
Traversing the Persian Gauntlet: U.S. Naval Projection and the Strait of Hormuz

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For more than seventy years, oil, natural gas, and other maritime shipments have traveled freely from the Strait of Hormuz on the mouth of the Persian Gulf to the rest of the world. The Persian Gulf is home to approximately 60 percent of the world's proven oil and natural gas resources. The United States is the world's largest consumer of oil, importing 16 percent of its supply from the Persian Gulf, of which over 95 percent travels by sea.¹ An estimated 17 million barrels of oil pass through the Strait of Hormuz every day. Any disruption or blockade by Iran or a non-state armed group like al-Qaeda in the Strait of Hormuz would have global economic repercussions.² Furthermore, any interference in the world's major oil supply lines would have significant negative political implications for Persian Gulf states whose economies are almost entirely reliant upon oil and gas revenues.

The United States relies on a large naval presence, including multiple aircraft carrier groups, to protect the Persian Gulf and ensure that Iran does not disrupt the sea lanes of communication (SLOC) through the Strait of Hormuz. The U.S. Navy's Fifth Fleet, based in Manama, Bahrain, is one of many naval forces in the Gulf, along a sizeable and growing Arab naval presence. It is largely responsible for the maritime security of U.S. and foreign shipments, as well as other regional security concerns, including combating piracy. But in an age of asymmetric warfare and global satellite communications, maintaining a big navy is no longer necessary. The speed and scope of warfare has increased as time and space have collapsed, thus

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affecting traditional naval strategy and tactics. As some scholars argue, the speed of warfare necessitates a reduction in the visible size of navies because this will free up money to support the technological networks needed to

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counter today’s threats. Large battle-ships are too expensive to maintain—a Nimitz class aircraft carrier costs approximately \$5 billion to construct. It used to be that the size of the fleet was the standard for measuring power; today it is not.³

Currently, the navy possesses 287 combatant, logistics, and support vessels, plus 3,700 aircraft and 341,000

active-duty personnel.⁴ Some U.S. Navy (USN) resources are being used to help fight the wars in Iraq and Afghanistan even though they are primarily land-based wars. As the U.S. military begins its withdrawal from Iraq and increases its reliance on unmanned aerial vehicles and counter-insurgency/terrorism strategies in Afghanistan, a continued robust U.S. naval presence that includes multiple Carrier Strike Groups is not necessary to protect U.S. national security interests in the Gulf.

The United States has long employed a strategy of maintaining large, expensive aircraft carriers and force protection vessels. However, state-on-state oceanic warfare on the high seas has not occurred since World War II. Today, the largest threats facing the Strait of Hormuz come from non-state armed groups like al-Qaeda and states like Iran. Although Iran has threatened numerous times to shut down the straits, it has never backed up its threats with anything other than small-scale action like deploying armed speedboats to harass large naval vessels. A lightened USN presence would ultimately lower tension on the high seas between the United States and Iran, since large U.S. naval vessels would travel less frequently through the Strait of Hormuz.

Instead of maintaining a strong naval presence of its own, the United States should continue to support local governments in their efforts to increase the size of their own navies. Both Saudi Arabia and the United Arab Emirates (UAE), for example, have navies that will soon surpass Iran’s in size and capabilities. As a regional coordinator of maritime security, the USN could act as a ready reserve to prevent crises from arising or, should they arise, to resolve them decisively. The USN should not continue to expose itself to routine operational risks since most of the United States’ Arab allies are capable of patrolling the Persian Gulf with minimal U.S. operational support.

As currently positioned, the Fifth Fleet is an easy target for America's adversaries because it sails large vessels and aircraft carriers through a narrow waterway in a region where terrorist groups and Iran are highly motivated to end America's military presence. Though distant from land-based threats, most of these vessels are vulnerable to attack, notably from swarms of armed speedboats on suicide missions. As demonstrated in the 2000 bombing of the *USS Cole* in Yemen and the 2008 harassment by five Iranian speedboats of three U.S. naval vessels traversing the Strait of Hormuz, these asymmetrical tactics are designed to inflict casualties and damage on the carrier group or instill fear.⁵

Certainly, the USN should not withdraw completely from Bahrain and the Persian Gulf. However, it should scale back its Carrier Strike Groups and reconfigure the Fifth Fleet's force projection to account for twenty-first century threats, including asymmetric warfare, weapons proliferation, drug trafficking, assistance for natural disasters, and piracy.

