

# **Iran's Conventional Military Forces**

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- Iran's conventional military is severely limited, relying heavily on obsolescent and low quality weaponry. The Iran-Iraq War provided Iranian soldiers with extensive land combat experience, but Iran's air combat capabilities are unimpressive. It has used missiles largely as terror weapons, but has not yet developed the accuracy, reliability, and lethality to use missiles against critical targets.
- But Iran's forces are strong enough to create major problems for any invasion, and Iran can threaten its neighbors by fighting asymmetric wars. Its conventional military -- and Islamic Revolutionary Guard Corps (IRGC) -- have significant irregular warfare capabilities.
- Iran's forces pose at least a near-term threat to shipping and tanker traffic through the Strait of Hormuz, the Gulf of Oman, and the Indian Ocean. It cannot win a war to "close the Straits," but can create major problems for petroleum exports for at least a few weeks.
- Iran's capabilities are enhanced by its steadily growing ballistic missile and long-range artillery rocket forces. Iran is also a major supplier of weapons and military advice to Iraq, giving the Islamic Republic influence over Hezbollah, Hamas, and Iraq's armed Shiite groups. These forces act as a growing, if limited, deterrent to attacks on Iran, and compensate for the limits of its conventional forces.
- Iran's ability to supplement its conventional forces with weapons of mass destruction is uncertain. It has acquired the capabilities necessary to obtain nuclear weapons but claims to have no intention to create such weapons. Iran has reached a tentative nuclear agreement with the world's six major powers.
- Despite its threats to Israel, Iran is aware that Israel has advanced nuclear-armed missile forces and growing missile defenses. It is also aware that its Gulf neighbors have steadily improving missile defenses. Iran, however, has no meaningful missile defenses.

## **Overview**

Iran is sometimes described as the "Hegemon of the Gulf," but it is a comparatively weak conventional military power with limited modernization since the Iran-Iraq War. It depends heavily on weapons acquired by the Shah. Most key equipment in its army, navy and air force are obsolete or relatively low quality imports. Iran now makes some weapons, but production rates are limited and Tehran often exaggerates about its weapons designs. Its forces are not organized or trained to project significant power across the Gulf. Its land forces are not structured to project power deep into a neighboring state like Iraq or to deal with U.S. air-to-ground capabilities.

But Iran is proficient at irregular warfare. It has built up a powerful mix of capabilities for both regular and IRGC forces to defend territory, intimidate neighbors, threaten the flow of oil and shipping through the Gulf, and attack Gulf targets. It has a dedicated force to train and equip non-state actors like Hezbollah, Hamas and Shiite extremists in Iraq – potential proxies that give Iran leverage over other states.

Iran's acquisition of long-range missiles from North Korea and development of its own liquid- and solid-fueled missiles has given it a strike capability that partly compensates for the weakness of its air force. It has declared that it is a chemical weapons power, and may have a biological weapons program. It has acquired the technology to produce fission nuclear weapons and has enriched uranium to levels where it is clear it can eventually produce fissile material. These capabilities help compensate for the limited capabilities of its conventional forces by increasing deterrence of outside attack and act as a deterrent to attacks on its irregular and asymmetric forces.

### **Force strength**

- Total forces: 500,000 to 525,000, including Revolutionary Guards. Most are poorly trained conscripts.
- Total Regular army: 350,000 (130,000 enlisted; 220,000 conscripted)
- Total Iranian Revolutionary Guard Corps: More than 125,000
  - IRGC Ground: more than 100,000
  - IRGC Navy: more than 20,000, including 5,000 IRGC naval Marines
  - IRGC Air Force: estimated 5,000 or more
- Regular navy: 18,000, including some 2,600 naval Marines, and 2,600 naval aviation forces
- Regular air force: 25,000 to 35,000, including 12,000 air defense forces
- Reserves: An additional 350,000 poorly trained reserves
- Paramilitary: Some 40,000-60,000 border and security troops; 450,000 on mobilization including conscripts. In theory, it can mobilize up to 1 million more men (3,500 battalions) in the Basij Resistance Force, which has a nominal strength of over 11 million. Only a fraction of that force receives meaningful training, although Iran has created a substantial local mobilization capability and gives Basij core elements some training with the IRGC.
- Virtually all regular military officers are now products of the revolution.

