

CONVENTIONAL ARMED FORCES IN THE GULF

An Overview

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First Working Draft: June 23, 2008

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 author at 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 Qa'ida, the Mahdi militia, and various tribal forces. At present, the Southern Gulf states have large military resources but limited real-world effectiveness and having made only limited progress towards collective and integrated defense.

Iraq's forces remain a work in progress that will not have effective ability to operate independently in counterinsurgency operations before 2012. Iran may be emerging as a nuclear power, and has substantial assets for irregular and asymmetric warfare, but its conventional forces continue to age, lack effective unity and readiness, and are declining in overall capability.

The US dominates the balance of Gulf military forces, along with its British ally. US land capabilities are, however, heavily committed to Iraq and Afghanistan. Non-state actors play an increasing role in shaping the security situation, but still have very limited conventional capability.

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 unpopular, but this has done little to push Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE towards finding an effective collective alternative to dependence on the US. All are members of the Gulf Cooperation Council (GCC), but the GCC remains largely a myth in war fighting, deterrence, and force development terms.

The GCC 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 on this front.
- 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 air 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.

The Southern Gulf states have not yet adjusted their national force plans to take account of the disappearance of Iraq as a major regional threat, and must now further adjust their forces to deal with Iran's growing missile forces and the threat it will become as a nuclear power. They also face the risk that the power vacuum in Iraq will become a threat of a different kind and/or give Iran decisive influence over a Shi'ite-dominated Iraq. This latter 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.

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.

Saudi-US military cooperation was key to the quick coalition victory in the Gulf War. Some aspects of Saudi-US cooperation have been curtailed as a result of the events of “9-11,” and tensions over the war on terrorism. US-Saudi cooperation was much closer in the Iraq War in 2003, however, 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 Qa’ida attack in May 2003.

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 5th 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, Operation “Eagle Resolve 2005” was a joint US-GCC cooperative exercise to reduce the Gulf states’ vulnerability to weapons of mass destruction (WMD). The operation included a series of seminars and exercises designed to promote cooperation between the GCC states.¹ In Operation ‘Eagle Resolve 2004’ hosted by the UAE, Iran was depicted as a possible aggressor.

Military Developments in the Northern Gulf

The virtual destruction of Iraq's military forces and its capability to deploy or acquire weapons of mass destruction in 2003 has 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 Coalition 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 thirteen-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 avoiding civil war. It is also so focused on internal security that it has not yet produced any clear Iraqi concept for developing the kind of forces that can defend against or deter 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. One focus 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 focus is 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.

Conventional modernization still lags 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.

A Snapshot of Comparative Force Strength

Conventional military strength 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 forces 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 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 comparative count of major equipment strength. The fact that 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 have long had far larger forces than those of the Southern Gulf states. Once again, the elimination of Iraq makes 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. 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, 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 Iraq 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 of the 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. 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 funding reasons.
- **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. 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 relatively 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 defenses in the Gulf. Iran has extensive assets, but many are obsolete or obsolescent, and they are poorly netted and vulnerable to electronic warfare. Iraq effectively no longer has any such assets. 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. Iran is the only significant Gulf Navy. Saudi Arabia has significant total ship strength, and better and more modern ships, but limited readiness and proficiency. 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 very high 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.

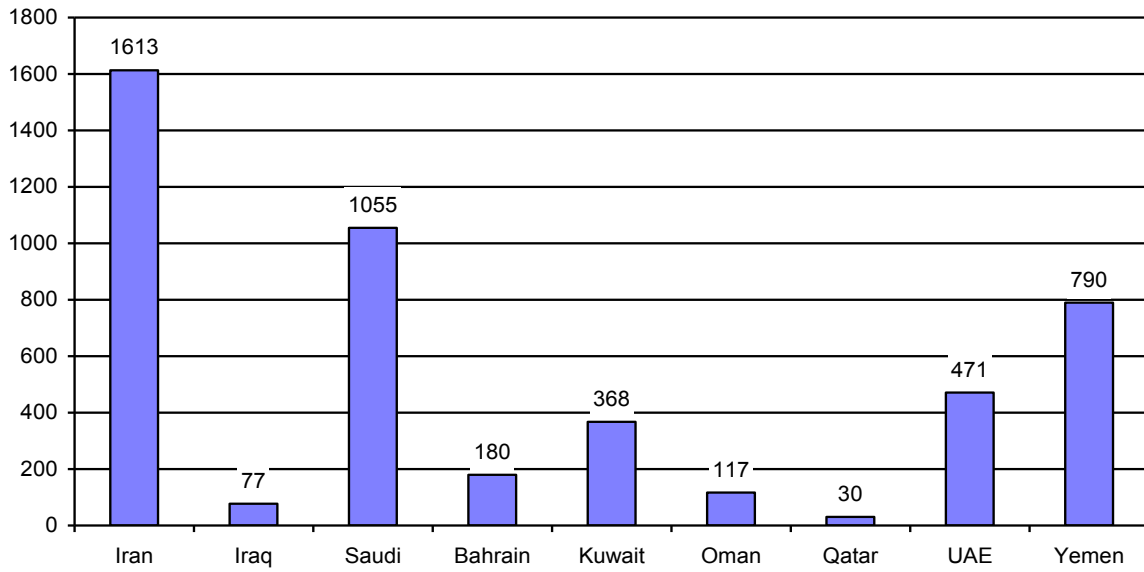
- **Figure 24** reflects a shift in the nature of the Gulf military build-up that began to emerge before the Iran's defeat in the Iran-Iraq War, and Iraq's defeat in the Gulf War, but which has accelerated ever since. The Southern Gulf leads the regional arms race that the Northern Gulf states began.
- **Figure 24** also 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 GNP in GCC States, Iran, Iraq and Yemen over the 1989-2007 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 1988 to 2006. 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. 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. 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 plan 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 their spending 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.