At a time when the United States is consumed with two wars and in the midst of a deep recession, it should promote greater multilateral monitoring forces and naval cooperation to secure the Gulf, thereby lightening its own financial and military burden.

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MARITIME CHOKEPOINTS AND GULF GEOGRAPHY

Maritime chokepoints are narrow channels along the world's SLOC. They remain an essential factor in global energy security due to the high volume of oil and natural gas passing through their narrow openings on a daily basis. The Strait of Hormuz, connecting the Persian Gulf and Arabian Sea, is one of the world's most strategically important maritime chokepoints.

In 2007, total world oil production amounted to approximately 85 million barrels per day (b/d). Approximately half of this amount, over 43 million b/d of oil, was moved by tankers on fixed maritime routes.⁶ The international energy market is dependent upon secure and safe transport through global maritime shipping channels. At present, the USN bears the brunt of the responsibility for patrolling the Persian Gulf for illicit activity. The blockage of a chokepoint, even temporarily, can lead to significant

increases in energy prices around the world. Additionally, maritime chokepoints leave oil tankers susceptible to pirate hijackings, terrorist attacks, and other hostilities. For example, tankers traveling through the Mallacca Straits reported forty-five pirate attacks in 2004, the world's second highest concentration of piracy after that of Indonesian waterways.⁷ The number of pirate attacks through the Mallacca Straits has decreased significantly in recent years due to increased regional security cooperation. But in the first quarter of 2009 the International Maritime Bureau reported that the number of pirate attacks around the world nearly doubled, to 102 incidents, compared to the same period last year.⁸

Table 1.1: Maritime Chokepoint Energy Export

Area of Export Flow	Current Flow in Million Barrels Per Day (MMBD)	Share of World Oil Demand in Percent	
		In 2004	In 2030
Strait of Hormuz	17.4	21.2	28.1
Straits of Mallacca/ Far East	13	15.8	23.7
Bab el-Mandeb	3.5	4.3	4.5
Suez	3.9	4.7	4.8

Source: Adapted by Anthony H. Cordesman from material provided by Ambassador William C. Ramsey, Deputy Executive Director, International Energy Agency, February 6, 2007.

The SLOC through the Strait of Hormuz are dominated by a group of seven islands—Hormuz, Henjam, Qeshm, Larak, Greater and Lesser Tunb, and Abu Musa—making it possible for Iran or another entity to menace or block ships traversing the Strait. Iran currently controls Abu Musa and the Tunbs and has recently built up its military fortifications and port facilities that have close and easy access to Hormuz shipping lanes. On Abu Musa, satellite images show a likely battalion-level (1,000 personnel) military base.⁹

Ever since the British departed the Gulf in 1971, Abu Musa and the Tunb Islands have been contested by the UAE and Iran, making it a potential flashpoint for future conflict. The islands lie in the center of the Strait, close to Iran, the UAE, and Oman. Abu Musa, for example, is 31 miles east of the Iranian island of Sirri and 42 miles south of Lingeh on the Iranian coast.¹⁰ Similarly, it is approximately 40 miles from the UAE. It also possesses the Mubarak field, which yields some of the highest quality petroleum produced in the Persian Gulf.¹¹

At its narrowest point, the Strait of Hormuz is 34 miles wide, with Iran to the north and Oman and the UAE to the south. However, the passages through the Strait consist of only 2-mile wide channels for inbound and outbound maritime traffic.¹²

Despite such a constricted and congested opening, transport and trade through the Strait of Hormuz have remained relatively undisturbed since World War II.¹³ Moreover, shutting down the Strait of Hormuz would require the use of expensive alternate routes. Such routes are restricted to the East-West Pipeline traversing Saudi Arabia to the port of Yanbu, and the Abqaiq-Yanbu natural gas line stretching from the Persian Gulf to Red Sea.¹⁴ Due to the limited number of alternative pipeline routes, cutting off access through the Strait of Hormuz would be economically devastating not only to the Persian Gulf countries, but also to the entire world.

