

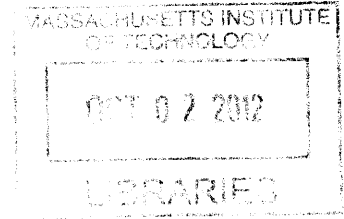
Asymmetry of Will: The effect of religious radicalism on state military doctrine

ARCHIVES

by

Patrick Lewis

B.A. History
Boston College, 2006



SUBMITTED TO THE DEPARTMENT OF POLITICAL SCIENCE IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF SCIENCE IN POLITICAL SCIENCE
AT THE
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

SEPTEMBER 2012

© 2012 Massachusetts Institute of Technology. All rights reserved.

Signature of Author: _____

Handwritten signature of Patrick Lewis in black ink, written over a horizontal line.

Department of Political Science
August 23, 2012

Certified by: _____

Roger Petersen
Arthur and Ruth Sloan Professor of Political Science
Thesis Supervisor

Accepted by: _____

Roger Petersen
Professor of Political Science
Chairman, Graduate Program Committee

Asymmetry of Will: The effect of religious radicalism on state military doctrine

by

Patrick Lewis

Submitted to the Department of Political Science
on August 23, 2012 in Partial Fulfillment of the
Requirements for the Degree of Master of Science in
Political Science

ABSTRACT

How is a state's military doctrine affected by the presence of radical religious ideology in its military? Using analysis of satellite imagery, recent military exercises, and a series of source interviews, I examine the evolution of the Iranian Revolutionary Guard Corps since the 1979 Islamic Revolution. In particular I explore the effect of religious radicalism on Iran's acceptable casualty rates for its naval operations. A successful ideologically based strategy appears to have three necessary components: terrorism as a tool for pursuing political objectives, religious ideology as a generator of potential violence, and a regime which exercises tight control over the military. Combined, these factors allow a military to mobilize a large cadre of troops that are willing to sacrifice themselves in suicide operations. Ideology overcomes conventional acceptable casualty rates for sustained military sorties. Finally, I compare the Iranian case to similar militaries in the Sudan and Yugoslavia to determine how the presence and absence of each factor affects the military's development.

Thesis Supervisor: Roger Petersen

Title: Arthur and Ruth Sloan Professor of Political Science

In the Winter of 2011 the Iranian Revolutionary Guard Corps conducted a several day exercise of its naval forces in the Arabian Gulf and the Straits of Hormuz. “Velayat 90”, the latest in a string of annual exercises centered around the Straits, was the largest showcase of Iranian military capabilities and intentions in recent history. Several minutes of video spliced together images of ostentatious Iranian generals praising the fighting prowess of their naval forces with carefully choreographed shots of maneuvering boats firing rockets. Unable to show off large formidable ships and squadrons of modern aircraft, the video focused instead on small craft that could dodge and dive around each other in precision maneuvers before converging on their hapless target—a target that eerily resembled a U.S. warship.

The U.S. congress held a hearing in February 2012 about the threat Iran poses in the Middle East and around the world. The testimonies provided by the experts and the concern from the congressmen did not sound like words one would expect to hear coming from a country that is the Goliath to Iran’s David.¹ What is special about the nature of Iran’s military that causes the U.S. to be so concerned?

I. Theory

Barry Posen's book "The Sources of Military Doctrine" breaks down military doctrines into three types: offensive, defensive, and deterrent. Offensive doctrines aim to disarm an adversary, defensive doctrines aim to deny an adversary the objective he seeks, and deterrent doctrines aim to raise the costs for aggressive action beyond the level the adversary is willing to pay.² He primarily writes about the nature of doctrine and its evolution during the first half of the 20th century during a multi-polar power arrangement when warfare planners maintained

Acknowledgements: I would like to thank all of my various friends, family, and colleagues that were involved in the creation of this thesis. Specifically, I'd like to thank Stephen Wittels and Brian Haggerty for their suggestions on the comparative cases. Most importantly, I'd like to thank Roger Petersen and Owen Cote for dragging me kicking and screaming through the editing process and turning this collection of ideas into a final product.

¹ Hearing before the Committee on Foreign Affairs House of Representatives 112th Congress 2nd Session. FEBRUARY 2, 2012 Serial No. 112–123 “Iran is up to no good, because that is what Iran is always up to. Iran is controlled by a radical, theocratic dictatorship with grand ambitions and appetites, and these tyrants rightfully see the United States as the principal impediment for their success. And they should; we are proudly the enemy of all the Ayatollah seek to achieve.”-Gary Ackerman p9. “And my sense is when you look at Hezbollah and their commitment to the destruction of the state of Israel, that is the near enemy. But the far enemy in their minds, in the Iranian—Ahmadinejad’s mind, is the United States.”-Brian Higgins p15.

² Posen, Barry. *The Sources of Military Doctrine*. p.15

remnants of the romanticized concepts of "civilized" conflict; armed forces were designed to face and defeat each other in a test of military might. Whoever could destroy the armed forces of the other would be universally acknowledged as the victor and would get to set the conditions for peace.

Post World War II, the major power struggles were generally integrated into the higher struggles of ideology between Western capitalism and Soviet communism. These two countries, caught in a potentially destructive standoff with no historical precedence, fought each other through various proxy methods. Instead of facing each other militarily, one of the powers would attempt to preemptively engage in an otherwise unimportant country to prevent the other power's spread of influence. Korea and Vietnam are prime examples of these proxy conflicts. These small countries, although receiving aid from larger communist governments, were largely on their own and had to come up with inventive ways to defeat the vastly superior U.S. military.

The losing side began to disassociate a loss of military forces with a loss of overall strategic objectives. No matter how many direct engagements the U.S. won over the Vietnamese, they never surrendered to U.S. demands. Much literature has covered how the U.S.' attempts at creating quantifiable metrics—body count, enemy weapons destroyed, square miles cleared—did not provide military leadership with accurate ways of measuring success. A small state found that it did not have to give into a larger state's demands simply because its capital was conquered or a sizable portion of its armed forces destroyed. A large state would withdraw if the costs of continuing the war were too high. Deterrent doctrines became the method for small states to protect their own political interests. Their militaries have become more creative in their efforts to cultivate an effective deterrent doctrine.

My hypothesis is that a military based on religious ideology provides unique tools for leaders creating a deterrent doctrine. Radical religious commitment can convince militaries and civilians to behave differently than secular ideologies can. It creates a culture of dedicated soldiers who are willing to die for a cause higher than themselves, allowing a military to conduct operations at a much higher attrition rate per sortie than they would have been able to otherwise. It also convinces the civilian population to support a war effort, providing a large pool of recruits to replenish the soldiers lost in combat.

Strategies associated with deterrent doctrines

To chart the evolution of deterrent doctrines, it is important first to distinguish between two important terms: deterrence and asymmetry.

Deterrence is a grand strategy that is designed around raising the cost for an opponent to fight a war with little concern for your own. A deterrent doctrine can take many different forms. In this essay I am primarily focusing on a doctrine that is both deterrent and asymmetric, but it is important to note that deterrent doctrines do not have to be based around asymmetry, and that asymmetry can be used in doctrines besides deterrence.

Asymmetry is more of an operational/tactical method that can be used in any type of doctrine. For a few years in the 1980s following the unsuccessful Iraqi invasion of Iran, Iran aggressively attacked Iraq in the hopes of using its untrained *Basij* forces in human wave attacks to overwhelm Iraqi forces. Although ultimately these attacks were unsuccessful, for a few years Iran had an offensive doctrine and used asymmetric tactics to press their agenda. Asymmetry, then, is simply the use of either unconventional technology, weapons, or forces to combat a military that is otherwise superior when measured traditionally.

While asymmetric warfare is the common tactic of small insurgent groups fighting against larger foes, the adoption of high-casualty guerilla strategies at the state level has traditionally not been sustainable for long periods of time. The ability for a state to create a deterrent doctrine, that is a doctrine that focuses on raising the cost of warfare for an opponent without regard to one's own cost, is based off a rational calculation of competing military capabilities and political agendas.

Two states that are equal in power and political will can use deterrent tactics against each other if they desire. Raiding your enemy's territories to attack his villages every time his army was out of the area is an example. Attacking unprotected merchant vessels to disrupt an enemy's economy is another. An extensive aerial bombing campaign against civilian infrastructure may damage the opposing regime's power base and put pressure on them to capitulate.

A power imbalance can also necessitate the adoption of a deterrent doctrine. When faced with a vastly superior opponent, small states are often backed into a corner where their only option is to hurt the superior state to the point where that state loses interest in fighting.³ In the pre-nuclear age, this meant using your forces to attack an enemy's population or supply routes.

³ For a summary of how states choose between doctrines, see Posen, Barry p. 78

Direct conflict was avoided, as the country adopting a deterrent doctrine was often forced into that position as a last resort. Switzerland had conventional deterrent forces which while they couldn't deny an adversary entry into their country, they could make cost of entry very high.⁴ Nuclear weapons acted as a great equalizer for deterrence. A large state would avoid invading a small state for fear of losing a city.

A difference in interest level between two states provides new strategic advantages. If a large country which stands in a relatively stable security environment decides to invade a small country in order to acquire some material wealth, the two countries will have different incentives for war. The large country may be seeking more power or prestige. This objective may be of interest to the regime and the population, but if they are already in a comfortable living environment then once the costs of war begin to build they will lose interest in further prosecution. The small country, on the other hand, if it feels that a loss will mean the death of the regime or even the state, will have much greater incentive to fight. New strategies become available as the weaker country acknowledges that because losing carries the greatest cost possible, anything less than that is acceptable. However, if the small state is not very nationalistic, the population and military's willingness to adopt high risks in order to protect the regime or state may still be limited. People will feel pride and fight, but in the end the burden could still become great enough that rule by a foreign power is acceptable. Historical imperialism gives examples of how small states might decide to accept foreign rule from large countries instead of fighting if the odds seem overwhelming.

The key factor in a successful deterrent strategy still depends on the small state being able to conduct operations in a manner that can hurt a superior opponent over a long period of time. This means that the small state must stretch out its limited resources as much as possible. Deterrence, as the last resort of a small state, relies on sustainability to be effective. High casualty rates are unacceptable, as sooner or later the small state's personnel and resources will dry up and it will be forced to concede defeat. Traditional sortie attrition rates are more important than ever as the effects of a loss are magnified given the small starting numbers.

Even terrorist groups, the groups that are traditionally associated with a complete disregard for their own lives, are keenly aware of the costs in munitions and manpower of their tactics. Suicide operators—that is, the cadre of personnel who go into a mission expecting to

⁴ Posen, Barry. p. 15

die, not just go into a mission willing to die—are not common. Vast networks of support go into targeted suicide operations. Using them often requires a fair bit of prep work and training, and even then they often have a secondary means of detonating their explosives if they lose their conviction.⁵ Ultimately, they are valuable resources that must be carefully used for key targets. If military or government leaders can overcome the natural fear of death, then a whole new array of possible strategies opens.

When a military commander is determining what his ultimate end strength consists of, he has two factors that he adds together: labor and capital. Labor is simply the sheer numbers of manpower at his disposal. Capital is the weapons and equipment the commander has at his disposal to engage the enemy. The quality of labor varies greatly within and among different armies. Whether the labor consists primarily of volunteers or conscripts matters. Their training levels matter. Training quality is both a result of the professionalism of the training cadre and the tools they have to use (e.g. amount of live fire exercises a unit can conduct is based on money and will affect the ultimate quality of the labor). Quantity and quality factors are already included in the labor force the commander has when he is ready to start an operation. These factors are intermixed during the training and preparations phases of strategy; the quality of trainers can increase or decrease the usefulness of available equipment, and the quality of equipment can affect the morale of the labor, etc., but for this purpose we're looking at the finished product that is presented to a commander as he is getting ready for battle.

The smart commander makes the best use of his strengths while mitigating his weaknesses. He has little say in the amount of capital or labor available to him. If he has a limited labor pool, then he will only selectively engage in critical missions when he deems necessary. He will try to substitute any available capital when possible. If he can only muster 100 soldiers, then he will prefer to have them equipped with the best body armor available, good field rations, and plenty of ammunition. Large states with the means often substitute excess capital for a limited labor force. When high labor casualties are unacceptable, states spend a lot

⁵ Well-organized terrorist groups have a multiple-tier structure with dedicated financiers, recruiters, bomb-makers, scouts, and operatives. The support infrastructure is significant and the planning is very carefully executed in high profile operations. I am speaking primarily of specifically planned suicide operations, although the occasional “target of opportunity” attack did occur. For high-importance attacks, suicide operatives would often go into the field with backup initiators for their explosives. These were often radio-controlled initiators, and the man with the trigger would be removed but nearby so he could detonate the explosives if need be. The purpose for this was two-fold: it served as a backup in case the suicide operative tried to detonate himself but experienced a malfunction in the primary trigger, or in case the operative had a change of heart at the last minute and decided he didn't want to die. This information is based off my experience while deployed to Iraq as a counter-IED specialist.

of money to protect their forces (a prime example is the Operation and Maintenance cost for the U.S. which went up 23% from the years 2000-2010 after adjusting for inflation⁶. The rapid increase in money spent was an effort to mitigate labor costs).

If however the commander has a vast labor pool, then he can adopt a strategy that is less concerned about human casualties; he can substitute labor for a lack of capital. When conducting deterrent operations, that means he does not have to worry about conserving his manpower. Traditionally accepted attrition rates go out the window. In classic strategies a double-digit percentage casualties in sortie rates over a period of time are unacceptable as the unit will lose fighting effectiveness as a result.⁷ However, if the labor pool replenishes itself on a continuous basis, then the attrition rates are less important and operations can continue.

Regimes can increase the commander's available labor pool by convincing the population that the cause the regime is pursuing is worthy. More specifically, if the regime can sell its agenda to the population effectively, the population will be convinced to fight despite high casualty rights. Successfully selling the agenda can either spur voluntary enlistments or justify mandatory conscriptions. The regime has to have a way to overcome the natural human fear of death. (The focus in this paper is not a psychological study on why people will decide to fight for a particular idealistic cause, but rather how they can be used as a part of an effective military doctrine if they do.) Specific ideologies draw different levels of commitment. Traditionally, labor has been constrained by the risks the individual members are willing to sustain. In the case of war, this ultimately means whether or not a military member is willing to die to achieve an objective. If a large pool of labor that is willing to die is available, commanders will have a new host of strategies available to them.

Religious ideology inspires the population to fight for a cause. In the civilian population it inspires enduring hardship while the conflict continues and encourages the continued enlistment of troops into the military. Within the military specifically it allows the use of a vast labor force that defies traditional measures of acceptable casualties. These conditions create a new variety of deterrent doctrine. Deterrence is focused on primarily hurting the enemy without

⁶ Congressional Budget Office: Linking the Readiness of the Armed Forces to DoD's Operation and Maintenance Spending. <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/121xx/doc12148/04-25-readiness.pdf>

⁷ The acceptable casualty rates for sustainable operations in conventional warfare are low. In the Israeli air campaign in Sinai, a 5% casualty rate was considered "staggering" (Journal of Military History, Volume 69, No. 3, July 2005: Remarks on Air Power and the Six Day War. Zeev Elron & Moshe Gat. p. 811-820). Percentages for ground troops lost in a single battle could be higher, but the driving factor is the acceptable rate of casualties over time.

regard to the cost to yourself, but the group using deterrent tactics must still be careful to preserve its limited labor. Not so with a religiously inspired military. Unlike secular ideologies, religion can glorify death and inspire troops to seek it; this is the basic motivation behind jihad. Religion provides soldiers with a reward after death which trumps any reward on earth. This is a powerful motivating factor to convince civilians to join the military and conduct operations that have a high chance of ultimately leading to death. Taking away the fear of death takes away the labor restrictions that other commanders have to face when asking their units to conduct risky attacks. Labor losses are acceptable within the military because the number of troops will be replenished. Even small countries, if they can mobilize significant portions of their population, can outnumber larger countries that only mobilize small percentages of their population.

The large numbers and ideologically committed nature of the troops allows a military to execute tactics involving high mortality rates—highly effective in the right conditions—and sustain them over a period of time. This takes the concept of sustainability for an effective deterrent doctrine, and without the restrictions of preserving labor, combines it with the dangerous nature of suicide tactics. The sustainability of suicide operations at the state military level presents a unique threat to traditionally superior militaries.

Commitments to ideology have manifested in various historical instances. Marxism, fascism, manifest destiny—these are all examples of ideologies that have inspired states to take aggressive steps in domestic and foreign policy. As a category, however, none of these have the same potential as a state which defines itself as the champion of a religious cause. Unlike secular ideologies, a religious ideology can convince people that there are rewards in death. This can inspire a soldier to not simply accept death as a possibility when defending his family or country. It can actually inspire him to *seek* death, as only religion can promise rewards in the afterlife.

The most striking example of a religiously-influenced military doctrine is the development of the Iranian military since the Islamic Revolution of 1979. After preliminary research, two particular instances in its modern history stand out when analysts try to explain them using traditional reasoning. The first is the decision to invade Iraq after Saddam Hussein sued for peace in 1982. This decision to was made over the strong objections of the military, and Iran lost a lot of its power and international legitimacy over the following six years. The second is the way the Iranian military has evolved from 2002 to the present, especially its naval forces.

Their military doctrine, constrained by a severe resource disadvantage, has instead focused on utilizing tactics that would take advantage of a significant superiority in state will.⁸

While other ideologies have had powerful influences over people, religion has the greatest potential for inducing the highest levels of fervor among its followers. The key difference between secular ideologies such as Communism and religious ideologies is the perceived nature of their origins. Communist movements have had significant impact on modern state conflict. However, like its natural foe capitalism, it derives ultimately from the philosophies and worldview from one person or a small group of people. This earthly nature makes the idea relatable, and people can decide to follow this ideology based on whether or not it makes sense to them. Religion has a supernatural origin and a divine purpose; these do not have to have the same levels of logical origins as secular ideologies, for the assumption is that if there is a fallacy in reasoning then it is not due to a failing of the ideology.

