

Maritime military potential of the Islamic Republic of Iran

An unfavourable series of events over the past few years for the Islamic Republic of Iran (IRI) has left the country once again isolated and its international standing weakened. Iran's current problems are largely the result of the collapse of the 2015 Joint Comprehensive Plan Of Action (JCPOA) regime, an international agreement designed to resolve the crisis surrounding Iran's nuclear program. The de facto end of the agreement

came in 2018, when the United States decided to unilaterally terminate it. Washington additionally imposed extensive economic and financial sanctions on Iran, which contributed to a sharp deterioration in the - already poor - condition of the Iranian economy. The dramatic course of the COVID-19 pandemic was also an additional problem for Iran, as were rising tensions with Saudi Arabia, Israel and the US (especially after the American elimination last January of Gen. Ghasem Solemani, commander of Iran's *Ghods Force*). The failure of the JCPOA deal, which was intended by the pro-reform government of IRI President Hassan Rowhani to be a remedy for the country's economic problems, significantly undermined the position of both Iranian reformers and the regime as a whole. An additional blow to the IRI authorities came with - announced in the summer of 2020 - the establishment of diplomatic relations between Israel and several Arab states.

The Iranian regime's response to the difficulties took the form of a tightening of its rhetoric and propaganda message, as well as a strengthening of repression (already strong after the 2019 wave of civil unrest) against any manifestation of opposition. Intensifying the demonstration of the state's military strength has also become part of Tehran's new strategy. In addition to further tests of new types of ballistic missiles and information on the deployment of new armaments, military manoeuvres, often on a large scale, play an

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important role. Given Iran's geographic location and geopolitical interests, naval force manoeuvres are of particular importance. In 2020, despite the pandemic, more such military readiness tests were conducted than even a year earlier. The most spectacular manoeuvres took place in August 2020. These exercises, involving naval forces of the Islamic Revolutionary Guard Corps (*Sepah-e Pasdaran*), culminated in a spectacular operation to sink a giant mock-up of a US aircraft carrier. Although grotesque in its form, the action carried a powerful propaganda message.

Iran's military potential at sea - a story about two battle fleets

As a maritime state, Iran attaches very high importance to the operation and development of its naval forces. At the same time, however, it is one of the few countries in the world that has two separate navies, with different status, nature, operational tactics and operational responsibilities. In addition to the IRI Navy, which is part of the country's regular armed forces, there is also a naval component of the Islamic Revolutionary Guard Corps. The two Iranian navies differ not only in the equipment they possess or the scope of their operational tasks, but also in the degree of trust from the regime. This parallel organizational system of Iran's armed forces is intended to prevent any potential threat to the stability of the IRI's power and regime from the military. The founders of Islamic Iran decided to minimize the risk of a military coup scenario by duplicating the structures, forces and resources of the state's military (as well as security services), while at the same time inscribing rivalry and a high degree of mutual distrust into their operation.

Iranian navies - terms of reference and areas of operation

Over more than three decades of coexistence, however, the two Iranian navies have developed a kind of informal code of interaction that allows them to avoid excessive tensions and rivalries. This is primarily due to the different tasks assigned to each of these formations by political and military decision-makers. Moreover, in 2007, on the occasion of the reform of the IRI's organizational structure of the armed forces, the territorial areas of responsibility of the two fleets were clearly separated, allowing the command communication and control systems of the two formations to be streamlined. The IRI Navy currently operates almost exclusively in the Caspian Sea, the Gulf of Oman and the Arabian Sea. However, its submarine fleet is also authorized to patrol the waters of the Persian Gulf, which in turn is under the operational responsibility of the *Pasdaran's* naval component. Such an arrangement should not come as a surprise - the Persian Gulf is a body of water of

exceptional strategic importance to Iran's interests in the region, and submarines are an important military asset in Iranian hands. Formally, the areas of responsibility of the two Iranian navies overlap in only one place - the Strait of Hormuz. It is worth noting that Iran's Navy also has the right to operate - as a regular navy of an internationally recognized state - in all open sea areas of the world.

However, different tasks and competencies, different tactics and *modus operandi*, as well as different areas of responsibility - all of this does not prevent the two Iranian navies from cooperating in their operations. Especially at a time when the survival and future of the Islamic republic is once again at stake.

According to IRI authorities, the regular navy is tasked with upholding the territorial integrity of the state (working in tandem with other armed forces), protecting the country's maritime borders and defending freedom of navigation in its territorial waters. Its task is also to protect the interests and security of the state's resources and citizens in adjacent maritime areas.

