

# Securing the Gulf

## *Key Threats and Options for Enhanced Cooperation*

**Note: This report will be updated. Please provide comments and suggestions to [acordesman@gmail.com](mailto:acordesman@gmail.com)**

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Each of the Arab Gulf states face major challenges in terms of its stability and security interests – only some of which can be addressed by creating more effective military forces, security forces, alliances within the Gulf, and alliances with outside powers. These challenges vary from country to country, but they include religious extremism and terrorism; asymmetric and missile threats from Iran; internal sectarian, ethnic, and tribal divisions; the need to deal with massive demographic pressures and a “youth bulge” that requires the creation of massive numbers of jobs and new social infrastructure; and the need for stable political and social evolution to avoid political upheavals that can do as much or more to disrupt reform and modernization as to achieve it.

#### **Four Emerging Threats of Complex or “Hybrid” Warfare**

At the same time, each Arab Gulf state must reshape every element of its security structure to move away from a past focus on conventional warfare and compartmented internal security efforts to a spectrum of four interactive challenges:

- Internal security, counterterrorism (CT), and civil-military stability operations – often involving outside powers and arms transfers.
- Low to mid-level asymmetric wars that may involve conventional forces.
- Conventional wars using asymmetric means
- Use of weapons of mass destruction (WMD), weapons of mass effectiveness, cyberwarfare – wild card patterns of conflict and escalation.

This means that security cooperation between the individual Arab Gulf states must now deal with the emergence of patterns of complex or “hybrid” warfare that can occur at many different levels with limited warning. In many cases, they will have to react on a Gulf-wide basis to attacks that emerge in ways that cannot be predicted, except for the fact that opponents like Iran and violent extremists will seek to exploit any perceived weaknesses and do so as cheaply as possible. These attacks will cross national boundaries, force near-real-time reactions, and much will depend on the level of integration and interoperability between each state and with the Gulf Cooperation Council (GCC).

Outside allies like the US, the UK and France can play an important role in supporting the Gulf states, but there are important areas where the role of outside allies will be limited or ineffective. The Arab Gulf states must deal with the enduring political, social, and economic pressures that threaten their stability and that of their neighbors. These are pressures where the US and outside powers can at best play a marginal role, and where success or failure will occur on a largely national and local basis.

The Arab Gulf states must assume responsibility for defense against internal terrorism, sabotage, infiltration, and low-level conflict. Nations like the US may be able to assist in mine warfare, coastal security, and raids inside the Gulf, but the Arab Gulf states can and should be ready to defend themselves at this threshold of threats. They also should be ready to cooperate effectively with integrated and interoperable forces that share common training and defense plans and can react quickly to any escalation of a crisis or conflict.

There is a real risk that a serious conflict could occur in the Gulf during the next few years that could involve an intense asymmetric conflict or mix of high levels of both asymmetric and conventional forces. The Arab Gulf states are improving their

capabilities to deal with a major air-sea battle in the Gulf. They are acquiring superiority in airpower and face limited land and amphibious threats. However, most lag behind in sea power and all still tend to plan and train as individual states. In most cases, they invest far more in the “glitter factor” of the most advanced weapons than in the readiness, sustainability, combined arms, and joint warfare capabilities that determine real-world deterrence and defense.

Finally, at some point in the near future every Arab Gulf state must decide how it will approach the threat posed by Iranian nuclear and missile capabilities if the Permanent Members of the UN Security Council and Germany’s (P5+1) negotiations with Iran fail. The practical options are preventive strikes and a lower level of containment, or acquiring far more serious missile and air defenses and some form of retaliatory option – national or GCC nuclear and missile forces, strike forces capabilities of using the equivalent of weapons of mass effectiveness, or reliance on the US for extended deterrence.

Each Arab Gulf state, and the GCC states as a whole, will need to redefine their current dependence on the US and other outside powers for more serious conflicts involving the large-scale use of Iranian conventional and asymmetric military forces, and again be ready to fight on a near-real-time basis.

### **The Need for Greater Unity Within the GCC: “Hang Together or Hang Separately”**

In spite of real progress within the GCC, the present security structure of the Arab Gulf states is based on dependence on the US mixed with ties to the UK and France, and is focused more on bilateral and multilateral links between their forces and those of the US than the creation of effective interoperable and integrated forces within the GCC.

This security culture of de facto dependence on the US has the advantage that it allows the Arab Gulf states to make use of US high technology forces and intelligence, surveillance, and reconnaissance (ISR) assets that no other global military power possesses. It also, however, creates a level of dependence that fails to deal with the risk that US forces may not always be available, and it means that Arab Gulf national forces are far less effective both individually and collectively than would be the case if they were better integrated and more interoperable.

Moreover, the Arab Gulf states are now spending vastly more on military and internal security forces than Iran and are spending far more on military modernization. In case after case this money is being spent without cooperation, and without the necessary interoperability, integration, and focus on key mission priorities. Economies of scale are not being achieved, training and readiness suffer, vulnerability increases, and both deterrence and defense lose credibility.

This analysis highlights the seriousness of the threats involved, and shows that the GCC has the potential to become a far more effective security structure, improving every aspect of Arab Gulf state security. This does not require a sacrifice of sovereignty, but it does require the Arab Gulf nations to act upon what they have already said they should do. Continuing the past reliance on rhetoric and denial is a recipe for failure. Words will not be a substitute for realism and making hard choices. There is a good reason to debate given levels of integration and interoperability. There is no future in relying on deterrence and defense by declaration, conference, or Diwaniya.

## Table of Contents

<b>THE ARAB GULF STATES: SECURITY CHALLENGES AND THREATS .....</b>	<b>1</b>
INTERNAL STABILITY AS THE FOUNDATION OF ALL OTHER ASPECTS OF SECURITY .....	1
COUNTERTERRORISM AND INTERNAL SECURITY .....	1
EXTERNAL THREATS: THE PERIPHERY AND IRAN .....	2
<i>Iranian Asymmetric and Irregular Warfare Threats .....</i>	<i>3</i>
<i>Iranian Conventional Military Threats .....</i>	<i>6</i>
Iranian vs. Arab Gulf Air and Air Defense Resources .....	7
<b>Fixed Wing Combat Aircraft .....</b>	<b>11</b>
<b>Armed and Attack Helicopters .....</b>	<b>11</b>
Iranian vs. Arab Gulf Naval Resources .....	2
Iranian vs. Arab Gulf Land Resources .....	15
Iraq as the Wild Card .....	16
Comparative Armor .....	20
Comparative Artillery .....	20
<i>Iranian Long-Range Missiles and Weapons of Mass Destruction .....</i>	<i>23</i>
Iran's Longer-Range Missile Forces .....	23
Iran and Weapons of Mass Destruction .....	30
<b>REINFORCING THE STRENGTHS OF THE ARAB GULF STATES.....</b>	<b>34</b>
THE SEARCH FOR UNITY IN THE ARAB GULF .....	34
PRESSURES FOR GREATER UNITY.....	35
AREAS OF GROWING COOPERATION .....	38
ARAB GULF STATE SECURITY COOPERATION WITH THE US, THE UK, AND FRANCE.....	39
<b>Bahrain .....</b>	<b>41</b>
<b>Kuwait .....</b>	<b>41</b>
<b>Oman .....</b>	<b>42</b>
<b>Qatar .....</b>	<b>43</b>
<b>Saudi Arabia .....</b>	<b>44</b>
<b>UAE .....</b>	<b>45</b>
<b>MAKING EFFECTIVE USE OF VASTLY SUPERIOR RESOURCES.....</b>	<b>47</b>
<b>FURTHER EFFORTS TO STRENGTHEN INTEROPERABILITY, INTEGRATION, AND THE</b>	
<b>GCC.....</b>	<b>52</b>
PLANNING AND INTEROPERABILITY .....	52
<i>Create a GCC Force Planning Exercise.....</i>	<i>52</i>
<i>Create a Standardization and Interoperability Committee and Staff.....</i>	<i>53</i>
<i>Create a Technology and Procurement Committee and Staff.....</i>	<i>53</i>
<i>Create a Working Group on Arms Control.....</i>	<i>53</i>
COORDINATE LOGISTICS, SUSTAINABILITY, AND READINESS.....	53
BUILDING COMMON TRAINING AND EXERCISE CAPACITY .....	54
<i>Survey Training Facilities to determine how to ensure best use on a GCC-wide basis .....</i>	<i>54</i>
<i>Focus on Key Contingencies.....</i>	<i>54</i>
COMMAND, CONTROL, COMMUNICATIONS, COMPUTER, INTELLIGENCE (C4I), SENSOR, AND BATTLE	
MANAGEMENT (BM SYSTEMS .....	54
<i>Create a Fully Integrated Air and Surface-to-Air Missile Unit Control and Warning System</i>	
.....	55
<i>Create a Fully Integrated Maritime Surveillance System.....</i>	<i>55</i>
<i>Create a Joint Intelligence Center.....</i>	<i>55</i>
<i>GCC Net Assessment Group .....</i>	<i>56</i>
PREPARING FOR MISSILE AND WMD THREATS .....	56
<i>Areas For Improved Planning and Dialogue .....</i>	<i>57</i>
<i>Create a Joint, Integrated Missile Defense System.....</i>	<i>57</i>

FOCUSING ON OTHER KEY MISSION AREAS.....	60
<i>Iraq, the Iraqi Border and Kuwaiti “Hinge”</i> .....	60
<i>Yemen Border Security and Threats</i> .....	60
<i>Mine, Anti-Submarine (ASW), and Naval Asymmetric Warfare</i> .....	61
<i>Strait/Gulf of Oman/Indian Ocean/Red Sea/Horn of Africa</i> .....	62
IMPROVING INTERNAL SECURITY EFFORTS.....	62
<i>GCC Identity Cards, Passport Data</i> .....	62
<i>A GCC-wide Intelligence Effort for Counterterrorism and Dealing with Popular Unrest</i> ...63	
<i>GCC Internal Security Center</i> .....	63
<i>Common Counterterrorism Training</i> .....	63
<i>Common Police and Crowd Control Standards and Training</i> .....	63
<i>A GCC-Wide Rapid Reaction Forces for Counterterrorism and Dealing with Violent Unrest</i> .....	64
IMPROVING ENERGY AND INFRASTRUCTURE SECURITY: PASSIVE DEFENSE.....	64
CREATING MORE EFFECTIVE COOPERATION WITH POWER PROJECTION FORCES OUTSIDE THE GCC .65	
<i>Partnership with Europe (UK and France)</i> .....	65
<i>Partnership with the US</i> .....	66
ENCOURAGING STABILITY THROUGH ECONOMIC, EDUCATIONAL, AND SOCIAL MEASURES.....	66
<i>Education</i> .....	67
<i>GCC Domestic and Foreign Labor Policies</i> .....	67
<i>Setting Common Social and Economic Standards/Goals</i> .....	67
<i>Building Dignity, Trust, and Faith in Government Integrity</i> .....	68
<i>Creating GCC Study and Planning Efforts</i> .....	68
THE IMPORTANCE OF INTEGRATED CIVIL-MILITARY SECURITY EFFORTS .....	69

## List of Figures

FIGURE ONE: TOTAL GULF HOLDINGS OF COMBAT AIRCRAFT.....	11
FIGURE TWO: COMPARATIVE MODERN IRANIAN AND GULF AIR FORCES .....	12
FIGURE THREE: COMPARATIVE LAND BASED AIR AND MISSILE DEFENSE FORCES .....	1
FIGURE FOUR: COMPARATIVE IRANIAN AND GULF MAJOR NAVAL FORCES.....	11
FIGURE FIVE: IRANIAN AND GULF SMALLER NAVAL SHIPS BY CATEGORY .....	12
FIGURE SIX: GULF WARSHIPS WITH ANTI-SHIP MISSILES.....	13
FIGURE SEVEN: GULF ATTACK, ANTI-SHIP, AND ASW HELICOPTERS.....	14
FIGURE EIGHT: LAND FORCE COMBAT UNITS BY COUNTRY IN 2012.....	17
FIGURE NINE: COMPARATIVE IRANIAN AND GULF LAND FORCE MAJOR WEAPONS .....	20
FIGURE TEN: COMPARATIVE IRANIAN AND GULF MILITARY MANNING .....	21
FIGURE ELEVEN: SHIFTING THE BALANCE: IRAN VS. IRAQ IN 2003 AND 2012 .....	22
FIGURE TWELVE: IRANIAN MISSILE FORCES AND PERFORMANCE .....	28
FIGURE THIRTEEN: ESTIMATED MAXIMUM RANGE OF CURRENT IRANIAN MISSILE FORCES.....	29
FIGURE FOURTEEN: IRANIAN MAJOR FACILITIES THAT MAY BE INVOLVED IN WMDS .....	33
FIGURE FIFTEEN: THE US MILITARY ROLE IN SUPPORT OF THE ARAB GULF STATES.....	41
FIGURE SIXTEEN: COMPARATIVE SPENDING ON MILITARY FORCES.....	49
FIGURE SEVENTEEN: NEW ARMS TRANSFER AGREEMENTS IN MILLIONS OF CURRENT US DOLLARS .....	50
FIGURE EIGHTEEN: NEW ARMS DELIVERIES IN MILLIONS OF CURRENT US DOLLARS.....	51
FIGURE NINETEEN: MISSILE DEFENSE AND ATTACK TIMING: THE CHALLENGE OF FIVE MINUTES OF WARNING AND FLIGHT TIME.....	59

## **The Arab Gulf States: Security Challenges and Threats**

The first step in improving both national security efforts and cooperation amongst the Arab Gulf states and between them and outside states, is to define the range of threats that must be dealt with. It is important to understand just how much the regional security structure is changing, the complexity of the emerging risks, and the need to plan effectively for the future and not simply today's threats and problems.

### ***Internal Stability as the Foundation of all Other Aspects of Security***

The first – and sometimes primary threat – the Arab Gulf states must deal with is their own internal stability. Any analysis of security threats must be prefaced with the fact that each Arab Gulf state must give priority to overall stability and meeting the needs of its people. Unity and stability are the essential preconditions to dealing with outside threats, and each Arab Gulf state needs to establish its own path to providing internal political stability; effective governance; economic development; employment and social welfare; and creating ways of bridging across its internal ethnic, sectarian, tribal, and regional differences.

Modernization, development, and social equity are the foundation upon which all other aspects of security are built. They are the key to limiting extremism and terrorism within the country and limiting the influence any external threat can pose in terms of influence or infiltration. If there is any clear lesson emerging from the pattern of events since the first “Arab Spring” uprising in Tunisia, it is that the best internal security and counterterrorism forces in the world cannot save a regime from its own people, or force unity on a state where larger numbers of its people feel no reason to be loyal to the regime.

This makes the domestic policies of each state and the collective political, economic, and social efforts of the Gulf Cooperation Council (GCC) the foundation upon which all other aspects of security are based. There is no such thing as military security. Security is always civil-military, and the civil base is always critical.

### ***Counterterrorism and Internal Security***

At the same time, the threat of violence posed by internal extremism and terrorism – as well as by internal factional struggles – is all too real. So is the threat posed by international terrorist networks, Iranian covert efforts within the Arab Gulf states, and the instability in neighboring states like Iraq and Yemen. It has become all too clear that each Arab Gulf state must find the right balance between internal progress and stability and effective counterterrorism, internal security forces, and criminal justice systems.

The failure to deal with internal extremist and terrorist threats, social violence, external non-state terrorist and extremist movements, and outside state-sponsored efforts to use proxies or internal movements to divide the country, support terrorism, or carry out acts of sabotage can pose a constant ongoing security threat and undermine both civil stability and the effort to increase military security.

There is a clear need to develop common approaches to strengthening both national and GCC-wide efforts. Cooperation in intelligence sharing, communications, police and internal security databases, customs and immigration, and criminal records all have value. Suitable measures include:

- Developing quick reaction forces at the national and GCC levels to immediately contain and limit the threat and use of violence;
- Sharing technology, protection, and anti-sabotage techniques;
- Creating common training centers and forums for information exchange;
- Conducting realistic national and GCC “red team” and exercise efforts and;
- Creating suitable pools of specialized equipment and non-lethal systems.

However, every step forward in creating stronger internal security forces can become two steps backward in achieving real internal stability. The challenge each Arab Gulf state faces – and the GCC and other states face in seeking to aid a given country or intervene – is to find the right balance between improved counterterrorism and security efforts and repression. Weakness in the face of real threats is no answer. But, neither are the excessive use of force, misuse of the law and justice system, censorship, and abuse of detention and exile.

Internal security efforts can do at least as much harm as good. Overreacting to legitimate social, economic, and political complaints – achieving short-term security through repression – will breed the very problem it is intended to end. Excessive punishment, rather than reintegrating dissidents and former terrorists into society, can destroy the effectiveness of even the best counterterrorism effort. Moreover, the backlash from the misuse of counterterrorism and internal security efforts tends to be quietly cumulative. Even when they appear to be successful, they leave a lasting legacy of anger and lay the ground for more serious internal divisions and threats in the future.

This places a premium on professionalism and training, the best possible intelligence, techniques that minimize the use of force, suitable equipment, and non-lethal systems. Effective efforts mean maximizing the use of dialogue and incentives where possible, and showing that any use of force and a given set of internal security measures can be justified in terms of public perceptions. Knowing when to stop, what to ignore, what to pardon, and what to fix are critical keys to success.

These forces also make strategic communications and the justification of state internal security action critical. It must always be clear to the public – in any given country, throughout the Arab Gulf, and to the world – that each state and the GCC as a whole is making an active effort to deal with legitimate grievances and complaints, offers a fair and workable path to reintegration, and does not exempt its internal security efforts from the rule of law. Outside states should only intervene in ways that show an equal concern for restraint and the consequences of their actions, and should always be equally able to justify their use of force.

### ***External Threats: The Periphery and Iran***

It is dangerous to focus solely on Iran. It is all too clear that other states within the GCC – or an outside state like Egypt, Jordan, Iraq, Syria, Yemen, and Southern Red Sea states –



can come to pose external threats, and that intra-GCC security and the security of the entire periphery must also be dealt with. Issues like the security of the Saudi border with Yemen have already become a key problem as – to a lesser extent – has the security of the border with Iraq.

The Arab Gulf states must also find the proper relationship for cooperation with the US, the UK, and France to ensure that they do not become over-dependent on outside aid. They also cannot ignore the risk that another Intifada or a military confrontation between Israel and Iran could have for the state caught in between.

The fact remains, however, that the most demanding set of threats is the current and growing range of those posed by Iran:

- *Terrorism and Civil Unrest:* There is a history of Iranian-linked terrorism and civil unrest dating to the infancy of the Islamic Republic. Bahrain in particular has alleged that numerous uprisings, attempted coups, and recent bombings have been linked to Iranian support for Shia factions in that country. Kuwait also has a history of dealing with Iranian-linked terrorism as early as the 1980s, with another attempted attack recently uncovered. Plots in Bahrain and Kuwait have been linked to both Hezbollah and the Islamic Revolutionary Guards Corps (IRGC) Quds Force.
- *Support to Other Violent Non-State Actors:* As has been the case with Hezbollah in Lebanon and Shia groups in Iraq, Iran has been accused of providing material support to violent non-state actors (VNSAs) in the Arabian Peninsula. The IRGC Quds Force is accused of meeting with and providing arms to Houthi militants in Yemen, which have been battling the US-backed regimes of Yemen and Saudi Arabia.
- *Threat to Maritime Trade:* The security of maritime commerce for much of the Arabian Peninsula is contingent upon safe passage through the Strait of Hormuz. The threat of Iranian mines, small boat attacks, and anti-ship missiles is a serious risk to regional commerce.
- *Missile Threat:* Iran's airpower capabilities are limited by sanctions and the ageing nature of the country's fixed-wing air force. However, Iran has compensated for these shortcomings with short to intermediate range missile capabilities that put major population centers and critical infrastructure on the Arabian Peninsula in range of Iranian strikes.
- *Nuclear Threat:* The GCC Ministerial meeting in December 2012 made it clear that the leaders of the Arab Gulf states support Iran's right to make peaceful use of nuclear power but are deeply concerned about the growing evidence that it is developing a nuclear weapons breakout capability and has plans to arms its missile forces with nuclear weapons.

The Arab Gulf states cannot predict which of these threats will become most critical or predict the scenarios that can lead to a given type of crisis or conflict. They must develop a mix of deterrence and warfighting capabilities that do as much as possible to avoid the risk of conflict, limit any conflict as much as possible, and terminate any conflict that does occur on favorable terms. They also need to cooperate as much as possible in dealing with internal tensions, other threats from extremism and terrorism, and the challenge of other outside threats like the instability in Iraq, tensions and conflicts in Yemen, and instability in neighboring Arab and Red Sea states.

### **Iranian Asymmetric and Irregular Warfare Threats**

Iran has made steadily more successful efforts to improve its capabilities for asymmetric warfare during the last two decades, and has worked to find ways to use those forces to pressure, threaten, or attack other powers in ways that the conventional military forces

and outside powers like the US find difficult to counter. These Iranian efforts have focused on improving the capacity of Iran's IRGC, and using the Al Quds Force and Ministry of Intelligence and National Security (MOIS) to influence non-state actors and extremists, but they affect every aspect of Iran's military and security efforts. Any weapon and any type of force can be used in asymmetric, irregular, or hybrid ways – from a terrorist proxy to a nuclear weapon.

They involve a major build-up of Iranian air-sea-and marine and Naval Guards forces in the Gulf; a significant presence in Iraq and Syria; and the use of the Iranian MOIS, Al Quds Force, and non-state actors in other countries. Since the early 1980s, Iran has progressively demonstrated its ability to use its forces in asymmetric and irregular warfare in a number of ways:

- Iranian tanker war with Iraq;
- Oil spills and floating mines in the Gulf;
- Use of Al Quds Force in Iraq;
- Series of IRGC and naval/air exercises in the Gulf and Gulf of Oman;
- Iranian use of unmanned aerial vehicles (UAVs) over Iraq;
- Funding and training of Hezbollah – including provision of UAVs, long-range rockets, and Komet anti-tank guided missiles (ATGMs) to Hezbollah;
- Incidents and demonstrations during pilgrimage in Mecca;
- Iran's use of cyber attacks on ARAMCO;
- Attempted assassination of Saudi Ambassador Adel Al Jubeir in the US;
- Transferring shaped charges and other advanced improvised explosive devices (IEDs) to Mahdi Army and others in Iraq and training of Iraqi insurgents;
- Arms flows into western Afghanistan;
- Shipments of arms to Hezbollah in Lebanon and to Hamas and other Palestinians radicals;
- Supply of arms and training to al-Assad regime in Syria;
- Supply of arms, funds, and training to Houthi and other anti-government elements in Yemen;
- Support of Shia groups in Bahrain and Saudi Arabia;
- Long-range ballistic missile and space tests; expanding range of missile programs. Iranian public description of possible missile attacks on Israel that indirectly demonstrate Iran's capability to attack its neighbors;
- Naval Guards seizure of British boats, confrontation with US Navy in Iraqi waters;
- Long series of IRGC and Iranian military exercises in Gulf demonstrating ability to attack coastal targets, shipping, and offshore facilities;
- Alleged bombings and attempted bombings directed at Israelis in Bulgaria, Georgia, Thailand, and India
- MOIS casing of US and Israeli soft targets in the region;
- MOIS training and joint cyber warfare operations against US, Israel, and allies;
- Use of Quds Force outside the region (e.g., Latin America, Africa).

Iran's strategic focus goes far beyond the Strait of Hormuz. Iran is intent on building up its military capabilities in the Gulf, Strait of Hormuz, and Gulf of Oman. Iran has used tools like the Al Quds Force and support for extremist or armed groups in many other areas – including the Levant, Gaza, Afghanistan, and Latin America. Iran has also gone to considerable lengths to use proxies to expand its presence and influence in regional countries. Examples include Iranian support for Shia militant groups in Lebanon such as Hezbollah and Islamic Jihad. More recently, Iran has provided extensive material support and training to Shia militias in post-2003 Iraq and Syria. Iran has also intermittently supported Kurdish militant groups, providing it strategic leverage against the only NATO state on its border, Turkey.

Iran's low level threats can also rapidly escalate into something far more serious. US Central Command (USCENTCOM) and senior US officers have publically stated that Iran has a limited capability to halt most commercial shipping through the Gulf for a short period. Speaking on Iran's ability to close the Strait of Hormuz, the strategic shipping lane linking the Gulf of Oman and the Gulf, Joint Chiefs of Staff Chairman General Martin Dempsey stated on January 9 2012 that:

They've invested in capabilities that could, in fact, for a period of time block the Strait of Hormuz."<sup>1</sup>

Two days later, Admiral Jonathon Greenert also responded to Iran's threats and claims to close the Strait:

If you ask me what keeps me awake at night, it's the Strait of Hormuz and the business going on in the Persian Gulf."<sup>2</sup>

In August 2012, Dempsey and Secretary of Defense Leon Panetta appeared together on CBS's *Face the Nation*. Dempsey reiterated that Iran has the military power to block the Strait of Hormuz for a period of time, but that the US would take action to reopen it. Panetta added that the US would not tolerate the blocking of the Strait, calling it a redline that would elicit a military response.

Few doubt that Iran now has a mix of forces that can carry out low-level attacks and harassment over extended periods of time in ways that would make it difficult for the US and its allies to respond effectively by escalating in a manner that would seem justified. Iran has put considerable effort into weapons systems with plausible deniability, allowing it to target tankers, foment unrest in American allies, strike civilian targets around the world, and otherwise threaten US interests while avoiding responsibility.

The US and the Arab Gulf states do, however, retain the advantage in scenarios that involve an Iranian attempt to "close the Gulf." Despite Iran's steadily advancing capabilities in asymmetric and proxy warfare, Iran's forces, territory, military and military production facilities, and critical infrastructure are still vulnerable to US

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<sup>1</sup> Kathleen Hunter and Viola Gienger, "Iran Able to Block Strait of Hormuz, General Dempsey Says on CBS". Bloomberg, January 9, 2012. Available at <http://www.bloomberg.com/news/2012-01-08/iran-able-to-block-strait-of-hormuz-general-dempsey-tells-cbs.html>

<sup>2</sup> "US Navy Commander: Iran's Words about Hormuz Strait "Keeps Me Awake at Night", FARS News Agency, January 11, 2012. Available at <http://english.farsnews.com/newstext.php?nn=9010170705>

conventional forces and devastating precision attacks on Iran's military and economic assets. It is only if Iran can acquire nuclear weapons and create the fear necessary for deterrence that it will be able to use its asymmetric or conventional forces freely in the Gulf.

As for other areas, Iran's lower level covert and asymmetric efforts extend throughout much of the Middle East and North Africa, into Central and South Asia, and beyond; Iran is seeking the capability to challenge the US and other Gulf states with a mix of capabilities ranging from free-floating mines and small craft with anti-ship missiles, to the ability to conduct air attacks on key targets like desalination plants, as well as missile attacks on military bases and cities.

### **Iranian Conventional Military Threats**

Iran also maintains large conventional forces that it can combine with its asymmetric forces like the IRGC to threaten and influence its neighbors. The IRGC has built on the lessons of its past conflicts, the actions of its proxies and the various other force elements it supports, and the broader lessons of other insurgencies and conflicts in the broader Middle East. In the process, both the IRGC and Iran's conventional forces have become steadily more capable of waging asymmetric warfare against US and other Gulf conventional forces.

Iran is improving its ability to deter Arab Gulf and US naval and air operations, as well as potential operations by Israel and other states, and it has significant military options it might use against Iraq, targets in the Gulf, Gulf of Oman, and the GCC states. As the Israeli-Hezbollah War and use of shaped-charge IEDs in Iraq have shown, Iran has also strengthened its proxies in other areas where it is engaged in direct and indirect competition with the US.

Iran has not modernized its conventional force at anything like the rate of the US or its Southern Gulf neighbors, but does still seek to improve its conventional forces in ways intended to expand its influence, limit US military options, provide the ability to intimidate its neighbors, and increase its power projection capabilities. Iran has also responded to the limits in its conventional forces by developing the non-traditional part of its military, the IRGC, into a mix of asymmetric and conventional forces that can protect Iran from invasion.

Iran seeks to use its conventional and asymmetric forces to help constrain US and US-allied operations in the Gulf, reducing America's ability to affect Tehran's policy choices. The end result is a constant and growing challenge to the US in the Gulf region – particularly in terms of air, missile, and naval warfare – as well as a challenge to the US in providing military support and transfers to the GCC states, Israel, and Iraq.

This does not mean that Iran has ceased trying to obtain additional modern land-based air defenses, modern combat aircraft, and upgrade or produce a wide range of arms and munitions. The US seeks to counter Iran by denying it modern conventional arms, improving its own forces and power projection capabilities, developing systems that specifically counter Iranian asymmetric threats, and building up the forces of friendly Arab Gulf states – particularly those of Saudi Arabia and the UAE. Both Iran and the US compete for influence over Iraq's future military development.

Iran has had some successes in improving its conventional forces and adding asymmetric forces that can supplement them. Iran has successfully imported Russian submarines, North Korean midget submarines and fast attack craft, and a variety of modern Chinese anti-ship missiles. It has acquired modern Russian and Chinese air-to-air, air-to-ground, short-range air defense (SHORAD), and anti-armor missiles. It has acquired modern Russian homing torpedoes and is reported to possess advanced types of Russian and Chinese mines. It also is slowly creating the capability to design and manufacture its own major conventional weapons systems, with a particular emphasis on cruise missiles, ship-to-ship missiles, and surface-to-air weapons.

