



"IT IS NATURAL THAT WE ALWAYS CONDUCT TRAINING, DRILLS, AND EXERCISES FOR CONFRONTATION WITH THE OPERATIONAL GOALS WE HAVE, AND THE AMERICANS AND THE ENTIRE WORLD KNOWS THAT ONE OF THE IRGC NAVY'S OPERATIONAL GOALS IS TO DESTROY AMERICA'S NAVY."

> Islamic Revolutionary Guard Corps Navy Commander Rear Admiral Ali Fadavi





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Additional resources:

Posters of Leadership Structure and IRIN/IRGCN Recognition Guide enclosed in inside back pocket.



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EXECUTIVE SUMMARY

t the time of our first publication in 2009, Iran's two navies were only a few years into a major reorganization, and each service was navigating through a period of considerable change. Now, nearly a decade following the reorganization, we have a better understanding of Iran's ultimate intentions for the reorganization and clearer insight into how its navies are progressing during this time of transition. This new insight and understanding have made it even more necessary to consider and address each of Iran's navies as distinct organizations with independent strategies, doctrines and missions. It is, in fact, a tale of two navies.

In 2009, we provided a brief history of Iran's naval forces dating back to the period of the Shah. In the current publication, we have provided a more comprehensive history, including Iran's Persian imperial past, the spread of Islam, and the Iran-Iraq War. We believe these three threads provide the best backdrop for appreciating Iran's vision for its current and future naval forces.

Iran's defense strategists recognize the growing importance of the maritime environment and are shaping its naval forces to secure Tehran's interests accordingly. The Islamic Revolutionary Guard Corps Navy (IRGCN) emphasizes an asymmetric doctrine to ensure national security in the Persian Gulf against regional neighbors and foreign presence. The Islamic Republic of Iran Navy (IRIN), dubbed by the Supreme Leader as a strategic force, employs a more conventional doctrine and focuses on forward presence and naval diplomacy. Its mission areas include the Caspian Sea, the Gulf of Oman and out-of-area operations. Both navies have considerable equities and are well positioned to influence and leverage the Strait of Hormuz; a vital chokepoint for the flow of resources and international commerce. During the early stages of the naval reorganization, both navies implemented leadership and structural changes to improve command and control within their respective areas of responsibility (AOR). The basic elements of these changes were incorporated early in the transition, but significant elements have yet to be realized. This is especially true for the IRIN, which requires more substantive changes to infrastructure along the Makran coast to accommodate its larger ships and logistics needs.

Since the naval reorganization of 2007, both navies have engaged in dynamic acquisition programs. The IRGCN has continued to pursue smaller, faster platforms equipped with sophisticated weaponry, ideally suited for its asymmetric doctrine. The IRIN, largely neglected since the end of the Iran-Iraq War (with the exception of submarines), has undertaken a major recapitalization program to replace its aging surface fleet and augment its submarine force. Additionally, Iran's navies have been supplemented by its other military branches through acquisition of air-launched cruise missiles and antiship ballistic missiles. These developments are a clear indication that Iran understands the growing importance of controlling the maritime environment in its security calculus.

Over the past several years, much of the world's attention on Iran has been focused on the Joint Comprehensive Plan of Action (JCPOA), in relation to its nuclear program. During the same period of time, Iran staged a major naval exercise that blatantly featured attacks directed against a mock-up of a U.S. Nimitz-class aircraft carrier. Iran also employed its navies in an attempt to reinforce Huthi rebels in Yemen and to interdict the merchant vessel Maersk Tigris in the Strait of Hormuz. Each of these events serves as a reminder that Iran's navies are capable of churning the waters of the Persian Gulf and beyond. As Iran continues to hone its naval strategy and modernize its respective fleets, this capability will only improve, creating greater challenges to security in an already security-challenged region.



A BRIEF HISTORY OF IRAN'S NAVAL FORCES

To understand Iran's naval forces today, it is necessary to consider three distinct-but interwoven-threads from Iran's past, which generally shape the nation's self-identity and specifically influence its navies. The first and most distant thread is the Persian Empire. Once unrivaled in its geography and power, Iran's imperial past continues to impact national policy and defense strategy, even if only in the deep recesses of the national psyche. The second is Shia Islam, which made its way to Iran in the seventh century, but it has been a dominant thread particularly since the Islamic Revolution in 1979. The last, but most significant thread, in terms of shaping Iran's navies, is the Iran-Iraq War (1980-88) and especially a subset of that conflict known as, the Tanker War. Let us briefly consider each of these threads before examining the specifics of Iran's contemporary naval forces.

Distant Past (550 BCE to 1800s CE)

The Persian Empire originated under the rule of



ruler of Persia

Cyrus the Great during the Achaemenid Dynasty from 550–330 BCE. The Achaemenid Dynasty extended from modern day India to the east to Libya and Greek Anatolia to the west. Under Cyrus the Great and his son Cambyses, Persian naval forces developed considerably. However, the majority of the Persian fleet was made up of foreign ships, sailors, and admirals, which led to loyalty

issues. Darius, Cambyses' successor, attempted to remedy this by staging the fleet in the Persian Gulf and integrating more Persian leadership into the naval forces. During the reign of Xerxes (486–465 BCE), the fourth King of the Achaemenid Dynasty, the Persian fleet grew to 600–800 ships—the only time in Iran's history when its navy was commensurate with its land forces. This was short lived, however, when Xerxes launched a major expeditionary campaign against the Greek homelands in 480 BCE. Despite initial victories on land, a naval attack against a heavily outnumbered Greek force huddled in the tight waters off the island of Salamis led to a decisive rout of the Persian fleet and the Persian land forces in Greece were defeated within a year.



The Achaemenid Dynasty continued for another 150 years and was finally defeated by Alexander the Great in 330 BCE, marking the end of the Persian Empire. Two later manifestations of the empire emerged in the Parthian and Sassanian Dynasties. The Parthians (163 BCE–224 CE) controlled a land mass roughly equivalent to modern day Iran and Iraq. They excelled in land warfare, but made no attempt to develop a naval force, despite having control over much of the Persian Gulf. The Sassanians (224–651 CE) restored territorial control to boundaries similar to the Achaemenian Dynasty's, minus those lands controlled by the Eastern Roman Empire. Despite having a strong military force in general and territories with shores along both sides of the Persian Gulf, Northern Indian Ocean, portions of the Caspian, Red, and Eastern Mediterranean Seas, the Sassanians never developed a fleet capable of securing its territorial gains.

For the next 11 centuries, none of the several dynasties that emerged maintained a naval force of note. Nader Shah (reign: 1736–1747) ended this trend in the mid–1700s. In determining the means by which he would build his fleet, he wavered between the lack of natural resources and unskilled labor for domestic ship construction and the high cost of foreign acquisition to assemble his fleet. He ultimately decided on foreign procurement from India, developing a fleet of 30 ships. His navy was plagued by poor leadership, general incompetency, and a lack of loyalty that led to numerous mutinies. It was not until the 20th century that geography, energy, and security solidified the need for Iran to field a professional, lasting naval force.

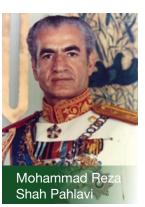
Islam Comes to Persia

Within months of the Prophet Muhammad's death in 632 CE, Islam had spread through all of Arabia. After only three years, it had spread as far west as Syria and was positioned to expand eastward, with Sassanian Persia in its sights. For a thousand years the Persians were major players in a struggle between the super powers of the east and the west; their defeat, however, would come not at the hands of a superior military power, but from a less sophisticated and organized opponent: one that was highly-motivated and driven by principles of faith and religious fervor. After 19 years of intermittent fighting, the Sassanian Dynasty finally fell to the advance of Arab Muslims in 651 CE. Compared to its Arab neighbors, Sassanian Persia proved to be a difficult foe for the rapidly expanding Muslim conquerors. This same tenacity, resilience, and sense of independence would lead Persia to follow its own path of Shia Islam, distinct from the Sunni majority, and independent of the caliphate. Today, Shia Islam comprises only ten percent of Muslims worldwide, with Iran being home to the largest Shia population.

Imperial Iranian Navy (1921–1979)

In 1921, following World War I, Reza Shah emerged as Iran's new imperial leader. Looking to modernize the nation, Reza Shah undermined the influence of the Islamic clerics, which he believed were an impediment to Iran's progress. His focus was on the nation's imperial past as he sought to improve national infrastructure, education and transportation. In an effort to secure his position as Iran's monarch and to improve the nation's strength, Reza Shah devoted significant resources to expanding Iran's military capabilities. The discovery of petroleum deposits, around this same time, drove a new security requirement for Iran to obtain naval forces to protect maritime commerce, as well as reduce the Arab reliance on Great Britain for regional security in the Persian Gulf.

