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The Strait of Hormuz is vital to global economic stability due to the massive amounts of petroleum that are produced in the Arabian Gulf and only transportable by tanker. Iran has repeatedly threatened to close the Strait to traffic if provoked. The confined littoral battle space of the Strait is an extremely difficult tactical environment for the U.S. Navy. This paper examines the factors of time, space and force with regard to the operational design of a U.S. military plan to thwart Iranian aggression in the Strait. The evaluation of both tactical and economic factors is critical in this analysis. The conclusion reached is that the only logical outcome Iran hopes to achieve by attacking tankers in the Strait is to draw the U.S. Navy into the one place Iran believes it can be militarily successful. Through an understanding of Iranian aims and limitations the U.S. planner may craft an operational design which will defeat the Iranian strategy.

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OPERATIONS TO DEFEAT IRANIAN MARITIME TRADE INTERDICTION

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.

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4 May 2009

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Abstract

Operations to Defeat Iranian Maritime Trade Interdiction

The Strait of Hormuz is vital to global economic stability due to the massive amounts of petroleum that are produced in the Arabian Gulf and only transportable by tanker. Iran has repeatedly threatened to close the Strait to traffic if provoked. The confined littoral battle space of the Strait is an extremely difficult tactical environment for the U.S. Navy. This paper examines the factors of time, space and force with regard to the operational design of a U.S. military plan to thwart Iranian aggression in the Strait. The evaluations of both tactical and economic factors are critical in this analysis. The conclusion reached is that the only logical outcome Iran hopes to achieve by attacking tankers in the Strait is to draw the U.S. Navy into the one place Iran believes it can be militarily successful. Through an understanding of Iranian aims and limitations the U.S. planner may craft an operational design which will defeat the Iranian strategy.

INTRODUCTION

The Strait of Hormuz is currently the most important strategic maritime chokepoint in the world; it is the sole means by which ships can access the Arabian Gulf (historically known as the Persian Gulf) and its wealth of crude oil and natural gas, the vast majority of which is moved worldwide by ships. Iran is geographically situated in a commanding position with respect to the Strait of Hormuz and has repeatedly stated that it considers its ability to interdict shipping within the Strait to be a strategic option.[1] While this threat does have substantial deterrent value, what if deterrence fails and Iran executes a plan to close the Strait of Hormuz to merchant traffic? The United States has stated the mission of its maritime forces is to secure the global commons for free trade.[2] These opposing missions could bring the United States and Iran to conflict.

An Iranian attempt to shut down the Strait of Hormuz can be countered, but doing so will require a shift from the operational designs traditionally used to protect maritime trade. The arguments presented within this paper suggest that merchant traffic cannot be protected against Iran's initial blow, nor will the U.S. Navy be able to come immediately riding to the rescue of civilian mariners imperiled by the Iranian military as was possible in the past. Simply put, if Iran attempts to stop the flow of commercial shipping through the Strait of Hormuz, the U.S. Navy should not attempt to initially protect maritime trade with warships; doing so will most likely result in operational failure for the U.S. and strategic success for Iran. But, through patience and the use of key overwhelming sources of power combined with the exploitation of

fundamental flaws in the Iranian strategy, U.S. operational success is made far more likely.

PHYSICAL ENVIRONMENT

The current importance of the Strait of Hormuz to global economies is difficult to overstate. It is the only route by which shipping can gain access to 57 percent of the world's crude oil reserves (with the exception of Saudi Arabia's Abqaiq to Yanbu pipeline which carries a small fraction of the regional daily output).[3] This maritime shipping accounts for "roughly 40 percent of all world traded oil."[4]

The Strait of Hormuz is 34 miles across at its narrowest portion and has a length of approximately 120 miles. At its narrowest portion an International Maritime Organization (IMO) traffic separation scheme funnels large ships into inbound and outbound routes which are two miles wide separated by a two mile buffer. These procedures are dictated by safety of navigation, not due to hydrography. Much of the Strait of Hormuz (nearly its entirety) is deep enough for even the largest tankers to traverse its waters. This is important to recognize when discussing potential conflict within the Strait of Hormuz in that the traffic separation scheme is a peacetime arrangement. A merchant route which maintains greater standoff from the Iranian coast could certainly be established and safely navigated. However, the basic constraints of geography remain. At some point all ships which pass through the Strait of Hormuz must come within approximately 30 miles of the Iranian coast. Other environmental factors include blanketing haze and dust which obscures visibility for both ships and aircraft and large groups of smugglers in

speedboats that routinely make high speed runs across the Strait going to and from Iran and its southern neighbors the United Arab Emirates and Oman.