Indeed, the strategic importance of the Gulf will increase significantly in the decades ahead. The Energy Information Administration's *International Energy Outlook 2009* estimates that Middle East oil production will reach approximately 23.9 million barrels per day in 2010 and 28.8 million barrels per day by 2030.

GEOSTRATEGIC INTERESTS IN THE PERSIAN GULF

The current great and emerging powers of the world, including the United States, China, India, Russia, Japan, and the European Union, all vie for natural resources from the Persian Gulf. The United States, India, and China are the main powers that seek to secure oil and natural gas from the region to fuel their economies. In 2006, U.S. gross oil imports from the Persian Gulf were 2.2 million barrels per day. Gross Persian Gulf oil imports to Organization of Economic Cooperation and Development (OECD) nations accounted for 31 percent of OECD imports in 2006.¹⁵

Emerging economies have increasingly invested in the Gulf to ensure a consistent energy supply. China, for example, recently increased its bilateral ties with Iran in both the oil and non-oil sectors. In 2004, trade between China and Iran hit a record \$7 billion, a 42 percent increase since 2003. In October of the same year, China's Sinopec Group signed a \$70 billion deal with Iran, in which Sinopec bought 250 million tons of liquefied natural gas (LNG) and agreed to develop the Yadavaran field, thus guaranteeing that China would receive 150,000 barrels of Iranian crude oil per day for the next twenty-five years.¹⁶ Last year, Chinese-Iranian bilateral trade grew to a record \$48 billion, according to Chinese figures.¹⁷

India is also engaged in regional trade that amounts to \$10 billion

annually with Persian Gulf countries.¹⁸ In 2009, Iran began supplying India with 7.5 million tons of LNG annually under a twenty-five-year multibillion-dollar deal signed in 2005. The two countries are currently negotiating a deal to construct an Iran-Pakistan-India gas pipeline.¹⁹

The littoral Gulf countries rely on exports and energy security to maintain their national economies and political control. Saudi Arabia, for example, relies heavily on its oil and gas exports. In particular, crude oil and natural gas made the largest contribution of any sector to the economy, accounting for an estimated 26.9 percent of GDP in 2008.²⁰

Across the Gulf from Saudi Arabia, Iran has threatened to close down the Strait on numerous occasions. In 2006, for example, Supreme Leader Ayatollah Ali Khamenei threatened to interrupt the world's oil supply if the United Nations Security Council imposed sanctions against Iran over its nuclear program.²¹

Despite these threats, Iran has never actually attempted to shut down the Strait of Hormuz due in large part to its own reliance on exports. Like its adversaries, Iran would lose much from the closure of the Strait. Iranian oil exports have risen rapidly in recent years—from \$28 billion in fiscal year (FY) 2000-2001 to approximately \$82 billion during FY 2007-2008—even while other sectors of its economy contracted. In 2009, the hydrocarbon industry produced more than 80 percent of the government's revenue.²²

With such reliance on oil and gas revenues, Iran is extremely susceptible to fluctuations in the oil and gas markets, which makes it economically unviable for Iran to close down the Strait of Hormuz. More importantly, according to a recent report by the Proceedings of the National Academy of Sciences (PNAS), Iran is headed for economic ruin at its current level of oil and gas dependency: "The regime has been incapable of maximizing profit, minimizing cost, or constraining explosive demand for subsidized petroleum products. These failures have very substantial economic consequences."²³ The PNAS Report projects that in five years, Iranian oil exports may be less than half their present level, and could drop to zero by 2015.²⁴ From a perspective of economic self-interest, it is unlikely that Iran would follow through on a threat to close down the Strait of Hormuz.²⁵

