

# THE GULF MILITARY BALANCE IN 2010

## An Overview

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**Please note that this document is a working draft and will be revised regularly. To comment, or to provide suggestions and corrections, please email the authors at [acordesman@gmail.com](mailto:acordesman@gmail.com).**

The Gulf military balance is dominated by five major factors: The Southern Gulf states, Iran, Iraq, outside powers like the US, and non-state actors like the various elements of Al Qaeda, the Mahdi militia, and various tribal forces. At present, the Southern Gulf states have large military resources but limited real-world effectiveness and have made limited progress towards collective and integrated defense.

Iraq's forces remain a work in progress that are still focused on counterinsurgency, and will not have effective ability to operate independently in large-scale conventional warfare for at least three to five years. Iran has substantial assets for irregular and asymmetric warfare, and may emerge as a nuclear power during the next three to five years. However, its conventional forces continue to age, lack effective unity and readiness, and are declining in overall capability. Non-state actors play an increasing role in shaping the security situation, but still have very limited capability beyond a limited number of asymmetric or "terrorist" attacks."

It is the US that now dominates the balance of Gulf military forces, along with its British ally. US land capabilities are, however, heavily committed to Iraq and Afghanistan, and the US would face far more serious problems in dealing with a well-planned campaign for asymmetric or irregular warfare than it would in fighting a conventional conflict.

### **The Key Factors Shaping Southern Gulf Forces**

The Iraq War, war on terrorism, and the Israeli-Palestinian conflict may have made the US and outside forces less popular, but they have done little to push Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE towards finding an effective collective alternative to dependence on the US. The Southern Gulf states have not fully adjusted their national force plans to take account of the disappearance of Iraq as a major regional threat, or adjusted their forces to deal with Iran's growing missile forces and the threat it will become as a nuclear power. They face the risk that a lasting power vacuum in Iraq will give Iran decisive influence over a Shi'ite-dominated Iraq. This risk seems to be steadily diminishing but cannot be ignored.

Like most rhetoric about Arab unity, the reality is very different. Most Southern Gulf states still have some degree of tension with their neighbors, although they do seem to have resolved many past border and territorial disputes. Remaining tensions include Qatari, Omani, and the Emirati fears of Saudi "dominance." They also include Omani concerns over Yemen, and tensions with the UAE over the role Omani manpower should play in UAE forces.

There are lingering tensions between Bahrain and Qatar, although these seem to be rapidly diminishing. Kuwait has its own concerns over Saudi ambitions and the development of oil and gas resources offshore and in the divided zone it shares with UAE territory. Saudi Arabia is also concerned over smuggling of arms and explosives across the Yemeni border and the risk Yemen could become a future threat.

In practice, GCC remains a facade rather than a force. It lacks effective unity of effort in war fighting, deterrent, and force development terms. It has proposed a wide range of useful projects to improve military interoperability and cooperation since its founding in 1980, but its members have made only limited progress:

- The one joint combat force the GCC has created – the GCC rapid deployment force – has always been a hollow, token force. It had no clear mission after the fall of Saddam Hussein in 2003, and the end of Iraq as a serious threat. It was effectively disbanded in 2005.
- Its members have resisted the standardization of weapons and equipment throughout the GCC's existence. Nothing is changing.
- There is little or no focus on developing truly effective, interoperable forces that are integrated or shaped around common missions.
- An air defense integration contract offers some hope for the future, but has few of the features needed to actually integrate land-based and fighter aid defense operations in a real-world combat environment.
- Some cooperation has developed in naval exercises, and in areas like mine warfare, but Gulf navies and naval air operations would have little real-world effectiveness without US or British support.

Procurement paths differ sharply across the Southern Gulf. The U.A.E has focused on developing its fleet of fast naval interceptors to bolster coastal piracy deterrence and maritime anti-terrorism. In contrast, Saudi Arabian naval development has focused on developing a mix of large and medium surface assets with the intention of developing blue water capabilities. As part of an effort to enhance indigenous defense capacity, the Kingdom is also upgrading its air forces and the Saudi Arabian National Guard (SANG) to play more meaningful special operations and counter-insurgency (COIN) roles. Oman, Qatar and Bahrain have also sought to expand their naval and air capabilities with little apparent effort across the GCC to develop interoperability, sustainment or force multipliers.<sup>1</sup>

Most Southern Gulf states share an increasing focus on upgrading and augmenting their holdings of short, medium and long range surface to air missile (SAM) holdings – but they have at best only begun to create the level of real-time intelligence, sensor, and reconnaissance capabilities needed for effective air and missile defense. The U.A.E., Saudi Arabia and Kuwait are acquiring modern Patriot Advanced Capability (PAC-3) systems. The U.A.E. is also set to receive Terminal High-Altitude Air Defense (THAAD) fire units. While Russia has had only limited success in procuring to the Southern Gulf, Oman is reported to have acquired Pantsyr S1E short-range integrated gun and missile systems. It is unclear whether Saudi Arabia and the U.A.E. will procure Russian-made S-400 and S-300 long range SAM systems.

The end result is that the Southern Gulf States continue to have closer real-world military cooperation with the US than with each other, although the smaller Southern Gulf states now cooperate more closely with the US than Saudi Arabia. Furthermore, Southern Gulf procurement from Russia, while not negligible, remains limited.

There are limits to this cooperation with the US. Saudi-US military cooperation a key element in winning a quick coalition victory in the Gulf War. Some aspects of Saudi-US cooperation have since been curtailed as a result of the events of “9-11,” and tensions over the war on terrorism. US-Saudi cooperation was, however, much closer in the Iraq War in 2003 than is generally apparent. Saudi Arabia provided substantial aid to US operations and allowed US Special Forces to stage out of ArAr on the Iraqi border. Active US combat forces left Saudi Arabia in 2003, following the Iraq War, but a strong

US advisory presence remains. Saudi Arabia and the US have also steadily improved their cooperation in counterterrorism since 9/11, and particularly since Saudi Arabia came under Al Qaeda attack in May 2003.

More broadly, the US has shifted the focus of its prepositioning and operations as a result of both the need to leave Saudi Arabia and the need to support large forces in Iraq:

- Kuwait provides major air and staging bases for US forces in Iraq, as well as critical port facilities.
- Bahrain is the base for the US 5<sup>th</sup> Fleet, and a key staging point for both US naval and air operations.
- Qatar provides a major headquarters and air operations center, air base facilities, port facilities, and prepositioning facilities for a reinforced US brigade.
- The UAE provides extensive port facilities, ship repair facilities, and intelligence cooperation in dealing with Iran.
- Oman provides air and naval staging facilities, and prepositioning facilities at Masirah. Oman also cooperates closely with British forces.

This cooperation involves far more than simply hosting US forces. A wide range of US advisory, training, and exercise activity takes place with Southern Gulf states, as well as British and sometimes French forces, at the multilateral level. The US has also tried to encourage the Southern Gulf states to strengthen the GCC as part of this effort.

For example, the annual operation “Eagle Resolve” is a joint US-GCC cooperative exercise designed to enhance regional cooperative defense efforts of the GCC and U.S. Central Command and to reduce the Gulf states’ The operations included a series of seminars and exercise designed to promote cooperation between the GCC states.<sup>2</sup> In Operation ‘Eagle Resolve 2004’ hosted by the UAE, Iran was depicted as a possible aggressor. ‘Eagle Resolve 2005’ focused on GCC vulnerabilities to weapons of mass destruction (WMD), while ‘Eagle Resolve 2009’ hosted by Qatar focused on communications, chain-of-command issues, crisis management and air and missile defense.<sup>3</sup>

## **Military Developments in the Northern Gulf**

The virtual destruction of Iraq’s military forces in 2003, and of its capability to deploy or acquire weapons of mass destruction in the years after 1991, fundamentally changed the Gulf military balance. Yet the longer-term trends described earlier have also had a major effect. While some Southern Gulf states have faced recent problems in recapitalizing their forces, these problems have been far more severe in the case of Iran and Iraq and have affected their military development far longer.

Iraqi force development is now dependent on US aid in creating a mix of regular military, internal security, and police forces designed to defeat an internal insurgency, and outside volunteers and terrorists. Iraq is dependent on US and other aid to provide its emerging ten-division arm with equipment, support, facilities, and training; and to create a force that can stand on its own.

This effort cannot succeed unless Iraq’s political process succeeds in unifying the country and defeating the remaining insurgency and threat from militias and violent extremists. It is also has created Iraqi security forces that focused on internal security and are only

beginning to develop the full range of capabilities needed to defend or deter against Iraq's neighbors. This is a serious potential problem given Iran's ambitions, Turkish concern over the Kurdish issue, and Syria's on-again off-again willingness to allow infiltrators and various Islamist extremist and insurgent groups to operate on its soil.

The future of Iranian force development remains unclear. Most of Iran's claims to be improving its conventional forces have so far not been followed up by the deployment of major new capabilities and modern weapons. This aspect of Iran's military modernization efforts still lags badly behind the decline in conventional weaponry imposed by age, past combat, and wear. Iran is attempting to solve some of its force development problems by creating a major domestic defense industry, and designing and producing its own advanced weapons systems. Given Iran's past problems in these areas, along with the difficulties encountered by more advanced nations like China and India, it is not clear how far Iran can advance along these lines. However, it has already made some progress.

Iran has shown that it can obtain some advanced weapons and technology from China, North Korea, and Russia. It has already shown that it can use such purchases to help increase its capabilities for asymmetric warfare by buying systems like submarines, various air and anti-ship missiles, more advanced air defense missiles, and a wide range of other systems. It has also bought some modern aircraft and more modern tanks from Russia. Iran must do a great deal to overcome the limits of its largely worn and obsolescent conventional forces, but may be able to accomplish a great deal over time.

Iran is also is deploying long-range missiles. These include enhanced Scud-type weapons, and much longer-range, developmental systems. Iran is evidently deploying some Shahab-3 missiles, but it is far from clear what the final configuration of its long-range missiles will be, or how their warheads will be armed.

Another Iranian focus is in creating major capabilities for irregular or asymmetric warfare. Iran continues to develop its capabilities for asymmetric war both on land and at sea, as well as its ability to train and support potential proxies like various Iraqi militias, the Lebanese Hezbollah, and movements like Hamas and the Palestinian Islamic Jihad.

## **A Snapshot of Comparative Force Strength**

These trends show that the conventional military among the Gulf states is only one aspect of the trends in Gulf security, but it is important to understand how Gulf forces now compare and the mix of quantitative and qualitative strength that shapes national forces.

The following Figures describe military capabilities that history has shown may become involved in conflicts with little or no warning. At the same time, comparisons of the strength of the conventional forces, and the military build up of the various Gulf states, provide important insights into the military strengths and weaknesses of each state, and the problems they face in modernizing and restructuring their forces.

## **Trends in Comparative Military Manpower**

- **Figure 1** provides a count of comparative major equipment strength. The fact Iraq's 2,600 main battle tanks and 316 combat aircraft are no longer part of the count illustrates just how much the regional balance has changed as a result of the Iraq War. At the same time, it is clear that weapons strength is in no way proportionate to the comparative size of arms imports – reflecting the

tendency to keep large amounts of obsolescent and low grade equipment in service even if it contributes little to military effectiveness.

- **Figure 2** shows the historical trend in military manpower. It is clear that Iran and Iraq long had far larger forces than those of the Southern Gulf states. While Iraqi manning levels and combat deployments of the fledgling Iraqi Security Forces (ISF) continue to increase, the elimination of Iraq's role as a major Gulf military power continues to make a critical difference. Iran continues to have far more military manpower than Saudi Arabia, but the effectiveness of this manpower is severely limited by the problems in Iran's pool of military equipment.
- **Figure 3** provides a similar comparison, but with the actual manpower numbers for each country. It is clear that Saudi manpower has increased sharply relative to that of Iran over time, and that the Southern Gulf states have the cumulative manpower to support effective collective defense. In practice, however, coordination and interoperability remains extremely limited, robbing the smaller Gulf States of much of their potential military effectiveness.
- **Figure 4** shows military manpower by service. While ground force manning levels remain dominant, it illustrates a relatively heavy emphasis on air force and air defense manpower for most countries, and naval manning too small to support effective navies without extensive foreign civilian support. If the data on land forces are compared to the later figures on land force equipment and the procurement of new systems, it is also clear that the manpower pool of most smaller Southern Gulf countries is too limited to properly crew and support the pool of weaponry in their land forces.

## Trends Affecting Land Forces

**Figures 5 through 11** display the trends in armor, tanks, and artillery.

- **Figure 5** shows that Iran and Saudi Arabia had a far larger pool of equipment than their recent arms imports could possibly maintain and modernize. It is also again clear how much the destruction of Iraq's forces have affected the conventional balance.
- **Figure 6** shows that the trends in medium and high quality tanks are radically different from those in the previous figure, and that Saudi numbers have near parity with Iran (whose tanks are generally still sharply inferior to those of Saudi Arabia and the tanks in most of the smaller Southern Gulf states).
- **Figure 7** shows that Iran does not have anything like the number of other armored fighting vehicles necessary to support its strength in main battle tanks, and how much the destruction of Iraq's land forces have changed this aspect of the balance. In general, the smaller Southern Gulf states have also developed a good balance of tanks and other armored vehicles.
- **Figure 8** shows the distribution of current holdings of other armored vehicles by kind. It reflects a lack of armored mobility in Iran's forces. At the same time, it is clear that each Southern Gulf states have developed a different force mix with little regard to interoperability.
- **Figure 9** compares artillery strength. Iran's massive build up of such weapons during the Iran-Iraq War is still a major factor in the Gulf balance. This is the area where Iran has its greatest lead over the Southern Gulf states. It is also clear, however, that almost all of the Iranian lead is in towed weapons, and its artillery maneuver strength is severely limited.
- **Figure 10** and **Figure 11** show the comparative strength of multiple rocket launchers. Once again, Iran has a major lead. Yemen also has comparatively large numbers of such weapons. Multiple rocket launchers provide a partial substitute for air power and can deliver large amounts of area fire, although generally with limited accuracy.

## Trends Affecting Air and Air Defense Forces

**Figures 12 through 18** display data on combat aircraft, armed helicopters, and electronic warfare aircraft.

- **Figure 12** shows total operational combat air strength. Iran has slowly built up much of the strength it lost after the fall of the Shah and in the Iran-Iraq War, however an arms export ban to Iran under United Nations Security Council Resolution 1747 may make it difficult for Iran to continue upgrading its forces for some time. The Iraqi Air Force lost roughly half of its strength during the Gulf War in 1991, and effectively ceased to exist in 2003. Saudi Arabia has good strength figures, but limited training, readiness, and sustainability. The UAE has good numbers for a country its size, but limited real-world effectiveness. The Yemeni air force lost much of its forces because of civil war and an inability to budget for sustained air power development.
- **Figure 13** compares total fixed wing and armed helicopter strength. The growing importance of armed helicopters in the Southern Gulf is apparent. The Iranian holdings are largely worn and obsolescent and the Iraqi armed helicopter forces no longer exist.
- **Figure 14** shows Saudi Arabia's advantage over Iran in terms of high quality aircraft. At the same time, it again shows the lack of standardization and the interoperability problems of the Southern Gulf states.
- **Figure 15** reflects the limited emphasis on reconnaissance aircraft capability in the Gulf region, and the limitations to situation awareness and targeting. While Iraq has growing holdings, their impact and mission integration are more geared towards internal security and support for COIN operations. The problems for the southern Gulf States will, however, be of limited importance if they operate in a coalition with the US.
- **Figure 16** shows that Saudi Arabia has a monopoly of airborne warning and control systems, and that its AWACS aircraft give it a major advantage in battle management, some forms of intelligence collection and air force maritime patrol capability.
- **Figure 17** shows the balance of combat helicopters. Saudi Arabia has been relative slow to build up its forces, but those of Iran are worn and obsolescent and Iraq's forces have effectively ceased to exist.
- **Figure 18** shows that Saudi Arabia has the only modern mix of advanced land-based air defenses in the Gulf. Iran has extensive assets, but many are obsolete or obsolescent, and they are poorly netted and vulnerable to electronic warfare. Iran was also reported to have augmented its holdings of modern short range air defense (SHORAD) systems with the acquisition of some Tor-M1 (SA-15 Gauntlet) and Pantsyr S-1E (SA-22 Greyhound), and there is continued uncertainty when and whether Iran would receive modern S-300PMU1 (SA-20 Gargoyle) long range SAMs. Given reports that Iran conducted initial test fires of the Tor-M1 in late 2009,<sup>4</sup> it is unlikely that Iran has effectively integrated any new systems into its existing air defense network. Iraq's assets have effectively ceased to exist. The smaller Southern Gulf states have a wide mix of assets, purchased with little attention to interoperability and which generally would have limited effectiveness because of a lack of effective long-range sensors, battle management systems training and readiness, and strategic depth.

## Trends Affecting Naval Forces

**Figure 19 to Figure 23** compare various aspects of naval strength. The qualitative issues affecting the forces have been described earlier. Iran is the only significant Gulf Navy with relatively large holdings of ship-to-ship missile (SSM)-equipped patrol craft. Saudi Arabia has significant total ship strength, and better and more modern ships with growing amphibious capabilities, but limited readiness and proficiency. While most Southern Gulf states are in the process of acquiring newer surface assets, the lack of interoperability,

specialization, and orientation around key missions leaves most Southern Gulf navies with only limited ability to cooperate. So does a lack of effective airborne surveillance, modern mine warfare ships, and ASW capabilities.

### Remaining Hollow at Great Cost

It is clear from both arms transfer and military expenditure data that Iran cannot hope to keep pace with the Southern Gulf states in terms of resources. Iraq's spending is only now beginning to reflect major self-financing, but it will be a half decade or more before Iraq can begin to develop a self-defense capability that might be able to meet a serious challenge from any of its neighbors. There is no current prospect that it can again become a major conventional power in the next decade.

The vast Southern Gulf superiority in military spending and arms imports, however, comes at vast cost without providing the unity and focus on integrated defense and key missions necessary to create effective forces, deterrence, or balance warfighting capabilities. The Southern Gulf states spend immense amounts on their military forces and arms purchases.

- **Figure 24** reflects a shift in the nature of the Gulf military build-up that began to emerge before Iran's defeat in the Iran-Iraq War, and Iraq's defeat in the Gulf War, but which has accelerated ever since. Southern Gulf military expenditures increased exponentially after the U.S.-led invasion of Iraq and have continued to grow in part due to Iranian regional hegemonic aspirations. The Southern Gulf leads the regional arms race that the Northern Gulf states began. **Figure 24** shows that Saudi Arabia has by far been the largest spender in the Gulf, although several small Southern Gulf states – notably the UAE, Kuwait and Oman – have been very large spenders in proportion to their size.
- As **Figure 25** shows, in some years one or more of the small Southern Gulf states have nearly equaled the expenditures of much larger Northern Gulf states. **Figure 25** contrasts with the higher levels of military expenditures shown **Figure 24**, in that military spending overall has been either consistent or in light decline as a percentage of GDP in GCC States, Iran, Iraq and Yemen over the 1989-2009 period.
- **Figure 26** shows the cumulative arms imports of Gulf States over the 1984-1999 period. Saudi Arabia is the largest arms importer in the Gulf, with higher levels than the other Gulf States, Iran, Iraq and Yemen combined. Kuwait and the UAE also received non-negligible arms levels, but there was a relatively high degree of fluctuation of import levels across this period throughout the GCC. Iraq has made negligible arms imports in the post-Gulf War period, and Iran has been unsuccessful in securing high levels of imports in the 1990s.
- **Figure 27** touches on the data in Figure 26 and shows comparative Gulf arms agreements and deliveries from 1993 to 2008. Here too we see its higher levels of deliveries and orders, however, we see Saudi Arabia gradually declining in recent years and the UAE making major new imports during the 1997-2004 period. As is the case with military expenditures, the Southern Gulf states have massively outspent the Northern Gulf states. For Iran, this is partly a matter of choice and partly a matter of economic weakness, further exacerbated by a 2007 UN-imposed ban on arms exports to Iran. For Iraq, it has been forced upon Iraq by a UN arms embargo from September 1990 to the fall of Saddam Hussein in March 2003, and by its massive defeat in the US-led invasion that drove Hussein from power.
- **Figure 28** shows that the US is the major arms supplier for most of the Gulf States, although major Western European suppliers have recently begun to play an increasing role in supplying Saudi, Emirati and Omani armed forces. As mentioned earlier, Iraq is now mainly dependent upon US support to increase its force capabilities, and Iran is the sole primary recipient of arms supplies



from Russia. Other Gulf States have chosen to include Russian arms imports as part of a broader force mix of systems from the US and Europe.

The practical problem for the Southern Gulf states is that they have not transformed either their spending or their arms imports into forces whose effectiveness is proportionate to their cost. The potential desirability of regional cooperation, standardization and interoperability, and training and organization for joint operations on a GCC-wide level is obvious.

In practice, each of the southern Gulf States still pursues its own path in creating military forces, often emphasizing the purchase of modern major weapons systems that were perceived to provide prestige and a “glitter factor” in terms of regional status. Rivalries and past tensions between the Southern Gulf states have prevented serious efforts at developing joint capabilities and interoperability. The end result is that the Southern Gulf states largely prefer de facto dependence on US and British power projection forces over effective regional and national military efforts.

### **The Other Side of the Hill: Iran’s Capabilities for Asymmetric Warfare**

Iran’s conventional weakness also needs to be kept in careful perspective. It has spent nearly two decades building up capabilities for asymmetric and revolutionary warfare. These are largely capabilities the US can counter relatively quickly in any outright conflict, but which give Iran a powerful capability to intimidate its neighbors, and which would be far harder for the US to defeat in a limited war of attrition where the US might not be able to act decisively in striking Iranian forces and targets.