### **Iran's military spending and arms imports**

Estimates of Iran's military differ significantly. More reliable sources include the International Institute of Strategic Studies, Jane's publications, declassified U.S.

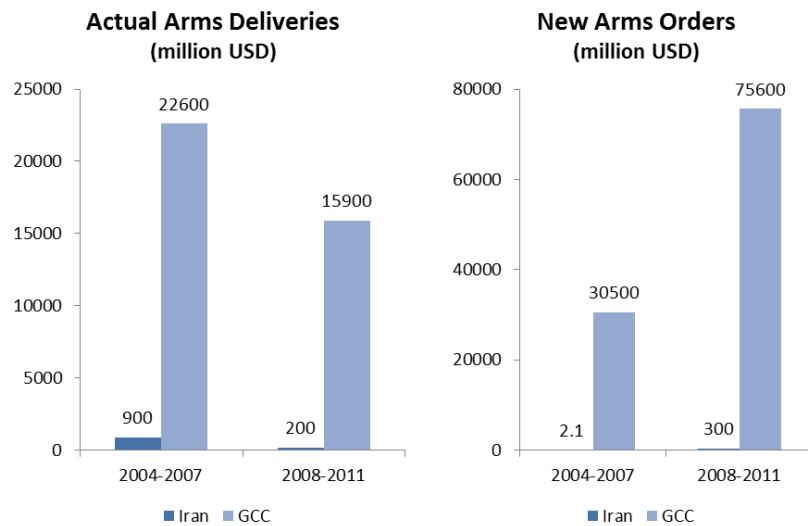
intelligence, and Congressional Research Service reports. These sources indicate that Iran is still heavily dependent on arms acquired by the shah, and relatively low-grade weapons systems imported from China, North Korea and Vietnam during the eight-year war with Iraq.

Iran has been unable to obtain advanced weapons and military technology from the West, and has had limited deliveries from Russia. Its only major weapons imports from Russia have been short-range missiles, three Kilo-class submarines and TOR short-range surface-to-air missiles. Tehran has not obtained modern armor, artillery, aircraft or major combat ships.

Estimates put Iran's annual defense budget of roughly \$10 to 12 billion, but this excludes much of its spending on the defense industry, missile programs, support for foreign non-state actors, nuclear capabilities, and intelligence activities. The total is likely to be in the range of \$12 billion to \$14 billion – only 25 percent to 33 percent of Saudi defense spending. Iran spends only about 20 percent of the amount allocated by the six sheikhdoms in the Gulf Cooperation Council (GCC) – a consistent trend since the Iran-Iraq War.

In 2012, the International Institute of Strategic Studies estimated that Iran surpassed the UAE in military spending by \$4.7 billion, spending a total of \$18.1 billion. But the Stockholm International Peace Research Institute estimated that Iran only spent \$12.7 billion, about \$6.3 billion less than the \$19.1 billion the UAE spent for that same year.

Sanctions have crippled Iran's arms imports, and Iran has not been able to compete with its Arab neighbors in military modernization and weaponry. The Congressional Research Service has published an estimate providing details on total arms transfers and orders from 2004 to 2011, showing that the GCC had a massive advantage over Iran.



The comparisons do not reflect the fact that Arab states have had access to the most advanced Western and Russian arms, and Iran has not. The advantage has been partially offset by the lack of standardization and interoperability, a result of each country buying a different mix of weapons and equipment from different suppliers. The lack of common doctrine, training, supply, and logistics is another issue.

