Iran

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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 Iran-supported terrorists pose some of the greatest potential threats. The Lebanon-based Hezbollah (Party of God) has a long history of executing terrorist attacks against American targets in the Middle East at Iran's direction, and it could be activated to launch attacks inside the United States in the event of a conflict with Iran. Such state-sponsored terrorist attacks pose the greatest potential Iranian threats to the U.S. homeland, at least until Iran develops a long-range ballistic missile capable of targeting the United States.

Threats to the Homeland

Hezbollah Terrorism. Hezbollah, the radical Lebanon-based Shia 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 with support from Iran 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. Its political wing has dominated Lebanese politics and is funded by Iran and a web of charitable organizations, criminal activities, and front companies. Although it faced intense criticism and public scrutiny after the disastrous August 4, 2020, explosion of a poorly stored cache of ammonium nitrate that destroyed Beirut's port, Hezbollah remains a potent terrorist threat and a dominant political force within Lebanon.

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.

Before September 11, 2001, Hezbollah had murdered more Americans than had any other terrorist group. Despite al-Qaeda's increased visibility since then, Hezbollah remains a bigger, better equipped, better organized, and potentially more dangerous terrorist organization, partly because it enjoys the support of the world's two chief state sponsors of terrorism: Iran and Syria. Hezbollah's demonstrated capabilities led former Deputy Secretary of State Richard Armitage to dub it "the A-Team of Terrorists."[1]

Hezbollah has expanded its operations from Lebanon to regional targets in the Middle East and far beyond the region. 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, and Europe is believed to contain many more of these cells.

Hezbollah has been involved 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;
- The June 25, 1996, Khobar Towers bombing, which killed 19 American servicemen stationed in Saudi Arabia; and
- The January 2007 killing of five American soldiers in Iraq, an attack that was carried out by a Shiite group but planned and supported by Hezbollah.[2]

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 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 2015, Hezbollah launched an attack against Israeli soldiers near the Golan Heights, killing two in a barrage of anti-tank missiles.[3]

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. 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.[4]

Covert Hezbollah cells could morph into other forms and launch terrorist operations inside the United States. Given Hezbollah's close ties to Iran and past record of executing terrorist attacks on Tehran'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 between Iran and Israel. On June 1, 2017, 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.[5] Nicholas Rasmussen, then Director of the National Counterterrorism Center, noted that the June arrests were a "stark reminder" of Hezbollah's global reach and warned that Hezbollah "is determined to give itself a potential homeland option as a critical component of its terrorism playbook," which "is something that those of us in the counterterrorism community take very, very seriously."[6]

On July 9, 2019, a New Jersey man who served as a U.S.-based operative for Hezbollah's terrorism-planning wing for years, was arrested and charged with providing material support to the terrorist group. Alexei Saab, a 42-year-old Lebanon native and naturalized U.S. citizen, scouted such New York City landmarks as the Statue of Liberty and the Empire State Building for possible attacks. When he was indicted in September 2019, he was at least the third American to have been charged since 2017 with being an agent for Hezbollah.[7]

Hezbollah also has a long history of cooperation with criminal networks. On May 27, 2020, U.S. prosecutors announced the indictment of a former Venezuelan politician who sought to recruit terrorists from Hezbollah and Hamas to orchestrate attacks against U.S. interests. Adel El Zabayar, a Venezuelan citizen of Syrian descent who is a close associate of Venezuelan President Nicolas Maduro, traveled to the Middle East in 2014 to obtain weapons and recruit members of Hezbollah and Hamas to train at hidden camps in Venezuela. The goal of this "unholy alliance," according to the U.S. Attorney's Office for the Southern District of New York, was to "create a large terrorist cell capable of attacking United States interests on behalf of the Cartel de Los Soles," a criminal organization that "conspired to export literally tons of cocaine into the U.S."[8]

Iran's Ballistic Missile Threat. Iran has an extensive missile development program that has received key assistance from North Korea, as well as more limited support from Russia and China until the imposition of sanctions by the U.N. Security Council. Although the U.S. intelligence community assesses that Iran does not have an ICBM capability (an intercontinental ballistic missile with a range of 5,500 kilometers or about 2,900 miles), Tehran could develop one in the future. Iran has launched several satellites with space launch vehicles that use similar technology, which could also be adapted to develop an ICBM capability.[9]

On April 22, 2020, Iran launched a military satellite with a new launch vehicle that includes such new features as a light carbon fiber casing and a moving nozzle for flight control that is also used in long-range ballistic missiles—clear evidence that Iran continues to improve its capabilities.[10] Tehran's missile arsenal primarily threatens U.S. bases and allies in the Middle East, but Iran eventually could expand the range of its missiles to include 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, Hezbollah, and Iran-supported proxy groups pose actual or potential threats both to America's interests and to those of its allies.

Iranian Threats in the Middle East. Iran is led by an anti-Western revolutionary regime that seeks to tilt the regional balance of power in its favor by driving out the U.S. military presence in the region, 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 targets and U.S. allies in the region.

Iran's conventional military forces, although relatively weak by Western standards, loom large compared to those of Iran's smaller neighbors. Iran's armed forces remain dependent on major weapons systems and equipment that date back to before the country's 1979 revolution. The regime's ability to maintain or replace these aging weapons systems, many of which were depleted in the 1980–1988

Iran–Iraq war, has been limited by Western sanctions. Iran has not been able to acquire large numbers of modern armor, combat aircraft, longer-range surface-to-surface missiles, or major naval warships.