SAILING THE STRAIT OF HORMUZ: THREAT PERCEPTION VERSUS REALITY

Despite its economic instability, Iran remains one of the largest security threats in the Strait of Hormuz, with a fleet composed of three frigates, seven mine warfare ships, ten missile patrol craft, ten amphibious ships,

two corvette ships, and forty-four coastal and inshore patrol craft.²⁶ Iran has also equipped its small coastal and patrol boats with heavy machine guns, grenade launchers, anti-tank guided weapons, man-portable surface-to-air missiles, and 106 mm recoilless rifles.²⁷ Additionally, Iran's fleet is equipped for unconventional warfare that is capable of threatening Gulf shipping and offshore oil facilities.²⁸ For example, Iran owns three Type 877 EKM Kilo-class submarines capable of planting mines and firing long-range weak-homing torpedoes, which cannot be detected by radar.²⁹

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If Iran wants to severely disrupt shipping through the Strait of Hormuz, it has two major options: it can either impose a naval blockade from its Gulf islands or naval bases, or it can lay mines for oncoming tankers or naval vessels. The first option is less likely due to Iran's dependence on Persian Gulf imports and exports as well as its lack of significant large naval vessels. The second option is also not a strong option from a technical standpoint because the Strait is very deep and swept by strong currents that would make effective mining challenging. During the Iran-Iraq War of the 1980s, for example, Iran attempted to mine the Strait of Hormuz but was unsuccessful due to these powerful ocean currents.³⁰

It is also important to note that since the Iran-Iraq War, Iran has not engaged in any physical confrontation with the other littoral powers on the high seas. In 1987, toward the end the Iran-Iraq War, several incidents occurred in the Persian Gulf that led the USN to increase its operations in what was called the "Tanker War." In particular, President Reagan reported that between September 1987 and July 1988, U.S. ships had been fired upon or struck by mines on six distinct occasions.³¹ The U.S. considered it essential to protect the tankers transporting oil out of the Gulf from other Arab countries because the world economy depended on it. One USN measure involved reflagging and escorting Kuwaiti oil tankers through the Gulf.³²

In operation "Earnest Will" of the Tanker War, the USN sent 13 warships to the Gulf, including ocean minesweepers, to protect any allied ships. Great Britain, France, Italy, Belgium, and the Netherlands also dispatched warships. Additionally, the USN had an aircraft carrier group sailing in the Gulf of Oman just outside the Strait of Hormuz in case the Iranians engaged in a major offensive against the United States or its Arabian Peninsula allies. This force presence increased USN strength to approximately twenty-five to thirty warships.³³

The United States remained on alert throughout the 1990s as Iran continued its military build-up. Although Iran possessed the capability to blockade the Strait of Hormuz during this period, it never made any serious effort to do so.³⁴ Iran is too economically weak to disturb maritime traffic in the Gulf even if the USN were to reduce its presence. Moreover, any maritime disturbances by the Iranians would draw major international rebuke since the world relies heavily on energy exports from the region.

While the United States, with its naval base in Bahrain, remains the strongest entity in the region capable of confronting an Iranian threat in the Gulf, Saudi Arabia possesses a naval power that could soon rival Iran's Navy, provided it continues to receive military and technical assistance from the United States.³⁵ With four naval bases in the Gulf, Saudi Arabia is perfectly situated to confront Iran.³⁶

The Royal Saudi Navy has grown considerably, from 6,000 personnel in the 1980s to approximately 15,500-17,000 in 2009, including 3,000-4,500 Marines.³⁷ It has expanded its numbers by more than 6,000 troops in the past decade.³⁸ Though capable of challenging Iran's navy, the Saudi government must continue to invest in building up its two-sea force capabilities. Red Sea maritime security is as important as Persian Gulf security due to the high volume of oil and gas shipped from Saudi Arabia's western coast through either the Suez Canal or Bab al-Mandeb to the rest of the world. Saudi Arabia's close proximity to such rogue regimes such as Somalia and Yemen also makes maritime security in the Red Sea essential for the rest of the world.