The US, the UK, France, and Germany have – however – had considerable success in persuading other states not to sell Iran modern major weapons systems, and have gotten their support in passing UN resolutions discouraging the transfer of advanced arms to Iran. This has forced Iran to try to produce many of its own systems with only limited success.

The end result is that Iran is still heavily dependent on major weapons and equipment that date back to the time of the Shah – systems that were worn out by the stress of the Iran-Iraq War. Iran has not been able to acquire large numbers of modern armor, combat aircraft, longer-range surface-to-air missiles, or major combat ships. Partly because of US efforts, much of its conventional military force is obsolescent or is equipped with less capable types of weapons.

### *Iranian vs. Arab Gulf Air and Air Defense Resources<sup>3</sup>*

**Figures One and Two** show the limits of Iran's airpower capabilities. These are critical factors at a time when airpower, sea power, and missile power dominate the ability to threaten cities and facilities in the Gulf. Moreover, The Iranian air force does have over 330 combat aircraft, but the number that are operational is limited and the numbers that can be sustained in an intense air battle is even more limited.

Iran is still dependent on 209 US and French aircraft that date back to the 1970s, have never been properly modernized, and had extensive wear in the Iran-Iraq War. Its 44 F-14s are difficult to maintain and the readiness of many of its more than 70 F-4s is uncertain – as well as many of its US-supplied combat and other helicopters.

Iran's only modern, high capability, post-Shah combat aircraft include 35 aging export versions of the MiG-29, 30 aging export versions of the Su-24 fighter, and 13 Su-25 tank killers. **Figure Two** is deliberately conservative in comparing such aircraft to those in Arab Gulf air forces, which have far more capable "modern" aircraft than Iran.

If the Arab Gulf states properly integrate their air operations with truly interoperable forces, they can take account of significant operational limits and problems in the Islamic Republic of Iran Air Force (IRIAF) and IRGC air units.

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<sup>3</sup> These issues are explored in detail in Anthony H. Cordesman, Alexander Wilner, Michael Gibbs, and Scott Modell, *US and Iranian Strategic Competition: The Conventional and Asymmetric Dimensions*, Tenth Edition, Center for Strategic and International Studies, January 6, 2013. [http://csis.org/files/publication/120221\\_Iran\\_Gulf\\_MilBal\\_ConvAsym.pdf](http://csis.org/files/publication/120221_Iran_Gulf_MilBal_ConvAsym.pdf).

- Iran would need weeks of strategic warning to surge its air force to maximum defensive readiness and/or conduct a major combat operation.
- Even if Iran's air force does not come under large-scale attack, Iran's sortie rate will drop precipitously as it did at the beginning of the Iran-Iraq War – a factor that crippled it in competing with an incompetent and terribly led Iraqi Air Force.
- Iran could carry out a series of surprise strikes against Southern Gulf and Iraqi targets, but could not sustain either a long, intense air offensive or a long, intense air defense screen.
- Iran lacks the air strength to defend the entire country, although enough warning capability will probably survive attack and suppression to provide some coverage of its coast and western border, and its defense capabilities will improve with the depth of enemy penetration into Iranian airspace.
- Iran will face serious limits in electronic warfare and countering jamming and electronic intelligence (ELINT) operations from any US or US-led force.
- Iran's limited air control and warning environment will be vulnerable to jamming, spoofing, and a variety of anti-radiation weapons.
- Iran's land and air-based intelligence, surveillance, and reconnaissance (IS&R) systems are of limited capabilities, vulnerable, and sometimes relatively easy to suppress.
- Iran will have a major disadvantage in air-to-air missile combat, especially in beyond visual range air-to-air combat.
- Iran will not be able to penetrate into a properly maintained US or Southern Gulf air defense net in which anything like an airborne warning and control (AWAC) system-controlled air defense screen is present.
- Iran will be vulnerable to stealth systems like the B-2 and F-22, as well as the F-35 as it deploys. It will have very limited air-to-air defense capability against well-planned, well flown, low altitude missions flown by cruise missiles, the B-1, and modern US and Southern Gulf strike fighters – with the possible exception of point defenses using its Russian-supplied, short-range TOR-M1 surface-to-air missiles.
- Iran will have problems in using its anti-ship and any other cruise missiles requiring a remote target system or airborne radar, and unmanned combat air vehicles (UCAVs)/UAVs if US forces are present with modern electronic warfare and jamming capabilities, and in operating its maritime and intelligence aircraft both in the face of jamming and the threat from fighters.
- Iran will have serious problems in screening its critical targets. These not only include its nuclear facilities, but its missile facilities, major production facilities, refineries and fuel storage and distribution system, electrical grid, water purification facilities, and other key targets. A precision strategic bombing campaign could cripple much of Iran's economy and military production capability in a matter of days.
- Iran could engage in raids and limited air efforts, but will probably lose the ability to operate aircraft in numbers over the Gulf and southern Iran in a matter of days. It could not use its air force in numbers in sustained, survivable sorties to defend its ports, larger surface ships, or southern bases.
- Iran has so far been unable to construct precision munitions, weakening the IRIAF's ability to effectively target GCC forces or infrastructure.
- Limited tanker and air refueling assets restrict Iran to maintaining continuous combat air patrols over only a small number of sites – key areas like Tehran.

Similarly, **Figure Three** shows that Iran is dependent largely on obsolete surface-to-air missile defense systems and lacks anything approaching Gulf Arab holdings of surface-to-air and missile defense systems. Much of Iran's surface-to-air missile defense system

is dependent on emplaced fire units and sensors that cannot be moved without disrupting the integration of the system, and which become vulnerable in near-real-time the moment they emit.

- Physically attacking the entire system would be difficult, but attacking given links and areas to create a corridor to penetrate deep into Iran would not be a major challenge.
- No matter how much progress Iran has made, it will be vulnerable to a mix of US targeting capabilities, electronic warfare, and suppression methods.
- Iran is a big country and has poor low-altitude coverage of many areas. Many US fighters and the B-1 – as well as southern Gulf and Israeli strike fighters – could penetrate deeply and sometimes use standoff air-to-surface missiles against a variety of Iranian targets.
- There are no unclassified maps of Iran’s air defense coverage that seem fully accurate, although somewhat dated work by Sean O’Conner provides maps that are only several years old and are very helpful.<sup>4</sup> In any case, such maps only provide nominal data and ignore the effects of terrain, which will provide cover for any attacking aircraft. It seems likely, however, that Iran’s size, topography, and lack of airborne radar would allow US and Arab aircraft freedom of operation in parts of Iranian airspace even without a systematic attack on Iran’s air defense network; combined with in-flight refueling, this would give attackers the ability to strike remaining targets from multiple directions at will.
- While Israel might be limited in flying complex penetration corridors from unpredictable routes that require refueling, the US would face less serious problems.
- Iran would have serious problems in trying to operate both air defense aircraft and surface-based missiles in the same areas in an environment where the US is using its full attack and electronic warfare capabilities.
- Many US capabilities are transferrable to southern Gulf fighters and air forces in the form of anti-radiation missiles, electronic warfare pods, and Saudi AWACS.
- US cruise missiles, F-22 fighters, and B-2 bombers could penetrate most Iranian defenses, and the F-35 will soon add to that capability.
- Once Iran’s air defenses are suppressed, the US and Southern Gulf air forces would have considerable freedom to restrike Iran at any time. Iran could try to deploy covert replacements, but would face serious problems in terms of UAV and satellite dictation and would still be vulnerable to any suppression of enemy air defenses (SEAD) technique that worked in the initial US and/or Southern Gulf SEAD attacks.
- Iran is aware of these vulnerabilities, but has so far been unable to respond to them due to effective sanctions on air defense systems and a weak industrial base and research and development (R&D) program.

Unless Iran can correct the weaknesses in its land-based air defense systems, it will remain a hollow conventional force that cannot deny its airspace to outside air and cruise missile threats, with little hope of surviving an intense, long-run air and missile campaign. The longer Iran is compelled to wait before acquiring S-300/S-400, the more obsolete the systems become; already, the US and GCC air forces have learned about the S-300’s performance from Western-friendly states.

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<sup>4</sup> Sean O’Conner, “Iranian Strategic Sam Deployment,” January 4, 2010, <http://www.geimint.blogspot.com/2007/09/iranian-sam-network.html>.

As a result, much of the future balance of Arab, Gulf, US, and allied conventional power with Iran depends on whether outside nations provide major new arms sales to Tehran. As shown later in this analysis, Iran has not come close to matching the Arab Gulf states in defense spending and modernization since the Iran-Iraq War, and the previous figures have shown that its efforts at producing advanced weapons platforms have so far had very limited success.

As for the future, Iran has negotiated with Russia over sales of advanced types of modern combat aircraft, surface-to-air missiles, and ballistic missile defenses. It also actively seeks advanced systems from other countries. With its most significant deficiencies in command and control networks, Iran has concentrated on obtaining the computers and systems that will allow it to integrate its weapons.

It should be stressed that these limitations do not mean that Iran does not have large and very real air warfare capabilities. Iran's forces are well organized to try to work around the lack of support from the US, and the limitations in its air and surface-to-air missile forces. Iran has also been creative in trying to modernize its aircraft, and has managed to develop and produce some of its own combat aircraft, including some six Azarakhsh and three Saegheh fighters.

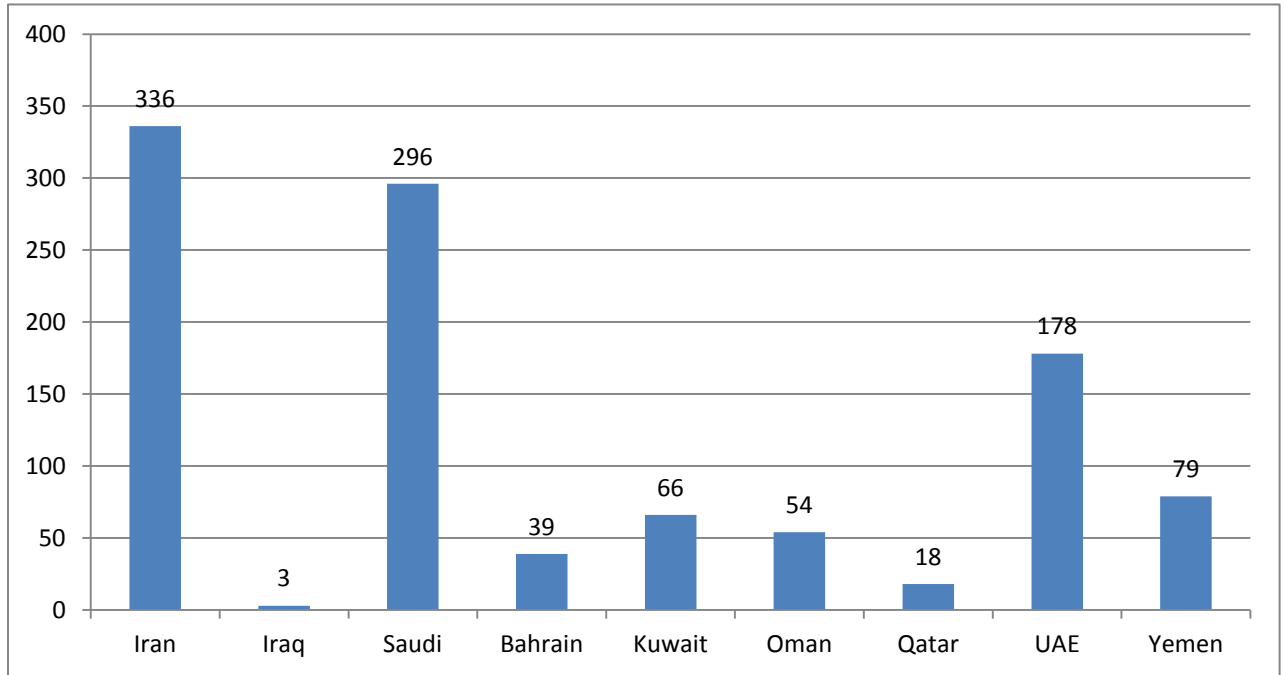
Iran still poses a serious threat and one that can be deployed against any given Gulf state or mix of targets in the Gulf or near its coast with only limited flight times and warning. Even a few carefully targeted precision strikes on key infrastructure facilities could have a major impact roughly equivalent to "weapons of mass effectiveness."

Moreover, the previous lists of limits to Iran's air and air defense capabilities apply to sustained levels of combat over time where the US is present *and* Arab Gulf air forces are prepared, properly trained, and made interoperable by either US support or reforms that are still very much a matter of discussion rather than implementation. Inventories of aircraft and surface-to-air missiles on the ground and half-trained and unsustainable forces do not count. Real-world war fighting capability does.



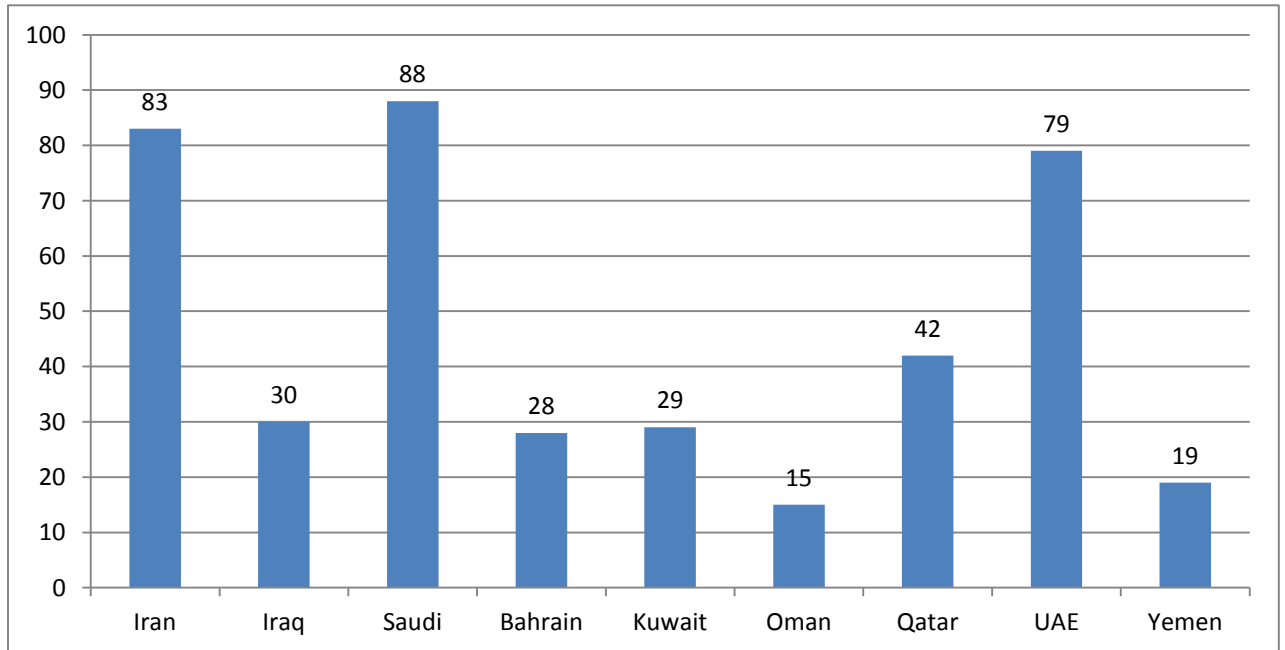
**Figure One: Total Gulf Holdings of Combat Aircraft**

**Fixed Wing Combat Aircraft**



Note: Only armed or combat-capable aircraft are counted, not trainers, recce or other aircraft. Iraq has 6 Cessna AC-208Bs fulfilling dual recce and attack roles.

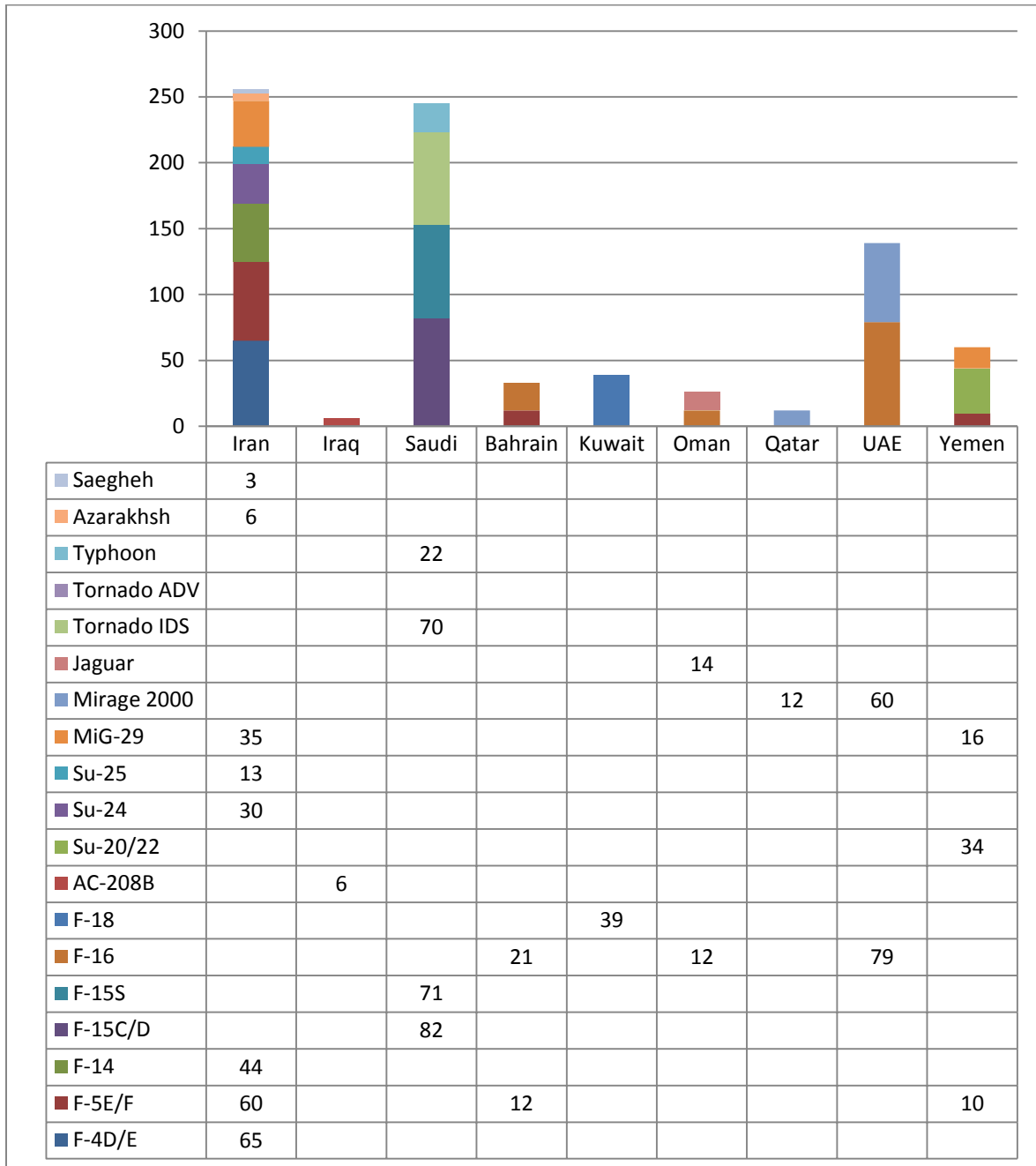
**Armed and Attack Helicopters**



Source: Adapted from IISS, The Military Balance, Periscope, JCSS, Middle East Military Balance, Jane's Sentinel and Jane's Defense Weekly. Some data adjusted or estimated by the author

**Figure Two: Comparative Modern Iranian and Gulf Air Forces**

(Totals do not include combat-capable recce but does include OCUs and Hawk combat-capable trainers)



Source: Adapted from the IISS, **Military Balance, 2011**; and the Jane's Sentinel series.

Figure Three: Comparative Land Based Air and Missile Defense Forces

Country	Major SAM	Light SAM	AA Guns
Bahrain	8 Hawk MIM-23B	60 RB-70 18 FIM-92A Stinger 7 Crotale	15 27 guns Oerlikon 35 mm 12 L/70 40 mm
Iran	16/150 Hawk 3/10 SA-5 45 SA-2 Guideline	SA-7/14/16, HQ-7 29 SA-15 Some QW-1 Misaq 29 TOR-M1 Some HN-5 5/30 Rapier 10 Pantsyr (SA-22) Some FM-80 (Ch Crotale) 15 Tigercat Some FIM-92A Stinger	1,700 Guns ZSU-23-4 23mm ZPU-2/4 23mm ZU-23 23mm M-1939 37mm S-60 57mm ZSU-57-2
Iraq			
Kuwait	5 / 24 Hawk Phase III 5/40 Patriot PAC-2	12 Aspide 12 Stalburst Aspide Stinger	12 Oerlikon 35mm
Oman	None	Blowpipe 8 Mistral 2 SP 12 Pantsyr S1E  34 SA-7 6 Blindfire S713 Martello 20 Javelin 40 Rapier	26 guns 4 ZU-23-2 23 mm 10 GDF-005 Skyguard 35 mm  12 L-60 40 mm
Qatar	None	10 Blowpipe 12 FIM-92A Stinger 9 Roland II 24 Mistral 20 SA-7	?
Saudi Arabia	16/128 Hawk 4-6/16-24 Patriot 2 17/73 Shahine Mobile	40 Crotale 500 Stinger (ARMY) 500 Mistral (ADF)	92 1,220 guns M-163 Vulcan 20 mm 30 M-167 Vulcan 20 mm
(NG)	16/96 PAC-2 launchers 17 ANA/FPS-117 radar 73/68 Crotale/Shahine	500 500 FIM-43 Redeye Redeye (ADF) 73 -141 Shahine static	128 850 AMX-30SA 30 mm GDF Oerlikon 35mm 150 L-70 40 mm (in store) 130 M-2 90 mm (NG)
UAE	2/6/36 Hawk	20+ Blowpipe 20 Mistral Some Rapier Some Crotale Some RB-70 Some Javelin Some SA-18	62 guns 42 M-3VDA 20 mm SP 20 GCF-BM2 30 mm
Yemen	Some SA-2, 3 Some SA-6 SP	Some 800 SA-7 Some SA-9 SP Some SA-13 SP Some SA-14	530 guns 20 M-163 Vulcan SP 20mm 50 ZSU-23-4 SP 23 mm 100 ZSU-23-2 23 mm 150 M-1939 37 mm 50 M-167 20mm 120 S-60 57 mm 40 M-1939 KS-12 85 mm

Source: Adapted by Anthony H. Cordesman from IISS, [The Military Balance](#), [Periscope](#), JCSS, [Middle East Military Balance](#), Jane's [Sentinel](#) and [Jane's Defense Weekly](#). Some data adjusted or estimated by the author.

Source: Adapted from the IISS, [Military Balance](#), 2011; and the Jane's Sentinel series.

### *Iranian vs. Arab Gulf Naval Resources<sup>5</sup>*

It is important to preface any summary of the Iranian naval threat by noting that sea power is only one element of the air-sea battle. Moreover, just as the US can deploy enough air and cruise missile power to reinforce the Arab Gulf states in ways that give them a decisive superiority, the US Navy dominates sea power in the Gulf area.

US naval strength varies according to the level of tension, but the US normally keeps at least one carrier task force in the region and has deployed up to three carrier task forces. Its naval forces also have extensive current combat experience – a US carrier now flies roughly one-third of the US combat sorties in Afghanistan.

In late 2012, the US Navy and Marine Corps deployed forces to defend the Gulf and Gulf of Oman, to the Indian Ocean and to fight Afghanistan, to deal with violent extremists in Yemen, and to deal with piracy in the Indian Ocean and Red Sea. These forces included 14,963 men at sea and 8,997 ashore, for a total of 23,960.

At that time, the US naval forces deployed in the region included 48 surface and subsurface ships. The major surface ships included a mix of two carriers, 8 guided missile cruisers and destroyers, and three major amphibious ships – landing helicopter dock (LHD), landing platform/dock (LPD), and landing ship, dock (LSD). They also included 210 aircraft – including 33 Amphibious Readiness Group/Marine Expeditionary Unit (ARG/MEU) aircraft and 30 land-based aircraft – with F/A-18s deployed at Sheikh Isa Air Base in Bahrain. These US forces are supported by one of the most advanced air-sea IS&R and battle management systems in the world – something US experts call the “unblinking eye.”

The US is also adapting to Iran’s changing air-sea-asymmetric threat. In the past, the Fifth Fleet has consisted mostly of larger ships like carriers and guided missile defense ships, but it is now deploying eight mine warfare ships (four on permanent station), all of its 10 smaller patrol craft, and a special forces and mine warfare command ship. It is also developing plans for a “5<sup>th</sup> Fleet of the Future,” which would put more emphasis on mine warfare, Special Forces, and smaller ships to help regional states in “pier-to-pier” based engagements in asymmetric warfare.

The US cooperates closely with its Arab Gulf allies. The US Navy’s Fifth Fleet (NAVCENT) conducts some 64 joint exercises a year, versus six for the US Air Force (AFCENT), five for the US Army (ARCENT), six Special Forces exercises, and six joint USCENTCOM exercises. As part of its bilateral and multilateral exercises, the US conducts an additional 270 smaller training and exercise engagements.

The US also works closely with the British Royal Navy – which now keeps an average of two surface ships and four minesweepers in the area – and the French Navy – which has a new naval facility in the UAE and deploys one surface ship and two mine sweepers. In

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<sup>5</sup> These issues are explored in detail in Anthony H. Cordesman, Alexander Wilner, Michael Gibbs, and Scott Modell, *US and Iranian Strategic Competition: The Conventional and Asymmetric Dimensions*, Tenth Edition, Center for Strategic and International Studies, January 6, 2013. [http://www.csis.org/files/publication/120221\\_Iran\\_Gulf\\_MilBal\\_ConvAsym.pdf](http://www.csis.org/files/publication/120221_Iran_Gulf_MilBal_ConvAsym.pdf).

addition, a number of allies have forces in the Red Sea and near Somalia on anti-piracy missions.

The Arab Gulf states, however, need to do far more in their own defense and to deal with Iran's evolving capability to combine asymmetric and conventional naval warfare. The size of Iranian and Arab Gulf naval forces is shown in **Figures Four to Six**. Most of the Arab Gulf major surface ships in these figures are far more modern than those in the Iranian forces, and the GCC has far better basing facilities than Iran.

Readiness and sustainability are, however, serious problems for most Gulf navies. The UAE is the only navy that outside naval experts feel is becoming highly effective in terms of training and deployments, although several other Gulf navies are steadily improving. The Royal Saudi Navy – which has major resources – is felt to lag badly and to be failing to modernize at the rate required. Experts believe the readiness of the Saudi Gulf fleet is limited and that the Red Sea fleet is largely ineffective. This is partly a function of the Saudi emphasis on air forces, a lack of emphasis on mission effectiveness at the top, and a failure to fund modernization plans like the Saudi Naval Expansion Plan (SNEP) 2.

Once again, the Gulf-wide lack of integrated command and control, battle management, and IS&R systems is a problem. The US Fifth Fleet can provide some such capabilities and does so – but often on a bilateral basis that works with each individual Arab Gulf country rather than through an integrated GCC facility. Bahrain has offered to host such a naval facility for the GCC, and the Royal Saudi Air Force command center developed during the Gulf War in 1990-1991 could be the nucleus of such an air facility, but no current plans exist to provide such a capability.

As for Iran, it learned during the “Tanker War” in 1987-1988 that it cannot compete with the US in conventional naval warfare, and now faces an added threat from far more serious Southern Gulf naval forces. Iran's naval forces are, however, still an important part of its capabilities to fight an air-sea battle in the Gulf, if they are made part of a broader campaign of naval asymmetric warfare.

As a result, Iran has built up substantial capabilities for asymmetric warfare in the Gulf and the Arabian Sea, including submarines and submersibles, mine warfare capabilities, anti-ship missiles, marines and special forces, and a wide variety of smaller craft that can be used to swarm targets in the Gulf or in a battle of attrition.

Experts see a variety of Iranian air-sea threats in the Gulf – many of which go beyond the capabilities of the Islamic Republic of Iran Navy (IRIN) per se and involve the naval branch of the IRGC. These “stacked threats” include:

- A mine warfare threat with Iranian stocks of 6,000+ mines; pre-staged mine deployments that can be rapidly dispersed; a wide range of platforms; and the ability to deploy a low-cost, low tech, high impact force that could be anonymous if mines were laid covertly or using commercial ships and small craft.
- An expanding inventory of coastal defense anti-ship missiles like the C-802 with steadily improving capabilities and ranges. Examples include the Hendijan PGG with C-802s and Peykapp III WPTG with C-704s – possibly supported by F-4Es with some variant of the C-700 or C-800 series – and Iran's new domestically-produced *Khalij Fars*, stacked to overwhelm anti-missile systems.