At the same time, GCC states benefit from access to outside training facilities and military experience. They have access to advanced U.S. intelligence, surveillance, and reconnaissance capabilities (known as IS&R), as well as command, control, communications, computer, and battle management capabilities (known as C4I/BM). They also face less technological risk, since they can choose between proven systems. Iran, however, must assume the risk of performance problems, delivery delays, and cost escalation for any Iranian produced systems that are not exact copies of foreign systems.

Despite ambitious claims of producing major weapons systems, Iran has actually only deployed some 100 Zulfiqar main battle tanks (roughly equivalent to the T-72), a small number of Townsan light tanks, 140 Boragh armored personnel carriers and small numbers of self-propelled artillery weapons. But it has produced large numbers of towed artillery weapons and short- to long-range rockets. It has updated and modified many of its older weapons systems, and produces a variety of effective short-range anti-tank, man-portable surface-to-air, anti-ship and other guided weapons. It is also producing unmanned aerial vehicles, some of which have been modified to carry a conventional warhead.

### **Iran's land forces**

Iran's land forces are large by regional standards, with some 350,000 men in the army and 125,000 in the IRGC land forces. Neither is well equipped. They do not have modern tanks or armored vehicles. Their roughly 1,663 tanks are largely locally made Zulfiqars and 480 aging versions of the Soviet-designed T-72. Their other armor is old and worn due to extensive use in the Iran-Iraq War. Iran has been forced to reverse engineer parts and rely on an expensive black market to maintain its military.

Iran has some 3,798 major artillery weapons, but 2,030 tube artillery weapons are towed systems left over from the Iran-Iraq War. Most of its roughly 1,476 multiple rocket launchers are area fire weapons with limited operational effectiveness. Many army aircraft and attack helicopters are not operational or cannot be sustained for more than limited periods.

Together, the Army and IRGC have the size and capability to defend Iranian territory, reinforced by extensive reserves and Basij forces. But Iran's land forces are not organized or trained for power projection or sustained combat outside Iran. Turkey and the southern Gulf states, led by Saudi Arabia, have weapons that are far more modern and effective. Iran's northern neighbors are much weaker, and Iraq and Afghanistan have limited forces. Iran's land forces do have the ability to operate in Iraq's border areas if Iraq does not have U.S. support.

## **Iran's air and air defense forces**

Iran's air force and the IRGC air branch are its weakest military elements. They have 25,000 to 35,000 members. The International Institute of Strategic Studies (IISS) says Iran has an inventory of some 334 combat aircraft. But 40 percent to 60 percent have limited or no mission capability at any given time, and many are so old or poorly supported that they cannot sustain a high sortie rate or sustained combat operations.

Some 60 percent of Iran's warplanes were purchased by the shah, including (43) F-14s, (20) F-5Bs, (64) F-4Ds and F-4Es, and (55) F-5E/Fs, which have had limited, local modernization since 1979. Its other major combat aircraft comprise (30) Su-24MK, (36) MiG-29, (7) Su-25K and (3) Su-25UBK Russian fighters; (10) F-1E French Mirages; and (24) Chinese F-7Ms. These include Iraqi fighters flown to Iran during the 1991 Gulf War. Their operational status is uncertain. The Su-24s and MiG-29s are early export versions with less capable avionics.

Iran has modified and updated some aircraft, acquired relatively modern Russian air-to-air and surface-to-air missiles, possesses Chinese anti-ship missiles, and has tried to equip its F-14s with modified I-Hawk missiles for long range air-to-air combat to make up for the fact that they can no longer operate the Phoenix MISSILE. It is producing its own unmanned aerial vehicles. Tehran is also trying to produce its own light Saegheh and Azarakhsh fighters and has apparently introduced some into its active force. Yet, its air force lags behind the technology, readiness, and sustainability of U.S. air units and is obsolete compared to the Saudi Air Force and rapidly modernizing U.A.E. Air Force. Iran has reportedly bought large numbers of modern Russian and/or Chinese fighters, but none have been confirmed. Purchases are now sharply restricted by U.N. sanctions.

