WORKING PAPER



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The Caspian 'Black Hole' Soft Link in the Middle Corridor?

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"The Caspian reeks of blood."

— Saparmurat Niyazov,
April 2002

In the late 1990s, a defense attaché to one of the Western embassies in Baku admitted to me that the Caspian Sea remains an uncharted area, calling it a sort of "black hole." Indeed, at that already distant time, strategic planners from far beyond the region were mostly focusing on other geopolitical theaters, while the Caspian Sea, despite its key location and abundant energy resources, was seen as backwater where nothing much of significance happens. Meanwhile, the conditions for the region's strategic transformation were maturing steadily but largely under the radar.

The European War of 2022 has dramatically shifted the existing settings and balances elsewhere, including in the Silk Road region. Amongst the various ensuing strategic changes, we see the alteration of energy flows and transportation transit corridors connecting Asia and Europe. The Trans-Caspian International Transport Route (TITR), commonly known as the Middle Corridor, is emerging as one of the most vital pathways. That route stretches from East Asia to Europe across the entire continent—and the Caspian Sea is placed indispensably at its very center.

Such a turn of events highlights the duty of stakeholders to ensure security protection and—in the most extreme cases—to defend the Caspian theater's critical infrastructure

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and key assets. The continuously evolving geopolitical scenery could, in fact, result in the Caspian basin becoming the weakest link of the Middle Corridor—its security "black hole."

The objective of this IDD working paper is to identify the probable malicious actors in the region, evaluate their operational capabilities and tactical solutions, and assess the potential risks and threats in the maritime domain.

Caspian Theatre: Narrow Waters, High Stakes

The Caspian Sea—the largest landlocked aquatic reservoir in the world—is not a simple and easy water area. Its length from north to south nears 1,000 km, while the width is 435 km at the extreme point. The spatial dimension—some 370,000 sq. km—makes it a bit smaller than the Black Sea yet larger than the Persian Gulf. The sea has complex meteorological, hydrographic, and littoral environment. Five states—the Caspian Five or C5—share over 7,000 km of its coastline. The estimated proven and probable hydrocarbon reserves in the Caspian region are perhaps some 50 billion barrels of oil and some 300 to 360 trillion cubic feet of natural gas, both offshore and onshore (what respectively makes 3 percent and 7 percent of total global deposits). The legal status of the sea is still somewhat uncertain, despite the efforts of the littoral states to resolve their disagreements by signing the Convention on the Legal Status of the Caspian Sea in 2018. Finally, the Caspian Sea is an area in which an intensive naval arms race is taking place. All C5 countries, driven by security dilemmas and considerations of national prestige, are vigorously investing their oil and gas revenues into building up the sophisticated naval warfare capabilities.

That is the environment within which the Middle Corridor is being formed. Its existing, constructing, and projected architecture includes multiple components:

- Seaports with all associated substructures and facilities, including dry cargo terminals, oil jetties, and ferry railheads.
- Shipping lines of communications (SLOC), connecting those ports and vessels involved into navigation.
- An expanding road and rail network moving off into all directions.
- Underwater internet cables.

Yet, the concept of the Middle Corridor is not only limited to the transportation of commodities—it also has an energy dimension. The already existing Caspian oil and gas infrastructure would rapidly expand in a midterm perspective to meet the demand side of the changing geo-economic landscape.

Thus, the energy segment of the Corridor includes:

• Offshore oilfields and gas-fields (e.g., drilling rigs, underwater pipelines, and the auxiliary vessels fleet).





 Onshore infrastructure (oil and gas terminals and storage tanks, pipeline connectors, and other technical facilities).

Therefore, the centers of gravity of Corridor's infrastructural web will include:

- The "ATA Triangle"—the seaports of Alat (Azerbaijan), Turkmenbashi (Turkmenistan), and Aktau (Kazakhstan) and the SLOC connecting them.
- The existing offshore oil and gas-producing infrastructure in the Azerbaijani and Kazakh sectors.
- The offshore Dostluq oil and gas field shared by Azerbaijan and Turkmenistan, and the projected underwater pipeline(s) linking it to the major export pipeline networks originating in Azerbaijan (including the Southern Gas Corridor)—with the perspective addition of a full-size trans-Caspian seabed pipeline(s).
- The fiber-optic underwater cables between Azerbaijan, Kazakhstan, and Turkmenistan, a part of a wider network that would improve the provision of internet access and digital services for some 1.8 billion people in the Silk Road region and neighboring areas (e.g., parts of the Middle East and South Asia).