The Royal Saudi Navy is currently divided into an eastern and western fleet to protect offshore refineries or oil and gas shipments leaving Saudi ports. These fleets are also trained to defend against any major attack on either coastline. Saudi Arabia's western fleet is composed of some of the following vessels: three La Fayette Type F-3000S frigates, four Al-Madina class frigates, two As-Siddiq-class fast attack craft, one Addriyah-class coastal minesweeper, Halter-class patrol craft, Simmoneau 51-class inshore patrol craft, and two Durrance-class replenishment ships. The eastern fleet is composed of four Badr-class missile corvettes, seven As-Siddiq-class fast attack craft, three Addriyah-class coastal minesweepers, three Al-Jawf-class coastal minesweepers, Halter-class patrol craft, Simmoneau 51-class inshore patrol craft, and four LCU 1610-class landing craft.³⁹

Saudi's western fleet received the last of three French La Fayette frigates in 2004 through the \$2.5 billion Franco-Saudi "Sawari II" program signed in 1994.⁴⁰ This contribution greatly enhanced the Saudi Red Sea anti-air and anti-submarine warfare capacities.⁴¹ Nonetheless, the Saudi's

eastern fleet is larger and remains more prepared to handle maritime threats than the western fleet.⁴³

The Saudi Marines also play an important role in Saudi maritime protection. The marines are located at Ras al-Mirat and are divided into two battalions. They are equipped with 140 amphibious armored personnel carriers (APCs) capable of protecting Saudi Arabia's coastal and offshore oil infrastructure.⁴⁴ Presently, the marines are being trained for counterterrorism missions as well as asymmetric warfare.⁴⁵

Apart from Saudi Arabia, the UAE could act as another counterbalancing naval force to Iran's navy. Currently, the UAE is the fastest-developing military power in the Gulf region, using its oil wealth to buy advanced military technology and hardware. The UAE has enhanced its navy from a small, well-coordinated coastal defense force to one with blue-water capabilities. The navy's marine battalion has also been improved with the purchase of ninety Guardian 8x8 amphibious armored personnel carriers. Additionally, the UAE government has ordered the construction of six 88-meter, 500-ton multi-role corvette ships with clandestine surveillance capability. The construction of these high-speed corvettes is significant because they will be the first such vessels to sail in the Persian Gulf.⁴⁶ Once in full operation, the UAE's new naval fleet will be able to significantly contribute to the security of the Strait of Hormuz.

Table 1.2: Armed Forces of the Arabian Gulf

COUNTRY	TOTAL	ARMY	AIR FORCE	NAVY
Bahrain	11,260	8,500	1,500	1,260
Iran	393,000	345,000	30,000	18,000
Iraq	116,100	113,100	2,500	500
Kuwait	16,200	11,000	2,500	2,700
Oman	39,700	31,400	4,100	4,200
Qatar	12,400	8,500	2,100	1,800
Saudi Arabia	124,500	75,000	18,000	15,500
UAE	65,500	59,000	4,000	2,400
Yemen	66,700	60,000	5,000	1,700

Source: "Regional Overview—The Gulf States," Jane's Sentinel Security Assessment-The Gulf States, March 22, 2007. Accessed August 20, 2007. Available from www.janes.com.

In addition to defending the Strait of Hormuz against interference from Iran, Gulf navies will need to prove capable of defending against terrorist activity as well. Maritime terrorism⁴⁷ is a relatively new phenomenon that has increased in recent years across the Middle East and around

the globe. The 2000 terrorist attack on the *USS Cole* by al-Qaeda operatives in Aden, Yemen was one of the first major attacks of its kind in recent history. In 2002, al-Qaeda achieved further notoriety after crashing an explosives-laden boat into a French tanker near Mukallah, about 350 miles east of Aden.⁴⁸ These attacks employ what have come to be known as “waterborne improvised explosive devices” (WBIEDs). Plots involving such devices range from speedboats packed with explosives colliding with the hulls of ships to inflatable dinghies carrying homemade explosives.⁴⁹

As noted in a recent *Foreign Affairs* article, the Strait of Hormuz would be difficult to block by a conventional power like Iran or a non-state actor like al-Qaeda because either it is physically difficult to blow up tankers today with their thick hulls and airless tanks that make petroleum ignition challenging or they lack the large physical force capabilities to cause any major upheaval or long term disruption along the Strait. At the very least, al-Qaeda might be able to destroy one or two passing tankers. At its best, al-Qaeda would still be unable to shut down the entire Strait for an extended period of time because of its small force structure.⁵⁰ In other words, large U.S. naval projection is not necessary to combat such an asymmetric threat. Moreover, the UAE and Saudi Navies are capable of handling such threats with minimal U.S. military operational support.