Tehran, however, has managed to import modern Russian and Chinese air-to-air, air-to-ground, air defense, anti-armor, and anti-ship missiles to upgrade its conventional military and asymmetric forces.[11] It also has developed its capacity to reverse engineer and build its own versions of ballistic missiles, rockets, unmanned aerial vehicles (UAVs), minisubmarines, and other weapon systems. To compensate for its limited capability to project conventional military power, Tehran has focused on building up its asymmetric warfare capabilities, proxy forces, and ballistic missile and cruise missile capabilities. For example, partly because of the limited capabilities of its air force, Iran developed UAVs during the Iran–Iraq war, including at least one armed model that carried up to six RPG-7 rounds in what was perhaps the world's first use of UAVs in combat.[12]

The July 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 Iran to expand its oil and gas exports, the chief source of its state revenues. Relief from the burden of sanctions helped Iran's economy and enabled Iran to enhance its strategic position, military capabilities, and support for surrogate networks and terrorist groups. In May 2016, Tehran announced that it was increasing its military budget for 2016–2017 to $19 billion—90 percent more than the previous year's budget.[13] Estimating total defense spending is difficult because of Tehran's opaque budget process and the fact that spending on some categories, including Iran's ballistic missile program and military intervention in Syria, is hidden, but the International Institute for Strategic Studies estimates that Iran's defense spending fell from $21.9 billion in 2018 to $17.4 billion in 2019.[14]

The lifting of sanctions also enabled Tehran to emerge from diplomatic isolation and strengthen strategic ties with Russia. Russian President Vladimir Putin traveled to Iran in November 2015 to meet with Supreme Leader Ayatollah Ali Khamenei and other officials. Both regimes called for enhanced military cooperation. During Iranian 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."[15] On June 9, 2018, during the Shanghai Cooperation Organization (SCO) summit, Putin noted that Iran and Russia were "working well together to settle the Syrian crisis" and promised Rouhani that he would support Iran's entry into the SCO.[16] And on September 16, 2019, in Ankara, Turkey, ahead of a trilateral meeting with Turkish President Recep Tayyip Erdogan to discuss the situation in Syria, the two presidents met again, and Putin praised Iran's support for the Assad regime.

This growing strategic relationship has strengthened Iran's military capabilities. Tehran announced in April 2016 that Russia had begun 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.[17] The missile system, which was considered a defensive weapon not included in the U.N. arms embargo on Iran, was deployed and became operational in 2017, giving Iran a "generational improvement in capabilities" according to Defense Intelligence Agency Director Lieutenant General Robert Ashley.[18]

In 2016, Iranian Defense Minister Hossein Dehghan traveled to Moscow "to negotiate a series of important weapons deals with Russia" that included the purchase of advanced Sukhoi Su-30 Flanker fighter jets. These warplanes would significantly improve Iran's air defense and long-range strike capabilities, although under the terms of the 2015 Iran nuclear agreement, they cannot be delivered until after the U.N. arms embargo on Iran has expired. The agreement is scheduled to expire in October 2020. If Tehran pulled out of the agreement, however, the embargo would continue, precluding the sales. It was also reported

that Tehran was "close to finalizing a deal for purchase and licensed production of Russia's modern T-90S main battle tank."[19]

After the 2015 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 militia groups have played the leading role in spearheading the ground offensives that have retaken territory from Syrian rebel groups and tilted the military balance in favor of Assad's 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.[20] Tehran escalated to deploy a force of almost 80,000 Shia militia fighters commanded by nearly 2,000 IRGC officers.[21]

Working closely with Russia, Iran then expanded its military efforts and helped to consolidate a costly victory for the Assad regime. At the height of the fighting in August 2016, Russia temporarily deployed Tu-22M3 bombers and Su-34 strike fighters to an air base at Hamedan in western Iran in order to strike rebel targets in Syria.[22] After the fall of Aleppo in December 2016, which inflicted a crushing defeat on the armed opposition, Tehran sought to entrench a permanent Iranian military presence in Syria, establishing an elaborate infrastructure of military bases, intelligence centers, UAV airfields, missile sites, and logistical facilities. The IRGC also sought to secure a logistical corridor to enable the movement of heavy equipment, arms, and matériel through Iraq and Syria to bolster Hezbollah in Lebanon.

Iran's military presence in Syria and continued efforts to provide advanced weapons to Hezbollah through Syria have fueled tensions with Israel. Israel has launched more than 2,000 air strikes against Hezbollah and Iranian forces to prevent the transfer of sophisticated arms and prevent Iran-backed militias from deploying near Israel's border. On February 10, 2018, Iranian forces in Syria launched an armed drone that penetrated Israeli airspace before being shot down. Israel responded with air strikes on IRGC facilities in Syria. Iranian forces in Syria later launched a salvo of 20 rockets against Israeli military positions in the Golan Heights on May 9, 2018, provoking Israel to launch ground-to-ground missiles, artillery salvos, and air strikes against all known Iranian bases in Syria.[23]

Although Russia has sought to calm the situation, reportedly helping to arrange the withdrawal of Iranian heavy weapons 85 kilometers from Israeli military positions in the Golan Heights, Moscow has "turned a blind eye" to Iranian redeployments and the threat that long-range Iranian weapon systems deployed in Syria pose to Israel.[24] On January 13, 2019, Israel launched an air strike against an Iranian arms depot at Damascus International Airport, and the Israeli government revealed that it had launched over 2,000 missiles at various targets in Syria in 2018.[25] Israel remains determined to prevent Iran from establishing forward bases near its borders, and another clash could rapidly escalate into a regional conflict.

By early 2020, Iran reportedly had reduced its military forces in Syria after successfully defeating the rebel military challenge to the Assad regime.[26] Iran continues to bolster the strength of its proxies and allies in Syria, however, particularly Hezbollah, which has embedded itself in the Syrian army's 1st Corps and is recruiting Syrian fighters near the Golan Heights for future attacks on Israel.[27]

Iran's Proxy Warfare. 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 insurgent groups that have fought against the governments of Afghanistan, Bahrain, Egypt, Israel, Iraq, Jordan, Kuwait, Morocco, Saudi Arabia, Turkey, the United Arab Emirates (UAE), 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 established 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.

