

Islamic Revolutionary Guard Corps - Navy (IRGCN)



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Executive Summary

On March 11, 2024, a structure situated to the east of the port city of Baniyas in northwest Syria was the target of an airstrike. Radha Zarei, a colonel-ranking officer in the IRGC navy, was killed in the assault. It is essential to bear in mind that the Baniyas seaport serves as a gateway along the naval armaments' corridor connecting Iran to Syria and Lebanon. Hence, it appears that Zarei's elimination in this particular region is not coincidental.

According to our estimates, Zarei was involved in assimilating and integrating various systems related to the development of Hezbollah's and Shiite militias' marine capabilities in Syria. These systems may include coastal radar stations, anti-ship missiles, cruise missiles, and so on.

Zarei's elimination turned the spotlight on the Revolutionary Guards' naval arm and its activities.

Following the publication of the introductory chapter on the IRGC, this in-depth report will review and present the IRGC Navy (IRGCN). This branch has developed since the mid-1980s and has now become one of the regime's main elements in defending Iran's interests in the Arabian Gulf. In addition, the IRGCN serves as a central instrument in projecting power and implementing Iran's foreign policy.

Like the other branches of the IRGC, the IRGCN operates in parallel to the Islamic Republic of Iran Navy (IRIN), yet it enjoys larger budgets and superior equipment, training, and capabilities.

Along with its well-known activities in the Arabian Gulf and the Gulf of Oman, the IRGCN also began to establish itself in other arenas. These now include the Arabian, Red, and Mediterranean Seas. Senior Iranian officials have also expressed a desire to establish a presence in the Panama Canal Zone, as well as the South Pole. This increased activity, combined with Iran's success in producing UAVs, cruise missiles, and anti-ship missiles, has made it a tangible threat to global marine commercial traffic, as well as to numerous countries in the Middle East and beyond.

This report will address a number of topics:

The **first chapter** will deal with the establishment of the force, the factors that influenced the design of its force buildup, as well as its main missions and its interface with the Islamic Republic of Iran Navy (IRIN).

The **second chapter** will review the geographic division vis-à-vis the IRIN, the corps' command structure, and the internal division into geographical districts. In addition, we will introduce the commanders of the districts, their main assignments and the locations of main headquarters. The **third chapter** will deal with the presence of IRGC naval forces in maritime arenas outside the Gulf, the motives for this presence, and the methods used by Iran to establish its presence in these areas.

The **fourth chapter** will examine Iran's use of civilian ships repurposed for military objectives, as well as the circumstances that contributed to this development. This chapter will also present the potential impact of the use of these ships with regard to expanding its capabilities and projecting Iran's power in distant arenas.

The **fifth chapter** will review some of the IRGC Navy's Special Forces units, their main missions, and their main bases.

The **sixth chapter** will briefly introduce Hezbollah's naval units in Lebanon and the Houthis' in Yemen. This chapter will present the motives that led Iran to establish these forces, the types of weapons at their disposal, and their capabilities.

Appendices A-C will present some of the weapons and systems in the possession of the IRGC Navy. These appendices will present missile ships, speedboats, submarines, missiles, torpedoes, mines, unmanned boats and loitering munitions used by the IRGCN.

Chapter One – The establishment of the corps, the force build-up, and the interface with the Islamic Republic of Iran Navy (IRIN).

The IRGCN was founded in the first half of the 1980s, during the Iran-Iraq war. The IRGCN 's inception and development overlapped with the activities of the Islamic Republic of Iran Navy (IRIN) with no clear division of tasks in the early phases.

The lessons learned from the conflict, combined with the regime's desire to reinforce the IRGC, resulted in the navy's fast rise throughout the 1990s and early 2000s. During this time, missile ships, submarines, and fast patrol boats were acquired, as well as several sea-to-sea and anti-ship missiles. The majority of the ships and weaponry equipment were purchased from China, Russia, and North Korea, and were later produced as a local Iranian version.

It is worth noting, however, that during the early decades, Iran did not attempt to develop its naval strength as a superpower. The physical impact of the United States in the Middle East, particularly its huge presence in Afghanistan and Iraq in the early 2000s, demonstrated to Iran the balance of power between the two countries, as well as its deficiencies in the maritime realm in particular. These strength disparities and technological gaps lead the IRGC to design its maritime force for asymmetric warfare.

This type of warfare seeks to challenge superior and massive forces, which are deemed rather cumbersome, by employing small, flexible, and rapid forces while exploiting the terrain. For example, one of Iran's key strategies is the "swarm tactic." As part of this strategy, a large number of speedboats or UAVs are operated simultaneously to breach the US Navy's defenses. This technique intends to provide an advantage by using the element of surprise while putting a strain on the opponent's defense mechanisms.

Other asymmetric warfare methods used by the IRGC include anti-ship missiles and naval mines. These allows to form an advantage in dense and relatively limited marine environments like the Strait of Hormuz and the Arabian Gulf (also known as the Arabian Gulf).

The IRGCN has two primary missions: coastal defense and protecting Iran's maritime borders, as well as solidifying control over the Gulf of Oman-Strait of Hormuz. In this framework, the IRGCN is also in charge of protecting energy production infrastructure, nuclear installations along the coast, and deterring smuggling.

Another key responsibility is to monitor and control shipping traffic in the Arabian Gulf and the Strait of Hormuz. This surveillance is also performed on civilian ships, but mostly on military boats from other countries. In this regard, it should be noted that the Arabian Gulf accounts for a considerable portion of the world's oil and gas commerce, hence guaranteeing freedom of navigation in the region is of great global importance.

According to various estimates, the IRGCN now employs over 25,000 individuals across its numerous sectors, headquarters, and units as a result of its development and strengthening process.

Chapter Two – Headquarters and Geographical Districts of Operation

Iran's coastline stretches for more than 3,000 kilometers, with the Arabian Gulf and Gulf of Oman regions in the country's west and south, and the Caspian Sea region to the north. The physical characteristics of the Arabian Gulf and Iranian coastline (details below) present a substantial operational obstacle to naval forces operating in the region. These characteristics and challenges were among the causes that prompted Iran to reconsider how its naval forces were deployed in 2007. This was done to ensure a geographical division of work between the two navies. The Islamic Republic of Iran Navy (IRIN) attained responsibility for the Caspian Sea and the Gulf of Oman, while the IRGCN was in command of the Arabian Gulf region. The Strait of Hormuz remains a joint responsibility of the two fleets, even though the IRGC have further and better-equipped forces in the area and their influence is greater. Furthermore, the IRGC's permanent naval presence in the Gulf of Oman appears to have increased in recent years.

The IRGCN headquarters are located in the Bandar Abbas base, on the banks of the Strait of Hormuz, whereas IRIN's headquarters are in Tehran.

Alireza Tangsiri, the commander of the IRGCN, has been in office since August 2018. Tangsiri, born in 1962 in Bushehr Province, western Iran, was the commander of the maritime regions of the northern Arabian Gulf and the Strait of Hormuz until 2009 when he was appointed deputy commander of the IRGCN. As with other Iranian regime elites, the United States and other nations have imposed sanctions on Tangsiri.



Above: Alireza Tangsiri

To increase the force's control and command capabilities, the IRGCN's marine expanse in the Arabian Gulf was separated into five geographic areas of operation. Each district commander has access to several bases, ports, and units under his command. These include coastal defense, anti-ship missiles, air defense units, surface vehicles, and others.



1. **Bandar Abbas - Strait of Hormuz** - This maritime district is the largest of the five and dominates the Strait of Hormuz. Its primary goal is to supervise and control navigation in the Strait, which is a crucial location for Iran (and the world as a whole) due to its importance in worldwide marine traffic of oil and gas. Another critical responsibility is to safeguard the Bandar Abbas port, which is Iran's primary export port. Since 2016, General Abbas Gholamshahi has served as the area's commander, with headquarters in Shahid Bahonar Port, near Bandar Abbas.

Because of the strait's importance to global marine trade, Iran was able to use it as leverage against the international community to attain its goals and ambitions.

This manifests itself in the seizure of merchant ships and oil tankers, as well as frequent threats to restrict the strait to international shipping. Iran applies similar measures in the Bab Al-Mandeb Strait, where it utilizes Houthi militants to target ships heading through.