A divinely mandated purpose, then, can inspire people to follow its rules when they otherwise might not be willing to follow similar rules coming from secular origins. If a regime can establish itself not just as a protector of a people, but instead as the earthly mouthpiece for this divine guidance, it can ask people for untraditional sacrifices in order to advance the divine purpose. This is precisely what happened in the Iranian Revolution. Iranian scholars in the 20th century slowly redefined what it meant to be a Muslim in that particular region. Revolutionary leaders, Ayatollah Khomeini preeminent among them, adopted these philosophies and were able to subsume their own political aspirations into the higher philosophical struggles of East versus West. The Revolutionary government since 1979 has advertised itself as the reflection of God's will on earth,⁹ and the population at large accepted that.

With this divine mandate, the regime is free to pursue agendas outside the normal calculus of ensuring state survival. To accomplish these missions, the regime is able to adapt the existing principles of deterrent doctrine to make full use of its unique qualities: the ability to rely on large numbers of people who will accept a high personal risk in order to advance a cause that is greater than them. The regime is free to tell the population that their personal lives are subservient to state requirements, and a high number of the population will follow its mandates.

⁸ Iran is potentially seeking nuclear weapons, but their current deterrent doctrine is not based on them. In fact, it is a shows the efficacy of their current doctrine based on conventional technology that states who are officially against Iranian nuclear acquisition have not been able to take hard action against them.

⁹ Iranian constitution, Article 2. <http://www.iranonline.com/iran/iran-info/government/constitution-1.html>

Religious ideology allows asymmetry and deterrence to be combined in new ways. It provides a tool for a regime to innovate in ways that would otherwise be impossible. In general, it allows a government to increase the fanaticism of its troops and undertake operations that conventional militaries would not allow. Specifically, it creates a culture of soldiers who are willing to endanger themselves and even die in multiple attacks against a superior foe over time. Religion also allows for the increased militarization of the civilian population. Civilians will become more receptive to the idea of a costly war, and they will be more willing to take up arms to fight an opponent.

In chapter II, I will analyze the Iranian military forces as they stand according to the best unclassified information available in 2012. They have been trained in asymmetric warfare. In addition to traditional measures like mines and hidden missile systems which are low risk for the user, significant plans have been made for high risk tactics of quantities of weak units ganging up on a smaller number of stronger foes. Risk to individual units is high. I will pay close attention to the Naval forces and *Basij* units, as these forces represent the direct manifestation of how units can operate when they are motivated by religious ideology. I will also take a brief look at more conventional deterrence strategies and examine how they fit into Iran's broader doctrine. Iran is a unique state in that it has successfully developed a state military doctrine by incorporating two militaries with distinct characteristics.¹⁰ While these militaries have had and continue to have different corporate interests, the ruling regime has figured out a way to use them to complement each other. I will conclude the chapter by presenting a realistic hypothetical engagement between the Iranian and U.S. navies to demonstrate the effectiveness of state-wide incorporation of asymmetric tactics.

The fast moving, coordinated swarm attacks by Iranian small craft are the culmination of years of hard lessons and hard training. Their tactics do not follow the traditional rules of warfare. Most militaries do not come up with methods that anticipate their own units' demise, but that is what the key factor for a successful attack against a large opponent is based around. The numerous professional training exercises for small boat maneuvers create proficient units. Enough craft can get within range of a target to either launch their projectiles or in some cases

¹⁰ By "unique", I'm asserting that the difference between the regular military and the Revolutionary Army goes beyond the split between different branches or Active vs. Reserve forces you see in many modern militaries. Each Iranian military is comprised of ground and naval components with independent command structures and budgeting.

detonate themselves in a suicide attack. The radicalized nature of the crew inspires them to actually conduct the attack in the first place.

In chapter III, I will look at the evolution of radicalism in the military forces in Iran since 1979 to see how they evolved into the institutions they are today. The purpose of this chapter is to identify the factors in Iran's development which allowed them to create the martyrdom cult. These will establish the guidelines for the comparative examinations in chapter IV.

The Iranian Revolutionary Guard Corp's, or IRGC's, role in the state has adapted to whatever the regime's needs at time were. It started as a coup-proofing instrument to help the regime stay in power, but steadily evolved into an institution that permeated almost every aspect of Iranian life. Its capacity for violence in the face of extreme risk was improperly utilized during the Iran-Iraq war but has since been improved by Iranian military planners. It is now Iran's most significant weapon against its greatest enemy, the United States.

The IRGC could not have evolved into the presence it is today without a strong driving ideology. The origins of this ideology come from a few influential thinkers. In order to be ultimately adopted into Iran's military doctrine, it had to be sold to both the military and the civilian population. Iran's current doctrine is based on the regime's belief that it has successfully done so.

Religious radicalism allows ruling bodies to adapt traditional approaches to doctrine in new ways. As an ideology, its divine origins means that subscribers to the ideology accept that their guiding principles do not always have to follow the same rational thought process as other ideologies. Religiosity in a society has the potential to develop and spread very rapidly. If a government can convince people that its desires come from a higher power, it can legitimize its call for their sacrifice.

To successfully incorporate religious fervor into a state's doctrine, the ruling regime must learn how to instill religiosity in the military as well as the civilian population. Instilling ideology into the military alters their risk tolerance for individual operations and battles. Instilling ideology into the civilian population allows the country to prosecute a high-cost war over an extended period of time. This process requires a degree of control over both groups.

Control can be maintained over a civilian population by hard or soft means. A hard method of control would be coercion from watchdog groups with the capacity to violently punish any ideological transgressions. Soft control would be the indoctrination of the civilian

population through controlling education and other social institutions. Hard methods of control will not work indefinitely. Initially they can allow a regime to suppress an uprising and provide time to consolidate power. After an extended period of time, the civilian population will not allow violent control methods in the name of religion, as happened with the Popular Defense Forces in Sudan.

Soft forms of control are necessary to keep the population's and the regime's desires aligned. These methods primarily involve widespread indoctrination and training. A successful regime uses both hard and soft means. Hard means allow the quick rise to power, while soft allows continuation. If a regime is able to properly combine hard and soft control measures it will be able to ensure its legitimacy and popular support.

Justifying a high risk to civilians is trickier. In order to get around the restrictions of a traditional regime-populace relationship, the regime must redefine its role. This is precisely what the Revolutionary leaders did in Iran when they wrote the 1979 constitution. The government's primary role was not to protect the people per se, but rather to advance the cause of the revolution.¹¹ The people in turn are responsible for helping the government achieve that goal. In this light, the Iranian regime has sold the deterrent nature of its military doctrine to the people. Not only does it mandate service in the regular military, it demands the civilian population be willing to sacrifice themselves in the event of a protracted conflict.

Iran's current doctrine assumes a relatively high risk level for civilians as well as the military. It is important to remember that this discussion is about how the military is used once a war breaks out, not what methods are used politically to convince the other side to capitulate before hostilities break out. More specifically, this discussion does not include the use of tools such as trade sanctions against a country in order to alter its political stance. The regime attempts to sell this high risk to civilians through training and indoctrination.¹²

The Iranian Revolutionary Guard Corps, the primary tool for Iran's military doctrine, has created a rank structure which promotes independent of political interference, yet advancement to the highest ranks requires considerable ideological training. Ultimately, positions in

¹¹ Iranian constitution, Article 2. <http://www.iranonline.com/iran/iran-info/government/constitution-1.html>

¹² Although this is not our discussion here, a regime such as Iran may still use the same ideology to encourage the population to weather sanctions even though they have a considerable effect on quality of life. Recent evidence shows they are having a hard time succeeding in this: a poll conducted by the IRINN in June 2012 showed that over half the civilians asked would prefer Iran stop its uranium enrichment in order to lift sanctions. <http://www.thedailybeast.com/articles/2012/07/04/poll-shows-iranians-don-t-support-nuclear-enrichment.html>

government tend to come from the ranks of highly indoctrinated senior IRGC officials, especially since Ahmadinejad's election in 2005.

In chapter IV, I compare the IRGC to a similar experiment in Sudan which failed in order to identify what happens when certain critical components aren't involved with the development of a radicalized military. I also quickly look at the deterrent doctrine in Yugoslavia in the 1980s to compare and contrast the available tactics for deterrent doctrines with and without a basis in religious ideology. Finally, I make some generalizations and tie my conclusions into broader International Relations theory.

II. Iran's current military composition

In a conventional balance of power scenario the massive resources available to the U.S. military would be insurmountable by Iranian forces. The U.S. Defense Department's 2013 budget request totals to \$613 billion, including the cost of war in Afghanistan.¹³ The U.S. Navy alone is requesting a \$155 billion base budget, \$42 billion of which is dedicated solely to procurement. Despite its significant oil wealth, Iran does not have the economic power to compete with these numbers.

U.S. military expenditures in 2012 are almost 2/3 of Iran's total GDP of \$928 billion USD.¹⁴ Iran's estimated defense budget is roughly \$12 billion USD for calendar year 2012.¹⁵ This does not include the budget for the IRGC, which continues to buy patrol craft at a steady rate.¹⁶ Iran's doctrine is designed around closing this enormous resource gap. Whereas the U.S. will substitute capital for labor in order to save lives, Iran has developed a doctrine that compensates with labor what it lacks in capital.

The U.S. invasions of Iraq and Afghanistan in the 2000s changed Iran's strategic environment. They displayed the might of conventional U.S. military power, but also displayed its vulnerabilities to asymmetric attacks.¹⁷ The Iraqi insurgency had far fewer personnel and resources than the U.S., but it was still able to mount significant opposition over the years. The exact fighting forces in Iraq were difficult to determine. In any given month starting in 2004,

¹³ DoD FY2013 Budget Request. p 1-1.

http://comptroller.defense.gov/defbudget/fy2013/FY2013_Budget_Request_Overview_Book.pdf

¹⁴ CIA World Factbook <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>

¹⁵ <http://www.defensenews.com/article/20120202/DEFREG04/302020003/Iran-Plans-127-Percent-Defense-Budget-Increase>

¹⁶ Office of Naval Intelligence. *Iran's Naval Forces*. p 13

¹⁷ Office of Naval Intelligence. *Iran's Naval Forces*, p.9

estimates went from 5,000 fighters nationwide up to 30,000 by 2007. An outlier estimate made by an independent research group placed the number around 70,000 at the height of the conflict in 2007.¹⁸ This number included any hardliner fighters as well as anybody offering part-time support.¹⁹ Using the larger N dataset highest estimation of 30,000, U.S. troops still outnumbered insurgent forces by several factors but were unable to achieve political victory. Estimates for the amount of funding available to the insurgents vary wildly from \$70-\$200 million annually.²⁰ Regardless of where the actual number in that range falls, it is only a fraction of a percent of the U.S. budget. To put the costs in perspective, between 2001-2008, close to \$801²¹ billion had been requested by the executive branch in the U.S. to conduct the wars in Iraq and Afghanistan—over \$274 million *daily*.²² Despite the huge imbalance in resources, the insurgents were able to fight the U.S. forces for many years. These lessons were not lost on Iran.

In addition to seeing the effectiveness of terrorist tactics against superior forces in Iraq and Afghanistan, Iran had had the last fifteen years to study the operations of the Iran-Iraq war and realign their fighting forces accordingly. The IRGC, faced with a distinct resource disadvantage, remained technologically simple and improved their capabilities through a series of training evolutions which focused on asymmetric tactics.²³

Iran's current strategy

In simplest terms, the Iranian military doctrine has created its own set of rules for what is acceptable behavior in warfare. It is willing to conduct military operations that other states consider horrifying. It is willing to pay an exorbitant cost in labor terms, and the larger state must decide if it is willing to play by these newly defined rules. If the larger state refuses to play, then Iran wins by default.

¹⁸ Brookings Institution. "Iraq Index: Tracking Variables of Reconstruction and Security in Post-Saddam Iraq" p. 26 <http://www.brookings.edu/fp/saban/iraq/index.pdf>

¹⁹ Brookings Institution. p. 27. As an interesting aside, one of the Army Colonels noted in a brief that while few of the fighters came from outside Iraq, most of suicide bombers seemed to be foreigners.

²⁰ New York Times article from November 26, 2006, "US Finds Iraqi Insurgency has Funds to Sustain itself"

²¹ Congressional Budget Office testimony before the US House of Representatives on October 24, 2007.

http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/86xx/doc8690/10-24-costofwar_testimony.pdf

²² \$801,000,000,000 / (8 years X 365 days). The actual cost per day would be higher, as this formula assumes the war began in January 2001.

²³ This essay is a discussion on unconventional tactics used by conventional militaries. I acknowledge the importance of two significant groups Iran has to pursue its political goals: Hezbollah and the Qods Force. These groups have significant regional and even international influence, but they are not related to the military strike capacity I am exploring with the IRGCN.

The term “center of gravity” is used in military planning to refer to the critical component of a strategy on which the military draws much of its strength. The center of gravity for the English in the 1300s was their longbow units, for Russia its vast amount of hostile terrain. The center of gravity for Iran is the “martyrdom cult” which it has developed in the military. This group of radical believers is the key to Iran’s deterrent doctrine; without these committed idealists its ability to threaten to close the Straits of Hormuz would be significantly reduced. This doctrine has evolved over the last 30 years as a result of international pressures and internal struggles within Iran.

The martyrdom cult is the cadre of soldiers and sailors in the IRGC that are ideologically dedicated to the principals of the 1979 Iranian Revolution. Many senior officers have experience fighting against Iraq in the ground war and the U.S. in the naval war. Young members are recruited based on their levels of dedication, and once conscripted are further radicalized by continuous religious training.²⁴ The entire premise for the military is that members are willing to sacrifice their lives to advance the Islamic revolution. The rewards that await them in the afterlife are great. Death is simply the gateway to these rewards, so the members that are successfully radicalized by the leadership do not fear it and are therefore willing to undertake dangerous, even suicidal, operations.

While the martyrdom cult is present in all areas of the IRGC, no other group exemplifies it the way the *Basij* forces do. These are the radical of the radicals, the most fervent and devoted members of Iranian society. Historically they have demonstrated their willingness to throw their own lives away in hopeless human wave attacks, or to run out onto a minefield to clear it to allow the regular troops to follow safely behind. Recently this group has been formally incorporated into the regular military structure, a clear promotion for their ideological fervor. Other branches of the military are being further encouraged to fully absorb the *Basij* mentality.

Iran’s aggressive, borderline suicide strategy would not work without an extreme level of religious fundamentalism found in both the officers and regular members of the Iranian Revolutionary Guard Corps Navy, or IRGCN. Instilled at a young age through various social institutions and cultivated throughout the career of the sailor, the leadership has created a martyrdom cult that harnesses the radical beliefs of the Islamic revolution of 1979. Military service is compulsory for males, with the enlistment age being 19. Men can volunteer as young

²⁴ Interview, Evan Bruno, NGA. Biography in Appendix 2

as 16, and the *Basij* members can be as young as 15.²⁵ Although the IRGCN has evolved into a professional dedicated fighting force, its heritage as a paramilitary organization founded on religious principles has created a cadre that does not follow a rational risk vs. reward curve.

Iranian naval forces are divided into two distinct groups: the regular Navy, or IRIN, and the IRGCN. The strategies adopted by each are different but complementary in Iran's overall doctrine. The IRIN focuses on conventional platforms such as frigates, submarines, and patrol craft. The IRGCN focuses on missile boats and coastal patrol craft—simple technology in large quantities. Unimpressive as individual systems, when combined in numbers and used by sailors with little regard to personal risk they present a formidable threat.

The IRGCN became the force it is today in 2007, when Iran reorganized its naval operating areas to take advantage of the strength of each force. The IRGCN became responsible for the Straits of Hormuz and all points west into the Arabian gulf (except for one exception, discussed below). The IRIN shares responsibility for the Straits and all points east into international waters. Iran also decentralized its command structure, allowing for more autonomy from its individual units in the event communications with the command structure were cut off.²⁶ This was a change from the late years of the Tanker wars, where most strikes on shipping were probably coming from the highest ranks within the military leadership.²⁷ Additionally the *Basij* forces, the most radicalized units in the military and the vanguard of mass suicide operations, were formally adopted into the structure of the IRGC. An estimated 10,000 *Basij* forces are dedicated to each of the IRGC's 31 military districts.²⁸

The IRGCN is split now between three major operating districts. The 1st is headquartered out of Bandar Abbas, the most critical port for operations closing the Straits. The 2nd IRGCN district is headquartered out of Bushehr in the northern part of the Arabian Gulf. It is no coincidence that these headquarters are close to a number of Iraqi and Kuwaiti oil platforms. Within the Gulf, there are significant IRGCN bases also on the islands of Larak, Sirri, Abu Masa, and the Greater and Lesser Tunb islands²⁹ (the final three islands are technically disputed territory with the U.A.E., but Iran has had a permanent military presence on them for years). The

²⁵ CIA World Factbook. <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>

²⁶ Office of Naval Intelligence. Iran's Naval Forces, p.11

²⁷ Interview, Conway Zeigler, SAIC. Biography in Appendix 2

²⁸ Secretary of Defense Unclassified Report on Military Power of Iran. April 2010. Provided by: <http://www.foxnews.com/projects/pdf/IranReportUnclassified.pdf>

²⁹ Interview, Evan Bruno, NGA.

IRGCN 4th naval district is located out of Asalouyeh. The infrastructure there is not complete yet, but the location is dead center in the Gulf and provides an ideal staging area for operations throughout the region.

The IRGCN does have a presence in the IRIN headquarters in Jask, east of the Straits. The comparatively open waters of the Gulf of Aden do not provide the same geographical advantage to IRGCN small craft, so to date the primary efforts here have been conducting missile drills.

The IRIN, though a smaller component of Iran's deterrent strategy, still plays a critical operational role. As of 2010, the IRIN commanded 17 vessels capable of extended operations beyond coastal waters.³⁰ Most of their vessels are old frigates and corvettes, but recently they have begun efforts to modernize their capabilities as well with the production of the frigate *Jamaran* and their own line of midget submarines.³¹ The extended range and endurance of IRIN vessels over IRGCN vessels is a part of the "layered defense" strategy³² which outlines redundant methods of detection through early warning radars and manned ships and aircraft in order to allow a quick deployment of assets to the Straits of Hormuz. Iranian doctrine relies on them being able to close or at least control the Straits, and extending the IRIN forces eastward expands its early warning range. These vessels are combined with early warning radar systems based east of the Straits in Jask and Chabahar. IRGCN squadrons, trained to rapidly deploy from their bases with little notice, will have ample time to react to any foreign vessels entering into the Gulf of Oman.