NAVIGATING A NEW NAVAL STRATEGY

The United States provides stability in the greater Persian Gulf region by maintaining immense military and naval outposts with its Fifth Fleet in a number of strategically located states. The U.S. Navy’s presence in the Gulf has grown steadily since its first arrival to the region in 1879. However, today’s large presence is not sufficiently geared towards the asymmetric threat that currently confronts U.S. naval forces.

The Fifth Fleet oversees all naval operations in the U.S. Central Command’s jurisdiction, which includes approximately 7.5 million square miles, including the Arabian Gulf, Red Sea, Gulf of Oman, and parts of the Indian Ocean. The Fifth Fleet has approximately twenty ships, with about 3,000 people ashore and 25,000 afloat.⁵¹ It consists of a Carrier Battle Group, Amphibious Ready Group, combat aircraft, and other support units and ships.⁵²

Despite its considerable strength, the USN has only recently begun to support more multilateral operations in the Gulf. In 2001, the USN started the “Arabian Gauntlet” joint exercise, bringing together eleven nations and more than twenty ships to foment collaboration in patrolling the Strait of

Hormuz and the Persian Gulf. The Gauntlet has proven so successful that more than 3,000 people, 20 ships and 13 countries—including Iraq and Pakistan—participated in the Arabian Gauntlet in 2005. Fourteen allied nations and 16 ships participated in the 2007 exercises.⁵³ In June of the same year, the United States and Saudi Arabia also partnered for a joint naval exercise, *Nautical Union 2007*.⁵⁴

The United States should continue to conduct more cooperative exercises with other Gulf Cooperation Council nations. The U.S. should then phase out its role as the primary provider of naval security in the Gulf and begin the preparations necessary
for its adjustment into a regional naval security coordinator. It would be a strategic mistake for the USN to vacate its forces from the Gulf altogether. Rather, it should restructure its current naval forces to include fewer Carrier Strike Groups, if any. Additionally, the USN
Fifth Fleet should invest in more Navy Expeditionary Combat Command and Military Sealift Command vessels that are more suited to confront maritime threats of the twenty-first century in the Gulf. The days of carrier-on-carrier warfare are long gone.

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CONCLUSION

Despite the fluctuating prices of oil and natural gas, the security of maritime traffic through the Strait of Hormuz will remain an important issue for international and regional security. The world—not to mention the Persian Gulf littoral countries—relies on the oil and natural gas tankers that travel in and out of the region on a daily basis. Any disruption to maritime traffic would devastate the global economy.

However, the United States is able to guarantee the same amount of security and stability in the Gulf with a much smaller force, provided the Arab Gulf states also contribute capable forces. A smaller force structure will mean that fewer USN personnel and assets are at risk in the Persian Gulf. Even with scaled-back operations in Bahrain, the U.S. military could still deter Iran with its significant army, marines, and air force presence in countries like Kuwait, Qatar, Oman, and the UAE. Scrambling a fighter jet from Qatar or the UAE to Iran, for example, only takes several minutes. Moreover, the United States will continue to assist Gulf countries in maintaining land-based missile defense systems and other coastal defenses in case

of an Iranian or terrorist attack.⁵⁵ The reduced USN presence would also offer fewer opportunities for unnecessary escalation of tensions between the United States and Iran on the high seas if Iran were to send another

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swarm of armed patrol boats to harass the USN, as it did in 2008. Promoting more naval cooperation would help the United States refocus its attention on terrorism, weapons proliferation, drug trafficking, and pirates on the high seas.

Drawing down U.S. naval forces in the Gulf would not threaten U.S. strategic interests. Neither Iran nor al-Qaeda is likely to block shipping through the Strait. Such an effort by Iran would be self-defeating, as closing

the straits would cripple its own economy. As for al-Qaeda, it lacks the capacity to close down the Strait for a prolonged period of time. Most importantly, decreasing the U.S. naval presence in the region could significantly improve U.S. regional diplomatic efforts by reducing its visible footprint. It would also free up overextended U.S. forces to confront more pressing situations at home and abroad. ■

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