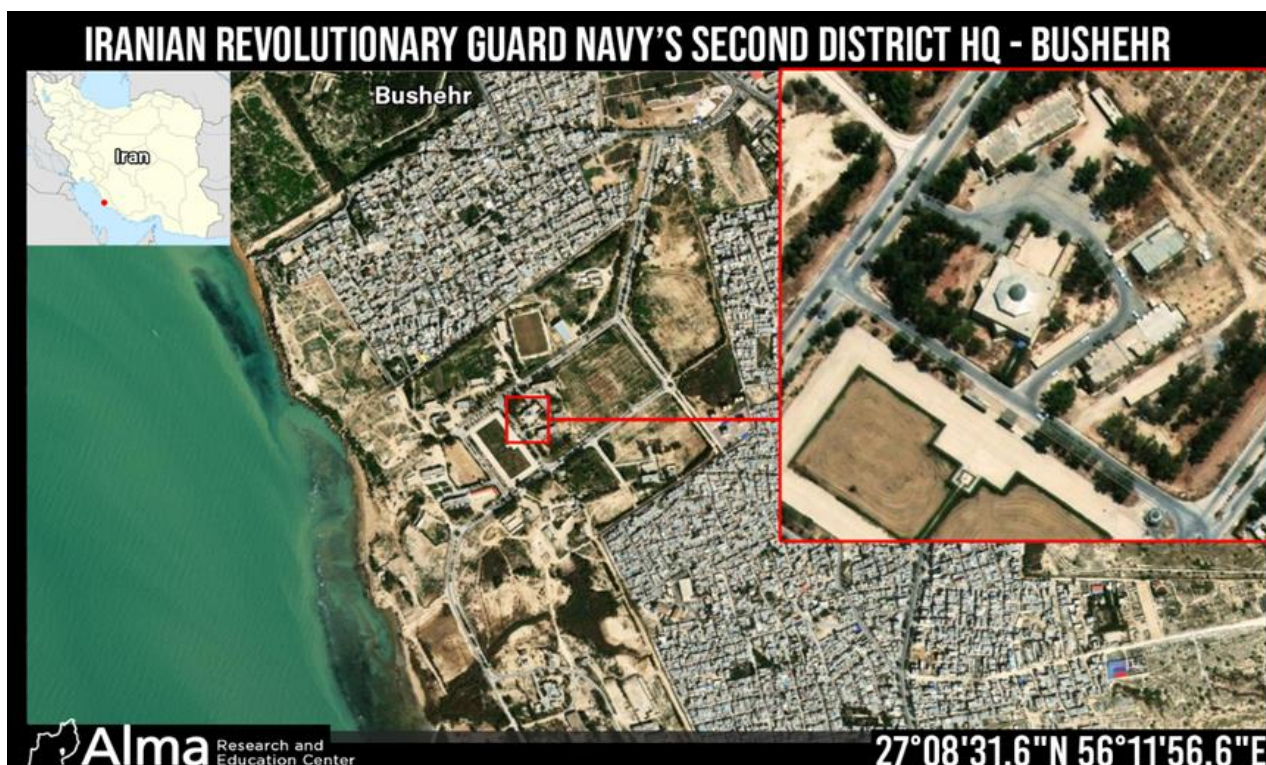
Above: Abbas Gholamshahi



Above: 1st. Naval District Head Quarters



2. **Bushehr** – This district is responsible for the central and northern Arabian Gulf. The main mission of the forces stationed there is to protect the Bushehr nuclear power plant and the island of Kharj, which is one of Iran's most important oil-exporting ports in the Arabian Gulf. The district's commander since 2017 is Ramadan Zirahi, and his headquarters is located in the port of Bushehr.



Above: 2nd. Naval District head headquarters in the port of Bushehr



Above: The entrance gate to the Bushehr district headquarters



Above: Ramadan Zirahi

3. **Northern Arabian Gulf** – This district, located at the northern tip of the Arabian Gulf, is responsible for securing the common maritime border of Iran, Iraq and Kuwait, particularly in the Shatt al-Arab area. This region has been a significant point of friction between Iran and Iraq over the years. The district's headquarters is in the port of Mahshahr in the northern Arabian Gulf and is headed by Yadollah Badin, who was appointed to his position in 2016.



Above: Yadollah Badin



Above: 3rd. Naval District Head Quarters

4. **Central Arabian Gulf** – The fourth maritime district covers the area between Bushehr in the north and Kish Island in the south. The commander of the district since 2016 is Mansour Ravankar, and his headquarters are in the port of Asaluyeh. The main mission of the forces in this area is to guard the gas fields and infrastructure. It should be noted that this area is home to the largest gas field of its kind in the world, which Iran shares with Qatar (the Iranian name is "South Pars"/the Qatari name is "North Dome- Field").



Above: Mansour Ravankar

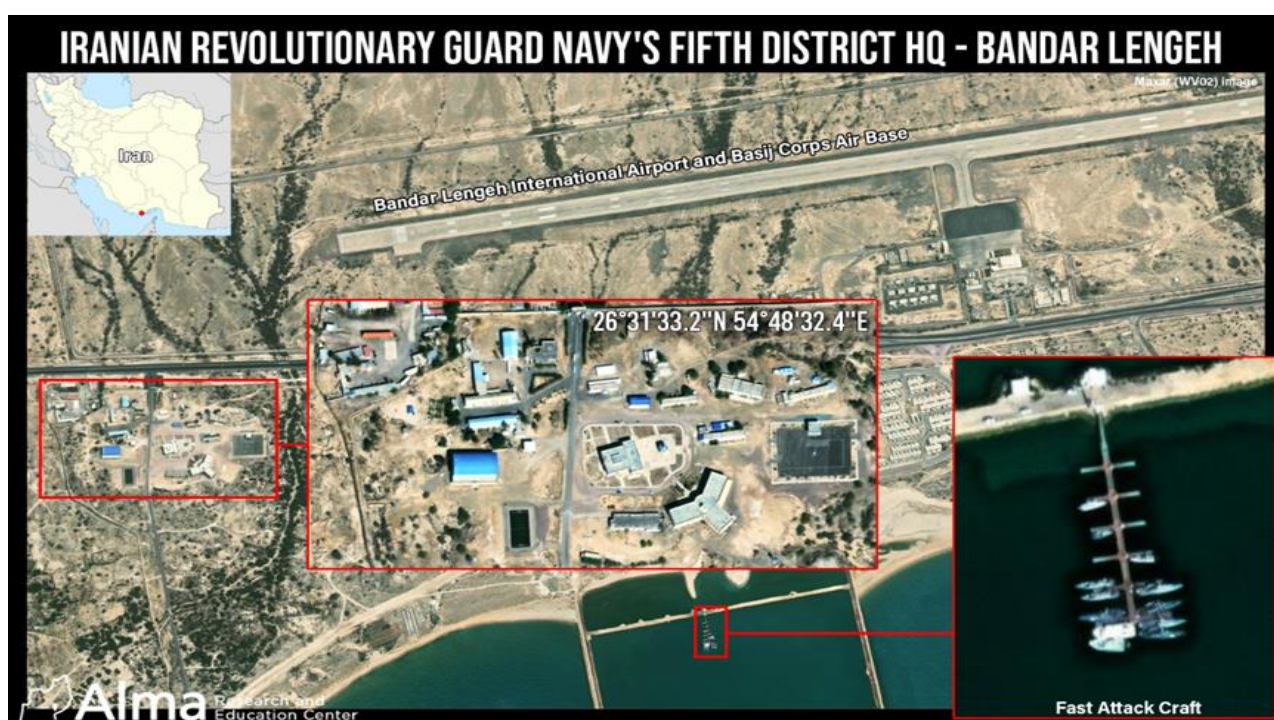


Above: 4th. Naval district Head Quarters

5. **The islands area**— the fifth district controls the maritime area west of the Strait of Hormuz. This district was once part of the first district but was split off from it, establishing its range of control between Qeshm Island and Kish Island. The district includes the islands of Abu Musa, Siri, Greater Tunb and Lesser Tunb, control of which is disputed between Iran and the United Arab Emirates. The commander of this district is Ali Ozmai, and his headquarters is in Bandar Lengeh.



