maintain that they possess anti-satellite weapons and conduct anti-satellite research."[224]

In December 2016, Russia carried out the fifth test of its PL-19 Nudol anti-satellite missile. In March 2016, Air Force Lieutenant General David J. Buck, Commander, Joint Functional Component Command for Space, stated that "Russia views U.S. dependency on space as an exploitable vulnerability, and [the Russians] are taking deliberate actions to strengthen their counter-space capabilities."[225] Air Force Lieutenant General John "Jay" Raymond, Commander, Air Force Space Command, has testified that Russia's anti-satellite capabilities have progressed to the extent that "we are quickly approaching the point where every satellite in every orbit can be threatened."[226]

WWTA: According to the WWTA, "Russian military strategists likely view counterspace weapons as an integral part of broader aerospace defense rearmament and are very likely pursuing a diverse suite of capabilities to affect satellites in all orbital regimes." In addition, "Russian lawmakers have promoted military pursuit of ASAT missiles to strike low-Earth orbiting satellites, and Russia is testing such a weapon for eventual deployment. A Russian official also acknowledged development of an aircraft-launched missile capable of destroying satellites in low-Earth orbit."[227] The assessment notes Russia's interest in electronic warfare for use against U.S. space systems and states that Russia "intends to modernize its EW forces and field a new generation of EW

weapons by 2020."[228] Russia is also developing an airborne laser weapon and will "continue to conduct sophisticated on-orbit satellite activities, such as rendezvous and proximity operations, at least some of which are likely intended to test dual-use technologies with inherent counterspace functionality."[229]

Summary: Despite some interruption of cooperation in space because of Russia's invasion of Ukraine, cooperation on the International Space Station and commercial transactions involving space-related technology have continued unabated. Russia also continues the aggressive building out of its counterspace capabilities.

Cyber. Russian cyber capabilities are incredibly advanced. Over the past year, Russia engaged in high-profile cyber aggression targeted at Europe and the United States. Russian cyber-attacks and intrusions were a critical element in a larger effort to undermine Americans' confidence in their elections. A report released by the Office of the Director of National Intelligence in January 2017, which took into account assessments by the Central Intelligence Agency, Federal Bureau of Investigation, and National Security Agency, stated that "Russia's intelligence services conducted cyber operations against targets associated with the 2016 US presidential election, including targets associated with both major US political parties."[230] In addition, "We assess with high confidence that Russian military intelligence (General Staff Main Intelligence Directorate or GRU) used the Guccifer 2.0 persona and DCLeaks.com to release US victim data obtained in cyber operations publicly and in exclusives to media outlets and relayed material to WikiLeaks."[231] The Russian cyber operations also "accessed elements of multiple state or local electoral boards," but not systems involved in vote tallying.[232]

Russian hackers also targeted other democratic electoral or government systems, including in France, Germany, Italy, and the Netherlands, over the past year. Hans-Georg Maassen, President of Germany's Federal Office for the Protection of the Constitution, a domestic security agency, said that "large amounts of data" were stolen in cyber-attacks against the Bundestag in May 2015.[233] The theft, reportedly involving 16 gigabytes, has been attributed to Russia.[234] Germany's Parliament and political parties, among them Chancellor Angela Merkel's Christian Democratic Union, have been targeted in subsequent cyber-attacks,[235] including attempted attacks in January 2017.[236] Over the course of four months in 2016, Italy's foreign ministry was subjected to a Russian cyber-attack that involved non-encrypted communications.[237]

In March, the head of the Netherlands' General Intelligence and Security Service, Rob Bertholee, stated that Russian hackers had tried to gain access to more than 100 Dutch government e-mail accounts. Russia is widely believed to be behind a May cyber-attack against then-candidate for the French presidency Emmanuel Macron. E-mails and documents stolen in the attacks were released along with a mix of fake documents.[238] National Security Agency Director Admiral Mike Rogers testified in May that the U.S. warned French authorities about the cyber-attacks: "[W]e gave them a heads up: 'Look, we are watching the Russians. We are seeing them penetrate some of your infrastructure. Here's what we've seen.... [W]hat can we do to assist?"[239] Frequent cyber-attacks against French defense targets included 24,000 attacks in 2016, according to French Defense Minister Jean-Yves Le Drian.[240]

U.S. defense targets are also in the sights of Russian hackers, who reportedly sought to hack into the Twitter accounts of more than 10,000 people working at the Pentagon.[241] NATO is another frequent target, with Russian cyber-attacks up 60 percent in 2016 over the previous year.[242]

Nor do Russian cyber-attacks focus solely on government targets. In May 2017, Ukrainian authorities closed two Russian social media platforms, citing concerns that they were being used for cyber-attacks.[243] A sophisticated Russian cyber-attack on Ukrainian power companies in December 2015 resulted in power outages that affected 225,000 Ukrainians

for several hours. The cyber-attack has been linked to a Russian-based hacking group.[244] Subsequent investigations by Ukrainian and U.S. cyber officials found that it was "synchronized and coordinated, probably following extensive reconnaissance," and that efforts were taken to "attempt to interfere with expected restoration efforts."[245] A year later, in December 2016, a new cyber-attack against Ukraine's electricity grid left 100,000–200,000 people without power.[246] In February, the former U.S. Deputy Secretary of Energy stated that she believed Russia was behind the 2016 attack.[247] The Ukrainian attacks represent an escalation, moving beyond crippling communications or mere infiltration of critical systems to taking down critical infrastructure with widespread physical effects.

In the Baltic theater, Russian hackers have launched multiple cyber-attacks against the energy infrastructure of the Baltic States, including two attacks against the electricity grid, as well as attacks targeting a gas distribution system.[248] In early 2016, the U.S. Defense Intelligence Agency warned that Russian hackers using software from Russian-origin companies could gain access to industrial systems in the U.S., including electrical and water systems.[249] Russia is also thought to be behind five days of cyber-attacks against Sweden's Air Traffic Control system in November 2015, which led to flight delays and groundings.[250] Swedish authorities reportedly believe that the attack was the work of Russian military intelligence, the GRU.[251]

The Russian hacking group APT28 or Fancy Bear, believed to be linked to Russia's GRU military intelligence, is believed to have hacked Denmark's Defence Ministry across 2015 and 2016 and to have gained access to nonclassified information.[252] The group is also thought to be responsible for cyber-attacks against the Democratic National Committee in the United States and the French TV station TV5Monde, which was taken off the air following an April 2015 cyber-attack.[253] General Yuri Baluyevsky, former chief of Russia's General Staff, has characterized Russia's use of cyber-attacks as "much more important than victory in a classical military conflict, because it is bloodless, yet the impact is overwhelming and can paralyze all of the enemy state's power structures."[254]

Russia continues to use allied criminal organizations (so-called patriotic hackers) to help it engage in cyber aggression. Cyber-attacks against Estonia in 2007 and Georgia in 2008 and the December 2015 attack against Ukraine's power grid were conducted by these "patriotic hackers" and likely coordinated or sponsored by Russian security forces.[255] Using these hackers gives the Russians greater resources and can help to shield their true capabilities. Patriotic hackers also give the Russian government deniability. In June, for example, Putin stated that "[i]f they (hackers) are patriotically-minded, they start to make their own contribution to what they believe is the good fight against those who speak badly about Russia. Is that possible? Theoretically it is possible."[256]

WWTA: The WWTA states that "Russia is a full-scope cyber actor that will remain a major threat to US Government, military, diplomatic, commercial, and critical infrastructure. Moscow has a highly advanced offensive cyber program, and in recent years, the Kremlin has assumed a more aggressive cyber posture." This aggressive posture "was evident in Russia's efforts to influence the 2016 US election, and we assess that only Russia's senior-most officials could have authorized the 2016 US election-focused data thefts and disclosures, based on the scope and sensitivity of the targets." Russian actors also "have conducted damaging and disruptive cyber attacks" outside the United States, "including on critical infrastructure networks," and in some cases "have masqueraded as third parties, hiding behind false online personas designed to cause the victim to misattribute the source of the attack. Russia has also leveraged cyberspace to seek to influence public opinion across Europe and Eurasia." The WWTA concludes "that Russian cyber operations will continue to target the United States and its allies to gather intelligence, support Russian decision

making, conduct influence operations to support Russian military and political objectives, and prepare the cyber environment for future contingencies."[257]

Summary: Russia's cyber capabilities are advanced and are a key tool in realizing the state's strategic aims. Russia has used cyber-attacks to further the reach and effectiveness of its propaganda and disinformation campaigns, and its recent cyber-attacks against election processes in the U.S. and European countries have been designed to undermine citizens' belief in the veracity of electoral outcomes and erode support for democratic institutions in the longer term. Russia also has used cyber-attacks to target physical infrastructure, including electrical grids, air traffic control, and gas distribution systems. Russia's increasingly bold use of cyber capabilities, coupled with their sophistication and Moscow's willingness to use them aggressively, presents a challenge for the U.S. and its interests abroad.

Conclusion

Overall, the threat to the U.S. homeland originating from Europe remains low, but the threat to American interests and allies in the region remains significant. Behind this threat lies Russia. Although Russia has the military capability to harm and (in the case of its nuclear arsenal) to pose an existential threat to the U.S., it has not conclusively demonstrated the intent to do so.

The situation is different when it comes to America's allies in the region. Through NATO, the U.S. is obliged by treaty to come to the aid of the alliance's European members. Russia continues to seek to undermine the NATO alliance and presents an existential threat to U.S. allies in Eastern Europe. NATO has been the cornerstone of European security and stability since its creation in 1949, and it is in America's

interest to ensure that it maintains both the military capability and political will to fulfill its treaty obligations.

While Russia is not the threat to U.S. global interests that the Soviet Union was during the Cold War, it does pose challenges to a range of America's interests and those of its allies and friends closest to Russia's borders. Russia possesses a full range of capabilities from ground forces to air, naval, space, and cyber. It still maintains the world's largest nuclear arsenal, and although a strike on the U.S. is highly unlikely, the latent potential for such a strike still gives these weapons enough strategic value vis-à-vis America's NATO allies and interests in Europe to keep them relevant.

Russian provocations far below any scenario involving a nuclear exchange pose the most serious challenge to American interests, particularly in Central and Eastern Europe, the Arctic, the Balkans, and the South Caucasus. It is with respect to these contingencies that Russia's military capabilities are most relevant.

Threat Scores by Country

Russia. Russia seeks to maximize its strategic position in the world at the expense of the United States. It also seeks to undermine U.S. influence and moral standing, harasses U.S. and NATO forces, and is working to sabotage U.S. and Western policy in Syria. In addition, Russia has sought to increase its influence in the Western Balkans while maintaining robust information warfare and propaganda campaigns across Europe and even in the U.S. Moscow's continued aggression and willingness to use every tool at its disposal in pursuit of its aims leads this *Index* to assess the overall threat from Russia as "aggressive" and "formidable." This level is consistent with the threat assessment of Russia in the *2017 Index*.

Threats: Russia

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior		✔			

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability	✔				

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Middle East

Threats to the Homeland

Radical Islamist terrorism in its many forms remains the most immediate global threat to the safety and security of U.S. citizens at home and abroad, and most of the actors posing terrorist threats originate in the greater Middle East. More broadly, threats to the U.S. homeland and to Americans abroad include terrorist threats from non-state actors such as al-Qaeda that use the ungoverned areas of the Middle East as bases from which to plan, train, equip, and launch attacks; terrorist threats from state-supported groups such as Hezbollah; and the developing ballistic missile threat from Iran.

Terrorism Originating from al-Qaeda, Its Affiliates, and the Islamic State (IS). Although al-Qaeda has been damaged by targeted strikes that have killed key leaders in Pakistan, including Osama bin Laden, the terrorist network has evolved in a decentralized fashion, and regional affiliates continue to pose potent threats to the U.S. homeland. The regional al-Qaeda groups share the same long-term goals as the parent organization, but some have developed different priorities related to their local conflict environments.

Al-Qaeda in the Arabian Peninsula (AQAP) has emerged as one of the leading terrorist threats to homeland security since the al-Qaeda high command was forced into hiding in Pakistan.

Yemen has long been a bastion of support for militant Islamism in general and al-Qaeda in particular. Many Yemenis who migrated to Saudi Arabia to find work during the 1970s oil boom were exposed to radicalization there. Yemenis made up a disproportionate number of the estimated 25,000 foreign Muslims who flocked to Afghanistan to join the war against the Soviet occupation in the 1980s. They also make up a large segment of al-Qaeda, which was founded by foreign veterans of that war to expand the struggle into a global revolutionary campaign.

Al-Qaeda's first terrorist attack against Americans occurred in Yemen in December 1992, when a bomb was detonated in a hotel used by U.S. military personnel involved in supporting the humanitarian food relief flights to Somalia. Al-Qaeda launched a much deadlier attack in Yemen in October 2000 when it attacked the USS *Cole* in the port of Aden with a boat filled with explosives, killing 17 American sailors.[1]

Yemen was a site for the radicalization of American Muslims such as John Walker Lindh, who traveled there to study Islam before being recruited to fight in Afghanistan. Seven Yemeni Americans from Lackawanna, New York, were recruited by al-Qaeda before 9/11. Six were convicted of supporting terrorism and sent to prison, and the seventh became a fugitive who later surfaced in Yemen.

Yemen has become increasingly important as a base of operations for al-Qaeda in recent years after crackdowns in other countries. In September 2008, al-Qaeda launched a complex attack on the U.S. embassy in Yemen that killed 19 people, including an American woman. Yemen's importance to al-Qaeda increased further in January 2009 when al-Qaeda members who had been pushed out of Saudi Arabia merged with the Yemeni branch to form Al-Qaeda in the Arabian Peninsula.

AQAP's Anwar al-Aulaqi, a charismatic American-born Yemeni cleric, reportedly incited several terrorist attacks on U.S. targets before being killed in a drone air strike in 2011. He inspired Major Nidal Hassan, who perpetrated the 2009 Fort Hood shootings that killed 13 soldiers,[2] and Umar Farouk Abdulmutallab, the failed suicide bomber who sought to destroy an airliner bound for Detroit on Christmas Day 2009.[3] Aulaqi is also suspected of playing a role in the November 2010 AQAP plot to dispatch parcel bombs to the U.S. in cargo planes. After Aulaqi's death, his videos on the Internet continued to radicalize and recruit young Muslims, including the perpetrators of the April 2013 bombing of the Boston Marathon that killed three people; the July 2015 fatal shootings of four Marines and a Navy sailor at a military recruiting office in Chattanooga, Tennessee; the December 2015 terrorist attack in San Bernardino, California, that killed 14 people; and the June 2016 shootings of 49 people in a nightclub in Orlando, Florida.[4]

AQAP, estimated to have had as many as 4,000 members in 2015,[5] has greatly expanded in the chaos of Yemen's civil war, particularly since the overthrow of Yemen's government by Iran-backed Houthi rebels in 2015. AQAP has exploited alliances with powerful, well-armed Yemeni tribes (including the Aulaq tribe from which Osama bin Laden and the radical cleric Aulaqi claimed descent) to establish sanctuaries and training bases in Yemen's rugged mountains. This is similar to al-Qaeda's *modus operandi* in Afghanistan before 9/11 and in Pakistan today. In April 2015, AQAP seized the city of al Mukalla and expanded its control of rural areas in southern Yemen. After AQAP withdrew in April 2016, the city was recaptured by pro-government Yemeni troops and troops from the United Arab Emirates (UAE), a member of the Saudi-led coalition that intervened in March 2015 in support of the Yemeni government. Nevertheless, AQAP remains a potent force that could capitalize on the anarchy of Yemen's multi-sided civil war to seize new territory.

The Islamic State (IS), formerly known as the Islamic State of Iraq and Syria (ISIS) or the Islamic State in Iraq and the Levant (ISIL), and before that as the Islamic State of Iraq and Al-Qaeda in Iraq, emerged as an al-Qaeda splinter group but has outstripped its parent organization in terms of the immediate threats it poses to U.S. national interests. It seeks to overthrow the governments of Iraq, Syria, Lebanon, and Jordan and establish a nominal Islamic state governed by a harsh and brutal interpretation of Islamic law that is an existential threat to Christians, Shiite Muslims, Yazidis, and other religious minorities. Its long-term goals are to launch what it considers a jihad (holy war) to drive Western influence out of the Middle East; destroy Israel; diminish and discredit Shia Islam, which it considers apostasy; and become the nucleus of a global Sunni Islamic empire.

The Islamic State is composed of Sunni Muslims drawn to radical Islamist ideology. U.S. intelligence officials estimated in May 2016 that it commanded between 19,000 and 25,000 fighters in Iraq and Syria even after suffering extensive losses.[6] By June 2017, according to an Iraqi expert, the Islamic State had been reduced to about 8,000 fighters, including about 2,000 foreign fighters, in Iraq and Syria.[7] Most of its members are Iraqi and Syrian Arabs, although it also has attracted more than 25,000 foreign fighters who have joined its ranks on a temporary or permanent basis, including at least 6,000 from Tunisia, 2,275 from Saudi Arabia, 2,000 from Jordan, 1,700 from Russia, 1,550 from France, 1,400 from Turkey, and 1,200 from Lebanon.[8] Many of the foreign fighters have been killed or have fled from Iraq and Syria as IS has been pushed back on several fronts.

The group was established as Al-Qaeda in Iraq (AQI) in 2004 by Abu Musab al-Zarqawi, a Palestinian Islamist extremist born in Jordan who fought in Afghanistan against the Soviet invasion. He was a close associate of Osama bin Laden, although he did not formally join al-Qaeda until 2004 when he was recognized as the leader of AQI. His organization has always taken a harder line against Shiites, whom it denigrates as apostates who deserve death, than have other franchises of the al-Qaeda network.

Zarqawi was killed in a U.S. air strike in 2006, and his organization was decimated by a U.S.-led counterterrorism campaign. The group made a comeback in Iraq after the withdrawal of U.S. troops in 2011 reduced the pressure on it and Iraqi Prime Minister Nouri al-Maliki's Shia-dominated government alienated Sunni Iraqis, driving many of them to see ISIS as the lesser evil.

The IS began as a branch of al-Qaeda before it broke away from the core al-Qaeda leadership in 2013 in a dispute over leadership of the jihad in Syria. The IS shares a common ideology with its al-Qaeda parent organization but differs with respect to how to apply that ideology. It now rejects the leadership of bin Laden's successor, Ayman al-Zawahiri, who criticized its extreme brutality, which has alienated many Muslims. This is a dispute about tactics and strategies, however, not long-term goals. The schism also was fueled by a personal rivalry between Zawahiri and IS leader Abu Bakr al-Baghdadi, who sees himself as bin Laden's true successor and the leader of a new generation of jihadists. Baghdadi also declared the formation of a caliphate with himself as the leader in June 2014, a claim that al-Qaeda rejects as illegitimate.

In 2014, the IS greatly expanded its control of a wide swath of western Iraq and eastern Syria, territory that it sought to use as a launching pad for operations in the heart of the Arab world and beyond. By May 2016, the United States and its allies had reduced the territory controlled by the Islamic State at its zenith by 45 percent in Iraq and 20 percent in Syria,[9] but the IS continued to expand elsewhere, particularly in Afghanistan, Bangladesh, Egypt, Libya, Pakistan, the Philippines, and Yemen. Boko Haram, the Nigeria-based Islamist terrorist group, also pledged allegiance to the IS in March 2015.

The Islamic State primarily poses a regional threat. It has launched terrorist attacks inside Afghanistan, Egypt, Jordan, Kuwait, Lebanon, Libya, Saudi Arabia, Tunisia, Turkey, and Yemen, among other countries. It also claimed responsibility for the October 31, 2015, downing of a Russian passenger jet over Egypt's Sinai Peninsula that killed 224 people.

The Islamic State's early success in attracting the support of foreign militants, including at least 4,500 from Western countries and at least 250 from the United States, has amplified its potential threat as these foreign volunteers, many of whom received military training, return home.[10] IS foreign fighters teamed with local Islamist militants to launch terrorist attacks that killed 130 people in Paris, France, in November 2015 and 32 people in Brussels, Belgium, in March 2016, as well as a string of smaller attacks. The IS also has inspired self-radicalized individuals to use vehicles as battering rams in terrorist attacks. A terrorist in a truck killed 86 people at a Bastille Day celebration in July 2016 in Nice, France; another truck attack killed 12 people at a Christmas market in Berlin, Germany, in December 2016; and in June 2017, three men in a van killed eight people on or near London Bridge in London, England, by running them over or stabbing them. In May 2017, a terrorist with proven links to the Islamic State killed 22 people in a suicide bombing at a concert in Manchester, England.

IS leader al-Baghdadi threatened to strike "in the heart" of America in July 2012.[11] The IS reportedly has tried to recruit Americans who have joined the fighting in Syria and would be in a position to carry out this threat after returning to the United States.[12] It also has inspired several terrorist attacks by self-radicalized "stray dogs" or "lone wolves" who have acted in its name, such as the foiled May 3, 2015, attack by two Islamist extremists who were fatally shot by police before they could commit mass murder in Garland, Texas; the July 16, 2015, shootings that killed four Marines and a sailor in Chattanooga, Tennessee; the December 2, 2015, shootings that killed 14 people in San Bernardino, California; and the June 12, 2016, shootings at a nightclub in Orlando, Florida, that killed 49 people. Such terrorist attacks, incited but not directed by the IS, are likely to continue for the foreseeable future.

Hayat Tahrir al-Sham (HTS—Organization for the Liberation of the Levant), al-Qaeda's official affiliate in Syria, is a front organization formed in January 2017 in a merger

between Jabhat Fateh al-Sham (Front for the Conquest of Syria), formerly known as the al-Nusra Front, and several other Islamist extremist movements. HTS was estimated to have 12,000 to 14,000 fighters in March 2017.[13] Before the merger, al-Nusra had an estimated 5,000 to 10,000 members and had emerged as one of the top two or three rebel groups fighting Syria's Assad dictatorship.[14] Al-Nusra was established as an offshoot of Al-Qaeda in Iraq (now renamed the Islamic State) in late 2011 by Abu Muhammad al-Julani, a lieutenant of AQI leader Abu Bakr al-Baghdadi.[15] It has adopted a more pragmatic course than its extremist parent organization and has cooperated with moderate Syrian rebel groups against the Assad regime, as well as against the Islamic State.