These are difficult capabilities to summarize, but many trends are clear. Iran’s military doctrine places heavy emphasis on asymmetric warfare:

- Iran sends signals about its use of asymmetric warfare through its military parades and exercises.
- The IRGC often claims to conduct very large exercises, sometimes with 100,000 men or more. The exact size of such exercises is unclear, but they are often a fraction of IRGC claims.
- By displaying both its real and virtual military (e.g. naval) fighting capabilities through electronic, printed and network media, and through official statements, Iran seek to achieve the following politico-diplomatic and propaganda ends (4Ds):
- Defiance (to maintain a course of resistance, targeting primarily the Western political will and system).
- Deception (on the real state of Iranian warfighting capabilities, targeting the Western military establishments).
- Deterrence (with the IRI military “might”, targeting Western public opinion, delivered through the media).
- Demonstration (of the outreach of its own power, targeting the Iranian people and the Moslem world).

The core of these Iranian capabilities are in Iran’s Islamic Revolutionary Guards Corps (IRGC), and its commander symbolizes this activity:

- On September 1, 2007, Khamenei promoted Mohammad Ali Jafari, then coordinator of the IRGC Research and Command Center, to the rank of major general and the post of commander in chief of the IRGC.

- Throughout his military career Jafari has emphasized asymmetrical warfare and developing Iran's ballistic missile capabilities throughout his military career
- In 1992, he was appointed commander of the ground forces. One of the tasks he carried out in this capacity was "to study and assess the strengths and weaknesses of America [as reflected] in its attacks on Afghanistan and Iraq."
- Jafari has outlined the strategy he means to promote as IRGC commander, reiterating his commitment to developing Iran's ballistic missile capabilities and the asymmetrical warfare capacities of the IRGC:
  - Asymmetrical warfare... is [our] strategy for dealing with the considerable capabilities of the enemy. A prominent example of this kind of warfare was [the tactics employed by Hizbullah during] the Lebanon war in 2006... Since the enemy has considerable technological abilities, and since we are still at a disadvantage in comparison, despite the progress we have made in the area of equipment, [our only] way to confront [the enemy] successfully is to adopt the strategy [of asymmetric warfare] and to employ various methods of this kind."
- Jafari has made other importance statements regarding asymmetric strategy:
  - Jafari has said that in the case of a confrontation with the West, Iran will be willing to employ the organizations under its influence. In a January 2005 speech to intelligence commanders from the Basij and IRGC, Jafari - then commander of the ground forces - stated: "In addition to its own capabilities, Iran also has excellent deterrence capabilities outside its [own borders], and if necessary it will utilize them."
  - "the Revolutionary Guards [Corps] will invest efforts in strengthening its asymmetrical warfare capabilities, with the aim of successfully confronting the enemies."
  - "After September 11, [2001], all [IRGC] forces changed their [mode of] operation, placing emphasis on attaining combat readiness. The first step [towards achieving] this goal was to develop [a strategy] of asymmetrical warfare and to hold maneuvers [in order to practice it]."

There are many tangible examples of how Iran and other regional states have already used asymmetric warfare to achieve these goals:

- Iranian tanker war with Iraq
- Oil spills and floating mines in Gulf
- Libyan "stealth" mining of Red Sea
- Use of Quds force in Iraq
- Iranian use of UAVs in Iraq
- "Incidents" in pilgrimage in Makkah
- Support of Shi'ite groups in Bahrain
- Missile and space tests; expanding range of missile programs (future nuclear test?)
- Naval guards seizure of British boat, confrontation with US Navy, exercises in Gulf
- Development of limited "close the Gulf" capability
- Flow of illegals, terrorists, infiltrators, and arms smuggling across Yemeni border

Iran's asymmetric capabilities also interact with its nuclear weapons development efforts to compensate for many aspects of the limits to its conventional forces. "Going nuclear"

provides a level of intimidation that Iran can use as both as a form of terrorism and to deter conventional responses to its use of asymmetric warfare:

- Even the search for nuclear power is enough to have a major effect.
- Development of long range missiles add to credibility, and pressure.
- Crossing the nuclear threshold in terms of the bomb in the basement option.
- Threats to Israel legitimize the capability to tacitly threaten Arab states. Support of Hamas and Hezbollah increase legitimacy in Arab eyes -- at least Arab publics.
- Many future options: stockpile low enriched material and disperse centrifuges, plutonium reactor, underground test, actual production, arm missiles, breakout arming of missiles.
- Declared forces, undeclared forces, lever Israeli/US/Arab fears.

At the same time, “Going Asymmetric” allows Iran to substitute asymmetric forces for weak conventional forces:

- Combined nuclear and asymmetric efforts sharply reduce the need for modern conventional forces -- which have less practical value
- Linkages to Syria, Lebanon, other states, and non-state actors like Hamas and Hezbollah add to ability to deter and intimidate/lever.
- Iran can exploit fragility of Gulf, world dependence on oil exports, GCC dependence on income and imports.
- Threats to Israel again legitimize the capability to tacitly threaten Arab states.

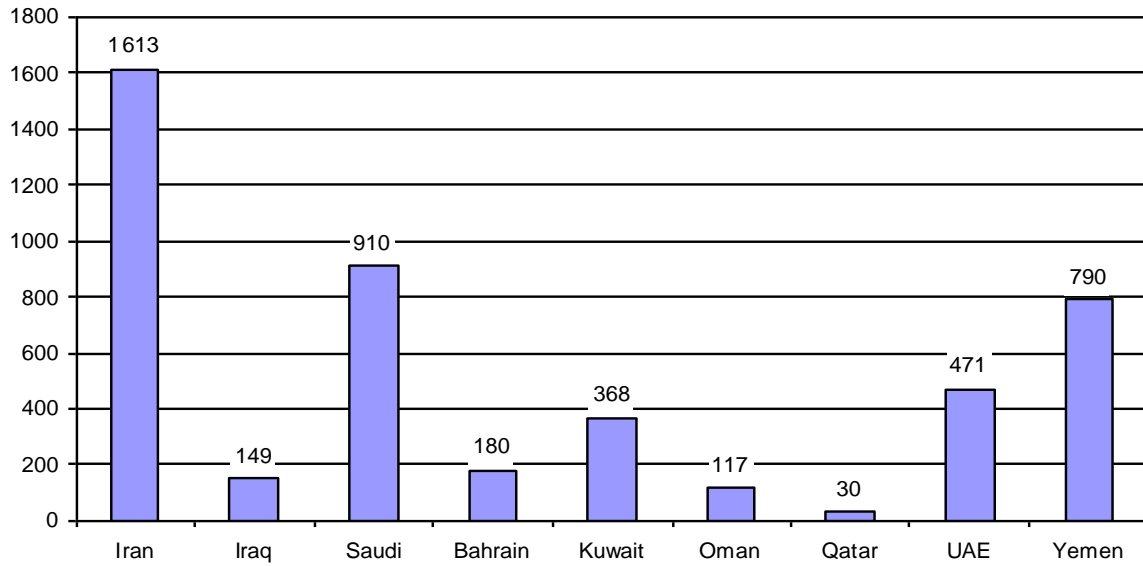
Iran’s asymmetric capabilities can be summarized as follows:

- **Figure 29** shows how Iran’s military exercises illustrate its emphasis on irregular and asymmetric warfare. It describes a steadily growing Iranian capacity to both threaten its Gulf neighbors and counter US military operations against Iran.
- **Figure 30** shows the expanding capabilities of the IRGC, and the pivotal role it is coming to play in shaping Iran’s overall military capabilities. The IRGC is not only playing a growing role in Iran’s overall force mix, but in its top leadership and economy.
- **Figure 31** describes the evolving military capabilities of the IRGC. They are tailored to both offensive and defensive irregular and asymmetric warfare.
- **Figure 32** summarizes the force structure of the IRGC. Many of the details are not available in reliable open source material.
- **Figure 33** describes the special role of the Naval branch of the IRGC and the critical role it can play in asymmetric warfare in the Gulf.
- **Figure 34** shows Iran’s strength in naval asymmetric warfare capabilities relative to that of other Gulf navies. It should be noted, however, that few Iranian Navy ships have had modern refits, and efforts to upgrade them have had very mixed success – particularly in creating integrated command centers and sensor suites.
- **Figure 35** shows Iran’s strength in mine warfare capabilities relative to that of other Gulf navies. These totals disguise the fact that almost any ship can lay or drop mines, but mine hunting and sweeping is far more difficult than in the past, and other Gulf navies have very little mine sweeping capability.

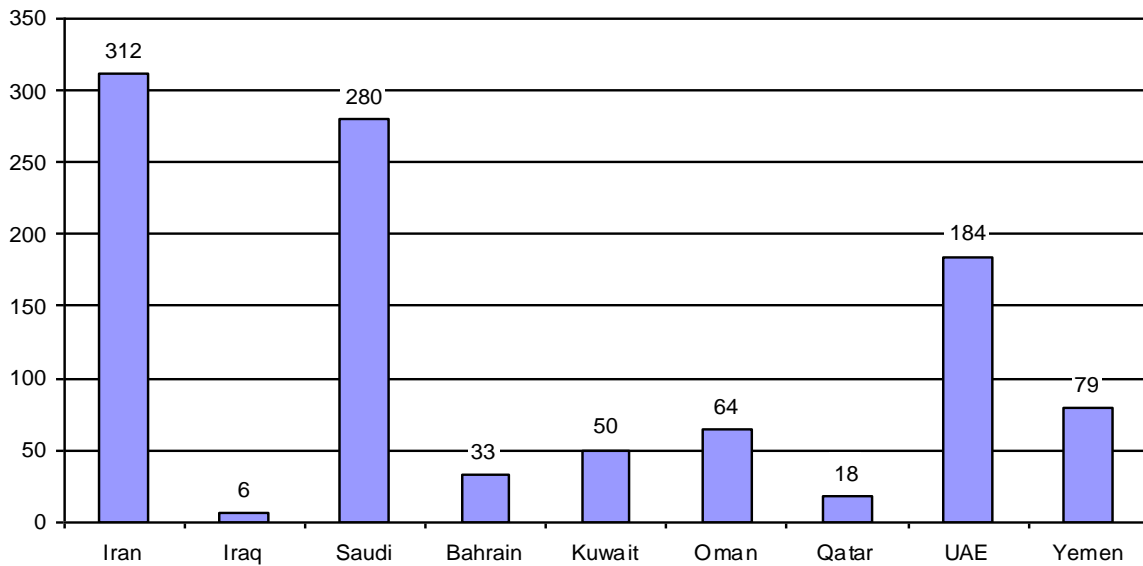
- **Figure 36** shows Iran's strength in amphibious lift relative to that of other Gulf navies. Iran has considerable lift to move to a friendly port, but has little exercise experience in simulating meaningful forms of forced entry and over the beach operations.
- **Figure 37** shows how the full range of Iranian security efforts work with other states and non-state actors and the expanding presence of Iranian cadres and intelligence elements.
- **Figure 38** summarizes Iran's ties to the Hezbollah and its role in Lebanon in cooperation with Syria. The Hezbollah are now considerably better armed than in 2006, and have far better defense in depth.
- **Figure 39** summarizes Iran's role in Gaza. Iran is not a key player, but even limited arms shipments allow it to play a spoiler.

**Figure 1: Major Measures of Key Combat Equipment Strength in 2010**

**Total Main Battle Tanks in Inventory**

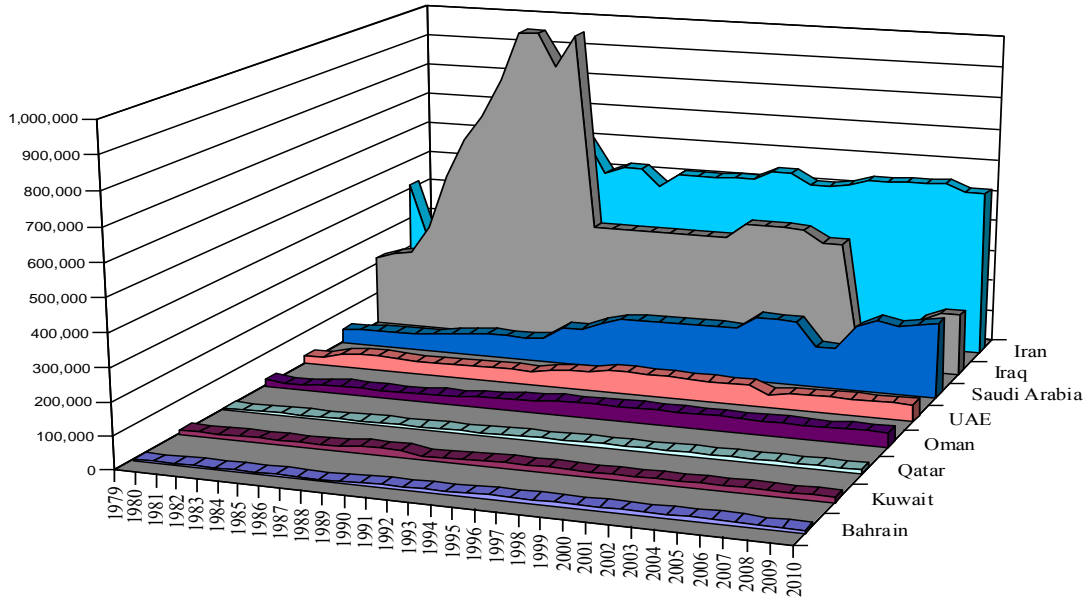


**Total Fixed Wing Combat Aircraft**



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.

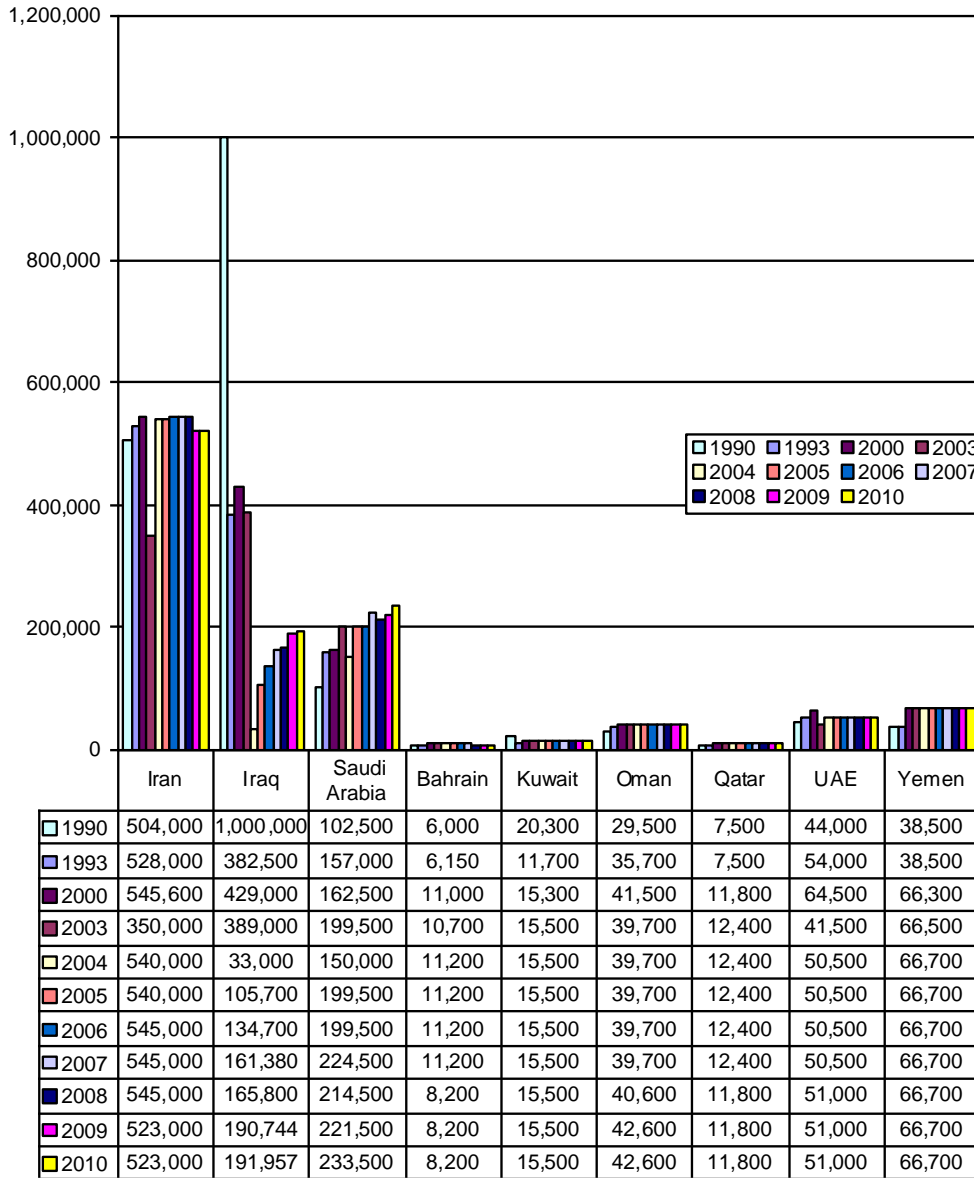
**Figure 2: Comparative Trends in Gulf Total Active Military Manpower: 1979-2010**



Note: Saudi totals include full-time active National Guard, Omani totals include Royal Guard and Iranian totals include Revolutionary Guards, and Iraqi totals up to 2004 include Republican Guards and Special Republican Guards. Current Iraqi totals do not include Ministry of Interior forces.

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.

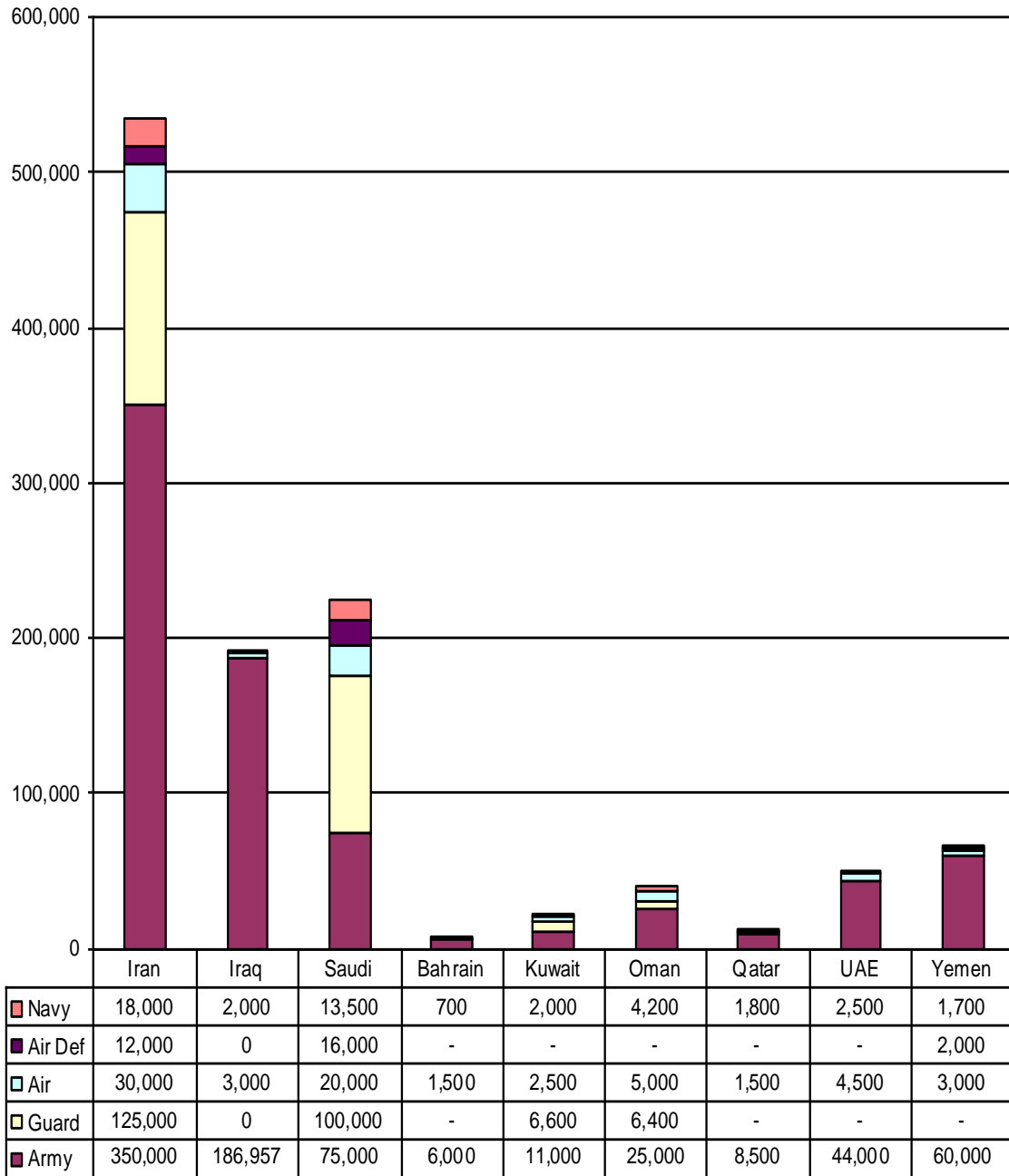
**Figure 3: Total Active Military Manpower in All Gulf Forces 1993-2010**



Note: Saudi totals include full-time active National Guard, Omani totals include Royal Guard, Iranian totals include Revolutionary Guards, and Iraqi totals through 2003 include Republican Guards and Special Republican Guards. Iraqi data for 2006 do not include Special Forces, and data for 2007 and 2008 include only assigned and trained personnel. Current Iraqi totals do not include Ministry of Interior forces.

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.