Iran has several large naval bases located adjacent to the Strait of Hormuz, notably Bandar Abbas, and Bandar Lengeh on the Iranian mainland and other bases on the islands of Qeshm, Kish, Greater Tunb and Abu Musa.[5] All of these facilities are well suited geographically to support the small craft and/or mine laying vessels that could be used to conduct attacks on merchant or military traffic as a part of sea denial operations. The relatively rugged topography of the portion of Iran which borders the Strait also makes it somewhat ideal for the positioning of land based

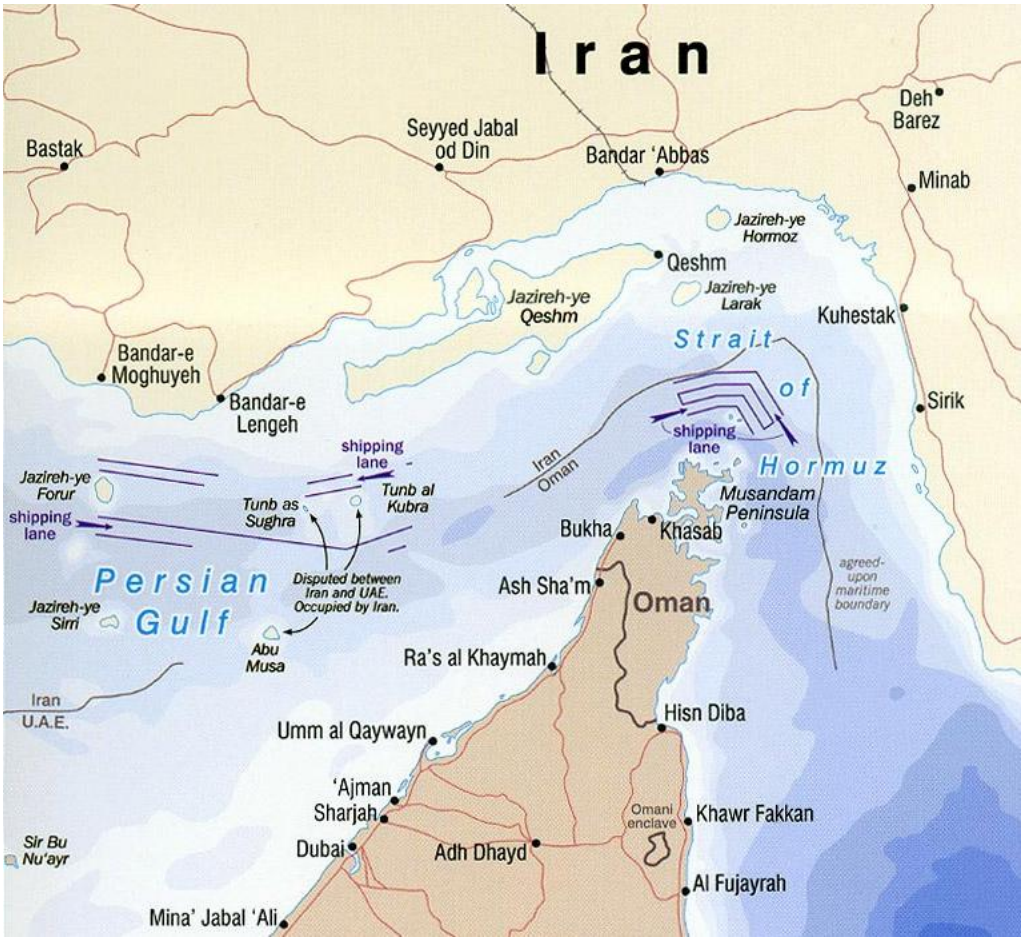

Figure 1. The Strait of Hormuz (http://www.willisms.com)

anti-ship cruise missiles (ASCMs) . While topography does in effect eliminate some locations as potential launch points, the rugged terrain would make ASCM launchers difficult to detect and easy to hide after having launched their weapons. Given the range of the ASCMs Iran is thought to possess and the topography of the coast, there is an area of about 16,500 square kilometers of total Iranian territory in which Iran could position land based missile launchers that would have the required line of sight to attack ships within the Strait.[6]