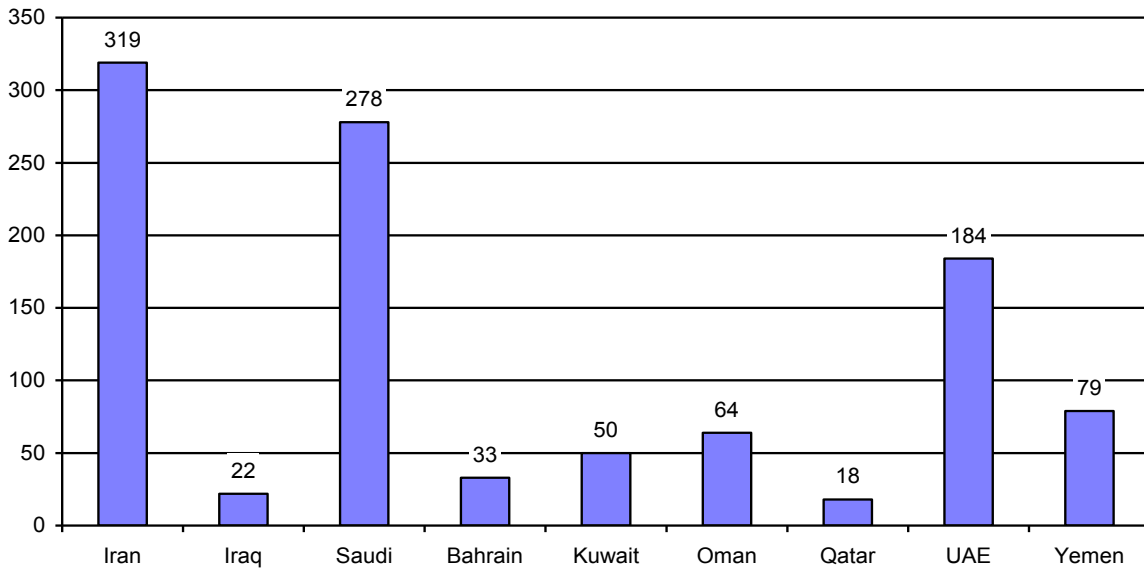
In practice, each of the southern Gulf States pursued its own path in creating military forces, often emphasizing the purchase of modern major weapons systems that were perceived to provide prestige and a “glitter factor” in terms of regional status. Rivalries and past tensions between the Southern Gulf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