- 3 Kilo-class conventional submarines and Yono-class midget submarines.
- A wide range of fast attack platforms, some with modern Chinese anti-ship missiles, wake-homing torpedoes, and steadily improving weaponry.
- New very high speed (70 knot), low-observable boats like the Bladerunner 35 that carry high payloads of explosives and are designed for suicide missions.
- Groups or “clusters” of smaller surface ships that can be quickly dispersed throughout the Iranian coast, which could be used to attack military or commercial surface vessels.
- Special forces, marines, and naval guard units that can be used to attack or raid offshore facilities and coastal targets – although Iran’s set of 13 landing ships restricts its amphibious reach.
- Covert forces – like the Al Quds Force – that can be used to develop local forces and extremists for sabotage attacks on naval or other facilities.
- Efforts to develop rockets and ballistic missiles capable of homing in on ships at much longer ranges, like the Fateh-110 and Shahab-3.
- Lack of over-the-horizon and general-purpose sensors, reducing range of fast-attack craft to visual range strikes coordinated by weakly-networked land-based command, control, communications, computers, intelligence, surveillance, and reconnaissance (C<sup>4</sup>ISR).

The IRIN had some 18,000 men in 2012. According to IISS, this total included two marine brigades of some 2,600 men and a 2,000-man naval aviation force. It has bases at Abu Musa, Bandar Abbas, Bandar Anzali, Bander-e Khomeini, Bander-e Mahshahar, Bushehr, Chah Bahar, Farsi, Jask, Kharg Island, and Siri – while the IRGC Navy (IRGCN) operates from Abu Musa, Bandar Abbas, Farsi, Halileh, Khorramshahr, and Larak.

As **Figures Four to Six** show, Iran still has significant conventional naval forces by Gulf standards. In 2012, Iran’s surface forces included 4 frigates, 2 corvettes, 26 missile patrol craft, 5 mine warfare ships, over 60 coastal and inshore patrol craft, and 13 amphibious ships. Its naval aviation branch is one of the few air elements in any Gulf navy, with three P-3F Orion maritime patrol aircraft (one non-operational plus a possible fourth of uncertain status) and an inventory of 13 armed helicopters – although experts feel Iran only exercises and uses helicopters in resupply and logistics missions to areas like its offshore and island IS&R facilities.

The IRGCN included some 35 missile patrol craft and over 100 additional coastal and inshore patrol craft. Combined, the total maritime strength of Iran is 38,000 men with 60 missile-armed patrol boats, nearly 200 other patrol ships with more limited capabilities, and 20 regular and mini-submarines – creating significant capacity for both regular and asymmetric naval warfare.

Although Iran’s mix of frigates, corvettes, missile boats, and diesel-electric submarines are large enough to present a challenge during the initial phase of any major clash, Iran’s conventional fleet and air force are better suited to supporting its IRGC forces in asymmetric warfare. Iran’s surface capabilities are limited by a steadily aging force. Iran’s major surface ships are all old vessels with limited refits and either aging weapons and fire-control systems or systems based on Iranian upgrades and Chinese weapons.

With the exception of its submarines and some missile patrol boats, its larger ships are outdated and vulnerable to US and Gulf naval forces in a conventional campaign. Experts

feel Iran has no desire for a force-on-force engagement against the US Navy – the disparities between Iranian and US ships have only sharpened since the Tanker War – but do feel Iran sees a role for larger ships as a form of deterrence and intimidation, and as useful in a localized conflict.

Iran has, however, developed a different type of naval rearmament encompassing midget submarines and patrol boats suited to hit-and-run raids to frigates and other major combatants. The smaller ships appear designed for an unconventional campaign against the US Navy; the larger vessels, however, are better suited for intimidating Gulf neighbors and projecting Iranian influence against the comparatively weak GCC navies. They also explain why Iran is emphasizing its Naval Guards forces. These asymmetric threats are better suited to lower levels of conflict. These include capabilities that can support a battle of attrition and focused, limited clashes throughout the Gulf and Gulf of Oman that would not cripple Iran's own sea lines of communication (SLOCs) or necessarily provoke major US reprisals.

Most of Iran's major active surface ships are now on the verge of obsolescence in spite of years of attempts to upgrade them. Its main surface ships consist of two *Bayandor* (PF103) class corvettes launched in 1963 and commissioned in 1964. Their weapons control, search/track radars, and sonars have not been modernized since the mid-1960s, although some aspects of their electronic warfare capabilities, communications, and battle management system do seem to have been upgraded.

However, the *Bayandor* and the *Naghdi* are probably the most active large surface ships in the Iranian Navy.<sup>6</sup> Iran reportedly began modernizing these vessels with 76 mm deck guns, C-802 missiles, and torpedo tubes in 2007.<sup>7</sup> Iran also has three more modern operational *Alvand*- (Vosper Mark 5) class frigates: the *Alvand*, the *Alborz*, and the *Sabalan*. They were launched during 1967-1968 and commissioned during 1968-1969. Two have been upgraded to carry four Chinese C-802 anti-ship missiles each on twin launchers.<sup>8</sup>

There is disagreement between unclassified sources on total Iranian patrol boat strength, but the figures in the IISS's Military Balance for 2012 provide a good indication of their size. According to the IISS, the IRIN and IRGCN possess 157 patrol boats, of which around 70 are equipped with guided missiles. The operational ships of this type include 13 Kaman-class missile patrol boats, each with 2-4 CSS-N-4 Sardine anti-ship missiles; two Mk13 fast missile boats with two C-701 missiles; 4 *China Cats* with two C-701 missiles; 15 *Kashdom* fast patrol boats with two machine guns and potentially an MRL system; three *Kayvian*-class 148-ton patrol craft armed with 40-mm and 23-mm guns; three improved PGM-71 *Parvin*-class 98-ton patrol craft supplied in the late 1960s, armed with 40-mm and 20-mm guns; 6 Mk II patrol boats with four machine guns and a grenade launcher (possibly non-operational due to age); and 10 Mk III patrol boats with a range of machine guns, deck guns, and mortars.

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<sup>6</sup> Jane's Fighting Ships, 2005-2006, London, Jane's Information Group, pp. 336-343.

<sup>7</sup> Jane's World Navies, Iran, August 28, 2012.

<sup>8</sup> "Iran Navy," GlobalSecurity.org, <http://www.globalsecurity.org/military/world/iran/navy.htm>

The IRGCN controls 5 additional *China Cats*, 10 *Thondor* with two twin C-802 launchers, 25 *Peykaap II* with two single C-701 launchers, 15 *Peykaap I* fast attack boats potentially armed with twin torpedo tubes, 10 *Tir* class fast patrol boats with twin torpedo tubes and a machine gun, 10 *Pashe* fast patrol boats with twin 23mm ZU-23 cannons and search radar, and roughly 20 *Ghaem* patrol boats with small arms and an extended duration deployment capability.

The *Kayvian*, *Parvin*, MkII, MkIII, and *Ghaem* patrol boats are thought to be inshore boats, lacking both missiles and the ability to operate independently. Most of these craft are operational and can be effective in patrol missions. They lack sophisticated weapon systems or air defenses, other than machine guns and SA-7s and SA-14s.

Iran has five to six BH-7 and seven to eight SRN-6 hovercrafts, believed to be operated by the IRGC. About half of these hovercrafts may be operational. They are capable of speeds of up to 60-70 knots. They are lightly armed and vulnerable, but their high speed makes them useful for many reconnaissance and unconventional warfare missions. They can rapidly land troops on suitable beaches, but the beaching angle is critical and some beaches are not appropriate.

Iran has become steadily more effective in developing the capability to use these forces on their own, with its navy and in joint warfare. It learned in 1987-1988, and in years of exercises that followed, that it cannot concentrate large numbers of small forces for “swarming” and exercise effective command and control. It must be able to disperse them as much as possible, and may have to keep larger conventional naval surface forces in port or outside any combat action to avoid having them destroyed.

Recent accounts suggest Iran has encountered difficulties coordinating more than ten boats at a time. These packs would be capable of targeting tankers or isolated military vessels, or harassing multiple warships in hit-and-run strikes. By focusing on smaller fleets, Iran is able both to preserve its forces for a war of attrition and retain the command and control necessary to target individual ships, potentially avoiding the random strikes that led to the escalation of the Tanker War.

Iran also has three Type 877EKM *Kilo*-class submarines and other submarines, which offset some of the weaknesses of its major surface forces. The *Kilo* is a relatively modern and quiet submarine that first became operational in 1980. Iran has completed a refit of one of its *Kilos*, and will likely begin modernizing the second if it believes the submarine will not be needed in the near future.

Iran’s ability to use its submarines to deliver mines and fire wake-homing torpedoes at ranges of up to 4,000-6,000 meters gives it a potential capability to strike in ways that are difficult to detect or deter. Its submarines can fire long-range homing torpedoes that can be used against tanker-sized targets and to attack slow-moving combat ships that are not on alert and/or lack sonars and countermeasures.

Iran does, however, have problems in maintaining its submarines – much less refit them – and it has not provided realistic training. Its submarines rarely submerge in training or exercises, and many of Iran’s drill claims are little more than propaganda. This leads some experts to feel that they would only pose a relatively limited and short-lived threat if they were actually deployed and used in combat.



The data on IRIN midget submarine development and deployment are uncertain, and it is unclear exactly what submerged systems Iran is currently constructing. Nonetheless, the IRIN appears to have imported the North Korean 130 ton Yono (Yeono or Yugo) class submarine and began to produce variants. It is a three-man submarine with speeds of 10-11 knots surfaced and 4-8 knots submerged, a range of 550 nm surfaced and 55 nm submerged, and two 533 mm torpedo tubes. According to some reports, it can be packed with six to seven special forces if the crew is reduced to two.<sup>9</sup>

Iran currently operates between 10 and 20 Ghadir midget submarines, 1 Nahang midget submarine, and approximately 8 submerged diver delivery craft. Some reports indicate Iran has received the Hoot supercavitating rocket torpedo and has modified some of its submarines to fire this high-speed torpedo.<sup>10</sup> Iran also is developing the Fateh, Besat, and/or Qaaem classes – all three have been publicly discussed as “in development” by various Iranian naval commanders, but it is not expected that Iran will actually develop all three – as medium weight submarines with Kilo-class capabilities for green-water operations.<sup>11</sup>

Iran’s midget submarines may provide a more serious threat within the Gulf than its Kilos. The Ghadirs and other Iranian midget submarines do drill more regularly than the Kilos and submerge more often in exercises. Experts do not confirm rumors of serious losses in exercises. Iranian midget submarines possess both torpedo-firing and mine-laying capabilities, and their small size may enable them to operate more effectively in the Strait or the Gulf. However, the capabilities of these boats are still unknown; much depends on their sensors and ability to hide from dedicated anti-submarine warfare (ASW) platforms. If they are unable to mask propulsion noises, even the cluttered environment of the Gulf will not protect them from Western or even Gulf ASW assets.

Iran depends heavily on its coastal, island, and ship-borne anti-ship missile forces to make up for its lack of airpower and modern major surface vessels. Iran’s Western-supplied missiles are now all beyond their shelf-life, and their operational status is uncertain. Iranian forces are now equipped largely with C-700 or C-800 series anti-ship missiles Iran bought from the People’s Republic of China (PRC), or now produced indigenously. They have replaced most Western-supplied missiles with Chinese designs.

The Iranian Navy’s missile patrol boats include 13-15 operational 275-ton French-made *Combattante II* (Kaman-class) fast attack boats. These boats are reported to be armed with 2-4 C-802 Sardine anti-ship missiles as well as one 76-mm gun, and to have maximum speeds of 37.5 knots. According to *Jane’s Naval Guide*, 10 of these are from the original French shipment during the early 1980s, while Iran has constructed another four with comparable equipment.

The Kaman-class fast attack boats were originally armed with four US Harpoon missiles, but their Harpoons may no longer be operational. At least five had been successfully

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<sup>9</sup> “Yono Class Submarine,” Wikipedia, [en.wikipedia.org/wiki/Yono\\_class\\_submarine](http://en.wikipedia.org/wiki/Yono_class_submarine)

<sup>10</sup> “Ghadir Class Submarine,” Wikipedia, [en.wikipedia.org/wiki/Ghadir\\_class\\_submarine](http://en.wikipedia.org/wiki/Ghadir_class_submarine)

<sup>11</sup> Nuclear Threat Initiative, <http://www.nti.org/analysis/articles/iran-submarine-capabilities/>.

converted to launchers carrying 2–4 C-801/C-802s. Iran supplied the C-802s that Hezbollah successfully used against one of Israel’s most modern Sa’ar Class-5 missile ships during the fighting in 2006.

The terminology for the C-801 and C-802 series of missiles in Iranian naval forces is confusing and sources contradict each other as to the variant used on given Iranian platforms. Some sources refer to all of these missiles as part of the CSS-N-4/YJ-1 series.<sup>12</sup> Iran now is believed to have at least 100 C-801s and C-802s, and to be able to produce them and the C-700 series.

Iran has sought to buy more advanced anti-ship missiles and anti-ship missile production facilities from Russia, North Korea, and China – and possibly has even attempted to obtain Chinese-made missile-armed frigates. Some sources have claimed that Iran has bought eight Soviet-made SS-N-22 “Sunburn” or “Sunburst” anti-ship missile launch units from Ukraine and has deployed them near the Strait of Hormuz. However, US experts have not seen evidence of such a purchase and doubt that Iran has operational holdings of such systems. The “SS-N-22” is also a title that actually applies to two different modern long-range supersonic sea-skimming systems – the P-270 Moskit (also called the Kh-15 or 3M80) and the P80 or P-100 Zubi/Onika.

Iran claims to have successfully developed over-the-horizon missile targeting capabilities, building variants of the Fateh-110 and Shahab with homing guidance systems for use in anti-ship warfare. This claim appears to be borne out by the *Khalij Fars* that is an upgraded Fateh-110 with a rudimentary seeking and steering mechanism for targeting ships. While its real-world capabilities are unknown, it would represent a valuable layer of Iran’s anti-ship “stack.”

Iran can use its regular navy, naval guards, and any civil ship to lay a variety of mines. It has invested in both its own mine development and Chinese mines, with an estimated stockpile of over 3,000 devices.<sup>13</sup> Its older mines are effective systems and at some \$6,000 a mine, are easy to disperse in large numbers with potentially devastating effective consequences for far most costly combat and commercial ships. According to various experts it has also acquired, reverse engineered, developed, and improved a range of “smart mines,” including bottom mines. It is preparing to lay them on both sides of the Strait, creating safe passages close to Iran’s shoreline through which its own and neutral (i.e. any Gulf state Iran chooses not to antagonize) tankers could sail.

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<sup>12</sup> Any classification of Iran’s missile arsenal evades order and clarity. Most reports about Iran’s missiles express uncertainty about parts of Iran’s program, and many reports contradict each other – at least partly – either deliberately or not. One source sheds some light into Iranian anti-ship missile capabilities, but cannot be seen as more than a rough indication:

<b><u>Iranian designation</u></b>	<b><u>Designation in country of origin</u></b>
<i>Fajr-e-Darya</i>	<i>FL-6 (Chinese)</i>
<i>Kowsar</i>	<i>FL-8 (Chinese)</i>
<i>Nasr</i>	<i>FL-9 (Chinese)</i>
<i>Tondar</i>	<i>C-802 (Chinese)</i>
<i>Noor</i>	<i>HY-2 (Chinese)</i>
<i>Ra’ad</i>	<i>HY-2/C-802<sup>12</sup></i>

<sup>13</sup> Jane’s World Navies, *Iran*, August 28, 2012.

The potential effectiveness of these mines was driven home by the September 2012 International Mine Countermeasures Exercises (IMCMEX). In many ways, this exercise was a model of the kind of cooperation needed in the Gulf, and one that illustrated that a major exercise can be held at low cost if each participating nation pays its own way. The exercise was held during September 16-27, 2012. It involved 33 countries, 2,730 personnel, 24 ships from six countries, 116 divers from eight countries, and 12 unmanned underwater vehicles from six countries. It used integrated command and control (C2), and tested Afloat Forward Staging Bases (AFSBs) from three different countries deployed over an area of some 1,000 NM.

While the results of this exercise have not been published, reports<sup>14</sup> suggest that the allied minesweeping forces from some 30 countries performed well in terms of coordination and gained a great deal of experience, but encountered serious problems because of different national caveats over how their forces could be used and commanded, and initial problems in working together because of a lack of prior experience. There also were significant problems in removing the simulated mines from the seabed. The iron law of war that no force can really do in combat what it does not do in practice seems to have been validated yet again.

This result highlights the difficulty of tracking and destroying mines even with a large task force under peacetime conditions. Mine warfare could give a significant edge to the strategic aggressor, and the US has not yet learned how to offset Iran's capabilities if it can deploy large numbers of mines.

US capabilities are improving. The US is also adding crews to allow its minesweepers in the Gulf to deploy longer with less crew strain, and plans to introduce the Littoral Combat Ship's mine-warfare package in 2014.<sup>15</sup>

The US is also shifting from hunting to mapping the bottom of the Gulf to detect any change in the array of objects on the bottom. It is deploying new unmanned or robotic mine hunting and killing systems. The US expects to deploy new Mark 18 anti-mine, torpedo-shaped underwater vehicles in January 2013. It is introducing other unmanned submersibles – including the Sea Fox mine neutralization system – which is a relatively cheap, expendable system that can detonate a mine directly.<sup>16</sup>

Like dealing with the threat posed by Iran's large number of patrol boats and ability to arm dhows and other civil craft, mine warfare is a key case example of a mission area where more Arab Gulf resources are needed, and where better integration and interoperability are critical in ensuring coverage of the entire Gulf and Gulf of Oman.

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<sup>14</sup> "U.S. Navy, Allies Find Less Than Half the Sea Mines Planted in Key Exercise," Daniel Sagalyn, October 15, 2012. <http://www.pbs.org/newshour/rundown/2012/10/us-navy-allies-find-less-than-half-the-sea-mines-planted-in-key-exercise.html>

<sup>15</sup> "'Deadly Serious' Navy Wrestles With Mine Warfare Modernization," Sydney Freedberg, September 11, 2011. <http://defense.aol.com/2012/09/11/navy-wrestles-with-mine-warfare-modernization/>

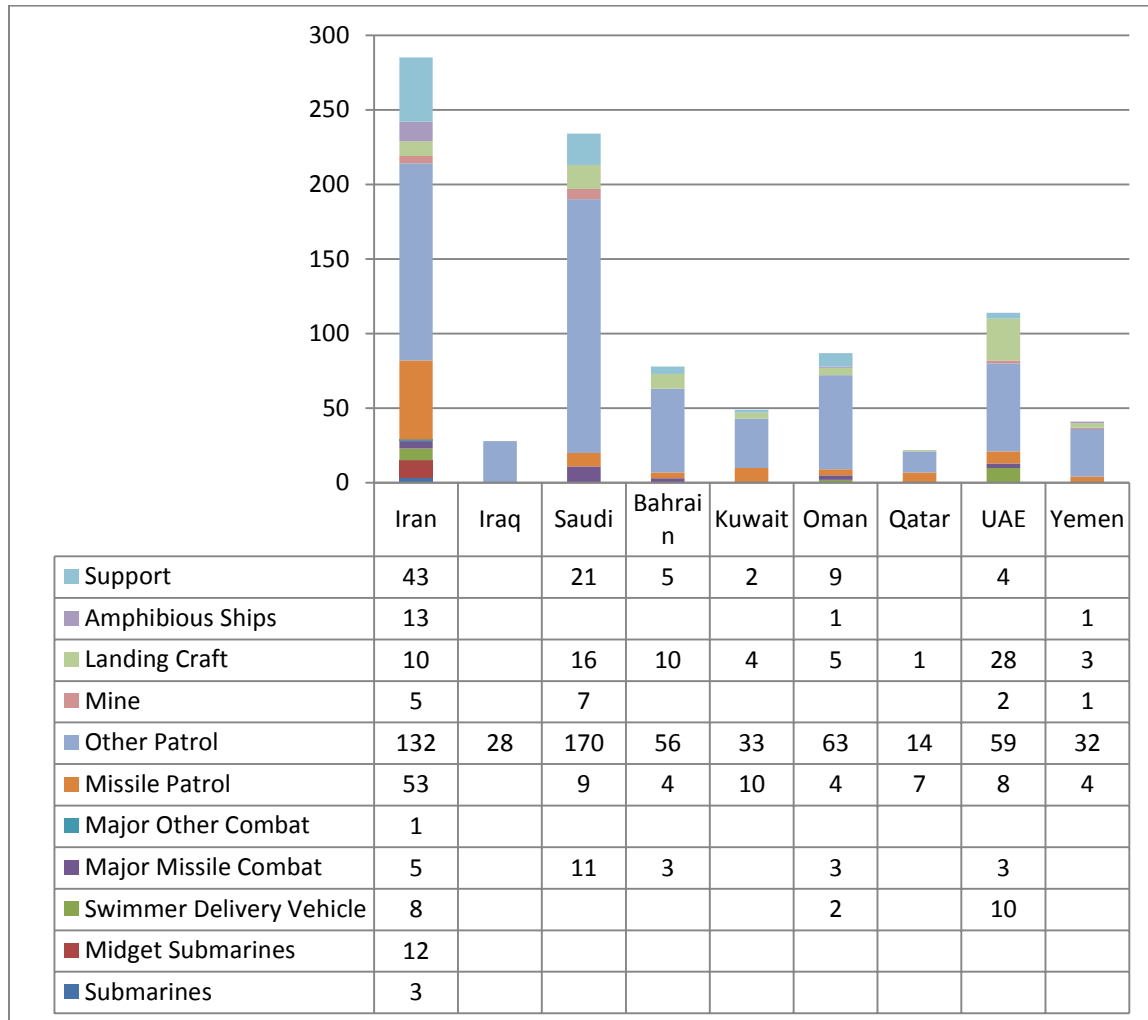
<sup>16</sup> Tom Shanker, "Navy Rushes to Persian Gulf Robotic Tools to Clear Mines," *New York Times*, November 15, 2012, p. A8.

The US Navy has underfunded mine warfare efforts consistently in the past and has only begun revamping its mine detection capabilities, and British and French power projection capabilities are limited. At present, the US Navy can only deploy a maximum of eight minesweepers in the Gulf and Gulf of Oman, and only four are currently assigned full time. Helicopter minesweeping using MH-53 helicopters and towed sonar sleds have not proved as effective as previously expected. Moreover, the British and French Navies face serious resource limits and Arab Gulf dedicated mine warfare forces now consist of only four Saudi obsolete US-made minesweepers and four aging Saudi British-made minesweepers.

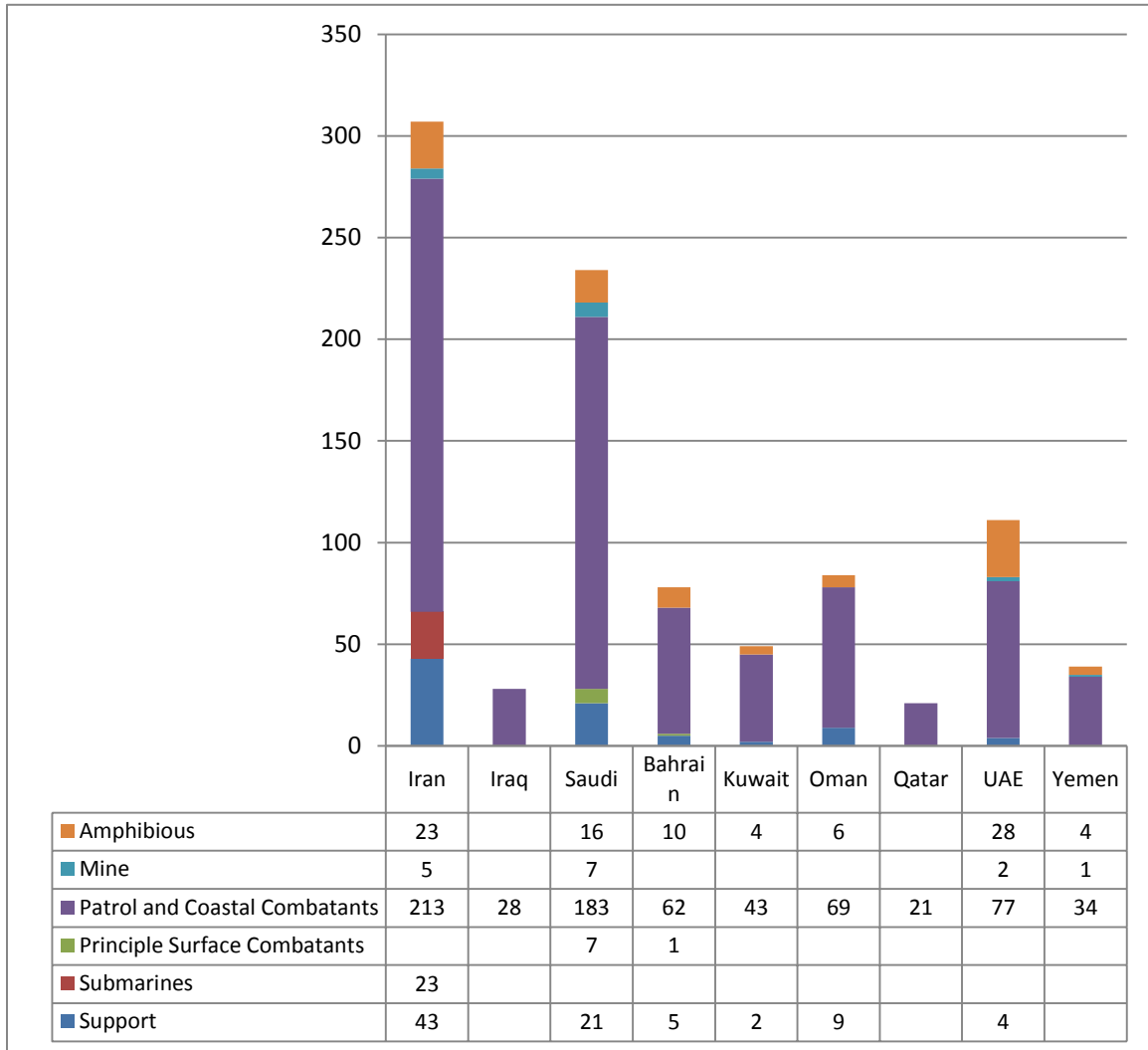
Moreover, this complex mix of shifts in Iran's naval forces helps explain why Iranian naval, air, and Guards doctrine and exercises emphasize asymmetric tactics that mix asymmetric and conventional forces. Iran now emphasizes a mix of smaller systems that can target either expensive, vulnerable merchant traffic – essentially an improved version of the 1984-1988 Tanker War – or conventional US naval vessels attempting to operate in the Strait of Hormuz or the Gulf.

It also helps explain the way in which Iran now divides the command of its naval forces. According to sources like *Jane's Defense Weekly*, the regular and IRGC fleets have divided geographic responsibility, with the latter taking control of the Gulf and Strait of Hormuz, and the former responsible for everything else. This permits the IRIN to deploy its conventional forces in the open water – which they are designed for – while giving the IRGCN control in the Gulf.

The IRGCN now operates five naval defense zones in the Gulf. Its commander – Mohammad Ali Jafari – announced a fifth zone at the port of Bandar Lengeh in November 2012. Jafari stated that, “The fifth zone of the Guard's naval force is one of the naval defense chains which is in particular responsible for the defense of the Iranian islands in the Gulf.” This reflects both the vulnerability of the surface navy and a growing IRGCN emphasis on “clustering” small groups of forces that can be easily dispersed throughout the Gulf and used with limited C2 and coordination.

**Figure Four: Comparative Iranian and Gulf Major Naval Forces**

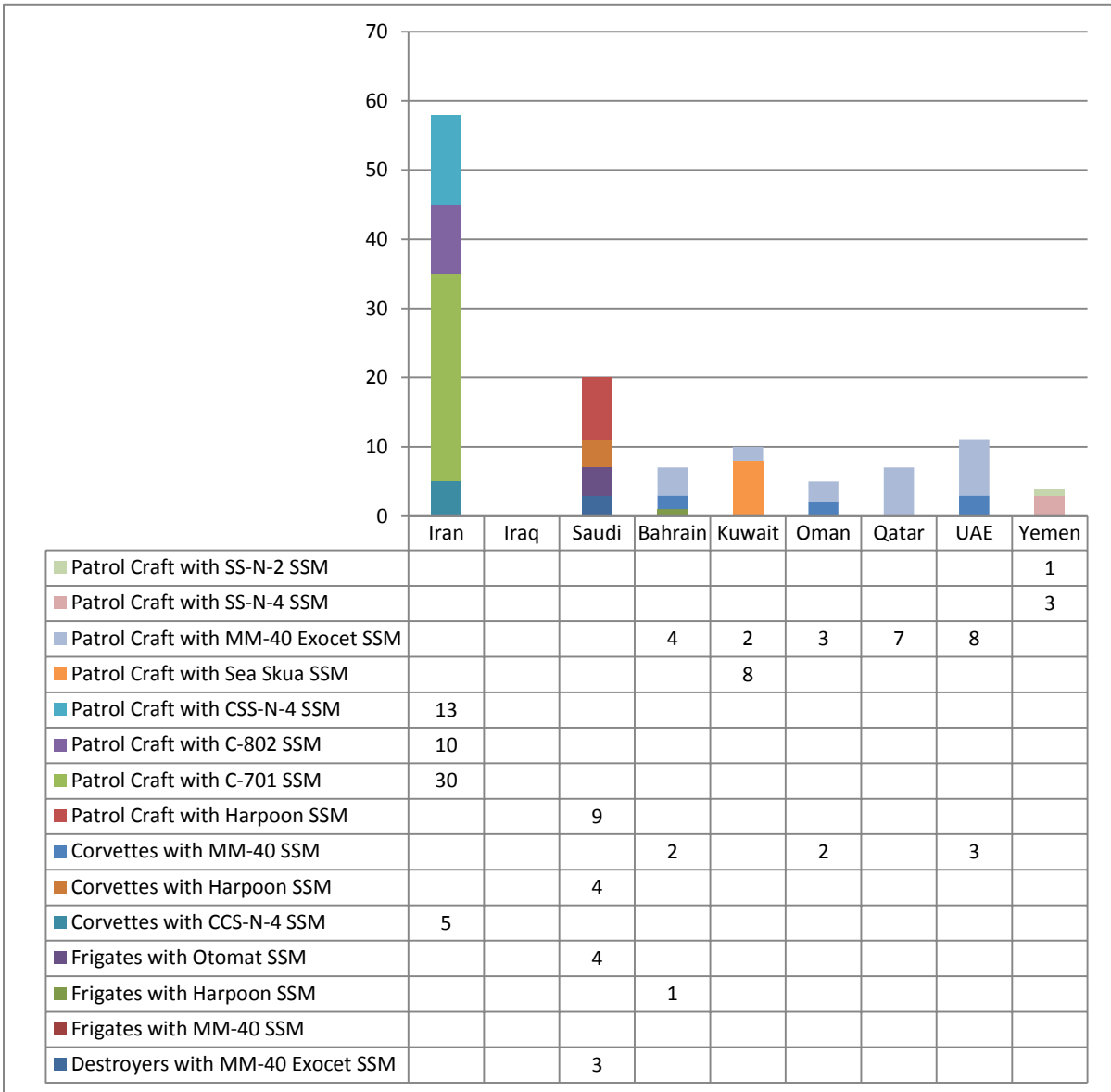
Source: Adapted from the IISS, **Military Balance, 2012**; and the Jane's Sentinel series.