Above: Ali Ozmai



Above: 5th. Naval District head Quarters



Above: Locations of the Naval District Headquarters

The Imam Khamenei University of Marine Science and Technology:

The IRGCN Naval Academy acts as the force's naval training facility. Although the force's primary operational region is the Arabian Gulf, the academy is located in Zibakenar, northern Iran, on the Caspian Sea coast, approximately 240 kilometers northwest of Tehran .

AbdulReza Dabestani has served as the academy's commander since 2019.

This training center began operating in 2013. During 2017, all IRGCN training bases were integrated into the academy, which trains the corps men in a variety of specialties. These include naval crew personnel, weapons system operators, UAV operators and pilots (who operate within the IRGC fleet), commandos, and so on. Throughout the training period, the instructional courses incorporate both theoretical instruction and field experiences. At the end of the course, the students are assigned to different sectors of activity. The Academy's courses prepare corps members from the basics up to advanced command courses for commanders and officers.

According to various reports, the IRGC trains Iranian-backed militias and proxies at the naval academy (also at the bases on the Farur and Qeshm islands). According to these reports, some 200 Houthi fighters were trained at the naval academy in early 2020, followed by Shiite militia members from Iraq in July 2020. Furthermore, it is quite likely that members of the Hezbollah, Hamas, and PIJ naval units have received training there throughout the years.

Hossein-Ali Zamani Pajoh is the officer in charge of proxy training at the Naval Academy, however it appears that they are conveyed and coordinated by Quds Force Unit 8030. These trainings, which span approximately six months, take place in a separate, segregated, and compartmentalized compound at the academy.

As part of the training, militia members are trained in firing anti-ship missiles, operating UAVs, diving, sabotage, laying mines, sailing various vessels and more.



Above: AbdulReza Dabestani



Above: Hossein-Ali Zamani Paioh

Unit 8030 is subordinate to Brigade 8000 and its commander is most likely Hassan Habibi. This brigade is responsible for the production and delivery of weapons to Iranian-backed militias and organizations throughout the middle east. The Brigade is also responsible for training, instructing and implementing the systems. To this purpose, the Brigade, and its subunits, collaborate with Iranian institutions and companies in the armaments industry to create and improve capabilities and weaponry.

The 8000th Brigade operates several units, each with a specific specialization, such as UAVs (8050 and 8090), missiles and rockets (8020), anti-aircraft and air defense (8040), etc.

Unit 8030, whose commander is Ali Hademi, specializes in naval activity and its personnel are responsible for training forces and developing the capabilities of the Shiite axis in the maritime arena. The unit is also involved in transferring weapons, systems and know-how to various organizations and militias. Apparently, the unit's operatives also operate outside Iran and directly support Hezbollah, the Houthis and other organizations.



Above: The IRGC Naval Academy

Chapter Three: The Force's Presence in Other Naval Arenas

In addition to its core tasks in the Arabian Gulf, the Strait of Hormuz, and the Gulf of Oman, the IRGCN has begun to solidify its dominance in more remote arenas over the last decade. These include, among others, the Arabian, Red, and Mediterranean Seas. Iran does not hide its ambitions on this matter, as senior Iranian officials have said numerous times.

The IRGCN frequently collaborates with the IRIN in maritime operations outside the Arabian Gulf. This cooperation is primarily motivated by the IRGCN's lack of knowledge, experience, and ships capable of long-distance operations on open seas.

As a result of this deficit, the IRGC has begun to develop and convert ships capable of long-range missions in recent years. Notable examples include "Shahid Roudaki," "Shahid Mahdavi," "Shahid Soleimani," and others (details below).

The IRGC conducts naval operations outside of the Arabian Gulf on two levels. The first type of activity is overt, and it mostly involves missile ships, destroyers, and support ships. The stated purpose of this action, which takes place primarily in the Red Sea and the Arabian Sea, is to safeguard freedom of passage and combat pirate activity in these waters. Another example is the publicized and overt arrival of Iranian missile ships in the Mediterranean Sea in 2011, as part of an escort operation for oil tankers on their way to Syrian ports.

The second tier of the IRGC's maritime activities is covert operations. This activity is centered on ships operating under civilian cover and changing names from time to time. These are typically converted cargo ships and tankers that are effectively employed as floating military installations. These ships were outfitted with surveillance and intelligence-gathering devices, as well as various weapon systems like anti-ship missiles, anti-aircraft missiles, speedboats, helipads, UAVs, and more. In addition, Iran frequently deploys special forces from these ships.

At the same time, Iran employs innocent Iranian civilian cargo ships and tankers transporting lawful goods and cargo as part of its commercial shipping operations. These ships assist the Iranian effort by transporting supplies, fuel, personnel, and weapons to the floating bases and other locations. [The report we published on the "Azargoun" ship provides an example of such a likely pattern.](#)

While the professed goal of Iran's involvement in different arenas is to maintain freedom of navigation, the reality is very different. Iranian ships play an important role in transporting weapons, oil, and supplies from Iran to its allies. This action is primarily directed at the Houthis in Yemen, the Assad regime in Syria, Hamas and the PIJ in the Gaza Strip, the Maduro regime in Venezuela, and different organizations in Eritrea, Somalia, and elsewhere.

The ships also serve as forward bases for attacking, abducting, and harassing commerce ships in these areas, as well as a base for special forces operations. This action is meant to protect and advance numerous Iranian interests, particularly in the Horn of Africa and Yemen, but it also acts as a tool for political pressure and a platform for military retaliation against Iran's adversaries. The naval activity is particularly important since it allows for the development of an Iranian maritime corridor to Syria and Lebanon. This corridor, which runs in addition to land and air lines, provides Iran with operational capabilities and a footing in the Mediterranean Sea and other important regions.

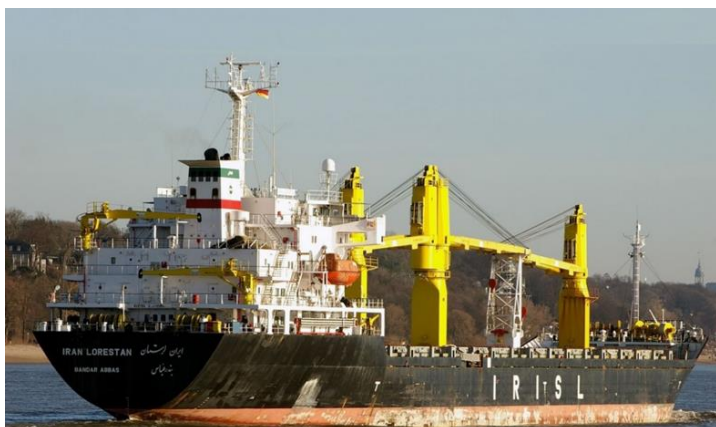
Chapter Four: Conversion of Civilian Ships for Military Use

As previously stated, as part of its naval activity over the last decade, Iran has operated several floating bases disguised as civilian ships. The conversion of cargo ships and civilian tankers for military use is motivated, among other things, by Iran's immediate military needs and the nature of its maritime activity, as well as the fact that building and designing a new ship is significantly more expensive, time-consuming, and complicated than converting an existing ship.

Saviz is a 174-meter cargo ship converted by Iran at the Bandar Abbas shipyard. The Saviz was anchored in international seas off Yemen's western coast from late 2016 to April 2021. The declared reason for the vessel being in this area was to help Iranian activities fighting pirates in the Bab Al-Mandeb Strait, but in reality, it acted as a floating base for the IRGC.

The Saviz's presence in Yemen appears to have been meant to achieve two major purposes. The first is intelligence, logistical, and operational support for the Houthi rebels in Yemen and other groups in Africa. The second is to supervise entry and exit from the Bab Al-Mandeb Strait. This area is a strategically vital route for global marine trade since it is a main maritime artery to and from the Suez Canal. Furthermore, a presence in this area allows for the monitoring of maritime military operations by different countries in the region, including the United States, Britain, Saudi Arabia, Israel, and others.

Saviz's actions were uncovered in 2017, when uniformed troops were seen on board, along with various weapons and intelligence systems. In April 2021, the ship was damaged by a mysterious explosion, which according to some reports was an Israeli operation, and forced to leave its location. Three months later, Iran dispatched the **Behshad**, a converted cargo ship, to the region to replace the Saviz. It should be noted that the Behshad and the Saviz are quite similar externally, and both were built in China at the same shipyard (Guangzhou Shipyard).