Undoubtedly, that well-defined and vast constellation of critical maritime infrastructure and valuable assets presents a clear challenge in terms of security, protection, and defense. Likewise, it provides the "bad guys" with quite a wide range of opportunities to exploit the probable vulnerabilities and loopholes in Middle Corridor's security system—which still needs to take shape. Lest we forget, any potential disruption of trans-Caspian supply chains would certainly cause effects far beyond the region. All this makes the Middle Corridor an even more attractive target for potential "spoilers."

Geopolitics: Duo vs. Trio?

Azerbaijan, Kazakhstan, and Turkmenistan are the main beneficiaries of the Middle Corridor, in addition to other transit states and end-users. Alternatively, Russia appears to be a loser of the rerouting, triggered by its disastrous engagement with Ukraine and the West. Iran—the fifth member of C5—remains besieged geopolitically, sanctioned internationally for a long time, and gripped by internal disorder recently; all this means that Tehran finds itself sidelined, if not deprived, from enjoying the benefits of the Middle Corridor. Objectively, the C5 is splitting in two groups—winners and losers.

This creates the preconditions for an antagonistic building of alliances. This is not yet the case; but the trend is clear enough to be examined carefully—especially since the evidence is mounting that Russia and Iran are indicating an acceleration along that track.

The European War and other international and domestic factors seem to be pushing Moscow and Tehran into forging a strategic partnership, driven by hardship and shared anti-Western sentiments. Beyond other spheres, it includes the formation of the so-called International North-South Transport Corridor, which would provide Russia access to the



Indian Ocean and the Gulf as well as Iran's entry into Europe. Formally, Azerbaijan is a part of the overland segment of the project; yet it appears that Russia and Iran recently decided to operate this corridor without a third wheel, so to speak, relying instead on their respective maritime communications and port facilities.

In addition, there is another paramount dimension: growing military cooperation between the two countries. Iran already supplies Russia with its primitive but deadly drones, and its intermediate-range ballistic missiles are reportedly in Moscow's wish list: there is a hope that Iranian "toys" will help to correct the Kremlin's failed course of action in Ukraine. In the alleged reciprocal move, Russia has promised to provide Iran with strike aircraft, air defense systems, and even nuclear technologies. In early December 2022, a high-ranking Russian military delegation headed by the country's Deputy Minister of Defense negotiated with the Chief of the Iranian General Staff in Tehran, while Iran's Deputy Chief of the General Staff met with the Russian Defense Minister in Moscow. The engagement of the General Staff possibly may be a manifestation of an upgrade of bilateral cooperation to the level of *operational coordination*.

Precisely what might the entente between these two powers mean for the Middle Corridor?

Two Corps of Concern: Pasdaran and Wagner

Warfare in most twenty-first-century theaters is usually waged both by state actors and violent non-state actors. The conventional interstate war scenario on the Caspian Sea involving Russia or Iran or both appears an unlikely option, at least given present circumstances. Similarly, the likelihood of terrorist attacks by violent non-state actors like Islamic State or Al-Qaeda remains quite low.

In the Caspian theatre, however, the primary matter of concern is violent *sub*-state actors. First, my own provisional definition of the subject. A violent sub-state actor is *an entity initially established by a state actor to perform distinct military or paramilitary missions that, over time, acquires political autonomy, non-restrained operational capabilities, and material self-sufficiency, all of which are exploited for the attainment of particular goals, objectives, and interests that are not necessarily in line with those of the state that established it. Sub-state actors can perform hybrid missions in the "shadow zone" at the behest of states, thus releasing them from direct attribution. Yet, strategic egocentricity fueled by a combination of politico-ideological visions and pragmatic considerations may provide substate actors with the incentive to operate outside of the lines of any government's policies. Both Iran and Russia own such sub-state entities—the Islamic Revolutionary Guards Corps (IRGC or <i>Pasdaran*), and the Wagner Corps (still dubbed as a group by inertia).