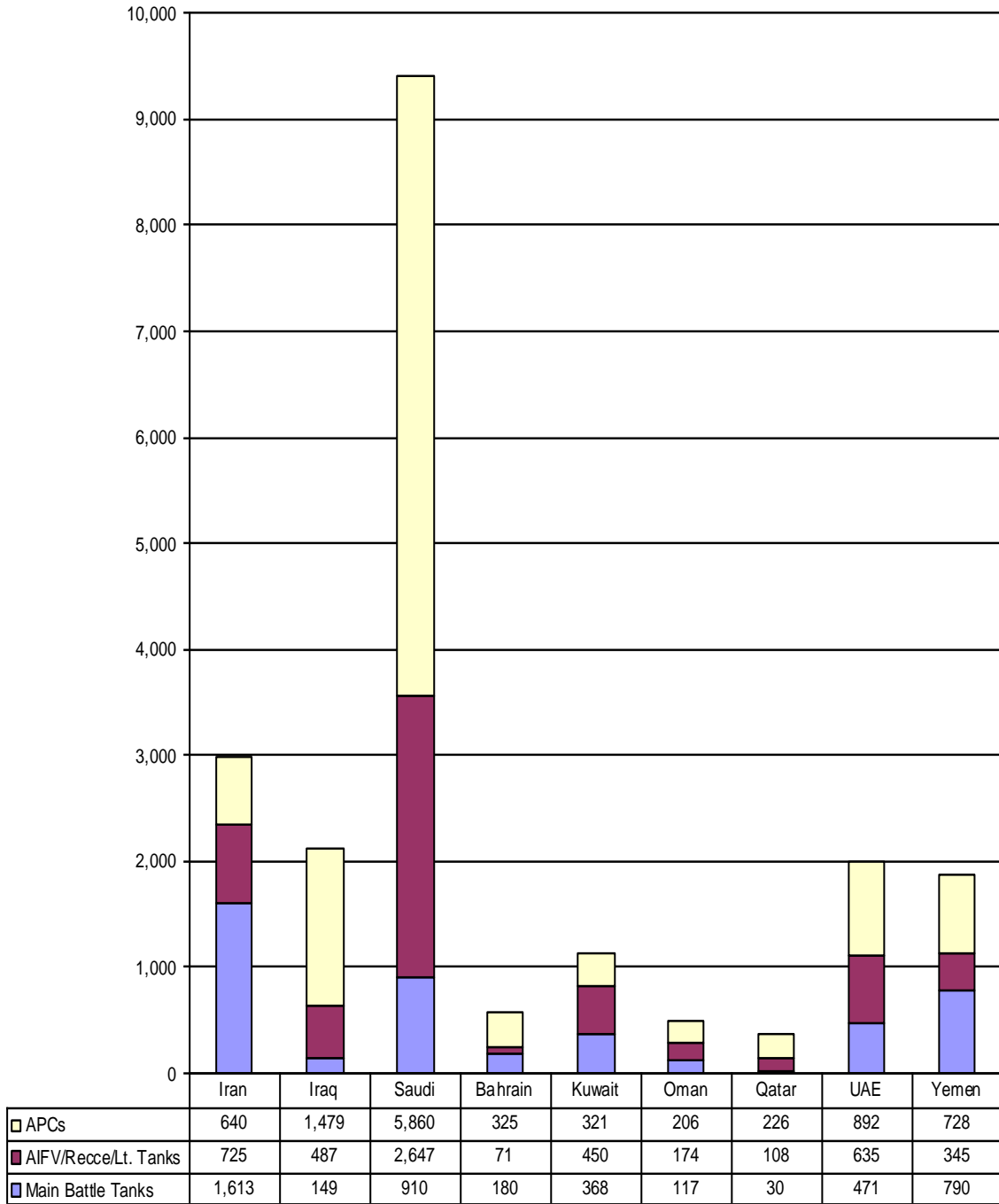
**Figure 4: Total Gulf Military Manpower by Service in 2010**



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.



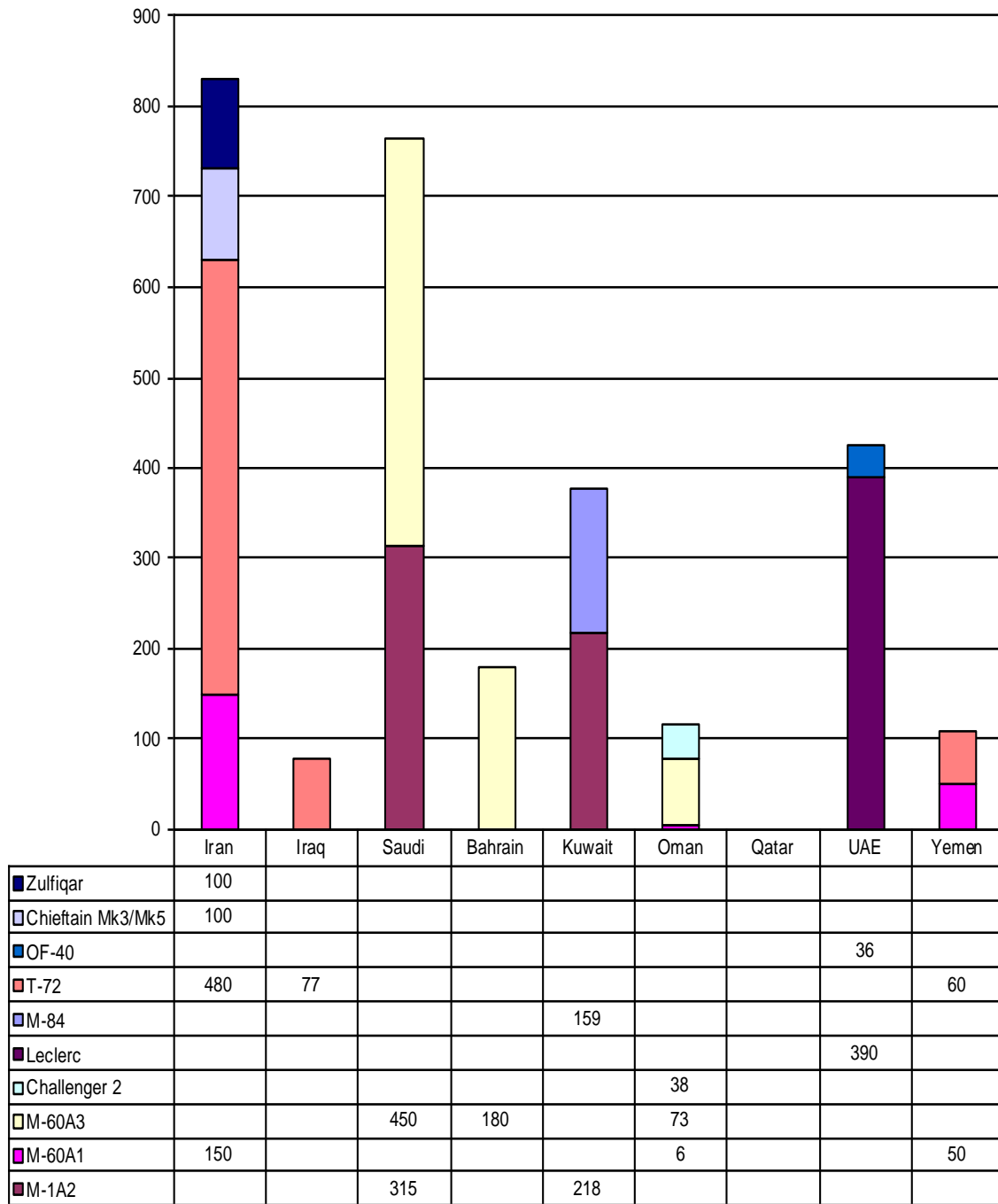
**Figure 5: Total Gulf Operational Armored Fighting Vehicles in 2010**



Note: Iranian totals include holdings in active forces in the Revolutionary Guards. Saudi totals include holdings in active National Guard & Navy Marines. Omani totals include Royal Household Guard.

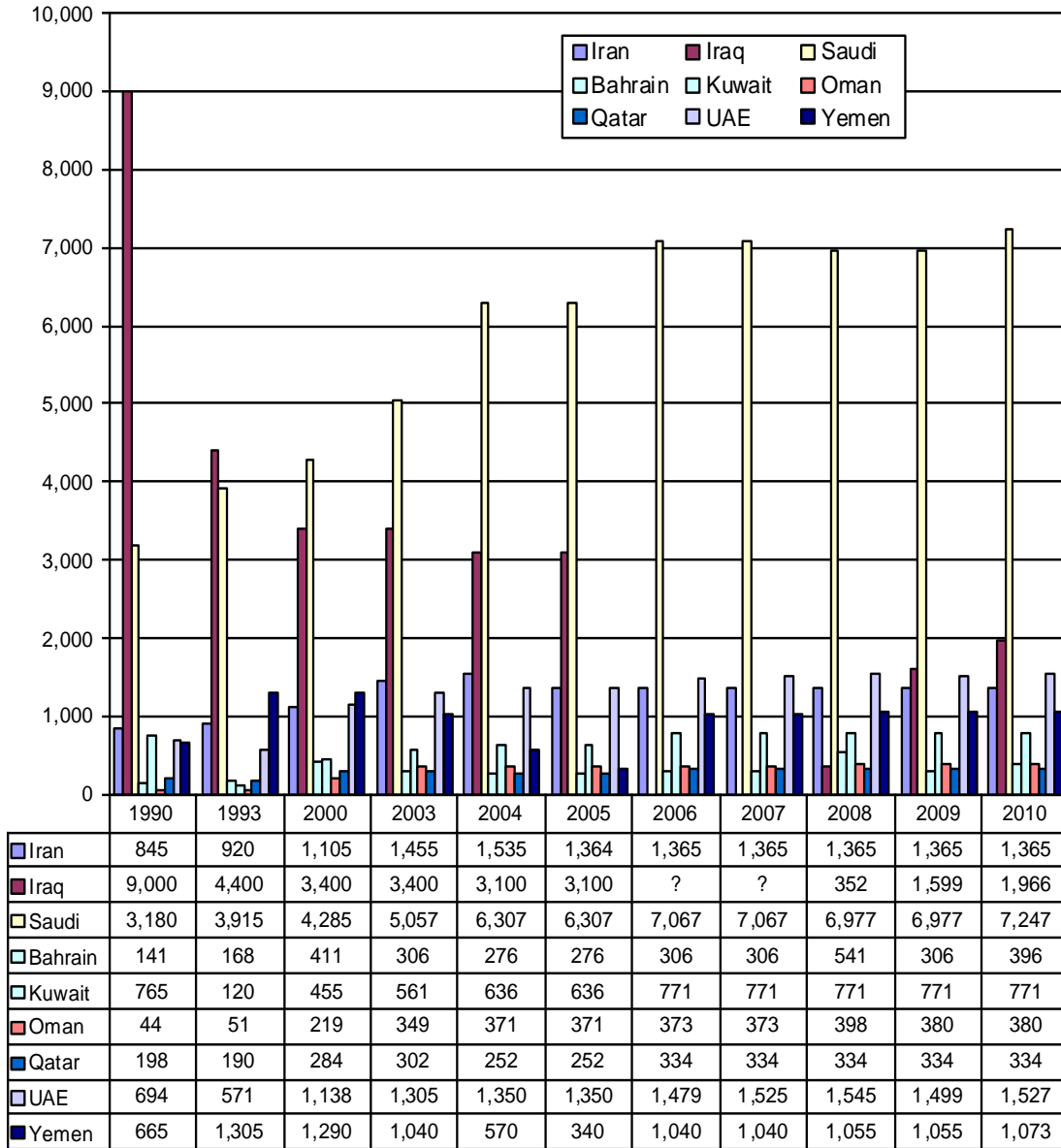
Source: Adapted from IISS, *The Military Balance, Periscope*, JCSS, *Middle East Military Balance*, *Jane's Sentinel* and *Jane's Defense Weekly*. Some data adjusted or estimated by the author.

**Figure 6: Medium to High Quality Main Battle Tanks By Type in 2010**



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.

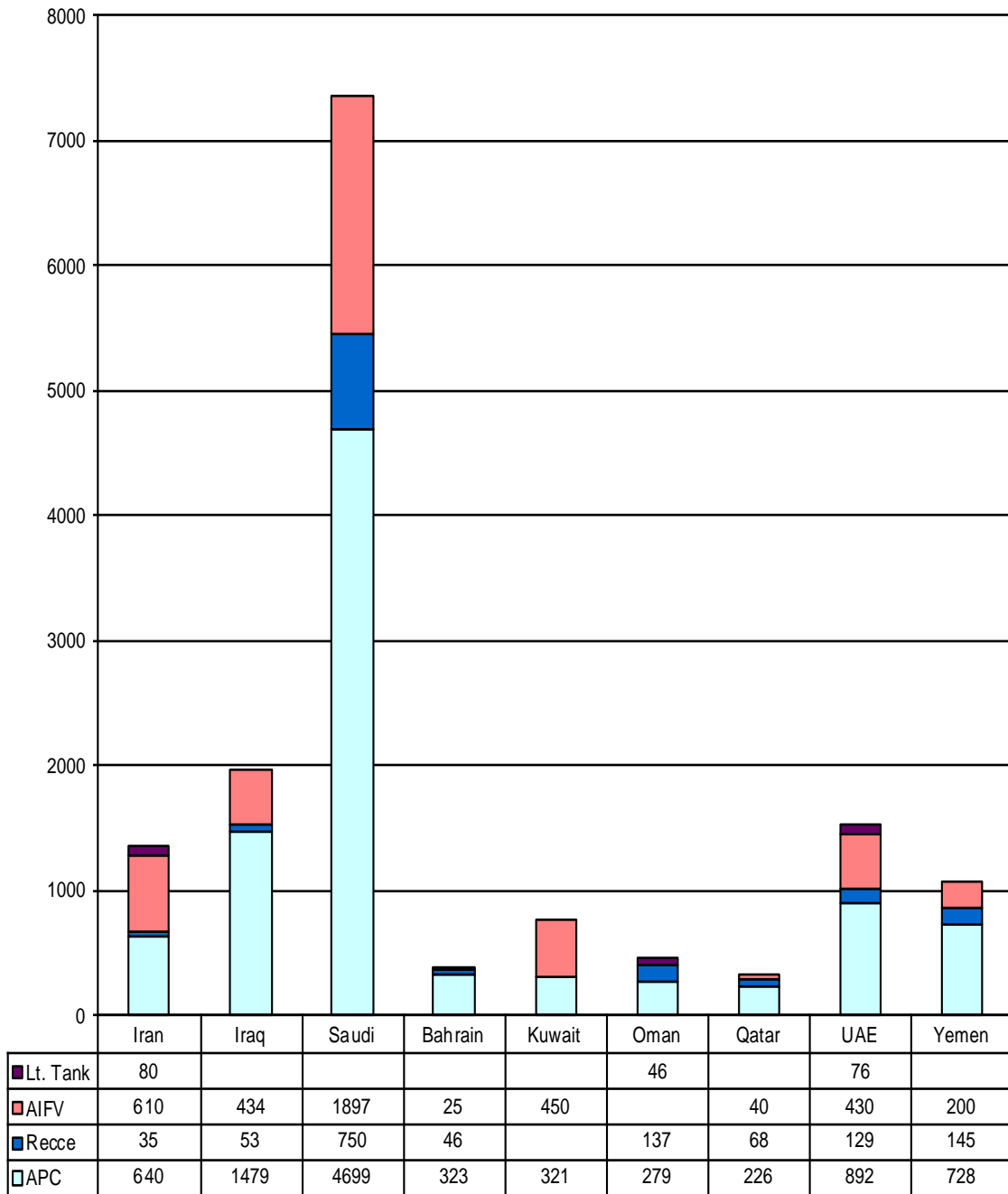
**Figure 7: Total Operational Other Armored Vehicles (Lt. Tanks, LAVs, AIFVs, APCs, Recce) in Gulf Forces 1990-2010**



Note: Iranian totals include holdings in active forces in the Revolutionary Guards. Saudi totals include holdings in active National Guard & Navy Marines. Omani totals include Royal Household Guard.

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.

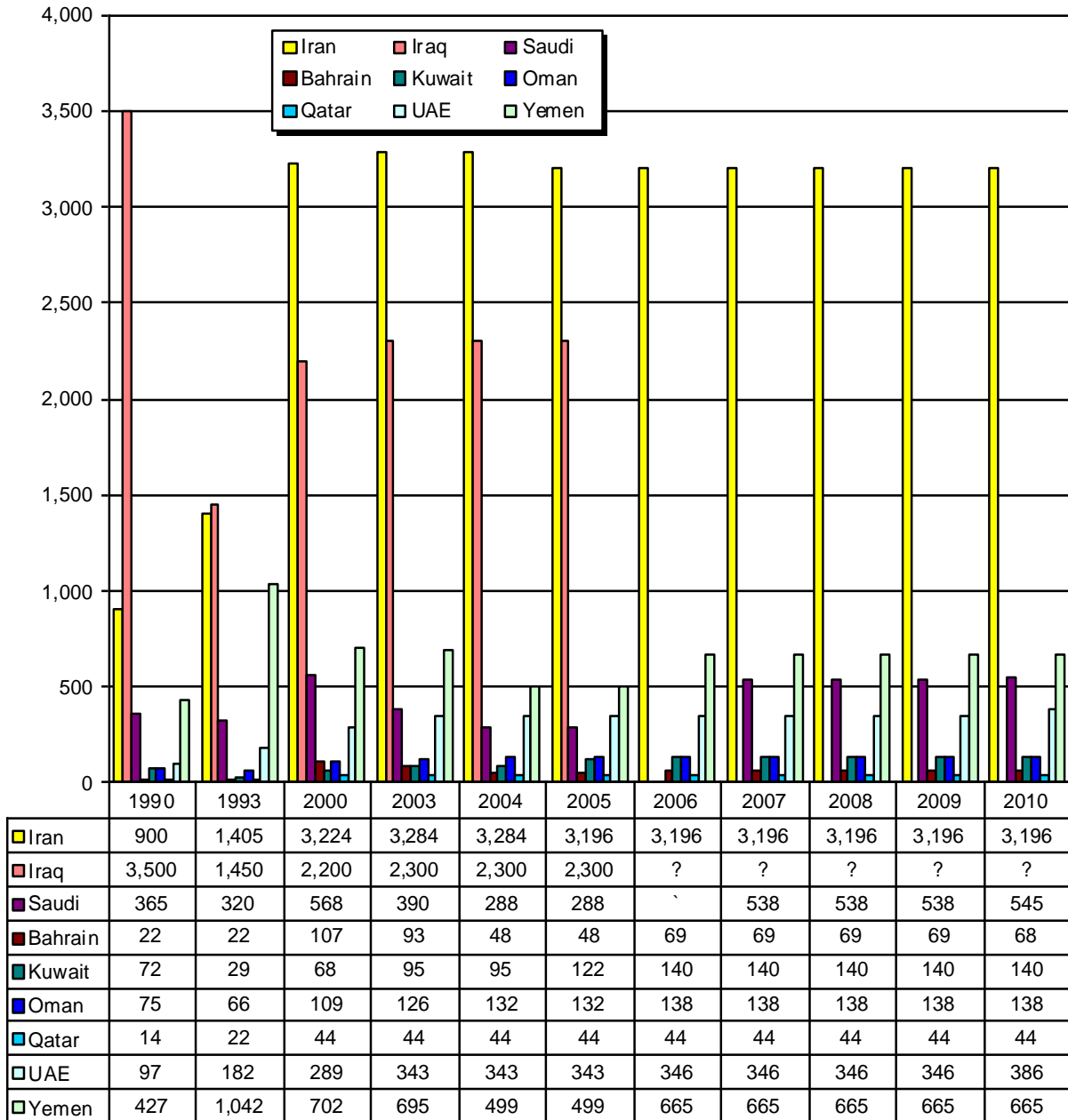
**Figure 8: Gulf Other Armored Fighting Vehicles (OAFVs) by Category in 2010**



Note: Iranian totals include active forces in the Revolutionary Guards. Saudi totals include holdings in active National Guard & Navy Marines. Omani totals include Royal Household Guard.

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. Source: Adapted by Anthony H. Cordesman from various sources and IISS, *The Military Balance*, various editions.

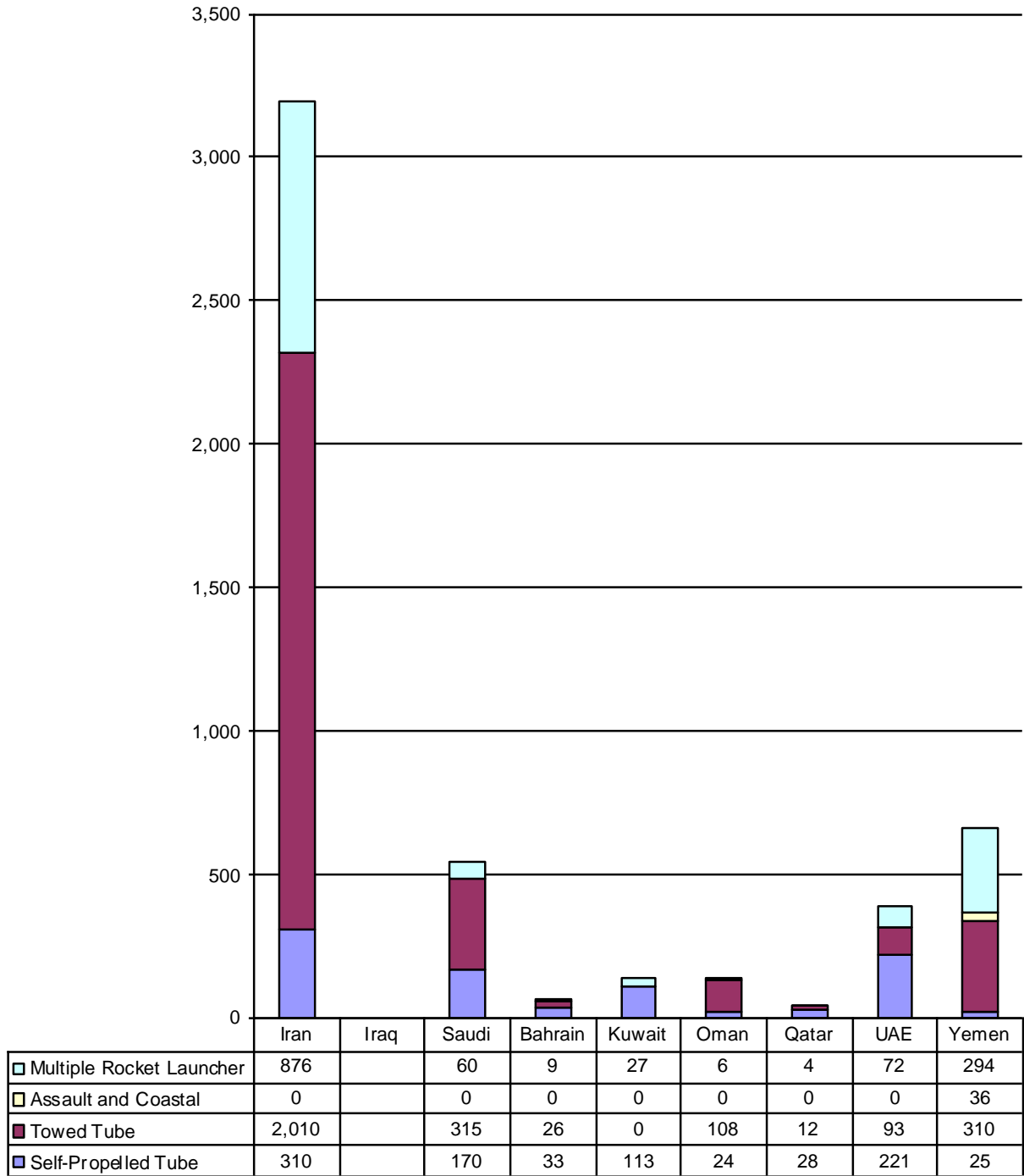
**Figure 9: Total Operational Self-Propelled and Towed Tube Artillery and Multiple Rocket Launchers in Gulf Forces 1993-2010**



Note: Iranian totals exclude mortars and include active forces in the Revolutionary Guards. Saudi totals include active National Guard. Omani totals include Royal Household Guard.