The IRIN is also responsible for two of Iran's highest visibility naval operations. The first is the annual cadet cruise. A frigate filled with IRIN cadets will make its way into the Gulf of Aden on a flag-waiving mission. These cruises have recently gone through the Suez canal into the Mediterranean Sea for the first time since 1979.³³ These decades old vessels can not make the trip alone; they are always followed by a full time support ship to keep them running. The other out of area (OOA) deployment is the small task force they sent starting in 2009 to conduct anti-piracy operations. They have not captured any pirate vessels, but the fact that they

³⁰ Jane's Fighting Ships, 2009-2010. p. 368. This is a total number assuming all vessels are operational simultaneously, which doesn't happen.

³¹ Jane's Fighting Ships, 2009-2010. p. 371

³² Office of Naval Intelligence. *Iran's Naval Forces* p.11

³³ The Telegraph, 20 February 2012.

<http://www.telegraph.co.uk/news/worldnews/middleeast/syria/9092853/Iranian-naval-ships-dock-in-Syria.html>

are able to maintain continuous OOA operations is a major step forward in their capabilities. Extended naval operations require a well-trained cadre, and although their equipment is outdated the experience the crews are gaining will help professionalize their force. An effort on extended operations away from their home port is a classical display of naval capability and is an important part of convincing other states they have an effective force. Increasing their presence further expands their detection network.

The acquisition focus of the IRIN highlights their emphasis on deterrent doctrine. Most of their equipment is antiquated remnants from the 1970s, with efforts to upgrade and replace their regular surface fleet starting only recently. In the 1990s they purchased old KILO class submarines, well suited to patrolling the narrow Straits when they are adequately maintained. In the 2000s, they purchased a number of *Yono* class submarines. These craft are slow and have only a limited range, but are very small and hard to detect when operating on battery and running only 2-3 knots. They are ideal vessels for the narrow geography of the Straits. In August of 2010, Iran revealed its own indigenously produced version, the *Nahang* class submarine in order to increase its independence from foreign power.

Submarines are the classic naval strategy for implementing a deterrent doctrine. Their stealthy nature and ability to control the timing of engagements allow hit and run strategies that can target an opposing power's supply lines and slowly erode their will over time. The expensive nature of submarines and the complex training required for the crews however make these assets individually valuable, and a country with limited defense spending will only choose to use them when the risk factor is low enough to mitigate the chances of losing them.

Instead, to make their deterrent strategy work Iran has focused on building a force that can aggressively engage an enemy. Iran has bought or built a large number of cheap vessels. Their patrol crafts, the *Houdong* and *Combattante* class vessels, are agile coastal runners with modern weapons such as C-802 missile launchers which are capable anti-ship systems.³⁴ The IRGCN has also locally built modern *Peykaap* patrol vessels armed with torpedo launchers and purported limited stealth capabilities.³⁵

The key unit of the entire IRGCN is their vast quantity of tiny attack craft. Smaller even than the *Houdong* and *Combattante* patrol class vessels, these craft range on average between

³⁴ These anti-ship missiles can hit targets over 60NM away when coupled with good targeting systems. This provides ample coverage throughout the SOH.

³⁵ Jane's Fighting Ships, 2009-2010. p. 376

15-30' long. Some are outboard motor, some have cabins, and some are capable of doing over 50 knots on calm water. Essentially, any small craft with a strong hull and fast engine is a viable platform. These are low tech boats that can be armed with a variety of weapons: small arms, crew served machine guns, rocket launchers, missile and torpedo tubes, mines, or simple explosive payloads designed for suicide detonations. According to an interview in the Iranian press with IRGCN Admiral Fadavi, they have "hundreds of vessels of every class at [their] disposal"³⁶.

Determining the exact numbers of the IRGCN's small craft is currently impossible. Official press statements such as the above are imprecise and often contradictory. Overhead imagery can't provide a single snapshot of Iranian port facilities for one point in time. The small size, speed, and mobility of these vessels means that analysts can never be sure they're not double-counting the same vessels in different ports (due to movement between the times the imagery was taken) or missing vessels altogether because they were out to sea during the time the imagery was taken. The small craft don't use pennant numbers the way the IRIN vessels do. Ultimately, the most the analyst can hope to do right now is narrow the possible size of the fleet down to a reasonable range. The results can be used to determine a range of personnel required to man the craft.

Reputable private intelligence firms such as *Janes* provide a list of seven known variants and their expected crew complements.³⁷ Taken literally at his word, Fadavi's comments of "hundreds of each class" would equal 1400 craft. Undoubtedly he was speaking more for effect than accuracy. Allowing for a margin of error of 400, there are between 1000-1800 of these small craft.³⁸ Crew complements for these craft vary from three to six depending on the variant. Altogether, the range of personnel to man all craft with a dedicated crew would be anywhere from 3000 to 10,800. *Jane's* estimates the total size of the IRGCN to be around 20,000.³⁹ The remainder of the personnel not dedicated to the small craft would act as crew for the other larger, more advanced patrol vessels and in whatever support capacity was required.

³⁶ Interview with IRGCN ADM Fadavi, Tehran Jam-e Jam Online.
<https://www.opensource.gov/wiki/display/nmp/Jam-e+Jam+Online>

³⁷ *Jane's Fighting Ships*, 2009-2010. p. 376-377

³⁸ This is an estimate based on the author's own reading of a multitude of news releases and analysis. Neither the Office of Naval Intelligence in their unclassified report on Iranian Naval Forces, *Jane's*, or the January 2012 Congressional Report contain official estimates.

³⁹ *Jane's Fighting Ships*, 2009-2010. p. 368

These boat squadrons are trained to mobilize quickly and attack in swarms, and pictures of their exercises have shown over 30 vessels acting in fast-paced, coordinated maneuvers around a target. Ultimately they are designed to attack in large enough numbers so that a few can get through a ship's defenses and either launch rockets or detonate themselves at the waterline. They are piloted by sailors who are highly indoctrinated to be obedient to the regime and the legacy that Ayatollah Khomeini created in the Revolution. And, unlike the other units and weapons, due to the decentralization of the IRGCN command structure the small boat squadrons can act independently and continue to attack targets of opportunity after they have lost contact with senior leadership.

These craft are ideal due to the geographic conditions for Iran. The narrowness of the Gulf provides an advantage to the small craft swarm tactics. Iran has ~1050 miles of coastline along their southern border (excluding the coastline along the Caspian Sea), and any boat slip can serve as an adequate mooring point for a number of these craft. There are approximately 74 mooring areas suitable for small craft along the coastline between the Iraq/Iran border and Bandar Abbas,⁴⁰ so they have the advantage of choosing engagements where they will be able to locate and attack targets that seem more vulnerable. While most of these mooring areas are not suitable for long term deployments, in the even of wartime they make adequate forward staging areas for a couple days at a time. Their numerous locations mean that the entire coastline becomes a potential staging point, making these units very difficult to find. With sustained speeds of 40 knots over time, half of the Gulf is reachable in an hour's time.⁴¹

The issue of geography must be briefly addressed due to the significance of the Straits of Hormuz. About 17 million barrels per day of oil pass through the Straits. This equals about 35% of all seaborne oil flow and about 20% of all oil traded worldwide.⁴² The narrowest point in the Straits is 21NM wide and the deep-water channel which almost all of the tankers use is scarcely 2NM wide in each direction. The largest single concentration of oil in the world relies on a 2NM wide path to get from the Arabian Gulf to the rest of the world. This is why the Iranians have tried so hard to cultivate a strategy that would allow them to control or at least disrupt the significant oil resources coming out of the Gulf. It is also why the U.S. is paying close attention

⁴⁰ Appendix 3. I used Google Earth satellite imagery to count each potential docking area. See attachment for my complete search criteria/details.

⁴¹ Appendix 5.

⁴² U.S. Energy Information Administration. <http://www.eia.gov/countries/regions-topics.cfm?fips=WOTC&trk=p3>

to their military capabilities. Geography is what makes their particular strategy effective, but it is not responsible for its growth. The strategy of continuous high-casualty sortie operations comes from the martyrdom cult, and the geography is a feature which increases the likelihood of its effectiveness.

Weather conditions also tend to favor small craft operations in the Straits. The dust storms that originate over land in the Middle East often move out over the water and severely reduce visibility. These small craft are hard to detect on radar, and may be nearly impossible to find using conventional overhead imagery assets during a bad storm. Infrared technology could prove more useful, but it has its own limitations at certain times of day like dawn and dusk when objects are hard to distinguish from the ambient temperature. The most reliable sensors—vision—offer the best detection. Ultimately, attack success will come down to a simple equation of how quickly the craft can close with a vessel after they have been detected.

The martyrdom cult provides other innovations to military planners. It can allow old technology to be used in new ways. In the past few years, Iran has developed a series of “flying” boats, or Wing In Ground boats, which are designed to move at incredibly high speeds over the water. They are not aircraft, but they move fast enough to come out of the water and “fly” a few feet above it. Although they do not have the maneuverability of an aircraft, unrestricted by water contact they can reach very high speeds. The drawback for these craft is that in order to rise above the water, they are severely restricted on the types of payload they can deliver and the protection for the pilot. Operating these vessels in the presence of enemy forces would be risky. The WIG concept is not new, but employed in the confines of the Straits of Hormuz and Arabian Gulf, these craft could prove to be effective scouts. Their high speeds, small size, and low altitudes give them potential for use as fast reconnaissance platforms, providing another level of redundancy for Iran’s layered defense strategy.

The footage that has come from Iran in the past several years from their various military exercises have all showcased their emphasis on their ability to carry out these small craft swarm attacks. The most recent was Velayat 90, which took place in the Straits of Hormuz. Velayat translates roughly into “supremacy” and 90 is for the Persian calendar year 1390. These exercises have been occurring in earnest for the past several years, and each one is more involved than the previous. Official video releases from Iranian news agencies play up their capabilities and emphasize their ability to control the Straits of Hormuz should they desire.

It is true that both navies have a reputation for inflating their capabilities. IRGCN press releases are heavily edited. They will show the same patrol craft firing a missile half a dozen times throughout the course of the video with a cutaway of some warhead hitting a target, giving the impression that many different vessels successfully struck their targets. While these videos are clearly propaganda pieces, they do demonstrate the IRGCN's ability to conduct extensive coordinated maneuvers with their small craft. Long range, accurate warheads are not necessary. IRIN leadership also inflates the capability of their weapon systems. The Fajr-27 cannon, debuted in 2006, was advertised as an advanced ship's cannon.⁴³ In fact the system resembles the OTO Melara, the small cannon on U.S. frigates. They both fire 76mm shells with an advertised range of 10.5 statute miles. For comparison purposes, the "pea shooter", or 5" gun, on U.S. destroyers and cruisers is a much higher caliber weapon with a range of 13NM.⁴⁴

On the other hand, some of their systems are effective weapons, including their submarines and mines. While plagued with maintenance issues, when operational KILO submarines are very quiet vessels ideal for deterrent operations. In 1993 Iran purchased a number of Chinese EM 52 rocket propelled anti-ship mines, and their purchase of the KILO submarines likely included mines as well. When added to the domestically produced mines, Iran possessed an estimated 2000 mines by 2004.⁴⁵

Before 2007, both the IRIN and IRGCN shared operating areas. The difference between the two was how different technology and tactics developed to carry out their strategy. Now the missions are doctrinally equal but tactically different. The IRIN conducts high visibility missions, acts as an early warning network, and develops conventional platforms adept at performing deterrent actions. The IRGCN is responsible for the Straits of Hormuz and the Arabian Gulf, the central geographic regions for Iranian power. The key to Iran's doctrine is its insistence that it can control the Gulf and the Straits, thereby controlling flow of the majority of the world's oil supply. The IRGCN is a better tool to accomplish this than the IRIN. The cost for Iran in lives and trade to execute this doctrine is high, but their commitment to the development of asymmetric capabilities in the IRIN, and especially the low-tech methods of the IRGCN, is a signal that Iran is willing to pay that cost.

⁴³ Associated Press. September 27, 2006. <http://cedarsrevolution.blogspot.com/2006/09/announcing-fajr-27-cannon-iran.html>

⁴⁴ http://www.navy.mil/navydata/fact_display.asp?cid=2100&tid=575&ct=2

⁴⁵ Office of Naval Intelligence. *Iran's Naval Forces* p.16

U.S. response to small craft

U.S. military planners have conducted extensive studies on the Tanker wars. During the war, U.S. Naval intelligence ordered the threats in order of danger: first was the covert mining threat, then the silkworm anti-ship cruise missiles, then the IRGCN small boat threat.⁴⁶ The small boats would get close and launch white phosphorous rounds and drop mines in front of vessels. While Iraq would lay out large general minefields, the Iranians would strategically emplace them to focus on the most vulnerable targets, scoring 9 hits out of 84 mines laid.⁴⁷ It was only after the U.S. Navy caught the Iran AJR in 1987 while it was trying to lay mines around the USS LaSalle off Bahrain that this strategy stopped working. After Operation PRAYING MANTIS, where 8-12 IRGCN boats were destroyed, Iran did not interfere with U.S. protected convoys again.

However, the ability of U.S. ships to defeat the small boat threat with relatively minimal effort in the late 1980s does not directly translate to an ability to defeat the modern IRGCN threat. These attacks, while countered after only a few successful runs, were executed by an ad hoc force with little training. IRGCN small boat squadrons now are used to conducting large coordinated maneuvers designed to confuse their target and ensure that at least a couple will get close enough to conduct an attack. To counter this threat, the U.S. Navy will have to closely consider what a likely engagement would look like. What follows is a hypothetical engagement between a U.S. vessel and an IRGCN squadron. The intention is to show that the high technology, or capability, of the U.S. ship is neutralized by the ideological fervor, or will, of the *Pasdaran* units.

When discussing a wartime scenario, many planners place emphasis on two important capabilities of the IRGCN: their array of SAMs and the threat of covert mining. While these systems present legitimate threats, the U.S. Navy is well aware of their capabilities and already has effective standard operating procedures in place to counter them through mine warfare units, suppression of enemy air defenses (SEAD), and a networked system of acquisition and targeting radars. The danger comes instead from the uncertainty that these small boats will bring into the operational picture.

The sheer numbers, speed, and ideological commitment of the sailors, combined with regular training, a clear mission statement, and a decentralized command structure, create a force

⁴⁶ Interview, Conway Zeigler, SAIC

⁴⁷ Interview, Conway Zeigler, SAIC

capable of inflicting significant damage against technologically superior enemies. Anti-surface (SSM), anti-air (SAM), and portable shoulder-shoulder fired missiles (MANPADS) provide a more permissive operating environment for IRGCN units, or at the very least deny U.S. vessels and aircraft unrestricted freedom of maneuver. Mines supplement the threat by providing area denial when deployed in key chokepoints by other platforms, or as weapons for small craft to utilize during their own operations.

These craft have their limitations, primarily wave conditions and endurance. A small craft may be able to sustain 50 knots on open smooth water, but the water in the Arabian Gulf and the Straits are not always smooth. Seas vary on average from 0-3'.⁴⁸ More realistic speeds probably resemble typical pirate operating speeds over sustained periods, between 20-40 knots. Also, small craft do not have enough fuel for extended operations beyond the coastline.

Confrontation between a martyr force and a technologically superior enemy.

Below is an example attack, based on realistic conditions, originating from Iran's key naval base, Bandar Abbas.

Assume Iran has declared the Straits of Hormuz to be closed, accepting a hit to their own economy in order to hurt the U.S. and other western economies in accordance with deterrence maxims. Iran has at its disposal three distinct deterrent methods to enforce this closure: a capable mine inventory, small quiet submarines, and a fleet of small boats. The mine and submarine threat are understood, and the countermeasures while not easy are still variations of tactics that have been used before. A small craft attack would look as follows.

Bandar Abbas is the most important base in Iran. It is in the middle of the Straits of Hormuz with quick access to the narrowest channel in the area. Home to both the IRGCN and IRIN, every type of critical unit is harbored here: *Houdong* patrol vessels, *Yono/Nahang* midget subs, go-fasts, the KILOs, and WIG boats.⁴⁹ This is the critical node for Iran's naval forces. Constant U.S. surveillance leading up to a conflict is a fair assumption. Destruction of this port would be a serious problem for Iran, especially if all the above vessels were caught there unawares. One of the surest indicators of an impending aggressive action from Iran will be a relocation or deployment of a number of these vessels to make them harder to track and kill. This will be an effort to sustain their strike capability once hostilities have begun.

⁴⁸ Interview, Stefan Lamberski, US Navy Surface Warfare Officer. Biography in Appendix 2

⁴⁹ Imagery, Appendix 1

The narrowest channel in the Straits of Hormuz is about 21NM. Bandar Abbas is within 40NM of most areas in the Straits, and the U.S. naval bases in Jebel Ali and Fujairah, U.A.E are not much farther.

Advertised speeds for the small boats are 50+ knots, but assuming these speeds are somewhat exaggerated like many other parts of Iranian military capacity, I'll calculate their operating speeds as closer to 40 knots for sustained periods of time.



The 0-3' seas in the Straits allow for those speeds even from small craft. Tipped off by the IRIN vessels east of the SOH as the first part of the layered defense strategy, small boats could reach any vessel within the majority of the Straits in an hour.

Electronic or radar detection of these small craft squadrons is not assured: even radars calibrated for current climate and mission conditions have a hard time finding craft that small, and if they are noticed they are hard to distinguish from the constant pirate and smuggler traffic.⁵⁰ While UAV assets may be present, Iran does possess a number of capable SAM systems that could interrupt the continuous ISR coverage U.S. military enjoyed in Iraq and Afghanistan. Often the first warning a U.S. vessel gets that a squadron is incoming is from the lookouts.^{51,52} Visibility is often reduced to 7NM due to haze from dust picked from the nearby landmasses. Assuming that a sharp lookout picks up an incoming attack squadron right at 7NM, the ship will have approximately 10.5 minutes to react, not factoring in a speed increase for the small craft (which is likely as they get to the “terminal maneuver” stage of their attack), or an opening maneuver by the vessel to buy more time (which is difficult for a large vessel in a narrow channel).