Above: The ship "Saviz" in one of its previous incarnations under the name "Lorestan"



In the picture: The "Behshad" photographed bearing one of its former names - "Limnetic"

The practice of converting civilian ships is not confined to the installation of allegedly "secret" floating bases. Iran is also modifying civilian ships for overt military use, namely as motherships and logistical support vessels capable of being at sea for extended periods of time. These ships are converted and operated in cooperation with the Islamic Republic of Iran Navy (IRIN) and the IRGC navy, as well as through enterprises affiliated with the Khatam al-Anbiyah organization (for further details about this organization [see our IRGC introduction report](#)).

Makran - This 230-meter-long ship was an oil tanker before being modified at Bandar Abbas shipyards. One of its key advantages is the ability to stay at sea for extended periods without having to dock and refuel. The IRIN formally launched the Makran in early 2021, describing it as a logistics support ship with declared missions including intelligence collection, electronic warfare, special forces and speedboat deployment, and more. It also has a large landing strip that can accommodate UAVs, helicopters, and missile systems. Although the Makran is technically belongs to the IRIN, the IRGC use the ship regularly.

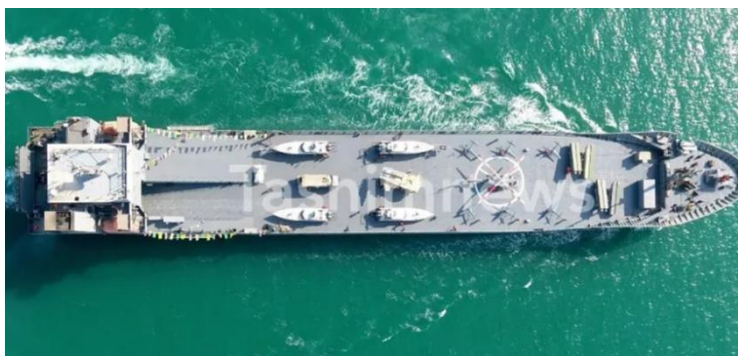


Above: the "Makran"

Shahid Roudaki- The IRGC turned a 150-meter-long cargo ship into a floating forward base. It was officially launched in 2019. At the time, it was described as an intelligence and assistance ship aimed at improving the IRGC's long-term operating capabilities. It is vital to clarify that the Roudaki belongs solely to the IRGC navy, not the IRIN. This in contrast to other ships Iran had previously operated outside of the Arabian Gulf. In addition, unlike the Saviz, the Roudaki was publicly designated a military ship in all aspects.



Upon its launch Iran displayed anti-ship missiles, an anti-aircraft system, UAVs, and other weaponry systems on board the Roudaki, but it is unlikely that they will be used in the configuration revealed. It is reasonable to presume that the ship is equipped with electronic warfare and intelligence gathering capabilities, as well as a helipad and the capacity to launch UAVs, although it appears to have relatively limited and rudimentary defense systems.



Above: the "Shahid Roudaki"

Shahid Mahdavi- A container ship built in 2000 and converted for military use by the IRGC. The conversion work was carried out at the port of Bandar Abbas, in the same shipyard that carried out the conversion of the Makran. Shahid Mahdavi was handed over to the IRGC in early 2023. The 240-meter-long Mahdavi is the largest ship currently operated by the IRGCN. It is equipped with communications and intelligence systems, artillery, a helipad as well as the ability to deploy small vessels and launch small UAVs. In addition, its size makes it possible to deploy anti-ship and anti-aircraft missiles as well as ballistic missiles using temporary installed containers. An example of this versatility came during a military exercise in February 2024, during which Iran launched at least two Dezful ballistic missiles from the deck of the Mahdavi. The missiles were launched from a container mounted on the ship's deck.



Although launching a ballistic missile from the high seas is a new capability that Iran has not possessed until now, in our assessment it is not a tie-breaking capability. The Dezful missile is well-known to Israel and the existing defense systems are capable of dealing with it. The use of containers to conceal and hide weapons systems is also well known to Israel.

However, it seems that the main challenge presented by this capability is the great flexibility in the use of force it entails for Iran, as well as the fact that containers of a similar type can be loaded onto civilian ships. In other words, it allows Iran to transport ballistic missiles in a relatively hidden manner and launch them, in effect, from anywhere. In addition, for Israel, this can stretch existing detection, identification and interception capabilities, especially during an all-out war.

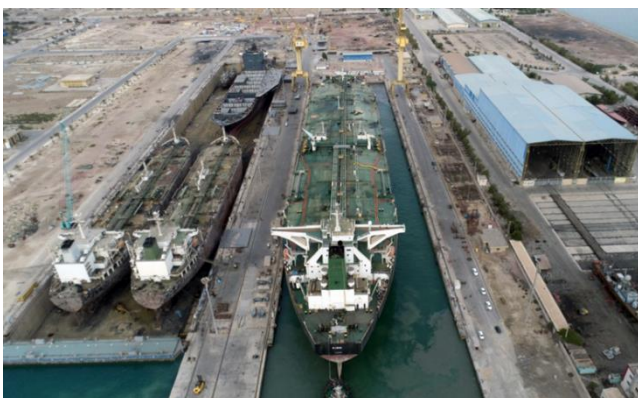
In addition to the Shahid Mahdavi, Iran is converting another ship, **Shahid Bahaman Bagheri**, which has a 180-meter-long runway installed to serve as a UAV carrier. The introduction into service of the Mahdavi and the Bagheri, which can also carry more than ten speed boats, is intended to increase the IRGC's operating flexibility and range in operating UAVs, cruise missiles, and special forces, and to improve its operational capabilities in distant theaters.

The potential inherent in the use of UAVs to attack ships was demonstrated back in 2021 in the attack on the Mercer Street oil tanker, using a Shahed 136 and a Shahed 107 UAVs. This issue is even more acute today in light of Houthi attacks in Bab Al-Mandeb, which frequently use UAVs.

According to our estimates, the IRGCN is learning from the Houthi field experience and using the lessons learned to develop its modus operandi and execute them in future operations.



Above: the "Shahid Mahdavi"



Above: Construction of the "Shahid Bagheri"

Shahid Siyavashi- An auxiliary ship that appears to have been manufactured in Iran and operates in several arenas. It was spotted, among other locations, in the Arabian Sea, where it carried out acts of provocation against American ships. It was also spotted in the Mediterranean Sea. In addition to its duties as an auxiliary and supply ship, the Siyavashi may carry a variety of systems on board. In June 2020, photographs of a firing test from the ship's anti-aircraft system were revealed.



Above: the “Siyavashi” carrying anti-aircraft missiles

In addition to the Siyavashi, the IRGC operates a number of smaller Nasser-class auxiliary and support ships. These Iranian-built ships have a declared range of 1,500 km, are 33 meters long and can carry 35 tons of equipment.



Above: a Nasser class ship

Chapter Five: Special Forces

The IRGC naval activity, particularly in the Arabian Gulf, is frequently overt and aggressive. This activity involves, among other things, maritime and aircraft harassment of ships, the seizure of oil tankers and ships, their abduction to Iranian ports, and missile and UAV strikes on boats. At the same time, Iran conducts activities outside the Arabian Gulf, but these operations are often carried out with a low profile. This includes placing mines on shipping routes, transporting weapons to various organizations and militias, and carrying out operations with special forces, mostly for sabotage and intelligence operations.

Iran employs various types of action as leverage to achieve its objectives, as a means of exerting pressure on Western countries, and to solidify its position as a regional force capable of impacting maritime trade and the world economy.

Many operations that require physical presence of soldiers in the field, such as mine laying and taking over ships, are carried out by the IRGCN special forces, also known as the Aba-Abdallah Special Forces Brigade or S.N.S.F (Sepah Navy Special Forces).

This unit, established in 2006, currently numbers 500-600 persons, and its commander is Sadeq Amoui, who has served in this position since 2018. The unit is based on Farur Island, near the Strait of Hormuz. However, the unit's personnel are deployed according to operational need throughout the Arabian Gulf and beyond.