Figure 1: Major Measures of Key Combat Equipment Strength in 2008

Total Main Battle Tanks in Inventory

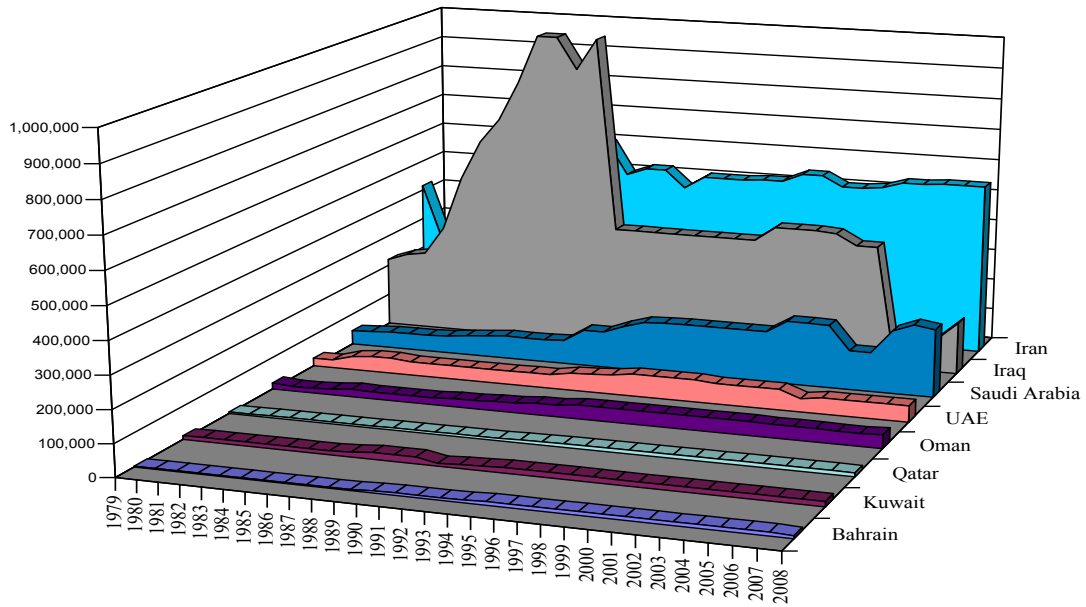


Total Fixed Wing Combat Aircraft



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

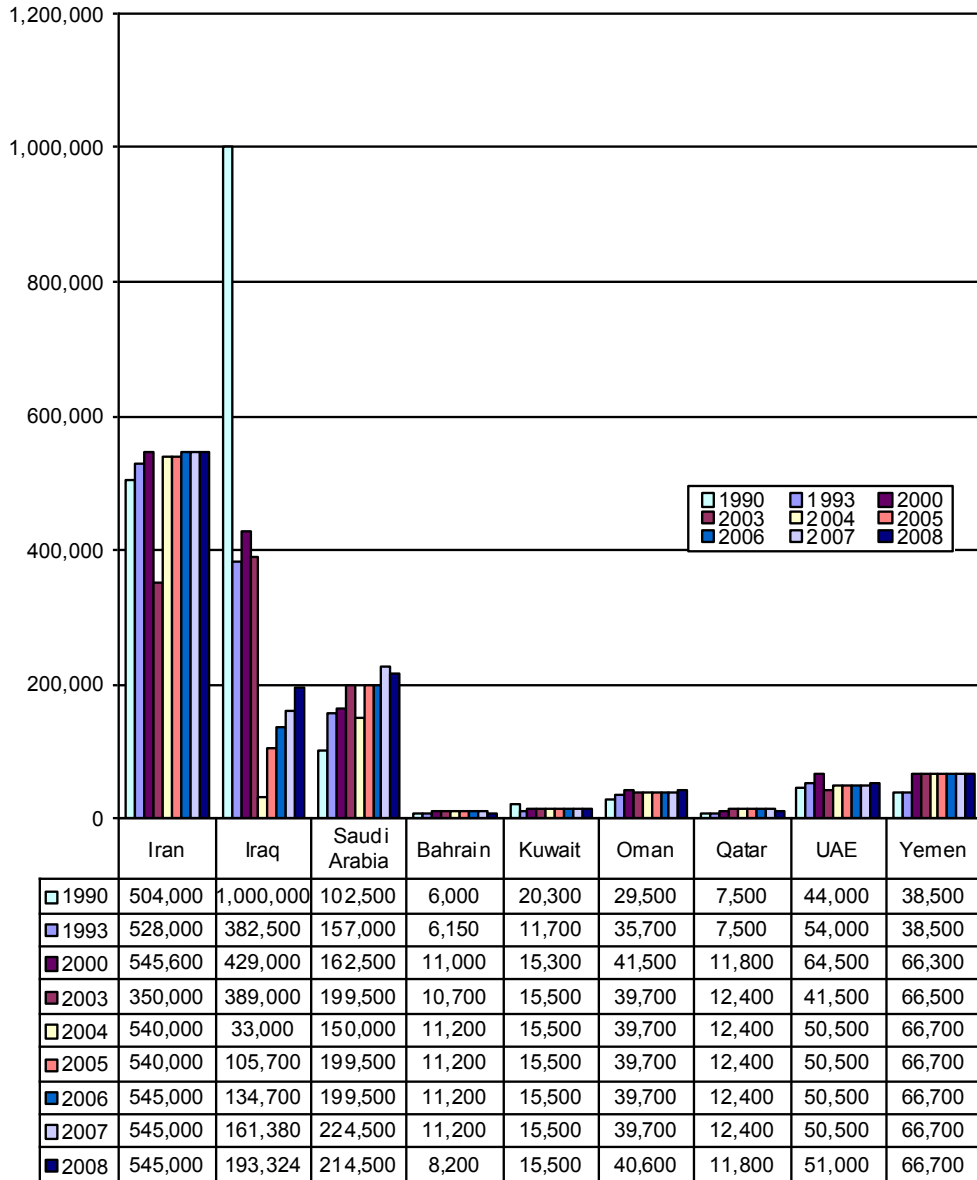
Figure 2: Comparative Trends in Gulf Total Active Military Manpower: 1979-2008



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.

Source: Estimated by Anthony H. Cordesman using data from various editions of the IISS The Military Balance, Jane's Sentinel, and Military Technology.