⁵⁰ Interview, Stefan Lamberski, USN

⁵¹ Interview, Stefan Lamberski, USN

⁵² One possible alternative way to detect these craft, which I could not find concrete enough material on, is the possibility of sonar detection by friendly submarines in the area. This is a reasonable idea, but that information isn't available to me.

The ship (I'll assume for this scenario is a dedicated anti-surface platform like a frigate or destroyer) has a limited number of defensive weapons to use. The 5" cannon and most of the other weapons would have a hard time acquiring targets, leaving the crew-served weapons as the primary means of defense. Provided the typical squadron attack size would number around 30 small boats, the ship will have to destroy on average about 3 incoming vessels a minute for 10 minutes, including the first minute of detection. This is a simple breakdown of the numbers. The issue is complicated by the fact that the small boats don't attack in a straight, uniform line so often seen in Iran's televised newscasts. They will zigzag in complicated maneuvers to make targeting and engaging them more difficult once they have been detected. Many factors could affect conditions in favor of either side, but this demonstrates the operational picture for vessels wishing to transit the Straits. There is a good chance that at least a few of the vessels would get within range and deploy their weapons.

Iranian commanders know that in order to achieve victory, their sailors will have to engage in multiple waves over time for these attacks to be effective. The low-tech weaponry and small individual payloads of each vessel means that each single craft presents little threat to its target. Added alongside thirty other craft of similar capabilities in an attack, the overall lethality of the strategy is increased. Sheer volume and attrition is what drives the overall strategy. The ability to maintain the numbers required for these attacks comes from the ideological commitment of the troops—the martyrdom cult. This particular scenario assumes a direct attack on a U.S. warship. This is one of the most dangerous missions the IRGCN could undertake. While not outside the realm of possibility, the more likely scenario is the IRGCN would launch an attack like this on a cargo or oil vessel, as they did in the 1980s. These vessels would undoubtedly be under escort, but the acquisition and training efforts of the past twenty years have led to an IRGCN force that is coordinated, armed, and aggressive enough to raise the risk of traversing the Straits to a level that is no longer profitable for the companies and states involved.

III. Evolution of the IRGC

This chapter will examine the events in Iran's recent history that led to the IRGC's development into what it is today. The purpose of this examination is to give historical context to the current regime and military. By identifying the critical factors that led to the development

of the martyrdom cult, we can create “checkpoint” indicators to determine the likelihood of future states following the same path.

An ideological appeal to the military or civilian population in order to promote a doctrine is not new. What is new is the nature of the ideology, and the extent of belief that is required in order to make it effective. Iran realized the value of terrorist actions following the bombing of the U.S. Embassy in Beirut. The extreme actions of a single person with limited technology convinced a powerful state to withdraw its diplomatic presence. That was a powerful message on the effectiveness of terrorism. Iran also realized the value of asymmetric tactics as a result of the wars in Iraq and Afghanistan. Constant, objectively low-casualty inducing attacks could have a significant impact on a state's will if continued over time. With the efficacy of the strategy being apparent provided the risk level was acceptable, the Iranian regime carefully crafted the nature of the ideology to make the doctrine sustainable. The uniqueness of the IRGC lies in how its radicalized members were absorbed into an overall strategy. The fervor of the troops was forged into an effective fighting doctrine. This chapter is organized into four specific eras from 1979 to 2012. The IRGC developed in different ways each decade militarily, socio-economically, and politically. During each era, Iranian leadership learned critical lessons: larger states can be forced to accede to a smaller state's political goals if coerced via indirect conflict, radicalism creates the potential for great violence, and in order for that radical violence to be effective externally or internally it must be controlled.

The 1979 revolution was the inevitable outcome of the bitterness with the Shah's autocratic regime. The rise of radical Islamism in Iran was a reaction to the perceived decadence of Western philosophy and culture. The ideological leaders were highly educated men and had a great influence on Ayatollah Khomeini's spiritual growth. During the early years of Khomeini's rule, the effectiveness of terrorist activities especially in Lebanon showed that in fact the U.S. would succumb to political pressure to small but carefully directed suicide attacks. He also understood that if he allowed his forces to conduct attacks at will he risked hardening his enemies too much, eliminating his advantage. Khomeini consolidated the various Revolutionary militia groups into the IRGC in order to protect his fledgling regime.

Iraq invaded Iran when it saw an opportunity to take advantage of its weak neighbor. The war would soon become a taste of what a state military could do with radical inspiration. Suicide units could be used not just in terrorist attacks but as a part of a larger battle plan.

Pasdaran units, and especially *Basij* troops, relentlessly threw themselves into rout after rout, defying the logic for acceptable casualty rates. However, they were only somewhat effective—the war also illustrated the vulnerability of these units: the violence potential for radical units could not be fully utilized in military operations due to the lack of control the battlefield commanders had over them.

The IRGC evolved in the 1990s, a “transition” decade between the simple ideological force of the 1980s to the organized institution it is today. Militarily it increased its operational capacity through continued recruitment and training in order to increase the caliber of its recruitment pool. It also expanded into the civilian sector in businesses and educational institutions. This allowed it to control the dialogue in Iranian society by making membership (or at least affiliation) with the IRGC a prerequisite to succeed in the business world.

The IRGC’s training exercises in the 2000s have the characteristics of professional militaries. Coordinated military activity training exercises have greatly increased in an effort to refine their tactics, resulting in the forces it has today. Although radicalism is a requirement for the highest levels of leadership, at the tactical levels units are receiving considerable training to hone their abilities. The professionalization of the forces allows the radical leaders to control their capacity for violence, resulting in an effective deterrent doctrine.

The origins of Iranian Islamism and modern terrorism

To understand how Islamism affects military doctrine, we must first take some time to define exactly what it means to be Islamist. In doing so, we will discover that there is no one “Islamist” school of thought, just as there is no one “Western” school of thought. The way Islamism developed specifically in Iran gives great insight into how the population generally and the military specifically could be controlled and developed. The phenomenon of the “martyrdom cult” in the IRGC is not a cultural characteristic unique to just the members of the IRGC. The inception of these ideas, of self-sacrifice for an intangible “higher moral purpose”, comes from the philosophical writings of a small core of Islamic philosophers who had a fascination with a narrow historical portion of Western civilization. These ideas created the violence potential of radical religious forces.

The philosopher who shaped at the theoretical level the intellectual discourse of the Iranian Revolution more than any other man was Ahmad Fardid.⁵³ When looking at Western

⁵³ Mirsepassi, Ali. *Political Islam, Iran, and the Enlightenment*. p. 30

philosophies, Fardid and the other Islamic scholars who had the most impact on Revolutionary leaders particularly focused on the negative philosophies of Frederich Nietzsche and Martin Heideger. Democracy, therefore, began to be associated with the pessimistic worldviews of 19th century German philosophy, the rise of fascism, colonialism, and imperialism.

Fardid argued that for the previous 200 years leading up to the Revolution the West had been attacking the culture and history of Islamic and Oriental countries. He and his students assumed the role of intellectual prophets who believed that the state should exist to advance the idea of a utopian Islamic morality.⁵⁴ Iranian scholars developed the notion that daily struggles are not as important as the drive for a form of utopian “heaven on earth”, a rejection of the intellectual starting point for democracy which is the concern for individual happiness, freedoms, and everyday challenges. Modernity, equated to their narrow definition of Western ideology, became synonymous with evil. Politically, Islamists could present their agenda in terms of opposing identities between Islamic and Judeo-Christian cultures.⁵⁵ By setting the parameters legally and ideologically for his successors, Khomeini ensured that the acceptance of these Revolutionary philosophies would remain an integral part of Iranian identity.

Under this ideological protective umbrella, Khomeini held numerous audiences with representatives of different groups throughout the country to hear their concerns. He used these meetings as a way to diffuse responsibility for the struggles common Iranians were facing because of his revolution. When accused of being misinformed or out of touch with the people’s hardships, he confidently responded that the representatives had the opportunity to tell him everything they wanted, so any misinformation he had was their fault. More importantly, however, he reminded the groups that the Revolution wasn’t intended to improve the material well-being of Iranians, but to support and defend a higher religious ideal.⁵⁶ He could always fall back on this appeal to ideology to explain away what would be considered simple bad governance in a secular state.

Islamism could be used not only as a tool to pacify the civilian population, but it could also inspire martyrdom. Initially, suicide attackers struck in singular, planned operations. The origins of the modern Islamic suicide bombers began under Khomeini in the 1980s.⁵⁷ When

⁵⁴ The IRGC hired Fardid in the early 1980s to teach at the Political Bureau.

⁵⁵ Mirsepassi, Ali. p. 7

⁵⁶ Coughlin, Con. *Khomeini's Ghost* p. 224

⁵⁷ Coughlin, Con. p. 216

Khomeini decided to deploy the Revolutionary Guards to Lebanon in 1982, he set a precedent that would continue to develop over the next thirty years. Khomeini appointed Imad Mughniyeh, a relative unknown at the time, to orchestrate attacks in Lebanon. Suicide attacks were rare before the Embassy attack, and when the American and French governments withdrew it became apparent just how effective they could be. Mughniyeh went on to organize a number of other terrorist attacks after seeing how effective they were. It was Mughniyeh (under the direction of Khomeini), not Osama Bin Laden, that pioneered modern suicide tactics against larger foes.⁵⁸ He remained a key asset for helping Khomeini spread the Islamic Revolution throughout the region and the world until his murder in 2008.

Khomeini denied involvement in the bombing of the U.S. Embassy in Lebanon (U.S. officials still lack conclusive proof that Khomeini gave the orders for the bombing of the U.S. Marine barracks⁵⁹) but it quickly became apparent from subsequent ordeals such as the hijacking of TWA flight 847 that Tehran was pulling the strings. Terrorist activities such as these, as well as attacks via proxy groups such as Hezbollah, taught Iran that it could combat a superior state without having to engage it directly. Hezbollah, Iran's most notorious terrorist organization, became an alternative tool for Khomeini to use when he wanted to spread his Revolution while maintaining plausible deniability. These attacks, although reviled throughout the international community, still achieved the broader Iranian political goals. The U.S. left Lebanon after the Embassy was bombed.

Khomeini was responsible for calling Mughniyeh off from the TWA 847 hijacking. It's not that he was opposed to the activity in itself, but he realized that he could not afford to anger the U.S. too greatly while in the midst of a war with Saddam Hussein. Despite his religious fervor, he still made rational calculations regarding his survival and power base. It may have been his ability to control, direct, and temper his lieutenants that allowed the IRGC to gain so much traction without alienating themselves from the population at large. The early years of Khomeini's rule witnessed the beginning of the violence potential and the effectiveness of terrorist tactics. It also saw Khomeini's first lessons on the importance of control.

⁵⁸ Coughlin, Con. p. 218

⁵⁹ Interview with Secretary of Defense Caspar Weinberger in 2001. Copied here from <http://www.pbs.org/wgbh/pages/frontline/shows/target/etc/cron.html>

The Iran-Iraq war

When Revolutionary students took control of the U.S. Embassy in Tehran from 1979-1981, the consequences for the Iranian military were severe. This action was the tipping point that convinced the U.S. that the Iranian military was no longer a professional force. Defense Department officials declared that discipline and professionalism had disappeared. Sale of military hardware, parts, and support ended.⁶⁰

While Iran was losing external support for its forces, internally ideology replaced professionalism as the key attribute for the ideal soldier. Many senior *Artesh* leaders were purged in the first year; an estimated 12,000 personnel had been discharged by the beginning of the Iran-Iraq war.⁶¹ Any officers that displayed loyalty to the Shah, even if their actions were simply in keeping with the corporate interests of a professional military, were discharged or forced to resign. President Bani-Sadr called for the reorganization of the military in accordance with the constitution.

The IRGC was not a single group of fighters before 1979. It was a conglomerate created after the revolution to combine the various pro-Khomeini Revolutionary groups into one structure that could be utilized as a coup-proofing unit. The *Artesh*, as a modern, veteran professional force at the time, represented a legitimate threat to the newly established Islamic regime. Khomeini considered disbanding the *Artesh* altogether in the immediate aftermath of the Revolution, but the war with Iraq made this impossible. The concerns over whether the *Artesh* was "Islamic" enough fell to the background when Hussein invaded, as they showed themselves to be the most effective tools for defeating his forces. The regime could not elect to abolish the military as at the time it was the only force strong enough to defend itself against its neighbors.

The Iran-Iraq war began in September 1980 as a result of border disputes and a concern that the Shi'a uprising in Iran would lead to a Shi'a uprising in Iraq. While Iraq made quick initial gains, Iran was able to repel them early on and take the offensive for the next several years. The high external threat environment worked in favor of the new Iranian regime. It gave the military an outside entity to focus on, making it too preoccupied to concern itself with whether the revolutionary leadership should stay in power. The threat posed by Iraq also provided a nationalistic rallying point for many Iranians who were able to provide a large

⁶⁰ New York Times "Analysts see Iran's Armed Forces in Disarray" Nov 18, 1979

⁶¹ Roberts, Adams. *Nations in Arms*. p 45; Iranian constitution article 144

amount of ground troops within two months after the initial Iraqi invasion.⁶² This helped equate the defense of the regime with the defense of the country.

The *Artesh*, with the help of the influx of soldiers and the advantage of naturally defensible terrain were able to repel Iraq's invasion. Over the objections of the senior military leadership in Iran, Ayatollah Khomeini rejected Saddam Hussein's peace proposal in 1982 and called for the invasion of Iraq. The *Artesh* realized that the geographic advantages and the difficulty of Iraqi logistics played a major role in stopping Iraq's initial invasion, and a subsequent counter-invasion would be unwise. The hardliner fundamentalists in Khomeini's regime pressed for invasion anyway. Disgusted by the civilian leadership's decision, one *Artesh* general threatened resignation if "unqualified people continued to meddle with the conduct of the war"⁶³ Despite his and similar objections, the ground war continued for the next six years.

The international community was against Iran. Iraq enjoyed arms support from NATO, the USSR and other Arab nations. The fact that the other Arab nations supported Iraq showed that while they did not like Hussein, they feared a Shi'a uprising in their own states even more. "The other Arab states came to the rescue. Iraq has one of the most unpleasant governments in the region and had shown constant hostility to the monarchies in Jordan, the Gulf and Saudi Arabia. However, the threat of Persian fundamentalism was far more feared, and thus the conservative Arab states could not afford to let Iraq be defeated."⁶⁴

Suicide units played an important role. Iran utilized for the first time the *Basij* forces, or mass units of young, untrained soldiers who were willing to sacrifice themselves to advance the revolutionary ideals. During Iran's advance on Basra, these *Basij* forces would run onto minefields to clear them, allowing the regular Iranian infantry to advance behind them. Suicide units are not a new concept, but the volume of people willing to knowingly sacrifice their own lives is different from classic examples such as Japanese kamikazes. The kamikazes were a relatively small group of soldiers who were willing to sacrifice themselves to guard their country from a possible invasion. Their tactics were adopted late in the war, and only after it became clear conventional methods would not stop the U.S. military. The *Basij*, on the other hand, were willing to sacrifice themselves *after* Iraq had sued for peace and withdrawn from Iranian territory. There was no existential threat to the Iranian regime. Iran was now on the offensive,

⁶² Ahram, Ariel. *Proxy Warriors: The Rise and Fall of State-Sponsored Militias*. p. 113

⁶³ Karsh, Efraim *The Iran-Iraq War 1980-1988*, London: Osprey, 2002 page 38

⁶⁴ Brogan, Patrick *World Conflicts*. p. 263.

trying to spread its ideology. Religiosity allowed the IRGC to use suicide units as an act of aggression instead of an act of desperation .

Early success was minimal. The waves of human attacks against Iraqi positions cost a lot of Iranian lives, but volunteers kept coming. As time went on, the regular military realized that learning to incorporate the *Basij*-style tactics into a larger strategy would be more effective than simply assaulting the same position repeatedly. The *Artesh* began integrating the *Basij* into their broader attack plans and started to see more success from those units later in the war.⁶⁵ This was the beginning of the professionalization of the IRGC as a military. Over the last twenty years the *Basij* have continued to gain influence in the Iranian military organization.

When the initial Iranian ground invasion ended in 1984, the two countries began to attack each other's shipping in the hopes of damaging the opposing economies. While both sides launched multiple attacks—Iran conducting a total of 214 attacks from 1984 to 1988⁶⁶—not enough damage was done to either side's economy to make them want to back down. In 1988 after both sides had suffered major casualties and economic shipping had been threatened, they ultimately agreed to the original ceasefire proposed in 1982.

As an uncoordinated paramilitary force, the IRGC conducted 83 out of Iran's 214 ship attacks.⁶⁷ Uncoordinated suicide runs with white phosphorous rounds caused severe damage to unescorted merchant ships.⁶⁸ The covert mining campaign they carried out which hit the reflagged tanker *Bridgeton* and the USS Frigate *Samuel B. Roberts* carried strong implications. U.S. response was swift after the *Roberts* incident, but both sides got a glimpse of what future asymmetric warfare might entail. When Iranian press interviewed IRGCN Admiral Fadavi in August of 2010, he specifically referenced the 1987-88 naval confrontations as models for possible future conflicts.⁶⁹

The war carried a great cost. An estimated half a million Iraqi and Iranian soldiers and civilians died. Although the Iranian civilian and military leadership predominantly felt they lost the war, they learned two important lessons: 1) A highly ideological force has the potential to defeat an opponent even when the conventional tactical factors favor the opponent, and 2) In order to take advantage of having an ideological force, proper integration into a country's

⁶⁵ Ahram, p. 114

⁶⁶ SAIC study of Iranian Ship Attacks 1984-1988

⁶⁷ Appendix 4: SAIC study of Iranian Ship Attacks 1984-1988

⁶⁸ Interview, Conway Zeigler, SAIC

⁶⁹ Tehran Jam-e Jam Online. <https://www.opensource.gov/wiki/display/nmp/Jam-e+Jam+Online>

strategic doctrine and professional training are necessary. In short, this was the most explicit lesson in the development of the IRGC that violence potential alone wasn't enough, it needed to be controlled as well. Over the next fifteen years, both the civilian and military leadership would closely analyze the events of the Iran-Iraq war and make adjustments to avoid a similar failure.