The Russian invasion of Ukraine enabled the rapid ascendance of the Wagner Corps and its fully-fledged transformation from a private mercenary company that operates largely





in the Middle East and Africa into a versatile warfighting entity. It currently deploys tens of thousands of fighters, appointed with heavy weapons and equipment, possessing combat aviation capabilities, and in control of extensive media networks and business structures. Its leadership clearly indicates own political ambitions. So far, there is no evidence of Wagner's control of naval assets or capabilities, although the presence of former frogmen (combat divers) in its ranks is an established fact. Neither does Wagner have a presence in the Caspian region at the moment—it is busy in Ukraine. However, it could potentially divert attention to the Caspian theatre—be it on the orders of a state actor or on its own initiative. Wagner's arrangement outside of the Russian legal framework makes it an ideal tool for operations below the level of overt war, including non-attributed or "false flag" attacks. Yet, for now, this remains more of a speculative rather than a mature threat.

Iran's Pasdaran Corps is a different story. First established in 1979 as a radical student vigilante group, it evolved over four decades into a state within a state. It is a truly multifaceted phenomenon; however, three dimensions are exactly relevant to the subject of this working paper. First, the IRGC maintains unconventional naval forces and has developed unconventional tactics, stemming from its past warfighting experience. Second, its leaders—those placed in the chain of command or occupying top government civilian positions—play factional games within the complexities of Iranian state structures and do not always coordinate their actions with the political echelon. The IRGC's strategic autonomy became more evident recently with the delivery to Russia of war supplies originating in Iran without having given a priori notice to the country's foreign policy establishment (Pasdaran controls the Islamic Republic's military-industrial complex). Third, the IRGC always was a prime mover behind Iran's militarized international behavior. Decades of war campaigns and covert actions abroad has shaped an unorthodox operational culture and institutional strategic thinking. The top representatives of *Pasdaran*'s "naval lobby"— Secretary of the Supreme National Security Council of Iran Rear Admiral Ali Shamkhani as well as Rear Admiral Ali Fadavi, the second highest commander in the IRGC's command hierarchy—are veterans of the Iran-Iraq War and of the "cat-and-mouse" confrontation games with the U.S. Navy in the Gulf.

All this brings us to examine more closely the capabilities and options of Pasdaran (and Iran's regime in general) within the framework of a conceivable yet hypothetical scenario of the use of force aimed at disrupting the functionality of the Middle Corridor.

Iran's Capabilities: Full House

Assessing Iranian naval capabilities is a tough task due to the country's odd national military organization, which is centered on its structural dualism. The Islamic Republic maintains two parallel forces—the aforementioned *Pasdaran*, which is a privileged entity, and the regular army (known as the *Artesh*). Both have their separate naval branches. The Caspian Sea is an area of responsibility of the Fourth





Naval Zone (aka. the Northern Fleet) of the *Artesh*, while the *Pasdaran* focuses on the Persian Gulf. However, the IRCG maintains its own naval presence in Caspian waters, too. Apparently, any contingency triggered by the IRGC would likely draw the regular navy into an escalation very soon. Hence, an analysis of capabilities should treat the two naval branches as a joint force.

Iran's Caspian Sea order of battle includes the following components:

- Conventional core. This consists of four fast attack craft armed with surfaceto-surface missiles with a range of up to 170 km (essentially, these are Iranian replicas of Chinese weapons, which are in turn clones of very effective French Exocet missiles). The total salvo is 16 missiles at once. Not exactly modern boats, but nevertheless dangerous. One indigenously built frigate will join the force soon, bringing the number of missile launchers to 20.
- *Light forces*. They are comprised of several dozen inshore speedboats armed with the antitank guided missiles, recoilless guns, and heavy machineguns. Some boats may be hard-to-detect semi-submersibles. That is the most dangerous component, as explained below.
- Submarines. This is an elusive subject, as sources differ in assessing whether Iran has the same midget submarines in the Caspian that it deploys in the Gulf. Iranian sources hint that it does. True it or not, it is not impossible to bring such subs from the Gulf by rail and then reassemble them on the spot. Suffice it to note that those submarines are of North Korean design. That country sustains proficiency in making such unconventional boats.
- Coastal missile forces. There are at least several mobile shore-based batteries of
 anti-ship missiles. The firing range of those weapons, built locally on the basis
 of Chinese licenses, is between 30 and 170 km. The latest types of these coastal
 missiles can hit targets as far away as 365 km, but it is not clear if they are present
 in the area.
- *Marine commandos*. Iran deploys a marine brigade (known as *Takavar*) in the Caspian theatre. Beyond other units, it embeds the combat swimmers groups. And the only Iranian training center of its naval special operation forces is located on the shores of the Caspian.