Iran has even more problems with its land-based surface-to-air missiles. Its only modern systems are short-range man-portable systems and some 30 short-range Russian TOR-Ms suitable only for point defense. Its other systems are 30 short-range Rapier fire units and 15 Tigercats of uncertain operational status. Its longer-range systems include roughly (154) U.S. IHawks, (45) Russian SA-2s, (10) SA-5s and a limited number of CSA-1 Chinese versions of the SA-2. All are obsolete. Additionally, Iran has upgraded its foreign missile systems and produced domestic variants. While Iran claims these original and upgraded systems are more effective, there is no data to support such claims. Iran's surface-to-air missiles are "unlikely to pose a significant threat to American or Israeli aircraft as a long-range air-denial weapon."

While Iran has tried to modernize its electronics and integrate them into a modernized command-and-control and radar system, its systems remain vulnerable to electronic countermeasures and anti-radiation missiles. This situation will change, however, if Iran acquires operational versions of a more modern system like the S-300.

Iran's entire air defense system remains vulnerable to "stealth" strike fighters, cruise missiles, and air-to-surface missiles fired from ranges outside its effective surface-to-air missile coverage. Tehran would need to acquire large numbers of advanced surface-to-

air missile systems with anti-ballistic missile capabilities, like the Russian S-300, and advanced radars and command-and-control systems necessary to integrate them into an effective system.

Russia had refused to make such sales until 2015, when it announced intent to transfer S-300s to Iran – before the nuclear deal prohibited conventional arms sales for five years. The deal would potentially limit major arms transfers from any member of the United Nations until 2020.

There is no way to determine the actual air and missile defense capability of a Russian S-300 sale to Iran – or a Chinese sale of its copy of such systems - until the full specifics of the system are announced. Not only are there several variants of the S-300, each with different capabilities, but Russia also has been known to exaggerate the performance of its systems.

### **Iran's navy and the naval branch of the IRGC**

Iran's 18,000-man navy and 12,000 to 15,000-man Naval Guards are obsolescent as major naval forces, but still pose a serious asymmetric threat to other Gulf states and the U.S. Navy. Iran's Navy oversees operations in the Caspian and the Gulf of Oman. The naval branch of the IRGC oversees Gulf operations.

Both have serious limitations. They lack modern surface vessel combat capability and depend on four obsolete frigates and three obsolete corvettes from the Shah's era with limited modernization and uncertain combat readiness. Iran is apparently building a prototype Mowaj-class corvette/destroyer, which is not yet operational.

The navy does, however, have three Russian Kilo-class submarines – which some reports indicate can lay smart mines and fire long-range homing torpedoes. The IRGC has four to seven North Korean and Iranian-made Yono and Nahand-class midget submarines, and is producing four more. It also has small, semi-submersible craft. The navy has an aviation branch with three aging P-3F maritime patrol and airborne command and control aircraft, three Falcon aircraft modified for electronic warfare and intelligence, and anti-submarine and mine warfare helicopters.

The IRGC has a wide range of mine warfare and smaller, more modern missile patrol boats armed with Chinese and Iranian-made anti-ship missiles. It also has land-based anti-ship missile batteries, including HY-2s with ranges of approximately 100 kilometers, which can be directed to a target by an aircraft or unmanned aerial vehicle. (China has anti-ship missiles with 200-280 kilometer ranges, but it is not believed these have been sold to Iran.) U.S. experts note that Iran can attack targeted ships with C-701, C-801, C-802 and Iranian-made anti-ship cruise missiles from its own shores, islands, and oil platforms using relatively small mobile launchers.