U.S. troops in the Middle East have been targeted by Iranian proxies in Lebanon in the 1980s, Saudi Arabia in 1996, and Iraq in the 2000s. In April 2019, the Pentagon released an updated estimate of the number of U.S. personnel killed by Iran-backed militias in Iraq, revising the number upward to at least 603 dead between 2003 and 2011. These casualties, about 17 percent of the American death toll in Iraq, "were the result of explosively formed penetrators (EFP), other improvised explosive devices (IED), improvised rocket-assisted munitions (IRAM), rockets, mortars, rocket-propelled grenades (RPG), small-arms, sniper, and other attacks in Iraq," according to a Pentagon spokesman.[28]

Tehran ratcheted up surrogate attacks in Iraq against U.S. troops in 2019 as part of its aggressive campaign to push back against the U.S. "maximum pressure" sanctions campaign and block the negotiation of a revised nuclear agreement with tighter restrictions. After scores of rocket attacks on Iraqi military bases that hosted U.S. personnel, Iran-controlled Shia militias succeeded in killing an American contractor on December 27, 2019. The ensuing crisis quickly escalated. The U.S. launched air strikes against the Kataib Hezbollah militia that launched the attack; pro-Iranian militia members retaliated by trying to burn down the U.S. embassy in Baghdad; and Washington responded with a drone strike on January 2, 2020, that killed General Qassem Soleimani, the leader of the IRGC Quds Force, which was orchestrating the attacks. Iran responded with additional proxy attacks and a ballistic missile attack that failed to kill any U.S. troops stationed at Iraqi military bases.[29]

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 has estimated that Iran provides up to $200 million in annual financial support for Hezbollah; other estimates made before the 2015 Joint Comprehensive Plan of Action (JCPOA), commonly known as the Iran nuclear deal ran as high as $350 million annually.[30] After the nuclear deal, which offered Tehran substantial relief from sanctions, Tehran increased its aid to Hezbollah, providing as much as $800 million per year according to Israeli officials.[31] Tehran has been lavish in stocking 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 many Arab countries as well. Tehran's revolutionary ideology has fueled Iran's hostility to other Middle Eastern governments, 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 UAE.

Iranian Revolutionary Guards conspired with the branch of Hezbollah in Saudi Arabia to conduct the 1996 Khobar Towers bombing that killed 19 American military personnel. 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. 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, but political inclusion did not lead it to renounce terrorism.

Hezbollah also poses a potential threat to America's NATO allies in Europe. It established a presence inside European countries in the 1980s amid the influx of Lebanese citizens seeking to escape Lebanon's civil war and took root among Lebanese Shiite immigrant communities throughout Europe. German intelligence officials estimate that about 900 Hezbollah members live in Germany alone. Hezbollah also has developed an extensive web of fundraising and logistical support cells throughout Europe.[32]

France and Britain have been the principal European targets of Hezbollah terrorism, partly 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, which killed 58 French soldiers (and on the same day the U.S. Marine barracks was bombed);
- 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's attacks in Europe trailed off in the 1990s after the group'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, European participation 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 (EU) member states could someday find themselves attacked by Hezbollah with weapons financed by Hezbollah supporters in their home countries.

Hezbollah operatives have been deployed in countries throughout Europe, including Belgium, Bulgaria, Cyprus, France, Germany, and Greece.[33]

MAP 5

Iranian Missile Systems: Maximum Ranges

2,000 km
Shahab 3/Emad-1/Sejjil MRBMs

700 km
Zolfaghar SRBM

300 km
Shahab 1

750 km
Qiam-1 SRBM

500 km
Shahab 2 SRBM and Fateh-110

SOURCE: U.S. Defense Intelligence Agency, *Iran Military Power*, 2019, p. 43, https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Iran_Military_Power_LR.pdf (accessed August 19, 2020).

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Mounting Missile Threat. Iran possesses the largest number of deployed missiles in the Middle East.[34] Testifying before the House Armed Services Committee in March 2020, the commander of CENTCOM, Marine Corps General Kenneth McKenzie, estimated that Iran has "about 2500 to 3000 ballistic missiles."[35] In June 2017, Iran launched mid-range missiles from its territory against opposition targets in Syria. This was Iran's first such operational use of mid-range missiles in almost 30 years, but it was not as successful as Tehran might have hoped. It was reported that three of the five missiles launched missed Syria altogether and landed in Iraq and that the remaining two landed in Syria but missed their intended targets by miles.[36]

Iran launched a much more successful attack on September 14, 2019, using at least 18 UAVs and three low-flying cruise missiles to destroy parts of the Saudi oil processing facility at Abqaiq and the oil fields at Khurais. The precisely targeted attack shut down half of Saudi oil production, which is approximately equivalent to 5 percent of global oil production. Although Iran denied responsibility, U.S. intelligence sources identified the launch site as the Ahvaz air base in southwest Iran, about 650 kilometers north of Abqaiq.[37]

Iran also used ballistic missiles to attack two Iraqi bases hosting U.S. military personnel on January 8, 2020, in retaliation for an earlier U.S. strike that killed IRGC Quds Force commander General Qassem Soleimani. Iran launched 16 short-range ballistic missiles across the border from three bases inside Iran, with 12 reaching the targeted bases: 11 struck al-Asad air base in western Iraq, and one struck a base near the northern Iraqi city of Irbil.[38] No U.S. personnel were killed, although over 100 were later treated for traumatic brain injuries.

The backbone of the Iranian ballistic missile force is 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 like cities.