**Figure Five: Iranian and Gulf Smaller Naval Ships by Category**

Note: Iranian totals include active forces in the Revolutionary Guards. Totals include coast guard-operated patrol and coastal combatants where applicable.

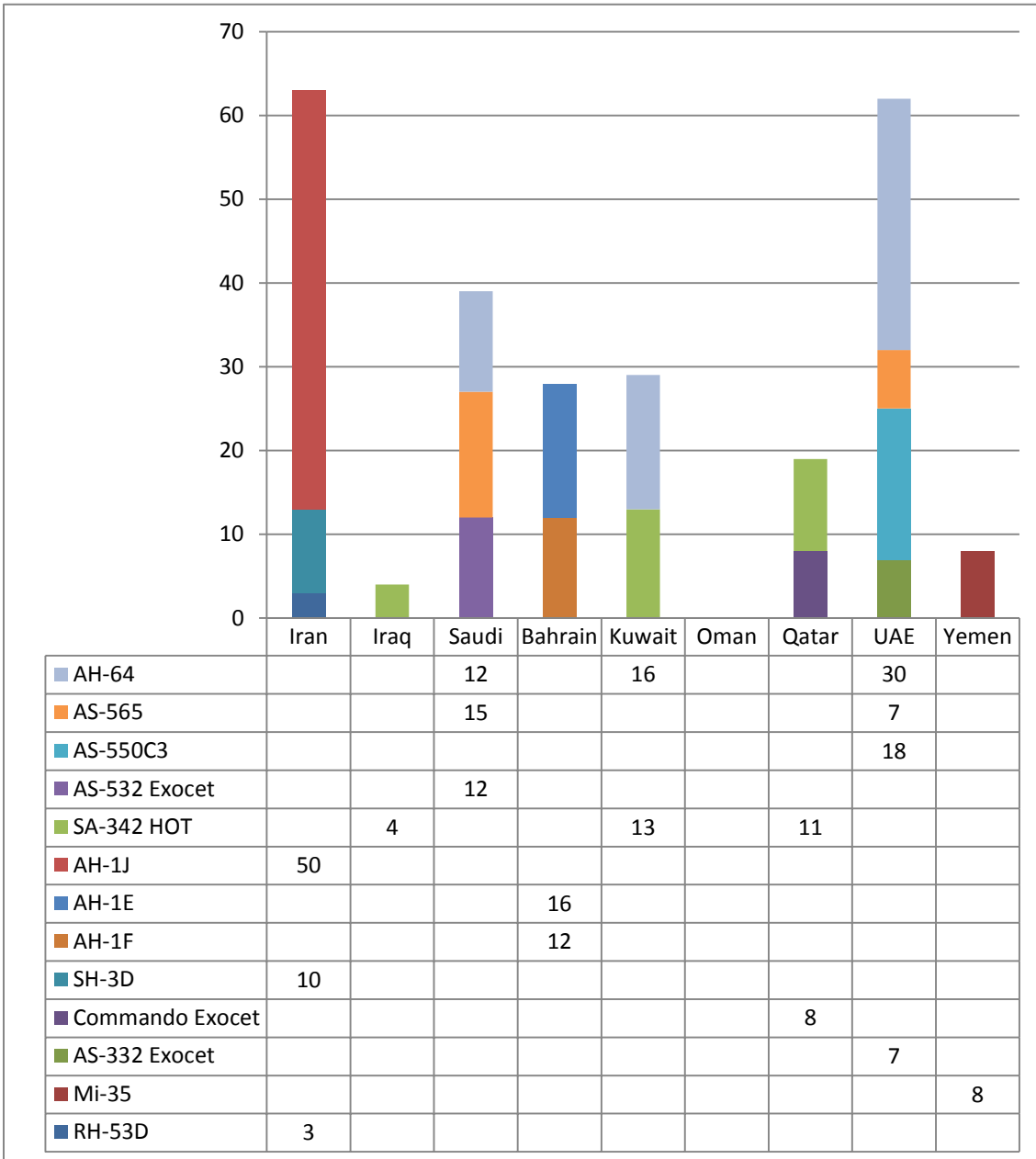
Source: Adapted from IISS, The Military Balance, Periscope, JCSS, Middle East Military Balance, Jane's Sentinel and Jane's Defense Weekly. Some data adjusted or estimated by the author.

**Figure Six: Gulf Warships with Anti-Ship Missiles**



Source: Adapted from IISS, The Military Balance, Periscope, JCSS, Middle East Military Balance, Jane's Sentinel and Jane's Defense Weekly. Some data adjusted or estimated by the author.

**Figure Seven: Gulf Attack, Anti-Ship, and ASW Helicopters**



Source: Adapted from IISS, The Military Balance, Periscope, JCSS, Middle East Military Balance, Jane's Sentinel and Jane's Defense Weekly. Some data adjusted or estimated by the author.



### *Iranian vs. Arab Gulf Land Resources*<sup>17</sup>

Iran does not have a major real-world advantage in *offensive* ground forces. As **Figures Eight and Nine** show, Iran does have a large order of battle relative to the Arab Gulf states, and significant holdings of major ground force weapons. **Figure Ten** also shows that Tehran's active force has 1.9 times the manpower of the GCC and over twice that of Saudi Arabia, with 523,000 active Iranian military and IRGC personnel versus 233,500 for Saudi Arabia.<sup>18</sup>

However, the size and manning of Iran's ground forces is heavily driven by the differences in population size of the Gulf countries, and by the force structure Iran built up during the Iran-Iraq War, than by military capability and necessity.

Iran's large ground forces are designed largely for internal defense and have limited power projection capability beyond Eastern Iraq. Iran cannot project significant power by ship transport across the Gulf in the face of Arab Gulf, US, and allied air and sea power, and air and naval manning only have meaning to the extent it can support advanced weapons and military technology

At the same time, Iran's offensive capabilities are limited. While Iran has high-quality special forces, marine units, and IRGC elements it can use for raids in the Gulf and along the Gulf coast, it does not have an advantage in heavy armor. Only 480–580 of Iran's 1,600+ main battle tanks can be described as "modern" by common standards. This total includes some 480 aging T-72s and its indigenously-produced, T-72-based Zulfiqars. Iran has some 730-860 other operational armored fighting vehicles (AFVs) and 550–640 armored personnel carriers (APCs).

Iran's numerical advantage in artillery is offset by the fact that so many Iranian weapons are towed and lack maneuver capability and rapid mobility. Iran has a total inventory of only 310 self-propelled artillery weapons, many of which are worn and aging. Iran does, however, have a large array of over 2,000 towed artillery weapons and more than 870 multiple rocket launchers.

This is a large inventory of major artillery weapons, but many are worn and obsolete and date back to the time of the Shah or the Iran-Iraq War. Iran's towed artillery and multiple rocket systems are more suited for use as area denial weapons, and Iran has only a limited ability to use its towed artillery to hit point targets. Iran also has limited ability to counter-battery opposing artillery, and has demonstrated only minimal preparation for protecting its own weapons from counter-artillery fire.

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<sup>17</sup> These issues are explored in detail in Anthony H. Cordesman, Alexander Wilner, Michael Gibbs, and Scott Modell, *US and Iranian Strategic Competition: The Conventional and Asymmetric Dimensions*, Tenth Edition, Center for Strategic and International Studies, January 6, 2013. [http://csis.org/files/publication/120221\\_Iran\\_Gulf\\_MilBal\\_ConvAsym.pdf](http://csis.org/files/publication/120221_Iran_Gulf_MilBal_ConvAsym.pdf).

<sup>18</sup> "Chapter Seven: Middle East and North Africa," in *The Military Balance: 2012*, International Institute for Strategic Studies, 2012. Iran data on p. 323.

These limits, however, do not mean Iran's ground forces do not have extensive *defense* capabilities, and any outside invasion attempt could prove to be a military nightmare. Iran can use its mix of tube artillery, rockets, and shorter-range missiles defensively. It also has a large array of modern anti-tank weapons, man-portable air-defense systems (MANPADs) and short-range air defense systems (SHORAD) systems, Army and IRGC light mechanized and infantry forces, and paramilitary forces like the Basij.

### *Iraq as the Wild Card*

This makes Iraq a key wild card in any assessment of the risk that Iran might use its land forces offensively. **Figure Eleven** shows that Iraq lost almost all of its major conventional weapons during the US-led invasion in 2003, and the US-led invasion of Iraq stripped away Iraq's capability to deter and defend against Iran, and act as a regional counterbalance.

Iraq's internal political turmoil, Sunni vs. Shiite tensions, Iran's influence over the government, and the presence of MOIS and Quds Force operatives in Iraq have since combined to prevent the Arab Gulf states from building security ties to Iraq and serious efforts to integrate Iraq into the GCC. While Kuwait has made efforts to ease tension in its border area, Saudi Arabia is building a security fence along its entire border with Iraq.

Similarly, the US has not been able to negotiate an effective Strategic Framework Agreement (SFA) with Iraq following the withdrawal of US conventional forces in 2011. Even if the US can develop such an effective strategic partnership with Iraq, this is unlikely to give Baghdad the conventional force strength it needs to deter and defend against Iran before 2020. Iraq now lacks any coherent plan for force modernization, and its plans for limited imports of M-1 tanks and F-16 aircraft are only the first step in rebuilding effective national defense capabilities.

The US must first certify that such weapons do not end up in the hands of pro-Iranian organizations or under the control of a defense ministry with close ties to Iran. Particularly concerning was the alleged agreement between Iran and Iraq reported by Shafaq News to share military technology, training, and intelligence; even if the report or elements of it are false, there is a risk that US material transferred to Iraq will allow Iran close access to US technology.<sup>19</sup> For the time being, Iraq's primary deterrent is the US experience during the invasion – that any attacking power would face a wily and experienced cadre of insurgents, capable of inflicting demoralizing casualties on even a superpower.

The end result is that Iraq is the potential weak link in terms of Arab Gulf and US efforts to prevent successful Iranian ground action and in efforts to limit Iran's ability to gain direct influence over an Arab Gulf state.

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<sup>19</sup> "Report: Iran, Iraq Agreed to Intelligence Sharing, Military Technology," Iran Military News, December 17, 2012, <http://iranmilitarynews.org/2012/12/17/report-iraq-iran-agreed-to-intelligence-sharing-military-technology/>.

**Figure Eight: Land Force Combat Units by Country in 2012**

<b>Country Units**</b>	<b>Combat Units*</b>	<b>Combat Support</b>
<b>Bahrain</b>	<b>SPECIAL FORCES</b> 1 bn <b>MANOEUVRE</b> <b>Armored</b> 1 armd bde(-) (1 recce bn, 2 armd bn) <b>Mechanized</b> 1 inf bde (2 mech bn, 1 mot bn) <b>Light</b> 1 (Amiri) gd bn	1 arty bde (1 hvy arty bty, 2 med arty bty, 1 lt arty bty, 1 MRL bty) 1 AD bn (1 ADA bty, 2 SAM bty) 1 engr coy
<b>Iran</b>		
<b>Regular Forces</b>	<b>COMMAND</b> 5 corps-level regional HQ <b>SPECIAL FORCES</b> 2 cdo div (3 cdo bde) 3 cdo bde 1 SF bde <b>MANOEUVRE</b> <b>Armored</b> 4 armd div (1 recce bn, 2 armd bde, 1 mech bde, 1 SP arty bn, 1 engr bn, 1 log bn, 1 tpt bn) 1 indep armd bde <b>Mechanized</b> 2 mech inf div (1 recce bn, 1 armd bde, 2-3 mech bde, 1 SP arty bn, 1 arty bn, 1 engr bn, 1 log bn, 1 tpt bn) <b>Light</b> 4 inf div (3-4 inf bde, 1 arty bde, 1 log bn, 1 tpt bn) 1 indep inf bde <b>Air Manoeuvre</b> 1 AB bde <b>Aviation</b> Some avn gp	6 arty gp
<b>IRGC</b>	<b>COMMAND</b> 31 provincial corps HQ (2 in Tehran) <b>MANOEUVRE</b> <b>Light</b> Up to 15 div (some divs are designated as armd or mech but all are predominantly infantry) Some indep bde (each bde allocated 10 Basij militia bn for ops) <b>Amphibious</b> 1 marine bde <b>Air Manoeuvre</b> 1 indep AB bde	Some arty bty Some ASHM bty with HY-2 (CSS-C-3 <i>Seersucker</i> ) ASHM

<b>Iraq</b>	<b>SPECIAL FORCES</b> 2 SF bde <b>MANOEUVRE</b> <b>Armored</b> 1 armd div (3 armd bde, 1 lt mech bde, 1 engr bn, 1sigs regt, 1 log bde) <b>Light</b> 8 mot div (4 mot inf bde, 1 engr bn, 1 sigs regt, 1 log bde) 2 mot div (3 mot inf bde, 1 engr bn, 1 sigs regt, 1 log bde) 1 inf div (1 mech bde, 2 inf bde, 1 air mob bde, 1 engr bn, 1 sigs regt, 1 log bde) 1 inf div (4 lt inf bde, 1 engr bn, 1 sigs regt, 1 log bde) 1 inf div (3 lt inf bde, 1 engr bn, 1 sigs regt, 1 log bde) 2 (presidential) mot bde 1 (Baghdad) indep mot bde <b>Aviation</b> 1 sqn with Bell 205 (UH-1H <i>Huey</i> II) 1 sqn with Bell 206; OH-58C <i>Kiowa</i> 1 sqn with Bell T407 3 sqn with Mi-17 <i>Hip</i> H; Mi-171 1 sqn with SA342M <i>Gazelle</i>	
<b>Kuwait</b>	<b>SPECIAL FORCES</b> 1 SF unit (forming) <b>MANOEUVRE</b> <b>Reconnaissance</b> 1 mech/recce bde <b>Armored</b> 3 armd bde <b>Mechanized</b> 2 mech inf bde <b>Light</b> 1 cdo bn <b>Other</b> 1 (Amiri) gd bde	1 arty bde 1 engr bde 1 MP bn
<b>Oman</b>	<b>MANOEUVRE</b> <b>Armored</b> 1 armd bde (2 armd regt, 1 recce regt) <b>Light</b> 1 inf bde (5 inf regt, 1 arty regt, 1 fd engr regt, 1 engr regt, 1 sigs regt) 1 inf bde (3 inf regt, 2 arty regt) 1 indep inf coy (Musandam Security Force) <b>Air Manoeuvre</b> 1 AB regt	1 ADA regt (2 ADA bty)
<b>Qatar</b>	<b>SPECIAL FORCES</b> 1 SF coy <b>MANOEUVRE</b> <b>Armored</b> 1 armd bde (1 tk bn, 1 mech inf bn, 1 AT bn, 1 mor sqn) <b>Mechanized</b> 3 mech inf bn <b>Light</b> 1 (Royal Guard) bde (3 inf regt)	1 fd arty bn
<b>Saudi Arabia</b>		
<b>Regular Army</b>	<b>MANOEUVRE</b> <b>Armored</b> 3 armd bde (1 recce coy, 3 tk bn, 1 mech bn, 1 fd arty bn, 1 AD bn, 1 AT bn, 1 engr coy, 1 log bn, 1 maint coy, 1 med coy) <b>Mechanized</b> 5 mech bde (1 recce coy, 1 tk bn, 3 mech bn, 1 fd arty bn, 1 AD bn, 1 AT bn, 1 engr coy, 1 log bn, 1 maint coy, 1 med coy) <b>Light</b>	1 arty bde (5 fd arty bn, 2 MRL bn, 1 msl bn)

	1 (Royal Guard) regt (3 lt inf bn) <b>Air Manoeuvre</b> 1 AB bde (2 AB bn, 3 SF coy) <b>Aviation</b> 1 comd (1 atk hel bde, 1 tpt hel bde)	
<b>National Guard</b>	<b>MANOEUVRE</b> <b>Mechanized</b> 3 mech bde (4 combined arms bn) <b>Light</b> 5 inf bde (3 combined arms bn, 1 arty bn, 1 log bn) <b>Other</b> 1 (ceremonial) cav sqn	
<b>UAE</b>	GHQ Abu Dhabi <b>MANOEUVRE</b> <b>Armored</b> 1 armd bde <b>Mechanized</b> 3 mech bde <b>Light</b> 2 inf bde <b>Aviation</b> 1 bde with AH-64 <i>Apache</i> ; CH-47F Chinook; UH-60L <i>Black Hawk</i> <b>Other</b> 1 Royal Guard bde	1 arty bde (3 arty regt) 1 engr gp
<b>Yemen</b>	<b>SPECIAL FORCES</b> 1 SF bde <b>MANOEUVRE</b> <b>Armored</b> 8 armd bde <b>Mechanized</b> 6 mech bde <b>Light</b> 16 inf bde <b>Air Manoeuvre</b> 2 cdo/AB bde <b>Other</b> 1 (Central Guard) gd force	3 arty bde 1 SSM bde 2 AD bn

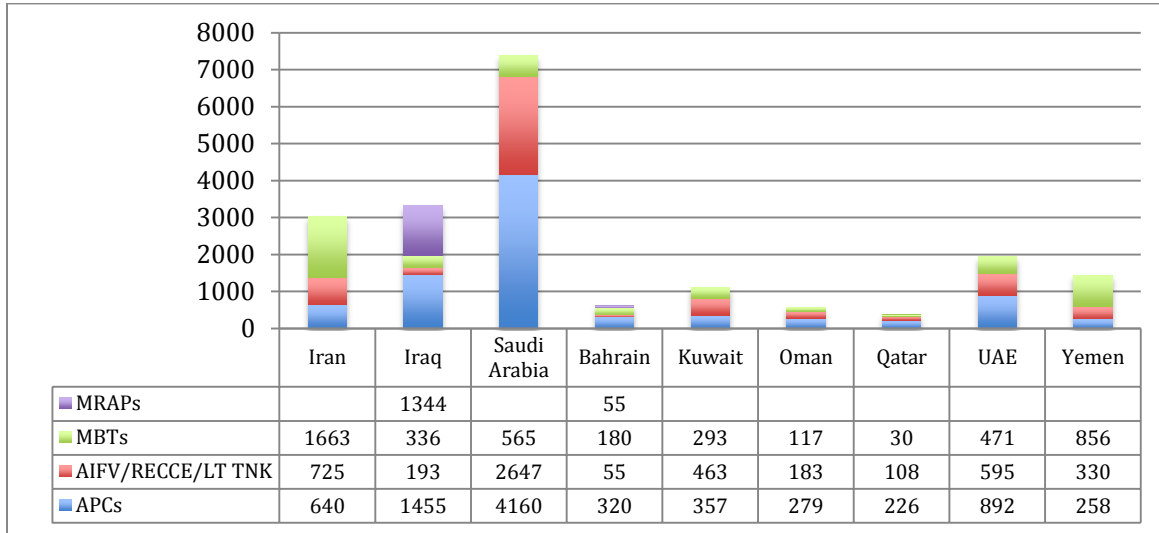
\*Armored, mechanized, infantry, paratroop, and special forces units, including divisions, brigades, regiments, and independent battalions, and companies.

\*\* Artillery, aviation, engineer, missile, and other combat support forces

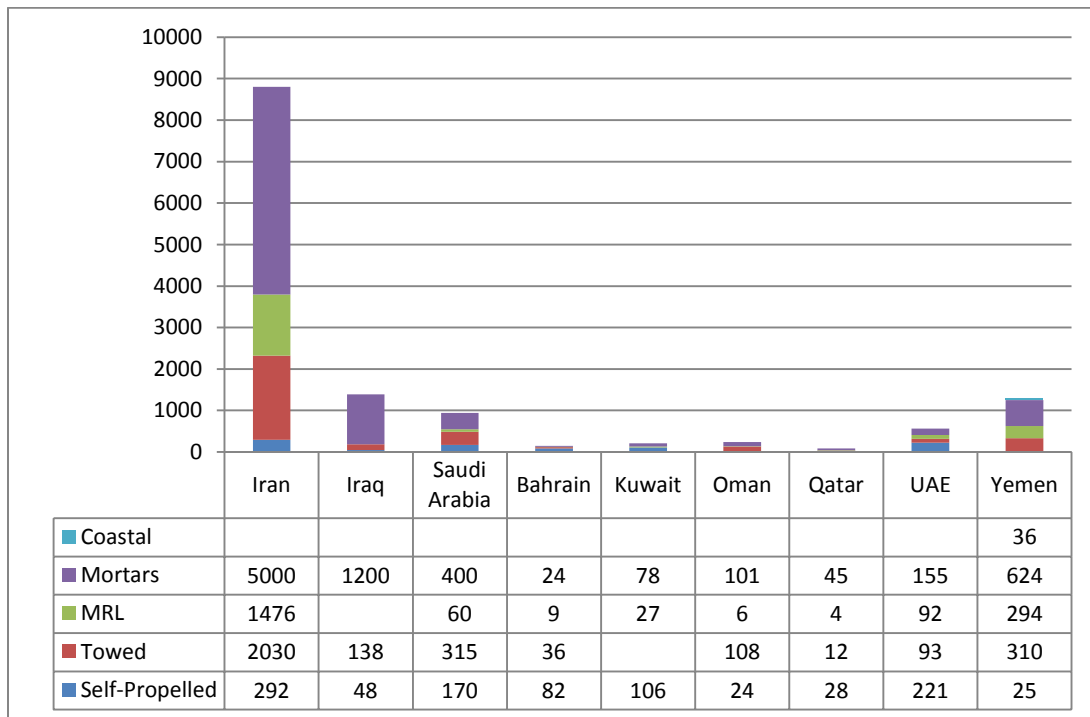
Source: Adapted from IISS, *The Military Balance, 2012*

**Figure Nine: Comparative Iranian and Gulf Land Force Major Weapons**

Comparative Armor



Comparative Artillery



Source: Adapted from the IISS, **Military Balance, 2012**; and the Jane's Sentinel series.

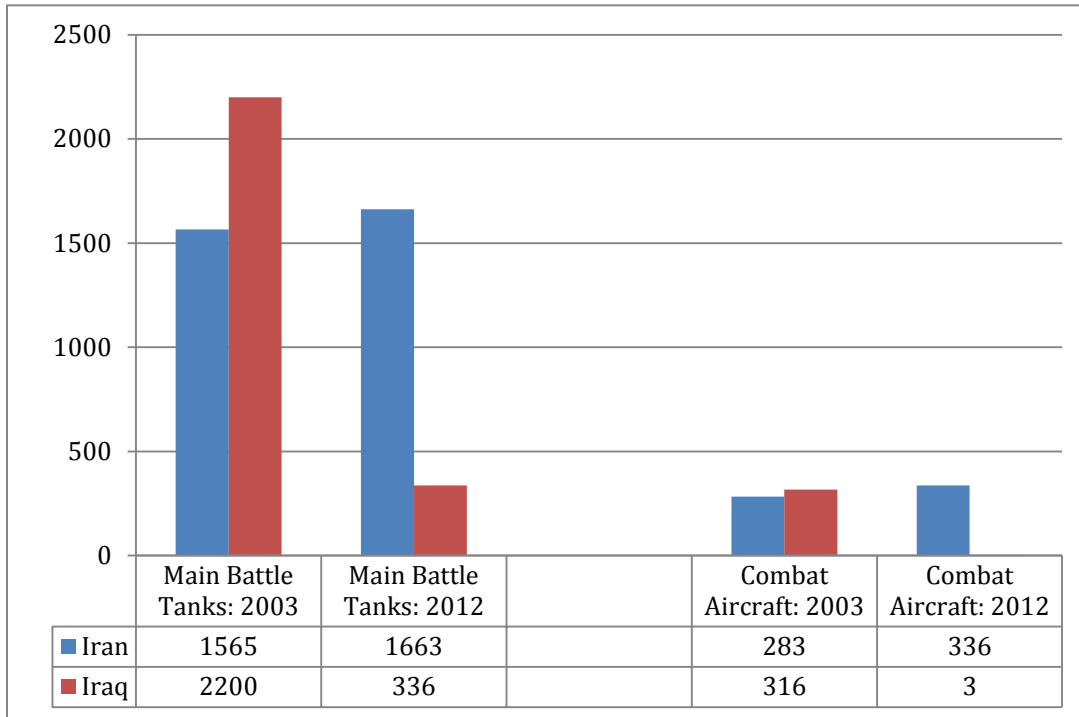
**Figure Ten: Comparative Iranian and Gulf Military Manning**  
(In Thousands)

<i>Country</i>	<i>Total Active</i>	<i>Army &amp; Guard</i>	<i>Navy &amp; Marine</i>	<i>Air Force</i>	<i>Air Defense</i>	<i>Total Reserve</i>	<i>Paramilitary</i>
Iran	523,000	475,000	18,000	30,000	NA	350,000	40,000
GCC							
Bahrain	8,200	6,000	700	1,500	NA	NA	11,260
Kuwait	15,500	11,000	2,000	2,500	NA	NA	7,100
Oman**	42,600	31,400	4,200	5,000	NA	NA	4,400
Qatar	11,800	8,500	1,800	1,500	NA	NA	NA
Saudi Arabia	233,500	175,000	13,500	20,000	16,000	NA	31,500
UAE	51,000	44,000	2,500	4,500	NA	NA	NA
Total GCC	362,600	275,900	24,700	35,000	16,000	NA	54,260
Iraq*	271,000	193,400	3,600	5,050	NA	NA	531,000
Yemen	66,700	60,000	1,700	3,000	2,000	NA	71,200

- 69,350 additional men in military support roles.

- \*\* 2,000 additional foreign forces.

Source: IISS, Military Balance, 2012.

**Figure Eleven: Shifting the Balance: Iran vs. Iraq in 2003 and 2012**

Category	2003			2012		
	Iraq	Iran	Force Ratio	Iraq	Iran	Force Ratio
Active Manpower	424,000	513,000	4:5	271,000	523,000	1:2
Reserve Manpower	650,000	350,000	19:10	NA	350,000	NA
Main Battle Tanks	2,200	1,565	7:5	336	1,663	1:5
OAFVs	1,300	815	8:5	193	725	1:3.8
APCs	2,400	590	4:1	1,455	640	2.3:1
Towed Artillery	1,900	2,085	9:10	138	2,030	1:14.7
Self-Propelled Artillery	150	310	1:2	48	292	1:6
Multiple Rocket Launchers	200	889	1:5	NA	1,476	NA
Combat Aircraft	316	283	11:10	3	336	1:112
Attack Helicopters	100	85	6:5	0	50	NA
Major SAM Launchers	225	205	11:10	0	234	NA

Source: Adapted from IISS, **The Military Balance 2012**, various editions and Jane's Sentinel series.



## Iranian Long-Range Missiles and Weapons of Mass Destruction

These Iranian capabilities for asymmetric warfare cannot be separated from Iran's emphasis on missiles and weapons of mass destruction (WMD). Both compensate for the limits of its conventional forces and act as a substitute. Moreover, if Iran does acquire – or is perceived to acquire – nuclear weapons, this will have some impact on deterring any response to Iran's use of asymmetric warfare. Iran's neighbors, as well as the US, UK, France, and Israel must then at least consider the risk that Iran will escalate.

### *Iran's Longer-Range Missile Forces<sup>20</sup>*

US, European, Gulf, and Israeli policymakers and experts agree that Iran possesses a large and growing rocket missile force, with a growing number of missiles capable of hitting Israel and Europe. They agree that Iran has begun developing longer-range and solid fuel missiles, and already possesses a sufficient number to pose an economic and psychological threat to Gulf states.