When Baghdadi unilaterally proclaimed the merger of his organization and al-Nusra in April 2013 to form the Islamic State of Iraq and Syria, Julani rejected the merger and renewed his pledge to al-Qaeda leader Ayman al-Zawahiri. The two groups have clashed repeatedly, causing an estimated 3,000 deaths by March 2014.[16]

Al-Nusra has focused its attention on overthrowing the Syrian regime and has not emphasized its hostility to the United States, but that will change if it consolidates power within Syria. It already poses a potential threat because of its recruitment of foreign Islamist militants, including some from Europe and the United States. According to U.S. officials, al-Qaeda leader al-Zawahiri dispatched a cadre of experienced al-Qaeda operatives to Syria, where they were embedded with al-Nusra and charged with organizing terrorist attacks against Western targets. Many members of the group, estimated to number in the dozens, were veterans of al-Qaeda's operations in Afghanistan and Pakistan (part of what was called Khorasan in ancient times) and were referred to as the "Khorasan group" by U.S. officials.[17]

An American Muslim recruited by al-Nusra, Moner Mohammad Abusalha, conducted a suicide truck bombing in northern Syria on May 25, 2014, the first reported suicide attack by an American in Syria.[18] At least five men have been arrested inside the United States for providing material assistance to al-Nusra, including Abdirahman Sheik Mohamud, a naturalized U.S. citizen born in Somalia who was arrested in April 2015 after returning from training in Syria, possibly to launch a terrorist attack inside the United States.[19] The Khorasan group was targeted by a series of U.S. air strikes in 2014–2015 that degraded its capacity to organize terrorist attacks in Western countries. By mid-2015, the FBI assessed that the Islamic State had eclipsed al-Nusra as a threat to the U.S. homeland.[20]

Then-FBI Director James Comey stated in 2014 that tracking Americans who have returned from Syria is one of the FBI's top counterterrorism priorities.[21] Then-Attorney General Eric Holder urged his international counterparts to block the flow of thousands of foreign fighters to Syria, which he termed "a cradle of violent extremism." Speaking at a conference in Norway in July 2014, Holder warned:

> We have a mutual and compelling interest in developing shared strategies for confronting the influx of U.S.-[born] and European-born violent extremists into Syria. And because our citizens can freely travel, visa free, from the U.S. to Norway and other European states—and vice versa—the problem of fighters in Syria returning home to any of our countries is a problem for all of our countries.[22]

Al-Qaeda in the Islamic Maghreb (AQIM), one of al-Qaeda's weaker franchises before the Arab Spring uprisings began in 2011, has flourished in recent years in North Africa and is now one of al-Qaeda's best-financed and most heavily armed elements. The overthrow of Libyan dictator Muammar Qadhafi in 2011 pried open a Pandora's box of problems that AQIM has exploited to bolster its presence in Algeria, Libya, Mali, Morocco, and Tunisia. AQIM accumulated large quantities of arms, including man-portable air defense systems (MANPADS), looted from Qadhafi's huge arms depots.

The fall of Qadhafi also led hundreds of heavily armed Tuareg mercenaries formerly employed by his regime to cross into Mali,

where they joined a Tuareg separatist insurgency against Mali's weak central government. In November 2011, they formed the separatist National Movement for the Liberation of Azawad (MNLA) and sought to carve out an independent state. In cooperation with AQIM and the Islamist movement Ansar Dine, they gained control of northern Mali, a territory as big as Texas and the world's largest terrorist sanctuary until the January 2013 French military intervention dealt a major setback to AQIM and its allies.

AQIM is estimated to have several hundred militants operating in Algeria, Libya, Mali, Niger, and Tunisia.[23] Many AQIM cadres pushed out of Mali by the French intervention have regrouped in southwestern Libya and remain committed to advancing AQIM's self-declared long-term goal of transforming the Sahel "into one vast, seething, chaotic Somalia."[24]

The September 11, 2012, attack on the U.S. diplomatic mission in Benghazi underscored the extent to which Islamist extremists have grown stronger in the region, particularly in eastern Libya, a longtime bastion of Islamic fervor. The radical Islamist group that launched the attack, Ansar al-Sharia, has links to AQIM and shares its violent ideology. Ansar al-Sharia and scores of other Islamist militias have flourished in post-Qadhafi Libya because the weak central government has been unable to tame fractious militias, curb tribal and political clashes, or dampen rising tensions between Arabs and Berbers in the West and between Arabs and the Toubou tribe in the South.

AQIM does not pose as much of a threat to the U.S. homeland as other al-Qaeda offshoots pose, but it does threaten regional stability and U.S. allies in North Africa and Europe, where it has gained supporters and operates extensive networks for the smuggling of arms, drugs, and people.

WWTA: The WWTA assesses that "US-based homegrown violent extremists (HVEs) will remain the most frequent and unpredictable Sunni violent extremist threat to the US homeland," that they "will be spurred on by

terrorist groups' public calls to carry out attacks in the West," and that "some attacks will probably occur with little or no warning." Continuing:

> In 2016, 16 HVEs were arrested, and three died in attacks against civilian soft targets. Those detained were arrested for a variety of reasons, including attempting travel overseas for jihad and plotting attacks in the United States. In addition to the HVE threat, a small number of foreign-based Sunni violent extremist groups will also pose a threat to the US homeland and continue publishing multilingual propaganda that calls for attacks against US and Western interests in the US homeland and abroad.

The WWTA further reports that ISIS "continues to pose an active terrorist threat to the United States and its allies because of its ideological appeal, media presence, control of territory in Iraq and Syria, its branches and networks in other countries, and its proven ability to direct and inspire attacks against a wide range of targets around the world" but that "territorial losses in Iraq and Syria and persistent counterterrorism operations against parts of its global network are degrading its strength and ability to exploit instability and societal discontent."

The WWTA also concludes that "[d]uring the past 16 years, US and global counterterrorism (CT) partners have significantly reduced al-Qa'ida's ability to carry out large-scale, mass casualty attacks, particularly against the US homeland," but that "al-Qa'ida and its affiliates remain a significant CT threat overseas as they remain focused on exploiting local and regional conflicts."[25]

Summary: Although the al-Qaeda core group has been weakened, the Islamic State and al-Qaeda franchises based in the Middle East pose a growing threat to the U.S. homeland as a result of the recruitment of Muslim militants from Western countries, including the United States, and their efforts to inspire terrorist attacks by homegrown Islamist extremists.

Hezbollah Terrorism. Hezbollah (Party of God), the radical Lebanon-based Shiite

revolutionary movement, poses a clear terrorist threat to international security. Hezbollah terrorists have murdered Americans, Israelis, Lebanese, Europeans, and citizens of many other nations. Originally founded in 1982, this Lebanese group has evolved from a local menace into a global terrorist network that is strongly backed by regimes in Iran and Syria, assisted by a political wing that has dominated Lebanese politics and funded by Iran and a web of charitable organizations, criminal activities, and front companies.

Hezbollah regards terrorism not only as a useful tool for advancing its revolutionary agenda, but also as a religious duty as part of a "global jihad." It helped to introduce and popularize the tactic of suicide bombings in Lebanon in the 1980s; developed a strong guerrilla force and a political apparatus in the 1990s; provoked a war with Israel in 2006; intervened in the Syrian civil war after 2011 at Iran's direction; and has become a major destabilizing influence in the ongoing Arab–Israeli conflict.

Hezbollah murdered more Americans than any other terrorist group before September 11, 2001. Despite al-Qaeda's increased visibility since then, Hezbollah remains a bigger, better equipped, better organized, and potentially more dangerous terrorist organization, in part because it enjoys the support of the two chief state sponsors of terrorism in the world today: Iran and Syria. Hezbollah's demonstrated capabilities led former Deputy Secretary of State Richard Armitage to dub it "the A-Team of Terrorists."[26]

Hezbollah has expanded its operations from Lebanon to regional targets in the Middle East and then far beyond. It now is a global terrorist threat that draws financial and logistical support from its Iranian patrons as well as from the Lebanese Shiite diaspora in the Middle East, Europe, Africa, Southeast Asia, North America, and South America. Hezbollah fundraising and equipment procurement cells have been detected and broken up in the United States and Canada. Europe is believed to contain many more of these cells.

Hezbollah has been implicated in numerous terrorist attacks against Americans, including:

- The April 18, 1983, bombing of the U.S. embassy in Beirut, which killed 63 people, including 17 Americans;

- The October 23, 1983, suicide truck bombing of the Marine barracks at Beirut Airport, which killed 241 Marines and other personnel deployed as part of the multinational peacekeeping force in Lebanon;

- The September 20, 1984, suicide truck bombing of the U.S. embassy annex in Lebanon, which killed 23 people, including two Americans; and

- The June 25, 1996, Khobar Towers bombing, which killed 19 American servicemen stationed in Saudi Arabia.

Hezbollah also was involved in the kidnapping of several dozen Westerners, including 14 Americans, who were held as hostages in Lebanon in the 1980s. The American hostages eventually became pawns that Iran used as leverage in the secret negotiations that led to the Iran–Contra affair in the mid-1980s.

Hezbollah has launched numerous attacks outside of the Middle East. It perpetrated the two deadliest terrorist attacks in the history of South America: the March 1992 bombing of the Israeli embassy in Buenos Aires, Argentina, which killed 29 people, and the July 1994 bombing of a Jewish community center in Buenos Aires that killed 96 people. The trial of those who were implicated in the 1994 bombing revealed an extensive Hezbollah presence in Argentina and other countries in South America.

Hezbollah has escalated its terrorist attacks against Israeli targets in recent years as part of Iran's intensifying shadow war against Israel. In 2012, Hezbollah killed five Israeli tourists and a Bulgarian bus driver in a suicide bombing near Burgas, Bulgaria. Hezbollah terrorist plots against Israelis were foiled in Thailand and Cyprus during that same year.

In 2013, Hezbollah admitted that it had deployed several thousand militia members to fight in Syria on behalf of the Assad regime. By 2015, Hezbollah forces had become crucial in propping up the Assad regime after the Syrian army was hamstrung by casualties, defections, and low morale. Hezbollah also deployed personnel to Iraq after the 2003 U.S. intervention to assist pro-Iranian Iraqi Shia militias that were battling the U.S.-led coalition. In addition, Hezbollah has deployed personnel in Yemen to train and assist the Iran-backed Houthi rebels.

Although Hezbollah operates mostly in the Middle East, it has a global reach and has established a presence inside the United States. Hezbollah cells in the United States generally are focused on fundraising, including criminal activities such as those perpetrated by over 70 used-car dealerships identified as part of a scheme to launder hundreds of millions of dollars of cocaine-generated revenue that flowed back to Hezbollah.[27]

Covert Hezbollah cells could morph into other forms and launch terrorist operations inside the United States. Given Hezbollah's close ties to Iran and its past record of executing terrorist attacks on Iran's behalf, there is a real danger that Hezbollah terrorist cells could be activated inside the United States in the event of a conflict between Iran and the U.S. or Israel. On June 1, 2016, two naturalized U.S. citizens were arrested and charged with providing material support to Hezbollah and conducting preoperational surveillance of military and law enforcement sites in New York City and at Kennedy Airport, the Panama Canal, and the American and Israeli embassies in Panama.[28]

WWTA: The WWTA concludes that "Iran continues to be the foremost state sponsor of terrorism and, with its primary terrorism partner, Lebanese Hizballah, will pose a continuing threat to US interests and partners worldwide."[29]

Summary: Hezbollah operates mostly in the Middle East, but it has established cells inside the United States that could be activated, particularly in the event of a military conflict with Iran, Hezbollah's creator and chief backer.
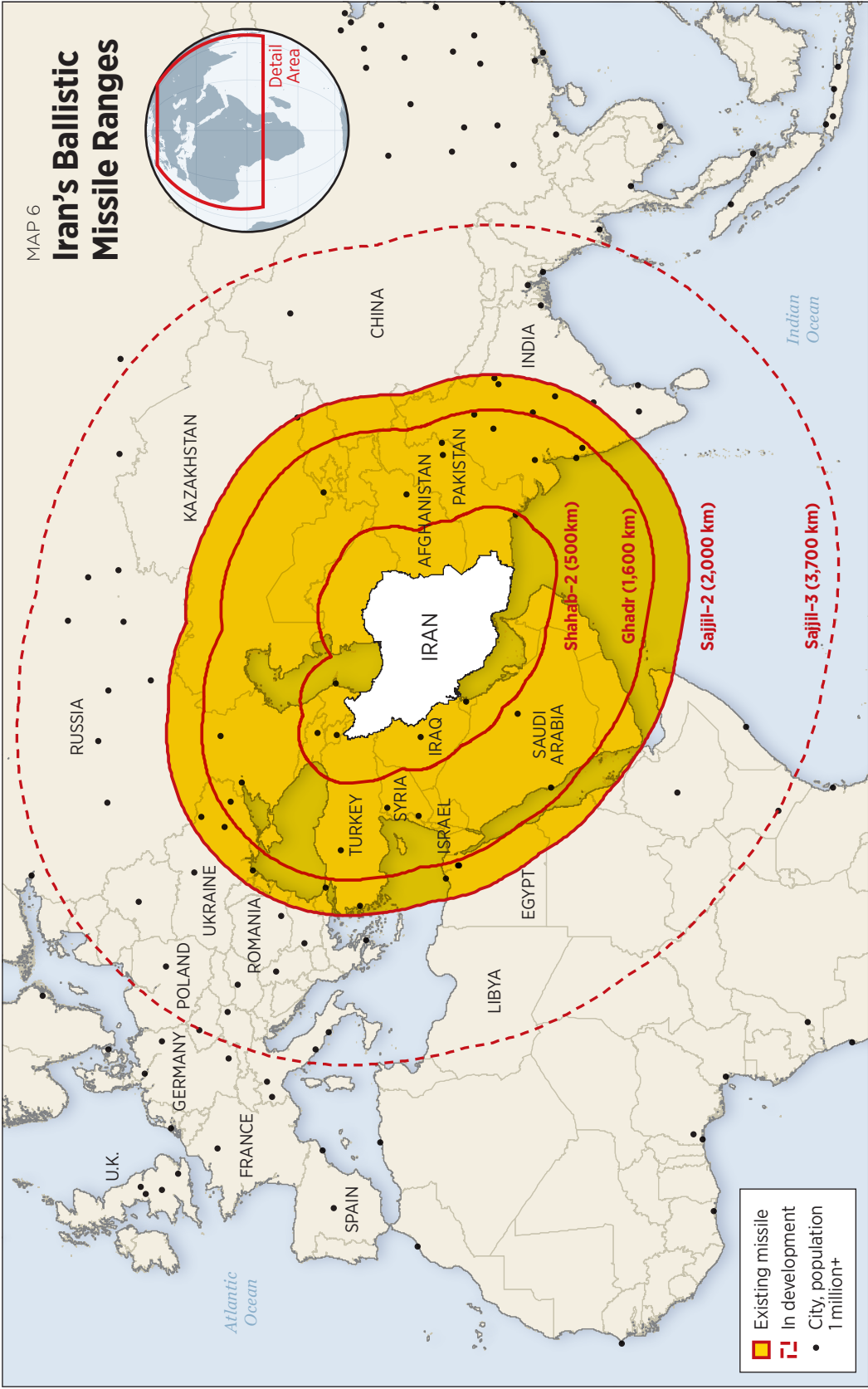
Palestinian Terrorist Threats. A wide spectrum of Palestinian terrorist groups threaten Israel, including Fatah (al-Aqsa Martyrs Brigade); Hamas; Palestinian Islamic Jihad; the Popular Front for the Liberation of Palestine (PFLP); the Popular Front for the Liberation of Palestine–General Command (PFLP–GC); the Palestine Liberation Front; and the Army of Islam. Most of these groups are also hostile to the United States, which they denounce as Israel's primary source of foreign support.

Although they are focused more on Israel and regional targets, these groups also pose a limited potential threat to the U.S. homeland, particularly should the Israeli–Palestinian peace process break down completely and the Palestinian Authority be dissolved. In the event of a military confrontation with Iran, Tehran also might seek to use Palestinian Islamic Jihad, the PFLP–GC, or Hamas as surrogates to strike the United States. Jihadist groups based in Gaza, such as the Army of Islam, also could threaten the U.S. homeland even if a terrorist attack there would set back Palestinian national interests. In general, however, Palestinian groups present a much bigger threat to Israel, Jordan, Egypt, and other regional targets than they do to the United States.

WWTA: The WWTA does not reference the potential threat of Palestinian terrorist attacks on the U.S. homeland.

Summary: Palestinian terrorist groups are focused primarily on Israeli targets and potentially on Egypt and Jordan, which are perceived as collaborating with Israel. They also, however, pose a limited potential threat to the U.S. homeland because of the possibility that if the Israeli–Palestinian peace process broke down completely or Iran became involved in a military conflict with the U.S., Palestinian surrogates could be used to target the U.S. homeland.

Iran's Ballistic Missile Threat. Iran has an extensive missile development program that has received key assistance from North Korea and more limited support from Russia and China before sanctions were imposed by

MAP 6

Iran's Ballistic Missile Ranges

Detail Area

CHINA

INDIA

Indian Ocean

KAZAKHSTAN

AFGHANISTAN

PAKISTAN

RUSSIA

Shahab-2 (500km)

Ghadr (1,600 km)

Sajjil-2 (2,000 km)

Sajjil-3 (3,700 km)

IRAN

IRAQ

SAUDI ARABIA

TURKEY

SYRIA

ISRAEL

UKRAINE

ROMANIA

POLAND

EGYPT

LIBYA

GERMANY

FRANCE

U.K.

SPAIN

Atlantic Ocean

Existing missile
In development
• City, population 1 million+

the U.N. Security Council. The National Air and Space Intelligence Center noted in 2013 that:

> Iran could develop and test an ICBM capable of reaching the United States by 2015. Since 2008, Iran has conducted multiple successful launches of the two-stage Safir space launch vehicle and has also revealed the larger two-stage Simorgh space launch vehicle, which could serve as a test bed for developing ICBM technologies.[30]

Although Tehran's missile arsenal primarily threatens U.S. bases and allies in the region, Iran eventually could expand the range of its missiles to include the continental United States. In its January 2014 report on Iran's military power, the Pentagon assessed that "Iran continues to develop technological capabilities that could be applicable to nuclear weapons and long-range missiles, which could be adapted to deliver nuclear weapons, should Iran's leadership decide to do so."[31]

WWTA: The WWTA assesses that "Tehran would choose ballistic missiles as its preferred method of delivering nuclear weapons, if it builds them. Iran's ballistic missiles are inherently capable of delivering WMD, and Tehran already has the largest inventory of ballistic missiles in the Middle East." In addition, "Tehran's desire to deter the United States might drive it to field an intercontinental ballistic missile (ICBM). Progress on Iran's space program could shorten a pathway to an ICBM because space launch vehicles use similar technologies."[32]

Summary: Iran's ballistic missile force poses a regional threat to the U.S. and its allies, but Tehran eventually could expand the range of its missiles to threaten the continental United States.

Threat of Regional War

The Middle East region is one of the most complex and volatile threat environments faced by the United States and its allies. Iran, various al-Qaeda offshoots, Hezbollah, Arab–Israeli clashes, and a growing number of radical Islamist militias and revolutionary groups in Egypt, Iraq, Jordan, Lebanon, Libya, Syria, and Yemen pose actual or potential threats to the U.S. and its allies.

Iranian Threats in the Middle East. Iran is an anti-Western revolutionary state that seeks to tilt the regional balance of power in its favor by driving out the Western presence, undermining and overthrowing opposing governments, and establishing its hegemony over the oil-rich Persian Gulf region. It also seeks to radicalize Shiite communities and advance their interests against Sunni rivals. Iran has a long record of sponsoring terrorist attacks against American allies and other interests in the region. With regard to conventional threats, Iran's ground forces dwarf the relatively small armies of the other Gulf states, and its formidable ballistic missile forces pose significant threats to its neighbors.

The July 14, 2015, Iran nuclear agreement, which lifted nuclear-related sanctions on Iran in January 2016, gave Tehran access to about $100 billion in restricted assets and allowed it to expand its oil and gas exports, its chief source of state revenues. This sanctions relief boosted Iran's economy and enabled Iran to enhance its strategic position, military capabilities, and support for surrogate networks and terrorist groups. Tehran announced in May 2016 that it was increasing its military budget for 2016–2017 to $19 billion—a 90 percent increase over the previous year.[33]

The lifting of sanctions also has allowed Tehran to emerge from diplomatic isolation and strengthen strategic ties with Russia that will allow it to purchase advanced arms and modernize its military forces. Russian President Vladimir Putin traveled to Iran in November 2015 to meet with Ayatollah Khamenei, Iran's Supreme Leader, and other officials. Both regimes called for enhanced military cooperation. During President Hassan Rouhani's visit to Russia in March 2017, Putin proclaimed his intention to raise bilateral relations to the level of a "strategic partnership."[34]

This growing strategic relationship could result in Iran's largest arms imports since the 1979 revolution. Tehran announced in April

2016 that Russia had started deliveries of up to five S-300 *Favorit* long-range surface-to-air missile systems, which can track up to 100 aircraft and engage six of them simultaneously at a range of 200 kilometers.[35] Moscow also began negotiations to sell Iran T-90 tanks and advanced Sukhoi Su-30 *Flanker* fighter jets.[36] The warplanes will significantly improve Iran's air defense and long-range strike capabilities.

After the nuclear agreement, Iran and Russia escalated their strategic cooperation in propping up Syria's embattled Assad regime. Iran's growing military intervention in Syria was partly eclipsed by Russia's military intervention and launching of an air campaign against Assad's enemies in September 2015, but Iran's Islamic Revolutionary Guard Corps (IRGC) and surrogate groups have played the leading role in spearheading the ground offensives that have clawed back territory from Syrian rebel groups and tilted the military balance in favor of the Assad regime. By October 2015, Iran had deployed an estimated 7,000 IRGC troops and paramilitary forces in Syria, along with an estimated 20,000 foreign fighters from Iran-backed Shiite militias from Lebanon, Iraq, Afghanistan, and Pakistan.[37]

Terrorist Attacks. Iran has adopted a political warfare strategy that emphasizes irregular warfare, asymmetric tactics, and the extensive use of proxy forces. The Islamic Revolutionary Guard Corps has trained, armed, supported, and collaborated with a wide variety of radical Shia and Sunni militant groups, as well as Arab, Palestinian, Kurdish, and Afghan groups that do not share its radical Islamist ideology. The IRGC's elite Quds (Jerusalem) Force has cultivated, trained, armed, and supported numerous proxies, particularly the Lebanon-based Hezbollah; Iraqi Shia militant groups; Palestinian groups such as Hamas and Palestinian Islamic Jihad; and groups that have fought against the governments of Afghanistan, Bahrain, Egypt, Israel, Iraq, Jordan, Kuwait, Saudi Arabia, Turkey, and Yemen.

Iran is the world's foremost state sponsor of terrorism and has made extensive efforts to export its radical Shia brand of Islamist revolution. It has found success in establishing a network of powerful Shia revolutionary groups in Lebanon and Iraq; has cultivated links with Afghan Shia and Taliban militants; and has stirred Shia unrest in Bahrain, Iraq, Lebanon, Saudi Arabia, and Yemen. In recent years, Iranian arms shipments have been intercepted regularly by naval forces off the coasts of Bahrain and Yemen, and Israel has repeatedly intercepted arms shipments, including long-range rockets, bound for Palestinian militants in Gaza.