Tehran's heavy investment in such weapons has fueled speculation that the Iranians intend eventually to replace the conventional warheads on their longer-range missiles with nuclear warheads. As the Nuclear Threat Initiative has observed, "Iran's rapidly improving missile capabilities have prompted concern from international actors such as the United Nations, the United States and Iran's regional neighbors."[39]

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.[40]

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. Although early variants of the Shahab-3 missile were relatively inaccurate, Tehran was able to adapt and employ Chinese guidance technology to improve strike accuracy significantly.[41] In 2014, then-Defense Intelligence Agency Director 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 [the] 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.[42]

Iran's ballistic missiles pose a growing threat to U.S. bases and allies from Turkey, Israel, and Egypt to the west to Saudi Arabia and the other Gulf states to the south and Afghanistan and Pakistan to the east. Iran also has become a center for missile proliferation by exporting a wide variety of ballistic missiles, cruise missiles, and rockets to the Assad regime in Syria and proxy groups such as Hezbollah, Hamas, Palestinian Islamic Jihad, the Houthi rebels in Yemen, and Iraqi militias. The Houthi Ansar Allah group has launched Iranian-supplied ballistic missiles and armed drones against targets in Saudi Arabia and the UAE, which launched a military campaign against them in 2015 in support of Yemen's government.

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, which control most of Iran's strategic missile systems, 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."[43] The development of nuclear warheads for Iran's ballistic missiles would significantly degrade Israel's ability to deter major Iranian 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: Israel is a smaller country with fewer military capabilities, is located much closer to Iran, and 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 it sought to conceal within its civilian nuclear power program. It built clandestine but subsequently discovered underground uranium-enrichment facilities near Natanz and Fordow and a heavy-water reactor near Arak that would generate plutonium to give it a second potential route to nuclear weapons.[44]

Before the 2015 nuclear deal, Iran had accumulated enough low-enriched uranium to build eight nuclear bombs (assuming the uranium was enriched to weapon-grade levels). In November 2015, the Wisconsin Project on Nuclear Arms Control reported that "[b]y using the approximately 9,000 first generation centrifuges operating at its Natanz Fuel Enrichment Plant as of October 2015, Iran could theoretically produce enough weapon-grade uranium to fuel a single nuclear warhead in less than 2 months."[45] Clearly, the development of a 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 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 EU 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."[46] The short-lived agreement, however, did a much better job of dismantling sanctions against Iran than it did of dismantling Iran's nuclear infrastructure, much of

which was allowed to remain functional subject to weak restrictions, some of them only temporary. This flaw led President Donald Trump to withdraw the U.S. from the agreement on May 8, 2018, and reimpose sanctions.[47]

In fact, the agreement did not specify that any of Iran's covertly built facilities would have to be dismantled. The Natanz and Fordow uranium enrichment facilities were allowed to remain in operation, although the latter facility was 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, were legitimized by the agreement.

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 President Gerald Ford's Administration gave the Shah of Iran, a close U.S. ally before the 1979 revolution, who was denied independent reprocessing capabilities.

President Trump's decision to withdraw from the nuclear agreement marked a return to long-standing U.S. nonproliferation policy. Iran, Britain, France, Germany, the EU, China, and Russia sought to salvage the agreement, but the strength of the U.S. nuclear sanctions that were fully reimposed by November 4, 2018, after a 180-day wind-down period makes this unlikely.

Iran initially adopted a policy of "strategic patience," seeking to preserve as much of the agreement's relief from sanctions as it could while hoping to outlast the Trump Administration and deal with a presumably more pliable successor Administration after the 2020 elections. The Trump Administration, however, ratcheted up sanctions to unprecedented levels under its "maximum pressure" campaign. On April 8, 2019, it designated Iran's Revolutionary Guards as a foreign terrorist organization. Because the Revolutionary Guards are extensively involved in Iran's oil, construction, and defense industries, this allowed U.S. sanctions to hit harder at strategic sectors of Iran's economy.[48] On April 22, 2019, Secretary of State Mike Pompeo announced that the Administration would eliminate waivers for Iran's remaining oil exports on May 2 and seek to zero them out entirely.[49]

Although President Trump has made it clear that he seeks a new agreement on Iran's nuclear program, Tehran has refused to return to the negotiating table. Instead, it has sought to pressure European states into protecting it from the effects of U.S. sanctions.

On May 8, 2019, Iranian President Rouhani announced that Iran would no longer comply with the 2015 nuclear agreement's restrictions on the size of Iran's stockpiles of enriched uranium and heavy water.[50] Tehran gave the Europeans 60 days to deliver greater sanctions relief, specifically with respect to oil sales and banking transactions, and warned that if this ultimatum was not met by July 7, 2019, it would incrementally violate the restrictions set by the JCPOA. Since then, Iran has escalated its noncompliance with the agreement every 60 days in a series of major violations that include breaching the caps on uranium enrichment, research and development of advanced centrifuges, numbers of operating centrifuges, and resuming enrichment at the fortified Fordow facility. When announcing the fifth breach in January 2020, Iran stated that its uranium enrichment program no longer faced any restrictions.[51]

By late February 2020, Iran had accumulated about 1,510 kilograms of low-enriched uranium, enough to give it a breakout estimate (the time needed to produce enough weapon-grade uranium for one nuclear weapon) of "3.8 months, with a range of 3.1 to 4.6 months."[52] This worst-case estimate of how long it would take Tehran to acquire the enriched uranium

necessary for a nuclear weapon at its known nuclear facilities is likely to shrink further as Iran adds new centrifuges and expands its stockpile of enriched uranium.