They include large numbers of medium-range Scuds (Shahab-1), extended range Scuds (Shahab-2), Zelzals, and Fateh-110s. They also include growing numbers of longer-range missiles. The maximum range of Iran's current missiles is shown in **Figure Twelve**, and the performance capabilities of Iran's developmental systems are shown in **Figure Thirteen**.

The trends in Iran's current medium and long-range missile efforts are summarized in the declassified version of a report the US Secretary of Defense sent to the US Congress in April 2012,<sup>21</sup>

Regular Iranian ballistic missile training program continues throughout the country. Iran continues to develop ballistic missiles that can range regional adversaries, Israel, and Eastern Europe, including an extended-range variant of the Shahab-3 and a 2,000-km medium-range ballistic missile, the Ashura. Beyond the steady growth in its missile and rocket inventories, Iran has boosted the lethality and effectiveness of existing systems by improving accuracy and developing new submunition payloads.

During the last two decades, Iran has placed significant emphasis on developing and fielding ballistic missiles to counter perceived threats from Israel and Coalition forces in the Middle East and to project power in the region. With sufficient foreign assistance, Iran may be capable of flight-testing an intercontinental ballistic missile by 2015.

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<sup>20</sup> These issues are explored in detail in Anthony H. Cordesman, Michael Gibbs, Bryan Gold, and Alexander Wilner, *US and Iranian Strategic Competition: The Gulf Military Balance – II: The Missile and Nuclear Dimensions*, Tenth Edition, Center for Strategic and International Studies, December 26, 2012. [http://csis.org/files/publication/120222\\_Iran\\_Gulf\\_Mil\\_Bal\\_II\\_WMD.pdf](http://csis.org/files/publication/120222_Iran_Gulf_Mil_Bal_II_WMD.pdf).

<sup>21</sup> Taken from unclassified edition of the *Annual Report on Military Power of Iran, April 2012*, as transmitted in Letter from the Secretary of Defense to the Honorable Carl Levin, chairman of the Senate Armed Services Committee, June 29, 2012, pp. 1, 4.

boosted the lethality and effectiveness of existing systems by improving accuracy and developing new submunition payloads. Iran's missile force consists chiefly of mobile missile launchers that are not tethered to specific launch positions. Iran may be capable of flight-testing an intercontinental ballistic missile by 2015.

During the last 20 years, Iran has placed significant emphasis on developing and fielding ballistic missiles to counter perceived threats from Israel and Coalition forces in the Middle East and to project power in the region. In 2011, Iran launched several missiles during the NOBLE PROPHET 6 exercise, including a multiple missile salvo.

Short-range ballistic missiles provide Tehran with an effective mobility to strike partner forces in the region. Iran continues to improve the survivability of these systems against missile defenses. It is also developing and claims to have deployed short-range ballistic missiles with seekers that enable the missile to identify and maneuver towards ships during flight. This technology also may be capable of striking land-based targets.

Iran has also developed medium-range ballistic missiles to target Israel and continues to increase the range, lethality, and accuracy of these systems.

These trends reflect the fact that Iran has been developing ballistic missile capabilities based on Russian, North Korean, and Chinese technology or weapons systems since the early 1980s. Iran currently possesses the largest ballistic missile inventory in the Middle East, and the country's military and scientific establishments are working to increase the sophistication, scale, and reach of its missiles.<sup>22</sup>

The Gulf is only 300 km wide at its widest point, and only 50 km wide at the Strait of Hormuz. With maximum ranges in the 200-300 km range, the Zelzal and Fateh-110 are of limited utility within the Gulf, particularly since the accuracy of unguided missiles is poor and deteriorates further at long ranges. These weapons are still able to target some significant Gulf infrastructure; given Iran's presumed large stocks, it is uncertain whether a combination of the offensive strike and missile defense capabilities of the US and Gulf states could fully protect this region from multiple volleys. This is particularly critical given Iran's island holdings in the Gulf, which allow it to emplace missiles close to GCC states' coastlines.<sup>23</sup>

Saudi Arabia has three desalination plants on the Gulf – including the intake stations for Riyadh – and Qatar, Bahrain, and the UAE all rely on desalination for 99%, 30% (with wastewater reuse – and its attendant vulnerable infrastructure – making up another 30%), and 40% of their water, respectively. All of these are large, unhardened complexes, and might require on the order of 50-75 missiles to damage them with 50% confidence (more to ensure the damage is serious).

All the Gulf states have a substantial portion of their petroleum infrastructure located on the Gulf coast. The vast majority of GCC oil fields are located on or near the Gulf, with

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<sup>22</sup> Statement for the Record on the Worldwide Threat Assessment of the U.S. Intelligence Community for the House Permanent Select Committee on Intelligence, James R. Clapper, 11 Feb. 2011

<sup>23</sup> Note that deploying missiles on the islands forces a tradeoff between range and survivability. While Zelzals and Fateh-110s on the Greater and Lesser Tunbs and Abu Musa would be able to target a greater inland swath of GCC state territory, they would also have fewer hiding spaces and limited mobility in the face of US and GCC airstrikes.

most major infrastructure for production, refining, and transportation within 100 km of the coast.

This places them within the range of Iran's Shahab-1 and 2, and the shorter-range Zelzals and Fateh-110s as well in the cases of Kuwait, the UAE, and Qatar. While Iran could likely only target four to 10 critical pieces of infrastructure with its Shahabs, adding in the smaller but potentially more accurate Zelzals and Fatehs would give it the ability to strike dozens of targets with a higher confidence of success.

The most vulnerable state is the UAE, with Dubai probably within range of Zelzal-2s and Fateh-110s. If Iran can base missiles off its islands in the Gulf, it will be able to target all the petroleum and desalination facilities that provide roughly a quarter of the UAE's GDP, along with a portion of Saudi Arabia's northeastern oil fields. While launchers on Gulf islands would be vulnerable to airstrikes, they provide Iran with the possibility of at least one volley of direct attacks on its Gulf neighbors.

The UAE is vulnerable to attack even without Iran emplacing missiles on its islands. Mobile launchers inland are more likely to survive and launch additional volleys of strikes, meaning the Emirates may face the most sustained missile campaign should hostilities break out.

Kuwait presents special problems. Iran has enough short and medium-range rockets and missiles to potentially allow it to overwhelm Kuwait's anti-missile defenses and target the main port, desalination plants, military bases, petroleum facilities, and other crucial pieces of infrastructure. At such close range, and with so many targets to choose from, Iran is able to threaten Kuwait with volleys of different or "stacked" missile systems that might be able to inflict severe economic damage.

Kuwait lacks the air strike and surface-to-surface missile capacity to respond and would have to rely on surface-to-air missile/theater ballistic missile (SAM/TBM) capacity to defend itself. Should Iran seek to pressure Kuwait, Iran's short-range systems could be the primary component of its threat. Under these circumstances, Kuwait is obliged to rely on external partners to guarantee its security – both to upgrade its anti-ballistic defenses and provide retaliatory capabilities.

Iraq is another potential target of these systems. Baghdad and much of the agricultural heartland of Iraq are vulnerable to Zelzal and Fateh-110 missiles. Iraq lacks both the anti-ballistic missiles and retaliatory systems to combat this threat, and most Iraq policymakers likely recall the devastation and panic that fewer Iranian missiles caused during the War of the Cities. While such an attack would probably prompt US and GCC support of Iraq, as well as substantially undermine popular support for Iran in Iraq, it remains an obscured threat to Baghdad in all dealings with Tehran.

There are, however, limits to the threat such "volleys" can inflict. With the exception of US bases in Kuwait, Zelzals and Fateh-110s do not pose a threat to US forces in the region. Their reach is too short to penetrate deep beyond the littoral and the al Dhafra Air Base. Other Gulf states have more strategic depth, although some positions in Saudi Arabia would be vulnerable to missiles launched from Iran's Gulf islands. The same is true of other GCC militaries – despite their relative lack of strategic depth. Many of their

bases are too distant from mainland Iran to be vulnerable to multiple volleys of missile fire from the more numerous Zelzals and Fateh-110s.

It is also unclear how effective Iran's medium and longer-range systems really are. In many cases they are developmental systems where much of the open literature credits them with far more capability than they have yet demonstrated. While the performance of shorter range systems like unmodified versions of the Scud-B is well known, many aspects of Iran's longer-range and more developmental programs are not. Iran has not conducted the kind of extensive, realistic missile tests at operational ranges and carried through to strikes on target with the same configuration of its modified or Iranian-produced missiles to make reliable estimates of their war fighting capability or give any estimate of their performance.

It seems likely that Iran still lacks any systems with the accuracy or terminal homing capability to hit more than broad area targets with accuracies largely in kilometers rather than meters. Experts note that to date, Iran has rarely fired missiles at maximum range – although two Shahab-3s were fired into the Indian Ocean, evidently more as a test of range than as part of a well-structured effort to determine accuracy. Iran also tends to fire off its older missiles, rather than its latest inventory.

Experts indicate, for example, that Iran's newer, longer-range versions of the Shahab-3 seem to be improved over its earlier versions. However, a number of past tests ended in the missile being destroyed before it hits a land target, and Iran does not conduct anything like the number of tests to establish reliability or accuracy using a derived aim point rather than a theoretical engineering estimate of circular error probable (CEP).

Some Iranian accuracy claims seem to be little more than propaganda, and in some cases, Iran may have faked the impact of its missile exercises by exploding craters near the target during a missile firing exercise or doctored video images to show more missile launches than actually occurred.

The lack of large-scale testing eliminates Iran's ability to calibrate the accuracy of its systems using a derived aim point versus an engineering estimate and compensate for the Earth's rotation and irregularities in its shape. It presents difficulties for the Iranian engineers trying to improve their missiles' performance. While Iranian scientists can compare the actual flight path to the expected route – an option not available to foreigners – they lose out on data about the missile's final approach to its target. Iranian engineers have also faced difficulty addressing natural factors, as flights over the Indian Ocean have encountered weather and geological complications that have restricted useful test data.

Moreover, there are very serious limits to the damage a conventional missile warhead can do unless it can strike a high-value target with great precision. A medium and long-range missile warhead closes with extremely high velocity. Reliability is an issue, particularly if the warhead has complex fusing designed to affect the height of burst or dispense cluster munitions.

If a unitary high-explosive warhead hits the ground, much of its explosive effect is directed upwards and limits the damage of payloads that are equivalent to a single aircraft bomb. Delivering effective chemical and biological warheads is far more difficult than

most open sources indicate, and there is no evidence Iran has effective forms of such warheads.

This combination of accuracy and lethality problems will sharply limit Iran's ability to use its missiles as more than weapons of intimidation or terrorism until it can give them nuclear warheads or warheads with some form of terminal guidance. Nevertheless, Iran almost certainly sees its longer-range missile capabilities as a way to compensate for its shortcomings in conventional forces, as well as a means to strike at high-value targets with little warning, such as population centers and Western and Western-backed forces in the region – including US bases in the Gulf.

This still allows ballistic missiles to play an integral role in Iran's asymmetric warfare doctrine. Given the emphasis Iran places on its missile program, it is clear that Iran considers its ballistic missile arsenal among its most important assets as both a deterrent to attackers and leverage over other regional players.

Nevertheless, Iran will need nuclear or precision-guided warheads to make its medium and longer-range missiles truly effective and major war fighting threats, and will also need nuclear warheads to increase the threat a limited number of successful airstrikes can pose. The key longer-range elements of Iran's missile program are also in flux and many of Iran's missile systems are still in a development phase where their range, accuracy, warhead, and reliability are impossible to predict. There is no agreement as to when Iran may acquire missiles with homing warheads and the kind of terminal guidance that can hit point targets effectively with conventional warheads.

There is no agreement on the reliability and accuracy of Iran's missiles under operational conditions, and there is no agreement on Iran's ability to deploy systems with countermeasures to missile defenses. Finally, there is no agreement on whether Iran yet has mastered production techniques for ballistic missiles, allowing it to further build and refine its force even without additional technology proliferation.

**Figure Twelve: Iranian Missile Forces and Performance**

	Shahab-1	Shahab-2	Shahab-3	Ghadir-1	Sejjil-2	Khalij Fars	Fateh-110	Zelzal-1/2/3
Range (km)	300-315	375-700	800-1300	1100-2500	1800+	300	200-400	125/200/ 150-400
Payload (kg)	1000	1000-730	1000	1000-750	1000	650	500	600
CEP (m)	450-1000	50-700	190-2500	1000	Unknown	<50	100-300	100-3000
Number in Service	200-300	100-200	25-100	25-300	Unknown	Unknown	Unknown; likely in hundreds	Unknown; likely in thousands
Launchers	18	18 (same as Shahab-1)	6-20	6-20 (same as Shahab- 3)	Unknown	Unknown	Unknown	Unknown
Fuel	Liquid	Liquid	Liquid	Liquid	Solid	Solid	Solid	Solid

*Source: Adapted from work by the IISS, Global Security, FAS, and Jane's*

**Figure Thirteen: Estimated Maximum Range of Current Iranian Missile Forces**



Source: Bipartisan Policy Center. "Meeting the Challenge: Stopping the Clock." February 2012.

<http://www.bipartisanpolicy.org/sites/default/files/BPC%20Iran%20Report.pdf>

### *Iran and Weapons of Mass Destruction*

There is a large body of evidence showing that Iran is seeking nuclear weapons to counter the Gulf Arab and US ability to threaten and deter Iran, as well as to gain influence over its neighbors. While Iran seems unlikely to use nuclear weapons except in the face of the most direct threat to its regime, its very possession of such weapons would make Gulf Arab and US willingness to escalate in attacking its asymmetric and conventional forces more uncertain, give its missile threat far more lethality and credibility, and thus compensate for the weaknesses in its conventional forces.

**Figure Fourteen** provides a rough idea of the scale of Iran's efforts by showing its nuclear and other major facilities that may involve the development and production of WMDs. The history and nature of Iran's efforts are complex, controversial, and extremely difficult to summarize. A wide range of detail summarizing different views and the prospects for negotiation, preventive strikes, containment, and a regional nuclear arms race is available in a report by the Burke Chair at CSIS.<sup>24</sup>

The best summary of the evidence Iran is developing a weapon is in a November 2011 report of the International Atomic Energy Agency (IAEA) and the reports that followed in 2012. They list strong indicators that Iran has been moving towards a nuclear weapons capability since the mid-1980s. This seems to be a process that has been going on since the Iran-Iraq War, and that grew out of Ayatollah Khomeini's decision to resume nuclear research once Iran came under chemical weapons attack from Iraq.

IAEA and other reports show that Iran developed underground nuclear facilities that it initially attempted to keep covert, and expressed an active interest in designing nuclear warheads for its ballistic missile fleet. Reports also show that Iran is making advances in centrifuge design that will greatly increase enrichment capacity as well as making it easier for Iran to create small, dispersed sites that will be far harder to detect. Even if Iran agrees to IAEA inspections and is vulnerable to some form of preventive attack, its growing technological base will continue to create new options for concealing a nuclear weapons program and/or developing a breakout capability.

So far, the US and other members of the P5+1 (the five permanent members of the UN Security Council and Germany) have attempted to prevent Iran from building and deploying nuclear weapons through the use of sanctions and covert action designed to degrade the program's human and physical capital, along with developing military options for preventive strikes if negotiations fail.

Iran is also a declared chemical weapons power. It states it no longer has such weapons, but it has never fully complied with the Chemical Weapons Convention (CWC) nor has it ever stated its holdings. It probably has the capability to manufacture persistent nerve gas. It has stated to the CWC that it has no stockpiles of chemical weapons, but this is

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<sup>24</sup> See Anthony H. Cordesman, Michael Gibbs, Bryan Gold, and Alexander Wilner, *US and Iranian Strategic Competition: The Gulf Military Balance – II: The Missile and Nuclear Dimensions*, Tenth Edition, Center for Strategic and International Studies, December 26, 2012. [http://csis.org/files/publication/120222\\_Iran\\_Gulf\\_Mil\\_Bal\\_II\\_WMD.pdf](http://csis.org/files/publication/120222_Iran_Gulf_Mil_Bal_II_WMD.pdf).



extremely difficult to verify.<sup>25</sup> Iran could certainly produce unitary warheads, bombs, and shells relatively quickly and probably has some cluster weapons capability – although experts caution that to date there has been no recent evidence of weaponization of chemical stores.

Iran is a signatory to the Biological Weapons Convention (BWC), but there are no firm data to indicate whether it does or does not have an ongoing biological weapons program.<sup>26</sup> It is clear, however, that Iran does have the civilian research and development (R&D) and bio-manufacturing capabilities to develop and produce advanced biological weapons – and could do so as either as a supplement or substitute for nuclear weapons. Iran could acquire the ability to develop even more advanced genetically engineered biological weapons within the next five years through the course of normal improvements in domestic biotechnology, roughly the same timeframe required to deploy a nuclear force.<sup>27</sup>

There is no meaningful inspection regime for the BWC, and US studies raise serious questions as to whether such a regime is even possible. Accordingly, even if Iran did fully comply with all IAEA requirements, it could still develop and produce weapons of mass destruction. Similarly, there is no enforceable way that a true WMD free zone can be established and enforced in the Middle East – or any other area with advanced biotechnology.

Iran's missile programs represent a critical part of its military efforts and expenditures. Iran is making major advances in its long-range missiles, including the development of solid fuel systems. Its longer-range missiles have not, however, been tested in ways that demonstrate the reliability and accuracy required to be effective against anything other than area targets, unless they are armed with nuclear warheads. A chemical missile with restricted precision would have such limited lethality that it would be more a weapon of terror rather than a true weapon of mass destruction.

The US has taken steps to deter and defend against Iran's missile and nuclear programs by seeking to develop US and regional capabilities like missile defense and by offering its Arab and other regional allies "extended regional deterrence." There is little evidence, however, that the US has yet been able to halt Iran's nuclear program.

In terms of Iranian WMD capabilities, the nuclear threat is only part of the story. Iran is a declared chemical weapons power, has long-range missiles, may be developing biological weapons, has shown it has a serious capability for cyberwarfare, and seems to be seeking nuclear weapons to counter the US's ability to threaten and deter Iran, as well as gain influence over its neighbors. The US is seeking to prevent Iran from acquiring nuclear

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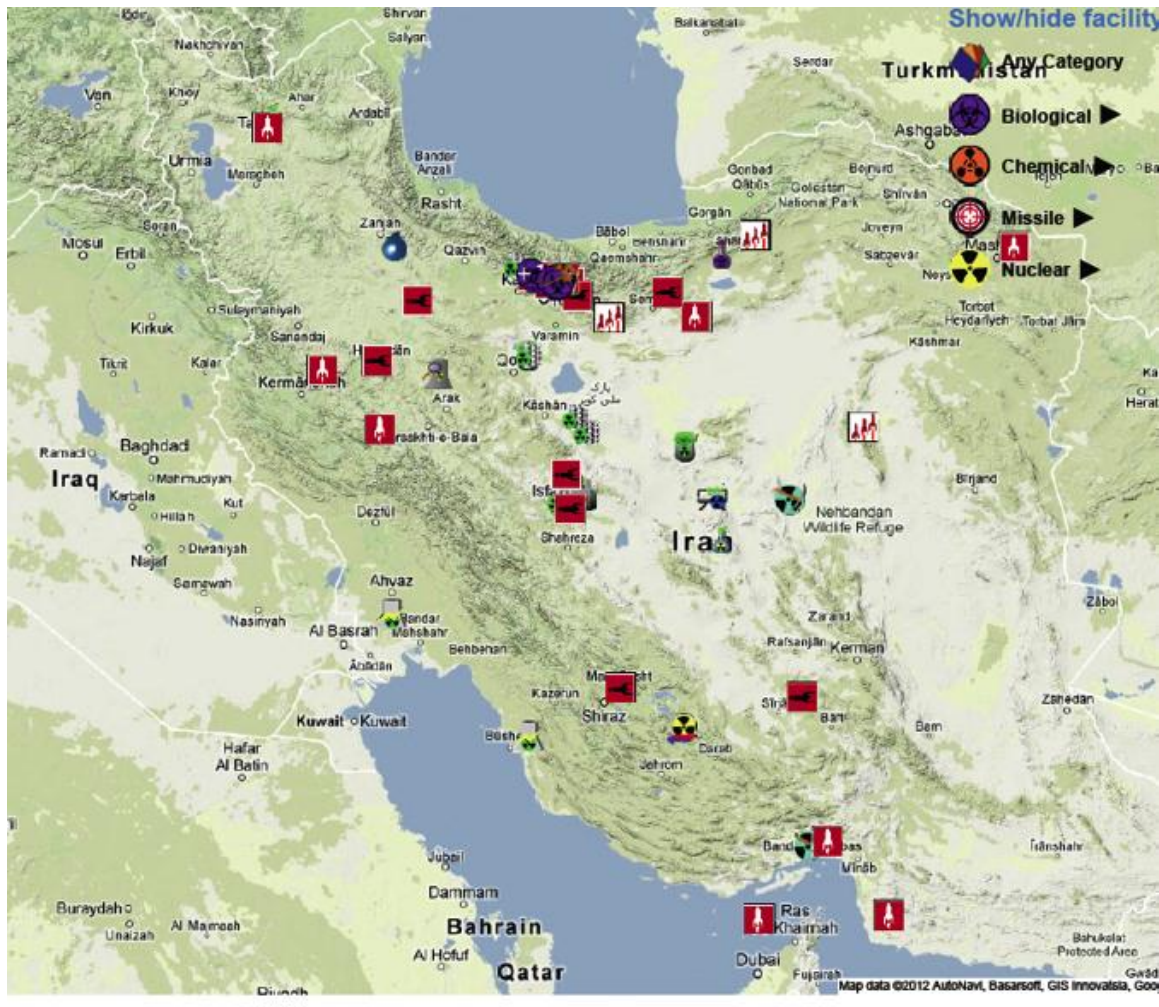
<sup>25</sup> Katzman, Kenneth. "Iran: US Concerns and Policy Responses." Congressional Research Service report, September 5, 2012, pg. 40.

<sup>26</sup> Nuclear Threat Initiative, "Iran Profile." Accessed at: <http://www.nti.org/country-profiles/iran/>

<sup>27</sup> Director of National Intelligence, "Unclassified Report to Congress on the Acquisition of Technology Relating to Weapons of Mass Destruction and Advanced Conventional Munitions, Covering 1 January to 31 December 2011," pg. 4.

weapons and long-range missiles while simultaneously developing options to deter and defend against Iran if it should succeed.

**Figure Fourteen: Iranian Major Facilities that May Be Involved in WMDs**



Source: NTI, <http://www.nti.org/gmap/?country=iran&layers>, September 2012

## Reinforcing the Strengths of the Arab Gulf States<sup>28</sup>

As has already been discussed, the Arab Gulf states do not have to stand alone in meeting these threats. They have developed a military partnership with the US, the UK, and France. The Arab Gulf states are, however, the key strategic bloc in the region, and they have the resources to buy the forces they need if they buy efficiently and work together. Saudi Arabia, for example, spent roughly five times as much on defense in 2011 (\$46.2 billion) as the next largest spender on the peninsula, the UAE (\$9.32 billion), and nearly four times more on military forces than Iran.<sup>29</sup>

### *The Search for Unity in the Arab Gulf*

The key problem the Arab Gulf states now face is the ability to use their resources effectively. Their superior spending and growing partnership with the US gives them great potential to deter and defend against any threat in the region. At the same time, national tensions and rivalries as well as the fear some smaller states have of Saudi dominance have sharply limited the effectiveness of the GCC, its military integration, and its level of interoperability. These divisions can be summarized as follows:

- *Bahrain:* Is closely tied to Saudi Arabia, and the headquarters of the US 5th fleet. Sees Iran as a major source of its current Shia and Sunni tensions. Still some residual tension with Qatar regarding past disputes over the waters and reefs between them, and the fact that the Qatari ruling Al Thani family seized the peninsula in the mid-1800s from the Bahraini Al-Khalifa royal family after the Al-Khalifa's had occupied Bahrain.
- *Kuwait:* Was the key country leading to US intervention in the Iran-Iraq War in 1987-1988 – after the US agreed to reflag Kuwaiti tankers being attacked by Iran. Has been closely tied to the US since the Iraqi invasion of Kuwait in 1990. Has provided the US with major basing and prepositioning facilities since 2002, when the US prepared for the invasion of Iraq. Kuwait's security concerns focused on the threat from Iraq until 2003, and Kuwait is careful to avoid provoking Iran when possible. There is a legacy of Kuwaiti-Saudi tension from the period in which Kuwait was the more developed state. Kuwait is partly divided from Saudi Arabia by a Neutral Zone, but there is no evidence of serious tension over management of the zone, and all boundary, offshore, and island issues seem to have been resolved well over a decade ago.
- *Oman:* Oman plays a key strategic role in Gulf security because of its location on the Strait of Hormuz, at the entrance to the Gulf, and with access to the Gulf of Oman and Indian Ocean. It has a long history of low-level tension with Saudi Arabia over past border disputes, the Omani search for an enhanced role in the GCC and aid for its forces, and the Omani desire to avoid Saudi domination of GCC. There was also some past tension with the UAE over maritime boundaries. Muscat offers the US contingency bases and prepositioning facilities, and also has close security ties to the UK. It has tried to maintain correct and “friendly” relations with Iran – which sits across from Oman at the Strait of Hormuz, but has been careful to assert its sovereignty and to avoid any Iranian interference.

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<sup>28</sup> For a detailed, country-by-country analysis of the issues involved, see Anthony H. Cordesman and Robert M. Shelala II, *US and Iranian Strategic Competition: The Gulf and the Arabian Peninsula*, Third Edition, Center for Strategic and International Studies, January 7, 2013. [http://www.csis.org/files/publication/120228\\_Iran\\_Ch\\_VI\\_Gulf\\_State.pdf](http://www.csis.org/files/publication/120228_Iran_Ch_VI_Gulf_State.pdf).

<sup>29</sup> See the data in “Chapter Seven: Middle East and North Africa,” in *The Military Balance: 2012*, International Institute for Strategic Studies, 2012. p. 306.

- *Qatar*: Qatar is a key partner of the US. It hosts the US Combined Air Operations Center (CAOC), and provides air basing and prepositioning facilities. Qatar shares the same interpretation of Islam as Saudi Arabia, but there is a history of border disputes with Saudi Arabia which seemed to be resolved in 2001, along with its border disputes with Bahrain, but have recently led to some discussion of border revisions between Qatar, Saudi Arabia, and the UAE. Other tensions exist between Saudi Arabia and Abu Dhabi and Qatar's current ruler – Sheikh Hamad bin Khalifa Al Thani. Sheikh Hamad overthrew his father in a bloodless coup in 1995 and then felt Saudi Arabia and the UAE supported a failed counter-coup attempt by his father. Like Oman, Qatar resists any Saudi effort to lead the GCC. It uses the Doha-based Al Jazeera news network to increase its status and sometime critique its neighbors indirectly. Until recently, Qatar has also been careful not to antagonize Iran, which shares common massive gas formations in the Gulf. Qatar has become more critical, however, because of Iran's support of Syria, and Qatar's growing efforts to assert itself by supporting Arab insurgents in Libya and Syria.
- *Saudi Arabia*: Saudi Arabia is the largest power by far in the Southern Gulf and the only GCC state large enough to have great strategic depth. It has been a key security partner of the US since World War II, and was the co-commander with the US and leader of the Arab forces in the Coalition that liberated Kuwait in 1990-1991. Saudi Arabia no longer provides basing facilities to the US, but provided quiet support to the US during its invasion of Iraq in 2003, has strong US advisory teams for its military, national guard, and internal security forces, and has bought massive numbers of arms from the US. Saudi Arabia has sought correct and "friendly" relations with Iran, but has long challenged any Iranian effort to lead the Gulf.
- *UAE*: The UAE has become the most effective military force in the GCC, and now cooperates closely with the US in its military development and security affairs in the Gulf. Like Qatar, it is one of the two states now buying Terminal High Altitude Area Defense (THAAD) missile defenses, and has played an overt role in supporting insurgents in Libya and Sunni forces in Syria. The Emirates have been divided in the past in dealing with Iran because of Dubai's role as a key transshipment and training partner with the Iran, but Abu Dhabi and Sharjah have long led the GCC-wide challenge to Iran's control of Abu Musa and the Tunbs – islands the Shah seized from Sharjah during British withdrawal from the Gulf and which Iran later fully occupied. At present, the UAE seems united in resisting Iran. There has been some tension with Saudi Arabia over Saudi efforts to lead the GCC, and some low-level comments about reopening past border issues.
- *Yemen*: Yemen has long been the most troubled and poorest Gulf state, lacking significant petroleum resources, and built on an uncertain unity between what was once North Yemen – or the Yemeni Arab Republic (YAR) – and South Yemen – or the People's Democratic Republic of Yemen (PDRY). Both states were affected by war – the YAR by a civil war, and an Egyptian invasion that marked the first use of poison gas since the end of World War II and the PDRY by constant internal power struggles and its support of the Dhofar rebellion in Oman. Unity came only after the internal collapse of the PDRY and a low-level conflict between northern and southern factions. A failed central government, a failed economy, massive population growth, tribal and sectarian differences, and shortages in water have left Yemen under uncertain central control, brought Saudi Arabia to intervene in the northwest border area, and made Yemen the key current source of instability in the Arabian Peninsula.

### ***Pressures for Greater Unity***

At the same time, there are growing pressures for unity. Iran's actions, political upheavals in the region, and the threat of terrorism and internal extremists have pushed the Southern Gulf states towards building up their military capabilities and creating a more effective partnership with the US, the UK, and France.