The transition decade

Khomeini held the position of Supreme Leader for almost ten years. Towards the end of the Iran-Iraq war his health began to deteriorate rapidly, and after reluctantly accepting the 1988 cease-fire he made no more public appearances. He turned his last strength towards the task of picking a successor. Three men were possible choices for succession. Ayatollah Montazeri was his official choice at the time. Montazeri had been his lifelong follower and was a staunch supporter of the Revolution. Ali Khamenei was acting as President. Hashemi Rafsanjani lead the Parliament and was Khomeini's most trusted adviser.

In the last years of his life, although Khomeini's physical health was failing he kept up with current events. He paid close attention to Montazeri's speeches about his plans for the future, in which he openly stated that the country had become a religious dictatorship and that he would open the government back up to the population. He did not agree with Khomeini's execution of political opponents. When he wrote a letter to Khomeini asking him to stop the executions, Khomeini determined that he would not be the best man to continue the ideals of the Revolution. When he responded to Montazeri and accused him of betraying Revolutionary ideals, Montazeri resigned from his position as successor.

Khomeini also wanted to ensure that after his death Iran would not be subjected again to the humiliating concession against Iraq in 1988. Just before he accepted UN Resolution 598 which called for the cease-fire, he wrote a letter to Iranian military leaders asking them to ensure Iran would not be subjected to a similar position in the future. His message would resound through all aspects of the development of future Iranian military doctrine.

Shortly before Khomeini's death a debate developed between the pragmatists who believed in mending relations with the west and the radicals in the IRGC. The pragmatists, led notably by Khamenei and Rafsanjani, initially seemed to be gaining local and international support. Instead of fighting this trend directly, in a wily move Khomeini issued a religious edict against a recently written book, *Satanic Verses*, calling upon Muslims to kill the author and destroy the stores carrying it. He used religion to stir up Muslims worldwide, deepening the

divide between Islamist and western culture. This ensured that the West and Iran would continue to fear and mistrust each other.⁷⁰

President Ali Khamenei was Khomeini's next favorite choice, but Khamenei lacked the religious credentials required by the Revolutionary Constitution.⁷¹ Khomeini simply amended the constitution. Following Khomeini's death, Rafsanjani used his influence to help Khamenei overcome his shortcomings in religious qualifications and assume the office of Supreme Leader. Rafsanjani, for his part, became the President after taking measures as Parliament leader to transfer additional power to his new post. Popular turnout for the nationwide referendums regarding the appointment of Khamenei and the constitutional amendments were lower than they had been for Khomeini ten years earlier, and many people believed that pragmatism would gain traction considering the views of the new primary leaders. Khamenei had a hard time convincing the existing government and religious leadership of his qualifications to be the next Supreme Leader, however, and ultimately ended up aligning himself with hardliners in order to gain their support for his office.

Khomeini had carefully arranged the new Revolutionary government in a way that would ensure his personal desires and beliefs were still adhered to long after his death.⁷² Picking Khamenei served as a form of insurance policy; a leader who had no credentials besides loyalty to Khomeini would have to fall back on those teachings in order to maintain his own power base. A stronger, better established leader such as Montazeri may have been able to take more liberties with the future of the government.

Khomeini simultaneously incited radical action and had a tempering effect on his followers when needed. He understood that radicalism was an effective tool, but it still needed to be controlled. He recognized when he needed to call off his followers, as he did in the TWA hijacking, in order to prevent the conflict from escalating and drawing unwanted international opposition. Religious radicalism, in order to be properly included in a doctrine, must be carefully directed after it is created.

⁷⁰ Coughlin, Con. p. 244

⁷¹ United States Institute of Peace. "The Iran Primer" <http://iranprimer.usip.org/resource/supreme-leader>

⁷² Coughlin, Con. p. 251

In a twist of irony, Khomeini was the first Iranian ruler in over 80 years to not be exiled or assassinated, but died peacefully in his bed.⁷³

The geopolitical environment for Iran changed drastically in the years between 1988 and 1991. The Supreme Leader died, leaving behind a precarious domestic situation where his successor, although chosen by name to take his place, had unproved bona fides. The conflict between the pragmatists and the hardliners had a chance to resurge. Iran ended an incredibly bloody regional war with Iraq. If they had accepted peace when Saddam Hussein sued for it in 1982, Iran would have been able to claim a solid victory for their nascent Islamic regime. Instead, because the war dragged out for six more years and Iran was not able to achieve any additional goals, the country was instead forced to deal with the extremely heavy casualties in both manpower and equipment without anything to show for their cost. Their strong regional influence of the 1970s was gone. To complicate matters, the U.S. had just defeated Hussein easily, simultaneously eliminating Iran's largest regional threat but displaying just how much more powerful western—especially U.S.—forces were. Finally, the Soviet Union had fallen, and states were in the midst of redefining their domestic and international priorities. In three years, Iran experienced major geopolitical transitions in their domestic, regional, and international environments.

By the end of 1991, Iran was isolated from any of its former allies and the majority of its economic and military infrastructure was beyond reclamation.⁷⁴ It was a matter of luck that the world itself was transitioning from a bipolar power struggle to a unipolar power world. Instead of Iran struggling through a crisis of uncertainty alone while its neighbors eyed it carefully, it became simply one of many states in the region which were refocusing their domestic and foreign agendas. Because of domestic strife and the bitter outcome of the war, Tehran realized it needed to study the last ten years and realign its military forces. Because of the international environment, it had the time to do so.

Iranian military and political leaders closely studied the operations of the Iran-Iraq War. They paid special attention to the difference in tactics the *Artesh* and *Pasdaran* used. The *Artesh*, with most of their equipment destroyed, could no longer advertise technical superiority over their enemies. They now had a mixture of aging, damaged Western military equipment and

⁷³ His funeral was another matter, however. The Iranian military literally had to call in helicopters in order to keep his body from being torn apart by mourners.

⁷⁴ Cordesman, Anthony H. *Iran's Military Forces in Transition* p. 55

low-grade Chinese systems which were not interoperable with each other.⁷⁵ They did have, however, the majority of operational expertise and a professionalized force. The *Pasdaran*, although they had played a role in the war, had little knowledge regarding studying or planning military strategies. They did have a large cadre of ideological soldiers who were willing to sacrifice their lives to help the state.

The marriage of these two strengths—professional military structure with ideological fervor—did not happen overnight. In fact, the struggle between these two military forces reflected the underlying struggle in Iranian society between the pragmatics and the hardliners. As early as October 1979, the Iranian Defense Minister believed that the *Artesh* could be dismantled and replaced with the Revolutionary Guards.⁷⁶ If it hadn't been for the prevalent threat of an uprising and then ultimately Hussein's invasion in 1980, Khomeini might have tried.

The Revolutionary Guards' zeal was both their greatest attribute and biggest liability. Eager to help, units never needed much encouragement to fight any enemy of the Revolution. This proved to be a problem on more than one occasion. During the efforts to quell the rebellion in Kurdistan, IRGC units ignored advice to stay in their barracks for future operations and ventured into Kurdish territory. They were summarily wiped out.⁷⁷ *Basij* forces, the extreme embodiment of the martyrdom cult, were massacred in droves as they attacked Iraqi positions in uncoordinated human wave attacks. Their effectiveness as a fighting force did not match their loyalty to Khomeini.

The two forces never did find a good synergy during the Iran-Iraq war. Occasional instances showed that the combination of military professionalism and zealotry could be combined, but the lack of time prevented leaders from planning and implementing an overarching doctrine for the two forces.

The current Ministry of Defense and Armed Forces Logistics (MODAFL) was established in 1989, abolishing the IRGC Ministry as a separate entity and bringing its military forces under the jurisdiction of a common leadership. Some analysts see this as a method of reducing the institutional autonomy of the IRGC.⁷⁸ In actuality, IRGC members eventually took

⁷⁵ Ibid.

⁷⁶ Roberts, Adams. p. 45.

⁷⁷ Roberts, Adams. p.46

⁷⁸ Global Security, private Intelligence company. <http://www.globalsecurity.org/military/world/iran/mod.htm>

over the MODAFL, resulting in the subordination of the *Artesh*'s needs to those of the *Pasdaran*. It solidified the legitimacy of the IRGC as a fighting force for the future.

In the 1990s the IRGC increased their power and influence in the country primarily through domestic means and ideological appeal. It wasn't until the late 90s and the U.S. wars in Iraq and Afghanistan that the efficacy of Revolutionary zealotry was closely revisited. Military planners remembered the lessons of the Iran-Iraq war, however, and realized the key to turning the IRGC into a successful military force would be to take the high levels of religiosity and temper them within the construct of a professionalized force. Instead of creating tactical procedures to teach the professional *Artesh* and the ideological *Pasdaran* to work together, the Ministry of Defense instead worked on operational plans which would use both militaries in a combined grand strategy, but let the units operate independently. The 2007 geographic reorganization of the two militaries is the most prominent indication of this. This meant that in order for the *Pasdaran* to reach peak operational effectiveness, it would have to professionalize independently of the *Artesh*.

While the IRGC was cultivating its military culture in the 1990s it also expanded into the civilian sector. It set up educational and economic institutions and now is involved in almost every aspect of Iranian life. It dominates the low- and hi- tech industries through a process of convincing (or coercing) business owners to join its organization. The population is willing to accept its monopoly because it also provides methods for social mobility and technical training; at the same time they are unaware of the extent of the corruption and black market operations at the highest levels.⁷⁹

Other organizations were born as a result of the IRGC's expansion into Iran's social structure. Often, former members of the IRGC have gone on to lead these other organizations. This "corporate bleed-over" has had two effects. Simply because these organizations are led by IRGC members does not mean they are completely subservient to IRGC demands. The corporate identity of the institution has an effect on the leaders and they will adopt those unique missions and principles as well. On the other hand, IRGC ideals in the leadership will have a slow trickle-down effect in the other organizations. The overall result is that the IRGC's influence is not primary, but is present, in these organizations.

⁷⁹ RAND Corporation. "The Rise of the Pasdaran" p. 55

The move towards professionalization

The martyrdom cult is only possible as a result of the high levels of religiosity within the military itself. The high levels exist both within the *Artesh* and the *Pasdaran*, although it is emphasized at different levels in each. The *Artesh* is constitutionally established as a Muslim-only army⁸⁰ but the IRGC exists specifically to defend the Islamist agenda of the Revolution. To accomplish this, the IRGC has undertaken great measures to ensure the religious devotion of all its members are high. However, the martyrdom cult alone is not enough to execute Iran's tactics, especially among the naval forces discussed in the previous chapter. Radical devotion may go a long way in carrying out deterrence in the jagged Iranian mountains, but on the open water in the confines of the Straits of Hormuz more coordination is needed to successfully conduct an attack. This section analyzes the continued efforts towards radicalization and then outlines major military exercises that are taking place concurrently. Exercises such as the Velayat series showcase both radicalism and professionalism: the *Pasdaran* small-craft squadrons are trained to attack in large waves with little consideration for personal safety, but practice complicated formations in order to increase their survivability long enough to get close enough to their targets to employ their relatively unsophisticated weapons.

The IRGC has created the martyrdom culture through a combination of recruitment and training. Their reach into the general population is extensive, in large part due to their efforts to expand into all aspects of civilian life. After successfully imbedding themselves in a large part of the Iranian social and economic landscape, they could closely monitor and recruit the people they saw as being the most ideologically bent. Once in the ranks, members are required to go through continual formal and informal religious training to solidify their beliefs. The Political Bureau, which was created shortly after the IRGC was formed, is designed to identify powerful members within the organization and strengthen their religious convictions.⁸¹

In addition to the Political Bureau, the Office of the Representative of the Supreme Leaders shares responsibility for indoctrinating its members. It runs the IRGC's web site as well as the monthly magazine *Sobhe-e Sadegh*.⁸² It deployed thousands of religious clerics to both the *Artesh* and the *Pasdaran* during the Iran-Iraq war in order to raise their morale and stress the importance of martyrdom. This extensive effort to reinforce ideological commitment was a

⁸⁰ Iranian constitution, Article 144

⁸¹ RAND Corporation. "The Rise of the Pasdaran" p. 36

⁸² Ibid.

prerequisite for the martyrdom cult to succeed. The countless waves of *Basij* attacks in the early years of the Iranian offensive could not have happened without the constant replacement of volunteers willing to give up their own lives for the cause.

The IRGC runs a number of educational institutions in the country that are geared towards indoctrinating and developing Islamic fundamentalism in its students. Imam Hussein University, a public university under the auspices of the IRGC, is run like a military academy. It's used as both a training and recruiting ground. The university also has an extensive nuclear physics program with a suspected tie to Iran's nuclear weapons program.⁸³ The Supreme National Defense University is an institution geared towards senior IRGC military leaders; Ayatollah Khamenei himself makes personal appearances here. The school regularly denotes the importance of cultural Islam, and cites strong fundamental beliefs as the key to victory in the region and against Western (U.S.) powers.⁸⁴ The IRGC also trains officers in the Martyr Mahallati University to act as political officers, and exports some of those officers to the *Artesh* in a *politburo* style method to keep a watchful eye over them.⁸⁵

Some of the most prevalent indoctrination strategies from the IRGC take place within the ranks of the *Basij*. This training is administered at a young age; the average age of camp attendees is between 13 and 15 (volunteering in the *Basij* forces is allowed at 15, the youngest age allowed for any military group in the country⁸⁶ and encompasses training from organization methods to vocational training.⁸⁷ Summer camps are a method for this indoctrination and play an important part of recruiting enough members to ensure the continued strength of Iran's "20-million-strong army".⁸⁸ These camps are not restricted to *Basij* members and provide many educational and recreational activities—especially to rural youths who might not otherwise have access to these opportunities. However, it is precisely this open nature and availability of fun activities targeting youth that may make the recruiting mission so successful.

Academia in Iran shares qualities with academia in many other countries; it is the natural breeding ground for progressive, liberal ideals. The IRGC has established a presence in the regular academic institutions in Iran in addition to its own original programs. The IRGC's

⁸³ <http://www.nti.org/facilities/251/>

⁸⁴ <http://sнду.ac.ir/>. Translation through Google

⁸⁵ American Enterprise Institute, "Eternal rivals? The Artesh and the IRGC." November 28, 2011

<http://www.aei.org/article/eternal-rivals-the-artesh-and-the-irgc/>

⁸⁶ <https://www.cia.gov/library/publications/the-world-factbook/geos/ir.html>

⁸⁷ RAND, p. 37

⁸⁸ Rasht IRGC Commander Comments on *Basij* Goals in Misaq Program, June 19,2007. Copied from RAND p.38.

presence serves to counterbalance any rise of youth movements and perceived dangerous ideological differences. It has expanded its influence both in the faculty and administration of many universities as well as established student groups throughout the country. At the institutional level, the IRGC both in the 1980s and again following Ahmadinejad's 2005 inauguration removed a number of professors and administrators from their positions and replaced them with IRGC—especially *Basij*—officials. The *Basij* created the Lecturer's *Basiji* Organization following the academic purge as a way of consolidating its authority; this organization acts as the IRGC's mechanism for controlling the academic curriculum. The counterpart to the LBO is the Student *Basij* Organization, a group of roughly 650,000 students spread across 700 universities.⁸⁹ The SBO acts as a direct link between college students and the Supreme Leader Khamenei. Members are charged with not only regulating the behavior of other students who are misbehaving in the eyes of Revolutionaries, but university administration as well. The propagation of IRGC ideals in otherwise "civilian" institutions acts as an important method for keeping the recruiting potential high in the universities. Increasing the religiosity of their military age males increases the baseline religiosity of the IRGC.

The IRGC conducts regular training for paramilitary units around the country. These units are responsible for internal and external problems. Access to large numbers (roughly 600,000 standing *Basij* units) of ideologically motivated fighters is a critical requirement for Iran's deterrent doctrine. Their defining strength is their "strategic patience", or ability to wage an extended guerilla war against an occupying force. According to RAND, even if a small percentage of this religiously motivated group would remain loyal to the regime in the event of a conflict, it would prove to be a significant antagonist to any occupying force.⁹⁰ The tradeoff between tactical training and ideological training is important. The more time spent on tactical training the more effective units will be, but the more time spent on ideological training the more likely those units will be willing to fight after their support base is removed.

This is not to say that the IRGC is heterogeneous regarding religiosity. Occasionally an SBO member has criticized the regime. Even members of the *Basij*, the group with the greatest reputation for hardline beliefs and tactics, sometimes have ambivalent views of the extensive ideological training.⁹¹ Advanced religious training is required for social and economic benefits,

⁸⁹ Ardabil Provincial TV copied from RAND p. 40

⁹⁰ RAND, p. 47

⁹¹ RAND, p. 28

such as loans and scholarships, which is the only incentive some members have to participate. These monetary incentives work to fill the gap where ideological commitment can fail.

The high levels of religiosity in the IRGC reflects the religiosity of the government, and these levels build on each other. Senior leadership ranks in the IRGC are attained through military capabilities to a limited degree but more often from ideological devotion. IRGC leadership is the primary pool from which positions in the Iranian government are recruited today. Even as recently as November of 2011, 13 out of 18 Cabinet members were IRGC veterans, and all military vets in the parliament come from the IRGC (none from the regular military).⁹² The following two examples highlight the characteristics that the regime finds critical for its military leaders. Especially since Mahmoud Ahmadinejad's election, the most senior military commanders are the ones who show the greatest ideological commitment to the IRGC and the government.