All of the above-mentioned assets are spread across five or six locations stretching along the coastline between Azerbaijan and Turkmenistan. The Caspian naval grouping can accept reinforcements with more small boats moved by rail or motor trailers. In addition, Air Force jet fighters and helicopters armed with air-to-surface missiles are able to redeploy from the south in case of contingency.

Iran's Options: Speedboats, Drones, Mines, Frogmen, and Cyber

Supposedly, the IRGC (and Iran's regime) has a variety of operational, tactical, and technical solutions in a hypothetical disruptive campaign against the maritime segment





of the Middle Corridor. A potential targets list could include ships operating on the sea lines of communications (SLOC); seaports; oil and gas offshore rigs; oil terminals and jetties; seabed oil and gas pipelines; and underwater internet or electricity cables.

The disruption of SLOC would be an utmost challenge, especially in a target-rich "ATA Triangle" (cargo ships, oil tankers, ferries, and port facilities) environment. The infamous "Tanker War" of 1980s in the Gulf illustrates clearly that Iran has been quite skillful and cunning in engendering disorder in the shipping business. The core of Iranian asymmetric naval warfare tactics is the use of swarming—a massive deployment of armed speedboats for hit-and-run attacks on commercial shipping. The mass, speed, coordinated maneuver, diverse avenues of approach, low radar signature pose the utmost challenge even for technically superior sophisticated Western navies, let alone unprotected merchant vessels. There is no need to sink a ship—just a fact of attack and a couple of holes from RPG shots in the hull could upset shipping activity in a given area and even drive up hydrocarbon prices, at least for a while. Moreover, speedboats are also quite effective for waterborne harassment against offshore rigs and onshore oil and gas installations. Disruption rather than destruction is a low-cost/high-benefit solution.

Potential anti-shipping activity in the Caspian theatre could not be limited to the small boats challenge only. The following case studies of previous Iran-related naval engagements and maritime incidents provide a glimpse into how the IRGC may apply other tactical and technical solutions:

- The Hanit case. In July 2006, a Chinese-designed C-802 anti-ship missile was launched from the Lebanese coast by Hezbollah and IRGC military advisors. It hit an Israeli Navy corvette (the INS Hanit) operating in the vicinity of Beirut. The ship was crippled but remained afloat, though four sailors were killed.
- The Cheonan case. In March 2010, a North Korean midget submarine torpedoed
 and sunk a South Korean Navy corvette (the ROKS Cheonan) in the Yellow Sea,
 killing 46 sailors. Iran has built a number of very similar submarines with North
 Korean assistance, and the depth of the southern and central parts of the Caspian
 Sea is suitable for submarine operations.
- *The Al-Madinah case*. In January 2017, the Yemeni Houthi rebels in the Red Sea struck a Royal Saudi Arabian Navy frigate (the HMS al-Madinah) with a remote-controlled explosive-laden boat devised by an IRGC engineering company. The damaged frigate was able to limp back to its home base.
- The Mercer Street case. In July 2021, an Iranian Shaheed-136 kamikaze drone operated by the IRGC hit a Japanese-owned oil tanker (the MT Mercer Street) off the coast of Oman, killing the skipper and another crewmember. It was interpreted as a retribution attack, in the typical IRCG manner, for Israeli air strikes in Syria.