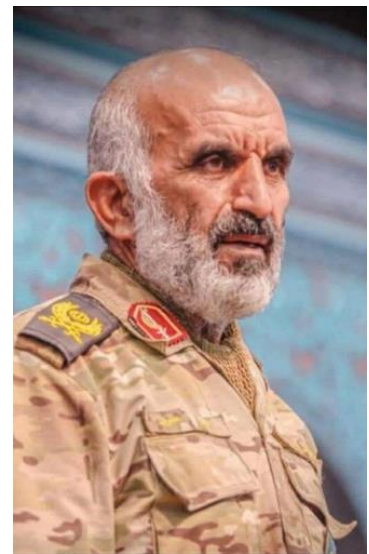
In this context it is important to note, that Iran regards the Gulf Islands, which include the Kish, Abu Musa, Siri, and Tunb Islands, as critical components of the Gulf's defense array. As a result, the IRGC maintains bases and ports on the numerous islands, from which different forces operate.

The unit's training program lasts around two years and is only open to experienced combatants from various branches of the IRGC. The recruits acquire various skills throughout their training, including diving, sabotage, sniping, reconnaissance, parachuting, helicopter fast-roping, hostage rescue, vessel take-over, mine laying, operating vessels, and weapons systems.

We have no information about the unit's structure, internal divisions, and so on.



Above: the SNSF insignia



Above: Sadeq Amoui



The unit's official missions include protecting the Arabian Gulf seas, securing Iranian commerce ships, and carrying out special missions for the IRGC. In this context, the unit fought pirates in the Arabian Sea and the Gulf of Aden, as well as played a key role in recent ship seizures in the Arabian Gulf. The unit's most well-known action in this regard was the seizure of two US Navy boats in 2016, which resulted in the capture of ten crew members.



Above: The captured American sailors

However, in addition to the official missions, various sources indicate that the unit's operatives have operated in Iraq and Syria as part of the war against ISIS and that its operatives may have participated in operations against merchant ships indirectly linked to Israeli businessmen between 2022 and 2023. The unit is also training militias and organizations that are supported by Iran. These exercises are held both in the various militias' original countries and on Iranian soil (see Naval Academy above). The unit's base is also used to train Iranian-backed groups and organizations, and it acts as a key link in the IRGC's smuggling network to various militias in the region.

In addition to the Ranger Brigade, two smaller units are in charge of securing and defending the Arabian Gulf, as well as helping the various IRGC forces in the region:

The Imam Sajjad Commandos Marine Unit is located on Abu Musa Island in the Arabian Gulf and its main mission is to protect the many islands scattered throughout the Gulf. Alongside this unit, also operating on the islands, is the Ansar al-Hujat unit, which has a similar mission.



Chapter Six – Force buildup of Hezbollah and Houthi naval units:

Iran is seeking to extend its influence and consolidate its position as a regional power by supporting proxy forces in a variety of Middle Eastern and international arenas. This support takes the form of considerable economic help, combatant training, knowledge transfer, political support, religious indoctrination, and the supply of equipment, weaponry, and weapon systems.

This conduct has lasted several decades and involves a wide number of different militias, organizations, and forces. Iran has armed and trained militias and organizations in numerous countries, including Iraq, Syria, Lebanon, Yemen, Gaza, Somalia, Eritrea, Bahrain, Sudan, Western Sahara, Nigeria, Afghanistan, and Pakistan.

Iran also helped to develop and train Hezbollah and Houthi naval troops, sometimes on Iranian soil (see Naval Academy).

These units were established out of an understanding of the importance of the maritime domain in these arenas. Yemen's coast dominates the Bab Al-Mandeb Strait and parts of the Indian ocean, which routes a significant percentage of commercial shipping to the west, while control of the Lebanese coast will make it very difficult for the IDF to operate in a future confrontation with Hezbollah. In addition, this presence threatens strategic Israeli assets such as gas rigs and ports and enables an Iranian foothold in the Mediterranean.

Throughout the years of war in Yemen, the Houthi rebels managed to obtain an extensive military arsenal from Iran. Among other things, the Houthis currently possess highly developed ballistic capabilities, a wide range of UAVs and loitering munitions, as well as naval capabilities in the form of speedboats, deployment of naval mines, and operation of unmanned "suicide" vessels.

Furthermore, we estimate that the Houthis now has entire arsenal Iranian-developed anti-ship missiles. These include anti-ship ballistic missiles like the Khalij Fars and Hormuz, as well as cruise missiles from the Noor, Sumar, and other categories (more information below).

The fact that the Houthis have anti-ship ballistic missiles is significant, as it is a capacity held by only a few countries and necessitates the presence of additional supporting technological capabilities. ([More on Houthi-held anti-ship ballistic missiles.](#))

Many of these weapons and missile systems, which were originally smuggled into Yemen by Iran, are now manufactured in Yemen after the IRGC invested significant resources in transferring knowledge and technical capabilities, establishing an appropriate industrial infrastructure, and training local experts. These missiles are frequently given a local name, such as those from the Sumar and Noor families in Yemen, which are known as Al-Mandeb and Quds, respectively. The same is true for different vessels produced and operated by the Houthis that originate in Iran.

It is worth noting that Iran directly and actively aids the Houthis in coordinating assaults on vessels. This assistance is primarily directed at locating, monitoring, and tracking ships. This is also accomplished through the use of radar stations set up along the Yemeni coast and operated by IRGC operatives. The Saviz and Behshad ships are another source of information for identifying and tracking strike targets. In this respect, one should keep in mind the fact that the IRGC had installed radars on civilian ships converted in Iran (see above), and it is reasonable to believe that Iran will utilize them to direct various attacks.

Similarly, Iran has made significant efforts to strengthen Hezbollah's capabilities over time. In terms of naval capabilities, there are reports that the organization's operatives have been trained by members of the IRGCN Special Forces in both Iran and Lebanon, and that significant efforts have been made to transfer weapons to the organization, as well as the knowledge and technologies required to manufacture them on Lebanese territory.

According to our assessment, these efforts have resulted in Hezbollah now acquiring several dozen anti-ship missiles of various kinds, including Noor, Nasir, Ghadir, Khalij Fares, and Yakhont. It is worth noting that these are not new capabilities; for example, a Chinese C-802 anti-ship missile (or its Iranian version) was used to strike the IDF's INS Hanit during the Second Lebanon War in 2006.

Hezbollah also formed a navy commando force. In addition to the generic combat capabilities associated with navy activity, we believe that this unit operates additional special capabilities, such as speedboats, possibly even small submarines, and underwater vehicles for transporting combatants, similar to the Iranian model.

It is also possible that Hezbollah has disguised civilian boats that it will utilize for military operations when needed. [We already know that Hezbollah utilizes fishing boats, primarily from fishing ports in southern Lebanon, to conduct surveillance and observation along Israel's maritime border in the Rosh Hanikra region.](#)

Appendix A - Ships and boats

The IRGCN conducts the majority of its activities in the Arabian Gulf and the Strait of Hormuz. The Arabian Gulf is approximately 1,000 km (625 miles) long, 65 (40 miles) km to 340 km (210 miles) broad and has relatively shallow waters with an average depth of 50 meters (170 ft). The Strait of Hormuz is a much smaller area. Its length is around 180 kilometers (110 miles), while its width varies between 35 to 60 kilometers (20-40 miles).

In other words, these are confined areas with relatively short operational range that do not necessitate an extended stay at sea. In addition, the aforementioned geographical qualities cause the waters of the Strait of Hormuz and the Gulf to be relatively warm, salty, and with strong currents. These qualities make it difficult for certain vessels to operate.

To carry out its assignments, the IRGCN employs a wide variety of ships and weapon systems tailored to these conditions. Some of these ships and weapons systems were purchased by Iran from countries such as China, North Korea, and Russia, while others were produced in Iran - either by duplicating and enhancing existing systems or by local independent development.

The following is an overview of the main ships and surface vessels operated by the IRGCN:

AZARAKHSH- A Chinese-made (C-14) missile carrying fast patrol boat. This boat, usually equipped with several anti-ship missiles, cannons and other munitions, is capable of sailing at speeds of up to 50 knots. According to various estimates, Iran has 10-15 such vessels.



Above: the AZARAKHSH vessel

Tondar Class- Fast patrol and attack boats acquired from China during the 1990s. The IRGC operates about 10 vessels of this type, armed with a number of cannons and capable of launching Iranian-made anti-ship missiles. The ships are 39 meters long, have a max. speed of 35 knots and are operated by 28 crew members. Over the years, Iran has produced different versions of these ships, modified them, and added various systems to them. An example of these ships are the **Shahid Rouhi** and the **Shahid Dara**.