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.

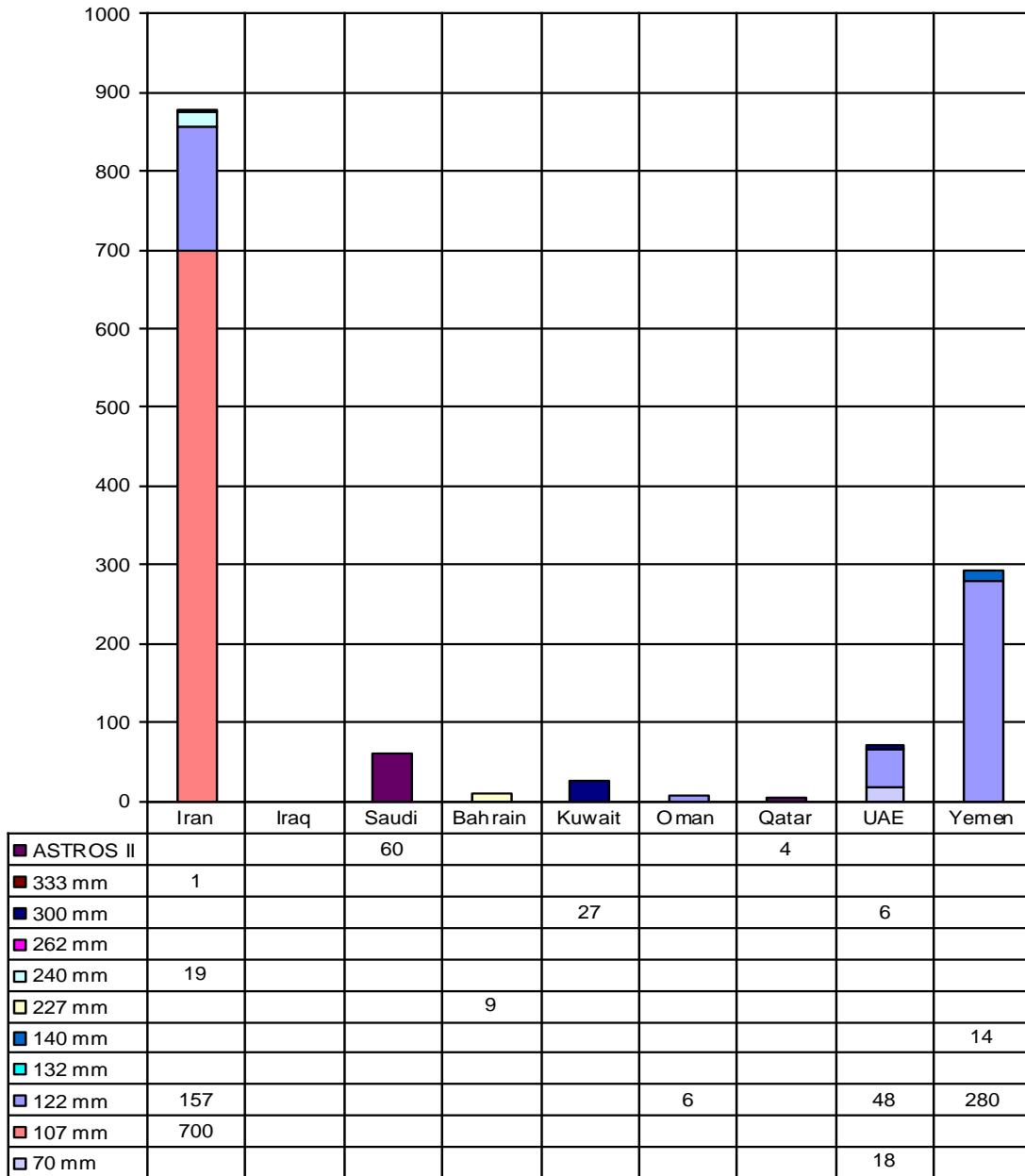
**Figure 10: Total Operational Gulf Artillery Weapons in 2010**



Note: Iranian totals include active forces in the Revolutionary Guards. Saudi totals include active National Guard. Omani totals include Royal Household Guard.

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 11: Gulf Inventory of Multiple Rocket Launchers by Caliber in 2010**

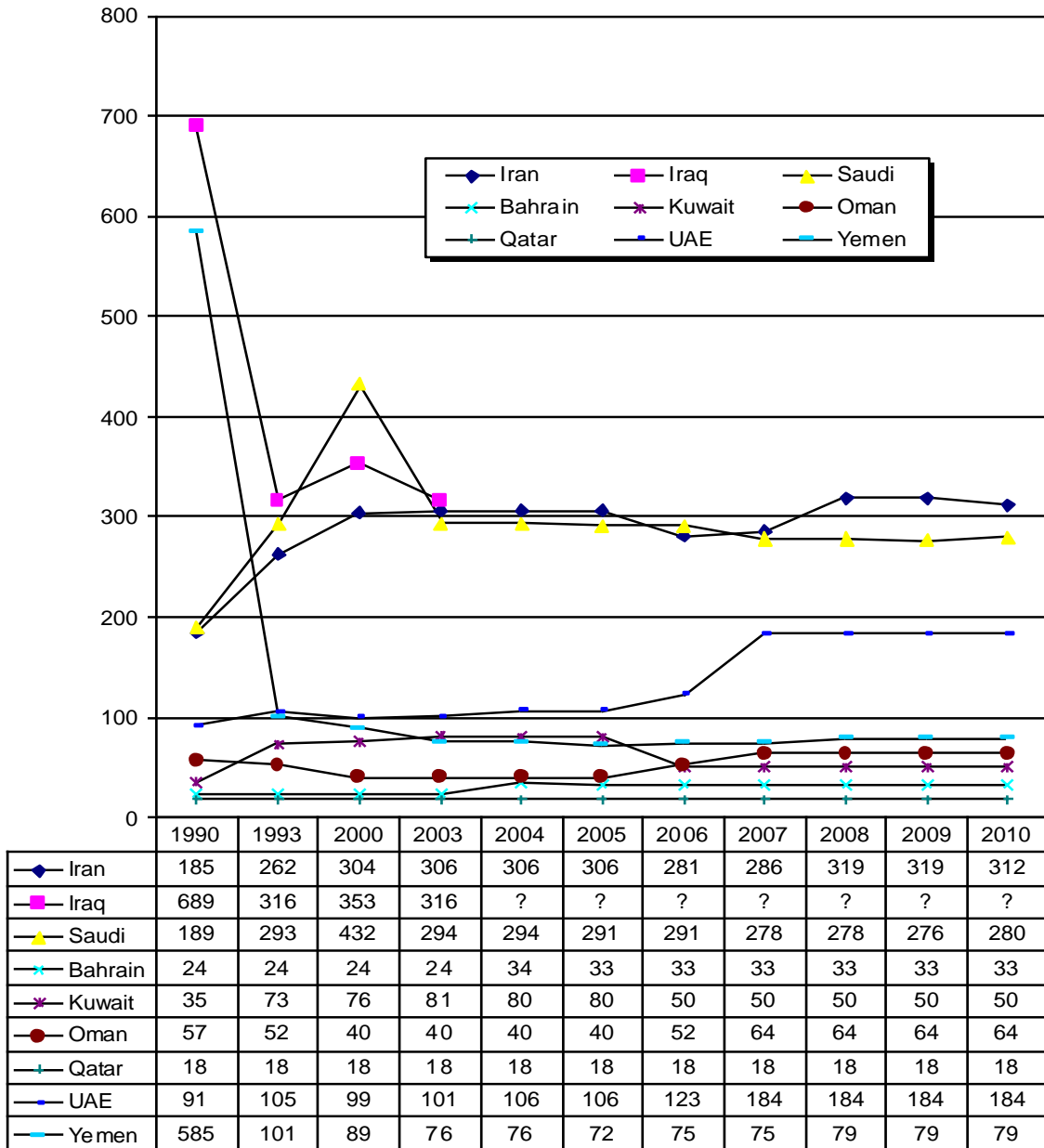


Note: Iranian totals include active forces in the Revolutionary Guards. Saudi totals include active National Guard. Omani totals include Royal Household Guard. Iraq has a total of approximately 200 Multiple-Rocket Launchers.

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 12: Total Operational Combat Capable Aircraft in All Gulf Forces 1993-2010**

(Does not include stored or unarmed electronic warfare, recce or trainer aircraft)

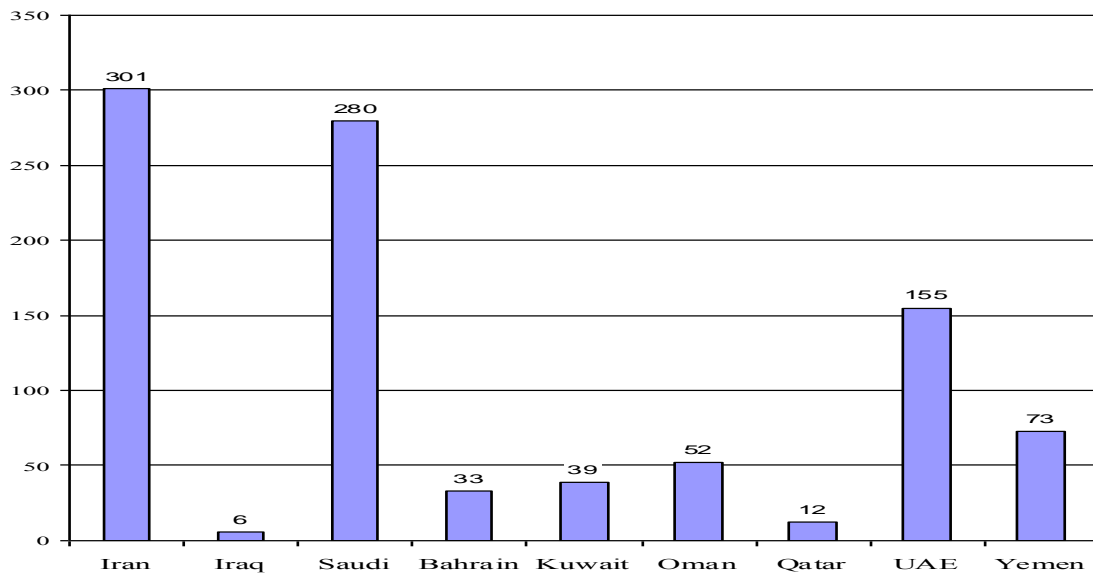


Source: Adapted from IISS, *The Military Balance*, *Periscope*, JCSS, *Middle East Military Balance*, *Jane's Sentinel* and *Jane's Defense Weekly*. Some data adjusted or estimated by the author.

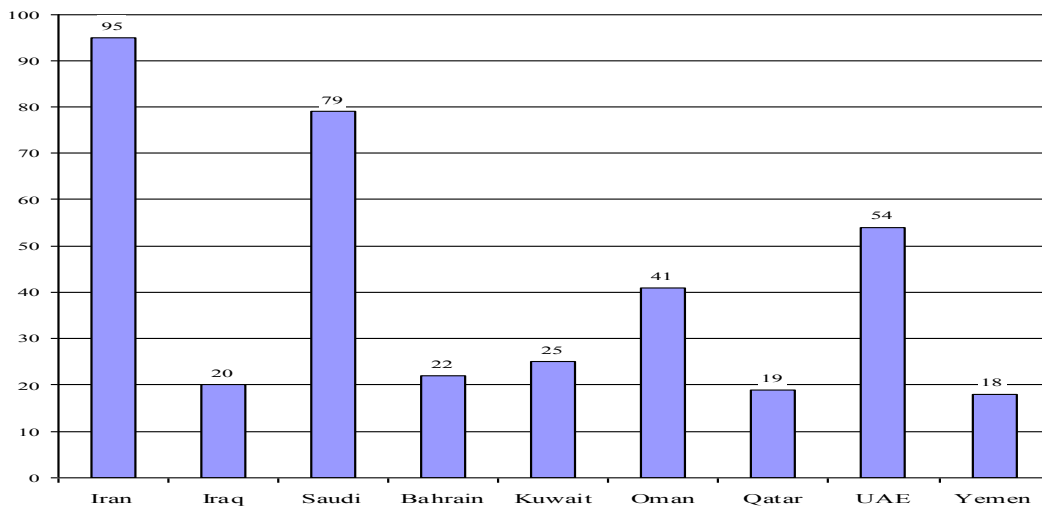


**Figure 13: Total Gulf Holdings of Combat Aircraft in 2010**

**Fixed Wing Combat Aircraft**



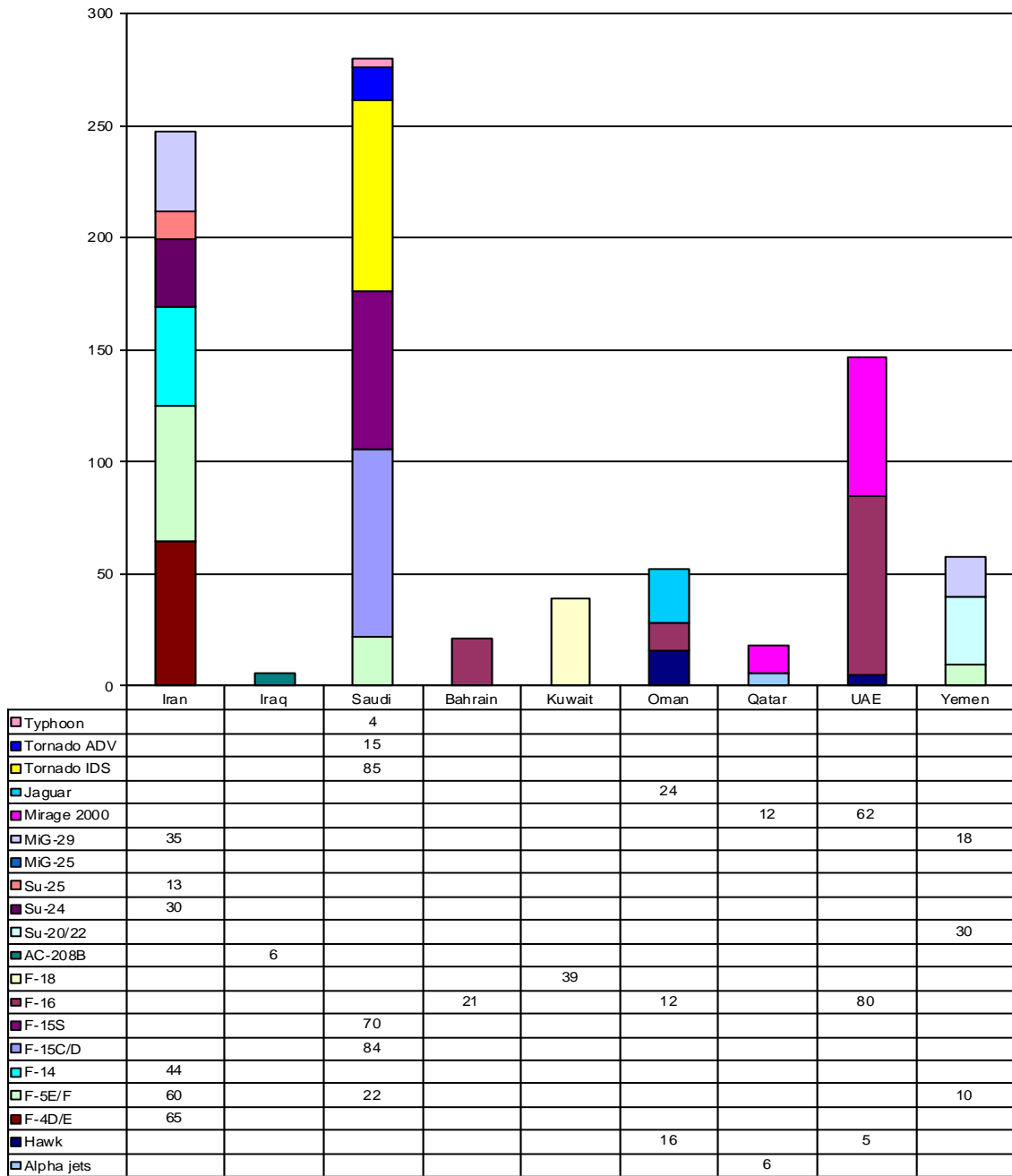
**Armed and Attack Helicopters**



Note: Only armed or combat-capable fixed wing combat aircraft are counted, not trainers, recce or other aircraft. Iraq has 6 Cessna AC-208Bs fulfilling dual recce and attack roles and 18 Mi-17 and 2 PZL W-3WA helicopters in support roles. Yemen has an additional 5 MiG-29S/UB on order.

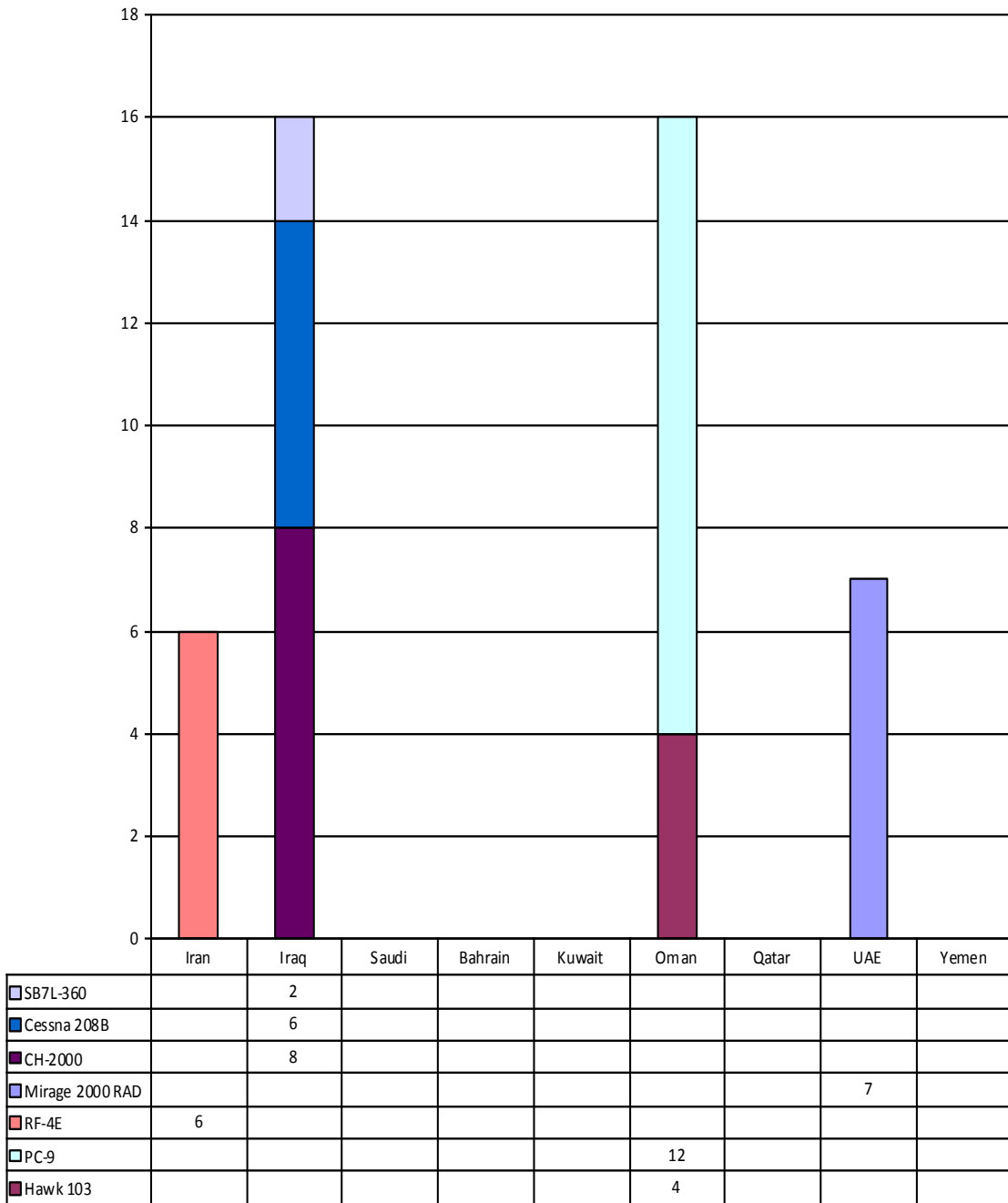
Source: Adapted from IISS, *The Military Balance*, *Periscope*, JCSS, *Middle East Military Balance*, Jane's *Sentinel* and Jane's *Defense Weekly*. Some data adjusted or estimated by the author.