The navy and IRGC cannot close the Gulf for an extended period, but they could severely restrict shipping through the Gulf for five to 10 days. IRGC naval forces can operate from bases along the Gulf coast, bases near Strait of Hormuz shipping channels,

Gulf islands and in the Gulf of Oman. Its anti-ship missile vessels include 13 Kaman-class and 38-meter Thondor (Hudong)-class vessels with C-802 anti-ship missiles, and 9 C-14 and 10 Mk-13 smaller patrol boats with short range Chinese anti-ship missiles.

Iran has made and deployed at least 25 Peykapp II-class missile boats and 15 of its own Peykaap I-class coastal patrol craft. The IRGC also has some 100 other, smaller patrol boats, many of which are small enough to be difficult to detect reliably by radar. A number of Iran's patrol boats are armed with torpedoes and short-range or man-portable anti-air missiles.

The Iranian Navy and IRGC regularly exercise laying mines. The navy can use submarines and five aging mine warfare ships. But all IRGC patrol vessels and many Iranian commercial vessels can lay mines. U.S. Navy intelligence estimates that Iran has the Chinese EM52, a rocket-propelled anti-ship mine, and that the Iranian purchase of three Russian KILO-class submarines probably included modern magnetic, acoustic and pressure-sensitive mines. Iran also produces its own mines, although these may still be limited to less advanced designs.

U.S. experts estimate that Iran had at least 2,000 mines by 2004. It is now estimated that Iran has well over 6,000 mines. The United States normally deploys limited mine warfare capabilities in the Gulf, and Arab Gulf naval capabilities include only five Saudi mine layers plus some helicopters that have uncertain readiness and training.

Iran's Marines and IRGC could use patrol boats, small craft and commercial vessels to raid key offshore facilities in the Gulf, attack key petroleum facilities on the cost, strike at shipping vessels, or raid shore facilities such as desalination or power plants. Iran could also use marines and specially trained IRGC forces to seize ships and infiltrate land targets. It has amphibious ships, but some exercises include activities that train small craft with teams of IRGC fighters in ways suitable for raids on offshore or coastal targets.

Finding and destroying all of the active elements of the naval branch of the IRGC and Iran's smaller surface craft would be difficult. While Iran's smaller craft have limited ability to stay at sea, they can be dispersed to remote areas and then used in a war of attrition to launch sudden raids with anti-ship missiles, using direct fire weapons, or drop mines. Moreover, virtually any large boat or ship can be easily modified to drop mines.

The IRGC and some elements of the Iranian Navy regularly practice the use of small craft, commercial vessels and amphibious vessels in moving forces that can defend and seize targets in the Gulf and on its coast, and support the deployment of medium to long-range, land-based anti-ship missiles and operations of small craft and missile patrol boats outside regular peacetime bases.

## Trend Lines

- The United States has the air and missile assets to destroy all of the key elements of Iranian conventional military power in virtually any scenario in a matter of weeks. If U.S. air and missile strike forces were forward deployed and had the support of Iran's neighbors, they could inflict devastating damage on Iran's forces and critical infrastructure in a matter of days.
- Iran's missile and potential nuclear capabilities must be weighed against vast U.S. and Israeli superiority in existing missile and nuclear capabilities. Israel alone could easily win any nuclear arms race with Iran for at least the next decade.
- Iran could not win a serious confrontation with Turkey, and cannot match the rate of modernization and defense spending by Saudi Arabia and the five other GCC sheikhdoms.
- But Iran has also already proven its ability to threaten, intimidate and carry out significant low-level or terrorist attacks – directly or through surrogates – against both major and regional powers.
- Iran's broader asymmetric warfare capabilities remain untested, but pose a serious potential threat to shipping and Gulf petroleum exports.

*For a full analysis of Iran's forces, and the Gulf military balance, see Anthony Cordesman with Michael Peacock, *The Arab-U.S. Strategic Partnership and the Changing Security Balance in the Gulf*, Center for Strategic and International Studies. July 2015. P.158.*

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