Above: Tonder Class vessel

SHAHID NAZERI- An Iranian-developed vessel with a catamaran configuration and a 55-meter aluminum hull that officially entered service in 2016. According to Iran, its max. sailing range is 5,400 nautical miles and its max. speed is 28 knots. Although the vessel is equipped with a helipad and is estimated to carry about 100 soldiers, it is unclear what armament, if any, it carries and whether it is operational.



Above: the SHAHID NAZERI



SHAHID SOLEIMANI CLASS CORVETTE- A new model of missile ships (corvettes) that recently entered IRGCN service and are considered the most advanced built in Iran to date. Like the Shahid Nazari, this model was built mostly of aluminum in a catamaran configuration. According to statements by senior Iranian officials, the ship has certain stealth capabilities, which are supposed to make it difficult to detect and damage it.

The length of the ship is 65 meters. Various reports claim that it can reach a max. speed of 32 knots. Another prominent feature is the long sailing range declared by Iran – 5,000 nautical miles. This model, launched in September 2022, has the ability to launch a wide range of cruise missiles, anti-ship missiles and anti-aircraft missiles and is evidently capable of carrying a great deal of armament (see photo).

In addition, these ships are equipped with observation and intelligence gathering systems above and below water, advanced radar and air defense systems, a helipad and the ability to launch speedboats.



Above: The first "Shahid Soleimani" vessel (FS313-01)

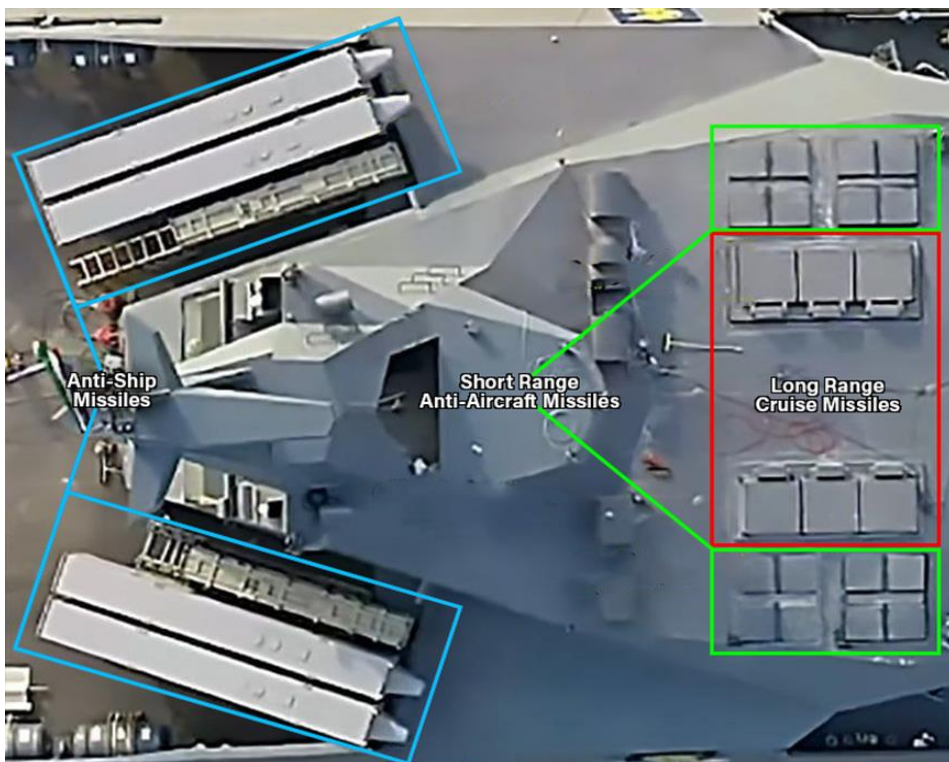
So far, three ships of this type have entered service – Shahid Soleimani (FS313-01), Hassan Bagheri (FS313-02) and Sayad Shirazi (FS313-03). Another ship, the Rais Ali Delvari (FS313-04), is under construction and will enter service in the future.



In the picture: “Shahid Shirazi” (FS313-03). A radar array was installed on this ship, apparently in order to improve the ability to create an image of the situation around the ship.



In the picture: Unloading of a speedboat using a crane from a hangar at the stern of the ship



In the picture: Deployment of launchers on “Shahid Soleimani” type ships- 16 vertical launchers (outlined in green) contain short- and medium-range anti-aircraft missiles. 6 vertical launchers (outlined in red) contain cruise missiles. 6 horizontal launch canisters (outlined in blue) contain anti-ship cruise missiles, possibly Noor/Kader/Qadir/Nasir.

SHAHID ABU-MAHDI AL-MUHANDES CLASS

Another type of missile ship that was developed in Iran. The vessels of this class, the first of which was launched in early 2024, are similar to the Shahid Soleimani model but smaller. They are 47 meters long and can reach a max. speed of 36 knots. Their declared max. range is 2,000 nautical miles and it is clear they have fewer capabilities in terms of weapons, boat launch ability, duration at sea, and so on. Furthermore, the existing helipad is unsuitable for helicopters and appears to be designed for various UAV vertical takeoffs (VTOL).

In terms of offensive capabilities, these vessels have six Noor family missile launchers and eight more launchers, which appear to be for Kosar missiles. In addition, these ships are armed with 20 and 30-mm cannon.

The IRGC plans to acquire a number of these ships in the coming years.



Above: The first Shaid Abu-Mahadi Al-Muhandes class ship (PC313-01). In the last picture you can see how the missile launchers are deployed on the ship.

Fast attack crafts

In addition to patrol and missiles boats, Iran has numerous types of fast attack crafts. Some are manufactured in Iran but are based on civilian models adapted for military use or on boats built in other countries.

Zulfikar, Siraj, Tareq, and Ashura are all based on speedboats built in England, Sweden, and North Korea. These vessels, which are intended to be used as part of the Iranian swarm tactics, can reach speeds of 50-70 knots and are outfitted with a variety of weapons such as machine guns, rockets, anti-ship missiles, anti-aircraft missiles, torpedoes and mine deployment capability. Their compact size, maneuverability, and fast speed ought to increase crew and boat survivability while compensating for the lack of defense equipment.

In addition to the use of manned boats, Iran is engaged, since the 1980s, in the development and production of remotely manned explosive boats. The IRGCN deployed these vessels, which can contain several hundred kg of explosives, throughout the Arabian Gulf, adding a crucial layer to Iran's defense capabilities. According to various estimates, Iran possesses about 1,000 unmanned vessels of diverse sizes and capabilities. These vessels, or at least the technology and know-how to make them, were also given to Hezbollah in Lebanon, the Houthis in Yemen, and other Middle Eastern proxy forces (Hamas in the Gaza Strip attempted to operate unmanned vessels, and Hamas in Lebanon also have some vessels).

The efficiency of this strategy was demonstrated in January 2017, when a Houthi unmanned boat struck a Saudi destroyer off the coast of Yemen. Other instances of the potential inherent in these vessels can be seen in Ukraine's operations against Russian ships and targets as part of the war between them.

In addition to missile-carrying, patrol, and attack vessels, the IRGCN operates auxiliary ships, shallow water patrol boats, landing crafts, hovercrafts, minesweepers, and other vessels. These are intended to provide support in carrying out the IRGCN's primary missions.



Above: Zulfikar speed boats



Above: A swarm of RIB boats (Semi-Rigid Boat)



Above: Ashura boats armed with a rocket launcher and cannon (Left) and a naval mine (Right)



Above: A Tarek type vessel



Above: MIL-40 type vessel



Above: Siraj type vessel



Above: Activating a swarm of speedboats during an exercise

FAST ATTACK VESSELS OF IRAN'S REVOLUTIONARY GUARD CORPS NAVY

 Ashura	 Zulfikhar	 Tir II (IPS 18)
 MIL-40	 RIB-33	 Azarakhsh
 Taregh	 Seraj	 Tondar

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Appendix B: Submarines

Iran has a relatively extensive submarine fleet, which includes several classes, and has been operated by IRIN for many years.