At that time, Reza Shah's fleet was comprised of two ships Iran acquired from Great Britain in the late 19th century. Between 1924 and 1927, Reza Shah added two



new vessels from Germany and Great Britain. In 1932, he officially established the Imperial Iranian Navy (IIN) and shortly after procured an additional four Italian ships. These eight vessels comprised the Southern fleet in the Persian Gulf, while a four-ship flotilla of smaller vessels, and the Shah's yacht, served as the Caspian fleet. In August 1941, Iran's military, including its nascent fleet,

were defeated in a surprise attack by British and Russian forces, which moved to secure key lines of communication and critical oil fields in support of the Allied war effort. Less than a month later, Reza Shah abdicated his throne to his son Mohammad Reza Shah Pahlavi. The new Shah shared his father's vision of rebuilding Iran in the likeness of the former Persian Empire, and almost immediately, he began to develop Iran's military forces. Although the naval forces initially were not a priority after World War II, Iran acquired a handful of ships and patrol boats from the U.S. and Great Britain, and by 1965, the IIN had increased from one to 6,000 personnel. In 1968, when Great Britain announced its intention to withdraw its military forces east of the Suez within three years,



Ayatollah Ruhollah Khomeini

The Islamic Revolution of 1979

1978 marked a turning point in the Shah's rule. Signs of revolt were manifest in rising tensions, protests, labor strikes, military defections, and increased violence throughout Iran. In January 1979, Mohammad Reza Shah Pahlavi fled the country

and Ayatollah Khomeini, exiled since 1964, returned to Iran to assume political leadership of the country. By the end of 1979, the theocratic Islamic Republic of Iran was established. Following the capture of the U.S. Embassy in Tehran in November 1979, the West severed ties with the Islamic Republic, leaving multiple defense contracts for naval equipment unfulfilled. During the early stages of the Revolution, Khomeini developed the Islamic Revolutionary Guard Corps (IRGC), an organized militant band of Revolution supporters and zealots, to protect the regime against internal threats from the remnants of the Shah's military. Iran's military leadership experienced a purge, and many fled the country. Although the navy fared better than other Iranian military services, the IIN, now called the Islamic Republic of Iran Navy (IRIN), faced a multitude of challenges ranging from internal suspicion to inter-service rivalries.

Mohammad Reza Shah Pahlavi resolved to replace the British as the guarantor of security in the Persian Gulf. By 1972, on the IIN's 40th anniversary, the Shah revealed even greater ambitions: the expansion of naval operations to the Gulf of Oman and Indian Ocean.

From 1966 to 1978, acquisitions mirrored the Shah's ambitions. The IIN acquired two U.S. Sumner-class and one British Battle-class destroyers, four British Vosperclass missile corvettes, 12 French La Combattante-class patrol boats, 12 hovercrafts, and a large fleet of U.S. naval helicopters. Before the Islamic Revolution, Iran and the U.S. reached an agreement for four Spruance-class destroyers, and three Tang-class diesel submarines. Iran also negotiated with European countries for submarines and additional frigates. From 6,000 personnel in 1965, naval forces growth maintained a rapid pace, totaling 28,000 personnel in 1978; making it the strongest navy of any Persian Gulf nation. Even so, it wouldn't be long before Iran's naval forces, and indeed the regime itself, would be challenged by its neighbor, in the wake of the Islamic Revolution.

Iran-Iraq War and the IRGCN

As the new Islamic Republic worked to solidify its fragile new government against threats from within, the chief threat to the regime would come from neighboring Iraq. In 1980, Iraq attacked Iran, and the two nations fought a bloody war that lasted eight years. In the early stages of the war, from 1980-1984, naval engagements were limited. However, the Tanker War started in late 1984, when Iraq attacked Iranian oil shipping and maritime infrastructure in the gulf, in an attempt to undermine Tehran's financial ability to wage war and to bait the Islamic Republic into escalating the conflict. Iran retaliated by attacking Kuwaiti and Saudi Arabian tankers, since these nations were subsidizing Iraq's war effort.

In the beginning of the Tanker War, the IRIN conducted most of the Iranian attacks against tankers. However, the IRGCN, a naval element of the IRGC created in 1983, established its legitimacy using lightly-armed patrol boats to harass merchant shipping. By 1986, the IRGCN established a headquarters on Farsi Island in the central Persian Gulf and had more personnel than the IRIN. In addition, the IRGCN was in charge of Iran's newly acquired Chinese Silkworm coastal defense cruise missiles (CDCMs).

In July 1987, the U.S. Navy was officially drawn into the conflict and began escorting Kuwaiti tankers that had been reflagged as U.S. vessels. The first such tanker, the Bridgeton, struck a mine 22 miles off of Farsi Island. U.S. Navy escorts noted significant small boat activity off of Farsi island hours before the mine strike, but failed to detect mine-laying. The Bridgeton attack represented the opening salvo between the U.S. and Iran. Two months later in September, the U.S. Navy detected an Iranian LSM, Iran Ajr, laying mines in a shipping channel near Bahrain. In response, the Iran Ajr was attacked by U.S. helicopters, boarded by Navy SEALs and scuttled in the Persian Gulf. In response, Iran temporarily halted mine-laying operations, but the Tanker War continued. In October of 1987, Iran conducted three Silkworm missile

Operation Praying Mantis

On April 14, 1988, while on patrol in the Central Persian Gulf, the U.S. frigate Samuel B. Roberts struck an Iranian mine, blowing a massive hole in its hull and breaking its keel. If it wasn't for the heroic



Iran's Sahand FFL sunk by U.S. Navy during Operation *Praying Mantis*. Its sister ship, Sabalan, nearly suffered the same fate. efforts of its crew, the ship would have been lost. In retaliation, the U.S. launched Operation *Praying Mantis* four days later, destroying two Iranian oil terminals, sinking

the Iranian corvette Sahand, the missile patrol boat Joshan and severely damaging a second corvette Sabalan. It was a devastating loss for the IRIN and Iran as a whole. The battle clearly illuminated the IRIN's deficiencies in conducting conventional warfare at sea against a capable opponent. The Iran-Iraq War, including the Tanker War, would end only a few months following Operation *Praying Mantis*, but the engagement would leave an impression on Iran's military leaders and shaped Iran's naval forces in the decades that followed.

attacks against two tankers and one oil terminal. From 1987 to the end of the war in August 1988, Iran conducted 143 attacks against shipping in the Persian Gulf.

Two Competing Navies (1989–2006)

At the beginning of the Iran-Iraq War, Iran had one military and one nascent, but rapidly growing, security force. Following the war it would have two parallel militaries with indistinct missions, overlapping areas of responsibility, and considerable mistrust between the organizations. With the war with Iraq behind them, Iran's leaders turned their focus to building up Iran's parallel militaries on the principles of the revolution and the lessons learned from the war. Moving forward, the IRGC emphasized Islamic zeal, asymmetric warfare, technology, and self-sufficiency in weapons procurement. Although the Regular Forces (Artesh) benefited and demonstrated loyalty to the regime during the war, the IRGC, as the guardians of the revolution and favorite of the new Supreme Leader, Ayatollah Ali Hossein Khamenei, emerged as the politically favored service.

The IRGCN had proved itself during the latter half of the war with Iraq, given its relative lack of experience in naval warfare and limited resources. It was rewarded in 1992 with a new fleet of Chinese-produced Houdong-class missile boats armed with C802 ASCMs. The Houdongs provided the IRGCN with a legitimate naval fleet, but the vulnerabilities of these new platforms would become apparent before they were delivered. In Operation Desert Storm, Iraq's 13 missile combatants, of similar size and capability to the Houdongs, would be destroyed by Coalition forces in the first two weeks of the conflict. This observation likely drove the IRGCN's interest in developing smaller, faster platforms armed with heavier weapons, such as the C-14 missile patrol boat first acquired from China around 2000, followed by the acquisition of 30 torpedo boats from North Korea shortly after. Another noteworthy IRGCN acquisition in the 1990s was Chinese C802 CDCM launchers, a significant improvement to Iran's Silkworm units.



Houdong WPTGs being shipped to Iran.

In contrast, following the Iran-Iraq War, the IRIN received very little in the way of modern equipment. For the surface fleet, the IRIN focused on back-fitting its existing surface combatants with C802 ASCMs. Notably, the IRIN invested in submarines, the one capability that would set it apart from the IRGCN, acquiring three Kilo-class attack submarines from Russia between 1992 and 1997. This would be followed by purchasing and domestically producing North Korean Yono-class midget submarines (SSMs), beginning in 2004. The IRIN also constructed several domestic La Combattante-class patrol boats to comprise its first modern naval presence in the Caspian Sea.

Naval Reorganization (2007–2017)

Beginning in 2007, a major shift occurred in Iran's military strategy which affected Iran's two navies. Likely influenced by the two military conflicts on its borders (Iraq and Afghanistan) and by the IRGCN's growth into a legitimate asymmetric naval force, Iran reorganized its naval forces and assigned them to geographic regions. The IRGCN would have sole responsibility for the Persian Gulf and the IRIN would have responsibility for the Gulf of Oman and the Caspian Sea. Both services would continue to share responsibility in the Strait of Hormuz. The reorganization also provided opportunities for opening new bases and the movement of assets to align with their respective responsibilities.

The naval reorganization represented a significant increase in responsibilities for the IRGCN, given its lack of the larger vessels needed to maintain a continual presence in the Persian Gulf, especially in higher sea states. To address these shortfalls, the IRGCN dispersed assets proportionally throughout the Persian Gulf and Strait of Hormuz and created two new naval districts in the Central and Southern Persian Gulf: located at Asaluyeh and Bandar Lengeh, respectively.