**Figure 14: Gulf High and Medium Quality Fixed Wing Fighter, Fighter Attack, Attack, Strike, and Multi-Role Combat Aircraft By Type in 2010**  
 (Totals do not include combat-capable recce but does include OCUs and Hawk combat-capable trainers)



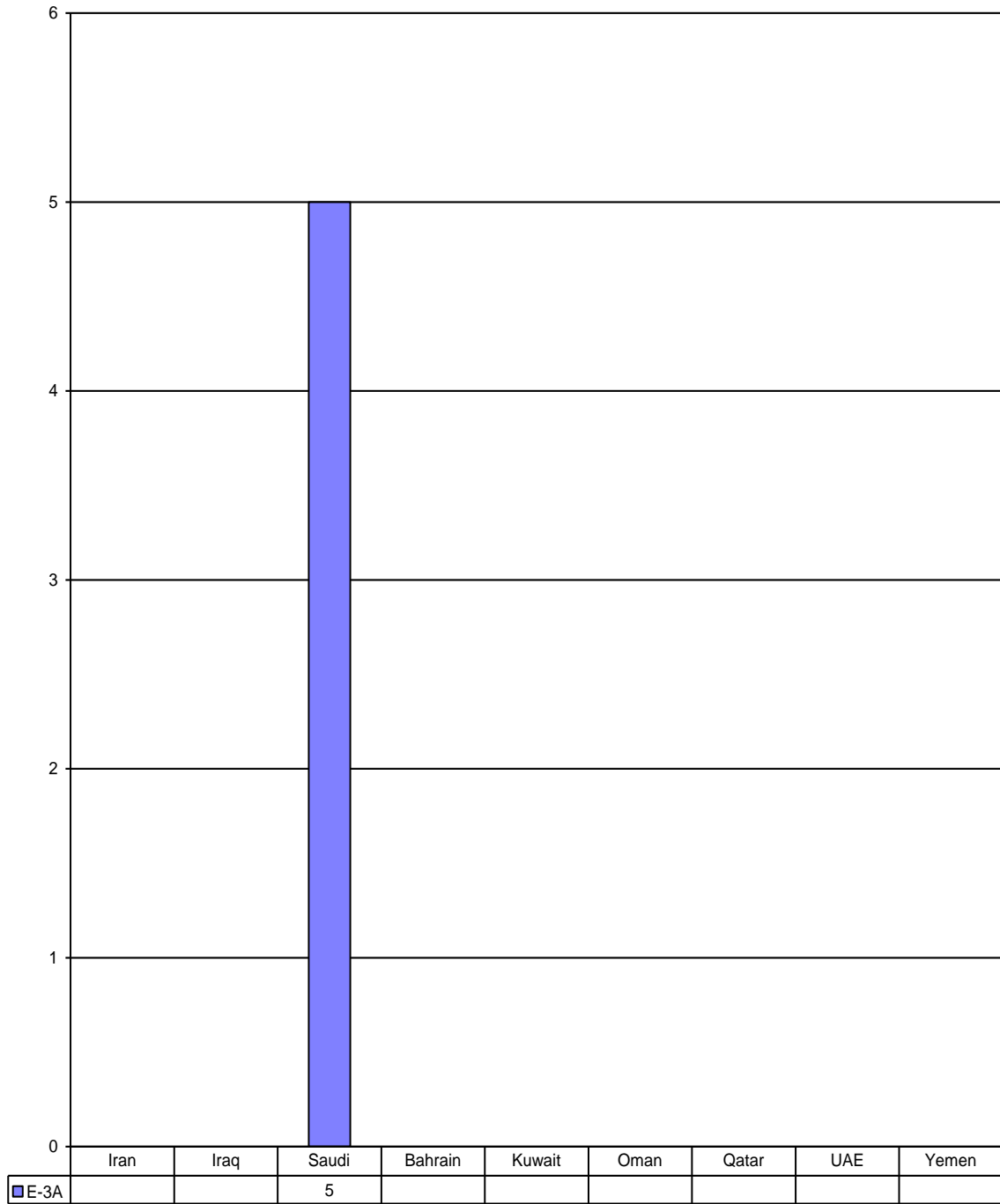
Source: Adapted from IISS, *The Military Balance*, *Periscope*, JCSS, *Middle East Military Balance*, *Jane's Sentinel* and *Jane's Defense Weekly*. Some data adjusted or estimated by the author.

**Figure 15: Gulf Reconnaissance Aircraft in 2010**



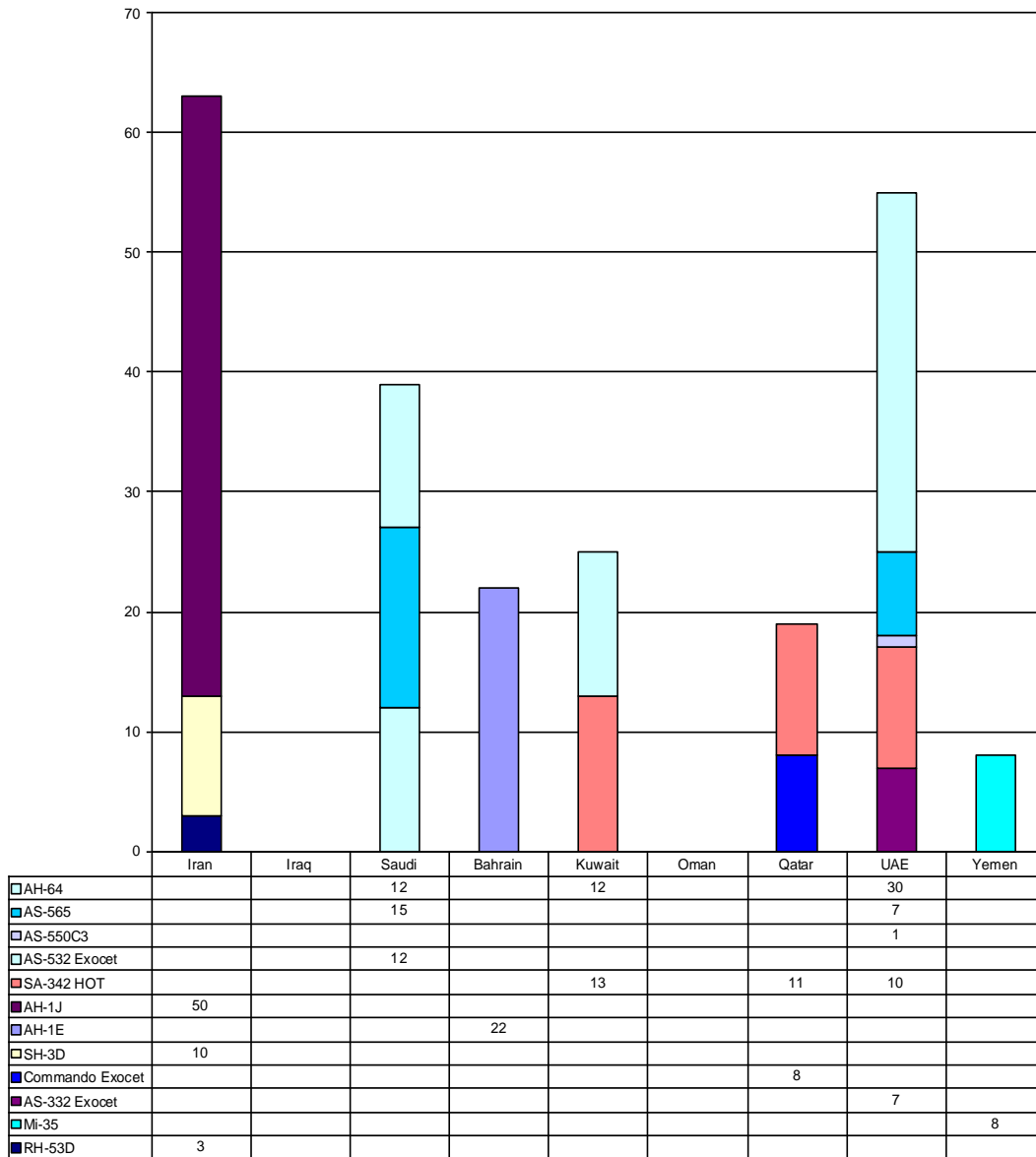
Source: Adapted from IISS, *The Military Balance*, *Periscope*, JCSS, *Middle East Military Balance*, Jane's *Sentinel* and Jane's *Defense Weekly*. Some data adjusted or estimated by the author.

**Figure 16: Sensor, AWACS, C4I, EW and ELINT Aircraft in 2010**



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 17: Gulf Attack, Anti-Ship and ASW Helicopters in 2010**



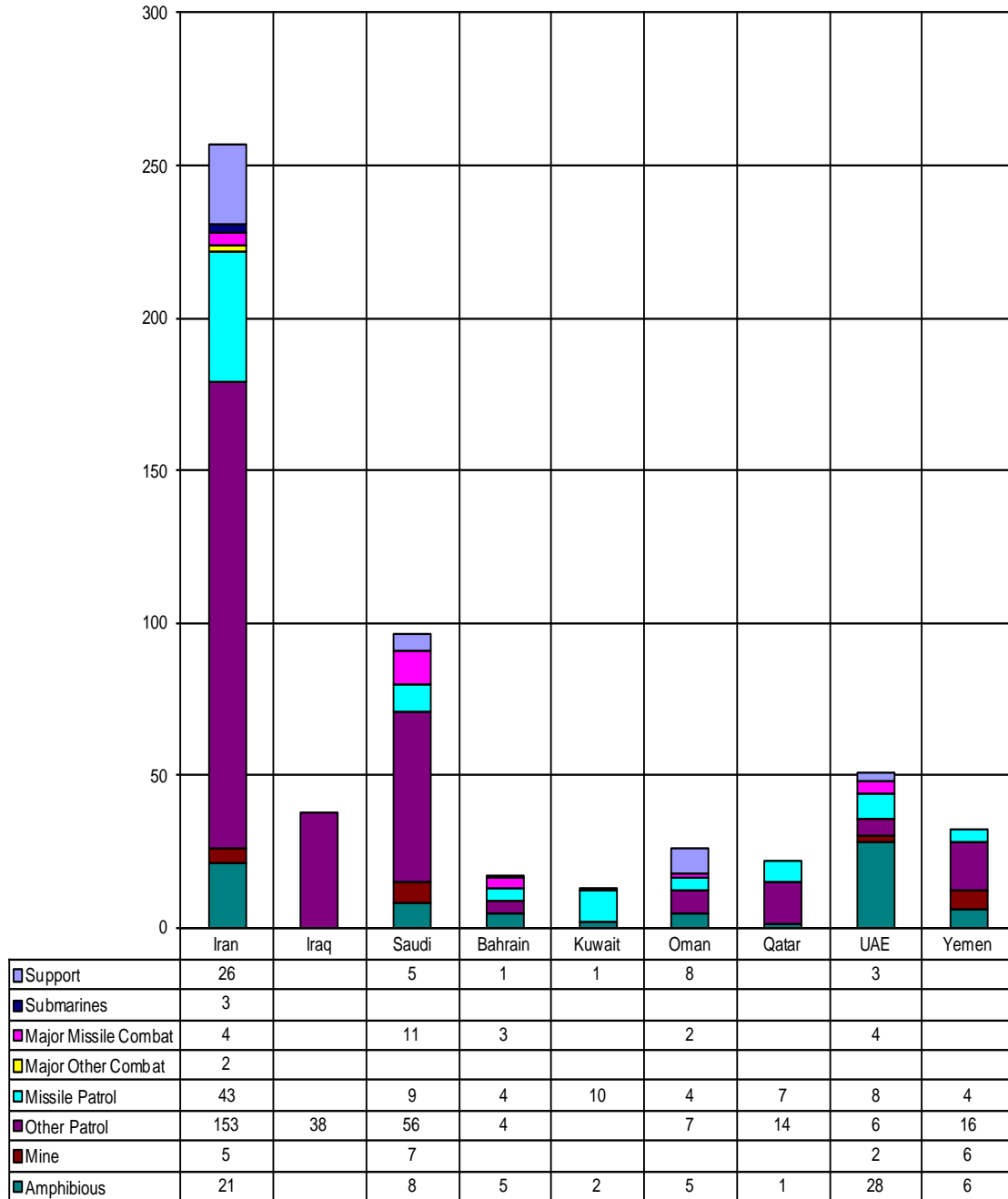
Source: Adapted from IISS, The Military Balance, Periscope, JCSS, Middle East Military Balance, Jane's Sentinel and Jane's Defense Weekly. Some data adjusted or estimated by the author.

**Figure 18: Gulf Land-Based Air Defense Systems in 2010**

Country	Major SAM	Light SAM	AA Guns
Bahrain	8 I Hawk	60 RBS-70 18 FIM-92A Stinger 7 Crotale	27 guns 15 Oerlikon 35 mm 12 L/70 40 mm
Iran	16/150 I Hawk 10 SA-5 45 SA-2 Guideline	10 Pantsyr S-1E (SA-22 Greyhound) 29 SA-15m Gauntlet (Tor-M1_ 30 Rapier 15 Tigercat Some SA-7/14/16, HQ-7 Some HN-5; QW-1 Misaq Some FM-80 (Crotale) Some FIM-92A Stinger	1,700 Guns ZPU-2/4 14.5 mm ZSU-23-4 23 mm ZPU-2/4 23 mm ZU-23 23 mm M-1939 37 mm ZSU-57-2 57 mm S-60 57 mm
Iraq	SA-2? SA-3? SA-6?	Roland 1,500 SA-7 850 (SA-8 Some SA-9/13 Some SA-14/16	6,000 Guns ZSU-23-4 23 mm, M-1939 37 mm, ZSU-57-2 SP, 57 mm 85 mm, 100 mm, 130 mm
Kuwait	5-6/40 PAC-2 launchers 5/24 I Hawk Phase III 6/12 Skyguard/Aspide	12 Aspide 48 Starburst/FIM-92A Stinger	12+ Oerlikon 35mm
Oman	None	12 Pantsyr S1E SPAAGM 8 Mistral II  34 Javelin 34 SA-7 40 Rapier 6 Blindfire S713 Martello	35 guns 9 VAB VDAA 20 mm 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	16/96 PAC-2 launchers 16/128 I Hawk 17/73 Shahine Mobile 68 Crotale/Shahine 17 ANA/FPS-117 radar	40 Crotale 500 FIM-92A Stinger (ARMY) 500 Mistral (ADF) 500 FIM-43 Redeye (ARMY) 500 Redeye (ADF) 73-141 Shahine static 400 FIM-92A Avenger (ADF)	1,220 guns 92 M-163 Vulcan 20 mm 30 N-167 Vulcan 20 mm (NG) 850 AMX-30SA 30 mm 128 GDF Oerlikon 35 mm 150 L-70 40 mm (in store) 130 M-2 90 mm (NG)
UAE	2/3 I Hawk	20+ Blowpipe 20 Mistral Some Rapier Some Crotale; Javelin Some RB-70; SA-18	62 guns 42 M-3VDA 20 mm SP 20 GCF-BM2 30 mm
Yemen	Some SA-2, 3, 6	Some 800 SA-7, 9, 13, 14	490+ guns 50 M-167 20 mm 20 M-163 Vulcan SP 20 mm 50 ZSU-23-4 SP 23 mm 100 ZSU-23-2 23 mm 150 M-1939 37 mm 120 S-60 57 mm 40 M-1939 KS-12 85 mm

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.

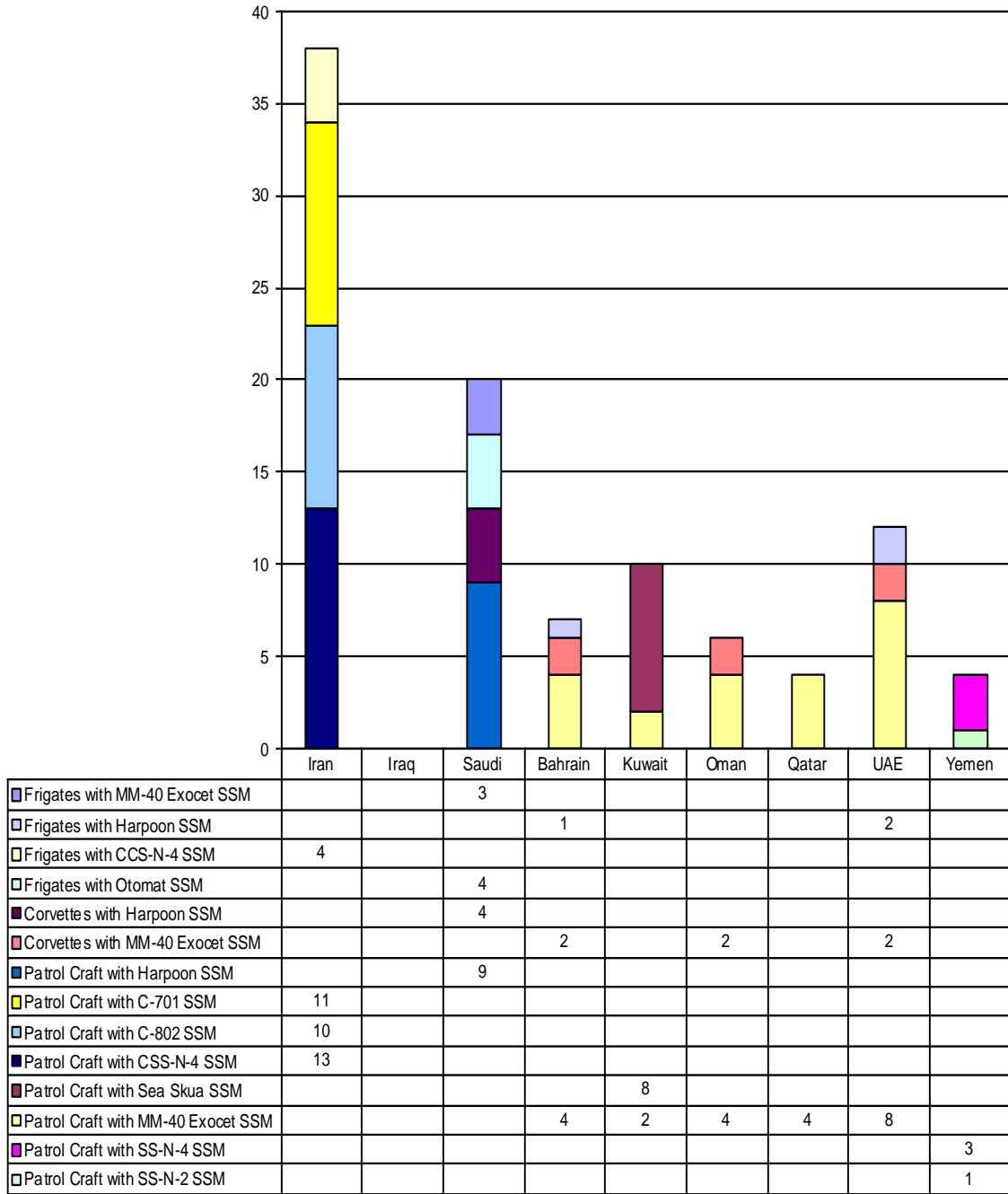
**Figure 19: Gulf Naval Ships by Category in 2010**



Note: Iranian totals include active forces in the Revolutionary Guards. Totals do not include coast guard-operated patrol and costal combatants.

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.

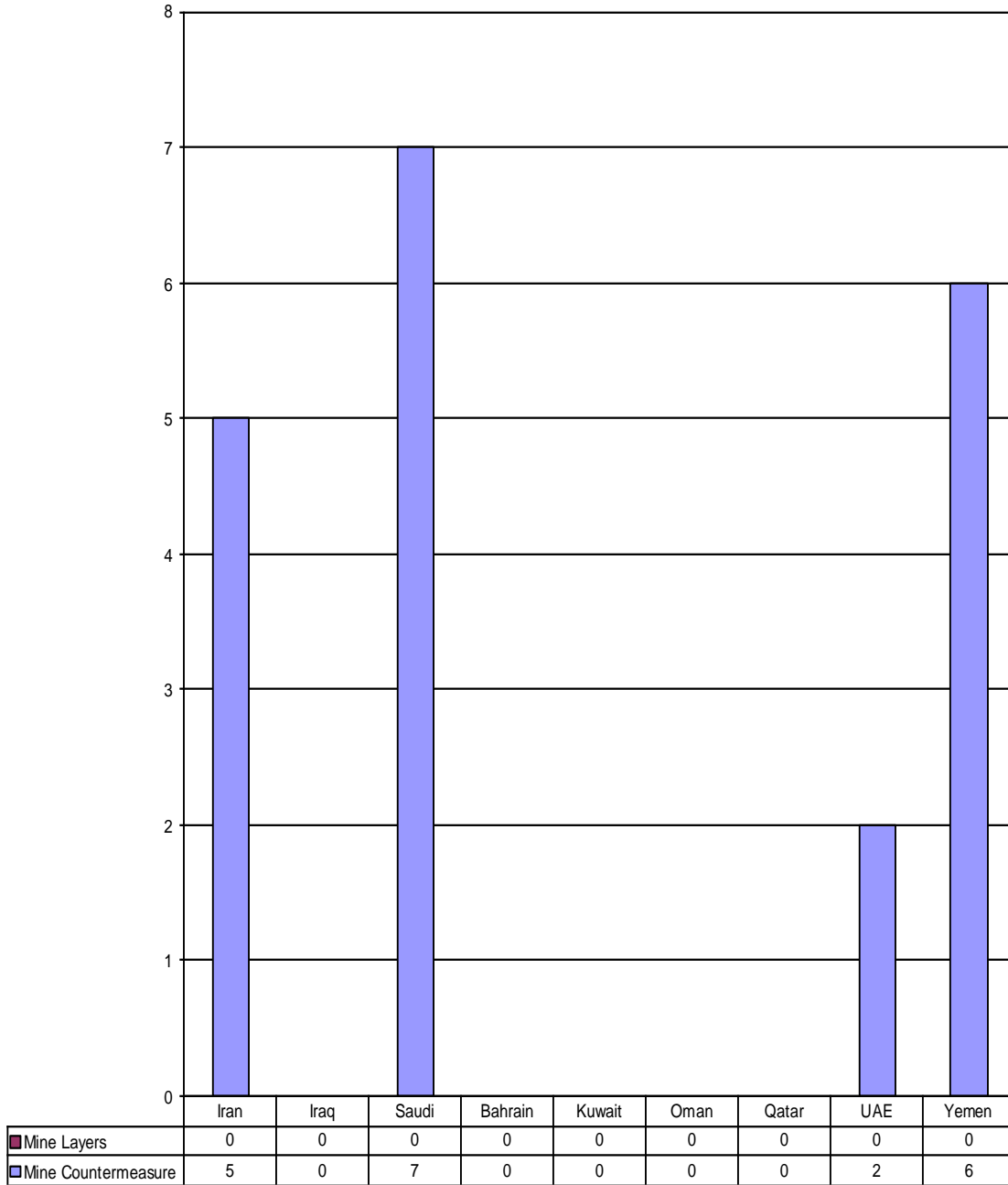
**Figure 20: Gulf Warships with Anti-Ship Missiles in 2010**



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.