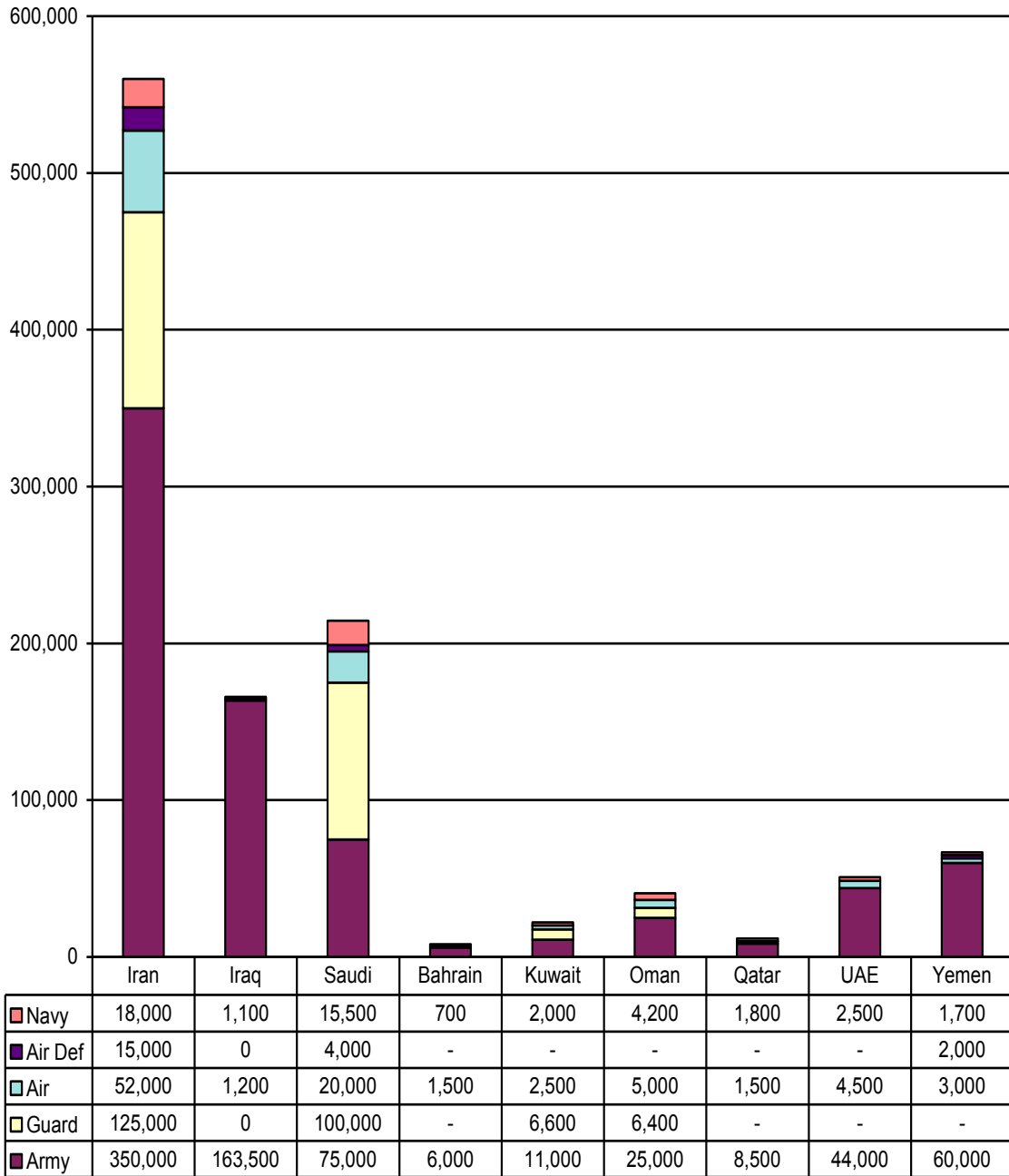
Figure 3: Total Active Military Manpower in All Gulf Forces 1993-2008



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.