As challenging as the new IRGCN mission was in the Persian Gulf, the IRIN's new assignment was even more daunting. This was not so much the result of having sole responsibility for its mission areas, but rather the complexity of conducting blue water operations and warfare farther from Iran's coastline. Since the end of the Iran-Iraq War, the IRIN lived in the shadow of the IRGCN, but with the reorganization, it had a new vision and purpose, perhaps driven by the concurrent appointment of its new commander, Rear Admiral Habibollah Sayyari.

To achieve this new mission, the IRIN needed to make major improvements to its conventional warfare capabilities and greatly improve its blue water operational proficiency. The IRIN has a number of surface and subsurface construction programs currently underway, and it has emphasized out-of-area operations since mid–2009, including operations in the Gulf of Aden, and Red and Mediterranean Seas, as well as the Indian and Pacific Oceans. The IRIN has major construction plans for the Makran coast to support its growing fleet and blue water aspirations.

Now, nearly ten years following the naval reorganization, there is a marked difference between the Regular Navy and the IRGC Navy in strategy, mission, and force composition. Let us take a closer look at this tale of two navies.



Organization, Leadership & Personnel



The Supreme Leader

According to the Islamic Republic of Iran's constitution, the Supreme Leader-currently, Ayatollah Ali Khamenei, who succeeded Ayatollah Ruhollah Khomeini, the father of the Iranian Revolution-is the pinnacle of Iran's power structure. The Supreme Leader is responsible for the delineation and supervision of the general policies of Iran. Accordingly, the Supreme Leader sets the broad objectives and direction of Iran's domestic and foreign policies. The power structure within Iran is unique from other sovereign nations in that its executive, the President, does not control the armed forces. While the President does have nominal control over the Supreme Council for National Security (SCNS) and the Ministry of Intelligence and Security (MOIS), only the Supreme Leader may declare war or peace, and he serves as the approval authority for military plans and operations.

The Supreme Leader is the Commander-in-Chief of the Armed Forces, which consist of three main components: the regular military (or Artesh); the IRGC (or Pasdaran), and the Law Enforcement Force (LEF). The Supreme Leader exercises his military command through the appointed chief of the Armed Forces General Staff (AFGS).

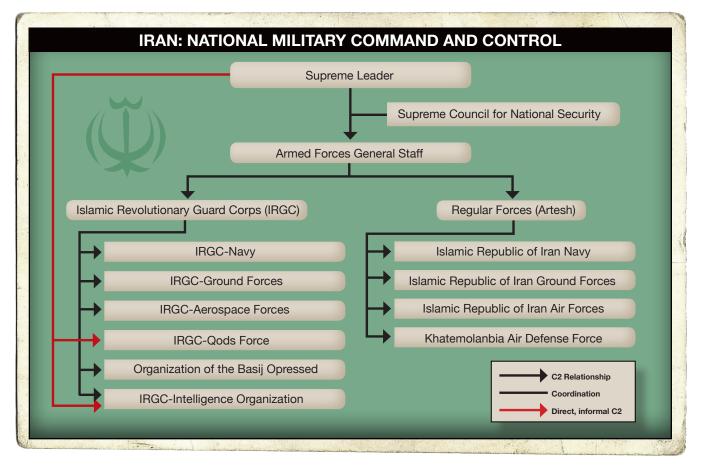
Supreme Council for National Security (SCNS)

The SCNS is charged with preserving the Islamic Revolution, territorial integrity, and national sovereignty of Iran. The membership of the SCNS includes: the President, Speaker of Parliament (Majles), the Judiciary Chief, the Chief of the AFGS, the Ministers of Foreign Affairs, the Interior, and Intelligence, and the Commanders of the IRGC and Regular military. The current Secretary of the SCNS is Vice Admiral Ali Shamkhani, former commander of both the IRGC and regular navies.



Armed Forces General Staff (AFGS)

The AFGS serves as the most senior military body in Iran, with an aim to implement policy, and monitor and coordinate activities within the armed forces. The AFGS was created in 1989 to enhance cooperation and counterbalance the inter-service rivalry between the armed forces.



The first AFGS Chief, IRGC Major General Seyyed Hassan Firouzabadi - appointed in 1989, was relieved by IRGC Major General Mohammad Baqeri in June 2016. MG Baqeri was previously in charge of the AFGS's Intelligence and Operations Directorate. Prior to this appointment, he served as the Armed Forces Chief of Services and Joint Affairs.

A turnover at the head of the AFGS is a first since the organization's inception 27 years ago. Having no precedent, it is difficult to determine its potential impact on Iranian military organization, planning and operations. There are no indications thus far that MG Baqeri will direct any major shift in Iran's naval forces. MG Baqeri is reputed to be a solid strategist, and his intelligence background may increase the focus on intelligence-based operations throughout the armed forces. Additionally, a new emphasis might be expected in the areas of cyber threats, as well as joint operations. Each of the military service chiefs are represented on the AFGS. Besides service chief representation, the AFGS also includes the chiefs of core directorates determined by function, such as Operations, Intelligence, Manpower, Training, Plans and Programs, Logistics, and Coordination, to mention a few. Most, if not all, senior positions on the AFGS are currently filled by individuals who served as junior officers during the Iran-Iraq war. The significance of the Islamic Revolution and subsequent war with Iraq in Iranian society, and especially within military circles, has created a profound sense of camaraderie among Iran's current senior officers. For these officers, both the bonds of friendship and strategic perspectives--shaped in the formative years of their careers--go back more than three decades. With each passing year, however, Iran's military forces are comprised of more individuals who were not alive during the republic's turbulent beginning. This fact represents both challenges and opportunities for the leaders of the AFGS.



Ali Fadavi (current IRGCN Commander) and Qasem Soliemani (current IRGC Qods Force Commander) during Iran-Iraq war.

Ministry of Defense and Armed Forces Logistics (MODAFL)

Following the ascension of Ali Khamenei to the position of Supreme Leader in 1989, the MODAFL was formed to improve the proficiency and efficiency of Iran's parallel militaries. The primary function of the MODAFL is to organize and manage Iran's defense industries and to facilitate procurement programs in support of plans and objectives determined by the AFGS. Unlike the AFGS and service branches, the MODAFL aligns to the executive branch and is subordinate to the President.

Artesh and Pasdaran Forces

Immediately subordinate to the AFGS are the Regular Military Forces (Artesh) and the Islamic Revolutionary Guard Corps (Pasdaran). The Artesh forces are a legacy of the Shah's military dating back prior to the revolution. The Pasdaran is a product of the revolution. Both military arms have their own distinct service branches. The Artesh and Pasdaran Commands generally mirror the organizational structure of the AFGS, as do their respective service components, including the IRIN and IRGCN. In addition to functional directorates, the IRIN and IRGCN include subordinate commands aligned according to geographic areas of responsibility known as naval districts. Each naval district likely includes subordinate squadrons according to warfare specialties such as surface, aviation, coastal defense, and for the IRIN, subsurface.

IRGCN

RADM Ali Fadavi is the IRGCN Commander and RADM Alireza Tangsiri is the IRGCN Deputy Commander. The IRGCN Headquarters is located in Bandar Abbas. Subordinate to the Commander and Deputy Commander

are the five IRGCN Naval District commanders located in Shahid Bahonar, Bushehr, Bandar Mahshahr, Asaluyeh and Bandar Lengeh. The naval district commanders are responsible for day-to-day naval operations for their districts. The naval reorganization of 2007 left the IRGCN with sole responsibility for the Persian Gulf. The departure of the IRIN from the Persian Gulf left considerable gaps in IRGCN coverage, given the preponderance of smaller vessels that make up its naval order of battle (NOB). To address these gaps, the IRGCN created two new naval districts in the central and southern Persian Gulf. For the most part, the IRGCN has evenly distributed its NOB across all naval districts, with Shahid Bahonar, located in the Strait of Hormuz, basing a slightly larger number of platforms, due to the importance and tactical advantages associated with that district.

IRIN

RADM Habibollah Sayyari is the commander of the IRIN and his deputy is RADM Gholamreza Khadem Bigham. The IRIN Headquarters is located in Tehran. Similar to the IRGCN, the IRIN is also divided into four geographically aligned naval districts located in, Bandar Abbas, Bushehr/ Jask, Chah Bahar, and Bandar Anzali in the Caspian. As with the IRGCN, following the naval reorganization of 2007, the IRIN also made adjustments to its command and control, realigning its naval districts by adding a new district in Jask. located between the 1st Naval District in the Strait of Hormuz and the 3rd Naval District in Chah Bahar in the Gulf of Oman. Besides closing a geographic gap located where the western Gulf of Oman and eastern Strait of Hormuz merge, Jask will eventually replace the legacy IRIN 2nd Naval District in Bushehr. Given the larger size of the IRIN ships, considerable infrastructure is necessary before the IRIN can vacate Bushehr and permanently reapportion assets to Jask. In the meantime, IRIN 2nd Naval District ships periodically transit the Persian Gulf to deploy IRIN mission areas. To provide coordination across its three southern districts and forward presence for Headquarters elements, otherwise located in Tehran, the IRIN stood up the Southern Forward Naval Headquarters (SNFHQ), located in Bandar Abbas. The SNFHQ commander, RADM Abrahim Ashkan, is responsible for the IRIN's deployed naval groups which conduct extended out-of-area operations.