The *Pasdaran's* naval component, like the Revolutionary Guard Corps as a whole, has much more ideological and politicized tasks at the strategic level - for its primary role is to defend and perpetuate the regime and political system of the Islamic republic, as well as to carry out tasks related to promoting the *Shiite* Islamic revolution and fighting its enemies. The latter aspect translates into objectives pursued at the operational level, the most important of which is the containment and, if necessary, destruction of "enemy naval forces" operating in the waters of the Persian Gulf, the Gulf of Oman and the Strait of Hormuz. Keeping abreast of media reports, it is not difficult to see that, in the first instance, the Iranians include U.S. Navy units among these hostile forces.

Iranian navies – modus operandi

Such a far-reaching difference in the tasks posed to the two Iranian navies has an impact on their completely different nature and mode of operation. The IRI Navy is a classic naval military formation, operating according to conventional rules characteristic of this type of structure. This translates into the way its ships operate in international waters. Even the Americans emphasize the fully professional and rule-compliant, including customary, manner in which the crews of Iran's naval ships behave at sea. It is worth remembering, by the way, that the IRI's regular navy is perhaps the last of the country's military formations, cherishing in its style of operation and *esprit de corps* the remnants of the old ethos of

Iran's imperial armed forces before the Islamic Revolution. This, moreover, is one of the reasons for the regime's relatively lower confidence in this formation and the reason for the reluctance on the part of the *Sepah's* more "revolutionary" navy.

The situation is quite different for the *Pasdaran's* naval component. The Islamic Revolutionary Guards Corps was formed during the 1979 Islamic Revolution in a wave of religious zealotry by supporters of *Shiite* theocracy in Iran, and to this day the formation remains one of the most important military arms of the regime. The Corps includes both a land, air and naval component. Since its inception as an organizationally separate structure (1985), the *Pasdaran* battle fleet has been characterized by carrying out brutal paramilitary activities, often completely illegal from the point of view of the law of the sea (e.g., violating the freedom of navigation in international waters, mining sea lanes). Also today, the actions of the maritime component of the Corps are characterized by extremely high aggressiveness, total unpredictability and negation of the legal (formal and customary) rules of conduct of naval military forces, especially in international waters.

The basic modus operandi of *Pasdaran* naval forces is the so-called swarm tactic - that is, the use of small, agile gunboats in large numbers, simultaneously attacking a selected target (ship or vessel) from multiple sides. Contrary to appearances, this is an effective tactic, and when skilfully employed can seriously threaten even a large and modern warship. The strength of this asymmetric way of fighting is the sheer number of boats (as a rule, going into tens or even hundreds). Their small size and high mobility, making them difficult to combat even for modern self-defence systems mounted on modern warships. The determination of the crew members of these boats, bordering on religious fanaticism and willingness to sacrifice their own lives as martyrs (*shahids*), is also not insignificant. The tactics of the *Sepah's* asymmetric naval operations have been meticulously developed based on years of experience, and are constantly rehearsed in a wide variety of tactical variants, with the aim of further increasing their effectiveness

The actions of the *Pasdaran* battle fleet - especially on the open sea - more closely resemble those of pirates than those of classic armed forces. For this reason, naval *Pasdarans* are dangerous both to the navies of other countries and to civilian shipping.

Iranian navies - forces and resources

The nature and operation of each of these formations is influenced by the equipment and armaments they use. The IRI's regular Navy has a mix of surface and submarine vessels,

typical of the navy of a medium-sized coastal state. According to available data, the Iranian Navy currently has more than a hundred different types of ships and support vessels. Nominally, the greatest operational value and combat power is presented by three Russian *Kilo*-class conventional strike submarines (Iran's *Taregh* project), capable of firing Hoot-type supercavitating torpedoes (an Iranian copy of the Russian *Shkvaly*), and eight frigates and corvettes, equipped with, among other things, air defence missile systems and Nasr-type anti-ship cruise missiles. However, the latest information suggests that all *Taregh*-type ships have serious technical problems, which even led to their removal from service late last year, due to urgent repair needs. Currently, their operational status is unclear, and it is assumed that at least two of them are still stuck in dry docks.