The Strait of Hormuz is therefore ideal for Iranian sea denial efforts. It is bordered along its length by the Iranian coast, it is narrow enough to allow for all of it to be within Iranian military reach, and no other route to the Arabian Gulf exists. The coastal topography of Iran allows for both dispersal of forces and concealment. The compact size of the water space and calm seas allow for even the smallest armed craft to be a real threat. The narrow girth and shallow waters make it ideal for mining.

ECONOMIC ENVIRONMENT

Approximately 22 percent of the world's daily oil production travels the Strait of Hormuz in tankers.[7] This amounts to roughly 17 million barrels of oil (of the 84 million barrels per day consumed globally) on tankers transiting the Strait each day.[8] On average about 90 ships transit the Strait each day,[9] this includes an average of seven inbound and seven outbound VLCCs (Very Large Crude Carriers).[10] Each VLCC carries about 2 million barrels of oil on board as it exits the Gulf. It follows then that 82 percent of the 17 million barrels of oil exported from the Gulf each day, is carried on board just seven outbound VLCCs.[11]

These facts become significant when viewed in the context of Iran's threats to "close" the Strait of Hormuz.[12] In order to have global economic effects the Iranians need not stop even the majority of the shipping traversing their littorals. Instead Tehran needs only prevent a handful of VLCCs from exiting the Gulf laden with oil. If the Strait of Hormuz was indeed made completely impassable to shipping by the Iranians, they would remove 17 million barrels per day from the global markets. Additionally this situation could also "trap roughly 7 to 10 percent of the global VLCC fleet in the Persian Gulf".[13] This would effectively keep 5 percent of the global maritime commerce system's capacity (in deadweight tons) from transporting oil even if alternatives to Arabian Gulf oil could be used in the short term.[14]

A primary planning consideration however is that through interdicting commercial shipping in the Strait of Hormuz, Iran would not only strangle global economies, but would choke themselves as well. Despite holding "11.1 percent of the world oil reserves," upwards of 40 percent of Iran's daily gasoline consumption is imported due to a lack of refineries.[15] The effects to the rest of the world could be offset somewhat in the short term by the approximately 1.6 billion stored barrels of oil the International Energy Administration could utilize plus the at least 4.2 billion barrels held by industry which could be made available.[16] These combined public and private reserves could theoretically allow for the complete satisfaction of worldwide oil consumption (approximately 85 million barrels per day) for 341 days without any oil output from the Arabian Gulf.[17] Iran, however has no such economic shock absorber. Most of the raw resources required by Iran's heavy industry (43 percent of total industry) is also heavily dependent on imported resources that Iran

cannot produce indigenously.[18] Additionally, the people of Iran are financially supported and pacified by government subsidies funded by oil export revenues. With a cessation of commercial trade through the Strait of Hormuz, Iran's economy will feel the effects of its own aggression far more sharply than the countries it looks to coerce or punish.

The Strait of Hormuz is extremely important to the economies of countries around the globe. A closure of the Strait would likely have large economic ramifications even with the use of strategic and commercial oil reserves. It seems though, that Iran would be among the first to suffer greatly under these economic conditions. Therefore their ability to sustain any large scale interdiction efforts in the Strait would be quite time limited unless the Iranian national leadership is willing to suffer complete economic breakdown.

THE THREAT

Iran recognizes the global economic importance of the Strait of Hormuz as well as the strategic deterrence it gains through threatening to strangle the commerce that passes through it. Yet, this deterrence would not be credible if Tehran did not have the means to actually carry it out. If some event triggered the Iranian naval forces to carry out this plan, not only would they have to have the means to destroy or disable VLCCs, they would first have to defeat any naval protection afforded these vessels. Iran could logically expect the United States Navy to respond to threatened tanker traffic in the same manner in which it responded to similar dangers during the Tanker Wars.[19] This suggests that for any Iranian tanker interdiction plans to work, U.S. warships escorting tankers in the Strait would have to first be destroyed, disabled

or otherwise circumvented. In this aim it seems the Iranians have wisely tailored their naval forces for the type of asymmetric warfare which historically has proved the most effective against large warships in confined littoral waters.