IRAN: NATIONAL MILITARY/NAVY COMMAND AND CONTROL LEADERSHIP

CURRENT AS OF: JAN 2017







Rear Admiral Ali Fadavi

Birth: 1961 **Education:** Master's Degree in Strategic Management, Esfahan University; Bachelor's Degree in Electronics, Esfahan University

Military Service: RADM Fadavi joined the IRGC in 1983, and saw combat during the Iran-Iraq war. RADM Fadavi served in both the IRGC-QF and the IRGCN. His career includes intelligence assignments as the Chief of Intelligence for the Najaf, Nooh, and Hamzeh Seyyed OI-Shohada Headquarters respectively, Chief of Intelligence for the IRGCN, and Chief of Intelligence for Khatemolanbia HQ. RADM Fadavi also served as the IRGCN 1st Naval District Commander and as the IRGCN Deputy Commander for 13 years, before assuming the post of IRGCN Commander on May 3, 2010.



Rear Admiral Habibollah Sayyari

Birth: 1956; Fasa, Iran **Education:** PhD, National Defense College; Graduate of Iranian Command Staff College; Ground Forces Officer's Academy

Military Service: RADM Sayyari was commissioned in the Artesh in 1974 and served in Imperial Iran Navy prior to the Revolution. RADM Sayyari saw combat during the Iran-Iraq war as a Naval Commando. He has served as the Commander of the 1st Marine Rifle Brigade; Commander of the Manjil Marine Commando Training Center, Deputy IRIN 1st Naval District Commander, IRIN 4th Naval District Commander and he has also served staff tours as the Assistant Deputy Coordinator, Military Advisor, Deputy of Administrative Affairs for Combat Services Support, Artesh Joint Staff Headquarters; IRIN Deputy Commander from 2005 to 2007; IRIN Commander 2007-present.

Of Note: RADM Sayyari fought and was wounded during the famed battle of Khorramshahr during the Iran-Iraq War.

IRIN Ranks



IRIN Insignia



Artesh Insignia



Artesh General Officer/Flag Officer Collar Insignia



SECOND CLASS PETTY OFFICER



ENSIGN JUNIOR GRADE



COMMANDER



REAR ADMIRAL (UPPER HALF)



SEAMAN



FIRST CLASS PETTY OFFICER



ENSIGN



COMMANDER

VICE ADMIRAL

SEAMAN

APPRENTICE



JUNIOR GRADE



CAPTAIN



ADMIRAL



SEAMAN



SENIOR CHIEF PETTY OFFICER



LIEUTENANT



REAR ADMIRAL (LOWER HALF)



FLEET ADMIRAL



THIRD CLASS PETTY OFFICER



MASTER CHIEF PETTY OFFICER

CHIEF

PETTY OFFICER

IRGCN Ranks



IRGCN Insignia



IRGC Confidant Collar Isignia (General Officer/ Flag Officer)

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SEAMAN

RECRUIT

FIRST CLASS

PETTY OFFICER



ENSIGN JUNIOR GRADE



LIEUTENANT COMMANDER



REAR ADMIRAL (UPPER HALF)



SEAMAN APPRENTICE



CHIEF PETTY OFFICER



ENSIGN



COMMANDER





VICE ADMIRAL



SEAMAN



SENIOR CHIEF PETTY OFFICER

19



LIEUTENANT JUNIOR GRADE



CAPTAIN



LIEUTENANT

REAR ADMIRAL (LOWER HALF)



FLEET ADMIRAL



THIRD CLASS PETTY OFFICER



MASTER CHIEF PETTY OFFICER



SECOND CLASS PETTY OFFICER











CHAPTER 2 Naval Strategy, Doctrine & Missions

National Defense Strategy

Iran's national defense strategy is primarily shaped by its interest in maintaining territorial integrity, preserving the Islamic Revolution and clerical rule (Velayat-e Faqih), and influencing regional political, economic, religious, and security issues. The Iran-Iraq War remains the principal influence on Iran's national defense strategy, but observations of coalition operations in Afghanistan and Iraq have also factored heavily into Tehran's approach. The result is a primarily defensive, deterrence-based military strategy, which makes use of asymmetric doctrine intended to exploit perceived enemy weaknesses, increases the cost of war for a potential adversary, and diminishes its enemies' will to fight.

The main components of Iran's defense strategy are ballistic missiles, naval forces, and proxies in the region. Each of these potentially provides the means to target Iran's regional neighbors, or military forces based or operating in the region. When specifically focused on the Strait of Hormuz or oil infrastructure in the region, they provide Iran with the means to impact the global economy, in general, as well as the economies of those countries reliant on oil or natural gas from the Middle East, in particular.

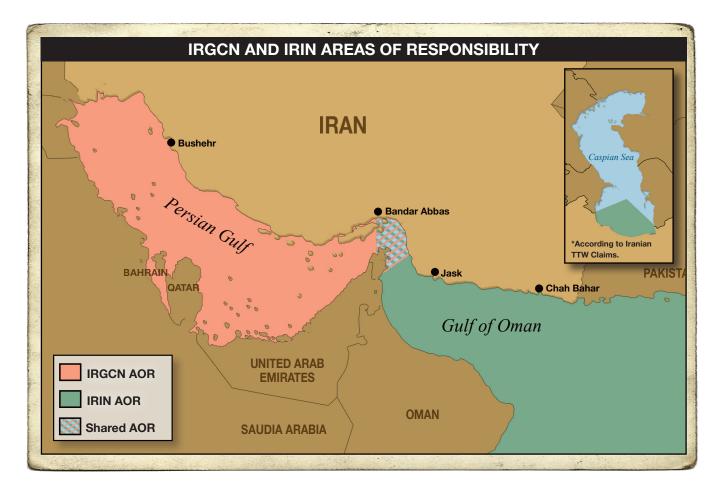
An important component of this strategy is avoiding rapid defeat by a surprise attack: a lesson Iran learned from Saddam Hussein's surprise invasion in 1980. The concept of passive defense (which is essential to Iran's defense strategy) is to employ a broad program of denial and deception tactics to both reduce the vulnerability and increase the survivability of Iran's forces. Examples of this include, using camouflage and concealment, hiding and dispersing forces, building underground facilities, and developing highly mobile units. The past several years have witnessed Iran's military become more involved in Syria, Iraq, and Yemen. Lessons from military operations throughout the region will influence Tehran's future defense strategy, as well as the force structure and military capabilities Iran develops to achieve its objectives. As Tehran eyes regional conflicts beyond its borders and considers opportunities to influence them using military forces, it is not likely to forget the strategic importance of the Strait of Hormuz, nor the role its navies play in both securing and leveraging this key water way.

"The capabilities of the IRGC and Artesh navies are for establishing security within the region... We have a presence in the Northern, Eastern, and Western Strait of Hormuz; and we have it completely surrounded."

RADM Fadavi, IRGCN Commander

IRGCN Strategy, Doctrine and Missions IRGCN Strategy

The IRGC naval strategy is an extension of Iran's national defense strategy, which seeks to, deter a maritime attack if possible, rapidly escalate if deterrence fails, and wage a protracted war if necessary. Fundamental to this strategy is the exploitation of geography and the use of asymmetric doctrine to combat a technologically superior force. Specifically, the shallow waters of the Persian Gulf and narrow waters of the Strait of Hormuz afford the IRGCN several warfighting advantages in some of the world's most important waterways. The IRGCN believes it can overcome enemy defenses in these confined waters, by using different types of small and mobile weapons systems together, or by using its capabilities in unexpected



ways to achieve tactical surprise. Additionally, IRGCN commanders believe the revolutionary and spiritual zeal of their sailors gives their force an advantage over other navies, whose personnel rely heavily on technology.

The IRGCN aims to deter an attack by projecting an image of military strength and signaling that an attack on Iran could have serious global economic repercussions. IRGCN officers often allude to Iran's ability to impede or attack commercial ships in the Strait of Hormuz and the economic crisis that could ensue. The IRGCN has demonstrated its ability to harass and interdict shipping on several occasions, since 2012, by boarding or firing on merchant ships in the strait. Additionally, the IRGCN also holds highly publicized, large-scale, deterrent-themed exercises (called NOBLE PROPHET) as a show of force, and as another means to warn of the consequences of attacking the Islamic Republic.

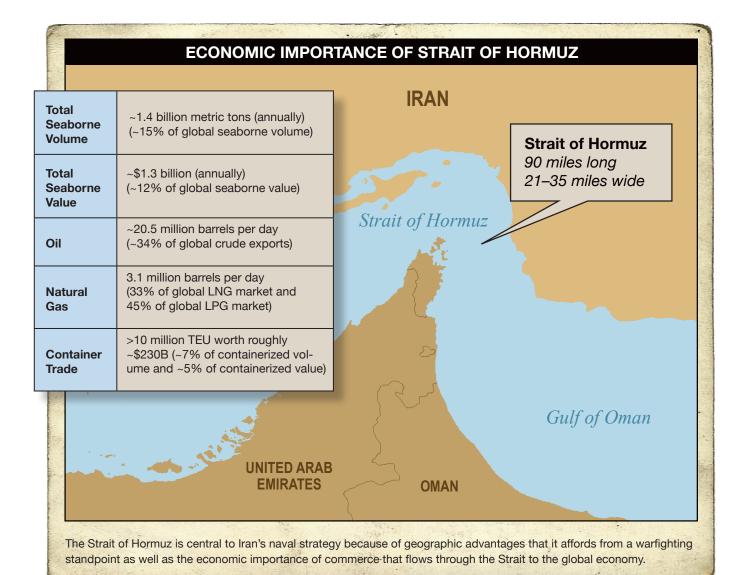
If deterrence fails, the IRGCN could use any, or all, of its five pillars to confront enemy warships or commercial

ships. These five pillars provide the means for the IRGCN's strategy and include naval mines, CDCMs, small boats armed with a variety of light and heavy weapons, special forces/naval infantry, and naval aviation.