The problems with the *Taregh* proj. ships highlight the fundamental weakness of the IRI's Navy, which is the advanced age (and thus significant wear and tear) of many of its ships. Most of the most valuable ships of Iran's regular navy are at the same time old vessels with decades of service behind them. This applies, for example, to the three *Alvand*-class frigates (British Vosper project), purchased by Iran from the UK back in 1971-72. Overall, the average age of the vessels in service with the IRI Navy is more than 40 years. A peculiar record-breaker in terms of age is the corvette *Hamzeh*, launched in 1935 as a luxury yacht for the then Shah of Iran Reza Pahlavi, and converted to a combat ship in 1956. The age-old equipment of the IRI's Navy means that its operational capabilities are severely limited, and its actual forces and resources are far smaller than those shown in equipment status lists. The problem is exacerbated by the fact that Iran, due to international sanctions, has no way of legally obtaining spare parts for its armaments, which significantly hinders overhauls and repairs.

The exceptions in this regard are those weapons systems that are entirely developed in Iran. In the case of the IRI's Navy, these include the *Ghadir*-class miniature submarines. They are considered the most dangerous ships in the Iranian Navy's arsenal. Their flotilla already numbers at least a dozen (and, according to some sources, as many as 20). Modeled on North Korean Jono-type platforms, these vessels are designed to operate in the shallow waters of the Persian Gulf (where maximum depth reaches about 100 meters), or the slightly deeper Gulf of Oman. Their primary advantage is their small size and their ability to stay submerged at rest and "dormant" on the bottom of a body of water for up to a dozen hours, making the possibility of tracking them significantly more difficult. They are armed

with Iranian heavy conventional torpedoes of the *Walfajr* type, but also with much more dangerous armaments - self-launching anti-ship missiles of the *Jask-2* type and supercavitating *Hoot* torpedoes. The ability to fire *Jask-2* missiles from *Ghadirs*, which are fully submerged, was demonstrated by the Iranians to the world in 2019 during the "*Welajat-97*" manoeuvres. Although the *Jask-2* has a short range (about 20 km.), due to the *Ghadir's* original operational tactics and the geographical realities of the Persian Gulf and the Strait of Hormuz, the missile is a very dangerous weapon.

Equipment shortages and the age of the IRI's Navy ships go hand in hand with the peculiar bad luck that has been haunting the formation for several years. In 2018, the *Damavand* frigate, the flagship of Iran's Caspian Fleet, which had been launched just three years earlier, sank after a collision with a jetty. In turn, last May, during naval manoeuvres, the *Konarak* support ship was mistakenly hit by a missile and was completely destroyed. In early June this year, the largest supply and logistics ship of the Iranian regular fleet, the *Charg*, sank for reasons that are not fully explained. This is a very painful blow to the IRI's Navy, for the *Charg* was an indispensable element of any Iranian flotilla venturing into further waters (Indian Ocean, Southeast Asian seas). Now the much smaller *Makran*, taken into service only in January 2021, has been promoted to the rank of the largest (and main) ship-supply base of the IRI's Navy.

The *Pasdaran* navy, on the other hand, is a largely unconventional formation in terms of its equipment. The largest combat units in its arsenal are ten large (displacement of about 200 tons) *Houdong*-type (Chinese-made) missile boats, which Iran acquired in the late 20th century and renamed *Tondar*. The arsenal of the *Sepah's* naval component also includes dozens (30+) of medium-sized (average displacement of about 80 tons) patrol boats of various types and origins; however, these are mostly designs that are already well advanced in age and have equally obsolete armaments.

Due to the tactics used in naval operations, the basis of the Revolutionary Guard Corps' combat fleet consists of small motorized gunboats of various types and sizes, with a wide variety of armaments. Out of the approximately 1,500 (some sources mention as many as 5,000) units of this type on the equipment of the *Pasdaran's* naval component, the vast majority are small, fast motor boats manned by two or three crew members. These boats, are most often equipped with multi-tube (11 tubes) launchers of unguided missiles of the BM-12 type, 107mm calibre, and large-calibre 12.7mm machine guns. However, the

arsenal of the *Pasdaran's* naval component does not lack small, flat-bottomed speedboats, whose armament consists exclusively of the HMG or even only of hand-held machine guns and anti-tank weapons (classic anti-tank grenade launchers) in the hands of its crew. Due to the geomorphological shape of the Persian Gulf coast and its coastal waters, however, these types of speedboats are ideal for the covert transportation of people and cargo, as well as, for example, the laying of anti-ship mines in waterways. For the latter purpose, the *Pasdars* also use traditional sailing fishing boats (*dau*), which are still popular in the region.