Iran also is a declared chemical weapons power that claims to have destroyed all of its stockpiles of chemical weapons, but it has never fully complied with the Chemical Weapons Convention or declared its holdings.[53] U.S. intelligence agencies have assessed that Iran maintains "the capability to produce chemical warfare (CW) agents and 'probably' has the capability to produce some biological warfare agents for offensive purposes, if it made the decision to do so."[54]

Iranian Threats to Israel. In addition to ballistic missile threats from Iran, Israel faces the constant threat of attack from Palestinian, Lebanese, Egyptian, Syrian, and other Arab terrorist groups, including many supported by Iran. 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 been distracted by civil wars. However, although the conventional military threat to Israel from Arab states has declined, 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 more distant ally Hamas, pose the chief immediate security 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. According to official Israeli estimates, Hezbollah has amassed around 150,000 rockets, including a number of long-range Iranian-made missiles capable of striking cities throughout Israel.[55] In recent years, under cover of the war in Syria, Iran has provided Hezbollah with increasingly sophisticated, accurate, and longer-range weapons as well as guidance kits that upgrade the accuracy of older rockets.[56] Iran and Hezbollah also have established another potential front against Israel in Syria in addition to Lebanon and Gaza.

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.[57] 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 so that it could launch attacks on Israeli civilians and military personnel. In early May 2019, Palestinian Islamic Jihad ignited another round of fighting in Gaza in which about 700 rockets were fired at Israel.[58] Gaza remains a flash point that could trigger another conflict with little warning.

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.

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 UAE.

Bahrain has repeatedly intercepted shipments of Iranian arms, including sophisticated bombs employing explosively formed penetrators. 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 hard-liners 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 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.[61]

In addition to military threats from Iran, Saudi Arabia and the other GCC states face terrorist threats and possible rebellions by Shia or other disaffected internal groups supported by Tehran. Iran has backed Shiite terrorist groups against Saudi Arabia, Bahrain, and Kuwait 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.

The Houthis have retaliated by launching Iranian-supplied missiles at military and civilian targets in Saudi Arabia and the UAE, including ballistic missile attacks on airports, Riyadh, and other cities as well as cruise missile strikes. In December 2017, the Houthis launched a cruise missile attack on an unfinished nuclear reactor in Abu Dhabi. The Houthis also have made extensive use of UAVs and UCAVs (unmanned combat aerial vehicles, or armed drones). A Houthi UCAV attacked a military parade in Yemen in January 2019, killing at least six people including Yemen's commander of military intelligence, and longer-range UCAVs were used in a coordinated attack on Saudi Arabia's East–West pipeline on May 14, 2019.[62]

The August 13, 2020, announcement of a peace agreement between Israel and the United Arab Emirates could lead Iran to escalate tensions with the UAE, which it strongly criticized for improving ties with Israel. Tehran could retaliate by supporting terrorist attacks or sabotage against UAE targets by hardline Palestinian groups or its own proxies.

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, and this security 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. In 2019, the Persian Gulf region produced about 31 percent of total world crude oil and held about 48 percent of global proved crude oil reserves.[63] The Persian Gulf is a crucial source of oil and gas for energy-importing states, particularly China, India, Japan, South Korea, and many European countries. Interstate conflict or terrorist attacks could easily interrupt the flow of that oil.

Bottlenecks such as the Strait of Hormuz, Suez Canal, and Bab el-Mandeb Strait are potential choke points for restricting the flow of oil, international trade, and the deployment of U.S. and allied naval forces. The chief potential threat to the free passage of ships through the Strait of Hormuz, the world's most important maritime choke point, is Iran. Approximately 21 million barrels per day, which is the equivalent of about 21 percent of global petroleum liquids consumption, flowed through the strait in 2018.[64]

Iran has trumpeted the threat that it could pose to the free flow of oil exports from the Gulf if it is attacked or a cutoff of its own oil exports is threatened. 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.

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."[65] Iranian officials often reiterate these threats during periods of heightened tension. For example, the chief of staff of Iran's army, Major General Mohammad Baqeri, warned on April 28, 2019, that "if our oil does not pass, the oil of others shall not pass the Strait of Hormuz either."[66]