Mounting Missile Threat. Iran possesses the largest number of deployed missiles in the Middle East.[38] In June 2017, Iran launched mid-range missiles from its territory that struck opposition targets in Syria. This was the first such operational use of mid-range missiles by Iran for almost 30 years, but it was not as successful as Tehran would have hoped. It was reported that of the five missiles launched, three missed Syria altogether and landed in Iraq, and the remaining two landed in Syria but missed their intended targets by miles.[39] The backbone of the Iranian ballistic missile force is formed by the Shahab series of road-mobile surface-to-surface missiles, which are based on Soviet-designed Scud missiles. The Shahab missiles are potentially capable of carrying nuclear, chemical, or biological warheads in addition to conventional high-explosive warheads. Their relative inaccuracy (compared to NATO ballistic missiles) limits their effectiveness unless they are employed against large, soft targets such as cities.

Iran's heavy investment in such weapons has fueled speculation that the Iranians intend eventually to replace the conventional warheads in their longer-range missiles with nuclear warheads. The Nuclear Threat Initiative has concluded that "[r]egardless of the veracity of these assertions, Tehran indisputably possesses a formidable weapons delivery capability, and its ongoing missile program poses serious challenges to regional stability."[40]

Iran is not a member of the Missile Technology Control Regime, and it has sought aggressively to acquire, develop, and deploy

a wide spectrum of ballistic missile, cruise missile, and space launch capabilities. During the 1980–1988 Iran–Iraq war, Iran acquired Soviet-made Scud-B missiles from Libya and later acquired North Korean–designed Scud-C and No-dong missiles, which it renamed the Shahab-2 (with an estimated range of 500 kilometers or 310 miles) and Shahab-3 (with an estimated range of 900 kilometers or 560 miles). It now can produce its own variants of these missiles as well as longer-range Ghadr-1 and Qiam missiles.

Iran's Shahab-3 and Ghadr-1, which is a modified version of the Shahab-3 with a smaller warhead but greater range (about 1,600 kilometers or 1,000 miles), are considered more reliable and advanced than the North Korean No-dong missile from which they are derived. In 2014, then-Director of the Defense Intelligence Agency Lieutenant General Michael T. Flynn warned that:

> Iran can strike targets throughout the region and into Eastern Europe. In addition to its growing missile and rocket inventories, Iran is seeking to enhance lethality and effectiveness of existing systems with improvements in accuracy and warhead designs. Iran is developing the Khalij Fars, an anti-ship ballistic missile which could threaten maritime activity throughout the Persian Gulf and Strait of Hormuz.[41]

Iran's ballistic missiles pose a major threat to U.S. bases and allies from Turkey, Israel, and Egypt in the west to Saudi Arabia and the other Gulf states to the south and Afghanistan and Pakistan to the east. However, it is Israel, which has fought a shadow war with Iran and its terrorist proxies, that is most at risk from an Iranian missile attack. In case the Israeli government had any doubt about Iran's implacable hostility, the Revolutionary Guards displayed a message written in Hebrew on the side of one of the Iranian missiles tested in March 2016: "Israel must be wiped off the earth."[42] The development of nuclear warheads for Iran's ballistic missiles would seriously degrade Israel's ability to deter attacks, an ability

that the existing (but not officially acknowledged) Israeli monopoly on nuclear weapons in the Middle East currently provides.

For Iran's radical regime, hostility to Israel, which Iran sometimes calls the "little Satan," is second only to hostility to the United States, which the leader of Iran's 1979 revolution, Ayatollah Khomeini, dubbed the "great Satan." But Iran poses a greater immediate threat to Israel than it does to the United States, since Israel is a smaller country with fewer military capabilities and is located much closer to Iran. It already is within range of Iran's Shahab-3 missiles. Moreover, all of Israel can be hit with the thousands of shorter-range rockets that Iran has provided to Hezbollah in Lebanon and to Hamas and Palestinian Islamic Jihad in Gaza.

Weapons of Mass Destruction. Tehran has invested tens of billions of dollars since the 1980s in a nuclear weapons program that was masked within its civilian nuclear power program. It built clandestine underground uranium-enrichment facilities, which were subsequently discovered near Natanz and Fordow, and is building a heavy-water reactor near Arak that will give it a second potential route to nuclear weapons.[43]

Before the 2015 nuclear deal, Iran had accumulated enough low-enriched uranium to build eight nuclear bombs if enriched to weapons-grade levels, and it could enrich enough uranium to arm one bomb in less than two months.[44] Clearly, the development of an Iranian nuclear bomb would greatly amplify the threat posed by Iran. Even if Iran did not use a nuclear weapon or pass it on to one of its terrorist surrogates to use, the regime in Tehran could become emboldened to expand its support for terrorism, subversion, and intimidation, assuming that its nuclear arsenal would protect it from retaliation as has been the case with North Korea.

On July 14, 2015, President Barack Obama announced that the United States and Iran, along with China, France, Germany, Russia, the United Kingdom, and the European Union High Representative for Foreign Affairs and Security Policy, had reached a "comprehensive,

long-term deal with Iran that will prevent it from obtaining a nuclear weapon."[45] The agreement, however, did a much better job of dismantling sanctions against Iran than it did of dismantling Iran's nuclear infrastructure.

In fact, the agreement did not require that any of the illicit facilities that Iran covertly built had to be dismantled. Tehran was allowed to continue use of its uranium enrichment facilities at Natanz and Fordow, although the latter facility is to be repurposed at least temporarily as a research site. The heavy-water reactor at Arak was also retained with modifications that will reduce its yield of plutonium. All of these facilities, built covertly and housing operations prohibited by multiple U.N. Security Council Resolutions, have been legitimized by the agreement.

Under the agreement, Tehran not only gets to keep all of its illicit nuclear facilities, but also merely has to mothball—not destroy—centrifuges used to enrich uranium. This means that Iran can quickly expand its enrichment activities and rapidly shorten its nuclear breakout timeline when restrictions on the number of centrifuges and uranium enrichment levels expire in 10 to 15 years.

Iran can quickly reverse all of its concessions if it decides to renege on the deal in the future. Sanctions on Iran, however, especially at the U.N., will not "snap back" into place, but rather will take considerable time to reimpose and take effect—assuming that they can be reimposed at all. Any objections by the Russians or Chinese would further delay the inherent time lag before sanctions could have any significant effect and might even derail U.N. sanctions completely.

The Iran nuclear agreement marked a risky departure from more than five decades of U.S. nonproliferation efforts under which Washington opposed the spread of sensitive nuclear technologies, such as uranium enrichment, even for allies. Iran got a better deal on uranium enrichment under the agreement than such U.S. allies as the United Arab Emirates, South Korea, and Taiwan have received from Washington in the past. In fact, the Obama Administration gave Iran better terms on uranium enrichment than the Ford Administration gave to the Shah of Iran, a close U.S. ally before the 1979 revolution.

Although the Obama Administration downplayed the risks inherent in the nuclear agreement, worried governments in the region are bound to take out insurance policies against a nuclear Iran in the form of their own nuclear programs. This could spur a cascade of nuclear proliferation from threatened states such as Saudi Arabia, Egypt, Turkey, and the UAE. Saudi officials already have announced plans to build as many as 16 nuclear power plants by 2040. The Saudi government signed agreements with Rosatom, Russia's state-run nuclear company, in June 2015 and with China in January 2016 that will significantly advance the Saudi nuclear program,[46] and Egypt signed a November 2015 agreement with Russia to build four nuclear reactors. Although these are civilian nuclear programs, they could be used to mask a push for nuclear weapons, as happened in Iran.

Iran is a declared chemical weapons power that claims to have destroyed all of its chemical weapons stockpiles. U.S. intelligence agencies assess that Iran maintains the capability to produce chemical warfare agents and "probably" has the capability to produce some biological warfare agents for offensive purposes if it should decide to do so.[47] Iran also has threatened to disrupt the flow of Persian Gulf oil exports by closing the Strait of Hormuz in the event of a conflict with the U.S. or its allies.

WWTA: The WWTA assesses that "The Islamic Republic of Iran remains an enduring threat to US national interests because of Iranian support to anti-US terrorist groups and militants, the Asad regime, Huthi rebels in Yemen, and because of Iran's development of advanced military capabilities." Iran "continues to develop a range of new military capabilities to monitor and target US and allied military assets in the region, including armed UAVs, ballistic missiles, advanced naval mines, unmanned explosive boats, submarines and advanced torpedoes, and anti-ship

and land-attack cruise missiles," and "has the largest ballistic missile force in the Middle East and can strike targets up to 2,000 kilometers from [its] borders." In addition, "Russia's delivery of the SA-20c surface-to-air missile system in 2016 provides Iran with its most advanced long-range air defense system," and "IRGC Navy forces operating aggressively in the Persian Gulf and Strait of Hormuz pose a risk to the US Navy." The WWTA concludes "that limited aggressive interactions will continue and are probably intended to project an image of strength and possibly to gauge US responses."[48]

Summary: Iran poses a major potential threat to U.S. bases, interests, and allies in the Middle East by virtue of its ballistic missile capabilities, continued nuclear ambitions, longstanding support for terrorism, and extensive support for Islamist revolutionary groups.

Arab Attack on Israel. In addition to threats from Iran, Israel faces the constant threat of attack from Palestinian, Lebanese, Egyptian, Syrian, and other Arab terrorist groups. The threat posed by Arab states, which lost four wars against Israel in 1948, 1956, 1967, and 1973 (Syria and the PLO lost a fifth war in 1982 in Lebanon), has gradually declined. Egypt and Jordan have signed peace treaties with Israel, and Iraq, Libya, Syria, and Yemen have increasingly brutal civil wars. Although the conventional military threat to Israel from Arab states has declined, the unconventional military and terrorist threats, especially from an expanding number of sub-state actors, have risen substantially.

Iran has systematically bolstered many of these groups, even when it did not necessarily share their ideology. Today, Iran's surrogates, Hezbollah and Palestinian Islamic Jihad, along with Hamas, a more distant ally, pose the chief immediate threats to Israel. After Israel's May 2000 withdrawal from southern Lebanon and the September 2000 outbreak of fighting between Israelis and Palestinians, Hezbollah stepped up its support for such Palestinian extremist groups as Hamas, Palestinian Islamic Jihad, the al-Aqsa Martyrs' Brigades, and the Popular Front for the Liberation of Palestine.

It also expanded its own operations in the West Bank and Gaza and provided funding for specific attacks launched by other groups.

In July 2006, Hezbollah forces crossed the Lebanese border in an effort to kidnap Israeli soldiers inside Israel, igniting a military clash that claimed hundreds of lives and severely damaged the economies on both sides of the border. Hezbollah has since rebuilt its depleted arsenal with help from Iran and Syria. Israeli officials estimate that Hezbollah has amassed around 150,000 rockets, including a number of long-range Iranian-made missiles capable of striking cities throughout Israel.[49]

Since Israel's withdrawal from the Gaza Strip in 2005, Hamas, Palestinian Islamic Jihad, and other terrorist groups have fired more than 11,000 rockets into Israel, sparking wars in 2008–2009, 2012, and 2014.[50] Over 5 million Israelis out of a total population of 8.1 million live within range of rocket attacks from Gaza, although the successful operation of the Iron Dome anti-missile system greatly mitigated this threat during the Gaza conflict in 2014. In that war, Hamas also unveiled a sophisticated tunnel network that it used to infiltrate Israel to launch attacks on Israeli civilians and military personnel.

Israel also faces a growing threat of terrorist attacks from Syria. Islamist extremist groups fighting the Syrian government, including the al-Qaeda–affiliated Hayat Tahrir al-Sham (formerly al-Nusra Front), have attacked Israeli positions in the Golan Heights, which Israel captured in the 1967 Arab–Israeli war.

WWTA: The WWTA does not reference Arab threats to Israel.

Summary: The threat posed to Israel by Arab states has declined in recent years as a result of the overthrow or weakening of hostile Arab regimes in Iraq and Syria. However, there is a growing threat from sub-state actors such as Hamas, Hezbollah, the Islamic State, and other terrorist groups in Egypt, Gaza, Lebanon, and Syria. Given the region's inherent volatility, the general destabilization that has occurred as a consequence of Syria's civil war, the growth of the Islamic State as a major threat actor, and the United States' long-standing support for

Israel, any concerted attack on Israel would be a major concern for the U.S.

Terrorist Threats from Hezbollah. Hezbollah is a close ally of, frequent surrogate for, and terrorist subcontractor for Iran's revolutionary Islamist regime. Iran played a crucial role in creating Hezbollah in 1982 as a vehicle for exporting its revolution, mobilizing Lebanese Shia, and developing a terrorist surrogate for attacks on its enemies.

Tehran provides the bulk of Hezbollah's foreign support: arms, training, logistical support, and money. The Pentagon estimates that Iran provides up to $200 million in annual financial support for Hezbollah; other estimates run as high as $350 million annually.[51] Tehran has lavishly stocked Hezbollah's expensive and extensive arsenal of rockets, sophisticated land mines, small arms, ammunition, explosives, anti-ship missiles, anti-aircraft missiles, and even unmanned aerial vehicles that Hezbollah can use for aerial surveillance or remotely piloted terrorist attacks. Iranian Revolutionary Guards have trained Hezbollah terrorists in Lebanon's Bekaa Valley and in Iran.

Iran has used Hezbollah as a club to hit not only Israel and Tehran's Western enemies, but also many Arab countries. Iran's revolutionary ideology has fueled its hostility to other Middle Eastern states, many of which it seeks to overthrow and replace with radical allies. During the Iran–Iraq war, Iran used Hezbollah to launch terrorist attacks against Iraqi targets and against Arab states that sided with Iraq. Hezbollah launched numerous terrorist attacks against Saudi Arabia and Kuwait, which extended strong financial support to Iraq's war effort, and participated in several other terrorist operations in Bahrain and the United Arab Emirates.

Iranian Revolutionary Guards conspired with the branch of Hezbollah in Saudi Arabia to conduct the 1996 Khobar Towers bombing in Saudi Arabia. Hezbollah collaborated with the IRGC's Quds Force to destabilize Iraq after the 2003 U.S. occupation and helped to train and advise the Mahdi Army, the radical anti-Western Shiite militia led by militant

Iraqi cleric Moqtada al-Sadr. Hezbollah detachments also have cooperated with IRGC forces in Yemen to train and assist the Houthi rebel movement.

Hezbollah threatens the security and stability of the Middle East and Western interests in the Middle East on a number of fronts. In addition to its murderous actions against Israel, Hezbollah has used violence to impose its radical Islamist agenda and subvert democracy in Lebanon. Although some experts believed that Hezbollah's participation in the 1992 Lebanese elections and subsequent inclusion in Lebanon's parliament and coalition governments would moderate its behavior, its political inclusion did not lead it to renounce terrorism.

Hezbollah also poses a potential threat in Europe to America's NATO allies. Hezbollah established a presence inside European countries in the 1980s amid the influx of Lebanese citizens seeking to escape Lebanon's civil war. It took root among Lebanese Shiite immigrant communities throughout Europe. German intelligence officials estimate that roughly 900 Hezbollah members live in Germany alone. Hezbollah also has developed an extensive web of fundraising and logistical support cells throughout Europe.[52]

France and Britain have been the principal European targets of Hezbollah terrorism, in part because both countries opposed Hezbollah's agenda in Lebanon and were perceived as enemies of Iran, Hezbollah's chief patron. Hezbollah has been involved in many terrorist attacks against Europeans, including:

- The October 1983 bombing of the French contingent of the multinational peacekeeping force in Lebanon (on the same day as the U.S. Marine barracks bombing), which killed 58 French soldiers;

- The December 1983 bombing of the French embassy in Kuwait;

- The April 1985 bombing of a restaurant near a U.S. base in Madrid, Spain, which killed 18 Spanish citizens;

- A campaign of 13 bombings in France in 1986 that targeted shopping centers and railroad facilities, killing 13 people and wounding more than 250; and

- A March 1989 attempt to assassinate British novelist Salman Rushdie that failed when a bomb exploded prematurely, killing a terrorist in London.

Hezbollah attacks in Europe trailed off in the 1990s after Hezbollah's Iranian sponsors accepted a truce in their bloody 1980–1988 war with Iraq and no longer needed a surrogate to punish states that Tehran perceived as supporting Iraq. Significantly, the participation of European troops in Lebanese peacekeeping operations, which became a lightning rod for Hezbollah terrorist attacks in the 1980s, could become an issue again if Hezbollah attempts to revive its aggressive operations in southern Lebanon. Troops from European Union member states may someday find themselves attacked by Hezbollah with weapons financed by Hezbollah supporters in their home countries.

As of 2015, Hezbollah operatives were deployed in countries throughout Europe, including Belgium, Bulgaria, Cyprus, France, Germany, and Greece.[53]

WWTA: The WWTA assesses that Iran remains "the foremost state sponsor of terrorism and, with its primary terrorism partner, Lebanese Hizballah, will pose a continuing threat to US interests and partners worldwide. The Syrian, Iraqi, and Yemeni conflicts will continue to aggravate the rising Sunni-Shia sectarian conflict, threatening regional stability."[54]

Summary: Hezbollah poses a major potential terrorist threat to the U.S. and its allies in the Middle East and Europe.

Al-Qaeda: A Continuing Regional Threat. The Arab Spring uprisings that began in 2011 have created power vacuums that al-Qaeda, the Islamic State, and other Islamist extremist groups have exploited to advance their hostile agendas. The al-Qaeda network has taken advantage of failed or failing states in Iraq, Libya, Mali, Syria, and Yemen. The fall of autocratic Arab regimes and the subsequent factional infighting within the ad hoc coalitions that ousted them created anarchic conditions that have enabled al-Qaeda franchises to expand the territories that they control. Rising sectarian tensions resulting from conflicts in Iraq, Syria, and Yemen also have presented al-Qaeda and other Sunni extremist groups with major opportunities to expand their activities.

Jonathan Evans, Director General of the British Security Service (MI5), has warned that "parts of the Arab world have once more become a permissive environment for al-Qaeda."[55] In Egypt, Libya, Syria, Tunisia, and Yemen, the collapse or purge of intelligence and counterterrorism organizations removed important constraints on the growth of al-Qaeda and similar Islamist terrorist groups. Many dangerous terrorists were released or escaped from prison. Al-Qaeda and other revolutionary groups were handed new opportunities to recruit, organize, attract funding for, train, and arm a new wave of followers and to consolidate safe havens from which to mount future attacks.

The Arab Spring uprisings were a golden opportunity for al-Qaeda, coming at a time when its sanctuaries in Pakistan were increasingly threatened by U.S. drone strikes. Given al-Qaeda's Arab roots, the Middle East and North Africa provide much better access to potential Arab recruits than is provided by the more distant and remote regions along the Afghanistan–Pakistan border, where many al-Qaeda cadres fled after the fall of Afghanistan's Taliban regime in 2001. The countries destabilized by the Arab uprisings also could provide easier access to al-Qaeda's Europe-based recruits, who pose dangerous threats to the U.S. homeland by virtue of their European passports and greater ability to blend into Western societies.

WWTA: The WWTA assesses that "US and global counterterrorism (CT) partners have significantly reduced al-Qa'ida's ability to carry out large-scale, mass casualty attacks, particularly against the US homeland," but that "al-Qa'ida and its affiliates remain a significant CT threat overseas as they remain focused on exploiting local and regional conflicts." Both

"al-Nusrah Front and al-Qa'ida in the Arabian Peninsula (AQAP) faced CT pressure in Syria and Yemen, respectively," in 2016 "but have preserved the resources, manpower, safe haven, local influence, and operational capabilities to continue to pose a threat."[56]

Summary: The al-Qaeda network and the Islamic State have exploited the political turbulence of the Arab Spring to expand their strength and control of territory in the Middle East. Although the Islamic State has been rolled back in Iraq and Syria, it continues to pose regional threats to the U.S. and its allies.

Growing Threats to Jordan. Jordan, a key U.S. ally, faces external threats from Syria's Assad regime and from Islamist extremists, including the Islamic State, who have carved out sanctuaries in Syria and Iraq. Jordan's cooperation with the United States, Saudi Arabia, and other countries in the air campaign against the IS in Syria and in supporting moderate elements of the Syrian opposition has angered both the Assad regime and Islamist extremist rebels. Damascus could retaliate for Jordanian support for Syrian rebels with cross-border attacks, air strikes, ballistic missile strikes, or the use of terrorist attacks by such surrogates as Hezbollah or the PFLP–GC.

The Islamic State is committed to overthrowing the government of Jordan and replacing it with an Islamist dictatorship. In its previous incarnation as al-Qaeda in Iraq, the IS mounted attacks against targets in Jordan that included the November 2005 suicide bombings at three hotels in Amman that killed 57 people.[57] The IS also burned to death a Jordanian Air Force pilot captured in Syria after his plane crashed and released a video of his grisly murder in February 2015. Jordan also faces threats from Hamas and from Jordanian Islamist extremists, particularly some based in the southern city of Maan who organized pro-IS demonstrations in 2014. Although Jordanian security forces have foiled several IS terrorist plots, six Jordanian border guards were killed by a car bomb on June 21, 2016, prompting Jordan to close the border.

WWTA: The WWTA does not reference threats to Jordan.

Summary: Jordan faces significant security threats from the Islamic State, based in neighboring Syria and Iraq. Because Jordan is one of the very few Arab states that maintain a peaceful relationship with Israel and has been a key regional partner in fighting Islamist terrorism, its destabilization would be a troubling development.

Terrorist Attacks on and Possible Destabilization of Egypt. The 2011 ouster of President Hosni Mubarak's regime undermined the authority of Egypt's central government and allowed disgruntled Bedouin tribes, Islamist militants, and smuggling networks to grow stronger and bolder in Egypt's Sinai Peninsula. President Mohamed Morsi's Muslim Brotherhood–backed government, elected to power in 2012, took a relaxed attitude toward Hamas and other Gaza-based Islamist extremists, enabling Islamist militants in the Sinai to grow even stronger with support from Gaza. They carved out a staging area in the remote mountains of the Sinai that they have used as a springboard for attacks on Israel, Egyptian security forces, tourists, the Suez Canal, and a pipeline carrying Egyptian natural gas to Israel and Jordan.