The senior ministers of each state made this clear in the official press statement issued after of the December 2012 (33<sup>rd</sup>) ministerial meeting of the GCC. This statement not

only highlighted the Iranian threat, but indirectly challenged Iran on Syria and any Iranian role in Yemen:<sup>30</sup>

The Supreme Council reiterated its firm stance as per previous statements rejecting the Iranian occupation of the UAE's three Islands namely: (Greater Tunb, Lesser Tunb and Abu Musa ), asserting the right to supremacy on the three islands and regional territorial waters, airspace and continental shelf and free economic zone which form an integral and inseparable part of the United Arab Emirates.

The Supreme Council expressed sorrow because no positive results could be reached through communications with the Islamic Republic of Iran as to culminate in a solution for the issue of the three UAE's islands so as to contribute into boosting the security and stability of the region.

Any acts or practices implemented by Iran on the three islands will be deemed null and void and should not entail any change in legal or historic status of the Islands which confirm the right of supremacy of the United Arab Emirates over its three Islands.

The Supreme Council did not rule out considering all peaceful means which could lead to reinstating the right of the United Arab Emirates over its three islands, inviting the Islamic Republic of Iran to respond to the UAE's efforts to solve the issue through direct negotiations or resorting to the International Court of Justice.

The Supreme Council rejected and denounced continual Iranian interference in the GCC states' internal affairs and urged Iran to immediately stop these practices for good and to refrain from policies and acts which increase tension or threaten regional security and stability. The Supreme Council emphasized the need for Iran's full compliance with the principles of good neighborliness and mutual respect and non-intervention in internal affairs and solving disputes by peaceful means without resorting to force or threats.

The Supreme Council asserted that the Iranian nuclear program does not only threaten regional security and stability but also international security and stability, urging Iran to cooperate with the International Atomic Energy Agency (the IAEA), and renewed the GCC firm stance regarding the significant need for Iran's compliance in order to make the Middle East region, including the Arabian Gulf region, free from weapons of mass destruction as well as from nuclear weapons, praising international efforts aimed to solve the Iranian nuclear program through peaceful means.

The Supreme Council affirmed the right of countries, including Iran, to harnessing peaceful nuclear energy on condition of responsibility of the operating country for the safety of its nuclear facility whilst taking into consideration environmental safety in the large geographic region and the need to fully comply with standards of safety and security and non-nuclear proliferation. Now that Iran began operating the Bushehr reactor, the GCC countries urge Iran to maintain full transparency vis-a-vis this matter and to join the agreement on nuclear safety and enforce maximum safety standards in its facilities.

The Supreme Council reviewed latest developments on the Syrian arena, under continually deteriorating conditions and the human suffering of the brotherly Syrian people. The Council expressed utmost pain and grief towards continuous bloodshed and loss of innocent lives, destruction of cities and infrastructures which necessitates a speedy political power transition. The Council urged the international community to move seriously in order to promptly stop these massacres and blatant violations which contradict with all heavenly commandments, international laws and human values.

The Supreme Council asserted its support to the Syrian National Coalition which is the sole lawful representative of the Syrian people formed in Doha in November 2012 under the kind patronage of His Highness Sheikh Hamad bin Khalifa the Emir of the State of Qatar and auspices of the Arab

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<sup>30</sup> SUSRIS, 33rd GCC Supreme Council, the Sakhir Summit, Concludes, SPECIAL REPORT Dec 25, 2012. <http://www.susris.com/2012/12/25/33rd-gcc-supreme-council-the-sakhir-summit-concludes/>

League, urging the international community to urgently provide all sorts of humanitarian assistance to the brotherly Syrian people who suffer from harsh living conditions.

The Supreme Council expressed its support to the mission of the UN Arab Envoy to Syria, Mr. Lakhdar Brahimi, provided that this gains consensus from the UN Security Council especially its permanent members, in accordance with the powers and responsibilities of the UN Security Council in maintaining international security and stability.

... The Supreme Council was informed by King Hamad bin Isa Al Khalifa about the message he had received from Yemeni President Abdourabou Mansour Hadi regarding accomplishment of the GCC Initiative for Yemen's part one who thanked the GCC leaders for protecting Yemen from the ghost of civil war and solving its problem.

The Council praised the Yemeni President's recent resolution in favor of restricting the Yemeni Armed forces as part of the GCC Initiative and its executive mechanism in a key step aimed to boost security and stability in Yemen.

The Supreme Council looks forward to Yemen's implementation of the second phase of the GCC Initiative for Yemen after convening the national dialogue with participation from all segments of the Yemeni people and their concurring on what is in the best interest of Yemen and its unity, security and stability.

The Supreme Council reiterated its previous resolutions and firm stances vis-a-vis Iran in terms of respecting its territorial integrity and independence, urging Iraq to comply with UN resolutions regarding its borders and pending issues with the State of Kuwait.

A later press release on a press conference by Shaikh Khalid bin Ahmed Al Khalifa, Minister of Foreign Affairs of the Kingdom of Bahrain and Secretary General of the GCC, Dr. Abdullatif bin Rashid Al-Zayani reported that,<sup>31</sup>

'The efforts to communicate with the Islamic Republic of Iran have not stopped and will not stop and relations with it always passes stages and there are things which we disagree with Iran. GCC is keen to put its relationship with Iran in the correct path without allowing to any party to intervene in the affairs of the other party and not endanger the region, whether to the danger of violence, of environment or that of war or to the threat of nuclear reactors, even in situations of peace, and news about the danger of nuclear reactors was circulated and that was clarified for the Islamic Republic.'

...He also said 'We want a radical solution ending the tragedy of the Syrian people.'

...On the issue of Yemen, Dr. Al-Zayani said that the GCC member States support Yemen's stability and they have had their efforts through the GCC initiative, and that the amount collected was eight billion, of which most of it came from the GCC member States and we are optimistic about the situation in Yemen for our confidence in the wisdom of the Yemeni brothers.

Also, the Bahraini Foreign Minister explained that the GCC efforts in resolving the issue of the occupied islands of the United Arab Emirates (UAE) are still going on and our stance is solid towards it and they are UAE islands occupied by Iranian forces and must be returned to the UAE either through negotiations or arbitration, and that any action carried out by Iran on these islands won't result in any legal interest in Iran's favor and we support all the UAE steps in this regard.

...On the assessment of Russian efforts to resolve the Syrian crisis, the Foreign Minister of Bahrain stressed that Russia's role is an important role, and that there is a dialogue between the GCC countries and Russia, and work is going on to remove any misunderstanding between the two sides.

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<sup>31</sup> Qatar-US Relations, "33rd GCC Supreme Council Press Conference: Special Report," December 25, 2012. <http://qatarus.com/2012/12/25/33rd-gcc-supreme-council-press-conference/>

Concerning the negotiations between the 'Five Plus One' group and Iran on the latter's nuclear program, Sheikh Khalid Al Khalifa said that 'if the talks are about the region, we are the region, and we need to know hidden things.'

On the nuclear negotiations, Sheikh Al Khalifa wished them success and that the two sides may reach an agreement to spare the region the scourges. In this regard, he also said that 'If you look at the language of the final statement issued earlier today by the summit, you will find a new language added to it, we want the Iranian program to be transparent and clear after international news on some of its risks.'

Answering a question on the Iraqi situation, the Foreign Minister of Bahrain said 'Ties with Iraq included in the final statement, and the relationship should be strong and the situation in Iraq now is not the optimal one.'

### *Areas of Growing Cooperation*

The Arab Gulf states have also made progress in security cooperation in spite of their divisions. One early effort was the creation of a Peninsula (Jazeera) Shield Force, which was formed in 1984, and is described as a "collective defence force" under the GCC.<sup>32</sup> It was established after Iran went on the offensive in the Iran-Iraq War.

The Peninsula (Jazeera) Shield Force had serious political and military limitations that ensured it had only token value during the effort to liberate Kuwait. It did, however, provide the shell for more recent collective security action. It was the cover for the force contingents from Saudi Arabia, the UAE, and Qatar,<sup>33</sup> as well as the Kuwaiti Navy deployed to help Bahrain deal with its political upheavals in 2011.<sup>34</sup> It expanded to a nominal strength of nearly 40,000 in 2002-2003. It continues to be based base at the King Khalid Military City in Saudi Arabia, near Hafar al Batin. In practice, however, its readiness remains low and much of its assigned strength is missing or remains in its parent country.

Other security initiatives have included the "'Belt of Cooperation' air space monitoring network"<sup>35</sup> and a 2004 agreement on "intelligence-sharing."<sup>36</sup> Neither has made the needed levels of progress, but they have helped lay the ground work for further cooperation.

The GCC has also made progress in economic internal security. It launched a common market in 2008, and has considered establishing a common currency. A customs union

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<sup>32</sup> "Profile: Gulf Co-operation Council," *BBC News*, last updated February 15, 2012. [http://news.bbc.co.uk/2/hi/middle\\_east/country\\_profiles/4155001.stm](http://news.bbc.co.uk/2/hi/middle_east/country_profiles/4155001.stm)

<sup>33</sup> "Chapter Seven: Middle East and North Africa," in *The Military Balance: 2012*, International Institute for Strategic Studies, 2012. p. 307.

<sup>34</sup> Kenneth Katzman, *Kuwait: Security, Reform, and U.S. Policy*, Congressional Research Service, June 20, 2012. p. 20.

<sup>35</sup> Christopher M. Blanchard and Richard F. Grimmett, *The Gulf Security Dialogue and Related Arms Sale Proposals*, Congressional Research Service, October 8, 2008. p. 3.

<sup>36</sup> "Profile: Gulf Co-operation Council," *BBC News*, last updated February 15, 2012. [http://news.bbc.co.uk/2/hi/middle\\_east/country\\_profiles/4155001.stm](http://news.bbc.co.uk/2/hi/middle_east/country_profiles/4155001.stm)



was launched in 2003, but has reportedly made only a marginal impact.<sup>37</sup> It also has slowly improved cooperation in intelligence and counterterrorism through a network of different committees and coordinating bodies and sharing of intelligence and security data.

Furthermore, the GCC may be expanding. Yemen became associated with some GCC institutions and is tentatively seeking membership in 2015. Jordan requested to join the GCC in 1986, and its request was accepted in May 2011, and Morocco was invited to join – sending ministers to the GCC for the first time in September 2011.

### ***Arab Gulf State Security Cooperation with the US, the UK, and France***

This search for interoperability and integration is also being aided by the growing partnership between the Arab Gulf, the US, the UK, France, and other outside powers. Their combined ability to deter and defend against Iran and any other military threat in the region has already eased the challenge the GCC faces. While the UK and France have played a key role in such efforts, the US has often taken the lead.

**Figure Fifteen** shows the scale of the US military partnership with the Arab Gulf states. It understates the level of outside support because it does not include the important role that the UK and France play as additional partners in the Gulf and in the region, but it does provide a case study that highlights the fact the GCC can draw upon outside allies as well as outside institutions like NATO.

The US, for example, has strongly encouraged the efforts of the Arab Gulf states and the GCC to strengthen regional security and stability. The GCC and Washington established a Gulf Security Dialogue (GSD) in 2006. This initiative is based on developing GCC member militaries as well as addressing sensitive issues like the Arab-Israeli conflict, terrorism, proliferation, Iraqi security, and building “interoperability” between regional defense forces.<sup>38</sup>

High-level interactions take place at the assistant secretary level of the State and Defense Departments, with lower-level interactions involving the same agencies as well as the National Security Council, USCENTCOM, and the Joint Staff. The US has used the dialogue to help the Arab Gulf states build the means to defend themselves, as well as to protect energy industry assets in the region.<sup>39</sup>

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<sup>37</sup> “Profile: Gulf Co-operation Council,” *BBC News*, last updated February 15, 2012. [http://news.bbc.co.uk/2/hi/middle\\_east/country\\_profiles/4155001.stm](http://news.bbc.co.uk/2/hi/middle_east/country_profiles/4155001.stm)

<sup>38</sup> Christopher M. Blanchard and Richard F. Grimmett, *The Gulf Security Dialogue and Related Arms Sale Proposals*, Congressional Research Service, October 8, 2008. Summary page.

<sup>39</sup> Christopher M. Blanchard and Richard F. Grimmett, *The Gulf Security Dialogue and Related Arms Sale Proposals*, Congressional Research Service, October 8, 2008. p. 2-3.

More recent US-GCC interactions have been focused on security issues like developing a Gulf missile defense system to protect the region against missile attacks from Iran. According to former US Secretary of State Hillary Clinton:<sup>40</sup>

We can do even more to defend the Gulf through cooperation on ballistic missile defense... Sometimes to defend one nation effectively you might need a radar system in a neighboring nation... But it's the cooperation – it what they call 'interoperability' – that we now need to really roll up our sleeves and get to work on.

This initiative has helped lead to the sale of THAAD and Patriot systems from the US to GCC states; launching an X-band radar in Qatar; and the development of command, control, and communications (C3) capabilities within the GCC.<sup>41</sup>

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<sup>40</sup> Thom Shanker, "U.S. and Gulf Allies Pursue a Missile Shield Against Iranian Attack," *New York Times*, August 8, 2012. <http://www.nytimes.com/2012/08/09/world/middleeast/us-and-gulf-allies-pursue-a-missile-shield-against-iranian-attack.html>

<sup>41</sup> Thom Shanker, "U.S. and Gulf Allies Pursue a Missile Shield Against Iranian Attack," *New York Times*, August 8, 2012. <http://www.nytimes.com/2012/08/09/world/middleeast/us-and-gulf-allies-pursue-a-missile-shield-against-iranian-attack.html>

## Figure Fifteen: The US Military Role in Support of the Arab Gulf States

### Bahrain

**Bahraini Military:** Bahrain retains the smallest military force in the GCC at approximately 8,200 active duty troops, many of whom are apparently noncitizens from South Asia. The Bahraini force employs a small fleet of American-made F-5s and F-16s; an American-made frigate; a number of coastal patrol vessels and amphibious landing craft; transport and attack helicopters; and two batteries of air defense missiles. Twice, in 2008 and 2010, the Bahraini military assumed command of Combined Task Force-152, and in 2009, they deployed 100 police officers on a 2-year rotation to Afghanistan—the only other GCC country besides the UAE to make such a commitment. Bahrain has also deployed its American-built frigate in support of US operations in the Gulf. However, the Kingdom remains dependent on the United States and its GCC allies for external – and, as 2011 proved, internal – security. Bahraini forces leverage US expertise during joint exercises such as Neon Response, a November 2011 bilateral engagement that facilitated explosive ordnance and disposal training. Bahrain is cautious when it comes to Iran, alleging that Iran and Lebanese Hezbollah continue to support anti-government opposition groups. Bahrain has sentenced Iranians and Bahrainis to prison for spying on behalf of the IRGC.

**US Military Presence:** The United States security relationship with Bahrain dates back to 1948, with the establishment of the Middle East Force, a precursor to today's Fifth Fleet. The US Navy leased part of the former British base in 1971, when Bahrain achieved formal independence. During the Gulf War, Bahrain was home to 17,500 US troops and 250 aircraft. Bahrain signed a defense agreement with the United States in 1991, which still provides US forces extensive access to military facilities; permission to store munitions, and establishes the groundwork for joint military training and exercises. By 1995, the US Fifth Fleet and US Naval Forces Central Command, operating from their headquarters in Bahrain, were managing the Navy's rotationally deployed assets to the Gulf.

Naval facilities in Bahrain, renamed Naval Support Activity, now span 60 acres and house roughly 6,000 military personnel and civilian employees. The Kingdom's ports regularly host US-ported carrier and amphibious battle groups and are the enduring home to US Navy assets such as minesweepers and coastal patrol boats. The US facilities also provide bases for American air superiority and naval surveillance aircraft, and will eventually have the ability to host special operations forces. The United States has made a significant investment in military facilities, commencing a 5-year \$580 million US-funded construction project in 2010. Additionally, Bahrain is the base of international coalitions Combined Task Forces 151 and 152—partnerships dedicated to counter-piracy and maritime security cooperation.

**US Security Assistance and Training:** The largest beneficiary of US grant security assistance among the GCC States, Bahrain is slated to receive approximately \$500,000 in Nonproliferation, Anti-terrorism, Demining, and Related assistance (NADR); \$700,000 in International Military Education and Training (IMET); and \$10 million in Foreign Military Financing (FMF) in fiscal year 2012. Bahrain agreed to purchase close to \$91 million in US defense equipment and training through Foreign Military Sales in fiscal year 2010, and in fiscal year 2011, it was granted US Excess Defense Articles (EDA) worth more than \$55 million. The US has sold short-range and hand-held air defense systems; lack of Bahraini funds has prevented America from selling an integrated air defense network, leaving Bahrain outside the advanced SAM system being developed in the Gulf.

Training has also been a significant component of US security assistance to Bahrain. In fiscal year 2010, 253 students were trained in competencies such as maritime security, leadership, maintenance, and counterterrorism at a value of \$2.8 million. Since 2000, US military sales to Bahrain have totaled \$1.4 billion, including training and surplus equipment. US arms deals since 2011 have encountered domestic opposition, stemming from allegations regarding the Bahraini military's behavior during its crackdown during the Arab Spring.

### Kuwait

**Kuwaiti Military:** The Kuwaiti military has taken the lessons of 1990 to heart, making great strides toward modernizing its force. It improved substantially in missile defense, regularly competing against US-manned Patriot batteries in training simulations, and has developed a professional officer corps and improved all-

around readiness. However, the small combined Army, Navy, and Air Force – close to 15,500 active duty troops – still relies on US assistance in sustainment, logistics, maintenance, and intelligence fusion, and is only capable of deterring its larger neighbors through its US alliance. To improve its capabilities, the Kuwaiti military is a willing recipient of US training. In the words of one US military officer, “their appetite for partnership exceeds our ability to provide it.” Kuwait has also increasingly demonstrated a willingness to participate in international coalitions. In 2012, ahead of their regularly scheduled rotation, Kuwait assumed the lead of Combined Task Force-152; a 25-nation coalition dedicated to maritime security operations in the Gulf. Even though Kuwait and Iran recently upgraded diplomatic relations to the ambassadorial level, a high degree of mistrust remains due to several high-profile cases of espionage linked to the IRGC and MOIS.

**US Military Presence:** A US-Kuwaiti defense agreement signed in 1991 and extended in 2001 provides a framework that guards the legal rights of American troops and promotes military cooperation. When US troops departed Iraq at the end of 2011, Kuwait welcomed a more enduring American footprint. Currently, there are approximately 15,000 US forces in Kuwait, but the number is likely to decrease to 13,500. Kuwaiti bases such as Camp Arifjan, Ali Al Salem Air Field, and Camp Buehring offer the United States major staging hubs, training ranges, and logistical support for regional operations. US forces also operate Patriot missile batteries in Kuwait, which are vital to theater missile defense.

**US Security Assistance and Training:** Kuwait has procured major weapon systems from the United States including M1A2 tanks, Patriot air-defense missile systems, and F/A-18 fighter aircraft. In fiscal year 2010, Kuwait agreed to purchase \$1.6 billion of defense articles and services through the Foreign Military Sales program, with an additional \$4.7 billion arms sales notified to Congress in 2011 and 2012. Kuwait is not a recipient of US grant assistance such as International Military Education and Training (IMET). However, through the Foreign Military Sales program in fiscal year 2010, 216 Kuwaiti military students were educated in proficiencies from intelligence to pilot training at a value of \$9.7 million. Moreover, the Kuwaiti Government often uses its national funds to send officials to attend professional military schools and short-term training courses in the United States.

## Oman

**Omani Military:** Numbering approximately 43,000, the Omani military is the third-largest among GCC states. Although it has not experienced live combat recently, it remains an effective force, with particularly strong airlift and sealift capabilities. With its historical ties to the British, much of the Omani military inventory comes from the United Kingdom. However, Oman’s forces are increasingly looking for American equipment and training. For example, in 2012, US Army forces teamed with the Royal Army of Oman during a 2-week training exercise – Inferno Creek – that focused on infantry tactics at the squadron and platoon level. Oman remains the Gulf state with the strongest ties to Iran, using its friendly relations to help secure the release of imprisoned American hikers and staging a joint exercise with Iran in 2011. While it has an agreement with Iran to cooperate in joint military exercises, Oman remains closely tied to the US as a bulwark against regional instability.

**US Military Presence:** Oman formalized defense ties with the United States – the first Gulf country to do so – after the 1979 Iranian Revolution. It was from the Omani air base on Masirah Island in 1980, that the Carter administration staged a failed attempt to rescue American hostages held in Iran. During the 1980’s Iran-Iraq War, US forces used Omani installations as a base for maritime patrol and tanker support. In the early stages of Operation Enduring Freedom in Afghanistan, over 4,000 American troops and critical equipment, including a B-1 bomber aircraft, were positioned in Oman. A 2010 security agreement permits the United States to retain a small military footprint and grants US forces access, with advanced notice and for specialized purposes, to military facilities in Masirah, Muscat, and Thumrait, as well as allowing the US to pre-stage munitions at these facilities. Starting in 2011, the US has begun shifting its forces to a fourth air base at Musnanah, which would allow it to reduce its public footprint in Oman. In addition to the US presence, there is a British force at Goat Island (Jazirat al-Ghanam) at the tip of Oman’s Gulf Peninsula. This base provides a local coordination and information-gathering center close to the shipping route.

**US Security Assistance and Training:** Oman, unlike most of its Gulf partners, is a recipient of US grant security assistance, albeit at modest levels. In fiscal year 2012, the US committed approximately \$1.5 million in Non-Proliferation, Anti-Terrorism, Demining, and Related (NADR) funds, \$1.65 million in

International Military Education and Training (IMET) assistance, and approximately \$8 million in Foreign Military Financing (FMF) to Oman. FMF money has primarily gone towards counter-narcotics, counter-smuggling, and other coastal surveillance equipment, while it has obtained some 30 tanks through an Excess Defense Articles (EDA) grant.

Compared to its GCC counterparts, Oman has historically procured fewer US weapons systems. In fiscal year 2010, Oman agreed to purchase \$13.9 million in defense articles and services through the Foreign Military Sales program. However, a number of larger potential transfers were notified to Congress in 2010 and 2011 with a more significant price tag and a more robust support and training package. These agreements include missile components of a ground-based integrated air defense system along with air-to-air missiles totaling \$1.3 billion and new acquisitions of F-16 fighter aircraft for as much as \$3.5 billion.

The Sultanate's forces are regular participants in US training evolutions. The Royal Air Force of Oman hosts exercises with the US Navy and Air Force, and there is a possibility the Omanis will participate in advanced airborne combat exercises held in the United States. In fiscal year 2010, 291 Omani military students were trained through US security cooperation programs in intelligence, leadership, logistics, procurement, maritime security, and counter-terrorism at a value of \$2.8 million.

## **Qatar**

***Qatari Military:*** Qatar maintains a small but professional military force. With 11,800 active duty troops, it retains the second smallest active duty military in the GCC. Qatar lacks an integrated air defense system, and with a small fleet of aging coastal combatants and fighter aircraft it relies on American capabilities for its self-defense. Although its officers are well regarded, a military career is not highly sought after by Qatari youth. In an attempt to make military service more attractive, the officer corps recently received a pay increase of 120 percent. Qatar has demonstrated a willingness to operate in the coalition environment.

After natural disasters in Haiti and Pakistan, Qatar was among the first to deploy humanitarian supplies aboard its American-made C-17s. Its weapons are often out of date (with the exception of fighter aircraft and missile forces), limiting its ability to integrate into a broader Gulf defense force, and recently it has focused more on training and developing bases than acquiring new equipment. In addition to supplying \$400 million to arm and train the Libyan resistance, Qatar provided Special Forces to lead the rebels in their August 2011 assault on Tripoli. Although Qatari fighter jets played a nominal part in air operations over Libya, one US military official described Qatar's overall political and military contribution to the Libya effort as "nothing short of decisive." Qatar has taken a neutral approach when it comes to Iran, offering on occasion to serve as an intermediary between Iran and the United States.

***US Military Presence:*** In the aftermath of the liberation of Kuwait in 1991, Qatar granted US forces substantial access to its military facilities. The following year, the two countries solidified their defense relationship by signing a cooperation agreement. Qatar invested \$1 billion in the 1990s to expand Al Udeid Air Base. Now, with its 15,000-foot runway and considerable store of war reserve material, it is a critical logistical hub for regional operations. Although Qatar subsidizes much of the American presence, the United States has also invested in Qatar's security infrastructure. From 2003 to 2010, Congress authorized over \$394 million for military construction projects. Home to approximately 7,500 American troops, Qatar is the forward deployed base of the US Central Command and the Combined Air and Space Operations Center (CAOC). At the CAOC, US military officials manage airspace authority, air defense, electronic warfare, and personnel recovery in 20 regional countries, including Afghanistan.

***US Security Assistance and Training:*** Qatar has traditionally relied on the French for its military equipment, but as the relationship with the United States develops, it is increasingly willing to procure American-made weapons including fighter aircraft and missile defense systems. In fiscal year 2010, Qatar agreed to purchase \$16.8 million in US defense goods through the Foreign Military Sales program. In 2011 and 2012, Congress was notified that Qatar planned to buy an additional \$6 billion worth of helicopters and heliborne weaponry. Sensitive to what they perceive as costly administration fees, Qatar has been more inclined to acquire military equipment through the Direct Commercial Sales program although, with improved bilateral government-to-government relations, there are indications that this trend may be changing.

In fiscal year 2010, Qatar educated 205 students through US military training programs, 35 percent of whom participated in programs through Foreign Military Sales at a value of \$5.8 million. Qatar also spent a significant amount of its national funds to provide US training for students in skills from operational planning to leadership.

## **Saudi Arabia**

***Saudi Military:*** The Saudi military is by far the largest within the GCC, numbering approximately 233,500 active-duty troops. The Saudi Arabian National Guard is a separate military force and a pillar of the regime, recruited predominantly from tribes loyal to the royal family and numbering over 100,000 members. Since the fall of Saddam, the Saudi military is the Gulf region's strongest geo-political counterweight to Iran, though the Kingdom has not historically sought to project conventional military force outside the Arabian Peninsula. Despite employing some of the most advanced equipment in the region—Patriot missile defense batteries, Typhoon and F-15SA fighter aircraft, airborne refueling capability, M1A2 Abrams tanks, and AH-64 attack helicopters—the Saudi military continues to face challenges developing proficiency in defense planning and sustainment. In particular, while the armed forces are well deployed and equipped for territorial defense, they are poorly configured for overseas operations. The air force concentrates on fighter aircraft and anti-air missile capabilities, the navy is dominated by coastal craft, and the army is primarily emplaced to protect the periphery; there is neither the capacity nor training experience for expeditions. Saudi Arabia has been Iran's greatest rival in the region since the 1979 Islamic Revolution. Their competition has often been tense, strained by the close U.S.-Saudi relationship and a steady stream of Iran-sponsored terrorist attacks such as the Khobar Towers bombing in 1996.

***US Military Presence:*** Although the United States maintained a troop presence in Saudi Arabia prior to the Gulf War, the deployment reached its zenith in 1991, with over 550,000 coalition forces mobilized in support of operations in Iraq. From 1992–2003, US forces continued to maintain a residual footprint in Saudi Arabia, but in August 1996, Osama bin Laden declared war against the United States in the Kingdom. Subsequently, US forces were victims of significant terrorist attacks.

Sensitive to perceptions of an overt American military presence in “the Land of the Two Holy Mosques,” US personnel and combat equipment were withdrawn from Saudi soil by the end of 2003. Now security cooperation is facilitated by a relatively small contingent of US military officers and contractors who work with the Saudi Ministry of Defense, Ministry of Interior, and the Saudi Arabian National Guard.

***US Security Assistance and Training:*** Despite the sometimes strained relationship, Saudi Arabia remains a major recipient of US security assistance. In fiscal year 2010, Saudi Arabia agreed to over \$2 billion in US Foreign Military Sales and \$409 million in Foreign Military Construction Agreements. From 2007 to 2010, Saudi Arabia agreed to purchase \$13.8 billion in US defense articles and services—more than any other nation in the world. These acquisitions included some of the most technologically advanced weapon systems available for export. In 2010, the Obama administration announced the potential sales of UH-60 Blackhawk and AH-64 Apache helicopters.

In December 2011, the administration announced that it had agreed to a foreign military sale with Saudi Arabia consisting of 84 F-15SA fighter aircraft, upgrades to its existing fleet of 70 F-15s, and a significant air-to-air and air-to-ground ordnance package. The sale, worth \$29 billion, is the largest to a single recipient in the history of the United States. Although Congress did not block the sale, 198 Members wrote the administration in November 2010 to express concern over how the transfer of such sophisticated arms would impact the regional security balance. This transaction was supplemented by a further \$30 billion sale of other aviation equipment for the Saudi Air Force, Land Forces, and National Guard, upgrading their aviation technology to that currently in use by the United States.

In fiscal year 2010, 1,571 Saudi students were trained at a value of \$69.5 million in such competencies as maintenance, English language, communications, logistics, financial management, and intelligence through US security cooperation programs.

Ninety-four percent of the students were trained through the Foreign Military Sales programs. In past years, the Saudi Air Force has also participated in joint training such as Red Flag—a massive air combat exercise—at Nellis Air Force Base in Nevada.<sup>28</sup> Saudi Arabia has at times received a nominal amount of

International Military Education and Training (IMET) assistance, typically \$10,000 or less, so that it can qualify for reduced pricing on US training associated with Foreign Military Sales.