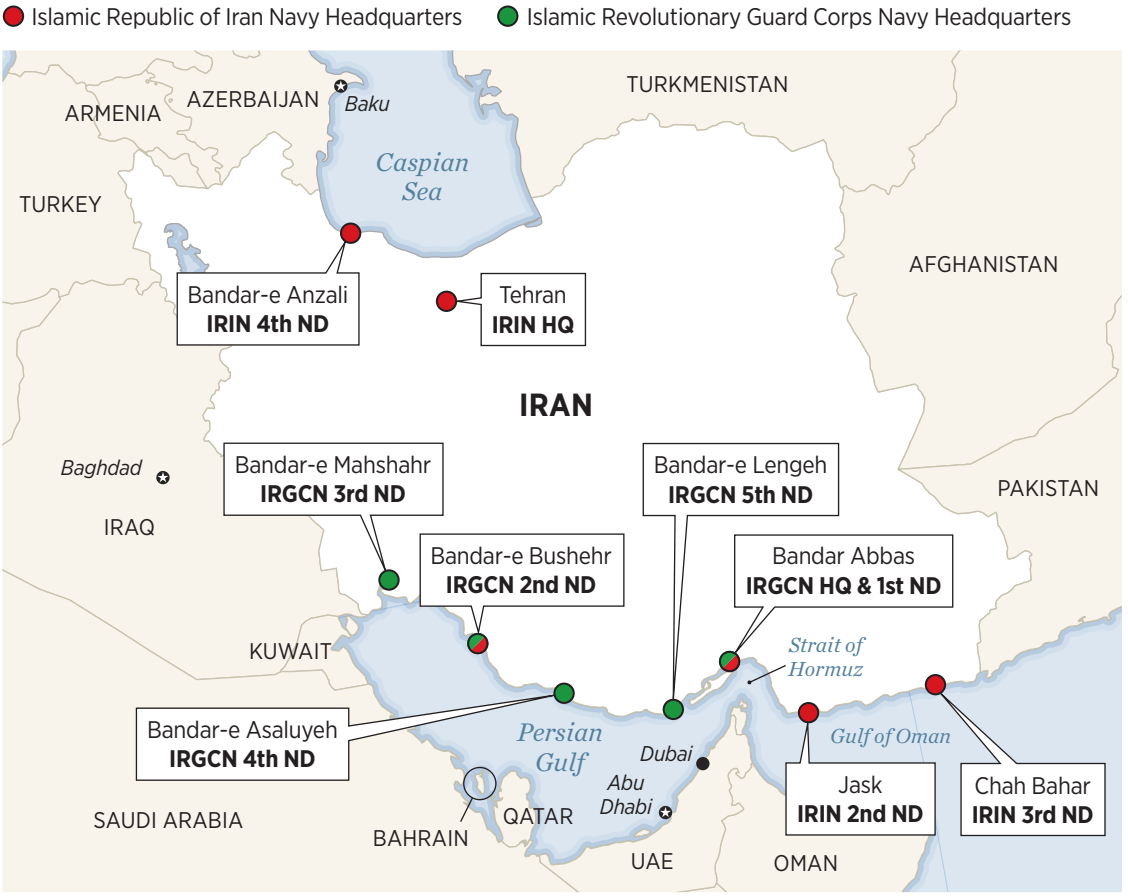
Less than one month later, Iran began to intensify its intimidation tactics against international shipping near the strait. On May 12, 2019, four oil tankers were damaged by mysterious explosions off the coast of the UAE in the Gulf of Oman. Then-U.S. National Security Adviser John Bolton stated that "naval mines almost certainly from Iran" were the cause of the damage.[67] On June 13, two more tankers were attacked in the Gulf of Oman. Even though Iranian Revolutionary Guards were filmed removing an unexploded limpet mine from one of the damaged ships, Tehran continued to deny its involvement in all of the attacks.[68] On June 19, an IRGC surface-to-air missile shot down a U.S. surveillance drone in international air space. The U.S. initially planned to launch retaliatory strikes, but President Trump called off the operation.[69]

Iran continued its aggressive behavior, launching a sophisticated UCAV and cruise missile attack on Saudi oil facilities in September 2019. A series of rocket attacks on Iraqi bases containing U.S. troops in late 2019 by Iranian-controlled Iraqi militias provoked U.S. retaliatory air strikes against those militias and the January 2020 UCAV strike that killed General Qassem Soleimani, commander of the IRGC Quds Force. Rocket attacks by Iraqi militias have continued, and tensions remain high in Gulf waters. On May 10, 2020, a missile launched from an Iranian Navy frigate struck another Iranian naval vessel during a military exercise in the Gulf of Oman, killing at least 19 sailors and wounding 15.[70] The incident raised questions about the competence and training of Iran's naval forces.

Iran has a long history of 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,

MAP 6

Iranian Naval Headquarters



ND — Naval district

SOURCE: Defense Intelligence Agency, *Iran Military Power*, 2019, p. 48, https://www.dia.mil/Portals/27/Documents/News/Military%20Power%20Publications/Iran_Military_Power_LR.pdf (accessed August 19, 2020).

heritage.org

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 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 arms embargo imposed by the U.S. after the 1979 revolution, but 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.

Since the Iran–Iraq war, Tehran has invested heavily in developing its naval forces, particularly the IRGC Navy, along unconventional lines. 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 has deployed mobile anti-ship missile batteries along its 1,500-mile Gulf coast and on many of the 17 Iranian-controlled islands in the Gulf, as well as modern anti-ship missiles mounted on fast attack boats, submarines, oil platforms, and vessels disguised as civilian fishing boats. Six of Iran's 17 islands in the Gulf—Forur, Bani Forur, Sirri, and three islands seized from the United Arab Emirates: Abu Musa, Greater Tunb, and Lesser Tunb—are particularly important because they are located close to the shipping channels that all ships must use near the Strait of Hormuz.

Iran has imported Russian submarines, North Korean minisubmarines, and a wide variety of advanced Chinese anti-ship missiles and has a significant stock of 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. It also has reverse engineered Chinese missiles to produce its own Ra'ad and Noor anti-ship cruise missiles. More recently, Tehran has produced and deployed more advanced anti-ship cruise missiles, the Nasir and Qadir.[71] 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. In addition to expanding the quantity of its mines from an estimated 1,500 during the Iran–Iraq war to more than 5,000 in 2019, Tehran has increased their quality.[72] It has acquired significant stocks of "smart mines" including versions of the Russian MDM-6, Chinese MC-52, and Chinese EM-11, EM-31, and EM-55 mines.[73] One of Iran's most lethal mines is the Chinese-designed EM-52 "rocket" mine, which remains stationary on the sea floor and fires a homing rocket when a ship passes overhead.

Iran can deploy mines or torpedoes from its three *Kilo*-class submarines, purchased from Russia, which are based at Bandar Abbas, Iran's largest seaport and naval base. These submarines could be difficult to detect for brief periods when running silent and remaining stationary on a shallow bottom just outside the Strait of Hormuz.[74] Iran could also use minisubmarines, helicopters, or small boats disguised as fishing vessels to deploy its mines. Iran's robust mine warfare capability and the limited capacity for countermine operations by the U.S. Navy and allied navies pose major challenges to Gulf maritime security.[75]

Iran has developed two separate naval forces. The regular navy takes the lead in the Caspian Sea and outside the Strait of Hormuz in the Gulf of Oman, and the Islamic Revolutionary Guard Corps Navy is Iran's dominant force inside the Persian Gulf. The IRGC Navy has developed an effective asymmetric naval warfare strategy that could enable it to counter the superior firepower and technology of the U.S. Navy and its GCC allies, at least for a short period. It has adopted swarming tactics using well-armed fast attack boats to launch surprise attacks against larger and more heavily armed naval adversaries.