The July 2013 coup against Morsi resulted in a military government that took a much harder line against the Sinai militants, but it also raised the ire of more moderate Islamists, who could turn to terrorism to avenge Morsi's fall. Terrorist attacks, which had been limited to the Sinai, expanded in lethality and intensity to include bomb attacks in Cairo and other cities by early 2014. In November 2014, the Sinai-based terrorist group Ansar Bayt al-Maqdis (Supporters of Jerusalem) declared its allegiance to the Islamic State and renamed itself the Sinai Province of the Islamic State. It has launched a growing terrorist campaign against Egypt's army, police, and other government institutions, as well as the country's Christian minority, and has claimed responsibility for the October 31, 2015, bombing of a Russian passenger plane flying to Saint Petersburg from Sharm-el-Sheikh that killed 224 people.

Egypt also faces potential threats from Islamist militants and al-Qaeda affiliates based

in Libya. The Egyptian air force bombed Islamic State targets in Libya on February 16, 2015, the day after the terrorist organization released a video showing the decapitation of 21 Egyptian Christians who had been working in Libya. Egypt has stepped up security operations along the border with Libya to block the smuggling of arms and militants into Egypt. Cairo also has supported Libyans fighting Islamist extremists in eastern Libya.

During the 2014 conflict between Hamas and Israel, Egypt closed tunnels along the Gaza–Sinai border that have been used to smuggle goods, supplies, and weapons into Gaza. It has continued to uncover and destroy tunnels to disrupt an important source of external support for Sinai Province terrorists. Egypt has continued to uphold its peace treaty with Israel and remains an important ally against Islamist terrorist groups.

WWTA: The WWTA does not reference threats to Egypt.

Summary: Egypt is threatened by Islamist extremist groups that have established bases in the Sinai Peninsula, Gaza, and Libya. Left unchecked, these groups could foment greater instability not only in Egypt, but also in neighboring countries.

Threats to Saudi Arabia and Other Members of the Gulf Cooperation Council. Saudi Arabia and the five other Arab Gulf states—Bahrain, Kuwait, Oman, Qatar, and the United Arab Emirates—formed the Gulf Cooperation Council (GCC) in 1981 to deter and defend against Iranian aggression. Iran remains the primary external threat to their security. Tehran has supported groups that launched terrorist attacks against Bahrain, Kuwait, Saudi Arabia, and Yemen. It sponsored the Islamic Front for the Liberation of Bahrain, a surrogate group that plotted a failed 1981 coup against Bahrain's ruling Al Khalifa family, the Sunni rulers of the predominantly Shia country. Iran also has long backed Bahraini branches of Hezbollah and the Dawa Party. However, in recent years, some members of the GCC, led mainly by Saudi Arabia, have shown concern over Qatar's perceived coziness with Iran, with which Doha shares a major gas field in the Gulf. This led to the breakdown of diplomatic relations between many Arab states and Qatar in June 2017.[58]

When Bahrain was engulfed in a wave of Arab Spring protests in 2011, its government charged that Iran again exploited the protests to back the efforts of Shia radicals to overthrow the royal family. Saudi Arabia, fearing that a Shia revolution in Bahrain would incite its own restive Shia minority, led a March 2011 GCC intervention that backed Bahrain's government with about 1,000 Saudi troops and 500 police from the United Arab Emirates.

Bahrain has repeatedly intercepted shipments of Iranian arms, including sophisticated bombs employing explosively formed penetrators (EFPs). The government withdrew its ambassador to Tehran when two Bahrainis with ties to the IRGC were arrested after their arms shipment was intercepted off Bahrain's coast in July 2015. Iranian hardliners have steadily escalated pressure on Bahrain. In March 2016, a former IRGC general who is a close adviser to Ayatollah Khamenei stated that "Bahrain is a province of Iran that should be annexed to the Islamic Republic of Iran."[59] After Bahrain stripped a senior Shiite cleric, Sheikh Isa Qassim, of his citizenship, General Qassim Suleimani, commander of the IRGC's Quds Force, threatened to make Bahrain's royal family "pay the price and disappear."[60]

Saudi Arabia also has criticized Iran for supporting radical Saudi Shiites, intervening in Syria, and supporting Shiite Islamists in Lebanon, Iraq, and Yemen. In January 2016, Saudi Arabia executed a Shiite cleric charged with sparking anti-government protests and cut diplomatic ties with Iran after Iranian mobs enraged by the execution attacked and set fire to the Saudi embassy in Tehran.

Saudi Arabia also faces threats from Islamist extremists, including al-Qaeda offshoots in Iraq and Yemen that have attracted many Saudi recruits. Al-Qaeda launched a series of bombings and terrorist attacks inside the kingdom in 2003 and a major attack on the vital Saudi oil facility in Abqaiq in 2006, but a security crackdown drove many of its members out of the country by the end of the decade. Many of them joined

Al-Qaeda in the Arabian Peninsula in neighboring Yemen. AQAP has flourished, aided by the instability fostered by Arab Spring protests and the ouster of the Yemeni government by Iran-backed Houthi rebels in early 2015.

In addition to terrorist threats and possible rebellions by Shia or other disaffected internal groups, Saudi Arabia and the other GCC states face possible military threats from Iran. Because of their close security ties with the United States, Tehran is unlikely to launch direct military attacks against these countries, but it has backed Shiite terrorist groups within GCC states such as Saudi Hezbollah and has supported the Shiite Houthi rebels in Yemen. In March 2015, Saudi Arabia led a 10-country coalition that launched a military campaign against Houthi forces and provided support for ousted Yemeni President Abdu Rabu Mansour Hadi, who took refuge in Saudi Arabia. The Saudi Navy also established a blockade of Yemeni ports to prevent Iran from aiding the rebels.

WWTA: The WWTA assesses that "Iran's leaders remain focused on thwarting US and Israeli influence and countering what they perceive as a Saudi-led effort to fuel Sunni extremism and terrorism against Iran and Shia communities throughout the region."[61]

Summary: Saudi Arabia and other members of the Gulf Cooperation Council face continued threats from Iran as well as rising threats from Islamist extremist groups such as al-Qaeda, the Islamic State, and Houthi militias in Yemen. Saudi citizens and Islamic charities have supported Islamist extremist groups, and the Saudi government promulgates the religious views of the fundamentalist Wahhabi sect of Sunni Islam, but the Saudi government also serves to check radical Islamist groups like the Islamic State and is a regional counterbalance to Iran.

Threats to the Commons

The United States has critical interests at stake in the Middle Eastern commons: sea, air, space, and cyber. The U.S. has long provided the security backbone in these areas, which in turn has supported the region's economic development and political stability.

Maritime. Maintaining the security of the sea lines of communication in the Persian Gulf, Arabian Sea, Red Sea, and Mediterranean Sea is a high priority for strategic, economic, and energy security purposes. The Persian Gulf region contains approximately 50 percent of the world's oil reserves and is a crucial source of oil and gas for energy-importing states, particularly China, India, Japan, South Korea, and many European countries. The flow of that oil could be interrupted by interstate conflict or terrorist attacks.

Bottlenecks such as the Strait of Hormuz, the Suez Canal, and the Bab el-Mandeb Strait are potential choke points for restricting the flow of oil, international trade, and the deployment of U.S. Navy warships. The chief potential threat to the free passage of ships through the Strait of Hormuz, one of the world's most important maritime choke points, is Iran. Approximately 17 million barrels of oil a day—roughly 30 percent of the seaborne oil traded worldwide—flowed through the strait in 2016.[62]

Iran has trumpeted the threat that it could pose to the free flow of oil exports from the Gulf if it is attacked or threatened with a cutoff of its own oil exports. Iran's leaders have threatened to close the Strait of Hormuz, the jugular vein through which most Gulf oil exports flow to Asia and Europe. Although the United States has greatly reduced its dependence on oil exports from the Gulf, it still would sustain economic damage in the event of a spike in world oil prices, and many of its European and Asian allies and trading partners import a substantial portion of their oil needs from the region. Iran's Supreme Leader, Ayatollah Ali Khamenei, has repeatedly played up Iran's threat to international energy security, proclaiming in 2006 that "[i]f the Americans make a wrong move toward Iran, the shipment of energy will definitely face danger, and the Americans would not be able to protect energy supply in the region."[63]

Iran has established a precedent for attacking oil shipments in the Gulf. During the Iran–Iraq war, each side targeted the other's oil facilities, ports, and oil exports. Iran escalated attacks to include neutral Kuwaiti oil tankers and terminals and clandestinely laid mines in

Persian Gulf shipping lanes while its ally Libya clandestinely laid mines in the Red Sea. The United States defeated Iran's tactics by reflagging Kuwaiti oil tankers, clearing the mines, and escorting ships through the Persian Gulf, but a large number of commercial vessels were damaged during the "Tanker War" from 1984 to 1987.

Iran's demonstrated willingness to disrupt oil traffic through the Persian Gulf in the past to place economic pressure on Iraq is a red flag to U.S. military planners. During the 1980s Tanker War, Iran's ability to strike at Gulf shipping was limited by its aging and outdated weapons systems and the U.S. arms embargo imposed after the 1979 revolution. However, since the 1990s, Iran has been upgrading its military with new weapons from North Korea, China, and Russia, as well as with weapons manufactured domestically.

Today, Iran boasts an arsenal of Iranian-built missiles based on Russian and Chinese designs that pose significant threats to oil tankers as well as warships. Iran is well stocked with Chinese-designed anti-ship cruise missiles, including the older HY-2 Seersucker and the more modern CSS-N-4 Sardine and CSS-N-8 Saccade models. Iran also has reverse engineered Chinese missiles to produce its own anti-ship cruise missiles, the Ra'ad and Noor.[64] Shore-based missiles deployed along Iran's coast would be augmented by aircraft-delivered laser-guided bombs and missiles, as well as by television-guided bombs.

Iran has a large supply of anti-ship mines, including modern mines that are far superior to the simple World War I–style contact mines that it used in the 1980s. They include the Chinese-designed EM-52 "rocket" mine, which remains stationary on the sea floor and fires a homing rocket when a ship passes overhead. In addition, Iran can deploy mines or torpedoes from its three *Kilo*-class submarines, which would be effectively immune to detection for brief periods when running silent and remaining stationary on a shallow bottom just outside the Strait of Hormuz,[65] and also could deploy mines by mini-submarines, helicopters, or small boats disguised as fishing vessels.

Iran's Revolutionary Guard naval forces have developed swarming tactics using fast attack boats and could deploy naval commandos trained to attack using small boats, mini-submarines, and even jet skis. The Revolutionary Guards also have underwater demolition teams that could attack offshore oil platforms and other facilities.

On April 28, 2015, the Revolutionary Guard naval force seized the *Maersk Tigris*, a container ship registered in the Marshall Islands, near the Strait of Hormuz. Tehran claimed that it seized the ship because of a previous court ruling ordering the Maersk Line, which charters the ship, to make a payment to settle a dispute with a private Iranian company. The ship was later released after being held for more than a week.[66] An oil tanker flagged in Singapore, the *Alpine Eternity*, was surrounded and attacked by Revolutionary Guard gunboats in the strait on May 14, 2015, when it refused to be boarded. Iranian authorities alleged that it had damaged an Iranian oil platform in March, although the ship's owners maintained that it had hit an uncharted submerged structure.[67] The Revolutionary Guard's aggressive tactics in using commercial disputes as pretexts for the illegal seizures of transiting vessels prompted the U.S. Navy to escort American and British-flagged ships through the Strait of Hormuz for several weeks in May before tensions eased.

The July 2015 nuclear agreement has not altered the confrontational tactics of the Revolutionary Guards in the Gulf.[68] IRGC naval forces have frequently challenged U.S. naval forces in a series of incidents in recent years. IRGC missile boats launched rockets within 1,500 yards of the carrier *Harry S. Truman* near the Strait of Hormuz in late December 2015, flew drones over U.S. warships, and detained and humiliated 10 American sailors in a provocative January 12, 2016, incident. Despite the fact that the two U.S. Navy boats carrying the sailors had drifted inadvertently into Iranian territorial waters, the vessels had the right of innocent passage, and their crews should not have been subjected to being disarmed, forced onto their knees, filmed, and exploited in propaganda videos.

Finally, Tehran could use its extensive client network in the region to sabotage oil pipelines and other infrastructure or to strike oil tankers in port or at sea. Iranian Revolutionary Guards deployed in Yemen reportedly played a role in the unsuccessful October 9 and 12, 2016, missile attacks launched by Houthi rebels against the USS *Mason*, a U.S. Navy warship, near the Bab el-Mandeb Strait in the Red Sea.[69] The Houthis denied that they launched the missiles, but they did claim responsibility for an October 1, 2016, attack on a UAE naval vessel and the suicide bombing of a Saudi warship in February 2017.

Terrorists also pose a potential threat to oil tankers and other ships. Al-Qaeda strategist Abu Mus'ab al-Suri identified four strategic choke points that should be targeted for disruption: the Strait of Hormuz, the Suez Canal, the Bab el-Mandeb Strait, and the Strait of Gibraltar.[70] In 2002, al-Qaeda terrorists attacked and damaged the French oil tanker *Limbourg* off the coast of Yemen. Al-Qaeda also almost sank the USS *Cole*, a guided-missile destroyer, in the port of Aden, killing 17 American sailors with a suicide boat bomb in 2000. An Egyptian patrol boat was attacked in November 2014 by the crews of small boats suspected of smuggling arms to Islamist terrorists in Gaza. In July 2015, the Islamic State–Sinai Province claimed responsibility for a missile attack on an Egyptian coast guard vessel.

Terrorists also have targeted the Suez Canal. In two incidents on July 29 and August 31, 2013, ships in the waterway were attacked with rocket-propelled grenades. The attacks were claimed by a shadowy Islamist extremist group called the Furqan Brigades, which operated in Egypt's Sinai Peninsula.[71] The vessels reportedly escaped major damage. More important, the canal was not forced to close, which would have disrupted global shipping operations, ratcheted up oil prices, and complicated the deployment of U.S. and NATO naval vessels responding to potential crises in the Middle East, Persian Gulf, and Horn of Africa.

Over the past decade, piracy off the coast of Somalia has threatened shipping near the Bab el-Mandeb Strait and the Gulf of Aden. After more than 230 pirate attacks off the coast of Somalia in 2011, the number of attacks fell off steeply because of security precautions such as the deployment of armed guards on cargo ships and increased patrols by the U.S. Navy and other navies.[72] Then, after a four-year lull, pirate attacks surged in 2016 with 27 incidents, although no ships were hijacked. Between January and May 2017, three commercial vessels were hijacked, the first to be taken since 2012.[73] Somali criminal networks apparently have exploited a decline in international naval patrols and the complacency of some shipping operators who have failed to deploy armed guards on ships in vulnerable shipping lanes.

WWTA: The WWTA does not reference maritime threats in the Middle East region.

Summary: Iran poses the chief potential threat to shipping in the Strait of Hormuz and a growing threat in the Red Sea, and various terrorist groups pose the chief threats to shipping in the Suez Canal and the Bab el-Mandeb Strait. Although pirate attacks off the coast of Somalia declined steeply between 2011 and 2016, there was a spike in attacks in early 2017.

Airspace. The Middle East is particularly vulnerable to attacks on civilian aircraft. Large quantities of arms, including man-portable air defense systems (MANPADS), were looted from Libyan arms depots after the fall of Muammar Qadhafi's regime in 2011. Although Libya is estimated to have had up to 20,000 MANPADS, mostly old Soviet models, only about 10,000 have been accounted for, and an unknown number may have been smuggled out of Libya, which is a hotbed of Islamist radicalism.[74]

U.S. intelligence sources have estimated that at least 800 MANPADS fell into the hands of foreign insurgent groups after being moved out of Libya.[75] Libyan MANPADS have turned up in the hands of AQIM, the Nigerian Boko Haram terrorist group, and Hamas in Gaza. At some point, one or more could be used in a terrorist attack against a civilian airliner. Insurgents or terrorists also could use anti-aircraft missile systems captured from regime forces in Iraq, Syria, and Yemen. In January 2015, a commercial airliner

landing at Baghdad International Airport was hit by gunfire that injured a passenger and prompted a temporary suspension of flights to Baghdad.

Al-Qaeda also has used MANPADS in several terrorist attacks. In 2002, it launched two SA-7 MANPADS in a failed attempt to bring down an Israeli civilian aircraft in Kenya. In 2007, the al-Qaeda affiliate al-Shabaab shot down a Belarusian cargo plane in Somalia, killing 11 people.[76] Al-Qaeda's al-Nusra Front and the Islamic State have acquired substantial numbers of MANPADS from government arms depots in Iraq and Syria. Although such weapons may pose only a limited threat to modern warplanes equipped with countermeasures, they pose a growing threat to civilian aircraft in the Middle East and could be smuggled into the United States and Europe to threaten aircraft there.

The Islamic State–Sinai Province claimed responsibility for a bomb that destroyed Metrojet Flight 9268, a Russian passenger jet en route from Sharm el-Sheikh, Egypt, to Saint Petersburg, Russia, on October 31, 2015. The incident claimed the lives of 224 people on the plane, one of the biggest death tolls in a terrorist attack in recent years. The May 19, 2016, crash of EgyptAir flight MS804, which killed 66 people flying from Paris, France, to Cairo, Egypt, has been attributed to a fire, but the cause of that onboard fire has not been determined.

WWTA: The WWTA makes no mention of the terrorist threat to airspace in the Middle East.

Summary: Al-Qaeda, the Islamic State, and other terrorists have seized substantial numbers of anti-aircraft missiles from military bases in Iraq, Libya, and Syria that pose potential threats to safe transit of airspace in the Middle East, North Africa, and elsewhere.

Space. Iran has launched satellites into orbit, but there is no evidence that it has an offensive space capability. Tehran successfully launched three satellites in February 2009, June 2011, and February 2012 using the Safir space launch vehicle, which uses a modified Ghadr-1 missile for its first stage and has a second stage that is based on an obsolete Soviet submarine-launched ballistic missile, the R-27.[77] The technology probably was transferred by North Korea, which built its BM-25 missiles using the R-27 as a model.[78] Safir technology could be used as a basis to develop long-range ballistic missiles.

Iran claimed that it launched a monkey into space and returned it safely to Earth twice in 2013.[79] Tehran also announced in June 2013 that it had established its first space tracking center to monitor objects in "very remote space" and to help manage the "activities of satellites."[80]

WWTA: The WWTA assesses that "[p]rogress on Iran's space program could shorten a pathway to an ICBM because space launch vehicles use similar technologies."[81]

Summary: Iran has launched satellites into orbit successfully, but there is no evidence that it has developed an offensive space capability that could deny others the use of space or exploit space as a base for offensive weaponry.

Cyber Threats. Iranian cyber capabilities present a significant threat to the U.S. and its allies. Iran has developed offensive cyber capabilities as a tool of espionage and sabotage and claims to have the world's fourth largest cyber force, "a broad network of quasi-official elements, as well as regime-aligned 'hacktivists,' who engage in cyber activities broadly consistent with the Islamic Republic's interests and views."[82]

The creation of the "Iranian Cyber Army" in 2009 marked the beginning of a cyber offensive against those whom the Iranian government regards as enemies. A hacking group dubbed the Ajax Security Team, believed to be operating out of Iran, has used malware-based attacks to target U.S. defense organizations and has successfully breached the Navy Marine Corps Intranet. In addition, the group has targeted dissidents within Iran, seeding versions of anti-censorship tools with malware and gathering information about users of those programs.[83] Iran has invested heavily in cyber capabilities, with an annual budget reported to be almost $1 billion in 2012.[84]

Hostile Iranian cyber activity has increased significantly since the beginning of 2014 and

could threaten U.S. critical infrastructure, according to an April 2015 report released by the American Enterprise Institute. The Islamic Revolutionary Guard Corps and Sharif University of Technology are two Iranian institutions that investigators have linked to efforts to infiltrate U.S. computer networks, according to the report.[85]

Iran allegedly has used cyber weapons to engage in economic warfare, most notably the sophisticated and debilitating denial-of-service attacks against a number of U.S. financial institutions, including the Bank of America, JPMorgan Chase, and Citigroup.[86] In February 2014, Iran launched a crippling cyber attack against the Sands Casino in Las Vegas, owned by Sheldon Adelson, a leading supporter of Israel who is known to be critical of the Iranian regime.[87] In 2012, Tehran was suspected of launching the "Shamoon" virus attack on Saudi Aramco, the national oil company that produces more than 10 percent of the world's oil, which destroyed around 30,000 computers, as well as an attack on Qatari natural gas company Rasgas's computer networks.[88]

U.S. officials warned of a surge of sophisticated computer espionage by Iran in the fall of 2015 that included a series of cyber attacks against State Department officials.[89] In March 2016, the Justice Department indicted seven Iranian hackers for penetrating the computer system that controlled a dam in the State of New York.[90]

The sophistication of these and other Iranian cyber attacks, together with Iran's willingness to use these weapons, has led various experts to name Iran as one of America's most cyber-capable opponents. Iranian cyber forces have gone so far as to create fake online personas in order to extract information from U.S. officials through accounts such as LinkedIn, YouTube, Facebook, and Twitter.[91]

WWTA: The WWTA assessed that "Tehran continues to leverage cyber espionage, propaganda, and attacks to support its security priorities, influence events and foreign perceptions, and counter threats—including against US allies in the region." It also has "used its cyber capabilities directly against the United States. For example, in 2013, an Iranian hacker conducted an intrusion into the industrial control system of a US dam, and in 2014, Iranian actors conducted a data deletion attack against the network of a US-based casino."[92]

Summary: Iranian cyber capabilities present significant espionage and sabotage threats to the U.S. and its allies, and Tehran has shown willingness and skill in using them.

Threat Scores

Iran. Iran represents by far the most significant security challenge to the United States, its allies, and its interests in the greater Middle East. Its open hostility to the United States and Israel, sponsorship of terrorist groups like Hezbollah, and history of threatening the commons underscore the problem it could pose. Today, Iran's provocations are mostly a concern for the region and America's allies, friends, and assets there. Iran relies heavily on irregular (to include political) warfare against others in the region and fields more ballistic missiles than any of its neighbors. The development of its ballistic missiles and potential nuclear capability also mean that it poses a long-term threat to the security of the U.S. homeland.

According to the International Institute for Strategic Studies' *Military Balance 2017*, among the key weapons in Iran's inventory are 22-plus MRBMs, 18-plus SRBMs, 333 combat-capable aircraft, 1,513 main battle tanks, 640-plus APCs, 21 tactical submarines, seven corvettes, and 13 amphibious landing ships. There are 523,000 personnel in the armed forces, including 350,000 in the Army, 125,000 in the Islamic Revolutionary Guard Corps, and 18,000 in the Navy. With regard to these capabilities, the IISS assesses that:

> Iran continues to rely on a mix of ageing combat equipment, reasonably well-trained regular and Islamic Revolutionary Guard Corps (IRGC) forces, and its ballistic-missile inventory to underpin the security of the state. The IRGC, including senior military leaders, has been increasingly involved in the civil war in Syria, supporting President Bashar al-Assad's regular and irregular forces; it was first deployed to Syria in an "advisory" role in 2012....