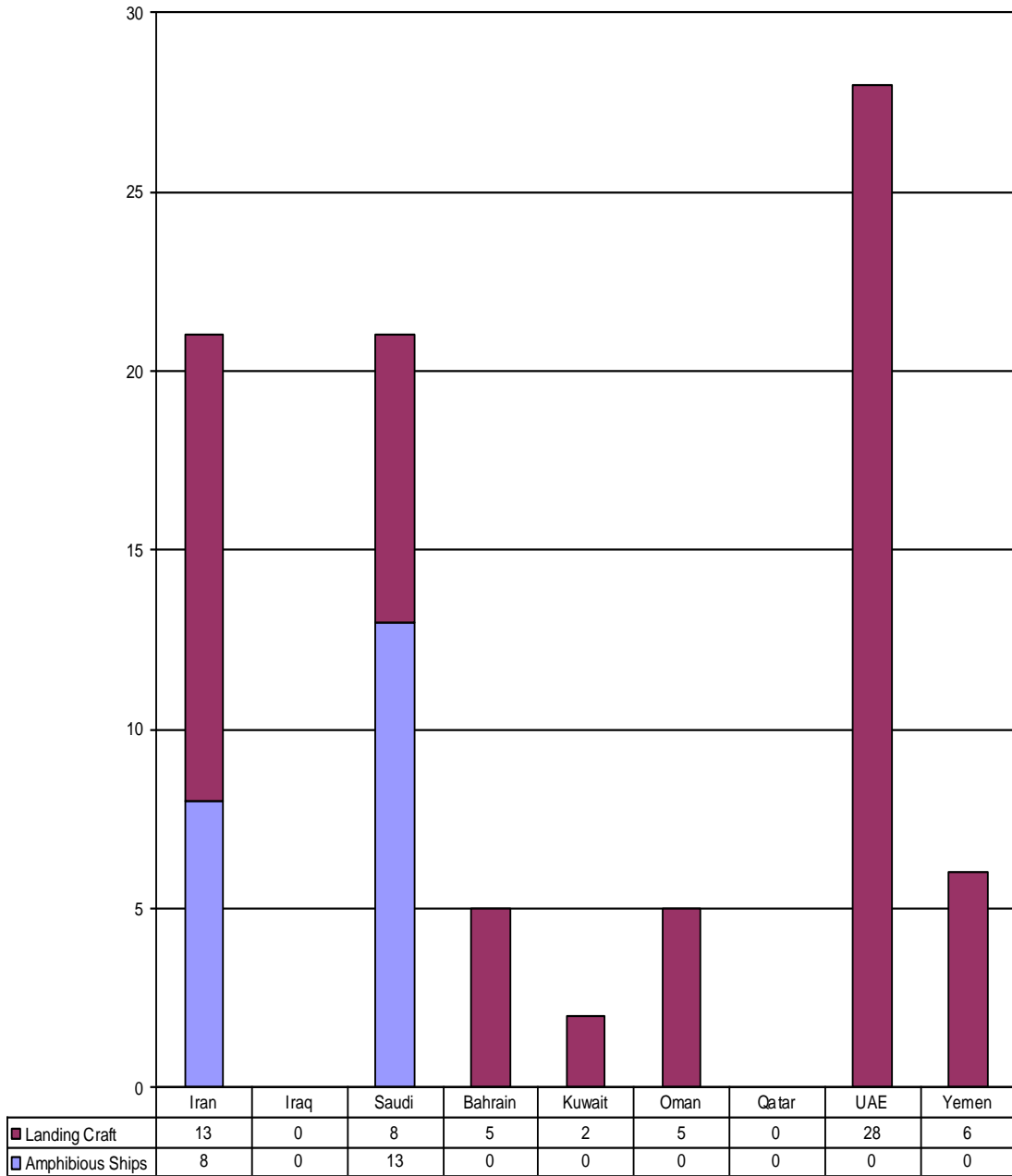


**Figure 21: Gulf Mine Warfare Ships in 2010**



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.

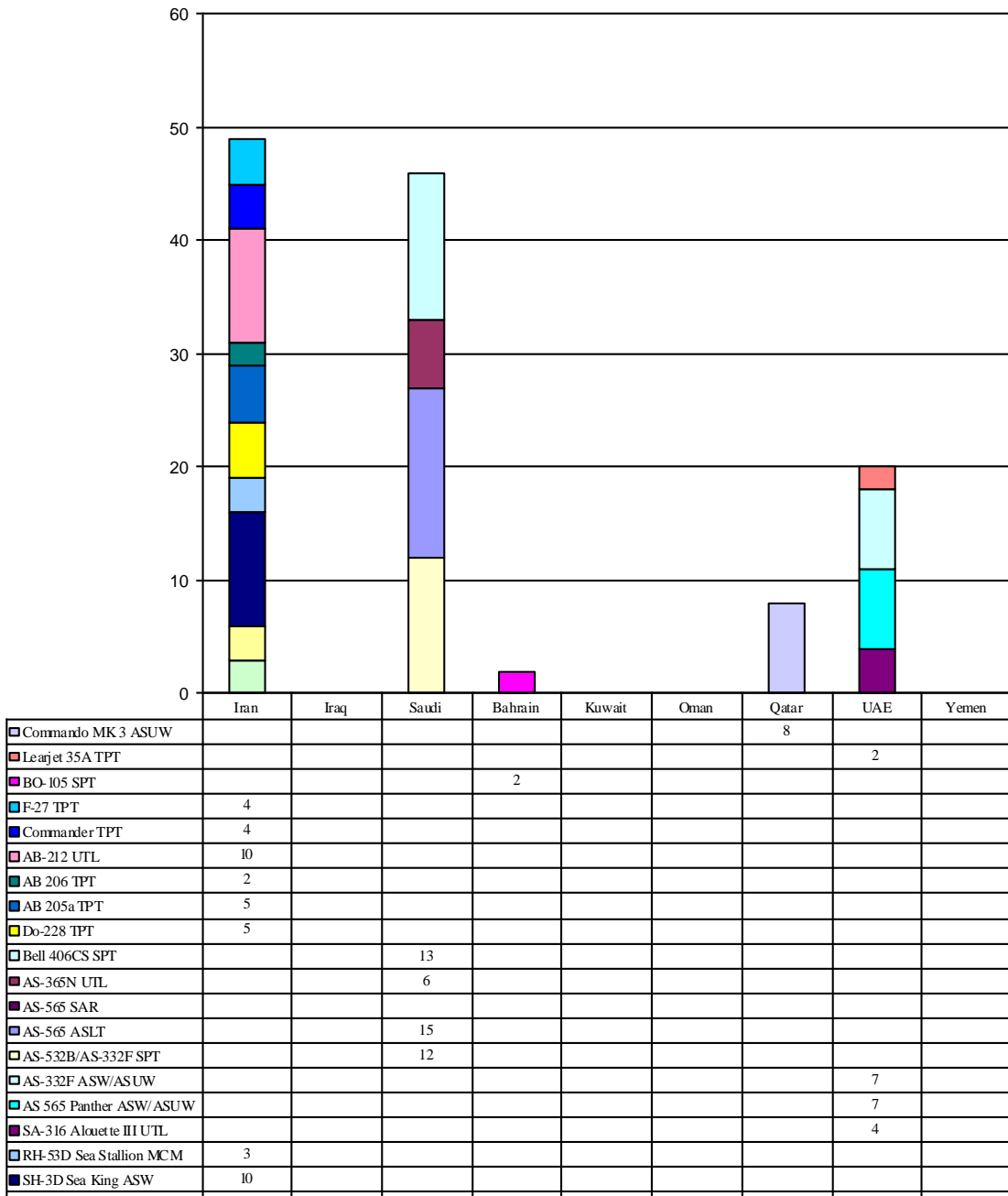
**Figure 22: Gulf Amphibious Warfare Ships in 2010**



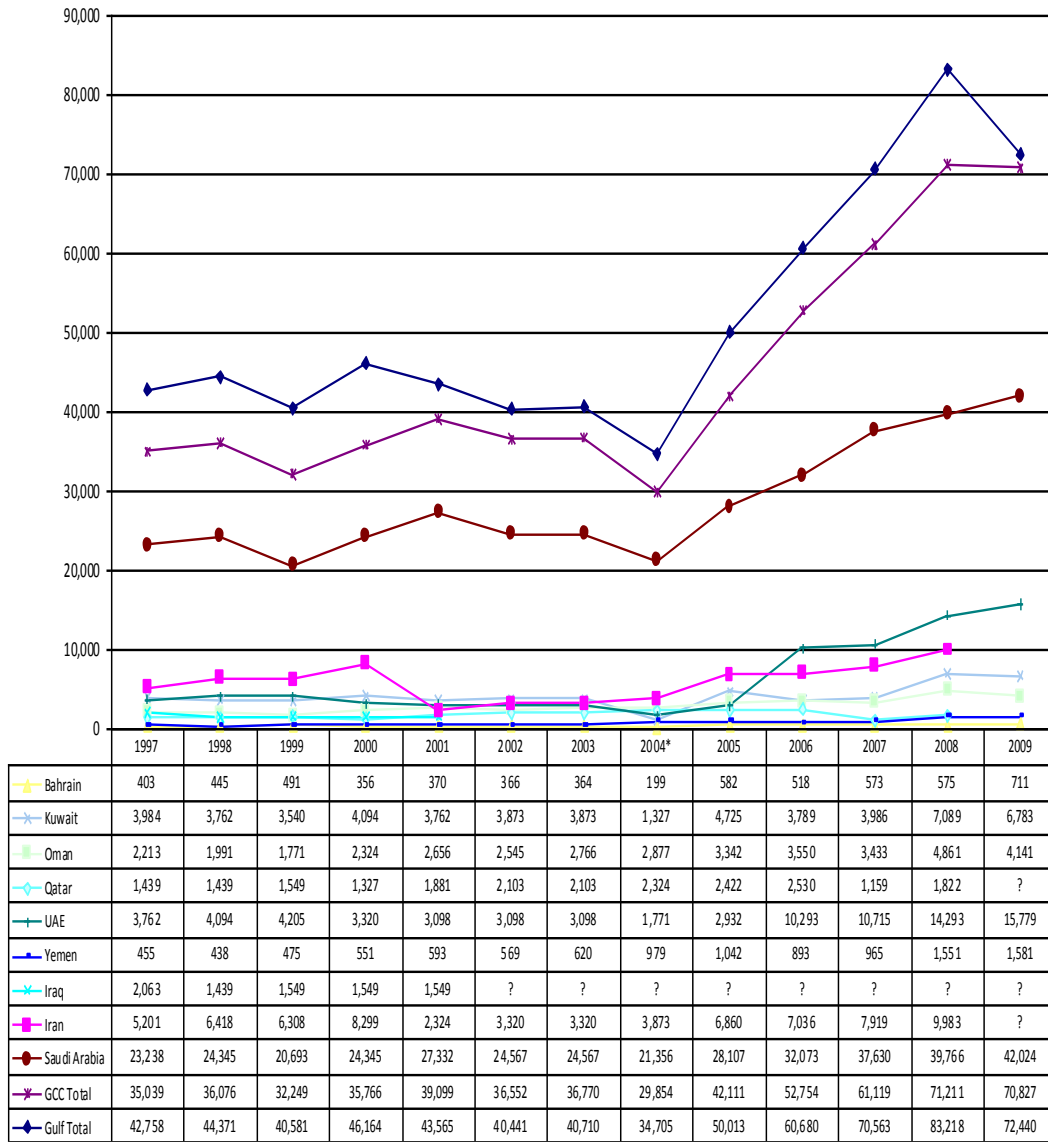
Note: Saudi totals include 8 UCAC and 5 LCAC from the Saudi Coast Guard.

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 23: Gulf Naval Aircraft and Helicopters Aircraft in 2010**



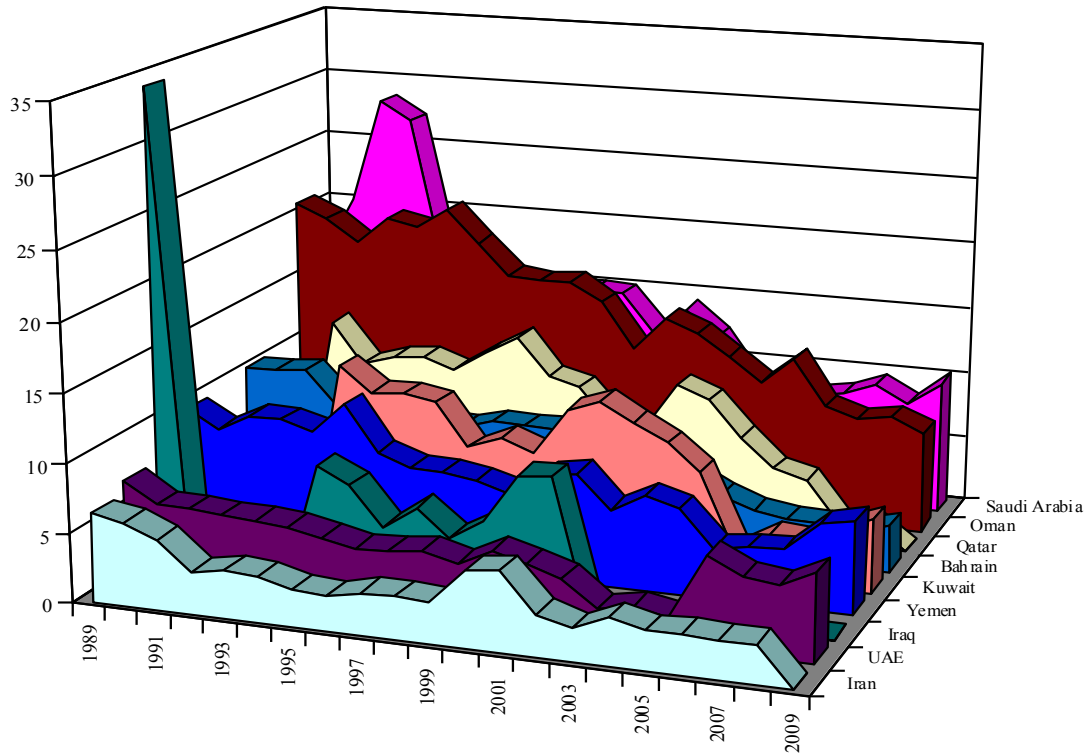
**Figure 24: Southern Gulf Military Expenditures by Country: 1997-2009**  
(in 2010 Constant Millions)



\* The IISS did not report military expenditures for 2004. The number for 2004 represents the military budget, which does not include procurement costs.

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.

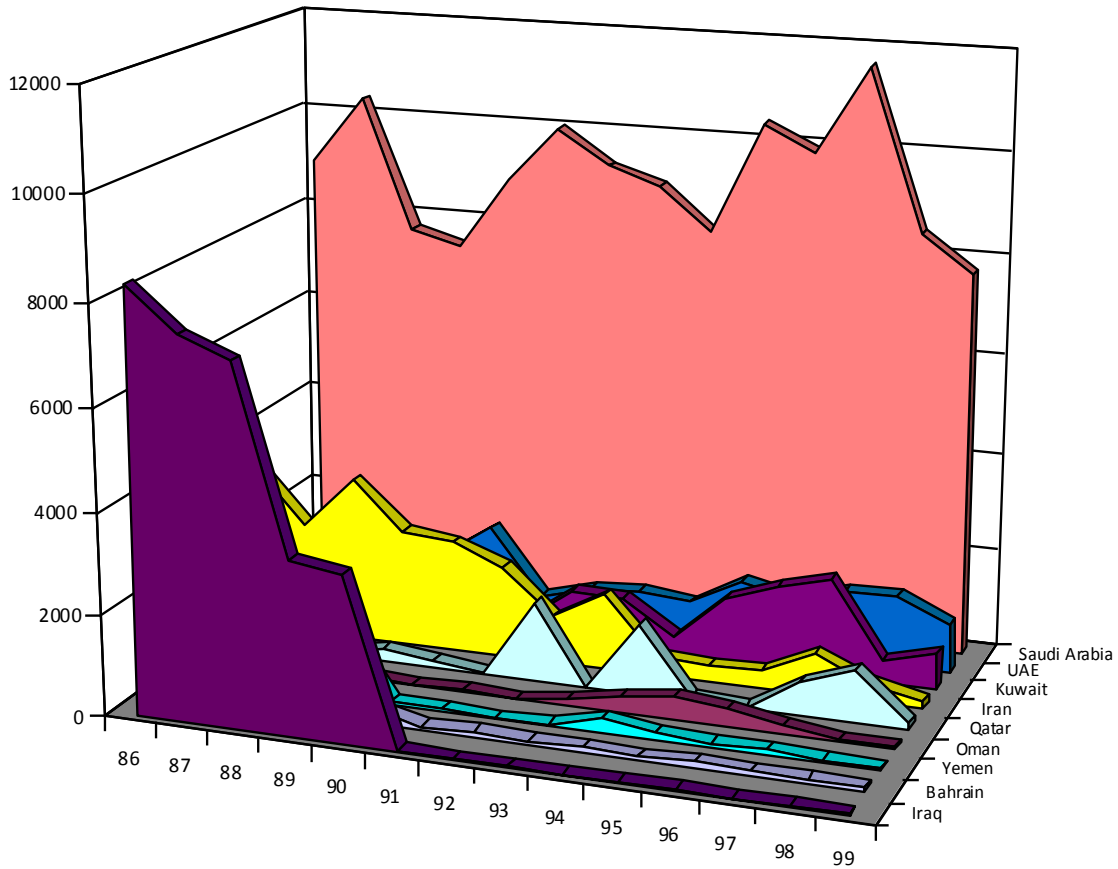
**Figure 25: Comparative Military Expenditures of the Gulf Powers as a Percent of GDP - 1989-2009**



	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Iran	34.3	-	-	-	3.4	3.3	2.6	2.5	3	3.1	2.9	5.5	5.8	3	2.3	3.4	2.8	2.9	2.8	2.8	-
UAE	7.3	5.8	5.8	5.6	5.5	5.3	4.8	4.3	4.4	4.7	4.1	5.2	4.6	3.9	2	2.5	2	6.7	5.5	5.1	6.3
Iraq	34.3	-	-	-	8.3	7.1	4.3	6	4.1	5.5	9.1	9.3	-	-	-	-	-	-	-	-	-
Yemen	9.9	8.6	9.8	9.8	9.2	11.4	8	7.2	7.1	6.7	6.1	7.8	8.1	5.7	7	6.3	3.7	4.1	4.2	6.3	6.8
Kuwait	6.1	5.3	10.1	7.7	12.8	11	11.1	10.7	7.6	8.6	7.7	11.1	12	10.7	9.4	7.5	2	3.4	3.3	4.4	5.4
Bahrain	10.5	10.5	10.8	8.2	7.9	7.5	7.7	7.5	8.2	8.1	8.1	4.7	4.8	4	5.6	4.4	3.5	3.1	3	2.76	3.4
Qatar	-	-	13.2	10.2	10.9	11.1	10.4	11.9	13.3	10.6	10	7.3	7.2	10.9	9.9	7.3	5.2	4.5	1.5	1.75	-
Oman	21.1	20.1	18.4	20.5	20	21.5	19.1	16.8	16.6	16.7	15.3	11.9	14.5	13.5	11.9	10.2	12.3	8.9	8.1	8.5	7.5
Saudi Arabia	15.9	20.6	28.5	27.2	16.4	14.1	13.2	14.9	14.9	14.9	14.9	11.9	14	12	8.9	8.36	8.2	8.5	9.4	8.2	10

Source: Adapted from the IISS, *Military Balance*, various editions, ACDA, *World Military Expenditures and Arms Transfers, 1995*, ACDA/GPO, Washington, 1996 and US State Department, *World Military Expenditures and Arms Transfers, 1999-2000*, Bureau of Arms Control, Washington, 2001.