Brigadier General Ahmad Vahidi is the current head of the MODAFL. Not much is known about his personal history, but he is on Interpol's most wanted list for his alleged participation in the 1994 bombing of a Jewish community in Argentina.⁹³ He was appointed as the Defense Minister in 2009. Not only was he brought up within the ranks of the IRGC, he was a former commander of the Quds force, its secretive Intelligence unit.⁹⁴ His recent press statements reinforce the deterrent nature of Iranian doctrine and the preferred fighting methods of the IRGC.⁹⁵ Official statements like this are common within the Iranian regime. Iran relies on continually reinforcing this message as a part of its deterrent capability.

Major General Mohammed Ali Jafari was appointed by Khamenei in 2007 to head the IRGC. He personifies the hybridization of the radical with the professional. He is one of the most significant figures in the aggressive development of Iranian military capabilities and aggressive posture. Relatively unknown before his appointment, one of Jafari's first acts was to replace many IRGC leaders and create 31 sub-districts, decentralizing the command structure.⁹⁶ This results in a more independent, redundant fighting force in case of communications blackout,

⁹² American Enterprise Institute, "Eternal rivals? The Artesh and the IRGC." November 28, 2011 <http://www.aei.org/article/eternal-rivals-the-artesh-and-the-irgc/>

⁹³ Interpol Wanted Persons list. http://www.interpol.int/Wanted-Persons/%28wanted_id%29/2007-49957

⁹⁴ Interview, Evan Bruno, NGA

⁹⁵ Fars News Agency, 28 Feb 2012. "The Islamic Republic of Iran has many hidden capabilities which are kept for rainy days. We have not yet revealed all our capabilities."

⁹⁶ Sahimi, Muhammad. PBS Frontline report. <http://www.pbs.org/wgbh/pages/frontline/tehranbureau/2010/01/a-hardliners-hardliner.html>

and is a critical indicator that the IRGC has learned to carry out strategic doctrines at lower command levels, a characteristic of a professional force. Jafari's actions are a result of his personal experience fighting as a member of the IRGC in the Iran-Iraq war. Towards the end of the war he led a disastrous attack against U.S. Navy vessels; this was likely a formative event for his strong anti-U.S. views and his determination to improve IRGC capabilities.⁹⁷

Jafari was an active participant in protests against the Shah in 1978 and joined the Basij army in 1979. He joined the intelligence directorate and in 1981 transferred to the military wing of the IRGC for the Iran-Iraq war. He had a reputation for being a professional soldier, uninterested in politics during the early 1990s. This changed over time: after the student uprising in 1999 (after the revolution he created and ran the Muslim Student Association at Tehran University), he sent a letter to the moderate President Khatami, warning him to end his reformist agenda and that he and other leaders would not tolerate it anymore.

Locally referred to as the "Iranian General Petraeus", Jafari engineered the current asymmetric doctrine of the Iranian military: "*Given the enemy's numerical or technological superiority, the IRGC would use asymmetrical warfare capabilities, such as those used by Hezbollah in its 2006 war with Israel in Lebanon. Iranian strategy would also reflect the strengths and weaknesses of the U.S. forces in Afghanistan and Iraq.*"⁹⁸ He played a role in merging of the Basij forces into the chain of command of the IRGC, and is also a strong advocate for further integrating them into regular IRGCN exercises.

Many of the recent training evolutions are a result of his efforts to seriously modernize the force. The most well-known of these is the Velayat series.⁹⁹ Over the past few years the IRGC has conducted a number of drills in addition to the Velayat series. They include large coordinated exercises for the ground, naval, air, and missile defense forces. Ground forces in 2012 were continuing a series of large-scale exercises titled "Valfajr" to practice homeland defense.¹⁰⁰ These exercises were combined operations utilizing asymmetric warfare capabilities. The IRGC air forces conduct the Great Prophet series of exercises which focus on missile defense against land and naval targets. The navy at the time this essay was written had recently

⁹⁷ Interview, Evan Bruno, NGA

⁹⁸ Sahimi, Muhammad. PBS Frontline report. <http://www.pbs.org/wgbh/pages/frontline/tehranbureau/2010/01/a-hardliners-hardliner.html>

⁹⁹ While IRGCN forces had already been conducting swarm exercises similar to the Velayat series, the first major, highly-publicized exercise like this was Velayat 88 in 2010.

¹⁰⁰ *Tehran Times* 19 February 2012

announced plans for yet another exercise, emphasizing its “professionals, military equipment, speed boats, and short, medium and long-range missile systems”.¹⁰¹ *Basij* units are now also receiving regular training in small-boat squadrons.¹⁰²

Anti-air and anti-surface missile capabilities, while their true capabilities are unverified, have shown developmental progress. The most notorious of these is the continued effort to purchase the advanced SA-20 missile system (often referred to in the news as the S-300) from the Russians.¹⁰³ The latest generations of the Ashura, Ababil, and Shahab missiles are advertised as having strike capabilities against Israel. Their accuracy at that range is probably low, but for the Arabian Gulf and SOH presents a significant threat.¹⁰⁴ War-games between the *Artesh* and *Pasdaran* have resumed in light of the *Pasdaran*'s continued professional development. Radical indoctrination still continues for the military members, but a significant time is now spent on tactical training.

IV. Conclusions and implications

This chapter addresses the issue that my hypothesis is based primarily on a single case study. To provide a comparison, I examine the rise and fall of the Popular Defense Forces in Sudan according to a study done by the Small Arms Survey from the Graduate Institute of International Studies in Geneva. I compare and contrast the characteristics of the PDF's and IRGC's development to look at how internal factors within each country affected the life of the military. Afterwards, I compare the religious nature of Iran's deterrent strategy to the secular strategy in Yugoslavia in the 1980s provided by Adam Roberts. This comparison is primarily a way to contrast the levels of acceptable casualties over time during periods of external threat in a non-religious doctrine and determine whether the absence of either violence potential or violence control lead to the downfall of these forces. I also suggest a possible area for related study in the field of civil-military relations. Finally I make some generalizations about where my hypothesis on religious radicalism in military doctrine fits into larger International Relations theory.

¹⁰¹ Lieutenant Commander of IRGC Navy Rear Admiral Javad Moshidi in an interview with *Fars News Agency*, 18 July 2012 <http://english.farsnews.com/newstext.php?nn=9104250418>

¹⁰² Interview with Admiral Fadavi for the Tehran Keyhan Online in Persian -- website of hardline conservative Tehran daily.

¹⁰³ Secretary of Defense Unclassified Report on Military Power of Iran. April 2010. Provided by: <http://www.foxnews.com/projects/pdf/IranReportUnclassified.pdf>

¹⁰⁴ In the same interview, Rear Admiral Moshidi claimed that Iran had its medium-ranged missiles targeting all U.S. bases in the region.

The Popular Defense Forces in Sudan

Missing one of these components will make it hard to create a military doctrine utilizing radical principles. In Sudan the lack of professionalization of the PDF as well as the failure of the regime to use the soft control methods over the civilian populace resulted in a loss of support and ultimately the decline of the PDF. As a religiously inspired military group, the PDF was initially created with a high level of violence potential. The various units were never truly organized or trained, and this lack of control led to its demise.

The Popular Defense Force in Sudan was an institution that paralleled the IRGC in concept, but several key differences in its origins and evolution led to its eventual decline. It too began as an organization that consolidated several different paramilitary groups in order to protect the new regime from a potential coup. It spread to many different sectors of Sudanese society. The regime advertised the principles of martyrdom in order to create a fighting force that would achieve victory by sacrificing its troops in large numbers until the enemy was overwhelmed. However, a lack of professionalization, a different geopolitical environment, and a lack of a strong controlling force over the extreme capacity of violence contributed to the decline of the PDF in the mid-2000s. The implication is that one or a combination of those factors play a critical role in the formation of an ideologically driven group. Ultimately, the sustainability and effectiveness of a military force requires the combination of ideological drive plus the regime's ability to control that power.

The PDF drew its roots from the Islamic rebellion against British and Egyptian rule in the first half of the 20th century. The majority of the forces in its early days were drawn from various tribal groups throughout western Sudan. The ideological core, and the origin of its radical practices, came from the militants and youth of the National Islamic Front.¹⁰⁵ These radical Islamists drew their inspiration from the Iranian revolution; the PDF and IRGC would in the following years set up exchange programs to train the Sudanese. The Sudanese government, unable to provide protection for its citizens in certain tribal regions, armed local paramilitary groups in order to ensure the population's loyalty.

The Sudanese Armed Forces (the regular military), aware that it was losing its position as the primary source of violence in the country, demanded that the government reduce its support to these guerilla groups and give the SAF more support. Instead, following the military coup the

¹⁰⁵ Salmon, Jago. "A Paramilitary Revolution: The Popular Defense Front" p.12

new government passed a bill formally recognizing PDF. Its charter established it as an institution that was primarily responsible for training the population how to act as citizen-soldiers. It would also act as an auxiliary to the SAF if required.

As the PDF expanded in size, it quickly became a decentralized organization. The difference between the decentralization in the PDF and the IRGC is the timing. The IRGC was given a formal structure and was initially tightly controlled by the top levels of leadership for many years. It was only after it developed professionally that it was given more autonomy over its own operations in 2007. The PDF was never unified initially, so decentralization meant they never went through the organizational growing pains of learning what their exact responsibilities should be. From the outset the PDF was not able to create an environment where they would be able to conduct the types of drills necessary to become an effective army. This was the first indication that the regime never truly had control over the group.

Authority structure within the PDF was convoluted as well as the relative authority of the PDF in relation to the SAF. This meant that operationally and tactically nobody knew who was in charge. While authority and coordination over the PDF was decreasing, the influence of the radical Islamists was increasing in the new regime. This radical group was led by Dr. Hassan al-Turabi. Turabi wanted to use his influence and the pervasive nature of the PDF to help turn the local Islamic revolution from an elite into a populist movement. Islamist youth were organized into specific urban units in order to protect the new regime from civil uprisings and follow-on military coups. These units were deployed as control mechanisms around SAF bases, and ultimately the SAF were moved out of the capital.

The next step was to replace existing institutions with government backed Islamist groups. Similar to the IRGC's expansion in the 1990s, the NIF replaced many qualified people in critical civil organizations with people who were more loyal to the government. Technical, medical, financial, and NGO groups were targeted. Experienced military officers were replaced.

The PDF itself was divided into various levels depending on where the members came from and their levels of military training. The highest of these was comparable to the IRGC and may have received advanced artillery and tank training.¹⁰⁶ The rest of the groups were primarily civilians which were co-opted into service and forced to undergo indoctrination. All male Sudanese were required to attend PDF training once they turned 16, and enrollment in higher

¹⁰⁶ Salmon, Jago p.17

education or most public firms (firms which the government had taken from the private industries) required certificates to prove the receipt of PDF training.

Martyrdom was a key component of PDF training, just as it was for the IRGC. Roughly half of the 45-60 days spent in PDF training camps was spent studying the principles behind martyrdom.¹⁰⁷ In rural areas, even this basic training was ignored. Volunteers could receive anywhere from a couple days to a couple weeks of training to begin their three month "enlistment". To provide a sense of scale, highly professionalized western militaries will put their soldiers through 2-3 months of basic training alone, then send them to several more months of specialty training to learn a specific job. Training continues as the soldier's unit with constant drills and qualifications in order to maintain battle readiness. In Sudan, a lack of time contributed to low levels of discipline in the troops. Radicalization was used as a motivation to convince these poorly prepared units to fight in the hopes that ideology would carry them. Highly radicalized troops were employed to put down uprisings. In attacks reminiscent of the early "human wave" attacks the *Basij* attempted against Iraq, thousands of radicalized soldiers would charge enemy lines and be mowed down by withering machine gun fire. The extreme lack of discipline and training resulted in ineffectual attacks against fortified positions, and it also created a culture where troops would refuse to fight when confronted by serious opposition. High casualties resulted in a sharp recruitment decline by the mid-90s.

Unlike Iran, the high casualties and the PDF's coercive recruitment alienated many Sudanese Muslims instead of radicalizing them. When a number of conscripts left their units to spend Eid al Adha--an important Islamic holiday--with their families, government security forces killed them. This was the beginning of the end of the PDF's mass recruitment capability.¹⁰⁸ The SAF for its part always viewed the PDF as a sub-optimal gang organization. The two forces never made attempts to operationally integrate the way the *Artesh* and *Pasdaran* attempted.

In the late 1990s the Sudanese president created a new ministry to oversee both the SAF and the PDF. This new ministry reported directly to him. This is similar to the creation of the MODAFL in Iran, but the choice for who would lead the ministry was a major indicator that the PDF was losing favor in the government: while in Iran a member of the IRGC was appointed as the head of the MODAFL, increasing its influence in the government and military

¹⁰⁷ Salmon p.25

¹⁰⁸ Salmon p.20

simultaneously, in Sudan the leader of the ministry came from the SAF. In addition, compulsory training with the PDF was replaced by compulsory service in the professional military. The regime also removed Turabi's authority to define and declare jihad in the state. Turabi, the ideological Islamist leader in the country, made his separate peace with the rebels, ending the credibility of the Sudanese government among Islamist ranks. The PDF went from a religious movement to a political one.¹⁰⁹

The lack of an external enemy also affected the regime's ability to control the entire country. In a way, Khomeini was lucky that Iraq attacked, because it allowed him to rally undecided Iranians to his cause in the name of traditional nationalism. The Sudanese leadership faced a continuous civil war. The SAF was marginalized in the early years following the Islamic takeover in Sudan while in Iran the *Artesh* was critical as a component to defeat Saddam's initial invasion. The war provided Iran with the opportunity to learn how the radicalism of ideological troops needs to be controlled and tempered by strong forces to be most effective, while the PDF continued to use the human wave attacks with little success until the populace stopped supporting these tactics.

Ultimately, it was the regime's inability to sell the use of the PDF as a tool to advance the Islamist agenda as well as the inability to sell its agenda to the populace that led to the decline of the PDF. The PDF tactics were ineffective in the long run and the marginalization of the forces instead of the inclusion of the capability potential provided by radical troops minimized their importance as a military organization. Furthermore, despite the significant time devoted to ideological training in the more "regular" units the PDF leadership could not create the same martyrdom cult across the ranks. When Turabi, the center of the Islamist agenda, split from the regime the PDF lost its credibility as a religious force and as a result lost its capacity to harness the power of radical ideology.

General People's Defense in Yugoslavia

Yugoslavia in the 1970s provides a good example of a deterrent doctrine (the doctrine itself was deterrent by nature because it assumed the successful invasion of the country, although it was officially labeled as their new defensive strategy) without a religious underpinning. This comparison will see how the lack of a religious ideology (and a deeply conflicted sense of nationalism) affected the military's ability to develop a deterrent doctrine. In this case, the

¹⁰⁹ Salmon p.23

military/paramilitary groups received training and had many similar weapons platforms and strategies as the IRGC, but they lacked the ideological underpinning and therefore did not have the same violence potential as the Iranian forces. This case predates the development of the IRGC, but many structural similarities between the two asymmetric forces exist. The differences lie in how each country planned on ensuring operations could be sustained over an extended period of time.

Yugoslavia was a federation of equal nations. For much of its history the high level of external threat from more powerful neighbors played a significant role in holding the country together. Foreign powers had a habit of dividing the country into competing spheres of influence, ultimately leading the Yugoslavs to not trust any great outside power. Internal conflicts also ran high.¹¹⁰ Because of this high external and internal threat, the country had traditionally thought of a centralized army as a mandatory component for national unity, and distrusted the idea of arming the population. The Soviet invasion of Czechoslovakia changed their mind, changed Yugoslavia's anti-West feeling into an anti-superpower feeling. Yugoslavs knew that the outcome of a battle against a superior invading force was not certain, but they knew the one difference is that they would fight.

1969 new law was passed redefining Yugoslav defense policy. Leadership accepted that it might not be able to actually prevent the invasion from a superior army. The new law created the General People's Defense. It was an acknowledgement that the nature of modern war had no boundary lines between the front and the rear or the people and the army.¹¹¹ The popular defense had its origins in Axis invasion in 1941, where the relatively small guerilla forces were able to tie down a large number of German troops. Drafters of this new doctrine recognized that their strategy did not equate to "little" war, but would use all traditional weapons and have clear command and control.

The military was split into the Yugoslav People's Army and the Territorial Defense forces. The TD were the irregular groups who would be responsible for reconnaissance, information, and during wartime would coopt the police forces as a form of militia. The TD forces were elevated to the same level of importance at the YPA. Both groups would be responsible for conducting guerilla warfare. Which force took the lead in an operation was

¹¹⁰ Roberts, Adam. p. 124

¹¹¹ Yugoslavia Introductory Principles of the National Defense Law Sections I & II. Provided here by Roberts, Adam. *Nations in Arms*. p. 172

directly dependent on the size of the invading force and the YPA's projected ability to handle that force. In the case of a superpower invasion, the military would conduct strikes at the weak points of the occupying force.

Command and control was difficult in the early stages as the authority between the groups would shift depending on the nature of the invasion. In any given area of the country, either one group or the other might have constitutional authority. In 1974 provisions were made to solidify the chain of command by allowing the creation of joint commands if the situation warranted. Despite the increased leadership authority at the top levels, significant initiative was left to the sub-units and even individuals to fight in whatever creative way they could conceive.¹¹² The IRGC by comparison, while it started out as a number of different units, by the end of the Iran-Iraq war was waiting for permission from the highest levels before conducting a strike. The decentralization of 2007 gave back some of that autonomy to the individual units, this time armed with better training and organization—ultimately better war-fighting capability and proficiency.

Yugoslavia had a large military. All citizens were required to take a form of basic military training. The majority of the YPA consisted of conscripts of 15 month terms. Afterwards some went into the YPA reserve and most of the rest into the TD forces. The TD had about 1 million members due to this, a similarity with the *Basij* that would rise later in Iran. The Chief of Staff made the ambitious claim that all these measures together meant that he could call on upwards of 70-80% of the population should the need arise.¹¹³ In addition, the navy focused on building a 44-strong fleet of small fast-attack craft with guns, missiles, and torpedoes. These vessels were responsible for coastal defense and resembled the navy the IRGCN would develop.