The military continues to struggle with an ageing inventory of primary combat equipment that ingenuity and asymmetric warfare techniques can only partially offset....

The nuclear agreement with the P5+1 and the European Union also begins to open the way for Iran to revamp its equipment inventory, with China and Russia potentially major suppliers, though sales of conventional systems remain embargoed for five years.[93]

This *Index* assesses the overall threat from Iran, considering the range of contingencies, as "aggressive" and "gathering." Iran's capability score holds at "gathering" from 2017 to 2018.

Threats: Iran

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior		✓			

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability		✓			

....

Greater Middle East–Based Terrorism

Collectively, the varied non-state actors in the Middle East that are vocally and actively opposed to the United States are the closest to being rated "aggressive" with regard to the degree of provocation they exhibit. These groups, from the Islamic State to al-Qaeda and its affiliates, Hezbollah, and the range of Palestinian terrorist organizations in the region, are primarily a threat to America's allies, friends, and interests in the Middle East. Their impact on the American homeland is mostly a concern for American domestic security agencies, but they pose a challenge to the stability of the region that could result in the emergence of more dangerous threats to the United States.

The IISS *Military Balance* addresses only the military capabilities of states. Consequently, it does not provide any accounting of such entities as Hezbollah, Hamas, al-Qaeda, or the Islamic State.

This *Index* assesses the overall threat from greater Middle East–based terrorism, considering the range of contingencies, as "aggressive" and "capable." The decrease from "hostile" to "aggressive" reflects significant losses in territorial control and subsequent need to focus their efforts on defending and maintaining regional holds.[94]

Threats: Middle East Terrorism

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior		✓			

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability			✓		

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94. This *Index* scores threat capability as it relates to the vital national interests of the U.S. and the role and utility of U.S. military forces. Terrorist groups clearly have the ability to conduct attacks using improvised explosive devices (IEDs), firearms, and even hijacked airplanes. The bombing of the Boston Marathon in April 2013, an attempted car bomb attack in New York City's Times Square in May 2010, and al-Qaeda's attacks on September 11, 2001, are stark examples. Often, the U.S. has handled terrorism as a law enforcement and intelligence collection matter, especially within the United States and when it presents a threat to particular U.S. interests in other countries. Compared to the types of threats posed by states such as China or Russia, terrorism is a lesser sort of threat to the security and viability of the U.S. as a global power. This *Index* does not dismiss the deaths, injuries, and damage that terrorists can inflict on Americans at home and abroad; it places the threat posed by terrorism in context with substantial threats to the U.S. homeland, the potential for major regional conflict, and the potential to deny U.S. access to the global commons. With this in mind, terrorist groups seldom have the physical ability either to accomplish the extreme objectives they state or to present a physical threat that rises to a level that threatens U.S. vital security interests. Of course, terrorist organizations can commit acts of war on a continuing basis, as reflected in their conduct in the war against al-Qaeda and its associates in which the United States has been engaged for more than a decade.

Asia

Threats to the Homeland

Threats to the U.S. homeland include terrorist threats from non-state actors resident in ungoverned areas of South Asia, an active and growing North Korean ballistic missile capability, and a credible Chinese nuclear missile capability that supports other elements of China's national power.

Terrorism Originating from Afghanistan and Pakistan (AfPak). Terrorist groups operating from Pakistan and Afghanistan continue to pose a direct threat to the U.S. homeland. Pakistan is home to a host of terrorist groups that keep the region unstable and contribute to the spread of global terrorism. The killing of Osama bin Laden at his hideout in Abbottabad, Pakistan, in May 2011 and an intensive drone campaign in Pakistan's tribal areas bordering Afghanistan from 2010–2012 have helped to degrade the al-Qaeda threat. However, the presence of a major al-Qaeda training camp in southern Afghanistan that U.S. and Afghan forces destroyed last October demonstrates that the international terrorist organization has the ability to regenerate, particularly in areas where the Taliban is influential. A joint U.S.–Afghan military operation involving 200 U.S. Special Operations Forces destroyed the al-Qaeda camp located in Kandahar province, killing 160 terrorists.[1]

In addition to al-Qaeda, several other like-minded terrorist groups still thrive along the Afghanistan–Pakistan border, carry out regular attacks in Pakistan and Afghanistan, and target U.S. interests in the region and beyond. The Afghan Taliban and its allies, headquartered in Pakistan, have stepped up attacks against the Afghan National Security Forces (ANSF) over the past year and are making a push to regain territory in Afghanistan as international forces depart. As of April 2016, around 13,200 U.S. and NATO troops were in Afghanistan as part of Operation Resolute Support to train and advise the Afghan forces.

The Afghan Taliban controls more territory now than at any other time in the past 15 years and was able to capture the northern city of Kunduz temporarily last October. A Taliban resurgence in Afghanistan could allow al-Qaeda to regain ground in the region and pave the way for terrorist groups of all stripes to reestablish bases there.[2] Shortly after the fall of Kunduz, President Barack Obama reversed his earlier pledge to withdraw nearly all troops by the end of his term and said that the U.S. would instead keep a force level of 5,500 U.S. troops in the country when he departed office in January 2017. He later revised this further to say that he would keep 8,400 troops in place, leaving any further reductions up to his successor.[3] In June 2017, President Donald Trump gave his Secretary of Defense authority to set troop levels,[4] leading to reports that as many as 5,000 additional troops would be deployed. With that authorization, Secretary James Mattis has reportedly ordered the deployment of approximately 3,500 troops to expand air and ground capabilities.[5]

ISIS also is seeking to make inroads into Pakistan and Afghanistan, but its efforts have met with only limited success. This is most likely due to al-Qaeda's well-established roots in the region, ability to maintain the loyalty of the various South Asian terrorist groups, and careful nurturing of its relationship with the

Afghan Taliban. The Afghan Taliban views ISIS as a direct competitor, vying for financial resources, recruits, and ideological influence. This competition was evident in a letter sent by the Taliban to ISIS leader al-Baghdadi in June of 2015, urging the group not to take actions that could lead to "division of the Mujahideen's command." There also have been reports of clashes between ISIS militants and the Taliban in eastern and southern Afghanistan.

A spokesman for the U.S.-led coalition in Afghanistan said in April 2016 that ISIS has the potential to be an "enormous" threat in Afghanistan, but its presence has declined since the beginning of 2016.[6] According to this official, the U.S. carried out between 70 and 80 air strikes against ISIS targets in Afghanistan from January–March 2016. He also attributed ISIS's waning footprint to Taliban attacks, local uprisings, and Afghan security force operations.

Pakistan's continued support for terrorist groups that have links to al-Qaeda undermines U.S. counterterrorism goals in the region. Pakistan's military and intelligence leaders maintain a short-term tactical approach of fighting some terrorist groups that are deemed to be a threat to the state while supporting others that are aligned with Pakistan's goal of extending its influence and curbing India's.

A terrorist attack on a school in Peshawar on December 16, 2014, that killed over 150 people, mostly children, shocked the Pakistani public and prompted the government led by Prime Minister Nawaz Sharif to introduce a National Action Plan (NAP) to reinvigorate the country's fight against terrorism. The action plan includes steps like lifting the moratorium on the death penalty for terrorists, establishing special military courts to try terrorists, curbing the spread of extremist literature and propaganda on social media, freezing the assets of terrorist organizations, and forming special committees of army and political leaders in the provinces to implement the NAP.

Implementation of the NAP and the Pakistani military's operations against TTP (Pakistani Taliban) hideouts in North Waziristan have helped to reduce Pakistan's internal terrorist threat to some degree. Over three years, from 2013–2016, terrorist attacks in Pakistan plummeted.[7] However, the first part of 2017 featured a series of attacks that claimed hundreds of casualties.

There are few signs that Pakistan's crackdown on terrorism extends to groups that target India, such as the Lashkar-e-Taiba (LeT), which was responsible for the 2008 Mumbai attacks, and the Jaish-e-Mohammed (JeM), which carried out an attack on the Indian airbase at Pathankot on January 2, 2016. In early April 2015, Pakistan released on bail the mastermind of the Mumbai attacks, Zakiur Rehman Lakhvi, who had been in Pakistani custody since 2009. The day before Lakhvi's release, the U.S. Department of State had announced approval of nearly $1 billion in U.S. military sales to Pakistan.

In April 2012, the U.S. issued a $10 million reward for information leading to the arrest or conviction of LeT founder Hafez Muhammad Saeed. The LeT has engaged in recruitment and fundraising activities in the U.S. In September 2011, for instance, U.S. authorities arrested Jubair Ahmad, an American permanent resident born in Pakistan, for providing material support to the LeT by producing LeT propaganda and uploading it to the Internet. Ahmad reportedly attended an LeT training camp in Pakistan before moving to the U.S. in 2007.[8]

The U.S. trial of Pakistani American David Coleman Headley, who was arrested in Chicago in 2009 for his involvement in the 2008 Mumbai attacks, led to striking revelations about the LeT's international reach and close connections to Pakistani intelligence. Headley had traveled frequently to Pakistan, where he received terrorist training from the LeT, and to India, where he scouted the sites of the Mumbai attacks. In four days of testimony and cross-examination, Headley provided details about his meetings with a Pakistani intelligence officer, a former army major, and a navy frogman who were among the key players in orchestrating the Mumbai assault.[9]

The possibility that terrorists could gain effective access to Pakistani nuclear weapons

is contingent on a complex chain of circumstances. In terms of consequence, however, it is the most dangerous regional threat scenario. Concern about the safety and security of Pakistan's nuclear weapons increases when Indo–Pakistani tensions increase. For example, during the 1999 Kargil crisis, U.S. intelligence indicated that Pakistan had made "nuclear preparations," which spurred greater U.S. diplomatic involvement in defusing the crisis.[10]

If Pakistan were to move around its nuclear assets or, worse, take steps to mate weapons with delivery systems, the likelihood of terrorist theft or infiltration would increase. Increased reliance on tactical nuclear weapons (TNWs) is of particular concern because launch authorities for TNWs are typically delegated to lower-tier field commanders far from the central authority in Islamabad. Another concern is the possibility that miscalculations could lead to regional nuclear war if top Indian leaders were to lose confidence that nuclear weapons in Pakistan are under government control or, conversely, were to assume that they were under Pakistani government control after they ceased to be.

There is concern that Islamist extremist groups with links to the Pakistan security establishment could exploit those links to gain access to nuclear weapons technology, facilities, and/or materials. The realization that Osama bin Laden stayed for six years within a half-mile of Pakistan's premier defense academy has fueled concern that al-Qaeda can operate relatively freely in parts of Pakistan and might eventually gain access to Pakistan's nuclear arsenal. The Nuclear Threat Initiative (NTI) *Nuclear Security Index* ranks 24 countries with "one kilogram or more of weapons-usable nuclear materials" for their susceptibility to theft. Pakistan's weapons-grade materials are the 22nd least secure, with only Iran's and North Korea's ranking lower. In the NTI's broader survey of 44 countries with nuclear power and related facilities, Pakistan ranks 38th least secure against sabotage.[11]

There is the additional, though less likely, scenario of extremists gaining access through a collapse of the state. While Pakistan remains unstable because of its weak economy, regular terrorist attacks, sectarian violence, civil–military tensions, and the growing influence of religious extremist groups, it is unlikely that the Pakistani state will collapse altogether. The country's most powerful institution, the 550,000-strong army that has ruled Pakistan for almost half of its existence, would almost certainly intervene and take charge once again if the political situation began to unravel.[12] The potential breakup of the Pakistani state would have to be preceded by the disintegration of the army, which currently is not plausible.[13]

WWTA: Although the WWTA assesses that "fighting will continue to threaten US personnel, allies, and partners, particularly in Kabul and urban population centers," it does not reference any threat to the homeland from AfPak-based terrorism. The 2016 assessment noted that, despite the degradation of al-Qaeda's leadership in Afghanistan and Pakistan, al-Qaeda "nodes" there are "dedicating resources to planning attacks," and both the 2016 and 2017 assessments include references to a low-level threat to U.S. and Western interests from the Khorasan branch of ISIS.[14]

Summary: The threat to the American homeland emanating from Afghanistan and Pakistan is diverse, complex, and mostly indirect and largely involves non-state actors. The intentions of non-state terrorist groups like the TTP, al-Qaeda, and ISIS toward the U.S. are demonstrably hostile. Despite the broad and deep U.S. relationships with Pakistan's governing elites and military, however, it is likely that the political–military interplay in Pakistan and instability in Afghanistan will continue to result in an active threat to the American homeland.

Missile Threat: North Korea and China. The two sources of the ballistic missile threat to the U.S. are very different in terms of their sophistication and integration into broader strategies for achieving national goals. The threats from North Korea and China are therefore very different in nature.

MAP 7

North Korean Missiles

North Korean missiles can target South Korea, Japan, and U.S. bases in Guam, and now can reach the United States.

INTERMEDIATE-RANGE

MEDIUM-RANGE

Hwasong–12
4,500 km
(first tested May 2017)

Musudan
4,000 km

No Dong and
Pukguksong-2
1,300 km

Scud-ER and
Pukguksong-1
1,000 km

ICBM

Taepo Dong 2
13,000 km

Hwasong–14
10,000 km
(first tested
July 2017)

GREENLAND

Atlantic Ocean

SOUTH AMERICA

CANADA

UNITED STATES

Arctic Ocean

Alaska

Pacific Ocean

JAPAN

SOUTH KOREA

NORTH KOREA

Guam

AUSTRALIA

CHINA

Indian Ocean

RUSSIA

EUROPE

U.K.

AFRICA

SOURCES: Heritage Foundation research and media reports.

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North Korea. In July 2017, North Korea conducted two successful tests of a road-mobile ICBM. Both launches were flown in an elevated trajectory so as not to fly over Japan and to allow testing of a reentry vehicle to protect a nuclear warhead during an attack. Experts assess that the intercontinental ballistic missile (ICBM) has the capability to fly 10,000 or perhaps 11,000 kilometers. At that range, Los Angeles, Denver, and Chicago (and possibly New York City, Boston, and Washington, D.C.) are within range.[15] In December 2012 and February 2016, North Korea successfully put a satellite into orbit. The same technology that launches satellites can be used to build ICBMs. North Korea conducted its fourth and fifth nuclear tests in 2016 and its sixth nuclear test—the first of a much more powerful hydrogen bomb—in 2017. These events clearly signaled that new leader Kim Jong-un had no intention either of resuming North Korea's Six-Party Talks pledge to denuclearize or of abiding by U.N. resolutions that require a cessation of Pyongyang's nuclear and missile programs. North Korean officials told a Heritage Foundation expert that "denuclearization is totally off the table" and that there is nothing that the U.S. or South Korea could offer to induce denuclearization.[16]

North Korea has declared that it already has a full nuclear strike capability, even altering its constitution to enshrine itself as a nuclear-armed state.[17] Among North Korea's many direct verbal threats to the U.S., the regime warned in March 2016 that it would "reduce all bases and strongholds of the U.S. and south Korean warmongers for provocation and aggression into ashes in a moment, without giving them any breathing spell."[18]

The United States and South Korea have revised their estimates and now see a direr North Korean threat. In June 2017, Vice Admiral James Syring, head of the U.S. Missile Defense Agency, testified that "[i]t is incumbent on us to assume that North Korea today can range the United States with an ICBM carrying a nuclear warhead."[19] In April 2016, Admiral William Gortney, head of U.S. Northern Command, stated that "[i]t's the prudent decision on my part to assume that North Korea has the capability to miniaturize a nuclear weapon and put it on an ICBM."[20]

In 2016 and 2017, North Korea had breakthrough successes with many missiles in development. It successfully test-launched the Hwasong 12 intermediate-range ballistic missile, which can target critical U.S. bases in Guam, and both the Pukguksong-2 road-mobile medium-range ballistic missile and the Pukguksong-1 submarine-launched ballistic missile. In June 2017, in written testimony before the House Armed Services Committee, Secretary of Defense James Mattis called North Korea "the most urgent and dangerous threat to peace and security."[21]

China. Chinese nuclear forces are the responsibility of the People's Liberation Army Rocket Forces (PLARF), one of the three new services created on December 31, 2015. China's nuclear ballistic missile forces include land-based missiles with a range of 13,000 kilometers that can reach the U.S. (CSS-4) and submarine-based missiles that can reach the U.S. when the submarine is deployed within missile range.

The PRC became a nuclear power in 1964 when it exploded its first atomic bomb as part of its "two bombs, one satellite" effort. In quick succession, China then exploded its first thermonuclear bomb in 1967 and orbited its first satellite in 1970, demonstrating the capability to build a delivery system that can reach the ends of the Earth. China chose to rely primarily on a land-based nuclear deterrent instead of developing two or three different basing systems as the United States did.

Furthermore, unlike the United States or the Soviet Union, China chose to pursue only a minimal nuclear deterrent. The PRC fielded only a small number of nuclear weapons, with estimates of about 100–150 weapons on medium-range ballistic missiles and about 60 ICBMs. Its only ballistic missile submarine (SSBN) conducted relatively few deterrence patrols (perhaps none),[22] and its first-generation SLBM, the JL-1, if it ever attained full operational capability had limited reach. The

JL-1's 1,700-kilometer range makes it comparable to the first-generation Polaris A1 missile fielded by the U.S. in the 1960s.

While China's nuclear force remained stable for several decades, it has been part of the modernization effort of the past 20 years. The result has been modernization and some expansion of the Chinese nuclear deterrent. The core of China's ICBM force is the DF-31 series, a solid-fueled, road-mobile system, along with a growing number of longer-range DF-41 missiles (also rail mobile) that may be in the PLA operational inventory. The DF-41 may be deployed with multiple independently targetable reentry vehicles (MIRVs). China's medium-range nuclear forces have similarly shifted to mobile, solid-rocket systems so that they are both more survivable and more easily maintained.

Notably, the Chinese are expanding their ballistic missile submarine fleet. Replacing the one Type 092 *Xia*-class SSBN are several Type 094 *Jin*-class SSBNs, four of which are already operational. These are expected to be equipped with the new, longer-range JL-2 SLBM. Such a system would provide the PRC with a "secure second-strike" capability, substantially enhancing its nuclear deterrent. There is also some possibility that the Chinese nuclear arsenal now contains land-attack cruise missiles. The CJ-20, a long-range, air-launched cruise missile carried on China's H-6 bomber, may be nuclear tipped, although there is not much evidence that China has pursued such a capability at this time. China is also believed to be working on a cruise missile submarine, which, if equipped with nuclear cruise missiles, would further expand the range of its nuclear attack options.[23]

As a result of its modernization efforts, China's nuclear forces appear to be shifting from a minimal deterrent posture (one suited only to responding to an attack and even then with only limited numbers) to a more robust but still limited deterrent posture. While the PRC will still likely field fewer nuclear weapons than either the United States or Russia, it will field a more modern and diverse set of capabilities than India or Pakistan (or North Korea), its nuclear-armed neighbors. If there

are corresponding changes in doctrine, modernization will enable China to engage in limited nuclear options in the event of a conflict.

WWTA: The WWTA's assessment of the Chinese nuclear missile threat is unchanged from 2016: China "continues to modernize its nuclear missile force by adding more survivable road-mobile systems and enhancing its silo-based systems. This new generation of missiles is intended to ensure the viability of China's strategic deterrent by providing a second-strike capability."[24] The 2015 WWTA noted that China was likely to begin seaborne nuclear deterrence patrols in the near future but offered no judgment on the degree of threat that this poses to the U.S. The 2016 and 2017 WWTAs have not included this observation.

The WWTA continues to classify North Korea's nuclear weapons and missile programs as a "serious threat to US interests and to the security environment in East Asia" and again reports that North Korea is "committed to developing a long-range, nuclear-armed missile that is capable of posing a direct threat to the United States."[25] The report correctly points out that although North Korea had not yet flight-tested an ICBM, it was "poised" to do so in 2017.[26] For the first time, the report also uses the words "increasingly grave" to describe the broader national security threat from North Korea's "weapons of mass destruction program, public threats, defiance of the international community, confrontational military posturing, cyber activities, and potential for internal instability."[27]

Summary: The respective missile threats to the American homeland from North Korea and China are very different. China has many more nuclear weapons, multiple demonstrated and tested means of delivery, and more mature systems, but it is a more stable actor with a variety of interests, including relations with the United States and the international system. North Korea has fewer weapons and questionable means of delivery, but it is less stable and less predictable, with a vastly lower stake in the international system. There is also a widely

acknowledged difference in intentions: China seeks a stable second-strike capability and, unlike North Korea, is not actively and directly threatening the United States.

Threat of Regional War

America's forward-deployed military at bases throughout the Western Pacific, five treaty allies, security partners in Taiwan and Singapore, and growing security partnership with India are keys to the U.S. strategic footprint in Asia. One of its critical allies, South Korea, is under active threat of invasion from the North, and Japan faces both intimidation attacks intended to deny the U.S. its base access to Japan and nuclear attacks on U.S. bases in the case of conflict on the Korean Peninsula.[28] Taiwan is under a long-standing, well-equipped, and purposely positioned military threat from China. Japan and the Philippines, by virtue of maritime territorial disputes, are under growing paramilitary, military, and political pressure from China.

In South Asia, India is geographically positioned between two major security threats: Pakistan to its west and China to its northeast. From Pakistan, India faces the additional threat of terrorism, whether state-enabled or carried out without state knowledge or control.

North Korean Attack on American Bases and Allies. North Korea's conventional and nuclear missile forces threaten U.S. bases in South Korea, Japan, and Guam.