With the exception of three KILo-class submarines (PROJECT 877) purchased from Russia in the 1990s, the majority of the Iranian fleet comprises of small and midget submarines designed for the conditions and sea depths found in the Arabian Gulf and the Strait of Hormuz. The primary aim of these submarines is to carry out missions linked to the defense of Iran's coasts and territorial waters, such as reconnaissance, minelaying, special forces deployment, and so on.

Over the past few years, as part of the IRGC's general buildup, it appears that the IRGCN has also begun to operate submarines as well as underwater vessels for transporting combatants.

Ghadir- A small submarine 29 meters long manufactured in Iran. This model, which entered service in 2006, is believed to be based on the YONO MS-29 class submarines originating in North Korea. These submarines have diesel-electric propulsion and, according to Iranian claims, can dive to a maximum depth of about 200 meters. However, their endurance appears to be relatively limited. According to various sources, the max. range of the Ghadir in dive mode is 55 nautical miles and 550 nautical miles when sailing on the surface.

Their primary functions include minelaying, dispatching special forces and reconnaissance. They are outfitted with two 533mm launch tubes from which torpedo, cruise, and anti-ship missiles can be fired. Because of their diminutive size, they can only carry two missiles and so have limited offensive capabilities. Various videos published by the IRGC demonstrate that these submarines can launch Jask-2 cruise missiles.



Above: The Ghadir submarine

Fateh- A semi-heavy submarine manufactured in Iran that entered service in 2019. The Fateh submarine is 48 meters long, equipped with diesel-electric propulsion and has a declared max. diving depth of 250 meters (operating depth is 200 meters). According to various estimates, the Fateh's cruising range is about 4,000 nautical miles and it is able to stay at sea for about a month.

Like the Ghadir submarine, Fateh also has the ability to lay mines, carry special forces and launch torpedo and cruise missiles. The size of the Fateh allows for the installation of four 533mm launch tubes as well as the ability to carry out additional loading of munitions, which does not exist in Kadir.

It is important to note that Iran's construction and development of submarines is no small achievement. Although at this stage it is mainly the copying and production of small and relatively unadvanced submarines, however, their production lays the foundations – in terms of industrial infrastructure, engineering knowledge, manpower training, etc. – that will be used for the construction of larger and more advanced submarines in the future.

Al-Sabehat- An underwater Swimmer Delivery Vehicle (SDV) manufactured in Iran and used by IRGCN Special Forces. This vessel is mainly used to carry out operations near the coast, such as reconnaissance missions, sabotage, intelligence, attacking ships and ports, etc.

Another major function of this vessel is the minelaying and transport of combatants. It is also likely in the use of Hezbollah as well.



Above: The Fateh submarine



Above: The underwater Swimmer Delivery Vehicle (SDV) the Al-Sabehat

e-Ghavasi- An SDV manufactured in Iran. Entered service with IRGCN in the early 2000s. Like Al-Sabehat, this vessel is capable of performing various missions and carry mines, but its range is shorter, and its weight capacity is lower. It is unclear whether it is still used in its original configuration.

Various reports indicate that there is a possibility that these and similar vessels serve as a platform for the development of unmanned underwater vessels (UUV) that can be used to attack port ships, rigs, etc..



Above: The underwater Swimmer Delivery Vehicle (SDV) the e-Ghavasi

SUBMARINES AND SWIMMER DELIVERY VEHICLES OF IRAN'S REVOLUTIONARY GUARD CORPS NAVY

The collage features four distinct images of Iranian naval assets. Top-left: A white and black Al-Sabehat 15 Swimmer Delivery Vehicle (SDV) on the water. Top-right: An e-Ghavasi SDV on a trailer with crew members. Bottom-left: A large black Fateh submarine at a dock. Bottom-right: A green Ghadir Swimmer Delivery Vehicle (SDV) on the water with crew members. The collage includes the IRGCN logo and the Iranian flag.

Al-Sabehat 15

e-Ghavasi

Fateh

Ghadir

Alma Research and Education Center

Appendix C – Missiles, torpedoes, mines, unmanned boats and loitering munitions

Anti-ship missiles and cruise missiles

The IRGC fleet operates several anti-ship missiles with varying ranges launched from a variety of platforms. These are mainly different variants of Chinese-made missiles that Iran has modified and improved over the years, giving them different names. It should be noted that identifying the IRGC's weaponry systems, as well as their precise capabilities and operational levels, is challenging. This is caused, in part, by Iran's regular use of media warfare and deception to praise its capabilities and successes to generate deterrence. Furthermore, Iran frequently uses the same name for multiple weapons systems, or, in the opposite scenario, uses several distinct names for the same weapon system, showing it as a fresh or advanced weapon. Furthermore, the information Iran chooses to disclose regarding its military systems is not always reliable, to say the least.

Following are the main types of missiles operated by the IRGCN:

Kowsar- An anti-ship missile manufactured in Iran and based on a Chinese source (probably the C-701/FL-10). The missile, equipped with a warhead weighing 29 kg, was manufactured in several versions, and can be launched from different platforms. It has a range of 15-25 km and optical or radar-based guidance systems.



Above: anti-ship missile – Kowsar

Zafar- A short-range anti-ship missile manufactured in Iran and launched from a variety of platforms. The missile, which entered operation in 2012, carries a warhead weighing 30 kg and has a maximum range of 25 km.



Above: Anti-ship missile – Zafar.

Nasr- An anti-ship cruise missile manufactured in Iran but is based on a Chinese source (probably C-704). The missile has a range of 35-40 km and a warhead weighing 150 kg. Iran has produced several versions of the missile equipped with various guidance systems, which can be launched from naval and land platforms. Another version that seems to have been developed on the basis of this missile is the Jask 2, which can be launched from the Ghader and the Fateh Submarines.

Various videos released by Iran show that the launch of the Jask from a submarine is carried out in two stages. First, an independent-propulsion capsule is launched from the submarine, and in the second stage, after a few hundred meters, the missile ejects itself from the capsule and out of the water.



Above: The capsule with which the Jask is launched from submarines.

Nasir- A later version of the Nasr, with a range of over 100 km, was introduced in 2017. In this version, changes and improvements were made, among other things, in the propulsion system as well as in the guidance and homing system. In this case, too, it appears that the Iranian design was based on a Chinese source, probably the C-705.



Above: Anti-ship missile the Nasir

Noor- An anti-ship missile based on the Chinese C-802 and manufactured in Iran under license. The missile has a warhead weighing 165 kg and a range of 30 km. Over the years, changes have been made to it that extended its declared max. range to about 200 km and improved its guidance and homing systems. The missile can be launched from sea, air and land platforms.

Qader- An upgraded version of the Noor with a range of 200 km and a warhead of 200 kg. Unveiled in 2011. The Qader, like the Noor and Nasr, can be launched from a variety of platforms.

Ghadir- An anti-ship missile with a declared range of 300 km revealed in 2014. The missile is based on launch platforms identical to those of other Iranian-made missiles, making it very easy to install. It appears the Ghadir shares many characteristics with the Noor and Qader, including GNSS and INS-based navigation, but information regarding its performance is uncertain.



Above: the anti-ship missiles Ghadir (Right) and Noor (Left).

Raad- An anti-ship missile manufactured in Iran but is based on a Chinese source belonging to the SILKWORM family. The Raad, which entered service in 2007, has a declared range of 350 km, radar guidance and a warhead weighing 450-500 kg.