IRGCN commanders claim that in the event of a conflict, they will move swiftly to attack and destroy enemy warships present in the Persian Gulf and Strait of Hormuz. They believe that sinking several enemy warships in the early stages of a conflict would break the political will of an adversary to continue with a military campaign against Iran. IRGC leaders claim that if this early effort fails to bring a halt to the conflict, they are prepared to wage a protracted war of attrition against an opposing force. The IRGCN's actions could include restricting access to, or attempting altogether to close, the Strait of Hormuz.

IRGCN Doctrine

The IRGCN's leaders believe an asymmetric warfighting concept will allow it to defeat a more advanced military. This doctrine has its roots in the Iran-Iraq War of the



1980s, but it has grown in capability and complexity over the past several decades. The IRGCN's doctrine reflects classical irregular warfare principles historically used by revolutionary forces. These principles include the use of, surprise, deception, speed, flexibility and adaptability, decentralization, and highly mobile and maneuverable units. The doctrine manifests itself as hit-and-run style, surprise attacks, or the amassing of large numbers of unsophisticated weapons to overwhelm the enemies' defenses. The amassing of naval forces is often described as a swarm of small boats, and is essentially similar to the human wave attacks Iran's ground forces used in the Iran-Iraq War.



IRGCN Missions

The IRGCN focuses on three primary missions in peacetime. First, it enforces Iran's territorial water claims and protects Iranian economic interests, including its

offshore energy infrastructure, as well as countering illegal smuggling into, or out of, the Islamic Republic. Second, the IRGCN monitors and tracks the movements of foreign warships and merchant ships operating in the Strait of Hormuz and Persian Gulf. It accomplishes this with coastal radars, small boat patrols, and unmanned aerial vehicle (UAV) flights, to maintain situational awareness. Third, IRGCN units regularly train and exercise to prepare for wartime contingencies.

IRIN Strategy, Doctrine and Missions IRIN Strategy

The IRIN's role in Iran's national defense strategy is to defend the Islamic Republic's territory and protect the nation's economic interests in the Gulf of Oman, Caspian Sea, Strait of Hormuz and Gulf of Aden. The IRIN also assists with Tehran's broader goals to establish a dominant regional position through naval diplomacy and cooperation with other regional navies. The IRIN is better positioned than the IRGCN to support some strategic objectives because it has larger ships and follows a more traditional naval culture. Over the past several years, the IRIN has sought to advance the national strategy by combatting piracy, and engaging with regional and international navies, through bilateral exercises, reciprocal port visits, and attending international symposiums. IRIN leaders tout the navy's presence in the "Golden Triangle"-the area within the Strait of Malacca, Bab al-Mandeb, and the Strait of Hormuz, where substantial maritime commerce occurs-as evidence that it protects international shipping, while gaining experience in the operating area.



Compared to the IRGCN, the IRIN plays a minor role in deterrence, yet it holds important responsibilities to defend the Gulf of Oman and Strait of Hormuz in the event of a conflict. The IRIN may fight similarly to other conventional, coastal navies. Specifically, the IRIN aims to use its surface ships, submarines, naval mines, coastal defense cruise missile units, and air assets, all together, in the Strait of Hormuz and the Gulf of Oman. The IRIN would also play an important role if the decision was made to attack or detain commercial ships, or to restrict access to, or attempt to close, the Strait of Hormuz. However, it is insufficiently equipped and lacks proficiency to fight a navy farther from the Gulf of Oman coast.

IRIN Doctrine

Iran's naval doctrine has evolved since the 1979 Revolution, morphing the western military concepts that formed its foundation, with some ideological tenets. The doctrine also adopted some Russian and Chinese concepts as it acquired the weapons systems and training from them, over the past 20 years. In general, the IRIN's doctrine seeks to establish a defense in depth and to integrate multiple sea, land, and air-based weapons simultaneously, to saturate an enemy's defenses.

IRIN Missions

The IRIN is responsible for a number of key missions that support Iran's strategic goals. It has long-term goals to become a regional power in the Gulf of Oman and Indian Ocean that mirror the ambitions of the Shah. Among other objectives, the IRIN seeks to use "soft power" to expand bilateral, regional, and military relations, and it has done so through deployed naval groups. Recent increases in high-level military exchanges and combined exercises with China, India, Oman, Pakistan, and Russia highlight the IRIN's peacetime objectives to increase its prestige through naval diplomacy.

In addition to the previously detailed naval diplomacy and counter-piracy operations, the IRIN's missions include:

- Becoming a superior military power for defense and security
- Guarding the territorial independence of Iran against military threats
- · Responding swiftly and countering all threats
- Training and preparing for wartime contingencies.



The IRIN has defined its operational boundaries based on the 10th degree north latitude and the "Golden Triangle," represented by the straits of Hormuz, Malacca, and Bab el Mandeb. IRIN out-of-area port visits while at times falling outside of these boundaries largely reflect its sphere of operations since 2009.

"The Golden Triangle of Malacca, Bab al-Mandeb, and the Strait of Hormuz is an important triangle that is the area of the Artesh Navy's concentration based on the Leader's recommendation since 93 percent of the country's imports and exports are conducted through this route."

RADM Sayyari, IRIN Commander





CHAPTER 3 Naval Capabilities

Prior to the Islamic Revolution, Iran built its military capability primarily through foreign acquisitions. After experiencing isolation during the Iran-Iraq War, which greatly inhibited its ability to procure foreign weapons, Tehran has since placed considerable emphasis on improving its defense industries and domestic production capabilities. More recently, sanctions have only reinforced this approach. While not entirely abandoning foreign acquisition of complete systems, Iran has taken a long-view perspective by sacrificing immediate gains to increase technological knowhow.



Currently, Iran uses a dual-track approach to advance modernization, which leverages its foreign acquisitions to improve its domestic production capabilities. Using this approach, Iran acquires foreign technology, reverse-engineers it, and then incorporates it into its own production initiatives. Iran has assimilated this methodology to satisfy its requirements across the spectrum of naval warfare including platforms, weapons, and sensors. Consequently, Iran has significantly improved its defense industries, but it has also resulted in some downsides: prolonged delays, inferior quality, and less sophisticated capabilities, than if it had otherwise emphasized foreign acquisition to build its navies. In many respects, Iran is still in the nascent stages of building domestic capabilities, but with each new domestic initiative, it gains valuable knowledge and experience.



IRGCN Principal Naval Capabilities

Driven by an asymmetric doctrine--based on speed, numbers, stealth, survivability, and lethality-- the IRGCN focuses its naval acquisitions along four primary capabilities: fast attack craft, small boats, anti-ship cruise missiles, and mines. Considering it began as a fleet of lightly-armed small boats in the 1980s, IRGCN acquisitions in each of these four core areas have greatly improved its capabilities. Individually, these improvements cannot compete with western technology. However, taken together, they could create an overall capability that is greater than the sum of its parts, particularly when employed in tight operational spaces like the Persian Gulf and Strait of Hormuz.

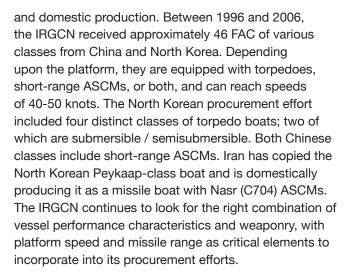
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"So, we must strive in the next few months to have mass production of fastboat vessels with a speed of 80 knots armed with missiles with a 100 kilometer range – vessels that no one can get."

RADM Ali Fadavi, IRGCN Commander

Fast Attack Craft (FAC)

Since the end of the Iran-Iraq War in 1988, the IRGCN has significantly upgraded its fleet in terms of size and lethality, but it has remained a force comprised of smaller platforms. Rather than acquire larger ships as might a more traditional navy, the IRGCN has instead chosen to pursue smaller, faster vessels, armed with capable weapons systems, such as cruise missiles and torpedoes. It believes acquiring these types of vessels in sufficient numbers will allow it to threaten foreign navies and overcome wartime attrition. The IRGCN still employs ten Chinese-built Houdong WPTGs, acquired in the mid-'90s. Originally equipped with C802 missiles, these vessels have since been upgraded with Iranian derivatives known as, Ghader missiles. The Houdong WPTGs serve as the capital ships of the IRGCN fleet and are frequently used in Persian Gulf and Strait of Hormuz patrols.





Iranian-produced Peykaap II torpedo/missile boat



Almost immediately following receipt of the Houdongs, the IRGCN shifted its focus to even smaller, faster vessels, obtained both through foreign acquisition

Fast Inshore Attack Craft (FIAC)

FIAC are lightly armed small-boats that have been a mainstay of the IRGCN since its inception in the 1980s, and they are by far, the most numerous of all IRGCN vessels. Usually fitted with only machine guns and/or rockets, and used en masse, these vessels are capable



of harassing merchant shipping and conducting swarm tactics during a force-on-force naval engagement.