Sea mines also pose a serious threat to shipping. Use of that weapon is one of the principal pillars of Iran's naval warfare doctrine. Both *Pasdaran* and *Artesh* have at their disposal a wide array of sea mines (i.e., moored, bottom and rocket-fused, activated by





contact, pressure, acoustic, or magnetic field). Thousands of such mines are available in existing stocks. Improvised minelayers disguised as merchant or fishing ships could covertly plant mines on SLOCs to create havoc.

Another disturbing pattern is the common Iranian practice of seizing merchant vessels by armed boarding parties under the pretext of legal violations of one sort or another. There have been dozens of such incidents in the past years in the Gulf.

When it comes to offshore oil- and gas-producing infrastructure, there are other options that can be exercised. Drilling platforms are high-visibility targets: "sitting ducks" exposed to missile strikes from warships or coastal batteries. The potential collateral damage (e.g., oil spills, ecological disaster) could be seen as a bonus benefit for the attacker. Raids by marine commandos is another tactic that Iran has practiced in the past.

The current seabed setup—pipelines, connectors, and cables—is also subject to potential underwater (scuba) attacks by combat swimmers. Iran has quite a professional and large frogmen corps. The innocently looking "mother ship"—again, disguised as a merchant or a fishing ship—may release a group of divers equipped with submersible delivery vehicles or rigid-hull inflatable boats in the vicinity of a target to place limpet mines on rig's mainstays or on pipelines. The concealment would provide a non-attribution cover for attacks—as was allegedly the case of the demolition of Nord Stream-1 and Nord Stream-2 in September 2022. That mysterious incident highlights the fact that seabed pipelines are quite vulnerable targets that are hard to protect due to their length and depth.

As a general rule, Iranians have proven themselves to be proactive and clever in quickly adopting new and emerging technologies. They already dispose of a wide range of unmanned aerial vehicles (UAV) for strike, reconnaissance, surveillance, and target acquisition missions in a maritime environment. Their Shaheed-type suicide drones are of special concern. So are the autonomous underwater vehicles (AUV) and unmanned remote-controlled surface crafts that Iran is reportedly building. The autumn 2022 Ukrainian-Russian naval engagements in the Black Sea demonstrates the effectiveness of that weapon. The last element to take into account is a cyber weapon. Any potential attack against critical infrastructure would almost certainly involve both a direct (kinetic) action and a cyber-strike.

Synopsis

- The shock wave of the European War had altered the geopolitical circumstances in the Caspian region.
- The rapidly shifting continental geo-economic dynamics raises dramatically the prominence of the Middle Corridor and of the energy projects in the Caspian basin.



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- The Caspian Sea, confined between the Asian and European landmass, represents a softest link along the entire Middle Corridor. The protection of high-value infrastructure in the maritime environment is a challenging mission—especially in proximity of potential spoilers.
- The C5 group is dividing into winners and losers. Russia and Iran feel themselves excluded and exposed. That perception pushes them to each other. The strengthening the Moscow-Tehran strategic nexus poses an emerging challenge to the Middle Corridor and Caspian energy projects.
- The Caspian Sea is a complex operating environment with an uncertain legal status
 and packed with the modern navies of five states. However, the principal concern
 in relation to the Middle Corridor are two violent sub-state actors—the Islamic
 Revolutionary Guards Corps of Iran, and, to lesser degree, the Wagner Corps of
 Russia.
- Iran-related developments are important, since the currently deepening internal crisis may push Tehran to shift deliberately the domestic audience's focus towards an exterior environment. The October-November 2022 tensions caused by Iran's saber rattling towards Azerbaijan illustrate Tehran's propensity to use force, or, at least, to threat to use force.
- In case of a possible quarrel with Israel or/and the United States, Iran may retaliate
 indirectly in its closer perimeter. The area of the Middle Corridor presents a soft
 target for retaliatory action, and Iran has enough capabilities to turn the Caspian
 Sea into a tinderbox.
- Even the lowest risk probability in relation to the Middle Corridor should be treated with all seriousness, given the scale of potential impact.
- Not a single concerned country in the region can stand alone in effective mitigating such and similar challenges, risks, and threats, or in providing security to the Caspian segment of the Middle Corridor. Multilateral cooperation is key to the successful execution of such a mission.