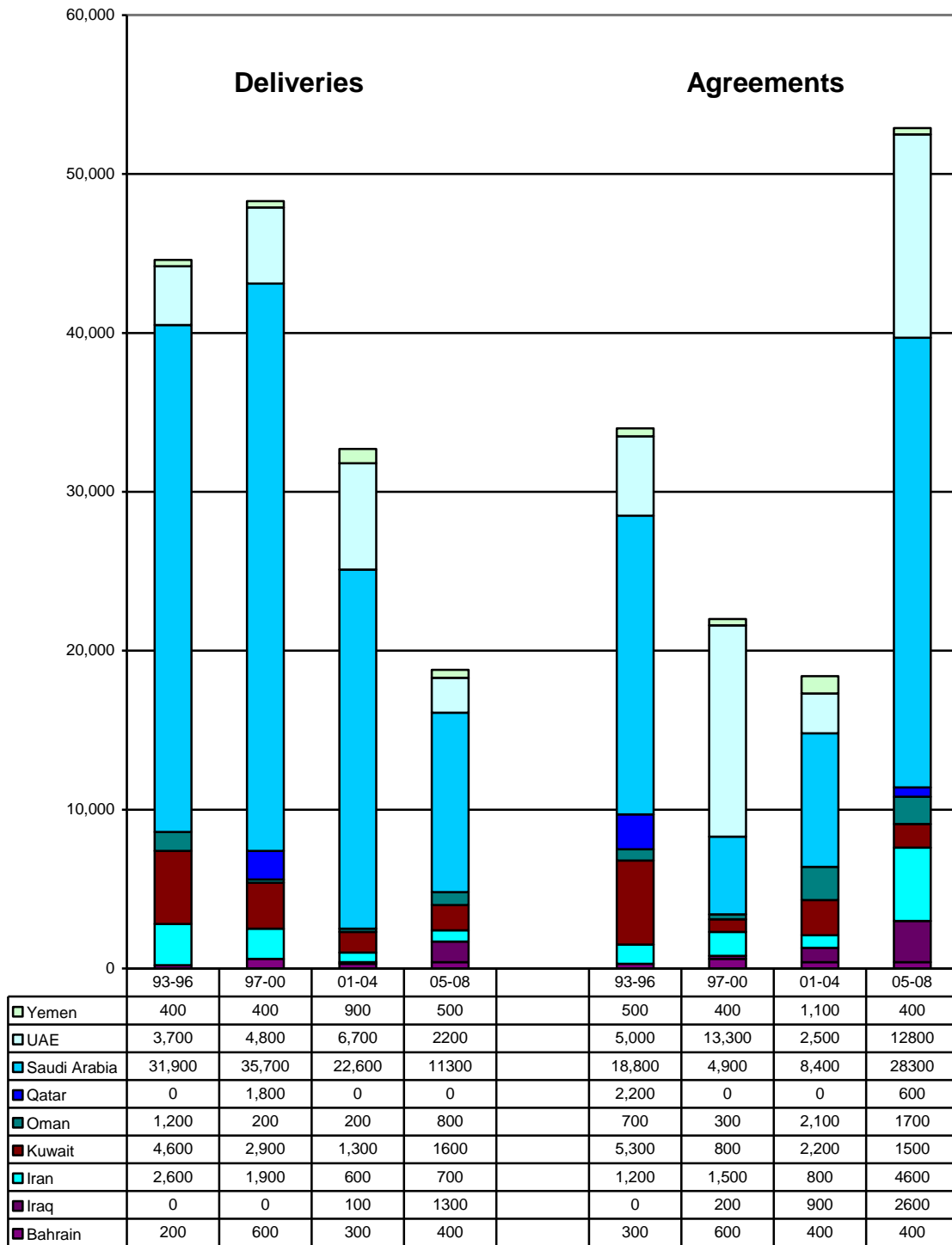
**Figure 26: Cumulative Arms Imports of the Other Gulf states - 1984-1999**  
(Value of Deliveries in Constant \$US Millions)



	86	87	88	89	90	91	92	93	94	95	96	97	98	99
■ Iraq	8288	7448	7078	3407	3279	0	0	0	0	0	0	0	0	5
□ Bahrain	91	418	126	97	328	79	122	86	106	72	132	90	101	70
■ Yemen	564	1045	1523	1554	35	41	6	22	275	145	81	110	30	30
■ Oman	178	157	38	73	12	57	11	140	307	445	376	160	30	30
□ Qatar	7	12	38	219	117	23	1552	11	1375	52	5	625	1015	120
■ Iran	3305	2221	3286	2312	2225	1812	942	1512	412	342	356	850	376	150
■ Kuwait	271	248	152	316	316	374	1109	1080	412	1346	1728	2000	457	725
■ UAE	247	261	404	1187	1874	532	804	891	793	1346	1118	1400	1421	950
■ Saudi Arabia	8978	10320	7710	7423	8900	9968	9312	8962	8143	10350	9862	11600	8424	7700

Source: Adapted from State Department, World Military Expenditures and Arms Transfers, GPO, Washington, various editions.

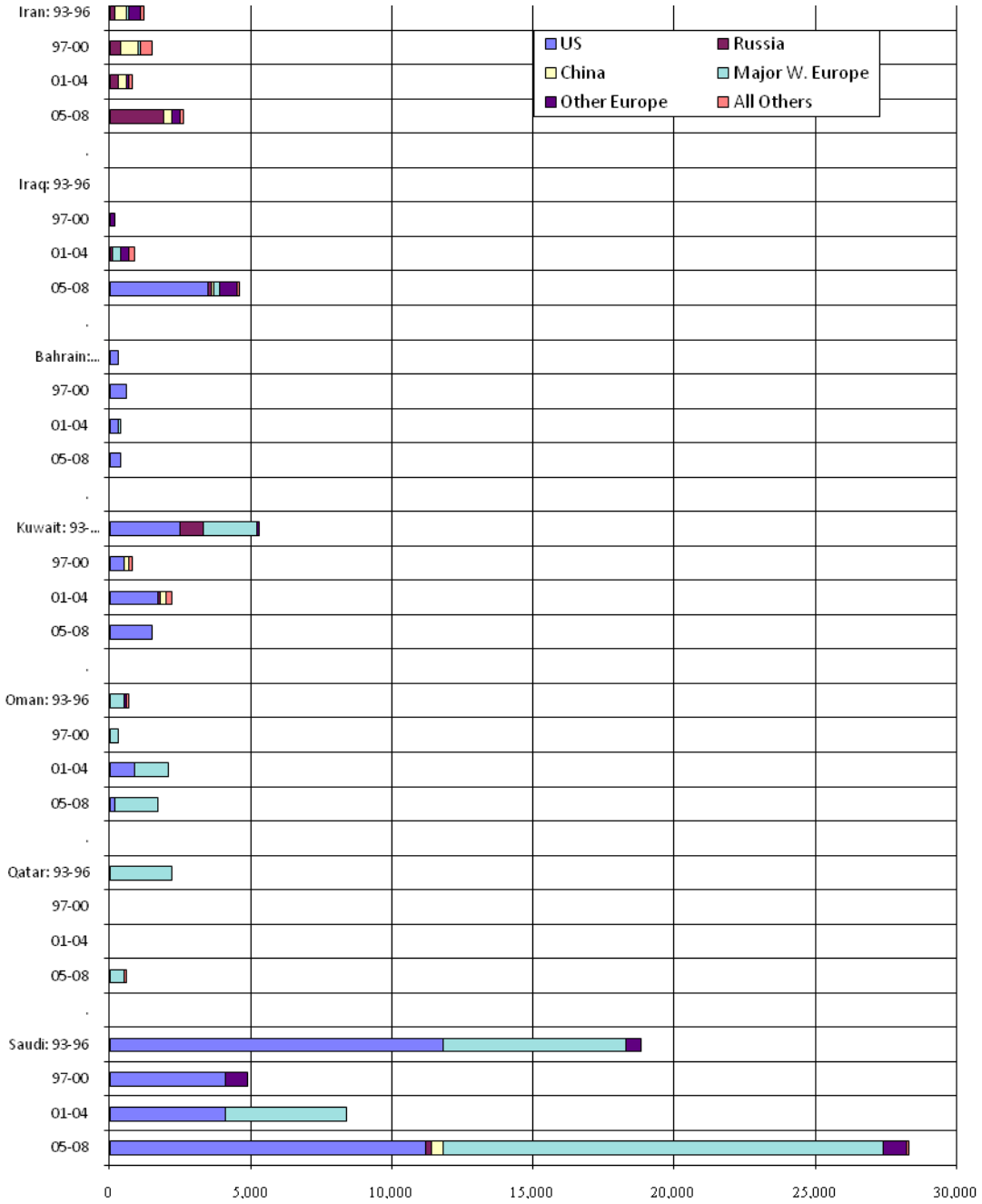
**Figure 27: Gulf Arms Agreements and Deliveries by Country: 1993-2008**  
(in \$US Current Millions)



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

Source: Richard F. Grimmett, Conventional Arms Transfers to the Developing Nations, Congressional Research Service, various editions.

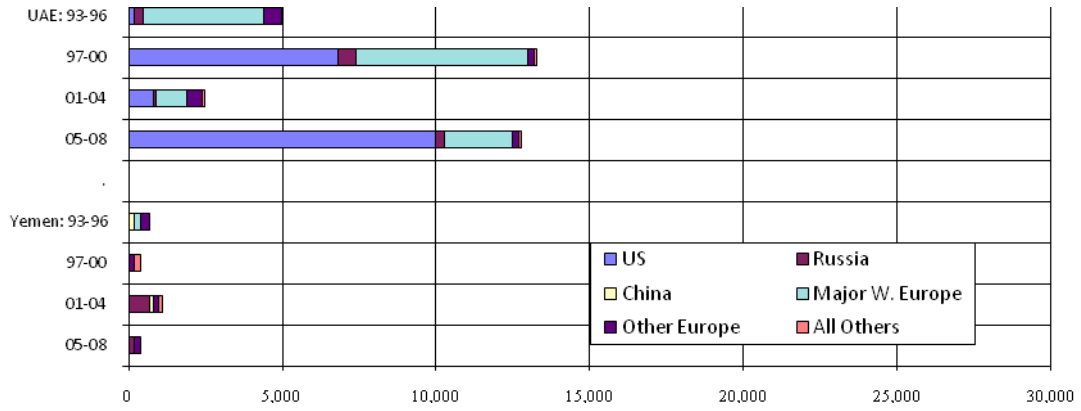
Figure 28: Southern Gulf New Arms Orders by Supplier Country: 1993-2008  
(Arms Agreements in \$US Current Millions)



(Continued on next page)



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0 = less than \$50 million or nil, and all data rounded to the nearest \$100 million.

Source: Adapted from Richard F. Grimmett, Conventional Arms Transfers to the Developing Nations, Congressional Research Service, various editions.

### Figure 29: Iran's Exercises Illustrate Its Focus on Asymmetric Warfare

- **January 27, 2006: Iran completes major military exercise that tests Teheran's ability to attack Gulf shipping and Arab oil facilities.** Sources said the exercise was designed to test capabilities to strike U.S. and Arab targets throughout the area of the Gulf. According to a diplomatic source, the exercise was meant to show the West that Iran could stop all oil shipments in the Gulf and destroy numerous oil facilities in Gulf Arab countries," and included a range of fighter-jets and helicopters from the Iranian Air Force, with the Iranian navy contributed surface vessels and submarines.
- **August 19, 2006: Iran launches a series of large-scale military exercises aimed at introducing the country's new defensive doctrine,** state-run television reported. The television report said the military exercise would occur in 14 of the country's 30 provinces and could last as long as five weeks. The first stage of the maneuvers began with air strikes in the southeastern province of Sistan va Baluchistan. The military exercise, is said to involve 12 infantry regiments, and is called "The Blow of Zolfaghar," in reference to a sword that belonged to Imam Ali, one of the most revered figures for Shi'ite Muslims.
- **November 3, 2006: Iran's Revolutionary Guards began another series exercises on days after a United States-led naval exercise began in the Gulf. Iran began the 10 days of maneuvers in the Gulf** by test firing dozens of missiles, including the long-range Shahab-3 (estimated range: 2000 km or 1,240 miles), and the Shahab-2, which Iran says can carry a cluster warhead that can deliver 1,400 bomblets at once. Major General Yahya Rahim Safavi, leader of the Revolutionary Guards, says on television that Iran's military exercises were not meant to threaten neighboring countries. "We want to show our deterrent and defensive power to trans-regional enemies, and we hope they will understand the message of the maneuvers," he said. "The first and main goal is to demonstrate the power and national determination to defend the country against possible threat." General Safavi said the exercises would last 10 days and would take place in the Gulf, the Gulf of Oman and several Iranian provinces.
- **March 23-30 2007: Iran's regular Navy launches week-long war-games on its southern shores.** The military exercises are being carried out in the Gulf by Iran's regular Navy, the report said, adding that they would continue until March 30.
- **January 7, 2008: US ships harassed by Iran. Iranian boats approach three U.S. Navy ships in the strategic Strait of Hormuz, threatening to explode the American vessels.** U.S. forces are reported to be on the verge of firing on the Iranian boats, when the boats - believed to be from the Iranian Revolutionary Guard's navy - turn and move away. A Pentagon official say. "It is the most serious provocation of this sort that we've seen yet," He says the incident occurs at about 5 a.m. local time Sunday as Navy cruiser USS Port Royal, destroyer USS Hopper and frigate USS Ingraham were on their way into the Gulf and passing through the strait - a major oil shipping route. to take evasive maneuvers. There were no injuries but the official said there could have been, because the Iranian boats turned away "literally at the very moment that U.S. forces were preparing to open fire" in self defense.
- **July 7, 2008: Iran's elite Islamic Revolutionary Guards Corps launch large-scale, five-day war-games, dubbed "Exercise Stake Net", was carried out in the Straits of Hormuz and the Sea of Oman,** where an assortment of new weapons were brought into play. The Iranian military maneuvers take place on the same day the United States announces it too will holding naval exercises in the Gulf.
- **Iranian state media say that the military maneuvers by the IRGC's Navy and Air Force missiles unit are aimed at improving the force's military abilities.** Separately, Brigadier General Mahmoud Chaharbaghi, commander of the IRGC Ground Forces artillery and missiles unit, announces that 50 of his unit's brigades are being armed with smart weapons and cluster bombs. Iran later test-fires nine missiles including what is claims is an upgraded version of Shahab-3 ballistic missile with a one-ton warhead capable of destroying targets within a 2,000-kilometer (1,245-mile) range.

- **September 7, 2008: Iran's armed forces test the country's new weapons systems and defense plans in a three-day military maneuver. Iran's naval forces claim to have made a breakthrough in building various types of "radar evading" submarines to guard its territorial waters.** The IRGC says it successfully test-fired advanced shore-to-sea, surface-to-surface and sea-to-air missiles. The Islamic Revolution Guards Corp (IRGC) and the Army take part in drills involving anti-aircraft defense systems. The main purpose of the maneuvers is to maintain and promote the combat readiness of relevant units and to test new weapons and defense plans. Iran's Chief Navy Commander, Rear Admiral Habibollah Sayyari, said Iran is upgrading its naval fleet with a new generation of domestically-built submarines.
- **September 15, 2008: The Islamic Republic Air Force tests Iran's domestic-made warfare in a joint military exercise with the IRGC,** the Defense Ministry says. The joint aerial maneuver is aimed at boosting Iran's defensive capabilities and operational tactics, Iran's Defense Minister Brigadier General Mostafa Mohammad-Najjar said. The military exercise, which involves The Islamic Republic of Iran Air Force (IRIAF) and the Islamic Revolution Guards Corps (IRGC), comes in the wake of escalating US and Israeli threats to strike the country's nuclear facilities.
- **October 10, 2008: Islamist militiamen affiliated to Iran's Islamic Revolutionary Guards Corps (IRGC) stage military exercises in the suburbs of Tehran on Friday to defend the Iranian capital against "natural disasters" and "enemy assaults".** Members of the paramilitary Basij take part in military drills under the command of the Tharallah Garrison in Tehran. Similar war games are held in Karaj, Islamshahr, Shahre Rey, Rabat Karim, and Varamin, said the acting deputy commandant of the IRGC, Brigadier General Mohammad Hejazi, who also commands the Tharallah Garrison. The maneuvers last for 48 hours. Meanwhile another senior Basij leader announces that the paramilitary force is giving specialized training" to its units across Iran."These units are receiving specialized air, sea and ground training to be prepared for defending the country, the ruling establishment, and the revolution", said Brigadier General Ahmad Zolqadr on the sidelines of a military parade in Zanjan, north-west Iran. Zolqadr is the operational commander of the Basij.
- **November 12, 2008: Iran launches a "new" type of long-range ballistic missile dubbed "Sajjil,"** but its general layout was indistinguishable from the description of the "Ashura," which was flight-tested about one year ago.
- **December 2-7, 2008: Iran announces recent upgrades to the Naval Base in Asalouyeh and the now online base facilities in the port of Jask.** Iranian officers state that long range tactical missile silos and shore based anti-ship missiles have long been key aspects of planning of potential military operations in the event of an open conflict. Top Iranian Army commander Major General Ayatollah Saleh is quoted in *Pressiv Nov 30* as saying "the heavy weight of the enemy warships provides the Iranian side with an ideal opportunity for launching successful counter-attacks" Iran announces that it is in the final stages of planning an extensive naval and military exercise 'Unity 87' due to commence in December 2008. Iran says it will seek to accomplish objectives that include defense against a Israeli and US threat, closing the Strait of Hormuz to local and international shipping, and the testing new and improved military equipment and tactics.
- **Admiral Qasem Rostamabadi tells states radio that "The aim of this maneuver is to increase the level of readiness of Iran's naval forces and also to test and to use domestically-made naval weaponry."** He says the naval maneuvers cover an area of 50,000 square miles, including the Sea of Oman off Iran's southern coast. "In this six-day long maneuver there will be more than 60 combat vessel units," Kayhan quotes Admiral Habibollah Sayyari, commander of the navy as saying it will include destroyers, missile-equipped battleships, submarines, special-operations teams, helicopters, and fighter planes. Iran has previously claimed it could close the Strait of Hormuz to shipping, through which about 40 percent of the world's globally traded oil passes. The United States has pledged to protect shipping routes. An Iranian naval commander says a week earlier that the country's navy could strike an enemy well beyond its shores and as far away as Bab al-Mandab, the southern entrance to the Red Sea that leads to the Suez Canal. Iran test-fires a new surface-to-surface missile from a warship in a strategic shipping route, as part of the war games in

the Sea of Oman and the Gulf region: State radio reports, "The surface-to-surface Nasr-2 missile was tested in the (Sea of) Oman operational region,". IRNA reports that, "The Nasr-2 was fired from a warship and hit its target at a distance of 30 km (19 miles) and destroyed it," adding it was the first test of the new, medium-range missile.

- **June 1, 2009: The Iranian air force has launched a large military exercise dubbed "Thunder 88" over its regional waters, official media indicated. Iranian TV said the Air Force carried out maneuvers using various types of combat aircraft, a move that coincided with the Defense Ministry's launching of three new Ghadir-class submarines for its naval fleet** (bringing the total number of the sonar-evading vessels to seven) and 18 speedboats at the port of Bandar Abbas near the Straits of Hormuz, the Kuwait news agency KUNA reported. Officials said the exercises are meant to enhance the Iranian Air Force's capabilities and to train them to safeguard navy ships. Iran's Mehr news agency said the Bandar Abbas ceremony was attended by Army Commander Ataollah Salehi and Defense Minister Mostafa-Mohammad Najjar, KUNA reported.
- **The Ghadir class is a smaller vessel with a displacement of around 120 tons. The semiofficial Fars News Agency in 2007 said the Ghadir class was equipped with stealth technology.** The news comes amid a flurry of Iranian defense activity. Iran in May inaugurated a production line for a military hovercraft, dubbed the Younes 6. Meanwhile, Iran announced the military production of some 20 other military devices, including laser systems and electronic warfare devices. Production also began on a 40mm anti-cruise cannon dubbed Fath, which is capable of reaching targets as far as 7 miles away with a firing rate of 300 rounds per minute. The Sejjil-2 surface-to-surface solid-fuel missile, meanwhile, was launched in May with a range capable of reaching Israel.
- **June 6, 2009: Iran has started production of a new ground-to-air missile system, Iranian media, amid persistent speculation that Israel might attack the Islamic Republic's nuclear facilities.** "The range of this defense system (missile) is more than 40 km and it is able to pursue and hit the enemy's airplanes and helicopters on a smart basis and at supersonic speed," Defence Minister Mostafa Mohammad Najjar said, without specifying how the missile compared to previous such weapons.
- **June 22, 2009: Iran began three days of air force exercises on in the Gulf and the Sea of Oman to raise operational and support capability, Iranian media said.** "Long-distance flights of around 3,600 km (2,237 miles) along with aerial refueling from tanker to fighter jet and from fighter jet to fighter jet will be part of this exercise," state broadcaster IRIB's website reported. "Low altitude flights over the waters of the ... Gulf and the Sea of Oman by Iranian fighter jets over distances of 700 km will also be tested.," it said. IRIB reported that the exercises were also aimed at raising the force's ability to use intelligence aircraft "to send signals and analyze threats".

### Figure 30: The Evolving Capabilities of the IRGC

- Iran's Deputy Army Commander Brigadier General Abdolrahim Moussavi has announced that Iran is commitment to expanding its strategic reach, arguing that, "In the past, our military had to brace itself for countering regional enemies. This is while today we are faced with extra-regional threats."
- Iran upgraded a naval base at Assalouyeh in Iran's southern Bushehr province.
- This base is the fourth in a string of IRGC bases along the waterway that will extend from Bandar Abbas to Pasa Bandar near the Pakistan border.
- Part of, what IRGC's Navy Commander Rear Admiral Morteza Saffari describes as a new mission to establish an impenetrable line of defense at the entrance to the Sea of Oman.
- Forces can carry out extensive raids against Gulf shipping, carry out regular amphibious exercises with the land branch of the IRGC against objectives like the islands in the Gulf, and could conduct raids against countries on the southern Gulf coast.
- Iran could launch a coordinated attack involving explosives-laden remote-controlled boats, swarming speedboats, semi-submersible torpedo boats, FACs, kamikaze UAVs, midget and attack submarines, and shore-based anti-ship missile and artillery fire.
- Could "swarm" a U.S.-escorted convoy or surface action group transiting the Strait of Hormuz, and barrages of rockets with cluster warheads could be used to suppress enemy defensive fire and carrier air operations.
- Naval Guards work closely with Iranian intelligence and appear to be represented unofficially in some embassies, Iranian businesses and purchasing offices, and other foreign fronts.
- Iran has launched a domestic weapons procurement campaign aimed at improving its defense capabilities and has announced the development of 109 types of advanced military equipment over the past two years.
- In December 2008 Iranian Navy Rear Admiral Habibollah Sayyari confirmed the delivery of two new domestically-built missile boats, Kalat (Fortress) and Derafsh (Flag), as well as a Ghadir-class light submarine to the Iranian navy.
- The deputy commander of the IRGC's navy, Rear Admiral Ali Fadavi, told the Fars News Agency on 11 November 2008 that both unmanned speedboats and UAVs are now mass-produced in the country.
- On December 6, 2008 the Iranian Navy test-fired a new surface-to-surface missile from a warship as part of exercises along a strategic shipping route. "The Nasr-2 was fired from a warship and hit its target at a distance of 30 km (19 miles) and destroyed it," Iranian state run radio reported.