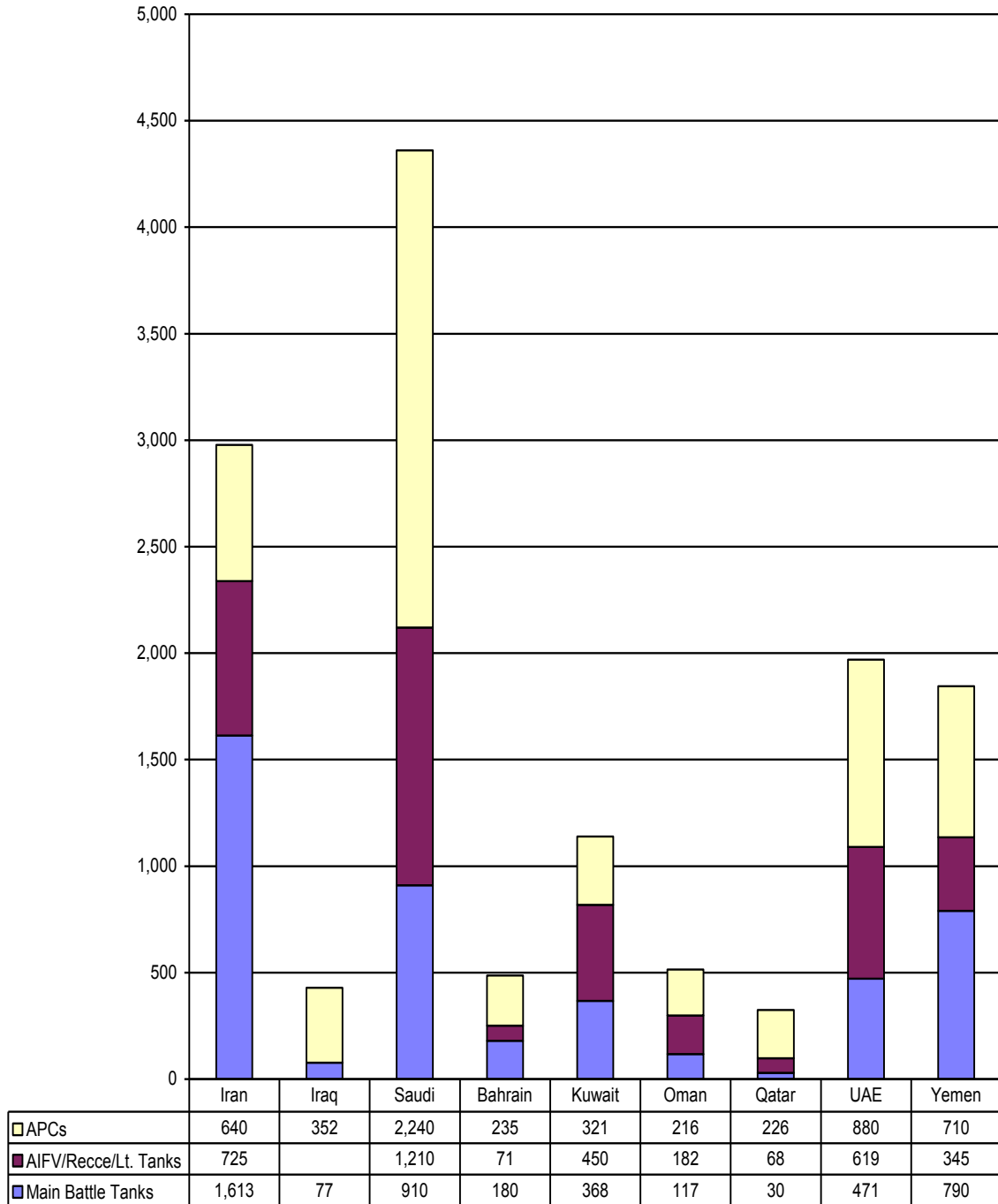
Source: Estimated by Anthony H. Cordesman using data from various editions of the IISS The Military Balance, Jane's Sentinel, and Military Technology, various editions of the Department of State Iraq Weekly Status Reports and the Independent Commission on the Future Security Forces of Iraq "Report to Congress," September 7, 2007, p. 57.