Beyond its nuclear weapons programs, North Korea poses additional risks to its neighbors. North Korea has an extensive ballistic missile force. Pyongyang has deployed approximately 800 Scud short-range tactical ballistic missiles, 300 No-dong medium-range missiles, and 50 Musudan intermediate-range ballistic missiles. The Scud missiles threaten South Korea, the No-dong can target all of Japan and South Korea, and the Musudan and Hwasong-12 intermediate-range ballistic missiles can hit U.S. bases on Okinawa and Guam. Pyongyang continues its development of several different ICBMs with enough range to hit the continental U.S.[29]
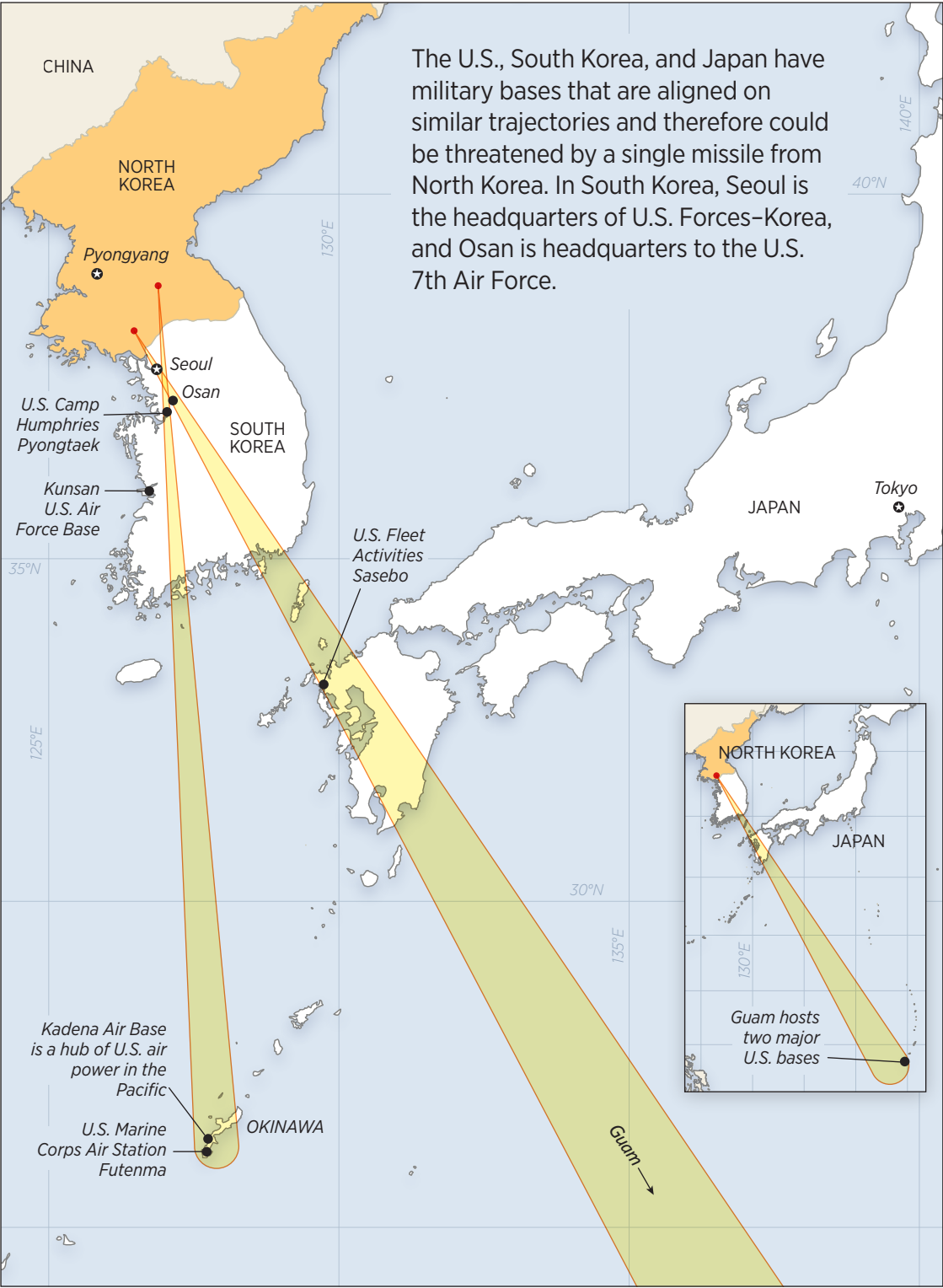
North Korea has approximately 1 million people in its military, with reserves numbering several million more. Pyongyang has forward-deployed 70 percent of its ground forces within 90 miles of the Demilitarized Zone (DMZ), making it possible to attack with little or no warning, which is of particular concern because South Korea's capital, Seoul, is only 30 miles south of the DMZ.[30] In addition to three conventional corps alongside the DMZ, Pyongyang has deployed two mechanized corps, an armor corps, and an artillery corps.[31]

South Korea remains North Korea's principal target. In 2005, South Korea initiated a comprehensive defense reform strategy to transform its military into a smaller but more capable force to deal with the North Korean threat. Overall, South Korean military manpower would be reduced approximately 25 percent, from 681,000 to 500,000. The army would face the largest cuts, disbanding four corps and 23 divisions and cutting troops from 560,000 in 2004 to 370,000 in 2020. Seoul planned to compensate for decreased troop levels by procuring advanced fighter and surveillance aircraft, naval platforms, and ground combat vehicles.[32]

That North Korea's conventional forces are a very real threat to South Korea was clearly demonstrated by two deadly attacks on South Korea in 2010. In March, a North Korean submarine sank the South Korean naval corvette *Cheonan* in South Korean waters, killing 46 sailors. In November, North Korean artillery shelled Yeonpyeong Island, killing four South Koreans.

Since the North Korean military is predominantly equipped with older ground force equipment, Pyongyang has prioritized deployment of strong asymmetric capabilities, including special operations forces, long-range artillery, and missiles. As noted, North Korea has deployed hundreds of Scud short-range ballistic missiles that can target all of South Korea with explosive, chemical, and biological warheads. The land and sea borders between North and South Korea remain unsettled, heavily armed, and actively subject to occasional, limited armed conflict.

MAP 8

U.S. and Allied Military Bases Align Geographically

The U.S., South Korea, and Japan have military bases that are aligned on similar trajectories and therefore could be threatened by a single missile from North Korea. In South Korea, Seoul is the headquarters of U.S. Forces–Korea, and Osan is headquarters to the U.S. 7th Air Force.

CHINA

NORTH KOREA

Pyongyang

Seoul

Osan

U.S. Camp Humphries Pyongtaek

Kunsan U.S. Air Force Base

SOUTH KOREA

U.S. Fleet Activities Sasebo

JAPAN

Tokyo

Kadena Air Base is a hub of U.S. air power in the Pacific

U.S. Marine Corps Air Station Futenma

OKINAWA

Guam

NORTH KOREA

JAPAN

Guam hosts two major U.S. bases

SOURCE: Heritage Foundation research.

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Most non-government experts assess that North Korea has perhaps 16–20 nuclear weapons. However, an April 2017 assessment by David Albright of the Institute for Science and International Security concluded that Pyongyang could have as many as 33 nuclear weapons,[33] and a study by Albright that was published in February 2013 by the Korea Institute at Johns Hopkins University's Nitze School of Advanced International Studies predicted a worst-case scenario of Pyongyang's having 100 nuclear weapons by 2020.[34] North Korea's September 2017 hydrogen bomb test—in excess of 100 kilotons—demonstrated a technical achievement far beyond what most experts assessed that the regime was capable of achieving. It is unknown whether the warhead has been miniaturized for a missile.

In any event, enough information is available to conclude that North Korea has likely already achieved the ability to deliver nuclear weapons by means of its No-dong medium-range missile.[35] Factors for such an assessment include the decades-long duration of North Korea's nuclear and missile programs; the technology, expertise, and components acquired from collaborative involvement with Pakistan, the A. Q. Khan network, and Iran; repeated instances of experts underestimating North Korean nuclear and missile capabilities; North Korea's declarations of its ability to hit the U.S. and its allies with nuclear weapons; and U.S. and South Korean government assessments of North Korean breakthroughs.

In March 2016, the Korean Central News Agency declared that Pyongyang has a "military operation plan...to liberate south Korea and strike the U.S. mainland" and that "offensive means have been deployed to put major strike targets in the operation theaters of south Korea within the firing range and the powerful nuclear strike targeting the U.S. imperialist aggressor forces bases in the Asia-Pacific region and the U.S. mainland...."[36] In April 2016, General Vincent Brooks, Commander, U.S. Forces Korea, stated that the U.S. should assume that North Korea "has the technical capability to mount and deliver a nuclear warhead using ballistic missiles."[37]

WWTA: As noted, the WWTA references the "serious threat to...the security environment in East Asia" that is posed by North Korea.[38] It also specifically cites Pyongyang's "credible and evolving military threats" to South Korea and Japan and its expanded strike options that "can reach more U.S. and allied targets in South Korea."[39]

Summary: North Korean forces arrayed against American allies in South Korea and Japan are substantial, and North Korea's history of provocation is a consistent indicator of its intent to achieve its political objectives by threat of force.

Chinese Threat to Taiwan. China's longstanding threat to end the de facto independence of Taiwan and ultimately to bring it under the authority of Beijing—if necessary, by force—is both a threat to a major American security partner and a threat to the American interest in peace and stability in the Western Pacific.

After easing for eight years, tensions across the Taiwan Strait have resumed as a result of Beijing's reaction to the outcome of Taiwan's 2016 presidential election. Regardless of the state of the relationship at any given time, however, Chinese leaders from Deng Xiaoping and Mao Zedong to Xi Jinping have consistently emphasized the importance of ultimately reclaiming Taiwan. The island—along with Tibet—is the clearest example of a geographical "core interest" in Chinese policy. China has never renounced the use of force, and it continues to employ political warfare against Taiwan's political and military leadership.

For the Chinese leadership, the failure to effect unification, whether peacefully or through the use of force, would reflect fundamental political weakness in the PRC. For this reason, there is no realistic means by which any Chinese leadership can back away from the stance of having to unify the island with the mainland. As a result, the island remains an essential part of the People's Liberation Army's "new historic missions," shaping PLA acquisitions and military planning.

Two decades of double-digit increases in China's announced defense budget have produced a

significantly more modern PLA, much of which remains focused on a Taiwan contingency. This modernized force includes more than 1,000 ballistic missiles, a modernized air force, and growing numbers of modern surface combatants and diesel-electric submarines capable of mounting a blockade. As the 1995–1996 Taiwan Strait crisis demonstrated, Beijing is prepared at least to use open displays of force—and might have been willing to go further in the absence of a strong American presence.

It is widely posited that China's anti-access/area-denial (A2/AD) strategy—the deployment of an array of overlapping capabilities, including anti-ship ballistic missiles (ASBMs), submarines, and long-range cruise missiles, satellites, and cyber weapons—is aimed largely at forestalling American intervention in support of friends and allies in the Western Pacific, including Taiwan. By holding at risk key American platforms and systems (e.g., aircraft carriers), the Chinese seek to delay or even deter American intervention in support of key friends and allies, allowing the PRC to achieve a fait accompli. The growth of China's military capabilities is specifically oriented toward countering America's ability to assist in the defense of Taiwan.

Chinese efforts to reclaim Taiwan are not limited to overt military means. The "three warfares" highlight Chinese political warfare methods, including legal warfare/lawfare, public opinion warfare, and psychological warfare. The PRC employs such approaches to undermine both Taiwan's will to resist and America's willingness to support Taiwan. The Chinese goal would be to "win without fighting"—to take Taiwan without firing a shot or with only minimal resistance before the United States could organize an effective response.

WWTA: The WWTA does not reference the threat that China poses to Taiwan but does mention Beijing's "firm stance" with regard to Taipei.[40]

Summary: The Chinese threat to Taiwan is long-standing. After an extended lull in apparent tensions, the change in government in Taipei has once again brought the threat to the

fore. China's ability to execute a military action against Taiwan, albeit at high economic, political, and military cost, is improving. Its intent to unify Taiwan with the mainland under the full authority of the PRC central government and to end the island's de facto independence has been consistent over time.

Major Pakistan-Backed Terrorist Attack on India Leading to Open Warfare Between India and Pakistan. An Indo–Pakistani conflict would jeopardize multiple U.S. interests in the region and increase the threat of global terrorism. Pakistan would rely on militant non-state actors to help it fight India and thus create a more permissive environment in which various terrorist groups could operate freely. The threat of conflict going nuclear would force U.S. businesses to exit the region and disrupt investment and trade flows, mainly between the U.S. and India, whose bilateral trade currently totals around $100 billion. The effects of an actual nuclear exchange—both the human lives lost and the long-term economic damage—would be devastating.

India and Pakistan are engaged in a nuclear arms race that threatens stability throughout the subcontinent. Both countries tested nuclear weapons in 1998, establishing themselves as overtly nuclear weapons states. Both countries also are developing naval nuclear weapons and already possess ballistic missile and aircraft-delivery platforms.[41]

Pakistan has the fastest-growing nuclear weapons arsenal in the world today. Islamabad currently has an estimated 140 nuclear weapons and "has lowered the threshold for nuclear weapons use by developing tactical nuclear weapons capabilities to counter perceived Indian conventional military threats."[42] This, in turn, affects India's nuclear use threshold, which could affect China and then possibly others.

The broader military and strategic dynamic between India and Pakistan is essentially unstable. As noted, Pakistan continues to harbor terrorist groups like Lashkar-e-Taiba and Jaish-e-Mohammed, which carried out the January 2, 2016, attack on the Indian airbase at Pathankot. JeM had been less visible for

several years, but JeM leader Masood Azhar resurfaced in 2014 in Pakistan to address a large public rally where he called on suicide attackers to resume jihad against India. Media reports indicate that some JeM leaders were detained in Pakistan following the Pathankot attack, but no charges have been filed.

Hafez Muhammed Saeed, LeT's founder and leader of its front organization, Jamaat-ud-Dawa (JuD), earlier this year was placed under house arrest, where he remained as of the time this edition of the *Index* was published. Previously, he had operated freely in Pakistan, often holding press conferences and inciting violence against India during large-scale public rallies. In December 2014, Saeed held a two-day conclave in Lahore that received support from the Pakistani government, including security from 4,000 police officers and government assistance in transporting attendees to the gathering of more than 400,000. India condemned the Pakistani government's support for the gathering as "blatant disregard" of global norms against terrorism.[43]

The possibility of armed conflict between India and Pakistan seemed to heighten slightly following the May 2014 election of Bharatiya Janata Party (BJP) leader Narendra Modi as India's Prime Minister. While Modi initially sought to reach out to Pakistan by inviting Pakistani Prime Minister Nawaz Sharif to his swearing-in ceremony, he subsequently called off foreign secretary–level talks that were scheduled for August 2014 to express anger over a Pakistani official's meeting with Kashmiri separatist leaders. Modi's cancellation of the talks signaled that his government is likely to take a harder line toward Islamabad than the one taken by his predecessor, Manmohan Singh, and tie progress in dialogue to Pakistani steps to crack down on anti-India terrorists. Before it took power last year, the BJP often criticized Singh for being too soft on Pakistan. Another obstacle to improved Indo–Pakistani ties is the political weakness of Pakistani Prime Minister Sharif, whose government barely survived month-long street protests led by the opposition in August 2014.

Adding to the tension has been an increase in cross-border firing between the Indian and Pakistani militaries, raising questions about whether a cease-fire that has been in place since 2003 may be breaking down. In August 2014, the two sides engaged in intense firing and shelling along their international border (called the working boundary) and across the Line of Control (LoC) that divides Kashmir. India's Border Security Force Director noted that the firing across the international border was the worst it had been since India and Pakistan fought a war in 1971.[44] Tensions were defused following a phone call between the Directors General of Military Operations in which they mutually agreed to stop the firing. A similar escalation in border tensions occurred again in December 2014 when a series of firing incidents over a one-week period resulted in the deaths of at least five Pakistani soldiers and one Indian soldier.

On December 25, 2015, Prime Minister Modi made an impromptu visit to Lahore to meet with Nawaz Sharif. The visit created enormous goodwill between the two countries and raised hope that official dialogue would soon resume. However, six days later, JeM militants attacked the Indian airbase at Pathankot, killing seven Indian security personnel. India has provided information on the attackers to Pakistan and demanded action against JeM. Official Indo–Pakistani dialogue thus remains deadlocked even though the two sides are reportedly communicating quietly through their foreign secretaries and national security advisers.

There is some concern about the impact on Indo–Pakistani relations of the international troop drawdown in Afghanistan. The vacuum created by the departing international forces will allow the Taliban and other extremists to strengthen their grip in the region, potentially reinvigorating the insurgency in Kashmir and raising the chances of a major terrorist attack against India. Afghan security forces thwarted an attack on the Indian consulate in Herat, Afghanistan, in May 2014. A successful future attack on Indian interests in Afghanistan along

the lines of the bombing of the Indian embassy in Kabul in 2008 would sharpen tensions between New Delhi and Islamabad.

With terrorist groups operating relatively freely in Pakistan and maintaining links to the country's military and intelligence services, there is a moderate risk that the two countries might climb the military escalation ladder and eventually engage in all-out conflict. Pakistan's nuclear weapons capability appears to have acted as a deterrent against Indian military escalation both during the 2001–2002 military crisis and following the 2008 Mumbai attacks, but the Indian government would be under great pressure to react strongly in the face of a terrorist provocation. Pakistan's recent focus on incorporating tactical nuclear weapons into its warfighting doctrine has also raised concern that if conflict does break out, there is now a higher risk of nuclear exchange.[45]

WWTA: The WWTA does not reference the threat to American interests from a Pakistani attack on India and potential escalation. It does, however, refer to "tense" relations between the two countries and notes that they "might deteriorate further in 2017, especially in the event of another high-profile terrorist attack in India that New Delhi attributes to originating in or receiving assistance from Pakistan." It further notes that "increasing numbers of firefights along the Line of Control, including the use of artillery and mortars, might exacerbate the risk of unintended escalation between these nuclear-armed neighbors."[46]

Summary: Indian military retaliation against a Pakistan-backed terrorist strike against India could include targeted air strikes on terrorist training camps inside Pakistan. This would likely lead to broader military conflict with some prospect of escalating to a nuclear exchange. Neither side desires another general war. Both countries have limited objectives and have demonstrated their intent to avoid escalation, but this is a delicate calculation.

Major Chinese Border Incursion into India. The possibility of armed conflict between India and China, while currently remote, poses an indirect threat to U.S. interests because it could disrupt the territorial status quo and raise nuclear tensions in the region. A border conflict between India and China could also prompt Pakistan to try to take advantage of the situation, further contributing to regional instability.

Long-standing border disputes that led to a Sino–Indian War in 1962 have been heating up again in recent years. In April 2013, the most serious border incident between India and China in over two decades occurred when Chinese troops settled for three weeks several miles inside northern Indian territory on the Depsang Plains in Ladakh. A visit to India by Chinese President Xi Jinping in September 2014 was overshadowed by another flare-up in border tensions when hundreds of Chinese PLA forces reportedly set up camps in the mountainous regions of Ladakh, prompting Indian forces to deploy to forward positions in the region. The border standoff lasted three weeks and was defused when both sides agreed to pull their troops back to previous positions. India claims that China occupies more than 14,000 square miles of Indian territory in the Aksai Chin along its northern border in Kashmir, and China lays claim to more than 34,000 square miles of India's northeastern state of Arunachal Pradesh. The issue is also closely related to China's concern for its control of Tibet and the presence in India of the Tibetan government in exile and Tibet's spiritual leader, the Dalai Lama.

The Chinese are building up military infrastructure and expanding a network of road, rail, and air links in the border areas. To meet these challenges, the BJP government has also committed to expanding infrastructure development along India's disputed border with China, especially in the Indian states of Arunachal Pradesh and Sikkim. Although China currently holds a decisive military edge over India, New Delhi is engaged in an ambitious military modernization program.

The Border Defense and Cooperation Agreement (BDCA) signed during then-Prime Minister Singh's visit to China in October 2013 is unlikely to reduce border tensions significantly or

MAP 9

Areas of Dispute Along the India-China Border

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lead to a broader settlement in the near future. The accord is aimed at putting into place institutional mechanisms for maintaining peace along the border, but several Indian analysts worry that it is part of China's effort to keep in place the status quo, which favors the Chinese. Some have even contended that the Chinese intend to buy time on their border disputes with India through the BDCA while focusing on other territorial claims in the Asia–Pacific.[47]
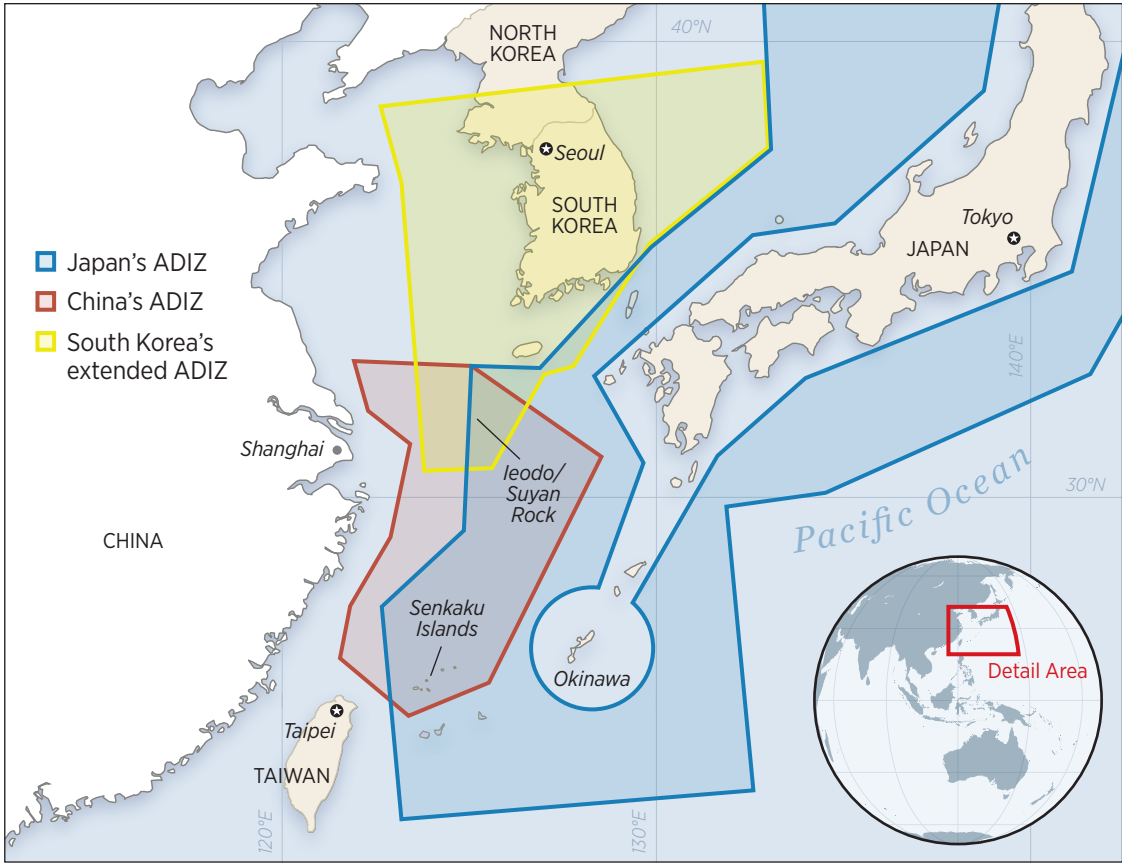
The BDCA affirms that neither side will use its military capability against the other and proposes opening a hotline between the two countries' military headquarters, instituting meetings between border personnel in all sectors, and ensuring that neither side tails the other's patrols along the Line of Actual Control (LAC).[48] The agreement also includes language stipulating that in the event the two sides come face-to-face, they "shall exercise maximum self-restraint, refrain from any provocative actions, not use force or threaten to use force against the other side, treat each other with courtesy, and prevent exchange of armed conflict."[49]

WWTA: Unlike the 2015 WWTA, which referenced both the likely pursuit of better economic relations and tensions along the border,[50] the 2016 and 2017 WWTAs have been silent with respect to India–China relations.