The only chance Yugoslavia had to test their TD forces out was during a small incursion by Ustashi guerillas. After roughly a month, 15 guerillas and 13 TD members were killed. No conflict happened with an invading superpower, so any statement about what the outcome would have been would be conjecture. A numbers comparison, however, shows the difference between the deterrence methods of the Yugoslavs and the Iranians. While the ground forces were significant on both sides, the Yugoslavs had only 44 naval vessels to perform harassment attacks against an enemy compared to the hundreds and hundreds of the IRGCN.¹¹⁴ Clearly, in order to

¹¹² Roberts, Adam. p. 179

¹¹³ Col.-Gen State Potocar in an interview on Belgrade radio. Provided here by Roberts, p. 182

¹¹⁴ Highest estimates approach 2000.

carry out their deterrent strategy Yugoslavia would have to maintain their numbers as long as possible. These individual units would be risk averse. The IRGCN, on the other hand, has conducted exercises where *one* wave of craft equaled the entire Yugoslav navy. An individual loss for the IRGCN is far less damaging, and operations can continue long after the initial waves have been destroyed. The weapons employed by each group are the same, but the deterrent nature of the IRGCN boats is far greater due to their ability to harness their ideology, where death doesn't matter to the individual or the state.

Areas for potential study

I acknowledge that the two examples of religious ideology are both Islamic in nature. This raises the obvious question of whether these ideas can be generalized to all forms of religion or whether there is some other cultural or regional factor at work here. The premise in this paper is that any religion should be able to create high tolerance for costly sorties, as any religion can promise rewards in death. A case study in another area of the world or with another religion could potentially falsify these findings.

The unique nature of the IRGC may provide interesting research potential in the field of civil-military relations. As the IRGC professionalized, the regime needed to adapt its control methods to keep the powerful organization in check. A force that is both highly ideological and professional has unique considerations for civilian control.

The classic Huntingtonian argument for civilian control over the military states that objective mechanisms provide better control over the military than subjective mechanisms.¹¹⁵ In addition to the usual difficulties in defining what defines civilian control over the military, in Iran the situation is complicated by the fact that the civilian leadership has two distinct militaries it has to maintain control over. The line between the *Artesh* and the civilian government is clear; the line between the *Pasdaran* and the civilian government is blurry. The *Artesh*, as a traditional military with a legacy predating the Revolution, from the outset required clear control mechanisms from Khomeini's fledgling government in order to keep his power base secure. His primary mechanism for control was the creation of the *Pasdaran*, who acted as a watchdog force over the traditional military. As the *Pasdaran* became more powerful, Khomeini would end up requiring different mechanisms in order to keep it from usurping civilian control itself.

¹¹⁵ For a full discussion of objective vs. subjective control methods, see Huntington, Samuel. *The Soldier and the State*.

The religious ideology in the Iranian civilian leadership borrows principles from all of the main competing secular ideologies of the 20th century. The result is a civilian government that is different from the classic studies of civil-military relations. When combined with the fact that the military forces in Iran are also drastically different from traditionally studied militaries, the normal conclusions for determining the best methods of civilian control over the military do not provide a good answer in a religious state.

The radicalized nature of the IRGC, as well as its entrenchment throughout Iranian society, contends with its professional nature as a military. The line between subjective and objective control is blurry as a result. Civilian control probably is probably related to the unique ability of the IRGC to evolve into whatever it was the government needed at the time, whether it was a coup-proofing internal security unit, an economic organization, or a professionalized military responsible for the most important aspect of Iran's deterrent doctrine. That may also explain how the civilian leadership managed to maintain control over the *Pasdaran* through all levels of internal and external threats.¹¹⁶ A research paper on this topic may yield interesting results.

Generalizations

Andrew Mack is among the first to critically examine war at a level beyond the straightforward competition between the might of two opposing militaries. In conventional, symmetric wars, the might of one side is pitted against the might of the other. The combination of training, equipping, planning, and tactics determine which side is victorious. Through competition of arms, one military will ultimately triumph over the other military, and the states involved will react in accordance with who was the military victor. The best examples of these modern interstate symmetric wars were World War I and World War II. Each side was mobilized at the national level. Warfare represented a true reflection of a state's power. In a multi-polar world, this was an acceptable method for a state to protect its own security interests as on a macro level all the countries involved were on a level playing field. If one state was weaker than an aggressor, then it could balance its power through alliances.

¹¹⁶ Primarily, some of Michael Desch's conclusions in *Civilian Control of the Military* are inconsistent with the facts in Iran. During the low external threat and high internal threat of the early 1990s, Desch predicts the level of civilian control should be at its worst. However, the Iranian regime maintained control over both the regular military and the ever-growing IRGC. I suspect that the regime avoided conflict through careful control of the IRGC's preferences, ultimately creating a self-reinforcing system between the government and the IRGC.

The advent of nuclear technology following World War II changed the calculus for how conflicts were solved. The capacity for extreme destruction meant that in the bipolar power struggle, the U.S. and the U.S.S.R. refrained from direct military confrontation. The playing field had become so destructively level that both sides looked for other ways to advance their own interests. The arms race became its own measure of national strength, although the need to test it was fortunately never realized. Proxy conflicts stood in its place. Large countries like the United States engaged directly against small countries like Vietnam. The fact that the leviathan U.S. was not victorious after years of fighting prompted Mack and scholars like him to search for universal explanations on why traditional victors and losers were being redefined.

The conclusion was that the military might of each side could not be the only factor. In direct confrontations, the U.S. army readily defeated the regular Vietnamese army. Ultimately, though, it was the U.S. which failed to achieve its political objectives and withdrew. In the past, military defeat had equated to state defeat because the two had always been assumed to be equivalent. The will, or desire to fight, for one side was subject to the military capacity to fight. In an asymmetric conflict such as Vietnam, however, it became clear that while capacity and will to fight are related, they are not the same.¹¹⁷

When viewed as a larger part of foreign policy then, the strength of a military is only once piece of the puzzle. A state's ability to achieve victory in the international arena is capability*will. Will is, to use military terms, a "force multiplier" of existing capability. In symmetric conflicts the will of each side has always been relatively equal; both sides are fighting over a piece of territory, resources, or security. Even the struggles between capitalism and communism, while based in terms of competing ideologies, could be reduced to concerns that the other side was gaining too much power. On the other hand, in asymmetric conflicts, the capability*will of state A is pitted against the capability*will of state B, and the asymmetry which exists in capability is independent of the asymmetry which exists in the will. If the side with significantly lower capability can compensate with significantly higher will, its final war-fighting capacity will be superior.

Ivan Arreguin-Toft expands Andrew Mack's discussion on the nature of conflict between strong and weak actors. When a superior force attacks an inferior one, each side has two options in the event of military confrontation: direct and indirect. Using the Correlates of War database,

¹¹⁷ Mack, Andrew. "Why Big Nations Lose Small Wars". p. 178

he determined that when each side uses the same strategy, the strong side tends to win while when each side uses a different strategy the weak side does.¹¹⁸ When a small state pursues an indirect defensive strategy such as protracted guerilla warfare, then a stronger state's best (or at least, most effective) option is to pursue barbarism. The idea behind barbarism is that by ruthlessly attacking civilian population and infrastructure, it destroys the defender's ability to fight by eliminating their intelligence, logistics, and replacement networks.¹¹⁹ If the attacker has a level of moral restraint, however, many of the barbarism tactics become unfeasible.

The purpose of this paper is to build off Toft's and Mack's work by examining ways in which states with inferior capability can level the playing field by maximizing their will, and then explaining how this might affect their military doctrine development. Asymmetry of will is already commonplace in some conflicts: a small state being invaded by a larger one seeking resources results in an asymmetry of will—in this case, survival for the small state vs. a simple wealth/prestige increase for the large. In modern times, the importance of asymmetry of will has become apparent to states in the modern unipolar world, and some states have figured out ways to increase their relative will as a part of a larger foreign policy plan.

Religious extremism works best when used as a tool in deterrent doctrines vice offensive or defensive. This is because the nature of deterrence is based on cost, while offensive and defensive doctrines still rely on military victories. From 1982 to 1988 Iran, spurred by its success defending the homeland, invaded Iraq in order to spread its Islamist ideology. Khomeini felt like his divinely inspired soldiers were in the perfect position to spread the Revolution to the rest of the region and invaded Iraq in an attempt to disarm its military. This invasion failed miserably, however, because the increased will of the Iranian military (based on ideology) was countered by the increased will of the Iraqi military (based on security). The wills, being relatively equal again, relegated the conflict back into the realm of straightforward competition between military power.

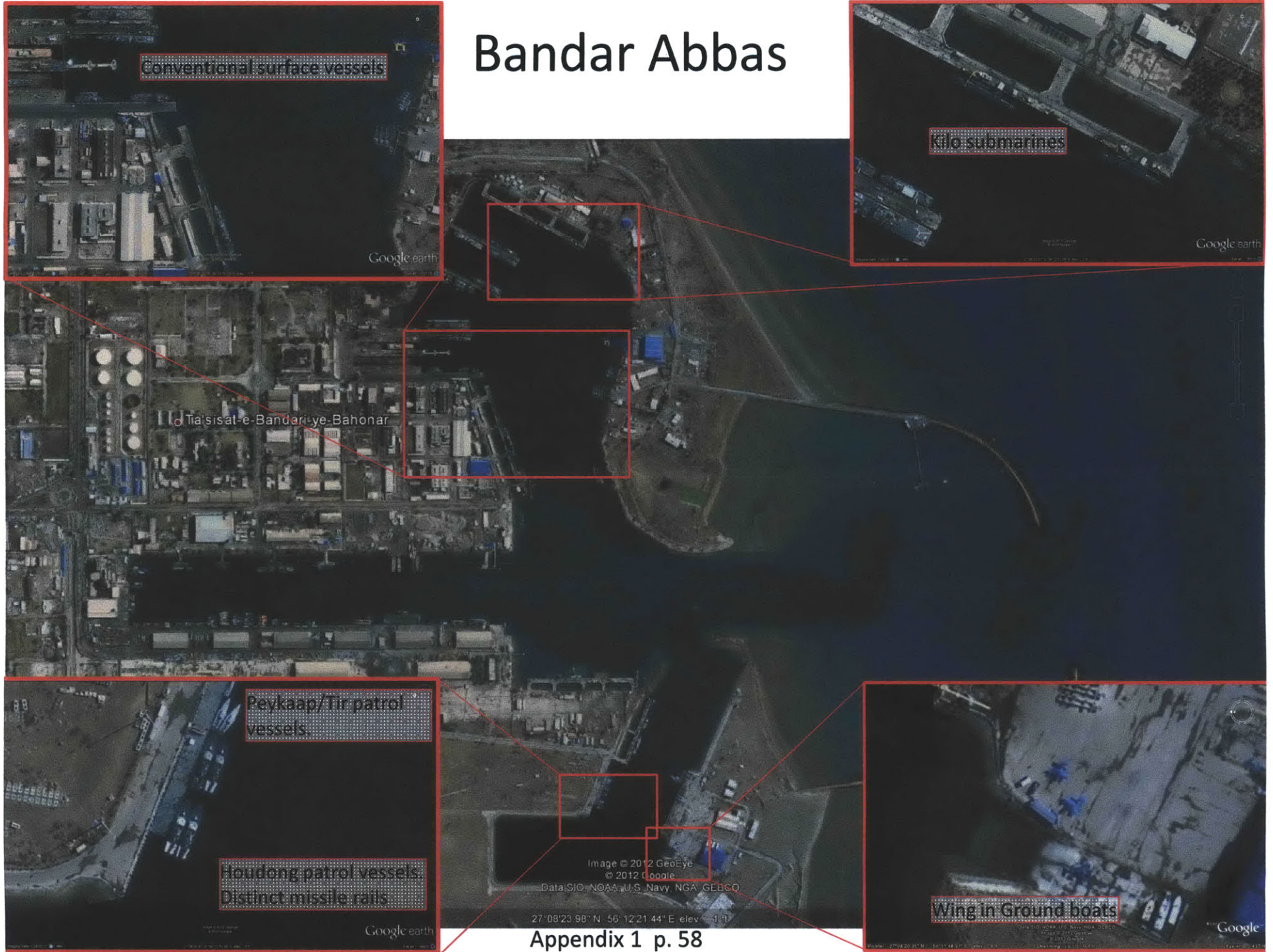
As an ideology, religion provides a regime with the tools to create military strategies that don't follow traditional rules for military doctrine. Units are much more risk tolerant, and the sortie rates are sustainable over longer periods than traditional militaries would accept. This allows a country to cause more harm to a superior opponent than it would be able to with

¹¹⁸ Arreguin-Toft, Ivan. "How the Weak Win Wars: A Theory of Asymmetric Conflict." p. 108

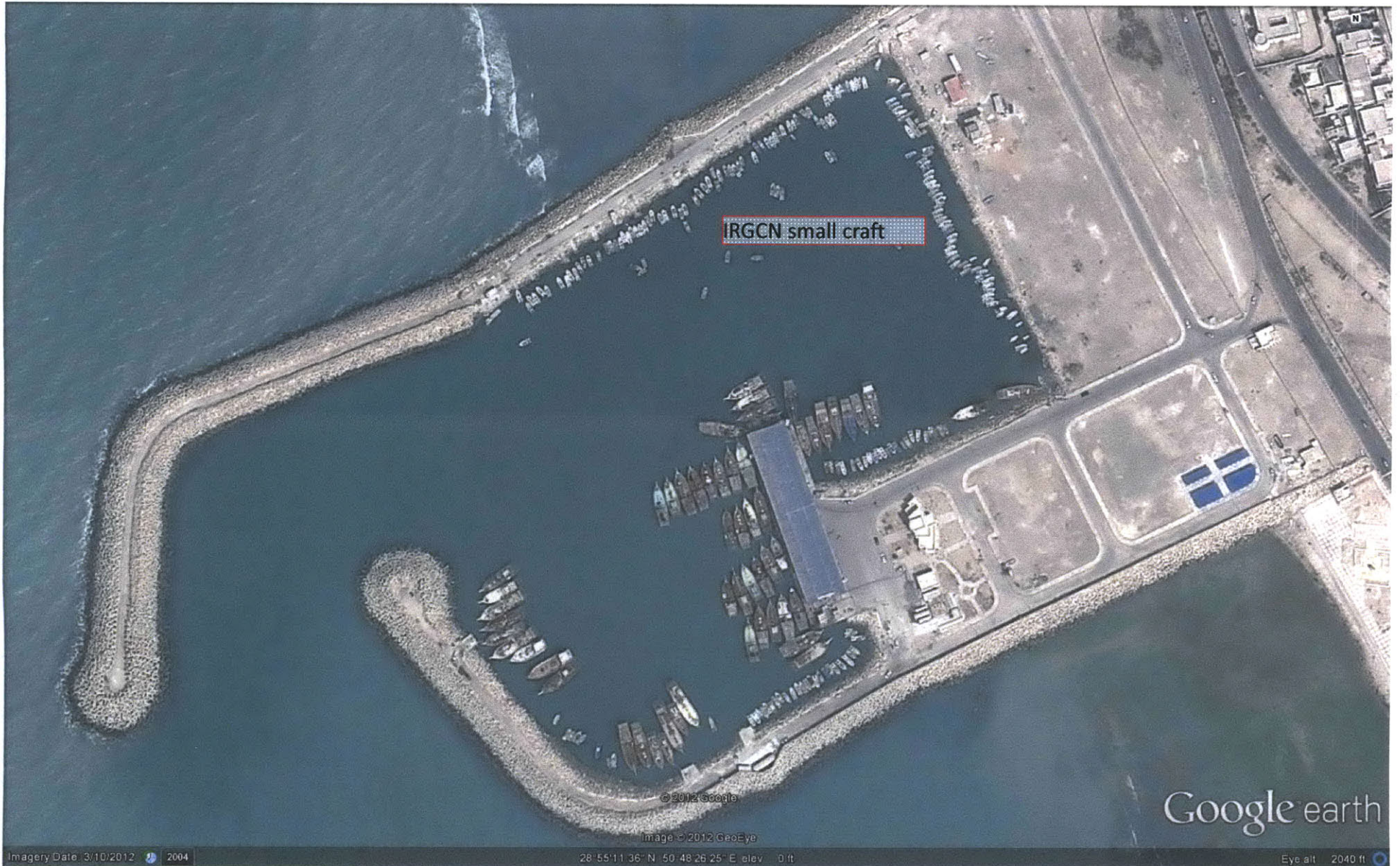
¹¹⁹ Arreguin-Toft. p.109

traditional deterrent doctrine means. In order to utilize the advantages that come with an ideological force, the ruling regime must first sell the ideology to both the populace and the military. Selling to the populace equals a soft form of control, and selling to the military equals a reduced preference divergence. The resulting military force is content not to seize power from the civilian establishment and content to sacrifice itself for the sake of the regime's political agenda; the regime speaks for God and its agenda is a part of a divine plan. Ideology means that strict security calculations are no longer the primary concern of a state. The resulting military will have an excess of will to counteract an opposing state's excess of capability.

Bandar Abbas



Bushehr



Appendix 1

59

Interviews conducted for this paper

Mr Conway Zeigler, Instructor

Mr Zeigler has over 36 years of experience working with the IC. He served 24 years in the US Navy including 18 years as a Naval Intelligence Officer, beginning as a Mideast and Africa Desk officer in the National Military Intelligence Center and ending up as Senior Intelligence Officer at the Center for Naval Analyses.

He was responsible for coordinating current intelligence support in the Pentagon for two successive Chiefs of Naval Operations (Admirals Kelso and Boorda) and served as Political Military Officer on the Sixth Fleet Staff, Deputy J2 for the Joint Task Force Southwest Asia, and N2 (Intelligence Officer) for the Commander Middle East Force.

He served as the first Chief Staff Officer in 1992 for the 600 strong Intelligence Directorate Office of Naval Intelligence during the consolidation that took place after the Cold War, when ONI moved into its new building at Suitland and transformed itself into a single National Maritime Intelligence Center from its previous organization into five separate commands.