The Iranians have forgone the building of large conventional blue water warships for the acquisition of large numbers of Fast Attack Craft (FAC) armed with anti-ship missiles and torpedoes, as well as more than 1,000 Fast Inshore Attack Craft (FIAC) armed with close range rockets and machine guns (attacking in groups of 40 or more).[20] This decision seems based on both an appreciation of their self-assessed weaknesses as well as the vulnerabilities of large warships in the littorals to airpower. Without a capability to challenge U.S. control of the skies, any large ships possessed by Iran can be easily found in confined waters. Once found they can be quickly destroyed with modern munitions. Small craft, on the other hand can be dispersed. These vessels' small size and speed make them difficult targets even when located. The primary point however is that if there are vast numbers of them operating from a multitude of small bases, the overall attrition of such a naval force would be slow and incremental, even against a foe that enjoyed massive airpower advantages.

Tehran's naval acquisitions are not solely predicated on survivability however, for a survivable but ineffective naval force is relatively useless. In cluttered and confined littoral waters with calm seas, large groups of small craft have numerous advantages over traditional naval vessels. Their numbers and capabilities can be quickly tailored into synergistic groups of FIAC supported by missile and/or torpedo shooters in the numbers needed for the planned attack. Such vessels are difficult to detect, and can move very quickly in even the most confined waters to envelop a foe.

Additionally, the group's effectiveness is not disabled even by multiple catastrophic hits. In fact, if the Iranians adopt asymmetric tactics that build upon the examples of the USS Cole and the Liberation Tigers of Tamil Eealm (LTTE), the use of explosive laden suicide craft could be a possible option.[21] If these were utilized, then the FIAC group remains an existential threat to its target until virtually all enemy personnel in the attack are completely annihilated. The same cannot be said for the crews of large modern warships.

The FAC and FIAC are perhaps the most flexibly lethal tool in the Iranian inventory against warships but they are by no means the only or most persistent threat. Taking the lead in the persistent category is Iran's thousands of naval mines.[22] These could be emplaced by a variety of craft ranging from submarines to fishing vessels. A minefield's effectiveness is greatly enhanced by the confined shallow waters of the Strait of Hormuz and may not be avoidable by ships seeking to enter or exit the Arabian Gulf. To ensure safe commercial shipping transit through a minefield a cleared route must be established by dedicated mine countermeasures vessels. During April and March of 1991, Operation Candid Hammer (off the coast of Kuwait), each minesweeping vessel involved cleared an average of one Iraqi mine per day. These operations were performed under permissive conditions against the easiest of mines to sweep (moored contact mines) and more importantly, the mine hunters had an Iraqi chart showing mine locations in their possession.[23] Any counter mine operations in the Strait of Hormuz will likely not have these advantages, making it a dangerous and time consuming operation.

The Iranian military possesses a large number of sophisticated ASCMs which can be launched from mobile vehicles.[24] These missiles and their mobile, relatively easy to hide launchers are a constant threat, particularly to shipping channelized by mine fields or to relatively stationary and defenseless mine countermeasures ships. While inbound missiles can theoretically be shot down by U.S. warships, continuously doing so could quickly deplete deployed U.S. inventories of surface to air missiles. Furthermore, to be effective, U.S. warships must be in the vicinity of the intended target any time a missile is fired.

Iran has developed a set of complementary capabilities that are well suited to chokepoint denial. Attempting to station powerful air defense ships in the Strait to counter Coastal Defense Cruise Missiles (CDCMs) place high value warships at risk from small craft and mines. MCM craft tasked to sweep for mines are at risk from armed small craft and CDCMs. An attempt to escort shipping with a large force of low end warships to defeat small craft following the model of what was successful for Sri Lanka, leaves the force open to attack by CDCMs and mines. [25] This layered threat cannot be realistically quickly eliminated. It must be systematically reduced as each layer is peeled back to allow the next to be defeated.

OPERATIONAL DESIGN

The U.S. Central Command (CENTCOM) operational planners should design plans to deal with Iranian attempts to close the Strait of Hormuz, with a firm understanding of both the tactical and strategic factors of the situation as well as the lessons of history. One operational design resulting from such an analysis challenges the American predisposition to immediately place the military between civilians and

potential harm. Yet patience, coupled with an understanding of the situation and the intent of the adversary could arguably serve the nation best.