Figure 4: Total Gulf Military Manpower by Service in 2008



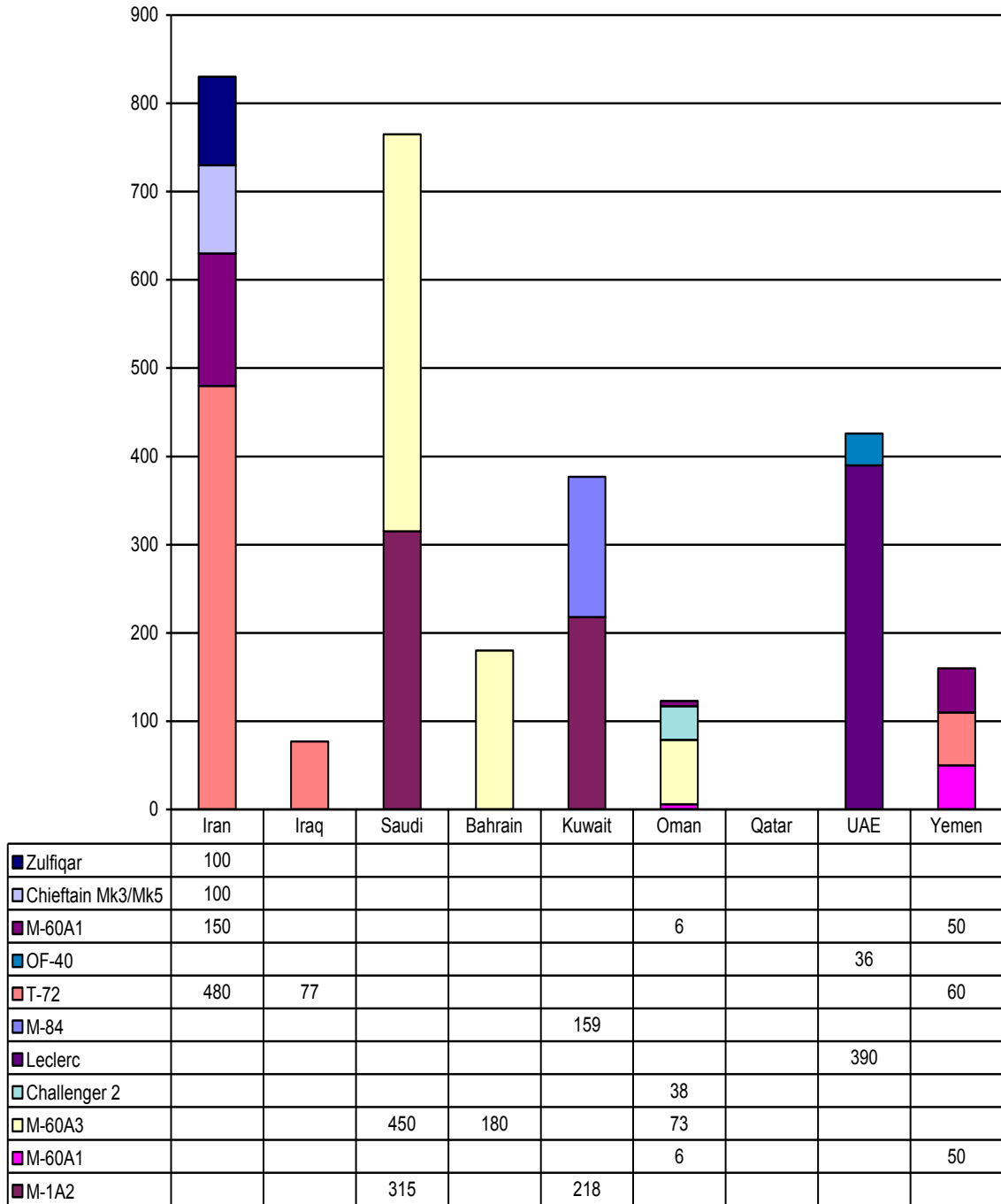
Source: Estimated by Anthony H. Cordesman using data from the IISS, The Military Balance, various editions.

Figure 5: Total Gulf Operational Armored Fighting Vehicles in 2008



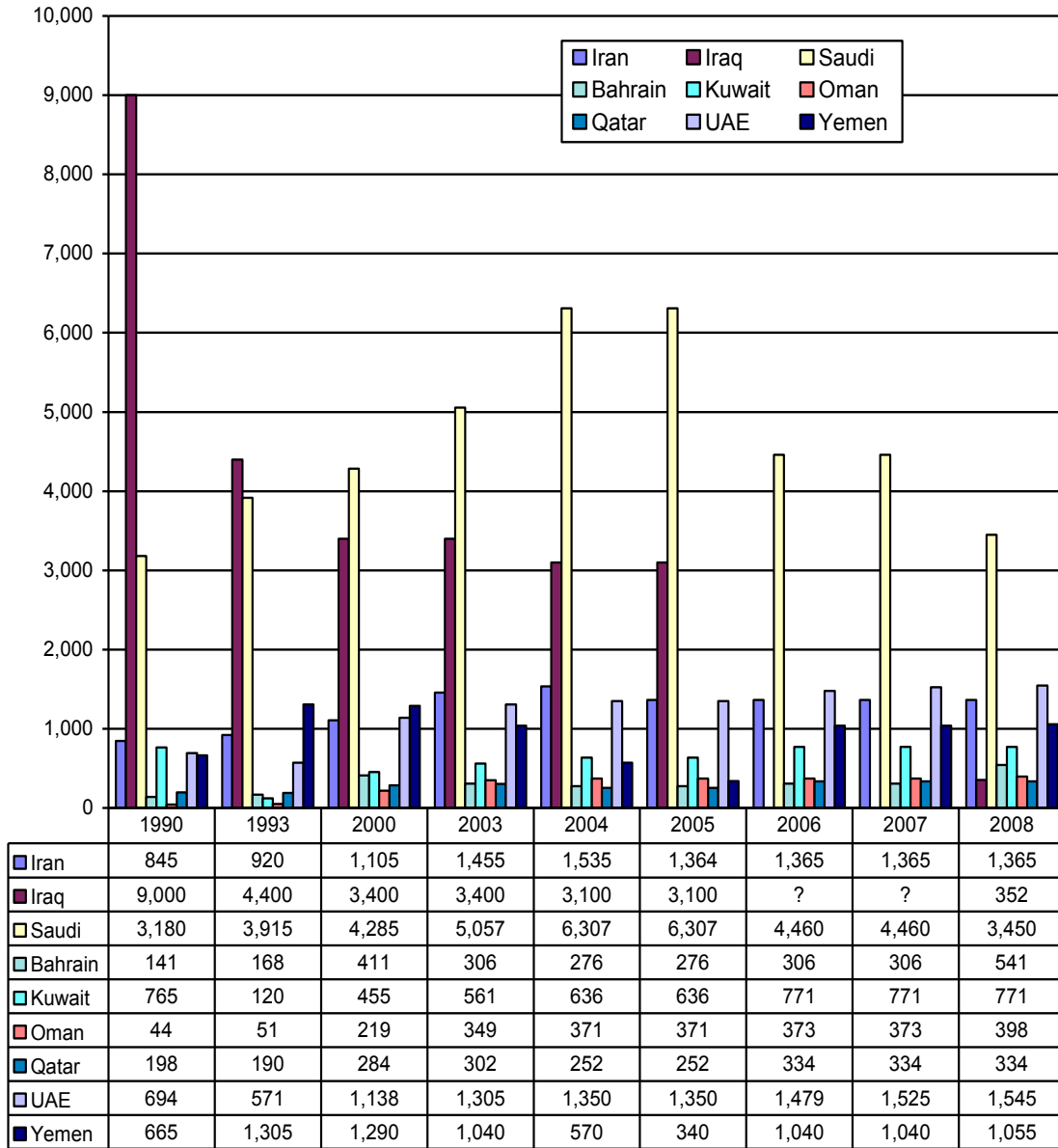
Source: Estimated by Anthony H. Cordesman using data from various editions of the IISS The Military Balance and Jane's Sentinel.