The IRGCN's infatuation with speed has also influenced its FIAC acquisition efforts. One of the IRGCN's most notable additions is a copy of the British built Bladerunner, designated "Siraj-1." The IRGCN claims the Siraj-1 is the fastest military vessel in the world, in its current modification to carry crew-served weapons and rockets. In the future; however, the Siraj-1 will likely incorporate additional armament: either torpedoes or ASCMs.



Mines and Mine-layers

Naval mines are a critical component of the IRGCN's strategy in the Strait of Hormuz and the Persian Gulf. It realized the impact mines made during the Tanker War and operation *Desert Storm* and invested in new mines and mine delivery vessels. The IRGCN has a large inventory of mines including contact and influence mines.

Though it possesses a number of larger vessels that can be used to lay mines, the IRGCN has integrated its philosophy of using smaller, faster vessels into its mine-laying strategy. It has equipped a large number of standard Ashoora small boats with mine rails capable of holding at least one mine. Using numerous boats

"Our naval mines had left such an impression upon the Americans during Sacred Defense that they still live in apparent fear of these mines."

RADM Ali Fadavi, IRGCN Commander

complicates laying mines in mass, it is better suited for rapidly laying small amounts of mines and improving force survivability, both key elements of IRGCN doctrine.

IRIN Principal Naval Capabilities

Unlike the IRGCN, the IRIN's fleet is comprised of mainly traditional surface ships and submarines. Most of the IRIN's surface ships are old, dating back to the 1960s and 1970s. Despite its aging platforms, the IRIN has done fairly well in preserving materiel readiness, but it will likely need to reconstitute its fleet in the coming years, given its mission in the Gulf of Oman and its ambitions for extra-regional deployments.

Iran is the only Persian Gulf nation with a submarine force. The IRIN's submarine fleet originated after the Iran-Iraq War when it received three Kilo-class attack submarines from Russia. Although domestic submarine production and maintenance programs exist, they seem to be plagued by setbacks and delays.

Surface Combatants

Until 2007, the IRIN's most capable surface combatants included only three 1960-era British built Vosper MK 5 corvettes (FFLs), ten French La Combattante patrol boats (PTGs) and several domestically produced Combattantes. Each of these classes were originally fitted or upgraded with C802 ASCMs. Following the naval reorganization of 2007, the IRIN added 11 missile combatants. They achieved this by upgrading three Hendijan-class auxiliaries and two PF 103-class patrol ships with medium-range C802/Noor ASCMs, as well as upgrading three PGM 71 and three Cape patrol craft with short-range C704 / Nasr ASCMs.





The IRIN presently has two domestic combatant construction programs underway. The first is the IRIN's new capital ship, the Jamaran-class, which closely resembles Iran's Vosper-class corvettes and is likely intended to replace those aging ships. The Jamaran's armament differs slightly from Vosper MK 5. Jamarans incorporate a helicopter flight deck, a 76 mm main deck gun, two 20 mm cannons and a 40 mm aft gun. Additionally, Jamarans carry up to four C-802 or Noor ASCMs, Standard Missile 1 anti-air missiles (SAMs) and torpedoes. In December of 2015, RADM Sayvari announced IRIN destroyers were being upgraded to carry the domestically-produced Ghadir ASCMs, which would allegedly increase the strike range of the Jamaran to 300 km. Iran has commissioned two Jamaran-class ships, one in Bandar Anzali, in the Caspian Sea, and one in Bandar Abbas, where four more are under construction, or being fitted out.

The IRIN's other major combatant construction program is known as project Sina, which is intended to replace its aging French La Combattante IIb-class patrol craft. Since 2003, Iran has completed seven ships in this class, which operate in the Caspian Sea and Southern Fleet. The Iranian built Combattantes are armed with four box launchers for either C-802, or Noor ASCMs, and a 76mm forward gun.

Surface Auxiliaries

Overall, the IRIN has nearly 20 auxiliaries in its order of

battle, but most are of smaller classes, and all are older platforms. Only two, the Bushehr and Kharg oilers, are capable of conducting legitimate replenishment at sea (RAS) missions.

While the IRIN is looking to become a "strategic navy", its aging and small auxiliary fleet has highlighted how critical logistics and infrastructure are, to continuous out-of-area deployments. In order for the IRIN to achieve the goal of conducting extended deployments at greater ranges from home, the IRIN requires a robust and capable auxiliary fleet. Since the IRIN began out-of-area deployments in 2009, Iran has given no indication that it intends to invest in additional auxiliaries.

Subsurface Fleet

Submarines are a critical component of the IRIN, which has undertaken an ambitious construction program to increase its subsurface production capabilities and expand its fleet. Iran has three classes of operational submarines in its order of battle. First, Iran received three Kilo-class attack submarines from Russia in the 1990s. The Kilo is Iran's most capable submarine and is presently equipped with torpedoes and mines. Unlike many other countries using the Kilo-class submarine, Iran chose to forego sending its Kilos to Russia for mid-life overhaul, and instead, complete it in-country. This decision came at a significant time and operational cost, taking more than seven years to complete. Iran claims to have begun overhaul of its second Kilo submarine. With so few attack



submarines available, the emphasis on domestic maintenance of its Kilo submarines will significantly impact submarine operations for well more than a decade, from the time it began.

Second, the IRIN has 14 North Korean-designed Yonoclass midget submarines (SSM). Iran originally acquired at least one Yono submarine from North Korea in 2004 and began domestically producing them shortly thereafter. Displacing only 120 tons, the Yono has two torpedo tubes capable of carrying Iran's 53 cm Valfajar heavy-weight torpedo. One of the Yono submarines reportedly sank during a patrol in April 2014, after a possible collision with rocks. Finally, Iran has a single domestically-designed and produced Nahang SSM. The Nahang does not have torpedo tubes and may serve as a special operations platform.



Yono-class midget submarines (SSM)

In addition to the three classes of submarines that are currently operational in the IRIN, Iran is domestically producing two other classes of submarines. The first is the Fateh-class coastal submarine (SSC). The Fateh reportedly displaces 600 tons with an operational diving depth of 200 meters and a range of 5000 kilometers. RADM Sayyari stated up to 20 Fateh-class submarines would be constructed in the future. Reportedly, the Fateh submarines will be equipped with torpedoes, missiles, and mines. In April 2016, Fateh hull one was still undergoing sea trials with the goal to be certified operational by the end of 2016, but as of January 2017, the IRIN has yet to declare the Fateh submarine operational.

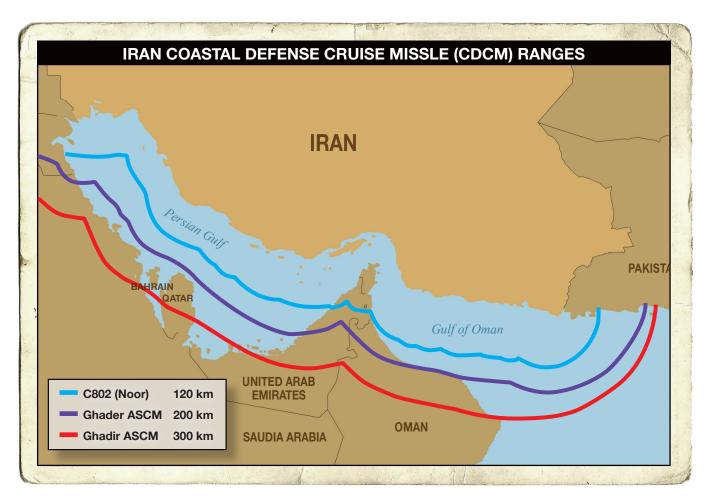


Iran is also building a 1300 ton attack submarine known as Besat. According to Iranian press reports, the Besat will be approximately 60 meters in length, capable of diving to 300 meters, and able to sustain 12 knots surfaced and 20 knots submerged. In terms of armament, the Besat will likely have six torpedo tubes, capable of employing torpedoes and mines, as well as submarine-launched ASCMs.



Coastal Defense Cruise Missiles

The tight water space in the Strait of Hormuz, as well as vast miles of coastline, both provide optimal firing positions for coastal defense cruise missiles (CDCMs).





Accordingly, as one of the primary layers of defense for both the IRGCN and the IRIN, Iran has invested heavily in procurement, research, and production of multiple anti-ship missile systems, over the past several years.

Iran's initial experience with CDCMs was gained with the Chinese-built Silkworm missiles during the Tanker War. Over the past decade, Iran has expanded its inventory by developing a domestic production capability for the Chinese C802 and C700 series cruise missiles. The C802 derivatives are known as Noor, Ghader, and Ghadir, with ranges reportedly of 120 km, 200 km and 300 km, respectively. In addition to the development and deployment of these systems, Iranian CDCMs continue to evolve in all categories including, range, speed, flight profile, autonomy, seeker, and destructiveness.

Aviation / Missile Augmentation Manned Aircraft

The IRIN maintains a fleet of SH-3D, AB-212 and RH-53 helicopters, F-27 fixed-wing aircraft, and a small number of hovercrafts. Naval aviation serves primarily in reconnaissance and transport roles, but they are also used in limited warfare missions. The IRIN claims to be reconstituting the antisubmarine capability on its SH-3D helicopters, reportedly equipping them with new sonars and the ability to launch torpedoes. The RH-53 helicopters are the IRIN's main counter mine capability.