A possible operational design that accommodates these Strait of Hormuz specific factors will be discussed in the following sections. This design adheres to the core concepts of naval operations and the differentiation between sea control and sea denial. It also acknowledges the characteristics of littoral operations.

Sea control is a positive objective achieved when a force can dominate the maritime area of operations to such an extent as to prevent undue adversary interference in operations.[26] Conversely, sea denial is a negative objective that when achieved does not necessarily provide freedom of action in the maritime domain but does withhold that same freedom of action from one's adversary.[27] Thus sea denial does not grant sea control; but in order to gain sea control, sea denial measures must be defeated.[28]

The littorals are particularly well suited for sea denial. The littoral environment is by its very definition that portion of the maritime environment which allows not only one's naval forces but land and air components to threaten an adversary's operations with aircraft, artillery and coastal defense cruise missiles. Proximity to land also reduces the need of a country to possess a variety of sophisticated blue water warships and rely instead upon a large number of much smaller craft, as sea keeping and endurance factors are much less relevant. Naval mines are at their most effective in the shallow waters typical of the littorals. Deep water requires sophisticated rising mines, while shallow water permits the use of unsophisticated moored mines. These systems will not grant sea control as even their

successful use does not necessarily grant the user any intrinsic ability to utilize the sea; they can, however certainly do much to deny that use to an enemy. If the littorals are well suited for relatively easy sea denial then littoral chokepoints are even more so. The chokepoint allows for a concentration of sea denial measures in one geographic location so as to form a synergistic layered threat in an area one's adversary cannot bypass.

The traditional means to protect maritime trade has been to gain and maintain sea control throughout the vital maritime trade areas. Yet, in the littoral environment it is difficult to envision (even given U.S. military might) the ability to maintain total continuous sea control over maritime trade routes which run along the length of modern military power's hostile coastline. The traditional naval options for the protection of maritime trade when sea control is disputed have been "convoying, short-range independent sailing and evasive routing"[29]. When discussing these options relative to the Strait of Hormuz it becomes apparent that evasive routing is at best a very limited option, as the Strait is only 34 miles wide at its narrowest. While using a larger number of small tankers to move oil out of the Gulf would decrease the loss suffered to global economies per Iranian attack these smaller ships would be less resilient to damage than would be the large VLCCs which transport the lion's share of oil out of the Gulf. They would thus be more likely to be lost in a given attack. If the options of evasive routing or fast, short-range steaming are removed, then convoying appears to be the only option remaining. Yet for a convoy travelling a predictable path through a threat-laden environment to be anything other than a target-rich opportunity for the adversary it must be protected through friendly sea control around

the convoy. Even this modest exertion of sea control is impossible unless opposing sea denial measures are first defeated.

Iran is not a blue water naval threat; in fact, it does not have the means to sustain sea control even in its own littorals against the U.S. Navy. Tehran recognizes it does not have the means to build a peer competitor naval force. Instead, Iran has concentrated on having a lethal littoral sea denial capability. In this they have succeeded, the littoral has historically been susceptible to successful sea denial efforts, through the use of small craft, mines and shore based fires.[30] What is true for the littorals in general with regard to sea denial is typically amplified when applied to chokepoints. Thus the only area in which the Iranian naval forces could reasonably be expected to inflict great and repeated damage on U.S. Navy warships is within the Strait of Hormuz.

While the considerations developed through a study of the history and theory of littoral warfare are certainly important, they are not sufficient to craft an operational design which will meet with U.S. policy objectives. Operational design should incorporate facets of all aspects of national power such as diplomacy and economics. For example, from a legitimacy standpoint, world opinion is often split when the United States is seen to be in conflict with a smaller country regardless of the malevolence of that state. Attacks on unarmed civilians however, tends to coalesce world opinion and the willingness to form coalitions against the attackers. It therefore is vital that Iranian aggression in the Strait of Hormuz be seen by the world, not as a strike against the United States but as an attack on global economies. This strategic viewpoint allows the combatant commander not only to understand how to

fight the adversary; but more importantly, when to fight, where to fight, and what end state to achieve through fighting.