### Figure 31: Key Elements of the IRGC

- 115,000+ men, capable of drawing upon drawing on 1,000,000 Basij.
- Key is 20,000 Naval Guards, including 5,000 marines.
- Armed with HY-3 CSS-C-3 Seersucker (6-12 launchers, 100 missiles, 95-100 km), and 10 Houdong missile patrol boats with C-802s (120 km), and 40+ Boghammers with ATGMs, recoilless rifles, machine guns.
- Large-scale mine warfare capability using small craft and commercial boats.
- Based at Bandar e-Abbas, Khorramshar, Larak, Abu Musa, Al Farsiyah, Halul, Sirri.
- • IRGC air branch reported to fly UAVs and UCAVs, and control Iran's strategic missile force.
- 1 Shahab SRBM Bde (300-500-700 km) with 12-18 launchers, 1 Shahab 3 IRBM Btn (1,200-1,280 km) with 6 launchers and 4 missiles each.
- The IRGC has a wide variety of assets at its disposal to threaten shipping lanes in the Gulf, Gulf of Oman, and the Caspian Sea.
- 3 Kilo (Type 877) and unknown number of midget (Qadr-SS-3) submarines; smart torpedoes, (anti-ship missiles?) and smart mine capability.
- Use of 5 minelayers, amphibious ships, small craft, commercial boats.
- Attacks on tankers, shipping, offshore facilities by naval guards.
- Raids with 8 P-3MP/P-3F Orion MPA and combat aircraft with anti-ship missiles(C-801K (8-42 km), CSS-N-4, and others).
- Free-floating mines, smart and dumb mines, oil spills.
- Land-based, long-range anti-ship missiles based on land, islands (Seersucker HY-2, CSS-C-3), and ships (CSS-N-4, and others. Sunburn?).
- Forces whose exercises demonstrate the capability to raid or attack key export and infrastructure facilities.

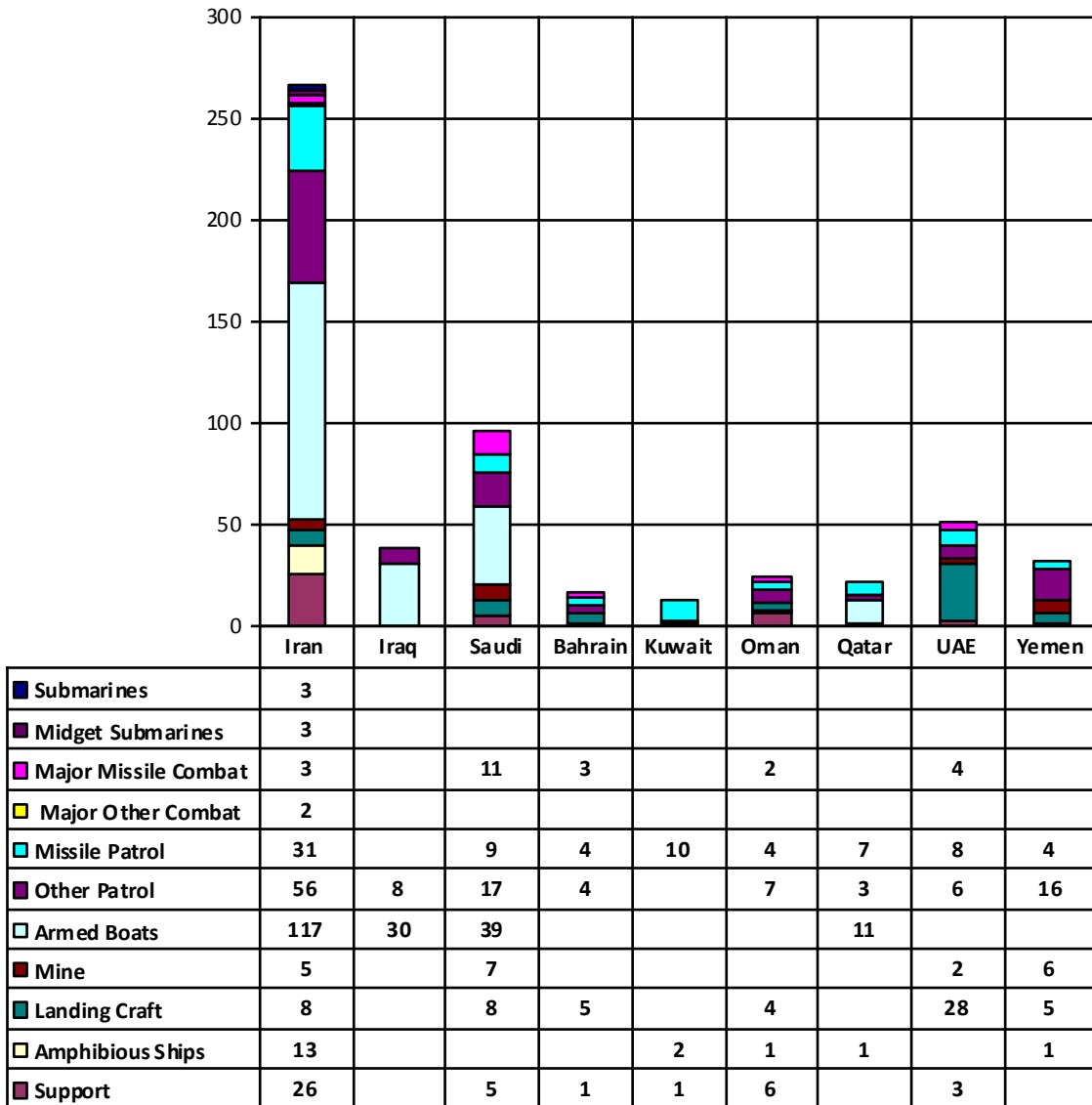
### **Figure 32: The Impact of the IRGC Naval Guards: Force Strength, Roles, and Missions**

- The IRGC has a naval branch consists of approximately 20,000 men, including marine units of around 5,000 men.
- The IRGC is now reported to operate all mobile land-based anti-ship missile batteries and has an array of missile boats; torpedo boats; catamaran patrol boats with rocket launchers; motor boats with heavy machine guns; mines as well as Yono (Qadir)-class midget submarines; and a number of swimmer delivery vehicles.
- The IRGC naval forces have at least 40 light patrol boats, 10 Houdong guided missile patrol boats armed with C-802 anti-ship missiles.
- The IRGC controls Iran's coastal defense forces, including naval guns and an HY-2 Seersucker land-based anti-ship missile unit deployed in five to seven sites along the Gulf coast.
- The IRGC has numerous staging areas in such places and has organized its Basij militia among the local inhabitants to undertake support operations.
- IRGC put in charge of defending Iran's Gulf coast in September 2008 and is operational in the Gulf and the Gulf of Oman, and could potentially operate elsewhere if given suitable sealift or facilities.
- Can deliver conventional weapons, bombs, mines, and CBRN weapons into ports and oil and desalination facilities.
- Force consists of six elements: surface vessels, midget and unconventional submarines, missiles and rockets, naval mines, aviation, and military industries.
- Large numbers of anti-ship missiles on various types of launch platforms.
- Small fast-attack craft, heavily armed with rockets or anti-ship missiles.
- More fast mine-laying platforms.
- Enhanced subsurface warfare capability with various types of submarines and sensors.
- More small, mobile, hard-to-detect platforms, such as semi-submersibles and unmanned aerial vehicles.
- More specialized training.
- More customized or purpose-built high-tech equipment.
- Better communications and coordination between fighting units.
- More timely intelligence and effective counterintelligence/deception.
- Enhanced ability to disrupt the enemies command, control, communications, and intelligence capability.
- The importance of initiative, and the avoidance of frontal engagements with large U.S. naval surface warfare elements.
- Means to mitigate the vulnerability of even small naval units to air and missile attack.
- The IRGC has numerous staging areas in such places and has organized its Basij militia among the local inhabitants to undertake support operations.

- **The naval branch has bases and contingency facilities in the Gulf, many near key shipping channels and some near the Strait of Hormuz.**
- **These include facilities at Al-Farsiya, Halul (an oil platform), Sirri, Abu Musa, Bander-e Abbas, Khorramshahr, and Larak.**
- **Iran recently started constructing new naval bases along the coasts of the Gulf and the Sea of Oman for an “impenetrable line of defense.”**
- **On October 27, 2008, Iran opened a new naval base at Jask, located at the southern mouth of the Strait of Hormuz, a strategic chokepoint for Persian Gulf oil.**

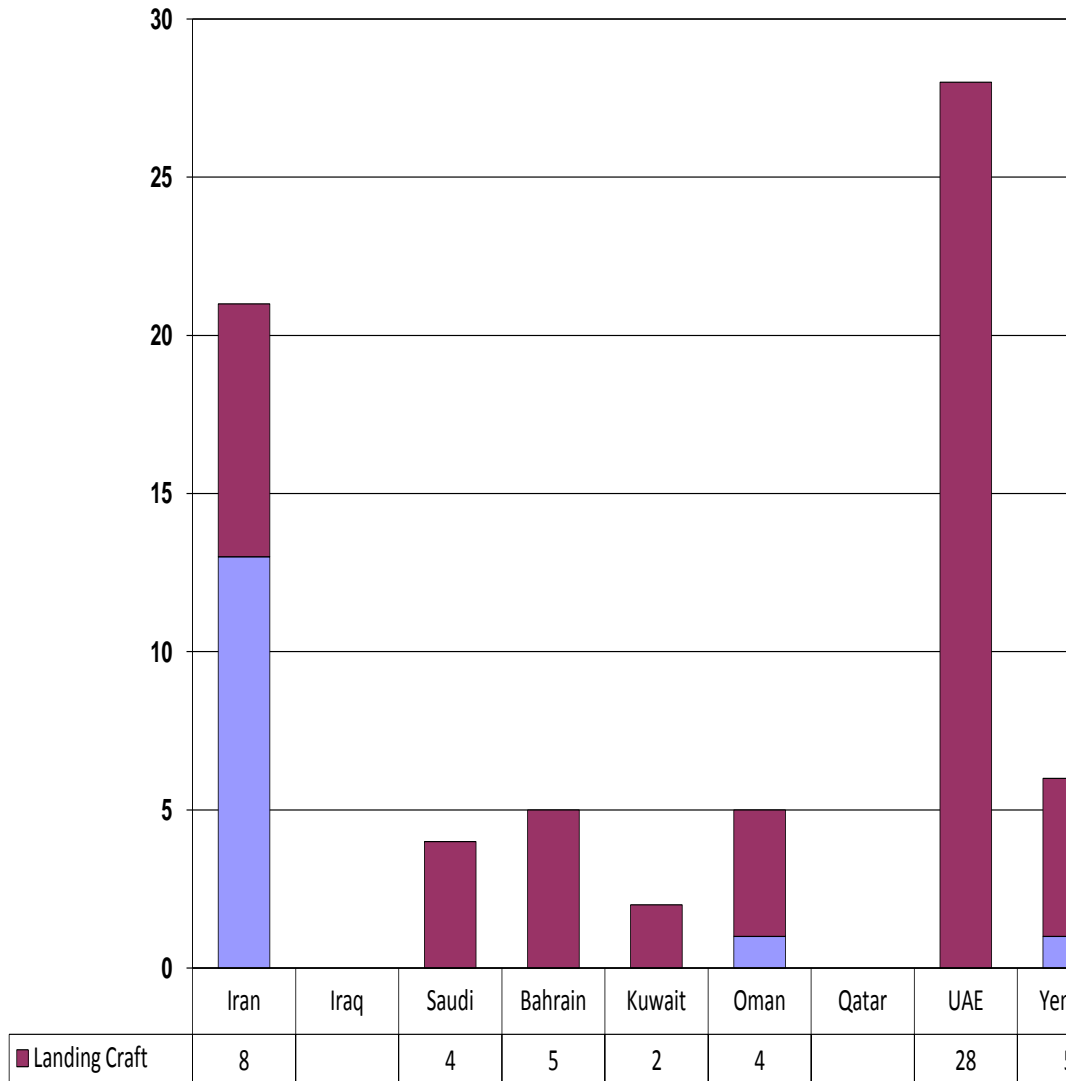


**Figure 33: Iranian Naval Capabilities for Asymmetric Warfare**



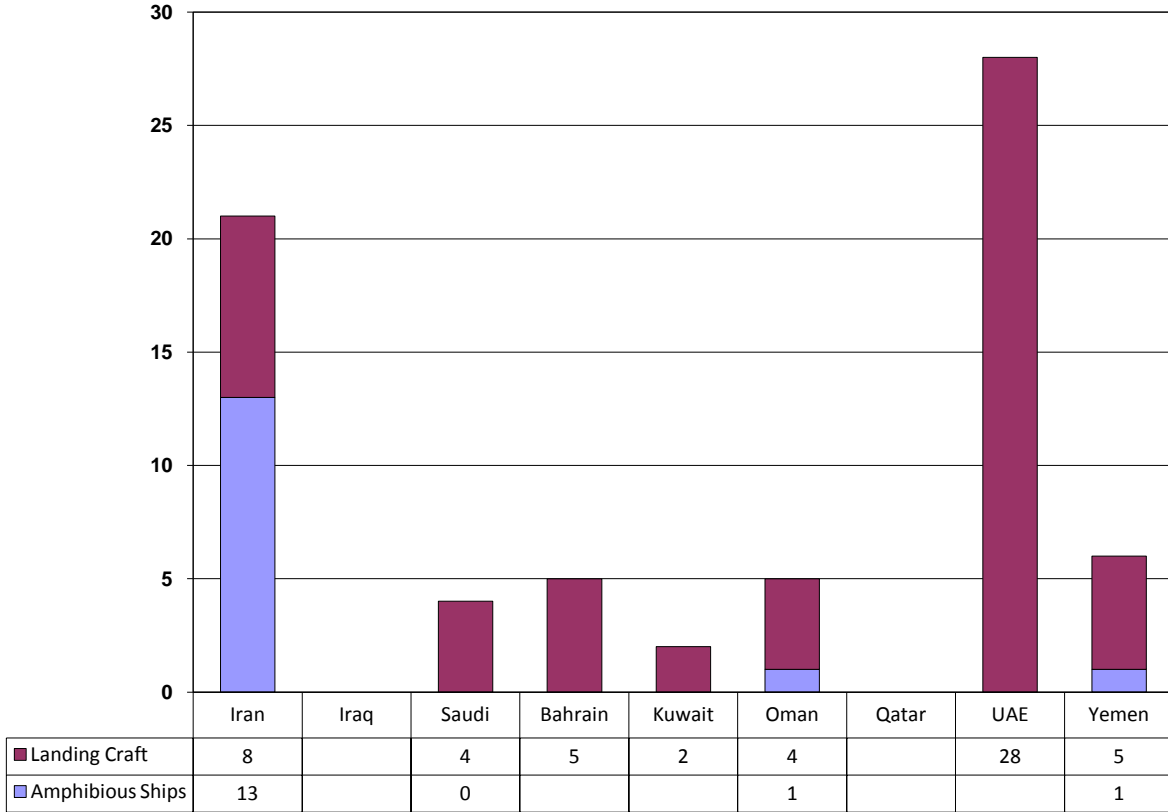
Source: Adapted by Anthony H. Cordesman from IISS, *The Military Balance*, various editions; Jane's Sentinel series; Saudi experts

**Figure 34: Iranian Capabilities for Mine Warfare**



Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions; Jane’s Sentinel series; Saudi experts

**Figure 35: Iranian Amphibious Warfare Capabilities**



Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions; Jane's Sentinel series; Saudi experts

**Figure 36: Iranian Use of Other States and Non-State Actors**

<i>Iranian Actors</i>	<i>Revolutionary Guards Related State/ Non-State Actors</i>	<i>Target/Country Where Operating</i>
Vevak/other intelligence	Iran	Iraq Lebanon
Al Quds Force	Syria	Israel
Arms transfers	Hezbollah	West Bank/Gaza
Military and security Advisors	Hamas	Yemen?
Clerics, pilgrims, shrines	Mahdi Army, Promised Day Brigades	Egypt
Commercial training	Special Groups	Kuwait
Finance/investment	Yemeni "Shi'ites"?	Bahrain
Investment/training companies	Bahrani Shi'ites?	Afghanistan
Education: scholarships, teachers	Afghan Hazara? Saudi "Shi'ites"	Venezuela
Cultural exchanges		
Athletic visits		

### **Figure 37: The Iranian Al Quds Force**

- **Comprised of 5,000 - 15,000 members of the IRGC (Increased size of force in 2007)**
- **Equivalent of one Special Forces division, plus additional smaller units**
- **Special priority in terms of training and equipment**
- **Plays a major role in giving Iran the ability to conduct unconventional warfare overseas using various foreign movements as proxies**
- **Specialize in unconventional warfare mission**
- **Control many of Iran's training camps for unconventional warfare, extremists, and terrorists**
- **Has offices or "sections" in many Iranian embassies throughout the world**
- **Through its Quds Force, Iran provides aid to Palestinian terrorist groups such as Hamas, Lebanese Hizballah, Iraq-based militants, and Taliban fighters in Afghanistan.**
- **Despite its pledge to support the stabilization of Iraq, Iranian authorities continued to provide lethal support, including weapons, training, funding, and guidance through its Quds Force.**
- **Quds Force continue to provide Iraqi and Afghani militants with:**
  - **specialized training,**
  - **funding,**
  - **Iranian-produced advanced rockets,**
  - **sniper rifles,**
  - **automatic weapons,**
  - **mortars,**
  - **Improvised Explosive Devices (IEDs)**
  - **and explosively formed projectiles (EFPs) that have a higher lethality rate than other types of IEDs**
- **Since 2006, Iran has arranged a number of shipments of small arms and associated ammunition, rocket propelled grenades, mortar rounds, 107mm rockets, and plastic explosives, possibly including man-portable air defense systems (MANPADs), to the Taliban.**
- **Israeli defense experts continue to state that they believe the IRGC and Quds force not only played a major role in training and equipping Hezbollah, but may have assisted it during the Israeli-Hezbollah War in 2006, and played a major role in the Hezbollah anti-ship missile attack on an Israeli Navy Sa'ar-class missile patrol boat.**

### Figure 38: Iranian and the Hezbollah

- Hezbollah was originally formed in 1982 by Iranian seminarians.
- Iran's aid packages (arms and money) to Hezbollah are said to exceed \$100 million per year.
- Iran has gone from supplying small arms, short-range missiles and training to providing more sophisticated long-range missiles and other higher-end weaponry
- Iran exported thousands of 122-mm rockets and Fajr-4 and Fajr-5 long-range rockets to Hezbollah in Lebanon, including the Arash with a range of 21–29 kilometers.
- Between 1992 and 2005, Hezbollah received approximately 11,500 missiles and rockets; 400 short- and medium-range pieces of artillery; and Aresh, Nuri, and Hadid rockets and transporters/launchers from Iran.
- In 2005, Iran sent Hezbollah a shipment of large Uqab missiles with 333-millimeter warheads and an enormous supply of SA-7 and C-802 missiles, two of which were used in an attack on an Israeli ship.
- Iran also supplied Hezbollah with an unknown number of UAV's, the *Mirsad*, that Hezbollah briefly flew over the Israel-Lebanon border on November 7, 2004, and April 11, 2005; at least three were shot down by Israel during the summer 2006 war.
- Iran supplied Hezbollah advanced surface-to-air missiles, including Strela-2/2M, Strela-3, Igla-1E, and the Mithaq-1. The same missiles were reported to have been used to target Israeli helicopters.
- During Hezbollah's summer 2006 war with Israel, Iran resupplied the group's depleted weapons stocks.
- Hezbollah has recovered from its 2006 confrontation with Israel and has been able to rearm and regroup, and Iran has been an important part of that recovery.
- Various Types of Rockets, reportedly increasing its stockpile to 27,000 rockets, more than double what Hezbollah had at the start of the 2006 war.
- Among the deliveries were 500 Iranian-made "Zelzal" (Earthquake) missiles with a range of 186 miles, enough to reach Tel Aviv from south Lebanon. Syria may have delivered Scuds.
- Fighting in Lebanon in 2006 seems to have increased Hezbollah's dependence on Iran. Both Hezbollah's loss of weapons and fighters in the conflict with Israel and the resulting damage to its reputation and position within Lebanon made it more reliant upon Iran.
- Elements of Hezbollah planned attacks in Egyptian Sinai; operate in Iraq

### Figure 39: Iranian and Hamas

- **Iran openly supported Hamas and spoke out against the lack of support for Hamas by Arab regimes throughout the Middle East during engagements between the IAF and Hamas in late 2008 and early 2009 in Gaza.**
- **Iran provided training, arms and logistical support to Hamas during the fighting in Gaza between Israeli forces and Hamas militants in late December 2008 and early January 2009.**
- **Israeli intelligence sources continued to report Iranian efforts to rearm Hamas after a ceasefire agreement was reached in January 2009.**
- **Arms transfers come through Sudan and Sinai.**
- **Level of Iranian financial support uncertain**

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<sup>1</sup> Mohammed Najib and Lauren Gelfand, "Procure and protect: Middle East procurement," *Jane's Defense Weekly*, February 6, 2009, available at <http://jdw.janes.com>

<sup>2</sup> The U.S. Department of Defense, "'Eagle Resolve' Focused on Reducing WMD Vulnerabilities," Gulf Exercise, May 23, 2005.

<sup>3</sup> The U.S. Department of Defense, "GCC, U.S. begin Eagle Resolve with CPX," Gulf Exercise, April 26, 2009.

<sup>4</sup> David C. Isby, "Iran Successfully Test-fires Tor-M1," *Jane's Missiles & Rockets*, December 23, 2009, available at <http://www.janes.com>