Nowadays, however, the *Pasdaran* fleet's greatest asset is its dozens (and, according to some sources, already more than a hundred) of modern light combat boats, made of composite materials and equipped with powerful engines, providing these units with great speed and manoeuvrability. These boats - of the *Torgah* and *Seraj-1* classes - are based on design solutions copied from Western motor sports boats: the Swedish *Boghammar Marin* and the British *Ice Marine Bladerunner*. These vessels can develop speeds of up to 120 km/h and are characterized by high manoeuvrability, as well as reduced radar detectability. Although relatively poorly armed (a single HMG and a BM-12 launcher), they are a major asset in the resources of the *Sepah's* naval component.

A parallel type of high-speed gunboat being developed in the *Pasdaran* fleet is the *Pejkaap*, modelled on the North Korean IPS-16 chasers. The newest (and most numerous, about 30) in this class is the *Zulfikar (Pejkaap-3)* - a 16-meter-long, lightweight (made in part from fiberglass and composites) boat powered by two 2,400 hp engines, which allows to reach speeds of up to 150 km/h. Armament consists of two *Nasr* anti-ship missile launchers (range up to 30 km), two *Hoot* supercavitating torpedo launchers and two 12.7 mm cal. HMGs.

The Maritime *Pasdars* are also experimenting with more advanced technologies for surface means of conducting asymmetric warfare, such as unmanned platforms. Work on them is still in the experimental stage, but given Iran's considerable technological capabilities in drone construction and deployment, it can be assumed that within a few years such remotely piloted craft will enter service in the Corps' fleet. Paradoxically, this work on cutting-edge technologies within the *Pasdaran* naval force goes hand in hand with sustaining "capabilities" in suicide warfare. During every naval manoeuvre involving the *Sepah* fleet, scenarios involving suicide bombers (*shahids*) steering high-speed boats loaded with explosives are practiced.

In recent years, catamarans as platforms ideally suited for use in Iran's geographic realities also seem to enjoy special consideration by the *Pasdaran* naval component command. In 2016, the first unit of this type, the *Shahid Nazeri*, with a displacement of about 800 tons and a length of about 55 meters, equipped with a landing pad for a light helicopter, was put into service. This catamaran is mainly tasked with transport and logistics, carrying up to 100 passengers and several hundred tons of supplies over distances of up to 1,000 kilometers. On the other hand, earlier this year there were reports of the start of construction of three combat catamarans of a new class, named *Shahid Solejmani* in honor of the slain charismatic commander of the *Sepah*. Each of these vessels - about 70 meters long and with a displacement of up to 1,000 tons - is to have a helicopter landing pad, and will be armed with two anti-ship missile launchers (presumably *Nash*), a *Gatling* system rapid-fire cannon and two 12.7mm HMGs.

The *Pasdaran's* naval component has been supplied with more than just combat equipment in recent months. Last November, the *Pasdarans* received a new logistics and supply ship, the *Shahid Rudaki*. The primary purpose of this military-converted ro-ro cargo ship, with a displacement of about 4,000 tons and a length of 150 meters, is to provide greater mobility for *Pasdaran* naval forces. This may suggest that the formation has plans to undertake larger-scale operations outside its current traditional area of responsibility. Perhaps the *Shahid Rudaki* will become a floating forward operating base for the *Sepah*, like their other ship, the *Sawiz*, which permanently operates in Red Sea waters near Yemen and serves as a base for extensive reconnaissance, intelligence and sabotage operations.

Summary and conclusions

1. Iran's systematically deteriorating international situation is forcing the authorities in Tehran to take active measures to strengthen the defence of the country's interests and counter adverse geopolitical trends. In the arsenal of means available to the IRI authorities, the country's naval forces, both regular (IRI Navy) and those of the *Pasdaran Corps*, play an important role.
2. In the current situation around Iran, the role of the military factor is growing, hence the intensification of efforts to show the world the "military power" of the country. To this end, the IRI armed forces (including the naval forces) are conducting extensive program of exercises, with appropriate propaganda, as well as taking measures to increase their prestige and importance. The latter include, for example, sending a small flotilla of two ships

into Atlantic Ocean waters (for the first time in the IRI's history), presumably to deliver equipment and armaments to Venezuela.

3. Iran's two naval warfare formations - while not without equipment limitations and organizational weaknesses - do nevertheless have the potential to pose a serious challenge to even the world's major military powers. With Iran's strategic situation in the region deteriorating, the role of its two navies is clearly growing, especially in the Persian and Gulf of Oman and the Strait of Hormuz. This has resulted, among other things, in the IRI budget's projected significant increase in spending on these formations in the coming years. Most of this support is likely to go (as it has so far) to strengthening the capacity of the *Pasdaran* navy, as an important element in protecting the country's system of power.

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