If the U.S. chooses to station warships in the Strait of Hormuz during the buildup to conflict, it cedes the decision of when to fight and allows the fight to begin in the most advantageous place for Iran. This could lead to a devastating first salvo on U.S. Navy warships which would most likely be operating under restrictive rules of engagement.

The Strait of Hormuz provides a perfect venue for the type of forces possessed by Iran to execute a massive naval ambush. This possibility was illustrated to stunning effect during the *Millennium Challenge 2002* war game which simulated a conflict with Iran. The Red forces of retired USMC Lieutenant General Paul Van Riper very closely resembled the forces available to Iran. Those Red forces, in a massive and sudden attack, used asymmetric means to carry out a surprise first salvo which inflicted so much damage on blue naval forces that the game had to be restarted.[31] While the U.S. Navy is the largest and most capable navy in the world, modern warships are extremely expensive and require a great deal of time to replace. The loss of multiple warships in the opening salvo of a conflict may not change the ultimate result of the war but it would exact a massive toll on the ability of the U.S. Navy to conduct future missions and the credibility of U.S. military forces. This would represent both an operational, and perhaps even a strategic defeat.

Iran is perhaps the most economically dependent of all Gulf countries on commercial traffic through the Strait. Efforts to close the Strait to traffic would be sustainable on a national level for a much shorter time than the rest of the world could

make do without Gulf oil.[32] At the strategic level then, Iran seems to recognize that threatening maritime trade in the Strait of Hormuz may provoke a rash U.S. counter-action. Tehran appears to believe that the U.S. Navy will come rushing to the rescue of merchant traffic endangered in the Strait (like the U.S. response in the Tanker Wars) and thus be lured into the one area in which Iranian naval forces are most advantaged and lethal. This will allow for tactical successes unprecedented in recent history for smaller nations fighting the U.S. military and may strategically gain Iran respect and a place of leadership among those nations prone to an anti-American sentiment, despite the inevitable military defeat.

Therefore, the United States Navy should design operations to defeat Iran only by observing one of the oldest truths of warfare, never fight how your opponent wants you to fight. If it is assumed that what Iran seeks by interdicting the Strait is to draw the U.S. into a fight in the one place Iran holds all the cards, then that is precisely what the U.S. should avoid. If Iran threatens to sink oil tankers in the Strait, the U.S. should simply play wait and see. This places the Iranian leadership into an unenviable strategic position, where they must be seen either as impotent for not following through on a threat or as a true rogue state for attacking unarmed and unescorted international shipping upon which global economies depend. It may be that keeping U.S. forces out of the fray will in fact be de-escalatory, in that by denying Iran their objective of being able to engage the U.S. Navy in the Strait they will back down. Even if they do attack merchant traffic they cannot close the Strait for long without destroying their own economy. If Iran attacks international merchant shipping and fails to quickly draw the U.S. into a humiliating tactical

defeat, Iran will be economically forced to back down and will have solidified itself as an impotent international pariah.

This is not to say that the U.S. military should do nothing if Iran begins attacking oil tankers in the Strait of Hormuz. It should simply utilize its most advantageous military strength to first substantially decrease Iran's sea denial capabilities before attempting to gain even the temporary sea control in the Strait of Hormuz required for convoy escort. This strength is massive airpower. Iran has very little to counter this, as it is lacking credible fighter aircraft and surface to air defenses (by western standards).[33] The U.S. should keep its warships outside the reach of the synergistic coastal Iranian threat and instead utilize airpower and economic effects to defeat the Iranian strategy of drawing the U.S. into a littoral fight.

It may seem that the patience required by this proposed operational design could become unhinged by the pressure of public opinion, in that the United States could be seen to be shying away from a fight while civilians died in droves. The reality would likely be somewhat different. VLCCs are in some critical ways far less susceptible to the damage mechanisms utilized by the Iranians than are warships. It is likely the Iranians could carry out attacks on VLCCs at will; but in practice, such attacks are unlikely to prevent the tankers from completing their transits. VLCCs are huge vessels that displace 200,000 to 325,000 tons; they have thick double hulls and modern fire suppression systems and when laden are filled with a compartmentalized and relatively "inert, buoyant substance."[34] This can be compared to an aircraft carrier's 97,000 tons of displacement or a cruiser's 9,600 tons of displacement and the generally single hull construction of warships.[35] "Of the 239 tankers attacked

during the tanker wars, only 55 (23 percent) were lost," and these were mostly much smaller vessels than VLCCs and single hulled. [36]

Due to economic factors, the U.S. seems to have time on its side. For the Iranian gambit to work, it must force the U.S. Navy to attempt to penetrate an intact Iranian sea denial effort with warships before the maritime trade interruption reduces the Iranian economy to shambles. The United States does not need to immediately respond with warships in the Strait and national interests are best served if it does not.