Figure 6: Medium to High Quality Main Battle Tanks By Type in 2008



Source: Estimated by Anthony H. Cordesman using data from the IISS, The Military Balance, various editions.

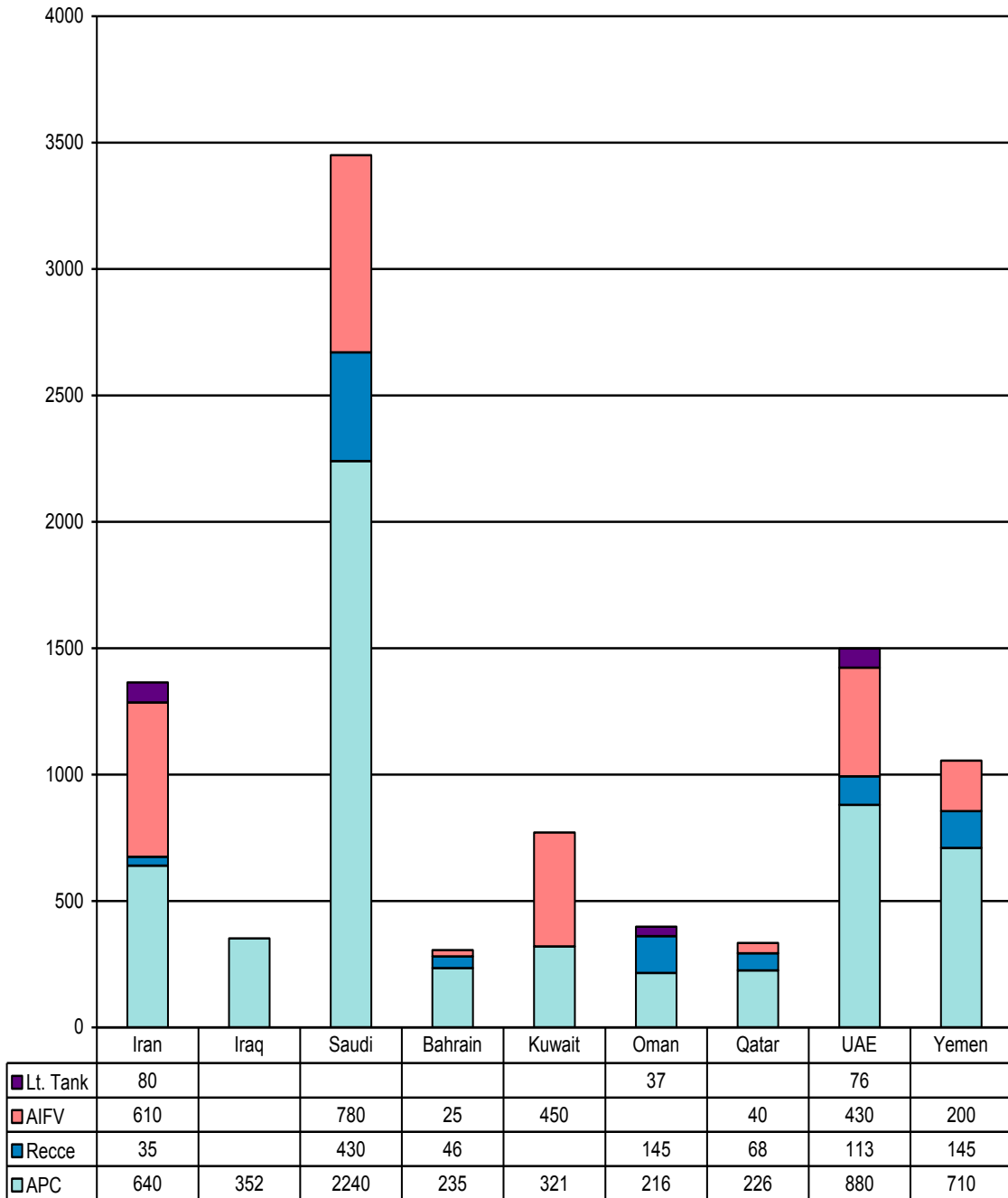
Figure 7: Total Operational Other Armored Vehicles (Lt. Tanks, LAVs, AIFVs, APCs, Recce) in Gulf Forces 1993-2008