Summary: American interest in India's security is substantial and expanding. The threat

MAP 10

Overlapping Air Defense Identification Zones

Japan's ADIZ

China's ADIZ

South Korea's extended ADIZ

NORTH KOREA

40°N

Seoul

SOUTH KOREA

Tokyo

JAPAN

Shanghai

Ieodo/ Suyan Rock

CHINA

Pacific Ocean

30°N

Senkaku Islands

Okinawa

Detail Area

Taipei

TAIWAN

120°E

130°E

140°E

SOURCE: Mark J. Valencia, "Troubled Skies: China's New Air Zone and the East China Sea Disputes," *Global Asia*, Vol. 8, No. 4 (Winter 2013), http://www.globalasia.org/article/troubled-skies-chinas-new-air-zone-and-the-east-china-sea-disputes/ (accessed January 5, 2015).

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to this interest from China is active, albeit part of a broader, multifaceted bilateral relationship that includes many cooperative dimensions. Both India and China apparently want to avoid allowing minor incidents to escalate into a more general war. The Chinese seem to use border tensions for limited diplomatic and political gain vis-à-vis India, and India responds in ways intended to contain minor incursions and maximize reputational damage to China. Despite limited aims, however, the unsettled situation and gamesmanship along the border could result in miscalculation, accidents, or overreaction.

Threats to the Commons

The U.S. has critical direct interests at stake in the East Asia and South Asia commons that include sea, air, space, and cyber interests. These interests include an economic interest in the free flow of commerce and the military use of the commons to safeguard America's own security and contribute to the security of its allies and partners.

Washington has long provided the security backbone in these areas, which in turn has supported the region's remarkable economic development. However, China is taking increasingly assertive steps to secure its own interests in these

areas independent of U.S. efforts to maintain freedom of the commons for all in the region. It cannot be assumed that China shares a common conception of international space with the United States or an interest in perpetuating American predominance in securing the commons.

In addition, as China expands its naval capabilities, it will be operating farther and farther away from Chinese shores. China has now established its first formal overseas military base, having initialed an agreement with the government of Djibouti in January 2017.[51] Chinese officials appear also to be in discussions with Pakistan about allowing military access to the port of Gwadar.

Maritime and Airspace Commons. The aggressiveness of the Chinese navy, maritime law enforcement forces, and air forces in and over the waters of the East China Sea and South China Sea, coupled with ambiguous, extralegal territorial claims and assertion of control there, poses an incipient threat to American and overlapping allied interests. Chinese military writings emphasize the importance of establishing dominance of the air and maritime domains in any future conflict.

East China Sea. Since 2010, China has intensified its efforts to assert claims of sovereignty over the Senkaku Islands of Japan in the East China Sea. Beijing asserts not only exclusive economic rights within the disputed waters, but also recognition of "historic" rights to dominate and control those areas as part of its territory.

Chinese and Japanese maritime law enforcement and coast guard vessels regularly operate in waters surrounding the Senkakus that are administered by Japan, raising the potential for miscalculation and escalation into a military clash. In the summer of 2016, China began to deploy naval units into the area.

In November 2013, China declared an Air Defense Identification Zone (ADIZ) in the East China Sea that largely aligned with its claimed maritime Exclusive Economic Zone (EEZ). The People's Liberation Army declared that it would "take defense emergency measures to respond to aircraft that do not cooperate in identification or refuse to follow orders."[52] The announcement was a provocative act and another Chinese attempt to change the status quo unilaterally. The ADIZ declaration is part of a broader Chinese pattern of using intimidation and coercion to assert expansive extralegal claims of sovereignty and/or control incrementally. In June 2016, a Chinese fighter made an "unsafe" pass near a U.S. RC-135 reconnaissance aircraft in the East China Sea area. In March 2017, Chinese authorities warned the crew of an American B-1B bomber operating in the area of the ADIZ that they were flying illegally in PRC airspace. In response to the incident, the Chinese Foreign Ministry called for the U.S. to respect the ADIZ.[53] In May, the Chinese intercepted an American WC-135, also over the East China Sea.[54]

South China Sea. Roughly half of global trade in goods, a third of trade in oil, and over half of global liquefied natural gas shipments pass through the South China Sea, which also accounts for approximately 10 percent of global fish catch and may contain massive potential reserves of oil and natural gas. The U.S. Navy also operates in the area and requires access to meet its security and treaty obligations in the region most effectively.

The South China Sea is hotly contested by six countries, including Taiwan and the Philippines. Incidents between Chinese law enforcement vessels and other claimants' fishing boats occur on a regular basis there, as do other Chinese assertions of administrative authority. The U.S. presence also has become an object of Chinese attention, from confrontations with the ocean surveillance ship USNS *Impeccable* and the destroyer USS *John McCain* in 2009 to the confrontation with the guided-missile cruiser USS *Cowpens* in December 2013 and a dangerous intercept of a U.S. Navy P-8 aircraft in August 2014. In May 2016, there was another unsafe intercept of an American aircraft, an EP-3, and in December, the crew of a PLA Navy vessel seized an American unmanned underwater vehicle as it was being recovered by the USNS *Bowditch*. There were several similar incidents involving U.S. aircraft during the first half of 2017.

MAP 11

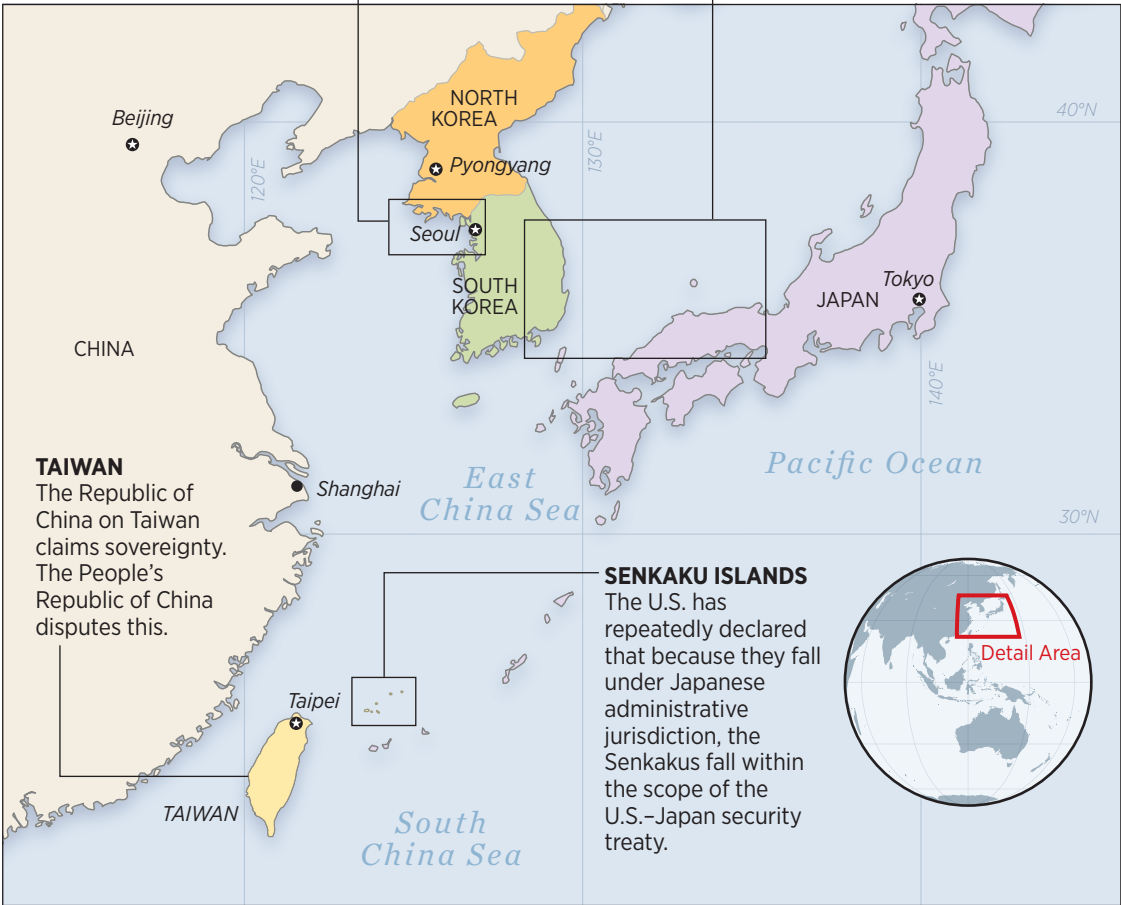# Areas of Dispute in the East China Sea

KOREAN MARITIME BOUNDARIES

South Korea's claim constitutes the Northern Limit Line, which serves as an operational maritime border between North and South. However, sovereignty over the area is in dispute.

NORTH KOREA

SOUTH KOREA

Seoul

— North Korea's claims
— South Korea's claims
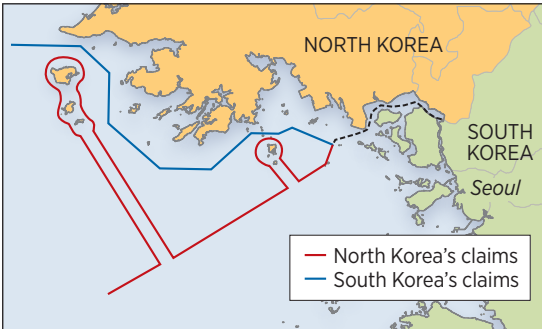
LIANCOURT ROCKS

Known as "Dokdo" in South Korea and "Takeshima" in Japan, the two disputed islands—better measured in acres than in square kilometers—evoke considerable emotion.

Ulleung Island

Liancourt Rocks

Oki Islands

SOUTH KOREA

130°E

JAPAN

Beijing

NORTH KOREA

Pyongyang

Seoul

SOUTH KOREA

120°E

130°E

40°N

Tokyo

JAPAN

140°E

TAIWAN

The Republic of China on Taiwan claims sovereignty. The People's Republic of China disputes this.

CHINA

Shanghai

East China Sea

Pacific Ocean

30°N

Taipei

TAIWAN

SENKAKU ISLANDS

The U.S. has repeatedly declared that because they fall under Japanese administrative jurisdiction, the Senkakus fall within the scope of the U.S.–Japan security treaty.

Detail Area

South China Sea

SOURCE: Heritage Foundation research. Korean maritime boundaries are from Political Geography Now, "What Is North Korea?" April 11, 2013, http://www.polgeonow.com/2013/04/what-is-north-korea.html (accessed January 5, 2015).

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MAP 12

Areas of Dispute in the South China Sea

Key: Territorial Claims

- ▪▪▪ China
- —— Vietnam
- —— Philippines
- - - - Boundary of the Philippines (Treaty of Paris, 1898)

CHINA

Taiwan

South China Sea

20°N

Hainan

Philippines claims the Scarborough Shoal

Luzon

PHILIPPINES

Philippine Sea

THAILAND

LAOS

Paracel Islands

Vietnam's claims

120°E

CAMBODIA

VIETNAM

China's claims

Philippines' claims

Spratly

10°N

Gulf of Thailand

100°E

Islands

Sulu Sea

Vietnam's claims

110°E

MALAYSIA

BRUNEI

Detail Area

SOURCES: U.S. Department of Defense, *Military and Security Developments Involving the People's Republic of China 2010,* http://www.defense.gov/pubs/pdfs/2010_CMPR_Final.pdf (accessed February 27, 2012); Martin Stuart-Fox, *A Short History of China and Southeast Asia* (Sydney: Allen & Unwin, 2003), p. 217; and Heritage Foundation research.

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The most serious intraregional incidents in the South China Sea have occurred between China and the Philippines and China and Vietnam. In 2012, a Philippine naval ship operating on behalf of the country's coast guard challenged private Chinese poachers in waters around Scarborough Shoal. The resulting escalation left Chinese government ships in control of the shoal. In 2016, there were reports that the Chinese intend to consolidate their gains in the area by reclaiming the sea around the shoal, but there is as yet no indication that this has happened.

Furthermore, with the election of Philippine President Rodrigo Duterte in 2016, there has been a general warming in China–Philippines relations. Duterte has sought to set aside the dispute over the South China Sea, and the Chinese, while not accepting the authority of a 2016 ruling by the Permanent Court of Arbitration (PCA) that favored a range of the Philippines' positions, have allowed Filipino fishermen access to Scarborough Shoal in accordance with it.

China–Vietnam tensions in the South China Sea were on starkest display in 2014 when

state-owned China National Offshore Oil Corporation (CNOOC) deployed an oil rig inside Vietnam's EEZ. The Chinese platform was accompanied by dozens of ships including naval vessels. The resulting escalation saw Chinese ships ramming Vietnamese law enforcement ships and using water cannon against the crews of Vietnamese ships. It also resulted in massive and sometimes violent demonstrations in Vietnam. The oil rig was ultimately withdrawn, and relations were restored, but the occasional reappearance of the same rig has served to underscore the continuing volatility of this issue, which involves the same area over which China and Vietnam engaged in armed battle in 1974.

The most significant development in the South China Sea during the past three years has been Chinese reclamation and militarization of seven artificial islands or outposts. In his April 2017 posture statement to the House Committee on Armed Services, Admiral Harry Harris, Commander, U.S. Pacific Command, described the state of these islands:

> China's military-specific construction in the Spratly islands includes the construction of 72 fighter aircraft hangars—which could support three fighter regiments—and about ten larger hangars that could support larger airframes, such as bombers or special mission aircraft. All of these hangars should be completed this year. During the initial phases of construction China emplaced tank farms, presumably for fuel and water, at Fiery Cross, Mischief and Subi reefs. These could support substantial numbers of personnel as well as deployed aircraft and/or ships. All seven outposts are armed with a large number of artillery and gun systems, ostensibly for defensive missions. The recent identification of buildings that appear to have been built specifically to house long-rang surface-to-air missiles is the latest indication China intends to deploy military systems to the Spratlys.[55]

The 2016 PCA award invalidated China's sweeping claims to waters in the South China Sea and found its "island" reclamation to be in violation of Beijing's commitments under the U.N. Convention on the Law of the Sea (UNCLOS). There is the possibility that China will ultimately declare an ADIZ above the South China Sea in an effort to assert its authority. There are also concerns that in the event of a downturn in its relationship with the Philippines, it will take action against vulnerable targets like Philippines-occupied Second Thomas Shoal or Reed Bank, which the panel determined are part of the Philippines EEZ and continental shelf, or proceed with the reclamation at Scarborough. The latter development in particular would facilitate the physical assertion of Beijing's claims and enforcement of an ADIZ, regardless of the UNCLOS award.

Airpower. Although China is not yet in a position to enforce an ADIZ consistently in either area, the steady two-decade improvement of the PLA Air Force (PLAAF) and naval aviation will eventually provide the necessary capabilities. Chinese observations of recent conflicts, including wars in the Persian Gulf, the Balkans, and Afghanistan, have emphasized the growing role of airpower and missiles in conducting "non-contact, non-linear, non-symmetrical" warfare.

China also seems to have made a point of publicizing its air force modernization, unveiling new aircraft prototypes, including two new stealthy fighters, on the eve of visits by American Secretaries of Defense. (Secretary Chuck Hagel's visit in 2014 was preceded by the unveiling of the J-15 naval fighter.) Those aircraft have been flown much more aggressively, with Chinese fighters flying very close to Japanese aircraft in China's East China Sea ADIZ and conducting armed combat air patrols in the skies over Tibet.[56]

The PLA has shed most of its 1960s-era aircraft, replacing them with much more modern systems. Today's PLAAF is dominated by fourth-generation and 4.5th-generation fighter aircraft. These include the domestically designed and produced J-10, as well as the Su-27/Su-30/J-11 system, comparable to the F-15 or F-18, that dominates both the fighter and strike missions.[57] Older airframes such as the J-7 are steadily being retired from the fighter inventory. China is also believed to be

preparing to field two stealthy fifth-generation fighter designs. The J-20 is the larger aircraft, resembling the American F-22 fighter. The J-31 appears to resemble the F-35 but with two engines rather than one. The production of advanced combat aircraft engines remains one of the greatest challenges to Chinese fighter design.

China fields some long-range strike aircraft, largely the H-6 bomber based on the Soviet-era Tu-16 Badger. While this aircraft has little prospect of penetrating advanced air defenses, it is suitable as a cruise missile carrier. China also has used the H-6 as the basis for initial efforts to develop an aerial tanker fleet and seems to be examining other options as well. As China deploys more tankers, this will extend the range and loiter time of its fighter aircraft. China will then be better equipped to enforce its newly declared East China Sea Air Defense Identification Zone and any possible future South China Sea ADIZ.

A variety of modern support aircraft have also entered the PLAAF inventory, including airborne early warning (AEW), command and control (C2), and electronic warfare (EW) aircraft. At the Zhuhai Air Show, Chinese companies have displayed a variety of unmanned aerial vehicles (UAVs), reflecting substantial investments and research and development efforts. The surveillance and armed UAV systems include the Xianglong (Soaring Dragon) and Sky Saber systems. The 2014 DOD report on Chinese capabilities also reports that China has tested a stealthy flying-wing UAV, the Lijian.[58]

China's air defenses, which are under the control of the PLAAF, have also been steadily modernizing. China has acquired the advanced S-300 surface-to-air missile (SAM) system (SA-10B/SA-20), which is roughly analogous to the American Patriot SAM system, and is developing its own advanced SAM, the HQ-9, which is deployed both on land and at sea. In early 2014, Russia announced that it would sell China the S-400 SAM system. This would mark a substantial improvement in PLAAF air defense capabilities, as the S-400 has anti-aircraft and anti-missile

capabilities.[59] China has deployed these SAM systems in a dense, overlapping belt along its coast, protecting the nation's economic center of gravity. Key industrial and military centers such as Beijing are also heavily defended by SAM systems. Some of these systems have reportedly been deployed to the Paracel islands in the South China Sea.

A third component of the PLAAF is China's airborne forces. The 15th Airborne Army is part of the PLAAF, with three divisions of 10,000–15,000 personnel each. These are not believed to be assigned to any of the Chinese military regions but are instead a strategic reserve as well as a rapid reaction force. In 2009, in the military review associated with the 60th anniversary of the founding of the PRC, Chinese airborne units paraded through Tiananmen Square with ZBD-03 mechanized airborne combat vehicles. These vehicles provide Chinese airborne forces with tactical mobility as well as some degree of protected fire support from their 30mm autocannon and HJ-73 anti-tank missile (a domestic version of the AT-3 Sagger)—something American airborne forces continue to lack.

One shortcoming of the Chinese airborne forces is the lack of military transport aircraft, although the PLAAF undoubtedly can call on China's substantial civilian fleet of airliners in time of crisis or war.

Sea power. As the world's foremost trading state, China depends on the seas for its economic well-being. China's factories are increasingly powered by imported oil, and Chinese diets contain a growing percentage of imported food. Chinese products rely on the seas to be moved to markets. At the same time, because China's economic center of gravity is now in the coastal region, it has had to emphasize maritime power to defend key assets and areas. Consequently, China has steadily expanded its maritime power, including its merchant marine and maritime law enforcement capabilities, but especially the People's Liberation Army Navy (PLAN).

The PLAN is no longer an unsophisticated coastal defense force. Instead, since the end

of the Cold War, China's navy has moved away from reliance on mass toward incorporating advanced platforms and weapons. Most notably, the Chinese navy is the first in East Asia to deploy its own aircraft carrier since World War II. The *Liaoning* carries a mixed air group of J-15 fighters (based on the navalized Su-27) and helicopters and is believed to be fully operational.

Meanwhile, many obsolete vessels have been decommissioned, including scores of older, missile-armed, fast attack craft. In their place, China has produced a range of more capable combatants and is building each class in significant numbers. These range from the Type 022 *Houbei* missile-armed catamaran, armed with sea-skimming supersonic anti-ship cruise missiles, to the Type-052C *Luyang-II* destroyer, equipped with a phased-array radar for its HQ-9 SAM system. The HQ-9, with its ability to combat most air-breathing systems and a limited anti–ballistic missile capability, is believed to be comparable to early model Patriot missiles. Although these new ships are not replacing older Chinese surface combatants on a one-for-one basis, the overall capability of the PLAN surface force is steadily improving.

The PLAN has similarly been modernizing its submarine force. Since 2000, the PLAN has consistently fielded between 50 and 60 diesel-electric submarines, but the age and capability of the force has been improving as older boats, especially 1950s-vintage *Romeo*-class boats, are replaced with newer designs. These include a dozen *Kilo*-class submarines purchased from Russia and domestically designed and manufactured *Song* and *Yuan* classes. All of these are believed to be capable of firing not only torpedoes, but also anti-ship cruise missiles. The Chinese have also developed variants of the *Yuan,* with an air-independent propulsion (AIP) system that reduces the boats' vulnerability by removing the need to use noisy diesel engines to recharge batteries.

The PLAN also has been augmenting its aerial maritime strike capability. In addition to more modern versions of the H-6 twin-engine bombers (a version of the Soviet/Russian Tu-16 Badger), the PLAN's Naval Aviation force has added a range of other strike aircraft to its inventory. These include the JH-7/FBC-1 Flying Leopard, which can carry between two and four YJ-82 anti-ship cruise missiles, and the Su-30 strike fighter. Within Chinese littoral waters, the PLAN Air Force can bring a significant amount of firepower to bear.

The PLAN also has been working to improve its "fleet train." The 2010 PRC defense white paper notes the accelerated construction of "large support vessels." It also specifically notes that the navy is exploring "new methods of logistics support for sustaining long-time maritime missions."[60]

As with other aspects of PLA modernization, even as the PLAN is upgrading its weapons, it is also improving its doctrine and training, including increased emphasis on joint operations and the incorporation of electronic warfare into its training regimen. Such improvements suggest that PLA Air Force assets, space and cyber operations, and even PLA Rocket Force units might support naval aviation strikes. The new anti-ship ballistic missile forces, centered on the DF-21D anti-ship ballistic missile (now reportedly at initial operational capability), should be seen as part of joint Chinese efforts to control the seas, complementing PLAAF and PLAN air, surface, and sub-surface forces.

Escalation of Territorial Disputes or Incidents at Sea. Because the PRC and other countries in the region see active disputes over the East and South China Seas not as differences regarding the administration of the commons, but rather as matters of territorial sovereignty, there exists the threat of armed conflict between China and American allies who are also claimants, particularly Japan and the Philippines.