The commander of the IRGC Navy bragged in 2008 that it had brought guerilla warfare tactics to naval warfare: "We are everywhere and at the same time nowhere."[76] The IRGC has honed such unconventional tactics as deploying remote-controlled radar decoy boats and boats packed with explosives to confuse defenses and attack adversaries. The IRGC also could deploy naval commandos trained to attack using small boats, minisubmarines, and even jet skis, as well as underwater demolition teams that could attack offshore oil platforms, moored ships, ports, 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.[77] On May 14, 2015, the *Alpine Eternity*, an oil tanker flagged in Singapore, was surrounded and attacked by Revolutionary Guard gunboats in the Strait of Hormuz when it refused to be boarded. Iranian authorities alleged that it had damaged an Iranian oil platform in March, but the ship's owners maintained that it had hit an uncharted submerged structure.[78]

The Revolutionary Guard's aggressive tactics in using commercial disputes as pretexts for 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 did not alter the confrontational tactics of the Revolutionary Guards in the Gulf.[79] IRGC naval forces frequently challenged U.S. naval forces in a series of incidents. 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.[80] 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 disarmed, forced onto their knees, filmed, and exploited in propaganda videos.

In 2017, for unknown reasons, Iran temporarily halted the harassment of U.S. Navy ships. According to U.S. Navy reports, Iran instigated 23 "unsafe and/or unprofessional" interactions with U.S. Navy ships in 2015, 35 in 2016, and 14 in the first eight months of 2017, with the last incident occurring on August 14, 2017.[81] Although this was a welcome development, the provocations resumed in April 2020 when 11 IRGC Navy gunboats harassed six U.S. Navy vessels conducting exercises in the international waters of the North Arabian Gulf.[82] One week later, President Trump warned that U.S. Navy forces were authorized to destroy any Iranian vessels that harassed them.

If Tehran were to attack ships transiting the Strait of Hormuz, the United States and its allies have the capacity to counter Iran's maritime threats and restore the flow of oil exports, but "the effort would likely take some time—days, weeks, or perhaps months—particularly if a large number of Iranian mines need to be cleared from the Gulf."[83] Naval warfare experts estimated in May 2019 that by using its combined coastal missile batteries, mines, submarines, and naval forces, Iran could close the strait for up to four weeks.[84] Such an aggressive move would be very costly and risky for Tehran. Closing the strait would also block Iran's oil exports and many of its imports, including food and medicine. Moreover, most of Iran's naval forces, naval bases, and other military assets could be destroyed in the resulting conflict.

In addition to using its own forces, Tehran could use its extensive network of clients 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.[85] 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.

Houthi irregular forces have deployed mines along Yemen's coast, used a remote-controlled boat packed with explosives in an unsuccessful attack on the Yemeni port of Mokha in July 2017, and have launched several unsuccessful naval attacks against ships in the Red Sea. Houthi gunboats also attacked and damaged a Saudi oil tanker near the port of Hodeidah on April 3, 2018.

U.N. investigators have concluded that the Houthis also operate UAVs with a range of up to 1,500 kilometers (930 miles), several of which were used to attack Saudi Arabia's East–West pipeline on May 14, 2019.[86] This attack, along with attacks on oil tankers in the Gulf of Oman two days earlier, likely was a signal

from Tehran that it can also disrupt oil shipments outside the Persian Gulf in a crisis. The Houthis have staged numerous UCAV attacks on Saudi targets along with a cruise missile attack on June 12, 2019, and an attack by 10 ballistic missiles on August 25.[87] The Houthis also claimed responsibility for the September 14, 2019, attacks on Saudi oil facilities at Abqaiq, but U.S. officials asserted that intelligence reports identified Iran as the staging ground for the attacks.[88]

Airspace. The Middle East is particularly vulnerable to attacks on civilian aircraft. Large quantities of arms, including man-portable air defense systems, were looted from arms depots in Libya, Iraq, Syria, and Yemen during their civil wars and could find their way into the hands of Iranian-supported groups. Iran has provided anti-aircraft missiles to Hezbollah, Iraqi militias, and the Houthi rebels in Yemen. The Houthis also have attacked Saudi airports with ballistic missiles and armed drones, although they may have been targeting nearby military facilities.[89]

Perhaps the greatest Iranian threat to civil aviation would come in the event of a military clash in the crowded skies over the Persian Gulf. The U.S. Federal Aviation Administration issued a warning to commercial airlines on May 16, 2019, during a period of heightened tensions with Iran, explaining that civilian planes risked being targeted by the Iranian military as a result of "miscalculation or misidentification."[90] Tragically, this warning foreshadowed the January 8, 2020, shooting down of Ukraine International Airlines Flight 752 that killed 176 passengers and crew, most of them Iranians. Several hours earlier, Iran had launched a ballistic missile attack on Iraqi bases hosting U.S. troops, and Iranian officials later admitted that they had kept Tehran's airport open in the hope that the presence of passenger jets could act as a deterrent against an American attack on the airport or a nearby military base.[91]

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.[92] The technology probably was transferred by North Korea, which built its BM-25 missiles using the R-27 as a model.[93] Safir technology could be used to develop long-range ballistic missiles.