IRIN SH-3D helicopter equipped with torpedo

The IRGCN has a small number of Mi-171 helicopters, which are mainly used for transport, but according to Iranian claims, can also fire cruise missiles. The IRGCN is also equipping AB-206 helicopters with Nasr ASCMs.



The Islamic Republic of Iran Air Force (IRIAF) augments Iran's naval aviation with aging P-3 Orion maritime patrol (MARPAT) aircraft. The P-3s, which are used for reconnaissance, date back to the Shah's navy and are in major need of replacement. Iran has advertised the IRAN-140 as a potential replacement, but this platform is not yet operational. The IRIAF also maintains a small maritime strike capability and intends to equip F-4 aircraft with Nasr/C704 and Ghader ASCMs.



Unmanned Aerial Vehicles (UAV)

Both the IRGCN and the IRIN have incorporated UAVs into their respective operations and pla nning. Historically, UAVs have been reserved for reconnaissance missions, but as Iran improves its lethal and armed UAV technology, both navies are likely to employ these advancements in the maritime environment.

Antiship Ballistic Missiles (ASBM)

The Islamic Revolutionary Guard Corps Aerospace Forces (IRGC ASF) controls Iran's ballistic missile forces. The IRGC ASF has advertised several ballistic missile variants with the capability to target ships. The variants include the Khalij-e Fars, Hormuz-1 and Hormuz-2 missiles, which reportedly have a range of 300 km and are equipped with terminal seekers, one of which is anti-radiation homing (ARH).

With each new domestic program, Iran gains valuable technical experience, advancing its defense industries in support of its military objectives. While still lagging considerably behind leading nations, Iran's defense industries have made recognizable strides in equipping its navies and other military services, with a broad range of capabilities for the maritime environment. As Iran incorporates these capabilities and develops proficiency in using them, the IRGCN and IRIN will be more capable of fulfilling their respective missions. For any navy, training, exercises, and operational proficiency are critical elements to achieve that objective.



Hormuz 1 & 2 antiship ballistic missiles



| Class | Role | Order of Battle |
|------------------------|----------------------------|-----------------|
| Kilo | Fast Attack Submarine | 3 |
| Fateh | Coastal Submarine | 1 |
| GHADIR (YONO) | Midget Submarine | 14 |
| NAHANG | Midget Submarine | 1 |
| MOWJ (Jamaran) | Corvette | 2 |
| VOSPER MK 5 | Corvette | 3 |
| BAYANDOR (PF 103) | Corvette | 2 |
| KAMAN (COMBATTANTE II) | Fast Attack Craft, Missile | 13 |
| HENDIJAN | Patrol Craft, Missile | 3 |
| PARVIN (PGM-71) | Patrol Craft, Missile | 3 |
| KAYVAN (CAPE) | Patrol Craft, Missile | 3 |
| US MK III | Patrol Craft, Coastal | 10 |
| US MK II | Patrol Craft, Coastal | 6 |
| C 14 | Patrol Craft, Coastal | 9 |
| FB 40 | Patrol Craft, Inshore | 6 |
| HENGHAM | Landing Ship, Tank | 3 |
| KARBALA | Landing Ship, Logistic | 6 |
| WELLINGTON (MK 4) | Hovercraft | 2 |
| WELLINGTON (MK 5) | Hovercraft | 4 |
| KHARG | Replenishment Ship | 1 |
| BANDAR ABBAS | Fleet Supply Ship | 2 |
| DELVAR | Support Ship | 6 |
| HENDIJAN | Tender | 7 |
| SHAHSAVAR | Training Ship | 1 |

| ISLAMIC REVOLUTIONARY GUARD CORPS NAVY | | | |
|--|--------------------------------|-----------------|--|
| Class | Role | Order of Battle | |
| THONDOR (HOUDONG) | Fast Attack Craft, Missile | 10 | |
| ΡΕΥΚΑΑΡ Ι | Patrol Craft, Coastal, Torpedo | 15 | |
| ΡΕΥΚΑΑΡ ΙΙ | Patrol Craft, Coastal, Missile | 25 | |
| PEYKAAP III | Patrol Craft, Coastal, Missile | 5 | |
| MK 13 | Patrol Craft, Coastal, Missile | 10 | |
| C 14 | Patrol Craft, Coastal, Missile | 5 | |
| TIR | Patrol Craft | 10 | |
| TARLAN | Patrol Craft, Inshore | 15 | |
| KASHDOM II | Patrol Craft, Inshore | 15 | |
| ASHOORA | Patrol Craft, Inshore | Multiple - UNK | |
| COUGAR | Patrol Craft, Inshore | Multiple - UNK | |
| FB RIB-33 | Patrol Craft, Inshore | Multiple - UNK | |
| GASHTI | Patrol Craft, Inshore | Multiple - UNK | |
| KUCH | Patrol Craft, Inshore | Multiple - UNK | |
| SIRAJ (BLADERUNNER) | Patrol Craft, Inshore | Multiple - UNK | |
| BOGHAMMER | Patrol Craft, Inshore | 20 | |
| IRAN HORMUZ 21 | Landing Ship | 2 | |
| IRAN HORMUZ 24 | Landing Ship | 3 | |
| HARTH 55 | Support Ship | 1 | |
| SAFIR KISH | Transport | 3 | |
| NASER | Transport | 3 | |

*Exact numbers are not known, but the IRGCN has hundreds of small boats throughout the Persian Gulf and Strait of Hormuz.

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RECOGNITION AND IDENTIFICATION GUIDE



For greater detail of the graphics shown above, see the attached poster.



CHAPTER 4 Training, Operations & Exercises

Both the IRIN and IRGCN recognize the important roles that training and naval exercises play in developing a stronger and more proficient naval force that is capable of carrying out a wide variety of operations, in both peacetime and during a conflict. The navies' training programs include both classroom and practical, hands-on training. The vast majority of naval operations occur in the Persian Gulf, Strait of Hormuz, and Gulf of Oman. However, the IRIN also operates routinely in the Gulf of Aden and occasionally deploys to the Mediterranean Sea and South China Sea.

IRGCN Development

Naval Academy/Training

The IRGCN holds its formative training at the Imam Khamenei University of Marine Sciences and Technology—better known as the Imam Khamenei Naval Academy—located on the Caspian Sea, north of Tehran. This academy, formally opened in 2015, is a unified training center for five colleges: vessels, commandos, missiles, naval aviation, and UAVs. The academy's curriculum presents coursework from entry level through advanced studies, and includes studies in asymmetric tactics.



The IRGCN also has other facilities located in Rasht, Shiraz, and Esfahan for training on a range of naval operations, including fast attack craft operations and naval infantry. Besides classroom and practical training at sea, the IRGCN also makes use of simulators to improve crew proficiency.



IRGCN small boat simulator strikes U.S. ship

IRGCN Exercises

Since 2006, the IRGC has held highly publicized, large-scale, deterrent-themed exercises (named NOBLE PROPHET) in an attempt to dissuade foreign political, economic, or military aggression. NOBLE PROPHET exercises typically showcase naval and/or ballistic missile capabilities and broadcast bellicose rhetoric. For example, in February 2015, the IRGC held NOBLE PROPHET 9 in the Strait of Hormuz. During the exercise, the IRGC attacked a mockup of a U.S. Nimitz-class aircraft carrier with several types of weapons, including missiles and rockets. Political leaders, IRGC commanders, and officials of the AFGS Headquarters observed the demonstration. The event received extensive coverage in the press, prominently displaying Iranian weapons and capabilities.



The IRGCN also holds other exercises and training events beyond the NOBLE PROPHET series. These other exercises are not as widely publicized because they are focused on developing practical skills, rather than sending strategic messages.

IRGCN Operations

The IRGCN primarily operates in the Strait of Hormuz and Persian Gulf, and executes security patrols throughout these areas. Iran's state media reports that, "the IRGCN relentlessly endeavors to protect the maritime borders of the Islamic Republic of Iran and to preserve security of the Persian Gulf," through these operations. In addition to monitoring naval warships in the area, IRGCN vessels



times near U.S. aircraft carriers.

"Today, more than 100 of our vessels are conducting patrols daily in the Persian Gulf to the extent that the Americans see us wherever they look...We shouldn't play nice with the Americans. If we were to do that, there would be no end in sight; we would be going from "A to Z."

RADM Fadavi, IRGCN Commander

routinely stop and inspect vessels they suspect of smuggling drugs or other illicit materials. These patrols also aggressively enforce Iranian territorial water claims, especially in the southern Persian Gulf region, and near Iran's offshore oil platforms.

IRGCN patrols in the Strait of Hormuz and Persian Gulf regularly include surveillance and monitoring of U.S. Navy and Coalition ships. While the majority of these encounters are safe and routine, IRGCN operations do frequently include unprofessional or aggressive operations. Such operations increase the likelihood for a mishap at sea, potentially leading to strategic tension and insecurity in the region.



IRIN Development

Naval Academy and Training Centers

The IRIN's primary training center is the Imam Khomeini Naval Academy, located at Nowshahr. The University is the principal body for the development and training of both Iranian naval and merchant fleet officers. Undergraduates at the university first attend two months of military indoctrination training before commencing a four year program toward a Bachelor's degree. Its five colleges offer five Bachelor's degree programs and two Master's degree programs. The five basic branches include: Naval Operations and Command of Ship, Marine Engineering, Naval Infantry/Marines, Naval Electronics and Telecommunications, and Naval/Marine Management, and Commissary Branch.