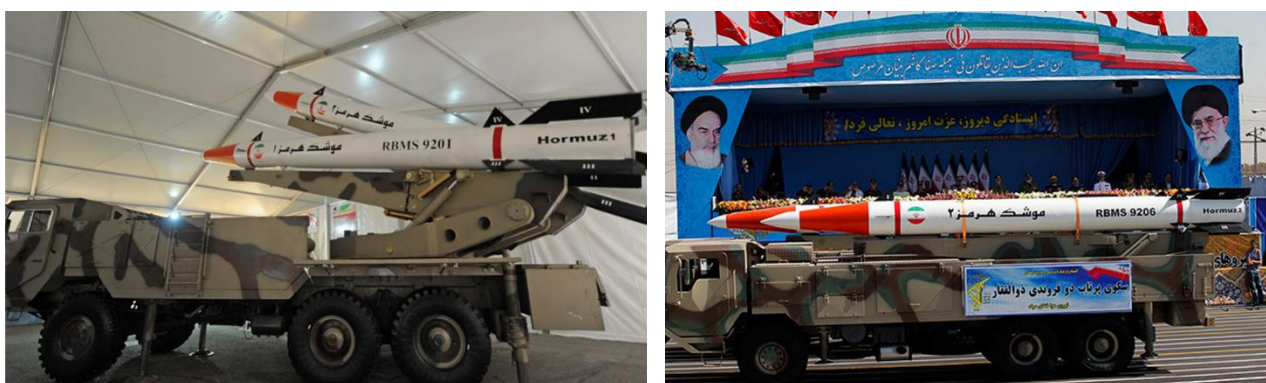
Above: The Raad missile

Khalij fars- A solid-fuel anti-ship ballistic missile based on the Fateh 110 or Fateh 313 missile. The missile, introduced in 2011, has a declared range of 300 km and a warhead weighing 600 kg. The navigation system is apparently inertial (INS) and he is equipped with an electro-optical seeker for terminal guidance.



Above: The Khalij Fars missile.

Hormuz- An anti-ship and radiation ballistic missile that was first introduced in 2014 and is another derivative of the Fateh 110. Hormuz has the same stated range and warhead as the Khalij Fares. It seems that the main difference between them is a radar-based seeker. A more advanced version of the missile, called Hormuz 2, was introduced in 2017. The missile can be launched from different platforms.



Above: the Hormuz 1 missile (Left), Hormuz 2 missile (Right).

Zulfiqar Basir- A single-stage, solid-fueled anti-ship ballistic missile. This naval version of the Zulfiqar ballistic missile, introduced in 2020, is seemingly equipped with an electro-optical seeker, warhead weighing 580 kg and an integrated navigation system (INS and GNSS).



Above: a Zulfiqar Basir missile (the missile in the foreground).

Soumar- An Iranian-made anti-ship cruise missile, apparently based on the Russian Kh-55. The missile, presented in 2015, has an estimated range of 1,000 km, but unlike the Russian missile, which was designed to be launched from the air, the Iranian version was adapted for launching from ships and from the ground.



Above: the cruise missile Soumar.

Hoveyzeh- This missile, introduced in 2019, is apparently a more advanced generation of the Soumar. However, its stated range is 1,300 km.



Above: The cruise missile Hoveyzeh.

Shahid Abu Mahadi- An anti-ship cruise missile introduced by Iran in 2020 and entered service in 2023. Iran has not published much information about it, but it is apparently the naval version of the Hoveyzeh missile and is apparently radar guided. Several Iranian sources claimed that the missile had a range of 1,000 km, but this was not confirmed by other sources. There are also several conflicting reports regarding the warhead's weight.



Above: The Shahid Abu Mahadi cruise

Qader 474- A cruise missile that Iran announced its existence in 2023. Iranian sources claim that missiles of this type, with a range of more than 2,000 km, have already been installed on Shahid Soleimani ships. To date, however, no photos of the missile or other data regarding its performance have been published.

Torpedo missiles:

Hoot- An Iranian manufactured torpedo, apparently a replica of the Russian Shkval (VA-111 Shkval). Although there is not much information about the Hoot itself, based on the known data regarding the Russian source, it can be estimated that it has a range of 6-11 km (depending on the version), a warhead of about 200 kg and a maximum cruising speed of 350-400 km/h. Similar data was presented in a test conducted by Iran in 2004. However, in our assessment, there is doubt as to the IRGCN's submarines ability to carry and launch the Hoot/Shkval due to its size and weight.



Valfajar- An Iran-made torpedo based on a North Korean torpedo (likely the PT-97W). This model was originally launched in 2011, becoming operational in 2015. The Valfajar has an estimated 14-kilometer range and a 225-kg weight warhead. Although various recordings of the torpedo launch have been published over the years, there is no additional information on its capabilities or the types of submarines that can launch it.

Iran apparently developed another torpedo called Miad, but no information is available at this stage.



Above: A Valfajar torpedo.

Naval mines:

Iran deploys a variety of naval mines as part of its asymmetric warfare strategy. These allow for hitting enemy ships and submarines, as well as blocking maritime areas and shipping lanes, while reducing the risk for IRGC combatants and maintaining Iran's capacity for ambiguity and denial. Iran previously imported naval mines from China, Russia, and North Korea, but now manufactures many of its own. Furthermore, throughout time, Iran has been able to improve and change the diverse mines, as well as create new systems. The majority of Iran's mines are static mines, which are attached to the seabed and are spread at various depths. These mines are fitted with a variety of activation mechanisms, including pressure, acoustics, electromagnetic, and even optical systems.



Above: A Maham 2 mine.

Iran also owns more modern EM-52 mines. These mines, which contain a 30 kg warhead, are deployed on the seabed and are propelled upwards toward the target ship.

Iran and its proxies also commonly utilize leech mines, which are attached to ships by divers. According to multiple sources, Iran has employed these types of explosives in several incidents in recent years, causing damage to ships sailing in the Strait of Hormuz.



Above: a Mahan 1 mine
(Image credits: tradoc)



Above: a Mahan 3 mine
(Image credits: tradoc)



Above: limpet mine



Above: M-08 mine.



Above: Iranian-made loitering naval mine.

NAVAL MINES IN POSSESSION OF THE IRANIAN REVOLUTIONARY GUARD CORPS NAVY

M-09 Mine

Limpet

Unmanned Naval Mines

MAHAM 1

MAHAM 1-2

MAHAM 1-3

02A2

01 & 02

Underwater Loitering Munition

Sadaf

Mersad

Sadaf 2

Underwater Loitering Munition

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Remotely controlled vessels and loitering naval munitions

In recent years, Iran, particularly the IRGCN, has begun to develop and promote the employment of remotely operated vessels (both above and below water) and underwater loitering munitions systems (loitering UUV - Uncrewed Underwater Vehicle).

Iran is attempting to transfer such systems and instruments to organizations it supports, the most prominent of which are currently the Houthis in Yemen. Iran has given various maritime weapon systems to the Houthis over the years, as well as knowledge and specialists, and has helped to create local production facilities for these systems.

Explosive motorboats

These are usually simple boats that have been converted so that they can be controlled remotely. They are considered a relatively inexpensive and simple means of assembly and operation, and their purpose is to collide with ships, ports, infrastructure, etc.

These boats are equipped with cameras, GPS and navigation computers and are operated by simple radio communication. They can carry 150-500 kg of explosives (depending on the model) and inflict extensive damage on targets they hit. Another option that has already been used is the use of a ready-made warhead that has been dismantled from a missile and mounted on the motorboat.



Above: Remote-controlled Tufan explosive boats used by the Houthis.



Above: Remote controlled Shark 33 explosive boats used by the Houthis.

An infographic titled "IRAN'S EXPANDING MILITARY INFLUENCE" with a subtitle "Captured Explosive Boat SHARK-33 OVERVIEW". It features the Iranian flag on the left. The central image shows a Shark 33 boat on a trailer. Surrounding this are several inset photos of internal components, each with a label and a red arrow pointing to its location on the boat: "GPS Antenna and Heading Sensor" (top left), "Throttle Controls" (top right), "Pan/Tilt/Zoom Camera System" (middle left), "STYX Warhead" (bottom left), "Fuze Plate" (bottom center), "Hydraulic Steering Pump" (bottom right), and "Guidance Computer" (bottom right). A map of the Persian Gulf region is visible in the background.

Above: The Shark 33 boat captured by Western coalition forces (bottom photo credit: US Department of Defense).

Loitering naval munitions

These weapon systems function as a type of independent torpedo, capable of reconnaissance and intelligence collection while also being utilized to attack boats. At this point, not a lot is known about Iran's existing systems, including launch platforms, guidance and homing methods, range of operation, and other details.

Based on the available information and an examination of similar systems, it can be determined that these means are intended to move silently, slowly, and over a long period of time. However, we believe that the ability to acquire targets, homing, and navigation is quite limited, allowing operation mostly against static objects (ports, anchored ships, rigs, etc.). Despite these limits, it is clear that these means can inflict severe damage in the event of an incident.



Above: Iranian-made loitering naval munitions (top: unidentified, presented in early 2022 below: Nasir 5).

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