A May 2008 US-Saudi technical cooperation agreement laid the groundwork for collaboration on critical infrastructure protection and border and maritime security. The agreement facilitated the Saudi's purchase of US technical support through government contractors or US private entities. The US Central Command has also reportedly worked with Saudi Special Forces to improve their ability to protect oil infrastructure and future energy sites.

## UAE

**Emirati Military:** With approximately 51,000 active duty troops, the UAE's military capabilities are second to none in the region. US military officials assert that operators of the UAE Hawk surface-to-air missile system are "on par with their US counterparts", that UAE fighter pilots are "combat ready," and that overall they are the "Spartans of the Gulf." The UAE, which has NATO observer status, dedicated two squadrons of fighter aircraft to operations in Libya. In addition to the important statement made by the commitment, the UAE pilots proved to be capable tacticians and contributed to coalition air-to-ground strike operations, with experts evaluating them as the most proficient non-European air force in that operation and the ICMEX. The UAE also retains a 250-troop contingent in Afghanistan dedicated to security, humanitarian aid, and development. It possesses both Patriot-3 and Terminal High-Altitude Air Defense (THAAD) weapons systems, giving it the most advanced missiles coverage of any state in the Gulf. Despite a number of recent setbacks and a strained US-Afghanistan relationship, the UAE is poised to assume additional responsibilities in support of coalition efforts. Iran and the United Arab Emirates have enjoyed strong commercial relations and the Iranian population in the UAE is one of the largest in the Middle East. Nevertheless, they have differed at times over Iran's support of Shia minorities in Bahrain, Iran's nuclear program, and their longstanding dispute over control of three islands in the Gulf – the Greater and Lesser Tunbs and Abu Musa.

**US Military Presence:** The UAE first turned to the United States as a guarantor of security during the 1991 Gulf War with Iraq. In 1994, the UAE signed a bilateral defense pact with the United States that outlined a status of forces agreement and laid the groundwork for increased defense cooperation.

The relationship has since flourished, with the UAE's installations now home to a sizable US footprint of almost 3,000 troops. The Emirates directly support much of the American presence by subsidizing facilities expansion and upgrades. More US Navy ships visit the port at Jebel Ali, which can handle vessels up to the size of nuclear carriers, than any other port outside the United States, and Al Dhafra Air Base retains US fighter, attack, and reconnaissance aircraft. Like a number of other GCC States, the UAE also hosts US Patriot missile batteries, and its airfields were upgraded in the early 2000s to support US operations in Iraq.

**US Security Assistance and Training:** The UAE is a major recipient of US defense equipment, having purchased in recent years F-16 fighter jets, Apache attack helicopters, Patriot and Terminal High Altitude Area Defense (THAAD) missile systems, and a bevy of advanced munitions. From 2007 to 2010, the UAE agreed to acquire more US defense articles and services through the Foreign Military Sales program—\$10.4 billion—than any other country in the world with the exception of Saudi Arabia.

The purchase of US weapons systems also contributes to the training of Emirati military students. In fiscal year 2010, 359 students were trained at a cost of \$19.3 million through US security cooperation programs—96 percent of whom received their training as part of the Foreign Military Sales program.

At the Air Warfare Center in Al Dhafra, the UAE and US forces conduct extensive training exercises focused on command and control, early warning, air and missile defense, intelligence, and logistics. Biannually, the UAE hosts an advanced aviation seminar in offensive and defensive tactics, which includes two weeks of academics and four weeks of flying. There are 7 participating nations, 42 fighter aircraft platforms, and 3 helicopter types, facilitated by US and French refueling, command, communications, and control assets. Graduates of the course include Qatari, Emirati, and Jordanian pilots.

The UAE is also host to the Integrated Air Missile Defense Center, the region's premier training facility of its kind. It not only facilitates US-UAE interoperability but also US-GCC coalition building. The United States and the GCC train in advanced tactics against ballistic missile, cruise missile, and airborne threats. In

October 2011, for the first time, the GCC states participated in Falcon Shield, an integrated missile defense exercise with the United States.

The UAE has also hosted the Eagle Resolve multilateral exercise, which utilizes state of the art laboratory facilities to train participants in chemical, biological, and radiological defense and border security. The head of Central Command, General James Mattis said, “Eagle Resolve will allow us to operate together as a team—it brings the US forces an opportunity to learn from our Gulf partners and they from us in this regard, practicing how we will protect the region’s populations if threatened.”

Source: This table is excerpted and adapted from a Majority Staff Report of the Senate Foreign relations Committee, *The Gulf Security Architecture: Partnership with the Gulf Cooperation Council*, June 19, 2012



## Making Effective Use of Vastly Superior Resources

Much depends, however, on actions only the Southern Gulf states can take. Only the Arab Gulf states can deal with their own internal political, demographic, economic, and social challenges. There is a clear need for the kind of efforts called for by King Abdullah of Saudi Arabia and in recent GCC ministerial meetings for more military integration, interoperability, and cooperation. It has been clear since the GCC was formed that each nation in the council could benefit from creating more interoperable forces as well as integrated warning, IS&R, and command tailored to the key missions necessary to meet the security needs of all the GCC states.

Moreover, only the Arab Gulf states can make their national security spending and arms imports more efficient and create economies of scale, interoperable forces, and integrated battle management and IS&R systems. They also have all of the resources necessary to do so *if* they use them more effectively. While some media and analysts keep talking about Iran as the “hegemon of the Gulf,” and while outside powers like the US face growing financial pressure on their power projection capabilities, the Arab Gulf states have a vast lead in resources as well as in advanced military equipment.

**Figure Sixteen** shows the comparative level of military expenditures in the Gulf region, and it does not include some key non-Gulf states like Turkey and Jordan. This figure shows that the GCC countries have collectively spent more than five times as much on military forces as Iran and that Saudi Arabia alone spent nearly four times as much.

**Figures Seventeen and Eighteen** show the pattern of arms imports over the last ten years, and these data do not reflect the fact that the Arab Gulf states still have more than \$40 billion in existing orders awaiting delivery while Iran has made almost no major orders in recent years and its domestic military production continues to lag far behind its originally stated goals.

- **Figure Seventeen** shows the Arab Gulf lead over Iran in new arms import agreements of 14.5:1 (\$30.5 billion for the GCC vs. \$2.1 billion for Iran) during 2004-2007 and 252:1 (\$75.6 billion for the GCC vs. for \$300 million Iran) during 2008-2011.
- **Figure Eighteen** shows the GCC states imported 25 times more arms than Iran (\$22.6 billion for the GCC vs. \$900 million for Iran) during 2004-2007 than Iran and 79.5 times (\$15.9 billion for the GCC vs. \$200 million for Iran) as many during 2008-2011.

For all the talk of a “pivot to Asia,” the new US strategy gives the same priority to the Middle East as Asia. **Figure Seventeen** shows the US increased its new arms agreements with GCC states by over eight times between 2004-2007 and 2008-2011. Saudi Arabia made the most drastic increases, with a nine-fold increase in 2008-2011 vs. 2004-2007. Kuwait, Oman, the UAE, and Qatar have also experienced considerable growth in weapons imports from the US.

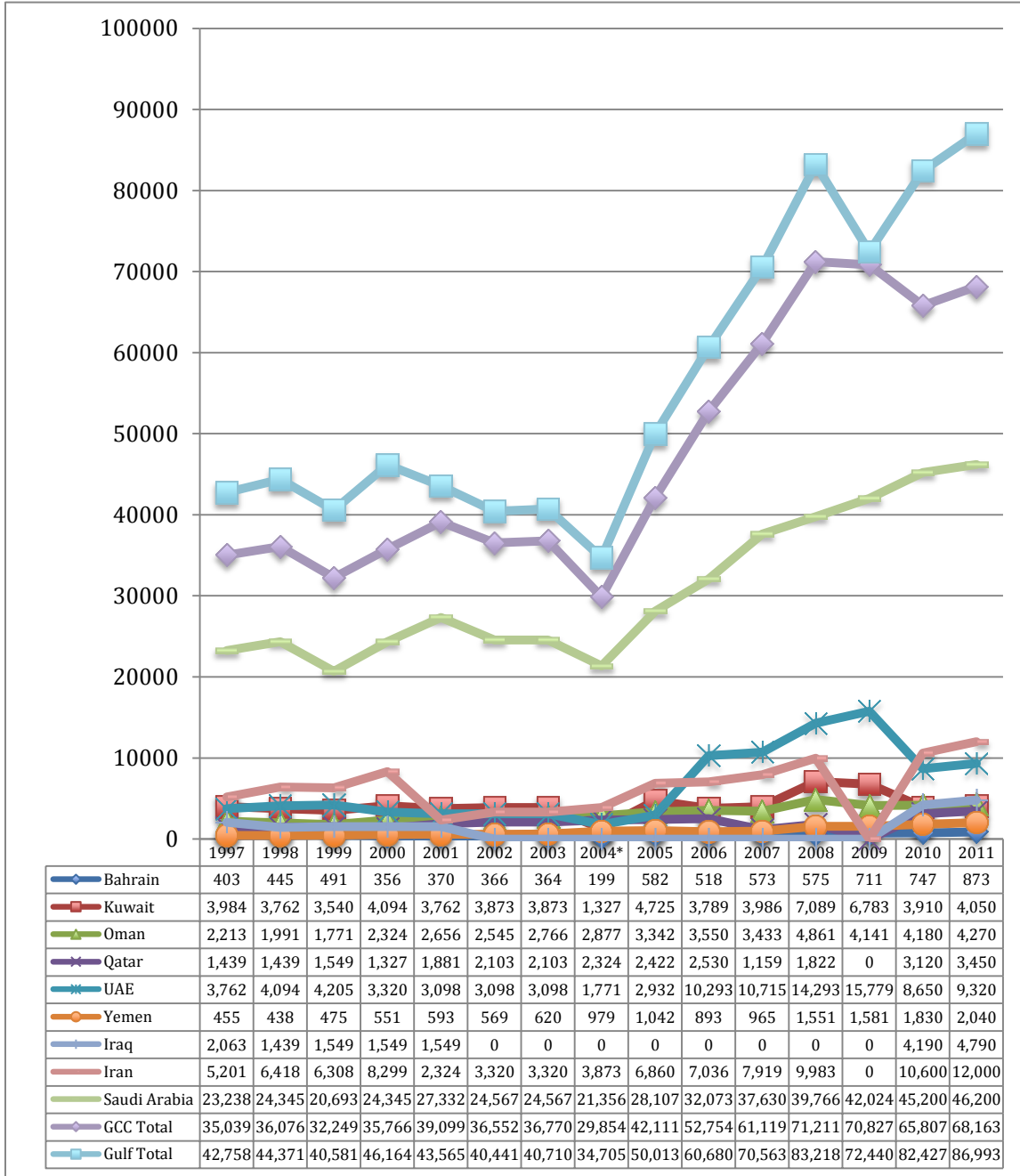
Reductions in US ground forces in Iraq have limited meaning at a time when the key threat to the Arab Gulf states is a terrorist-air-sea-ballistic missile-nuclear threat; where US air, naval, and counterterrorism forces and rapid deployment capabilities remain strong; and where US commands like the Fifth Fleet in Bahrain and the CAOC in Qatar give the US the ability to integrate its operations directly with Arab Gulf forces. The air-

sea-cruise missiles-missile defense components of the US commitment to the security of the Arab Gulf states have become steadily more capable as the Iranian asymmetric and missile threat and the prospect of Iranian nuclear weapons has become more threatening.

This means the Arab Gulf states have enormous potential to use their superior financial resources to create a dominant structure of deterrence and defense – reinforced by the US, the UK, and France – if they spend more wisely. Every step forward within the context of the GCC in interoperability and integration will help in achieving this objective. So will a focus on sustainable and mission-oriented procurement and force development, rather than a “glitter factor” competition to buy the most advanced weapons system possible regardless of mission priority and the ability to operate and sustain an integrated mix of systems and forces in combat.

It also shows that the new momentum provided by the Riyadh Declaration creates an opportunity to move forward in a wide range of critical security areas, particularly if the GCC builds on the experience of alliances like NATO where “unity” serves common interests while preserving individual national forces and sovereignty. While no outsider can do more than provide ideas that the GCC and member states may well already be examining or have underway, the following ideas at least illustrate the kind of progress the Arab Gulf states and the GCC can make.

**Figure Sixteen: Comparative Spending on Military Forces**



Source: Adapted from various editions of the IISS, **Military Balance**; and the Jane's Sentinel series

**Figure Seventeen: New Arms Transfer Agreements in Millions of Current US Dollars**

Recipient Country	U.S.	Russia	China	Major West European <sup>a</sup>	All Other European	All Others	Total
<b>2004-2007</b>							
Algeria	0	6,500	400	200	0	0	7,100
Bahrain	400	0	0	100	0	0	500
Egypt	4,400	400	300	0	300	0	5,400
Iran	0	1,600	300	0	100	100	2,100
Iraq	1,100	100	100	200	600	200	2,300
Israel	1,800	300	0	1,500	0	0	3,600
Jordan	700	200	100	0	300	0	1,300
Kuwait	1,000	0	0	0	0	0	1,000
Lebanon	0	0	0	0	0	0	0
Libya	0	200	0	600	200	0	1,000
Morocco	0	200	0	400	100	0	700
Oman	100	0	0	2,100	0	0	2,200
Qatar	0	0	0	0	0	100	100
Saudi Arabia	5,000	0	800	16,900	800	100	23,600
Syria	0	5,700	500	0	100	600	6,900
Tunisia	0	0	0	0	0	0	0
U.A.E.	1,400	300	100	1,100	200	0	3,100
Yemen	0	200	0	0	100	100	400
<b>2008-2011</b>							
Algeria	0	2,100	200	800	100	0	3,200
Bahrain	400	0	0	0	0	0	400
Egypt	7,400	500	600	100	300	0	8,900
Iran	0	100	0	0	100	100	300
Iraq	4,800	300	0	500	900	200	6,700
Israel	5,900	0	0	0	0	0	5,900
Jordan	1,500	0	0	0	100	0	1,600
Kuwait	2,500	700	0	0	0	0	3,200
Lebanon	300	0	0	0	0	200	500
Libya	0	100	0	700	200	0	1,000
Morocco	2,700	0	500	1,000	900	0	5,100
Oman	1,500	0	0	200	0	0	1,700
Qatar	200	0	0	800	0	0	1,000
Saudi Arabia	45,600	0	0	5,300	1,100	100	52,100
Syria	0	1,700	200	0	0	100	2,000
Tunisia	100	0	0	0	0	0	100
U.A.E.	14,300	100	0	1,600	1,100	100	17,200
Yemen	0	100	0	0	300	100	500

**Notes:** 0=data less than \$50 million or nil. All data are rounded to the nearest \$100 million.

a. Major West European category includes France, United Kingdom, Germany, and Italy totals as an aggregate figure.

Source: Richard F. Grimmett and Paul K. Kerr, *Conventional Arms Transfers to Developing Nations, 2004-2011*, Congressional Research Service, August 24, 2012. p. 44, 45. "0" represents any value below \$50 million.

**Figure Eighteen: New Arms Deliveries in Millions of Current US Dollars**

Recipient Country	U.S.	Russia	China	Major West European <sup>a</sup>	All Other European	All Others	Total
<b>2004-2007</b>							
Algeria	0	900	200	0	0	0	1,100
Bahrain	200	0	0	100	0	0	300
Egypt	5,700	300	400	0	400	0	6,800
Iran	0	500	200	0	0	200	900
Iraq	200	100	0	100	300	100	800
Israel	5,700	100	0	0	0	0	5,800
Jordan	600	100	0	0	0	0	700
Kuwait	1,500	0	0	0	0	0	1,500
Lebanon	0	0	0	0	0	0	0
Libya	0	200	0	0	200	0	400
Morocco	100	100	0	0	0	100	300
Oman	700	0	0	300	0	0	1,000
Qatar	0	0	0	0	0	0	0
Saudi Arabia	4,300	0	200	9,900	100	100	14,600
Syria	0	500	300	0	0	300	1,100
Tunisia	0	0	0	0	0	0	0
U.A.E.	600	200	0	4,000	400	0	5,200
Yemen	0	400	0	0	100	100	600
<b>2008-2011</b>							
Algeria	0	4,700	400	300	0	0	5,400
Bahrain	0	0	0	0	0	0	0
Egypt	3,900	300	400	0	200	0	4,800
Iran	0	200	0	0	0	0	200
Iraq	2,600	300	0	300	100	100	3,400
Israel	3,800	200	0	0	0	0	4,000
Jordan	900	100	100	0	300	0	1,400
Kuwait	1,300	100	100	0	0	0	1,500
Lebanon	200	0	0	0	0	100	300
Libya	0	100	0	300	0	0	400
Morocco	1,000	0	500	200	400	0	2,100
Oman	200	0	0	500	0	0	700
Qatar	0	0	0	200	0	0	200
Saudi Arabia	5,900	0	700	3,300	300	0	10,200
Syria	0	2,000	400	0	100	200	2,700
Tunisia	0	0	0	0	0	0	0
U.A.E.	2,000	300	100	600	300	0	3,300
Yemen	0	100	0	0	200	100	400

Notes: 0=data less than \$50 million or nil. All data are rounded to the nearest \$100 million.

a. Major West European category includes France, United Kingdom, Germany, and Italy totals as an aggregate figure.

Source: Richard F. Grimmett and Paul K. Kerr, *Conventional Arms Transfers to Developing Nations, 2004-2011*, Congressional Research Service, August 24, 2012. p. 58 ,59. "0" represents any value below \$50 million.

## **Further Efforts to Strengthen Interoperability, Integration, and the GCC**

The most serious challenge the GCC and national security planners face in moving forward is the political will of member states and their leaders. Various officials and officers in the GCC staff – and in member country militaries, ministries of defense, ministries of the interior, and other national agencies – have pushed for more effective integration and interoperability since the GCC was founded in the 1980s. Responsibility for delays, failure, and waste does not lie in Arab Gulf country militaries or bureaucracies. It exists at the head of state level.

It is important, however, to consider what tangible steps would be most important and what could achieve the most success in moving the Arab Gulf states and the GCC forward toward greater collective security.

### ***Planning and Interoperability***

GCC military forces now have a very diverse mix of equipment, command and control (C2) systems, munitions, support facilities, and power projection capabilities. They cannot be easily and quickly made fully interoperable, and countries will preserve sovereign decision making authority.

One way to make steady improvements in interoperability is to set up civil-military planning staffs within the GCC that address the key tasks necessary to change this situation, and to report regularly to a committee of ministers of defense or their delegates.

NATO has used somewhat similar methods. While the GCC has different needs, it could build on its existing efforts and adapt NATO methods as follows to produce a higher degree of unity and common effort:

### **Create a GCC Force Planning Exercise**

One key step would be to create a Defense Planning Committee similar to that in NATO. Such a committee would have ambassadorial rank and act for ministers throughout the year so that progress could occur between ministerial meetings and high-level officials would be able to ensure that issues actually get resolved, and action is actually taken.

Such a body should be given a suitable civil and military professional staff to provide continuity, and the GCC should take steps to create a common defense planning system that would examine each member's current forces and its force plans for the next five years to examine areas where it may be possible. This would require each country to submit such plans on a formal basis and for collective review to determine how to improve mission capability, interoperability, and standardization and how to supplement national command, control, communications, computer, and intelligence (C4I) systems on a GCC-wide basis.

Such a Defense Planning Committee – and any necessary supporting groups – could combine civil and military expertise to support top-level decision makers. It would meet regularly to review the force plans of each nation to find ways to better coordinate them and to create steadily more interoperable forces.

There is a good precedent for such planning. NATO developed a Defense Planning Questionnaire in the 1960s where every member now submits a standard and regularly updated report on its current forces, manpower, major weapons, munitions, and five-year plans – plus a longer-term supplement on procurement. This does not require any compromise of sovereignty, and allows the civilian and military experts to develop informal and formal recommendations to ministers to develop better-integrated plans as well as to make tangible suggestions as to ways to both create more effective force mixes over time, and make forces more interoperable.

### **Create a Standardization and Interoperability Committee and Staff**

The GCC could benefit from creating a similar committee that would meet regularly to focus on ways to develop immediate interoperability, provide common support and sustainability for power projection and redeployment capability, and set common standards for stockpiling and sharing munitions and key supplies. This could be supported by a staff at GCC headquarters and by designating centers of excellence in the defense colleges and centers in member states.

### **Create a Technology and Procurement Committee and Staff**

The GCC should create a Committee to meet regularly to find ways to analyze military technology and procurement needs with a focus on technical issues, test and evaluation methods, and the other aspects of military procurement that would help develop common approaches to acquiring weapons systems and technology. This could be supported by a staff at GCC headquarters and by designating centers of excellence in the defense colleges and centers in member states.

### **Create a Working Group on Arms Control**

The GCC and its member states have supported the creation of a weapons of mass destruction free zone in the Middle East. The GCC might create a small staff to examine such options and play an active role in encouraging studies and diplomatic activity.

### ***Coordinate Logistics, Sustainability, and Readiness***

The greatest single problem in Arab Gulf forces is the lack of emphasis on overall readiness, sustainability, and logistics. A GCC-wide effort to standardize munitions and support activities, and set GCC-wide standards for readiness and logistic stocks – with the necessary reporting systems – would be a major step forward. It would sometimes disclose serious problems, but a system that at worst embarrasses everyone embarrasses no one, and progress would often be quick and easy to achieve.

The key will be as much a shift in attitude as the creation of major new facilities and capabilities. There are times more investment will be needed, new stocks will be required, and more enablers and sustainers will have to be added to force structures. There also, however, could be significant economies of scale from specialization and centralization. Moreover, making existing forces and systems actually perform to standard will lead to major improvements.

### ***Building Common Training and Exercise Capacity***

The GCC states already have some exceptional training facilities at the national level, and do cooperate in military exercises, but there are gaps. Many states do relatively little large-scale training that simulates real combat, and member states still have limited cross and common training. There also is a need for joint training that cuts across service lines.

There are several measures that the GCC staff could examine on a civil-military level to improve cooperation and develop interoperability of the kind King Abdullah referred to in his speech to the GCC:

#### **Survey Training Facilities to determine how to ensure best use on a GCC-wide basis**

The GCC could create a commission of civilian staff and senior military officers to survey training facilities and methods by service and mission focus to determine where creating a common specialized facility is necessary, how to improve joint and common training, ways to increase cross training of officers and other ranks from other countries, and options for large-scale air and land combat training. Such a commission could report annually to ministers on proposals and progress.

#### **Focus on Key Contingencies**

The GCC could encourage expanded field and command post training at the GCC level with a focus on key missions and contingencies like operations to secure the borders with Yemen, deal with efforts to “close the Strait,” and deploy joint forces to deal with a contingency directed against Kuwait and secure the Iraqi-Saudi border.

#### ***Command, Control, Communications, Computer, Intelligence (C4I), Sensor, and Battle Management (BM) Systems***

The GCC has the shell of common or integrated C4I and BM system in some areas like air defense. What it needs now are truly integrated C4I/BM systems in several key areas, and systems tied to common efforts to develop intelligence, surveillance, and reconnaissance (IS&R) systems.

The changes in the Iranian threat and the threat of terrorist and extremist movements creates a broad spectrum of areas where the GCC needs to be able to react in real-time or near-real-time to threats ranging from long-range missiles to asymmetric naval attacks to complex attacks by terrorists and extremists.

The highest priorities for such efforts include measures that could play a critical role in deterring – and defending against – Iran. In many cases, the GCC would have only 7-15 minutes of warning of a major air or missile attack, or would need integrated maritime and air surveillance to determine the status of Iran’s asymmetric forces and whether they were deploying to present a threat or involved in complex operations.

Specific areas for cooperation include:



### **Create a Fully Integrated Air and Surface-to-Air Missile Unit Control and Warning System**

Such a system would integrate sensors like the Saudi E-3A airborne early warning and control (AWAC) aircraft, other GCC airborne warning and intelligence platforms, ground based radars, and fighter and major surface-to-air missile systems into a Gulf-wide, secure mix of C3I, BM, and IS&R capabilities. This could be based on expanding the existing Saudi air control and command facility near Riyadh and links between each GCC country and the US CAOC in Qatar.

As the NATO Air Defense Ground Environment (NADGE) system has shown over past decades, sovereignty and national security issues can be addressed by using the systems that mix national control of all national assets with the ability to operate on an alliance-wide basis of the type of integrated system developed for the NATO NADGE system.

The technical side could be supported by creating a separate technical staff on a contract level controlled by the GCC and military officers. NATO established a NADGE Management Office (NADGEMO) specifically for such an effort, and found it could work out compromises at a technical level that bridged over national tensions and differences

### **Create a Fully Integrated Maritime Surveillance System**

A similar system could integrate C2 data and IS&R sensors and systems for naval operations, related air operations, and coastal defense activity using ships, maritime patrol aircraft, and coastal facilities along the Gulf Coast and in Oman at Goat Island and along the Oman coast. It could monitor and react to threats like the deployment of the naval guards, mining, stack threats near the Strait, and clusters of missile-equipped smaller ships.

Bahrain has already proposed the creation of such a center in Bahrain, which could have close links to the US fleet command in Bahrain, British forces in Oman, and the French facility in the UAE as well as standardized links to US, British, and French ships.

Such a system would need to be tailored to the special conditions of asymmetric warfare created by Iran's submarines, surface navy, and naval guards, and by Iran's growing air and anti-ship missile capabilities. Ideally, it would have some capability to integrate mine warfare operations as well. Coverage could begin in the Gulf, Strait of Hormuz, and Gulf of Oman, but the model could be expanded to cover the Indian Ocean and Red Sea over time.

### **Create a Joint Intelligence Center**

Sharing intelligence at the military, counterterrorism, and popular unrest levels is one of the most difficult aspects of alliance operations. Once again, however, there are precedents. Saudi Arabia, Qatar, and the UAE have already held conferences on cooperation in counterterrorism that examined options for cooperation, even in some of the most sensitive areas of intelligence. The NATO MC-161 process involves semi-annual meetings of national intelligence experts supported by the NATO civil and military staffs, and produces an agreed annual threat assessment to present to ministers.

Creating an expanded GCC joint intelligence center to handle military tasks and then expand into counterterrorism and sources of popular unrest could be a way of slowly building up both added GCC capabilities and building trust and common joint collection and analysis capabilities. Creating a GCC-wide annual threat assessment would be one way to begin to tie intelligence cooperation to policy in a way that reinforces unity.

### **GCC Net Assessment Group**

Effective security planning requires collective threat analysis. Each Arab Gulf state needs to know how other states prioritize and characterize current threats. They also, however, need a collective analysis of the trends in the balance relative to key threats and mission areas, and the analysis of current capabilities and priorities for improving them.

One option that would bridge the gap between military planning and intelligence at the civil-military level would be to create a GCC Net Assessment group that could address internal and external extremist and asymmetric threats.

Such an effort could focus on Iran and common threats from violent extremism. The group could be used to report on GCC-wide patterns to avoid spotlighting Bahrain or other states, while giving a common legitimacy to efforts to check such threats. It could aid the defense planning effort by providing annual threat assessments, highlight key threats, and show how the GCC states are moving to deal with them.

### ***Preparing for Missile and WMD Threats***

No single area presents a more challenging future military threat to the Arab Gulf states than Iran's acquisition of long-range missiles and movement towards acquiring nuclear weapons. As **Figure Nineteen** shows, the Arab Gulf states are already working with the US to make progress at a national level to be able to deploy layered defenses with the assistance of US missile defense ships in the Gulf.

Many GCC states are acquiring PAC-3 capabilities for the Patriot missile defense system. Unlike the PAC-2 variant, the PAC-3 can accommodate 16 missiles per launcher rather than four and offers "more advanced radar and electronics systems" as well as "hit to kill" capabilities, whereas the PAC-2 uses a "proximity fuse."<sup>42</sup> This system can be used "against short-range ballistic missiles, large-caliber rockets, and air-breathing threats."<sup>43</sup>

Additionally, the US is selling Terminal High Altitude Area Defense (THAAD) capabilities to Qatar and the UAE. THAAD, like PAC-3, also offers "hit-to-kill" capabilities, and is able to intercept ballistic missiles in the last segment of their flight, but is a wide area missile defense system. The ability of the system to intercept missiles at high altitude – including above the Earth's atmosphere – makes it an appealing system for the intercept of nuclear, chemical, or biological-tipped missiles.<sup>44</sup> This system will

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<sup>42</sup> "Gulf States Requesting ABM-Capable Systems," *Defense Industry Daily*, July 29, 2012. <http://www.defenseindustrydaily.com/gulf-states-requesting-abm-capable-systems-04390/>

<sup>43</sup> "Elements: PATRIOT Advanced Capability-3 (PAC-3)," Missile Defense Agency, US Department of Defense, undated. [http://www.mda.mil/system/pac\\_3.html](http://www.mda.mil/system/pac_3.html)

<sup>44</sup> "Elements: Terminal High Altitude Area Defense (THAAD)," Missile Defense Agency, US Department of Defense, undated. <http://www.mda.mil/system/thaad.html>

offer additional protection to these countries and US facilities and assets within them by working synergistically with Patriot PAC-3 and Aegis systems<sup>45</sup> already in the region. According to Lockheed Martin, “The system [THAAD] has a track record of 100% mission success in flight testing.”<sup>46</sup>

### **Areas For Improved Planning and Dialogue**

Truly effective missile defense requires even more real-time integration and overall systems interoperability than air defense. Missiles strike far more quickly, some missile defense systems have serious area coverage limits which make real-time action more critical, and longer-range systems need to be coordinated to deal with attacks across national boundaries and ensure attacks cannot saturate a local defense or exhaust reloads when an alternative firing unit is available.