The IRIN has several other training centers for specialized training. For example, the IRIN's Baqer OI-'Oloom naval technical training command is located in Rasht, Gilan Province. This center trains 70 percent of all personnel of in the IRIN. Warfare-specific training centers include a naval pilot training center at Bushehr, a naval infantry training center at Manjil, and the Sirjan training center. The IRIN touts its naval infantry training program as being very selective, accepting only the most qualified individuals.

Cadet cruises

As part of its practical training, the IRIN conducts annual cadet cruises. These cruises provide young sailors the opportunity to embark on a naval vessel to gain hands-on experience in basic warfighting tactics, navigation and ship handling, and damage control while underway. The cadets often participate in out-of-area deployments to distant shores. Additionally, the deployments serve to



IRIN deployed naval group pulls into Dar es Salaam, Tanzania.

instill, in new naval officers and enlisted personnel, the concept that the IRIN is a professional, international navy. By participating in the operations, cadets receive valuable real world training aimed at developing more proficient personnel. Cadets have deployed as far away as China and almost always participate in counter-piracy operations in the Gulf of Aden before returning to Bandar Abbas.

IRIN Exercises

The IRIN typically holds several specialized exercises throughout the year in the Gulf of Oman, Strait of Hormuz, and Caspian Sea to gain proficiency in the warfare areas of surface, submarine, air, special operations, intelligence, and electronic warfare. Stated goals of these exercises are to improve readiness and counter enemy threats.

The IRIN's VELAYAT exercises are a large-scale, highly publicized annual event used to showcase its naval strength against a notional enemy, in the Gulf of Oman and Strait of Hormuz. Its objectives include transferring experience to new personnel, turning theoretical training into practical skills, testing new weapons and equipment, and practicing command, control and communications. The four phases of VELAYAT exercises are: dispersal, tactical, show-of-force, and a pass-in-review. The tactical phase typically involves the naval forces countering an enemy invasion with supporting units deployed to littoral areas. Forces participating in the tactical phase normally include coastal defense cruise missile launchers, rocket launchers, commandos, coastal artillery, mobile electronic warfare systems, warships, submarines, and mine warfare teams. The show-of-force phase typically involves submarines, warships, and/or land based launched weapons firings. The IRIN marks the end of its large-scale naval

drills with a maritime parade, viewed by high-ranking military officials and foreign military advisors.

In December 2014, all four branches of the Artesh Regular forces conducted the "Mohammad Rasulollah" Joint exercise to showcase advanced tactics and new equipment. The exercise was conducted in lieu of the typical navy-centered VELAYAT exercise, and was closely supervised by officials of the AFGS. One of the goals of the exercise was to activate the Artesh's "Zolfaqar" Headquarters to practice joint command, control, and communications.



The IRIN supports Iran's diplomatic outreach by holding exercises with regional and extra-regional countries. Over the past several years, the IRIN has participated in naval exercises with Oman, India, and Pakistan in the Indian Ocean and Gulf of Oman and with Russia in the Caspian Sea. The stated goals for these exercises are often to "exchange technical intelligence" between navies and demonstrate "joint operations."

Simulators

The IRIN uses simulators to offer dynamic training and to further develop its forces in a more cost effective manner. IRIN simulators present realistic scenarios that improve proficiency. The IRIN likely has bridge, missile, naval gun, submarine, and helicopter simulators.

IRIN Operations

One of the IRIN's roles is to keep lanes of communication open and secure by maintaining a continuous presence in nearby seas. As such, the IRIN investigates maritime traffic approaching the Iranian coastline to promote Iranian naval power and demonstrate a resolve to defend the homeland. The IRIN uses various surface combatants and air assets, which include UAVs, for routine security patrols in the Strait of Hormuz and Gulf of Oman.

As stated earlier, the IRIN places significant importance on out-of-area operations to support both diplomatic and military objectives through the presence of deployed naval groups in regional waters. The IRIN routinely touts naval diplomacy efforts in press and other official channels. Senior leaders assess these efforts to help alleviate Iran's international isolation, support possible future state-tostate engagement, and to promote the IRIN's narrative that it is a regional naval power. Militarily, these operations increase the IRIN's routine naval presence along the "golden triangle" of the Strait of Hormuz, Bab al Mandeb Strait, and Strait of Malacca. This activity also familiarizes sailors to operating amongst commercial and navy traffic down to the 10th degree latitude in the northern Indian Ocean.

To date, the IRIN has deployed more than 44 groups on a near-continuous basis for two to three months at a time. Most deployed groups stay in the proximity of the Gulf of Oman and Gulf of Aden. However, some groups have expanded the IRIN's operating range from Latakia, Syria to the west, Durban, South Africa to the south, and Zhanjiang, China to the East. According to the IRIN, these deployments are categorized as either "operational-intelligence groups" or "peace and friendship groups".

Operational-intelligence groups support Iran's presence in the Gulf of Aden and northern Indian Ocean with a mission focus on security; including counterpiracy efforts and escorting commercial ships. These missions usually involve a port visit to Oman. Depending on the political climate, other regional port calls may include Djibouti, Djibouti, or Port Sudan, Sudan. Iran has touted these groups as having escorted 3,000 ships and foiling more than 300 piracy events. The IRIN "peace and friendship groups" support Iran's diplomatic outreach efforts. Although these groups may spend time in regional waters, including the Gulf of Aden, their main purpose is to visit foreign ports and show the Iranian flag. These groups have recorded visits to India, Pakistan, Sri Lanka, Indonesia, China, Syria, Tanzania, and South Africa. The IRIN has yet to fulfill its stated objective of reaching the Atlantic Ocean.



IRIN Vosper-class corvette launches antiship cruise missle during Velayat-94 exercise.

OUTLOOK

ver the next five years, Iran will likely continue to develop its naval strategy and capabilities in a manner that is consistent with trends we have observed since the reorganization of 2007. Given Iran's dependency on sea-based trade, its vast coastline and strategic position adjacent to the Strait of Hormuz, Tehran will continue to invest in both of its naval forces for the foreseeable future. Although Iran has come to appreciate the growing danger represented by ISIS forces in the Middle East, Iran's leaders still perceive that threats to Iran will come primarily from the sea. As such, the IRGCN and IRIN will remain key components of Iran's defense strategy.

Three factors that are likely to impact Iran's naval strategy and acquisitions are: the status of JCPOA, the price of oil, and the influence of Chief of the AFGS, MG Mohamad Bageri as well as other leadership turnover that could follow. JCPOA includes the expiration of United Nations Security Council Resolution 2231, which bans Iran from acquiring sophisticated offensive weaponry. The expiration of UNSCR 2231 in 2020 will allow Iran to pursue foreign acquisitions that have been inaccessible since sanctions were imposed on Iran's nuclear program. Oil is a critical export and principal element of Iran's economy. If oil prices rebound over the next five years it will provide Iran more resources to build its military. Lastly, while it is too early to assess the impact of the change in AFGS leadership, the intent in making the change may be seen as Khamenei's desire for new direction or stronger leadership at the top.

The IRGCN's area of operations will remain in the Persian Gulf and the Strait of Hormuz, although the flotilla sent to the Gulf of Aden in 2015 suggests it could engage in forward deployments in some circumstances. Acquisitions will continue along established trends with an emphasis on smaller, faster platforms, equipped with sophisticated weaponry, and acquired in large numbers. One exception to this trend could be the replacement of the Houdong WPTGs, which will be approaching thirty years in service at the end of this outlook period.

The IRIN will continue to be the principal operator in the Caspian Sea and Gulf of Oman, with shared responsibilities in the Strait of Hormuz. The IRIN will continue to emphasize deployed naval groups, and capitalizing on JCPOA, it will look for opportunities to achieve new milestones farther into the Pacific, Mediterranean Sea, and Atlantic. Its chief acquisition efforts will be to complete the production runs for both the Jamaran FFLGs and Fateh-class coastal submarines.

Over the next five years, new weapons will likely include submarine-launched ASCMs, the Hoot supercavitating torpedo, and potentially a supersonic ASCM, which Iran claims is in development. After 2020, Iran may look to foreign acquisitions of ships and submarines with a wide array of weapons suites. Reportedly, Iran has entered into negotiations with Russia to acquire the SS-N-26 Yakhont coastal defense cruise missile, as well.

Many variables will influence the specific path Iran pursues regarding its naval forces. Regional security issues, diplomatic agreements, military leadership, and economic vitality will factor into Iran's calculus in shaping its naval strategy, force composition, and operations. Regardless of these factors, Iran's naval forces will remain a key component of Tehran's national defense strategy, and it will likely continue to develop new capabilities and proficiencies. As the future story of Iran's naval forces unfolds, it is likely to remain a tale of two navies.

The greatest accomplishment that the IRIN has achieved in the recent few years was the force's upgrade from a coastal navy limited to the Persian Gulf, Strait of Hormuz, and Sea of Oman into a strategic offshore navy. In the year 1386 (2007), when the Commander-in-Chief emphasized the formation of a strategic navy, we saw a metamorphosis in the Navy which caused this force to step out from its operational area of the Persian Gulf and Sea of Oman and achieve an effectual and operational presence in the wider space of the free seas.

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