CONCLUSIONS

The Strait of Hormuz is the perfect physical environment for the execution of sea denial. Its confined waters allow for even relatively short-range weapons systems to reach the entirety of area being denied. The shallow and relatively calm waters allow for great mine lethality and the unfettered use of FIAC. The geo-strategic position Iran enjoys along the length of the Strait of Hormuz provides it with a variety of options for surveillance, fires, and the basing of forces.

The world is dependent on the oil which tankers carry through the Strait of Hormuz. Iran's economy depends not only on revenues from oil exports but all of its imported goods and resources. If Iran were to interdict the Strait, the United States must recognize that economically Iran cannot sustain this action for long without untenable national trade and industry disruption. Iran's entire economy and even the morale of its populace are heavily dependent on maritime trade passing through the Strait. America and much of the world has short-term strategic options to reduce the economic effects of a Straits of Hormuz closure. Iran does not. These effects could

be hastened through the destruction of resource stockpiles and certain key industrial facilities such as refineries.

Tehran has developed a potent littoral force tailor made for sea denial in a chokepoint. A large number of FAC and FIAC combined with mines and ASCMs provide them a survivable force which possesses numerous advantages in confined waters over the warships of a blue water navy. Iran does not, however, have any means of challenging the U.S. for air superiority. This is Iran's critical vulnerability and should be exploited to destroy those systems conducting sea denial.

The protection of maritime trade within the Strait of Hormuz seems to require convoys escorted by warships to provide local sea control, as the other traditional methods of protection seem untenable in a chokepoint. Yet the successful use of sea denial measures prevents one's adversary from establishing sea control in the denied area. Thus, at a theoretical level it follows that if convoy escort is needed, sea denial along the convoy route must first be defeated. The current U.S. Navy force cannot quickly defeat a multi-faceted and synergistic Iranian sea denial capability (mines, missiles, boats, submarines) with organic assets to sufficiently allow for a high level of both merchant and warship survivability. Despite Iranian sea denial, commercial shipping may still choose to transit the Strait at significant risk of damage. Escorting that shipping with warships however, will also put the warships at significant risk of destruction without abating the risk to the merchants substantially. Instead, the United States should utilize joint military operations to degrade the Iranian capacity to conduct sea denial before attempting to gain even the temporary sea control required for convoy protection.

Thus, U.S. Navy operations to protect maritime trade in the Strait of Hormuz which are not preceded by the degradation of Iranian sea denial capabilities through coordinated strike operations will result in failure. Yet, this can be made irrelevant by operational planners who follow Sun Tzu's dictum of first defeating the strategy of your enemy.[37] In order to ensure victory, the U.S. must simply not be drawn into a fight in the one place Iran can defeat it.

RECOMMENDATIONS

- Develop joint littoral environment war fighting doctrine to include:
    - Chokepoint control
    - Defense of maritime trade
- Use air and naval power to increase effects of inevitable economic shock to Iran:
    - Strike refineries, POL stockpiles and industry
    - Interdict shipping bound to Iran via Gulf of Oman ports
- Use uncontested air power to degrade Iranian sea denial capability:
    - Utilize blue water CVN and Gulf Cooperation Council states' airbases
    - Exploit Iran's air defense capability weaknesses
- Do not immediately utilize extremely valuable warships in the Strait because:
    - Relatively low value threats in large numbers may overwhelm them
    - They are not immediately needed if air superiority is gained and leveraged
    - Denies Iran the ability to utilize the bulk of its maritime forces
    - Needed to escort MCM and convoys when Strait deemed permissive enough
- Allow Iranian actions to be strategically counter-productive by:
    - Deny Iran opportunity to frame merchant attacks as attacks against the U.S.
    - Prevent opportunities for Iranian tactical success to provide national prestige

NOTES

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