Missile defense is also so costly that it needs to be carefully linked to progress in negotiations, while the limits in missile defense need to be countered by developing some form of deterrent.

This illustrates the need for improved GCC-wide cooperation in several key areas:

- Developing a common policy towards sanctions and incentives/disincentives in persuading Iran to halt such policies.
- Developing a common and integrated approach toward missile defense in cooperation with the US – the only real-world provider and integrator of such a system. This is critical in ensuring the creation of any effective system that is truly interoperable with proper wide area coverage, reinforcement by US ships with SM-2 missile defenses, and effective links to US satellite systems. It also potentially represents the most expensive GCC investment in new types of military capabilities over the next decade.
- Creating a GCC estimate of the Iranian-Israeli nuclear and missile balance and the risks the rising arms race and potential use of such forces presents to the GCC states.
- Working collectively with the US to explore former Secretary Clinton’s offer of “extended deterrence” to counter Iran if it does move forward to deploy nuclear weapons.
- Evaluating GCC options for acquiring a GCC deterrent.
- Evaluating the costs-benefits of supporting preventive military action.

These all are sensitive areas, and involve data that is classified and needs to be closely controlled in several areas. At the same time, a lack of GCC coordination and unity will encourage Iran, waste a vast amount of money on less effective defenses, and steadily increase military risks over time.

### **Create a Joint, Integrated Missile Defense System**

The best way of handling these issues would be to create an integrated missile defense system as an expanded part of an integrated GCC air defense system. The GCC states already have made a massive investment in upgrading their surface-to-air missile

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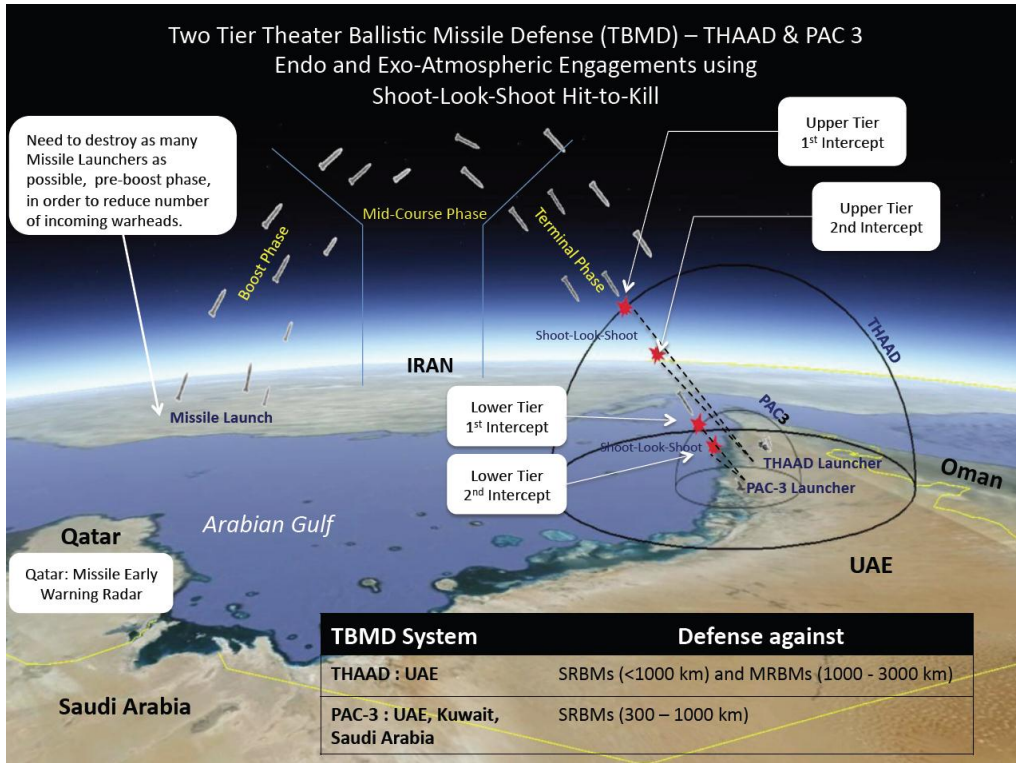
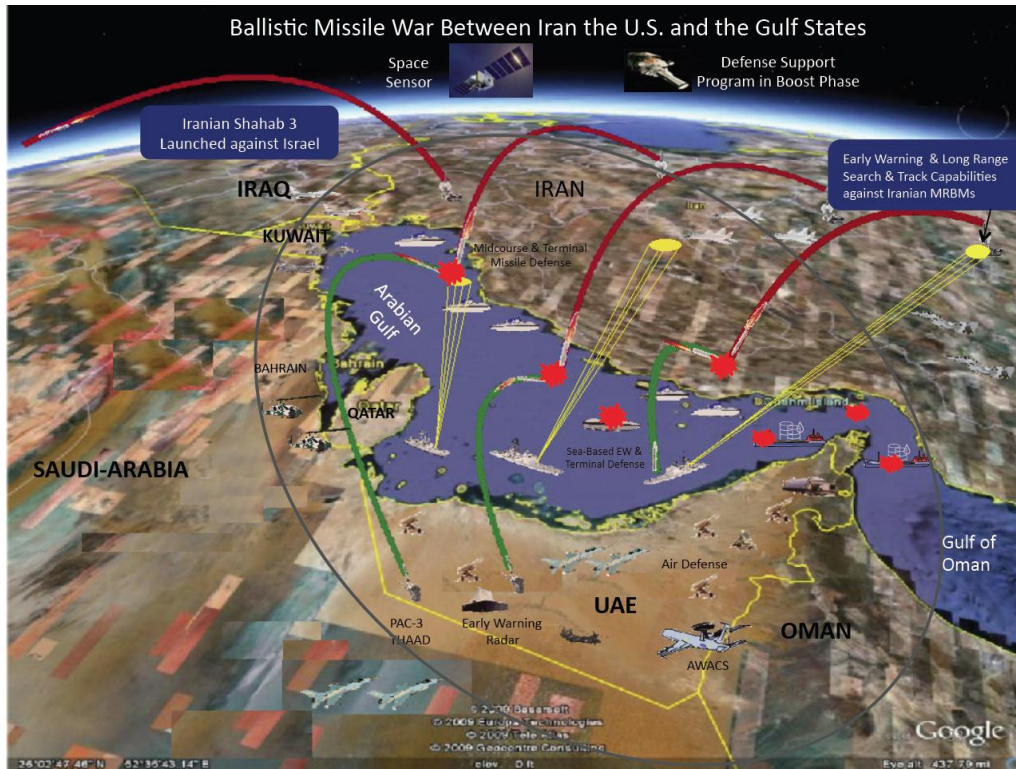
<sup>45</sup> “THAAD,” Lockheed Martin, undated. <http://www.lockheedmartin.com/us/products/thaad.html>

<sup>46</sup> “THAAD,” Lockheed Martin, undated. <http://www.lockheedmartin.com/us/products/thaad.html>

defenses to the PAC-3 Patriot missile and the UAE and Qatar are buying THAAD at a combined cost of over \$10 billion.

There is no way such purchases can become a fully effective defense and deterrent unless all Gulf states have such defenses and integrate them at the C4I/BM level to provide a unified wide-area defense capability. At the same time, countries would find it easier and less sensitive to focus on a new aspect of GCC capability.

**Figure Nineteen: Missile Defense and Attack Timing: The Challenge of Five Minutes of Warning and Flight Time**



Source: BMDO and Dr. Abdullah Toukan

### ***Focusing on Other Key Mission Areas***

As has been touched upon earlier, security cooperation is most effective when it focuses on key mission priorities rather than formal generic training or training by military services and branches of the internal security services.

The need for integrated air and integrated sea and coastal defense tailored to both Iranian conventional and asymmetric threats has already been described. So has the need to focus on the Iranian missile and nuclear threat. Internal security issues and infrastructure protection are addressed in following sections.

Other critical mission areas where joint planning efforts – and coordinated improvements in forces, C3I, and training – are necessary and include:

#### **Iraq, the Iraqi Border and Kuwaiti “Hinge”**

The current political crisis in Iraq and the lack of effective formal arrangements for US and Iraqi military cooperation highlight the fact that the primary land threat to the GCC comes through the Iraqi border and the strategic “hinge” in the upper Gulf along the border with Kuwait. This threat is compounded by the risk of both some form of Iranian-led axis involving Iraq, Syria, and Lebanon; and a new round of major sectarian fighting between Iraqi Arab Sunnis and Shia.

No one can estimate the future level of Iraqi unity, its political system, or level of its ties to Iran. Even under the best conditions, Iraq will not acquire significant conventional forces to counter or deter Iran before 2016, and this may well take to 2020 and beyond.

The GCC needs to develop common policies towards Iraq that encourage national unity, an Arab identity distant from Iran, and Sunni and Shia unity. At present, it lacks such unity and is not competing effectively with Iran. It needs to use aid and strategic communications to do so.

Moreover, the GCC needs a common approach to contingency planning to defend Kuwait and the entire Saudi-Iraqi border; to support Kuwait’s development of ports; to guard against Iranian military probes; and consider a border “fence” to cover Kuwait, Saudi Arabia, and possibly Jordan with a cost-effective surveillance effort. These needs further reinforce the priority to bring Jordan into the GCC – a step the GCC already has underway.

#### **Yemen Border Security and Threats**

Unrest in Yemen, the resurgence of Houthi opposition and Al Qai’da in the Arabian Peninsula (AQAP), and the major problems created by illegal immigration and smuggling across Yemen’s borders are now primarily a threat to Saudi Arabia and Oman, but also involve the other GCC states as Yemeni, Somali, and Ethiopian migrants cross their borders. Saudi Arabia will have to play the lead role, but dealing with Yemen should be a GCC problem and one that will inevitably involve cooperation with the US, the UK, and France.

As is the case with the Kuwait hinge and Saudi-Iraqi border, the GCC needs a common approach to contingency planning to deal with Yemen and the security of the entire Saudi-Omani-Yemeni border, and needs to consider a border “fence” to cover Yemen

with a cost-effective surveillance effort. It also needs to consider how best to develop a collective aid effort to help restore Yemeni stability and offer its people some form of economic hope.

### **Mine, Anti-Submarine (ASW), and Naval Asymmetric Warfare**

Arab Gulf forces need to be ready to deal with clustered threats of smaller ships; selective minelaying by both military vessels and dhows; and sudden raids on ships, offshore facilities, and key targets along the coast through the entire Gulf, at the Strait, and in the Gulf of Oman. They need to take up the burden of dealing with smaller raids and attacks and use their air-sea capabilities collectively so Iran cannot pick out one Gulf state as it did with Kuwait during the Iran-Iraq War.

It is unclear just how far Iran has gotten in acquiring or building smart mines. Experts do estimate, however, that it has inventories of over 6,500 mines, some of which are “smart” bottom mines; even older “dumb” mines present a critical threat. This became all too clear in the Iran-Iraq War during 1987-1988. Today, however, the GCC only has four aging minesweepers in the Saudi Navy; and the US, British, and French navies have limited capabilities. The GCC badly needs to reassess requirements for mine warfare capability.

In contrast, the cost of effective anti-submarine warfare against a limited Iranian threat, and of establishing an effective and well-trained GCC force, is probably a waste of resources *if* the US takes responsibility for the mission inside and outside the Gulf. Resolving the relative role of the US (and British and French) Navy and GCC navies is a critical common security issue.

At the same time, Arab Gulf navies are weak in the critical areas of anti-submarine warfare (ASW), demining capability, and seaborne anti-missile technology; they also remain somewhat divided. Iran’s mix of conventional ships; shore-based and air-delivered anti-ship missiles; anti-ship patrol boats and light craft; amphibious ships; and commercial transports, Marines, Naval Guards, special forces, and helicopters may well be able to score significant success in selectively raiding and attacking targets in the Gulf region.

As is the case with Southern Gulf air and air defense forces, Southern Gulf naval forces need an integrated C2/IS&R network, and a single naval command facility of the kind provided by US command ships and the Fifth Fleet, or could be created by setting up the kind of unified GCC naval command facility that Bahrain has offered to host. So far, such integration has been undermined by various intra-GCC tensions, preventing the creation of even a GCC-wide general staff. Allegedly, the strongest centralizer-status-quo supporter of tension has been between the Saudi government and Oman as centralizers and nationalists, respectively, with Saudi-Qatari disputes over Syria policy reducing Riyadh’s support.

Arab Gulf naval forces also need more effective air-sea exercises and training as well as standardization and interoperability – although once again all these problems have far less impact if Gulf navies cooperate closely with the US. Without US support, the Arab states are potentially vulnerable to Iranian conventional naval attacks despite their

military resources given their lack of strategic depth, training, and real-world war fighting experience. With US support, Iran's weaknesses would be decisive in anything other than a carefully managed asymmetric struggle.

### **Strait/Gulf of Oman/Indian Ocean/Red Sea/Horn of Africa**

The current command and mission structure of GCC naval and air units divide up the Gulf by country. It puts the burden of covering the Strait predominantly on Oman and the UAE. It largely ignores the security of the Gulf of Oman and the Indian Ocean, and leaves the Red Sea to the Saudi Red Sea fleet.

The combined threat from Iran, Yemen instability, Somali piracy, and political instability in the rest of the Red Sea area – including Egypt – now require the GCC to start rethinking this naval posture, how best to cooperate with the US and European navies, and how to develop an integrated and more regional approach to tanker and shipping security.

### ***Improving Internal Security Efforts***

Several earlier suggestions have focused on the need for integrated intelligence efforts. It is clear that cooperation in internal security is extremely sensitive on a national basis. Nevertheless, there again are areas where the GCC staff and member states may be able to develop important options for improving GCC "unity:"

### **GCC Identity Cards, Passport Data**

The GCC should consider requiring GCC-wide identity cards for nationals, foreign labor, and business residents – with matching passport data for nationals – that contain digital photo, fingerprint, and eye scan data and track each major use of the card. Tying the use of the card to remittances – and banking/Hawala use – would provide further security information.

Such data could be encrypted so only governments can read it, and national programs could be set up to track major "events" or actions that fit a pattern of terrorism, human trafficking, improper financial transfers, etc. Setting up a GCC-wide pattern analysis where given uses of the card or card data were flagged as warnings could further assist in security operations. This could include flagging movements to sensitive countries like Iran.



## **A GCC-wide Intelligence Effort for Counterterrorism and Dealing with Popular Unrest**

Current cooperation should be expanded to create the GCC equivalent of Interpol to create a common intelligence and data center that focuses on tracking both political extremists and terrorists and provides near real-time warning of the kind provided by the US National Counterterrorism Center (NCTC). This effort could be tailored to reflect national standards for reporting to a degree that ensures such a body does not infringe on national sensitivities and prerogatives.

### **GCC Internal Security Center**

In time, it may be possible to create a combined intelligence, training, and operations center to deal with low-level threats, extremism, terrorism, sabotage, and actions by states like Iran. This could create a staff that integrated GCC data on terrorism and extremist and outside asymmetric threats, looked at defense options, and found efficient ways to do common training.

The political sensitivities are obvious, but could be avoided by focusing on the areas where states are known to be willing to cooperate from the start and by focusing on cooperation where countries do not have to reveal key intelligence data and sensitive information. Even if it did nothing more than bring police, ministry of interior, and counterterrorism experts together – with a suitable support staff – it would help.

### **Common Counterterrorism Training**

The GCC should create common training facilities for counterterrorism options, and develop programs to ensure cross-training from one country to another. This could include related intelligence, special operations forces (SOF), special branch, and regular police training. It is also an area where Jordan has excellent SOF training facilities, and where joint training might occur with US, British, and French SOF forces.

### **Common Police and Crowd Control Standards and Training**

Dealing with domestic protests, unrest, and riots is an extremely sensitive issue. It is also one where the experience of several Arab Gulf states has shown during 2011-2012 that every GCC country needs to set the highest possible standards to minimize abuses and escalating problems that could be quickly controlled by effective and moderate action.

Developing common methods and capabilities in terms of procedures, equipment, use of force, toleration of legitimate popular protest and dissent, use of arrests and detention, and immediate expert negotiation would both aid individual countries and serve a common interest.

Creating large-scale police and internal security facilities could simulate crowd control, peaceful negotiation and treatment of demonstrators, and teach methods of non-lethal and non-provocative use of force. This could help prepare all GCC states for future contingencies and raise their internal security and police forces to a high level of proficiency.

Such efforts could be given the kind of visibility to show GCC citizens and the world that GCC states are making a common effort to minimize the use of force and protect their citizens. Similarly, showing all GCC countries are acting in ways that define and allow legitimate opposition – and limit the use of force, trials, and detention to truly necessary cases – is a key way of building public trust.

### **A GCC-Wide Rapid Reaction Forces for Counterterrorism and Dealing with Violent Unrest**

Dealing with violent unrest and demonstrations is very different from counterterrorism and from a military rapid reaction force. The GCC should seek peaceful internal resolution of internal issues and tensions and avoid the use of forces from other GCC countries in dealing with popular protests and unrest limited to given member states if at all possible. Outside intervention should be a last resort option that discredits the government asking for aid and requires outside forces to deal proportionately with protests they do not fully understand and cannot easily characterize.

As events in Bahrain show, however, there may be a need for carefully trained and equipped reinforcement by outside forces to deal with violent demonstrations, crowd control, and popular unrest. The GCC must ensure a capability to operate effectively across borders and reinforce in dealing with popular unrest in ways that minimize the need to use force and political complications.

One option might be to go create a GCC-wide capability by identifying national force elements trained, equipped, and mobile enough to come to the aid of other GCC countries, or the creation of a common force. The latter would be cheaper, identify neighboring forces in close proximity, and take best advantage of existing helicopter lift and mobility and specialized vehicles, weapons and equipment, and intelligence/communications gear.

### ***Improving Energy and Infrastructure Security: Passive Defense***

The alleged Iranian cyber attacks on Saudi ARAMCO and RasGas highlight the risk of attacks on critical infrastructure and economic facilities. The Arab Gulf states are extremely dependent on central power, desalination, and energy facilities – and several require major increases in capacity to deal with growing populations.

Civil defense and passive defense are key areas for cooperation and ones where the GCC can act to provide studies, plans, and create a dialogue. The Arab Gulf states have already taken some measures to create pipeline routes that bypass the Strait, but “unity” in the GCC requires a broader range of actions:

- Collective efforts and standards for the passive and active defense of critical infrastructure and key energy facilities.
- Common stockpiling of critical parts and components to allow rapid repair of sabotage and combat damage without waiting for long-lead items.
- Integrating power and water systems so the GCC can compensate for a breakdown or damage to a critical power or desalination facility.

- Creating a broader range of pipelines that by pass the Straits and go through Oman, to Yanbu, and possibly through Jordan.
- Improving roads and possibly create a rail capability to move bulk cargo broadly through the Gulf from ports in Oman and from Jeddah.
- GCC wide planning to reduce the growth of water and power use through conservation and realistic pricing.
- Applying the same efforts to reduce wasteful use of domestic fuel, gasoline, and natural gas.

One key test of such security is that no Gulf city should be critically vulnerable to an Iranian attack or some form of sabotage to a major power or desalination facility. Another goal is to disperse energy facilities in ways that share national use and reduce reliance on any one facility.

### ***Creating More Effective Cooperation with Power Projection Forces Outside the GCC***

There are limits to how much the Arab Gulf states can rely on partnership with forces outside the Gulf. Only one additional regional power now seems to be a viable immediate candidate. Including Jordan in the GCC would add an important military force, although one from a country where stability may be an issue.

Pakistan is approaching the status of a failed state, is no longer superior to Arab Gulf forces in training and leadership, and presents a far greater political risk than Jordan. Russia and China are not acceptable options. Turkey is a rising power, but its forces are not designed for power projection, and Turkish support still presents political sensitivities in some GCC states.

### **Partnership with Europe (UK and France)**

This leaves the Arab Gulf states and the GCC dependent on the Europe and the US, and both have limitations. The GCC faces the reality that British and French power projection capabilities are already severely limited in going beyond the Mediterranean areas and the operating range from major peacetime basing facilities. Current plans and budget pressures make it clear that they are going to be steadily reduced as a result of financial pressure over the next five years.

The situation is more favorable in regard to European arms sales. Cutbacks in European military procurement have limited the range of advance air and surface-to-air equipment, smart munitions, and systems like unmanned combat air vehicles (UCAVs) that Europe can sell and support at a contractor level. However, Europe still can provide excellent land weapons, helicopters, and trainers; and Europe also produces naval vessels that often are better suited to the operating needs and ranges of GCC states than most US naval systems.

Europe still offers GCC states alternative sources of arms, but it should be noted that GCC states need to be careful to ensure that contract supports offer high degrees of interoperability with US or other European forces, and that both the European and US contract teams that support equipment in peacetime will be adequate and willing to support combat operations.

## Partnership with the US

The US remains the leading global military power, and has a large presence in the Gulf. **Figure 15** has already shown the extent to which the US is cooperating in areas like the modernization of GCC air forces, common training, and many other areas. USCENTCOM, the US Fifth Fleet, and the US commands in Kuwait and Qatar all provide major support as do US advisory teams. As **Figures Seventeen and Eighteen** have shown, this partnership is backed by massive arms transfers to the Arab Gulf states. At the same time, the US does face force and military spending cuts, and has not established a stable Strategic Framework Agreement (SFA) with Iraq.

However, the GCC needs to establish a clearer base for mid and long-term planning for the support the US as well as British and French power projection forces can actually provide over time. It also needs to link GCC force planning and procurement to clear plans for interoperability, and develop suitable contingency plans.

- ***This is not a NATO function.*** NATO does not control forces, and has no special expertise in power projection. It also includes far too many members that cannot contribute and which can present political complications.
- ***It is, however, in the interest of every GCC state to preserve as much British and French power projection capability and training presence as possible, and to ensure that the US will preserve a major presence in the region over time.*** It is equally important to ensure that at some point, the US, British, and French presence evolves in ways that focus more on projection from outside to deal with truly critical contingencies in ways directly linked to the rate of improvement in GCC forces.

One way to help achieve more unity inside and outside the GCC would be to ask that the US, the UK, and France set up military liaison offices to support GCC force planning, procurement, and exercise efforts and provide military representatives to take on an “observer” status in GCC military meetings. This would effectively recognize efforts that already exist in most GCC countries, but develop a more integrated and effective effort without compromising GCC sovereignty.

### ***Encouraging Stability Through Economic, Educational, and Social Measures***

The GCC should consider ways to improve security cooperation that address the causes of security issues as well as ways to deal with such threats. The last year has made it clear that the combination of high population growth, issues in educating and employing native youth, housing, infrastructure pressures, medical services, and other material issues play a critical role in the security of each GCC state.

Sectarian differences, tribal pressures, foreign labor issues, and popular perceptions of corruption, responsiveness, and integrity of government services compound these issues. So do divisions by region and income group over the quality of government services.

Most GCC states are now attempting to deal with these issues on a national basis, and national sensitivities preclude “unity” in addressing the problems of each state in a GCC-wide environment. There also are sufficient national differences, so one size scarcely fits all.

At the same time, the need to encourage stability and security through economic, educational, and social measures is at least as great a security issue as any foreign threat or terrorism. There are also important areas for cooperation in spite of national differences.

### **Education**

The creation of GCC-wide scholarship and exchange programs and GCC-wide educational standards would help develop a common effort to improve readiness for employment, a consciousness of the importance of GCC as well as national values, and potentially serve to speed education reform by moving the debate away from purely national issues to a broad regional standard that could focus on educating young men and women for practical careers.

### **GCC Domestic and Foreign Labor Policies**

It is easy to talk about “Omanization” and “Saudization,” and other policies for dealing with foreign labor, but it is even easier to continue exploiting low-cost foreign labor and relying on outside technical expertise. Creating common labor policies that give priority to hiring local nationals from within the GCC and common apprentice and training programs that support such efforts could be used to show the concern of governments and set broad standards for reducing dependence on foreign labor. These policies could be expanded to include Jordan and other critical Arab states.

The same common policies could be used to create a GCC-wide approach to foreign labor. This could include visas, protection and rights, salary and remittance policies, and limits of foreign vs. Gulf labor.

It is important to note that setting higher standards for foreign labor and raising real-world labor costs is a key way to encourage the employment of GCC nationals. Such efforts can also be joined to the use of GCC-wide identity cards to help ensure the stability of foreign workers by protecting them; managing visas; and tracking every entry, departure, and change in job status.

### **Setting Common Social and Economic Standards/Goals**

The last year has shown that education, housing, medical services, utilities and water, equity of income distribution, perceptions of corruption, quality of governance/rule of law, human rights, and levels and quality of employment *all* act as critical factors shaping domestic stability and unrest.

Gulf states differ sharply today in the levels of such services. They are, however, improving in each state. Setting up a commission or body in the GCC to examine the level of performance in each country, setting common goals and standards, and showing the people of each country that they and their children will benefit over time offers a potential way to increase stability.

Making key elements of such an effort public is a way of focusing protest and public dissent on real issues and ones governments can actually solve, as well as reassuring Gulf youth. This is particularly true if it shows each government is providing equity across

sectarian and regional standards and is actively working to determine current problems and solve them.

### **Building Dignity, Trust, and Faith in Government Integrity**

The political crises in the Middle East and North Africa over the past two years – along with the experiences of Iraq and Afghanistan – has provided a long series of lessons in the fact that calls for democracy do not suddenly produce working representative government and viable political systems. At the same time, these events provide a grim warning of the degree to which regimes can underestimate popular anger, distrust, and feelings that governments are corrupt and do not respect their peoples. They also have revealed a fact that is consistent in the history of governments throughout the world: Unless there are reliable ways to measure public opinion, leaders overestimate their support, and bureaucracies and those around them tell them what they want to hear.

Steps towards local elections, and empowering a national Majlis, can help deal with such pressures without disrupting the current political system and national stability. At the same time, GCC governments need feedback that is more reliable, and provides better measures of popular discontent.

The use of polling is a key tool towards this end, and polling could be conducted on a GCC-wide basis to both provide broad goals for the GCC in an open form and provide detailed warnings to individual governments – warnings that could be kept confidential by tailoring the release of the data. Such polling would also serve as another way of focusing popular opinion on issues and real-world government actions – particularly if it took the form of individual surveys that focused on key areas, rather than sweeping efforts that would focus on every problem or issue at once.

Once again, the key areas of concern are: education, housing, medical services, utilities and water, equity of income distribution, perceptions of corruption, quality of governance/rule of law, human rights, and levels and quality of employment. These are areas where each GCC government needs to develop better ways to monitor how its citizens actually feel, get advance warning of discontent, and react preemptively to deal with popular discontent. They are also ways of setting better and more realistic priorities for councils, planning groups, Majlis action, etc.

At the same time, surveys and measures of effectiveness need to focus heavily on corruption at lower levels, frustrating bureaucratic and government systems that seem to ignore public needs, apparent favoritism, and corruption and delays in the judicial and law enforcement systems. These aspects of governance – coupled to growing income inequality and high-level cronyism and special treatment – have been key factors in leading to popular perceptions that governments fail the people.

### **Creating GCC Study and Planning Efforts**

There are several other areas where the GCC staff might work with member countries to provide advice and planning that would aid in security and stability:

- ***GCC Development Report:*** Build on the Arab Development Report of 2009, but tailor to the GCC states – possibly including Jordan, Iraq, and Yemen. Avoid sensitive political areas like

“democracy” and political reform, but focus on core elements of stability like housing, services, education, health, job creation, and youth employment.

Put together an annual report showing the scale of the key social, economic, and demographic problems that have led to political unrest in other areas, and show the progress and plans to improve life, serve citizens, and encourage stability.

Doing this on a multinational level ensures no one state is singled out, that public attention is focused on material progress states can actually address, shows governments really care, and makes the case to the world for the GCC.

- **GCC Survey:** Create a carefully-structured survey to get a clear picture of the level and causes of internal tensions and dissatisfaction that threaten stability in each country. Provide leaders with a base that does not single out a given country, but provides a real-world overview of popular priorities for stability.
- **GCC Jobs Creation Program:** Build on national job programs to go GCC-wide. Focus on youth unemployment. Highlight existing efforts, but look towards the future. Examine demographic and educational impacts. Seriously examine the risks of overdependence on foreign labor.

Look beyond simple measures of employment to address disguised unemployment, career satisfaction, school-to-employment lags, income distribution, biases toward government employment, and ability to afford marriage and separate housing. Focus on the most important single problem affecting internal stability.

- **GCC Housing Program:** Do the same for housing.

### ***The Importance of Integrated Civil-Military Security Efforts***

It must again be stressed that meeting these non-military internal challenges will be at least as important to their stability, regional security, and the success of US and Gulf cooperation in competing with Iran as any improvement in their military and internal security forces. If there is any one lesson that emerges from the upheavals that have already taken place in the Arab world, it is that no state can ignore the demands and needs of its people, but that evolutionary progress offers far more hope than violent revolution and insurgency in any case where the regime is willing to change and make reforms.