Iran claimed that it launched a monkey into space and returned it safely to Earth twice in 2013.[94] Tehran also announced in June 2013 that it had established its first space tracking center to monitor objects in "very remote space" and help manage the "activities of satellites."[95] On July 27, 2017, Iran tested a Simorgh (Phoenix) space launch vehicle that it claimed could place a satellite weighing up to 250 kilograms (550 pounds) in an orbit of 500 kilometers (311 miles).[96] However, the satellite launch failed, as did another Simorgh-boosted satellite launch in January 2019.[97]

In April 2020, Tehran finally discarded the pretense that its space program was dedicated exclusively to peaceful purposes. On April 22, Iran's Revolutionary Guards launched a Noor (Light) satellite into a low Earth orbit to celebrate the 41st anniversary of the founding of the IRGC. Launched from a secret missile base, the new spy satellite's path takes it over North Africa and the central Mediterranean, putting Israel within its potential field of vision approximately every 90 minutes.[98] Although the satellite was dismissed as a "tumbling webcam in space" by General Jay Raymond, commander of U.S. Space Command, Iran's real achievement focused more on the previously unheard-of satellite carrier, the Qased (Messenger), a three-stage system that used both solid and liquid fuel.[99] The technical advances required to launch a satellite are similar to those required to launch an ICBM, and the use of solid fuel could allow Iran to launch a missile more quickly—something that is crucial in an offensive weapon.

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 possess the 'fourth largest' cyber force in the world—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."[100]

The creation of the "Iranian Cyber Army" in 2009 marked the beginning of a cyber offensive against those whom the Iranian regime 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 breached the Navy Marine Corps Intranet.[101] The group also has targeted dissidents within Iran, seeding versions of anti-censorship tools with malware and gathering information about users of those programs.[102] Iran has invested heavily in cyber activity, reportedly spending "over $1 billion on its cyber capabilities in 2012 alone."[103]

An April 2015 study released by the American Enterprise Institute reported that hostile Iranian cyber activity had increased significantly since the beginning of 2014 and could threaten U.S. critical infrastructure. 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.[104]

Iran allegedly has used cyber weapons to engage in economic warfare, most notably the sophisticated and debilitating "[distributed] denial-of-service (DDoS) attacks against a number of U.S. financial institutions, including the Bank of America, JPMorgan Chase, and Citigroup."[105] In February 2014, Iran launched a crippling cyberattack against the Sands Casino in Las Vegas, owned by Sheldon Adelson, a leading supporter of Israel and critic of the Iranian regime.[106] In 2012, Tehran was suspected of launching both the "Shamoon" virus attack on Saudi Aramco, the world's largest oil-producing company—an attack that destroyed approximately 30,000 computers—and an attack on Qatari natural gas company Rasgas's computer networks.[107]

Israel has been a major target of Iranian cyberattacks. Iranian hackers launched denial-of-service attacks against the infrastructure of the Israel Defense Forces in 2014. On April 24, 2020, an Iranian cyberattack targeted the command and control center of Israel's Water Authority, disrupting operations of Israeli water and sewage facilities. According to an Israeli cyber expert, the operation was "a first-of-its-kind attack and they were not far from inflicting human casualties."[108] Israel retaliated with a May 9, 2020, cyberattack that disrupted operations at one of Iran's most important port facilities, the Shahid Rajaee terminal in Bandar Abbas.[109]

U.S. officials warned of a surge of sophisticated computer espionage by Iran in the fall of 2015 that would include a series of cyberattacks against State Department officials.[110] 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.[111] In April 2020, Iran-linked hackers targeted staff at the World Health Organization and the U.S. pharmaceutical company Gilead Sciences Inc., a leader in developing a treatment for the COVID-19 virus.[112]

The growing sophistication of these and other Iranian cyberattacks, together with Iran's willingness to use these weapons, has led various experts to characterize 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 such accounts as LinkedIn, YouTube, Facebook, and Twitter.[113] Significantly, the FBI sent the following cyber alert to American businesses on May 22, 2018:

> The FBI assesses [that] foreign cyber actors operating in the Islamic Republic of Iran could potentially use a range of computer network operations—from scanning networks for potential vulnerabilities to data deletion attacks—against U.S.-based networks in response to the U.S. government's withdrawal from the Joint Comprehensive Plan of Action (JCPOA).[114]

Conclusion

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, among the key weapons in Iran's inventory are up to 50 medium-range ballistic missile launchers, as many as 100 short-range ballistic missile launchers, 333 combat-capable aircraft, 1,513 or more main battle tanks, 640 or more armored personnel carriers, 19 tactical submarines, seven corvettes, and 15 amphibious landing ships. There are 610,000 personnel in the armed forces, including 350,000 in the Army, 190,000 in the Islamic Revolutionary Guard Corps, 37,000 in the Air Force, 15,000 in Air Defense, and 18,000 in the Navy. With regard to these capabilities, the IISS assesses that:

The armed forces are numerous by regional standards and its personnel are reasonably well trained, with some benefitting from operational experience. The IRGC's Quds Force is a principal element of Iran's military power abroad, while elements of the Basij militia also play a foreign role. There are suggestions that Iran has developed an enhanced ability to conduct complex strikes utilizing land-attack missiles and UAVs. The regular navy has limited power-projection capabilities, while the IRGC navy is responsible for maritime security close to home. The armed forces struggle with an ageing inventory of primary combat equipment that ingenuity and asymmetric warfare techniques can only partially offset.[115]

This *Index* therefore assesses the overall threat from Iran, considering the range of contingencies, as "aggressive." Iran's capability score holds at "gathering."[116]

Threats: Iran

	HOSTILE	AGGRESSIVE	TESTING	ASSERTIVE	BENIGN
Behavior		✓			

	FORMIDABLE	GATHERING	CAPABLE	ASPIRATIONAL	MARGINAL
Capability		✓			

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116. 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 their extreme stated objectives 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 nearly two decades.