During his Navy career he was involved in intelligence support for US Navy forces off of Libya, US Marine Forces ashore in Lebanon, US and allied aircraft flying over Iraq and US and allied naval forces confronting Iranian forces in the Arabian Gulf during the Iran-Iraq War (for Operations Earnest Will, Nimble Archer and Praying Mantis).

He has extensive experience coordinating coalition intelligence support including setting up coalition intelligence exchanges for Multinational Force operations in Lebanon, for UN Peacekeeping Operations and for Gulf and European allies operating alongside US forces in the Arabian Gulf.

He is a Middle East specialist and holds a BA and MA from Princeton University in Near Eastern Studies and International Affairs. He also studied Arabic and Middle East History at the American Universities in Cairo and Beirut. His teaching experience includes three years on the faculty of Naval War College in Newport Rhode Island where he taught in the Strategy and Operations Department and the Intelligence Division.

Since retiring from the Navy he has been working as a Senior Defense Analyst at SAIC, where he has worked on designing and fielding C4ISR systems for our Gulf allies, assisted the US Central Command in organizing Regional Symposia, helped the US Special Operations Command in achieving multilevel security and Network Convergence for its forward deployed intelligence systems and provided analytical support for the Office of Force Transformation.

He drafted the curriculum for the Near East and South Asia Center for Strategic Studies at the National Defense University and has assisted the CIA in studying Libyan futures and assessing Arab and Islamic world reactions to US military operations in Afghanistan

and Iraq. Since May 2008 he has been serving as Senior Defense Analyst and Instructor in Critical Thinking for the next generation of Intelligence Community analysts.

LT Evan Bruno, United States Navy

Evan Bruno a Naval intelligence officer currently working with National Geospatial Intelligence Agency. He is a subject matter expert on foreign disclosure and Iranian naval tactics. He has deployment experience in the Middle East as the intelligence officer for a maritime surveillance and reconnaissance squadron operating out of Qatar and covering the Arabian Gulf and Straits of Hormuz

LCDR Stefan Lamberski, United States Navy

Stefan Lamberski is a career Surface Warfare Officer in the U.S. Navy with over 20 years of experience and various awards. He has multiple deployments on ships and land to the Middle East, and is currently serving as the Navigator on the U.S.S. Kearsarge.

Appendix 3

I used Google Earth Imagery, copyright 2012. I scanned at an eye altitude of 5000' and zoomed in to check areas that showed potential. I recorded any docks that COULD be used to harbor an IRGCN squadron, even if only temporarily. I was not concerned whether or not they are known IRGCN bases. I also went inland on rivers that showed boat traffic to see where they could be mooring.

I included any area that was clearly a mooring point, and/or had ships present. There were a number of places that were in close proximity of each other; if they appeared to be a part of the same town I only counted them once. If they appeared to be neighboring towns, I counted each area individually. If the towns were labeled in Google Earth, I included the label.

MAINLAND

30 25 18 N, 049 04 36 E
30 05 40 N, 049 36 56 E
30 06 25 N, 049 46 23 E
30 11 00 N, 050 05 07 E
30 03 29 N, 050 08 41 E Bandar Daylam
29 50 25 N, 050 15 14 E
29 33 27 N, 050 30 26 E Bandar Ganaveh
29 28 44 N, 050 37 47 E Bandar Rig
29 25 55 N, 050 39 27 E Bandar Rig (proximity)
29 09 28 N, 050 40 18 E
28 56 00 N, 050 49 00 E Bushehr
28 49 36 N, 050 53 54 E Heleyleh
28 42 55 N, 051 03 16 E
28 34 23 N, 051 04 43 E Rostami Village
28 30 45 N, 051 05 25 E Ameri Port
28 25 10 N, 051 07 55 E Karri Village
28 20 44 N, 051 10 47 E
28 14 37 N, 051 16 22 E
28 00 18 N, 051 22 25 E
27 49 49 N, 051 40 58 E
27 50 21 N, 051 47 51 E
27 50 02 N, 051 53 56 E
27 49 46 N, 051 55 41 E, Dayyer
27 49 48 N, 052 03 28 E, Bandar-e Kangan
27 45 24 N, 052 08 03 E
27 43 52 N, 052 09 23 E
27 42 00 N, 052 11 50 E
27 39 39 N, 052 20 53 E
27 38 56 N, 052 24 53 E, Parak
27 37 20 N, 052 28 26 E, Shirinoo
27 32 12 N, 052 33 00 E
27 29 45 N, 052 35 18 E, Nakhli Taghi
27 28 28 N, 052 36 23 E, Asaloyeh
27 24 10 N, 052 38 25 E, Haleh
27 21 01 N, 052 37 36 E
27 17 24 N, 052 42 02 E
27 13 57 N, 052 47 59 E
27 10 59 N, 052 52 46 E, a number of these coastline "indents" were present along this stretch of coastline
27 07 39 N, 052 59 57 E
27 04 51 N, 053 08 20 E
26 57 56 N, 053 28 31 E, Bandar-e-Mogham
26 49 08 N, 053 32 26 E, Jazze Port
26 43 09 N, 053 55 38 E
26 43 30 N, 054 16 59 E, Bandar e Charak

26 39 08 N, 054 21 38 E, Bandar e Hasineh
26 30 37 N, 054 39 32 E, Bustaneh
26 30 42 N, 054 48 22 E, Bandar e Shenah
26 32 53 N, 054 53 23 E, Bandar Lengeh
26 35 35 N, 054 56 36 E, Bandar Kong
26 38 42 N, 055 03 37 E
26 56 35 N, 055 35 47 E, Bandar e Khamir
26 58 28 N, 055 44 58 E
27 02 26 N, 055 58 14 E, Gachin Mountain
27 09 28 N, 056 14 56 E, Bandar e Abbas

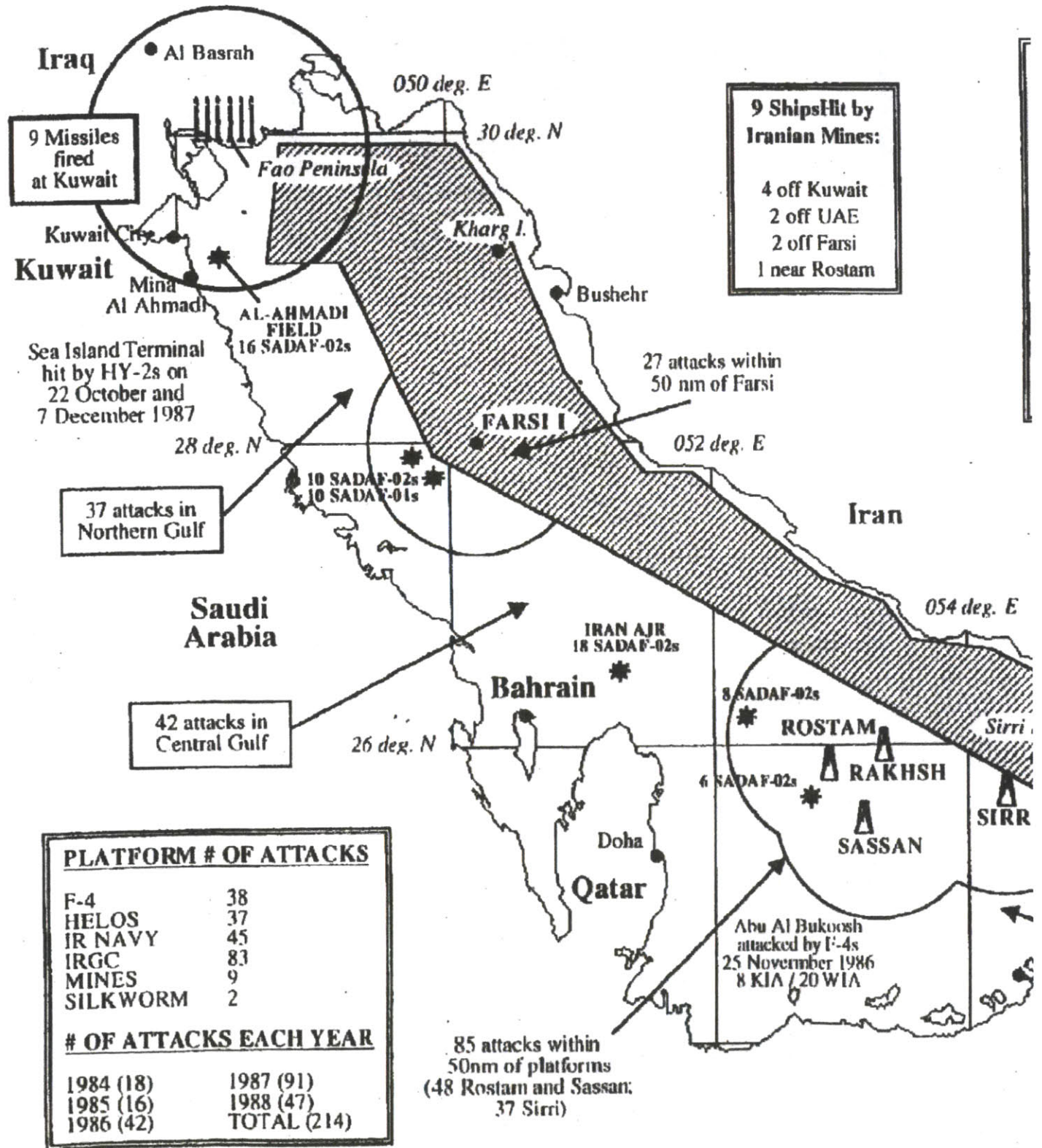
QUSHM ISLAND

26 44 12 N, 055 36 41 E
26 40 44 N, 055 27 39 E, Deelow
26 39 37 N, 055 16 16 E
26 32 22 N, 055 17 37 E
26 34 22 N, 055 20 15 E, Dustaku
26 41 03 N, 055 43 07 E, Salkh
26 41 06 N, 055 55 11 E, Shib Deraz
26 43 09 N, 055 58 28 E
26 44 19 N, 056 00 17 E, Messen
26 46 33 N, 056 03 55 E, Suza (2 areas)
26 53 56 N, 056 09 54 E
26 56 51 N, 056 17 06 E, Qeshm
26 58 00 N, 056 04 08 E, Dargahan
26 57 02 N, 055 45 51 E
26 53 37 N, 055 45 29 E, Laft
26 47 06 N, 055 45 49 E

26 14 23 N, 055 08 52 E, Lesser Tunb
26 15 53 N, 055 19 22 E, Greater Tunb
25 52 23 N, 055 01 57 E, Abu Masa
25 53 38 N, 054 33 05 E, Sirri Island
26 33 21 N, 054 01 53 E, Kish Island
28 47 41 N, 053 23 16 E, Levah Island
29 14 17 N, 050 20 05 E, Kharg Island



Appendix 3: Graphical overlay of all mooring points along Iranian coastline



PLUS 3 ATTACKS ON OIL PLATFORMS

Iranian Ship Attacks 1984-1988



Offshore Iranian Platforms



Iranian-laid Minefields

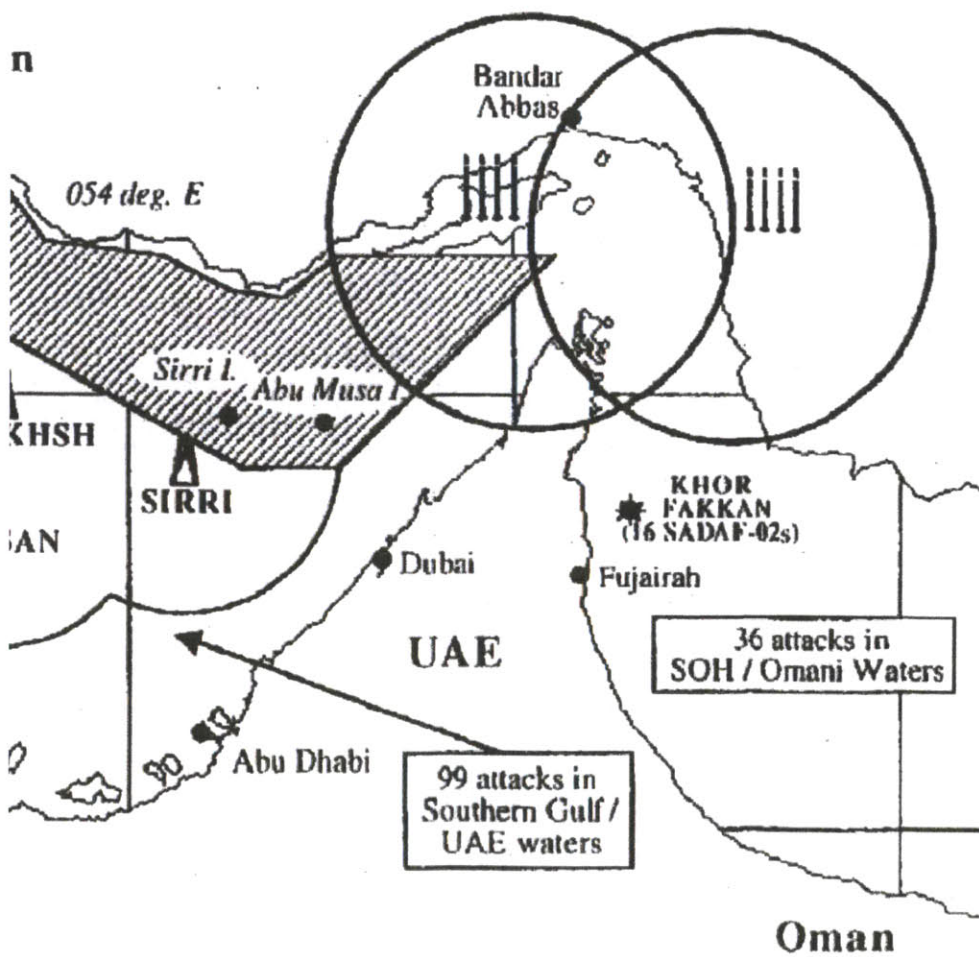


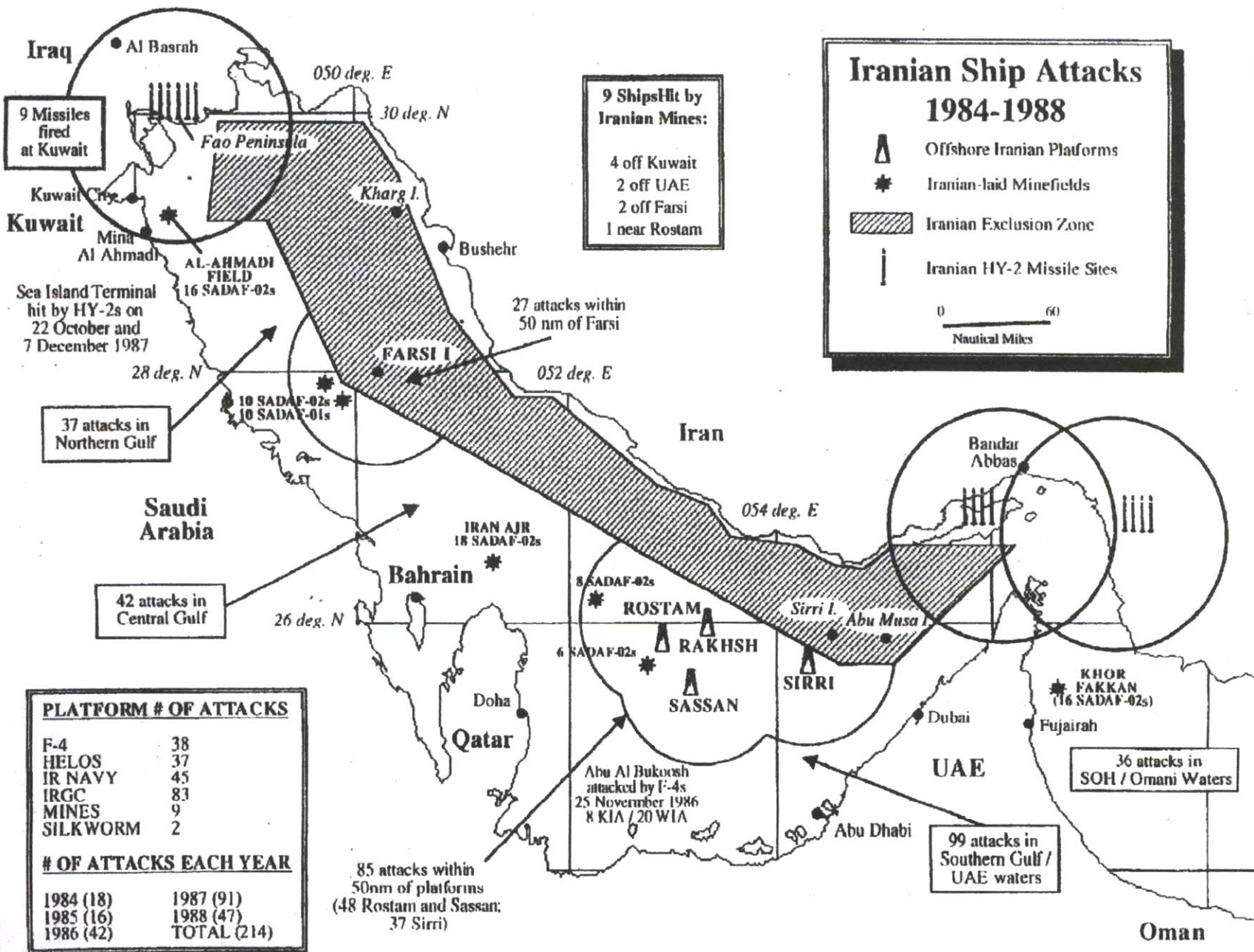
Iranian Exclusion Zone



Iranian HY-2 Missile Sites

0 60
Nautical Miles





PLATFORM # OF ATTACKS	
F-4	38
HELOS	37
IR NAVY	45
IRGC	83
MINES	9
SILKWORM	2
# OF ATTACKS EACH YEAR	
1984 (18)	1987 (91)
1985 (16)	1988 (47)
1986 (42)	TOTAL (214)

PLUS 3 ATTACKS ON OIL PLATFORMS

10, 20, and 40 NM ranges from known mooring points



Appendix 5