Beijing prefers to accomplish its objectives quietly and through nonmilitary means. In both the East and South China Seas, China has sought to exploit "gray zones," gaining control incrementally and deterring others without resort to the lethal use of force. It uses military

and economic threats, bombastic language, and enforcement through military bullying. Chinese paramilitary-implemented, military-backed encroachment in support of expansive extralegal claims could lead to an unplanned armed clash.

Rising nationalism is exacerbating tensions, making geostrategic relations in Asia increasingly complex and volatile. In the face of persistent economic challenges, nationalist themes are becoming an increasingly strong undercurrent, affecting policymaking. Although the nationalist phenomenon is not new, it is gaining force and complicating efforts to maintain regional stability.

Governments may choose to exploit nationalism for domestic political purposes, but they also run the risk of being unable to control the genie that they have released. Nationalist rhetoric is mutually reinforcing, which makes countries less likely to back down than in the past. The increasing power that the Internet and social media provide to the populace, largely outside of government control, add elements of unpredictability to future clashes.

In case of armed conflict between China and the Philippines or between China and Japan, either by intention or as a result of an accidental incident at sea, the U.S. could be required to exercise its treaty commitments.[61] Escalation of a direct U.S.–China incident is itself not unthinkable. Keeping an inadvertent incident from escalating into a broader military confrontation would be difficult. This is particularly true in the East and South China Seas, where naval as well as civilian law enforcement vessels from both China and the U.S. operate in what the U.S. considers to be international waters.

WWTA: The WWTA does not address threats to the maritime and airspace commons, but it does say that "China will continue to pursue an active foreign policy" in the region, "highlighted by [among other things] a firm stance on competing territorial claims in the East China Sea (ECS) and South China Sea (SCS)." It also predicts continuing regional tensions "as China completes construction at its expanded outposts in the SCS."[62] It offers no judgment either on the threat that this poses to American interests or on the prospect for large-scale conventional conflict in the region.

Summary: In both the air and maritime domains, China is ever more capable of challenging American dominance and disrupting the freedom of the commons that benefits the entire region. Both territorial disputes related to what the U.S. and its allies consider the commons and accidental incidents could draw the U.S. into conflict. China likely does not intend to engage in armed conflict with its neighbors, particularly American treaty allies, or with the U.S. itself. However, it will continue to press its territorial claims at sea in ways that, even if inadvertent, cause incidents that could escalate into broader conflict.

Space. One of the key force multipliers for the United States is its extensive array of space-based assets. Through its various satellite constellations, the U.S. military can track opponents, coordinate friendly forces, engage in precision strikes against enemy forces, and conduct battle-damage assessments so that its munitions are expended efficiently.

The American military is more reliant than many others on space-based systems because it is also an expeditionary military (i.e., its wars are conducted far distant from the homeland). Consequently, it requires global rather than regional reconnaissance, communications and data transmission, and meteorological information and support. At this point, only space-based systems can provide this sort of information on a real-time basis. The U.S. can leverage space in ways that no other country can, and this is a major advantage, but this heavy reliance on space systems is also a key American vulnerability.

China fields an array of space capabilities, including its own navigation and timing satellites, the Beidou/Compass system, and has claimed a capacity to refuel satellites.[63] It has three satellite launch centers, and a fourth is under construction. China's interest in space dominance includes not only accessing space,

but also denying opponents the ability to do the same. As one Chinese assessment notes, space capabilities provided 70 percent of battlefield communications, over 80 percent of battlefield reconnaissance and surveillance, and 100 percent of meteorological information for American operations in Kosovo. Moreover, 98 percent of precision munitions relied on space for guidance information. In fact, "It may be said that America's victory in the Kosovo War could not be achieved without fully exploiting space."[64]

To this end, the PLA has been developing a range of anti-satellite capabilities that include both hard-kill and soft-kill systems. The former include direct-ascent kinetic-kill vehicles (DA-KKV), such as the system tested in 2007, but also more advanced systems that are believed to be capable of reaching targets in mid-Earth orbit and even geosynchronous orbit.[65] The latter include anti-satellite lasers for either dazzling or blinding purposes.[66] This is consistent with PLA doctrinal writings, which emphasize the need to control space in future conflicts. "Securing space dominance has already become the prerequisite for establishing information, air, and maritime dominance," says one Chinese teaching manual, "and will directly affect the course and outcome of wars."[67]

Soft-kill attacks need not come only from dedicated weapons, however. The case of Galaxy-15, a communications satellite owned by Intelsat Corporation, showed how a satellite could effectively disrupt communications simply by being in "switched on" mode all of the time.[68] Before it was finally brought under control, it had drifted through a portion of the geosynchronous belt, forcing other satellite owners to move their assets and juggle frequencies. A deliberate such attempt by China (or any other country) could prove far harder to handle, especially if conducted in conjunction with attacks by kinetic systems or directed-energy weapons.

China has created a single service, the PLA Strategic Support Force (PLASSF), with authority over its space, electronic warfare, and network warfare capabilities. In essence, this is a service that is focused on fighting in the information domain, striving to secure what the PLA terms "information dominance" for themselves while denying it to others. This service will probably combine electronic warfare, cyber warfare, and physical attacks against adversary space and information systems in order to deny them the ability to gather, transmit, and exploit information.

WWTA: The WWTA assesses that China "perceive[s] a need to offset any US military advantage derived from military, civil, or commercial space systems and [is] increasingly considering attacks against satellite systems as part of [its] future warfare doctrine." China will "continue to pursue a full range of anti-satellite (ASAT) weapons as a means to reduce US military effectiveness" and to develop "capabilities to challenge" the U.S. in space. The report also references discussions by Chinese researchers concerning "methods to enhance robust jamming capabilities with new systems to jam commonly used frequencies." Some of China's "ASAT weapons, including destructive systems, will probably complete development in the next several years," and its "ground-launched ASAT missiles might be nearing operational service within the PLA."[69]

Summary: The PRC poses a challenge to the United States that is qualitatively different from the challenge posed by any other potential adversary in the post–Cold War environment. It is the first nation to be capable of accessing space on its own while also jeopardizing America's ability to do the same. This appears to be its intent.

Cyber. Threats in this area derive primarily from China and North Korea, and the threats posed by both countries are serious.

China. In 2013, the Verizon Risk Center identified China as the "top external actor from which [computer] breaches emanated, representing 30 percent of cases where country-of-origin could be determined."[70] Given the difficulties of attribution, country of origin should not necessarily be conflated with the perpetrator, but forensic efforts have identified at least one Chinese military

unit with cyber intrusions.[71] Similarly, the Verizon report concluded that China was the source of 95 percent of state-sponsored cyber-espionage attacks. Since the 2015 Xi–Obama summit where the two sides reached an understanding to reduce cyber economic espionage, Chinese cyber actions have shifted. While the overall level of activity appears to be unabated, the Chinese appear to have moved toward more focused attacks mounted from new sites.

China's cyber-espionage efforts are often aimed at economic targets, reflecting the much more holistic Chinese view of both security and information. Rather than creating an artificial dividing line between military security and civilian security, much less information, the PLA plays a role in supporting both aspects and seeks to obtain economic intellectual property as well as military electronic information.

This is not to suggest, however, that the PLA has not emphasized the military importance of cyber warfare. Chinese military writings since the 1990s have emphasized a fundamental transformation in global military affairs (*shijie junshi gaige*). Future wars will be conducted through joint operations involving multiple services rather than through combined operations focused on multiple branches within a single service. These future wars will span not only the traditional land, sea, and air domains, but also outer space and cyberspace. The latter two arenas will be of special importance because warfare has shifted from an effort to establish material dominance (characteristic of Industrial Age warfare) to establishing information dominance (*zhi xinxi quan*). This is due to the rise of the information age and the resulting introduction of information technology into all areas of military operations.

Consequently, according to PLA analysis, future wars will most likely be "local wars under informationized conditions." That is, they will be wars in which information and information technology not only will be widely applied, but also will be a key basis of victory. The ability to gather, transmit, analyze, manage, and exploit information will be central to winning such wars: The side that is able to do these things more accurately and more quickly will be the side that wins. This means that future conflicts will no longer be determined by platform-versus-platform performance and not even by system against system (*xitong*). Rather, conflicts are now clashes between rival arrays of systems of systems (*tixi*).[72]

Chinese military writings suggest that a great deal of attention has been focused on developing an integrated computer network and electronic warfare (INEW) capability. This would allow the PLA to reconnoiter a potential adversary's computer systems in peacetime, influence opponent decision-makers by threatening those same systems in times of crisis, and disrupt or destroy information networks and systems by cyber and electronic warfare means in the event of conflict. INEW capabilities would complement psychological warfare and physical attack efforts to secure "information dominance," which Chinese military writings emphasize as essential for fighting and winning future wars.

Attacks on computer networks in particular have the potential to be extremely disruptive. The recent indictment of five serving PLA officers on the grounds of cyber espionage highlights how active the Chinese military is in this realm.[73]

It is essential to recognize, however, that the PLA views computer network operations as part of information operations (*xinxi zuozhan*), or information combat. Information operations are specific operational activities that are associated with striving to establish information dominance. They are conducted in both peacetime and wartime, with the peacetime focus on collecting information, improving its flow and application, influencing opposing decision-making, and effecting information deterrence.

Information operations involve four mission areas:

- **Command and Control Missions.** An essential part of information operations is the ability of commanders to control joint operations by disparate forces. Thus, command, control, communications, computers, intelligence, surveillance, and reconnaissance structures constitute a key part of information operations, providing the means for collecting, transmitting, and managing information.

- **Offensive Information Missions.** These are intended to disrupt the enemy's battlefield command and control systems and communications networks, as well as to strike the enemy's psychological defenses.

- **Defensive Information Missions.** Such missions are aimed at ensuring the survival and continued operation of information systems. They include deterring an opponent from attacking one's own information systems, concealing information, and combating attacks when they do occur.

- **Information Support and Information-Safeguarding Missions.** The ability to provide the myriad types of information necessary to support extensive joint operations and to do so on a continuous basis is essential to their success.[74]

Computer network operations are integral to all four of these overall mission areas. They can include both strategic and battlefield network operations and can incorporate both offensive and defensive measures. They also include protection not only of data, but also of information hardware and operating software. Computer network operations will not stand alone, however, but will be integrated with electronic warfare operations, as reflected in the phrase "network and electronics unified [*wangdian yiti*]." Electronic warfare operations are aimed at weakening or destroying enemy electronic facilities and systems while defending one's own.[75] The combination of electronic and computer network attacks will produce synergies that affect everything from finding and assessing the adversary to locating one's own forces to weapons guidance to logistical support and command and control. The creation of the PLASSF is intended to integrate these forces and make them more complementary and effective in future "local wars under informationized conditions."

North Korea. In February 2016, North Korea conducted the first government-sponsored digital bank robbery. North Korean hackers gained access to the Society for Worldwide Interbank Financial Telecommunication (SWIFT), the system used by central banks to authorize monetary transfers, to steal $81 million. The regime had attempted to send money transfer requests of $951 million from the Central Bank of Bangladesh to banks in the Philippines, Sri Lanka, and other parts of Asia.[76] North Korean hackers also targeted the World Bank, the European Central Bank, 20 Polish banks, and large American banks such as BankAmerica,[77] as well as financial institutions in Costa Rica, Ecuador, Ethiopia, Gabon, India, Indonesia, Iraq, Kenya, Malaysia, Nigeria, Poland, Taiwan, Thailand, and Uruguay.[78]

In 2014, North Korea conducted a cyberattack on Sony Pictures in retaliation for the studio's release of a satirical film depicting the assassination of Kim Jong-un. The cyberattack was accompanied by physical threats against U.S. theaters and citizens. Contrary to the perception of North Korea as a technologically backward nation, the regime has an active cyber warfare capability. In 2009, North Korea declared that it was "fully ready for any form of high-tech war."[79] According to South Korea's National Intelligence Service, North Korean leader Kim Jong-un has described cyber warfare as "a magic weapon" that empowers Pyongyang to launch "ruthless strikes" against South Korea.[80]

The Reconnaissance General Bureau, North Korea's intelligence agency, oversees Unit 121 with almost 6,000 "cyber-warriors" dedicated to attacking Pyongyang's enemies, up from 3,000 just two years ago. Defectors from the unit have told South Korean intelligence officials that

hackers are sent to other countries for training as well as to conduct undercover operations. The unit's hackers never operate primarily within North Korea, because the country's limited computer network would make it too easy to identify the source of the attack.[81]

Seoul concluded that North Korea was behind cyber-attacks using viruses or distributed denial-of-service tactics against South Korean government agencies, businesses, banks, and media organizations in 2009, 2011, 2012, and 2013. The most devastating attack, launched in 2013 against South Korean banks and media outlets, deleted the essential Master Boot Record from 48,000 computers.[82] North Korea also jammed GPS signals in 2012, posing a risk to hundreds of airplanes transiting Seoul's Incheon airport. Lieutenant General Bae Deag-sig, head of South Korea's Defense Security Command, stated that "North Korea is attempting to use hackers to infiltrate our military's information system to steal military secrets and to incapacitate the defense information system."[83]

WWTA: The WWTA assesses that "Beijing will continue actively targeting the US Government, its allies, and US companies for cyber espionage" and references Beijing's selective use of cyberattacks "against foreign targets that it probably believes threaten Chinese domestic stability or regime legitimacy."[84] The 2016 WWTA assessed that North Korea "probably remains capable and willing to launch disruptive or destructive cyberattacks to support its political objectives."[85] This year, there is no such modifier concerning this capability. The 2017 WWTA also has added a reference to "Pyongyang's cyber threat to US allies."[86]

Summary: With obvious implications for the U.S., the PLA emphasizes the need to suppress and destroy an enemy's information systems while preserving one's own, as well as the importance of computer and electronic warfare in both the offensive and defensive roles. Methods to secure information dominance would include establishing an information blockade; deception (including through electronic means); information contamination; and information paralysis.[87] China sees cyber as part of an integrated capability for achieving strategic dominance in the Western Pacific region. For North Korea, cyber security is an area in which even its limited resources can directly support discrete political objectives.

Threat Scores

AfPak-Based Terrorism. A great deal of uncertainty surrounds the threat from AfPak. For the U.S., Pakistan is both a security partner and a security challenge. Pakistan provides a home and support to terrorist groups that are hostile to the U.S., other U.S. partners in South Asia like India, and the fledgling government of Afghanistan. Afghanistan is particularly vulnerable to destabilization efforts. Both Pakistan and Afghanistan are already among the world's most unstable states. The instability of the former, given its nuclear arsenal, has a direct bearing on U.S. security.

The IISS *Military Balance* largely addresses the military capabilities of states. Its limited section on the capabilities of non-state actors does not include those in the AfPak region. The 2017 edition contains no reference to the possibility that Pakistani nuclear weapons might fall into hands that would threaten the American homeland or interests more broadly. The 2014 edition stated that Pakistan's "nuclear weapons are currently believed to be well-secured against terrorist attack."[88] Pakistan's Army Strategic Forces Command has 30 medium-range ballistic missiles, 30 short-range ballistic missiles, and land-attack cruise missiles.[89] Previous editions of the *Military Balance* have also cited development of "likely nuclear capable" artillery. Pakistan also has "1–2 squadrons of F-16A/B or Mirage 5 attack aircraft that may be assigned a nuclear strike role."[90]

This *Index* assesses the overall threat from AfPak-based terrorists, considering the range of contingencies, as "aggressive" for level of provocation of behavior and "capable" for level of capability.

Threats: Af-Pak Terrorism

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior		✔			

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability			✔		

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China. China presents the United States with the most comprehensive security challenge in the region. It poses various threat contingencies across all three areas of vital American national interests: homeland; regional war (extending from attacks on overseas U.S. bases or against allies and friends); and the global commons. China's provocative behavior is well documented. It is challenging the U.S. and U.S. allies like Japan at sea and in cyberspace. It has raised concerns on its border with India and is a standing threat to Taiwan. While there may be a lack of official transparency, publicly available sources shed considerable light on China's fast-growing military capabilities.

According to the IISS *Military Balance,* among the key weapons in China's inventory are 62 Chinese ICBMs; 405 shorter-range ballistic missiles;[91] four SSBNs with up to 12 missiles; 72 satellites; 6,740 main battle tanks; 57 tactical submarines; 79 principal surface combatants (including one aircraft carrier and 21 destroyers); and 2,307 combat-capable aircraft in its air force. There are 1,150,000 members of the People's Liberation Army,[92] down 450,000 from last year.

With regard to these capabilities, the 2014 *Military Balance* stated that because of "a lack of war-fighting experience, questions over training and morale, and key capability weaknesses in areas such as C4ISTAR and ASW," the PLA "remains qualitatively inferior, in some respects, to more technologically advanced armed forces in the region—such as South Korea and Japan—and it lags far behind the U.S."[93] Subsequent editions have not included this caveat. The 2017 *Military Balance* cites "significant amounts of old equipment [remaining in] service" and questions about the quality of domestically produced equipment.[94]

This *Index* assesses the overall threat from China, considering the range of contingencies, as "testing" for level of provocation of behavior and "formidable" for level of capability.

Threats: China

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior			✔		

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability	✔				

North Korea. In the first instance, North Korea poses the most acute security challenge for American allies and bases in South Korea. However, it is also a significant challenge to U.S. allies in Japan and American bases there and in Guam.

North Korean authorities are very actively and vocally provocative toward the United States. While North Korea has used its missile and nuclear tests to enhance its prestige and importance—domestically, regionally, and globally—and to extract various concessions from the United States in negotiations over its nuclear program and various aid packages, such developments also improve North Korea's military posture. North Korea likely has already achieved warhead miniaturization, the ability to place nuclear weapons on its medium-range missiles, and an ability to reach the continental United States with a missile.

According to the IISS *Military Balance*, key weapons in North Korea's inventory include 3,500-plus main battle tanks, 560-plus light tanks, and 21,100 pieces of artillery. The navy has 73 tactical submarines, three frigates, and 383 patrol and coastal combatants.[95] The air force has 545 combat-capable aircraft (58 fewer than 2014), including 80 H-5 bombers. The IISS counts 1,020,000 active-duty members of the North Korean army, a reserve of 600,000, and 5,700,000 paramilitary personnel. Regarding the missile threat in particular, the 2017 *Military Balance* restates that the Hwasong-13 (KN-08) road-mobile ICBM, while assessed as operational, remains untested.[96] With respect to conventional forces, the 2017 *Military Balance* includes a caveat that they "remain reliant on increasingly obsolete equipment with little evidence of widespread modernization across the armed services."[97]

This *Index* assesses the overall threat from North Korea, considering the range of contingencies, as "aggressive" for level of provocation of behavior and "gathering" for level of capability.

Threats: North Korea

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior		✔			

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability		✔			

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Conclusion: Global Threat Level

America and its interests face challenges around the world from countries and organizations that have:

- Interests that conflict with those of the U.S.;

- Sometimes hostile intentions toward the U.S.; and

- In some cases, growing military capabilities.

The government of the United States constantly faces the challenge of employing, sometimes alone but more often in concert with allies, the right mix of U.S. diplomatic, economic, public information, intelligence, and military capabilities to protect and advance U.S. interests.

In Europe, Russia remains the primary threat to American interests. The *2018 Index* again assessed the threat emanating from Russia as a behavior score of "aggressive" and a capability score of "formidable," the highest category on the scale. Moscow continues to engage in massive pro-Russia propaganda campaigns in Ukraine and other Eastern European countries and over the past year has performed a series of provocative military exercises and training missions that are viewed as warnings to neighboring countries, particularly the Baltic States. It also has increased its investment in modernizing its military and has gained significant combat experience while continuing to sabotage U.S. and Western policy in Syria.

In the Middle East, Iran remains the state actor that is most hostile to American interests. The *2018 Index* assesses Iran's behavior as "aggressive" and its capability as "gathering." In the years since publication of the *2015 Index*, Iran has methodically moved closer to becoming a nuclear power, successfully maneuvering to stabilize its program through the nuclear agreement negotiated with the U.S.; has continued to back Houthi rebels in Yemen in what some consider a proxy war between Iran and its Sunni Arab neighbors; has continued to exert influence in the region through its backing of the Assad regime and Hezbollah; and has further deepened its exploitation of instability of Iraq by providing direct support to Shia militias.

Also in the Middle East, a broad array of terrorist groups, most notably ISIS and the Iran-sponsored Hezbollah, are the most hostile of any of the global threats to America examined in the *Index*. They also are evaluated as being among the least capable. In 2017, the threat posed by ISIS decreased due to a loss of territorial control and the need to focus its efforts on defending its remaining stronghold and preserving its influence in the region.

In Asia, China moved from "aggressive" to "testing" in the scope of its provocative behavior. China continues to militarize the islands that it built on reefs in international waters and continues to claim sovereignty. It also has continued to field new equipment, most notably in naval power, perceived to be most important in its efforts to shape the Western Pacific maritime domain in line with its interests.

North Korea's level of behavior remained "aggressive" from the *2017 Index* to the *2018 Index*. Its capability level has also remained at "gathering" as Pyongyang continues to develop and refine its missile technology, especially in the area of submarine-launched ballistic missiles.

The terrorist threats emanating from the Afghanistan–Pakistan region returned to "aggressive" in the *2018 Index* after a one-year drop to "testing." However, the capability score for the region's terrorist threat dropped to "capable."

Just as there are American interests that are not covered by this *Index*, there may be additional threats to American interests that are not identified here. The *Index* focuses on the more apparent sources of risk and those in which the risk is greater.

Compiling the assessments of these threat sources, the *2018 Index* again rates the overall global threat environment as "aggressive" and "gathering" in the areas of threat actor behavior and material ability to harm U.S. security interests, respectively, leading to an aggregated threat score of "high." This score is a full category worse than the *2016 Index* assessment of "elevated," driven by increases in the capability of Russia, Iran, and China.

Behavior of Threats

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Russia		✔			
Iran		✔			
Middle East Terrorism		✔			
Af-Pak Terrorism		✔			
China			✔		
North Korea		✔			
OVERALL		✔			

Capability of Threats

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Russia	✔				
Iran		✔			
Middle East Terrorism			✔		
Af-Pak Terrorism			✔		
China	✔				
North Korea		✔			
OVERALL		✔			

Threats to U.S. Vital Interests

	SEVERE	HIGH	ELEVATED	GUARDED	LOW
Russia		✔			
Iran		✔			
Middle East Terrorism		✔			
Af-Pak Terrorism		✔			
China		✔			
North Korea		✔			
OVERALL		✔			

Our combined score for threats to U.S. vital interests can be summarized as:

Threats to U.S. Vital Interests

SEVERE	HIGH	ELEVATED	GUARDED	LOW
	HIGH			