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

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

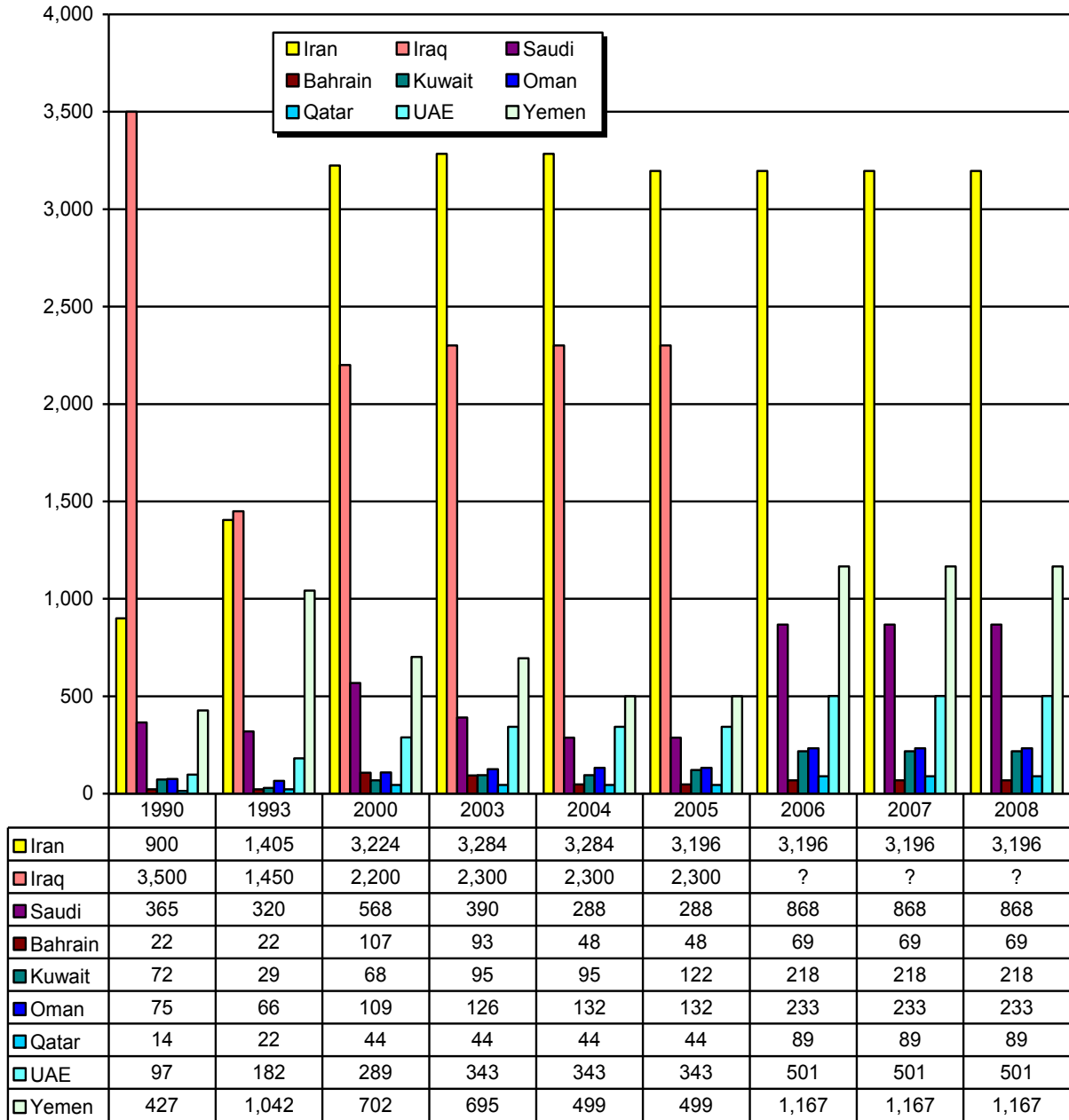
Figure 8: Gulf Other Armored Fighting Vehicles (OAFVs) by Category in 2008



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

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

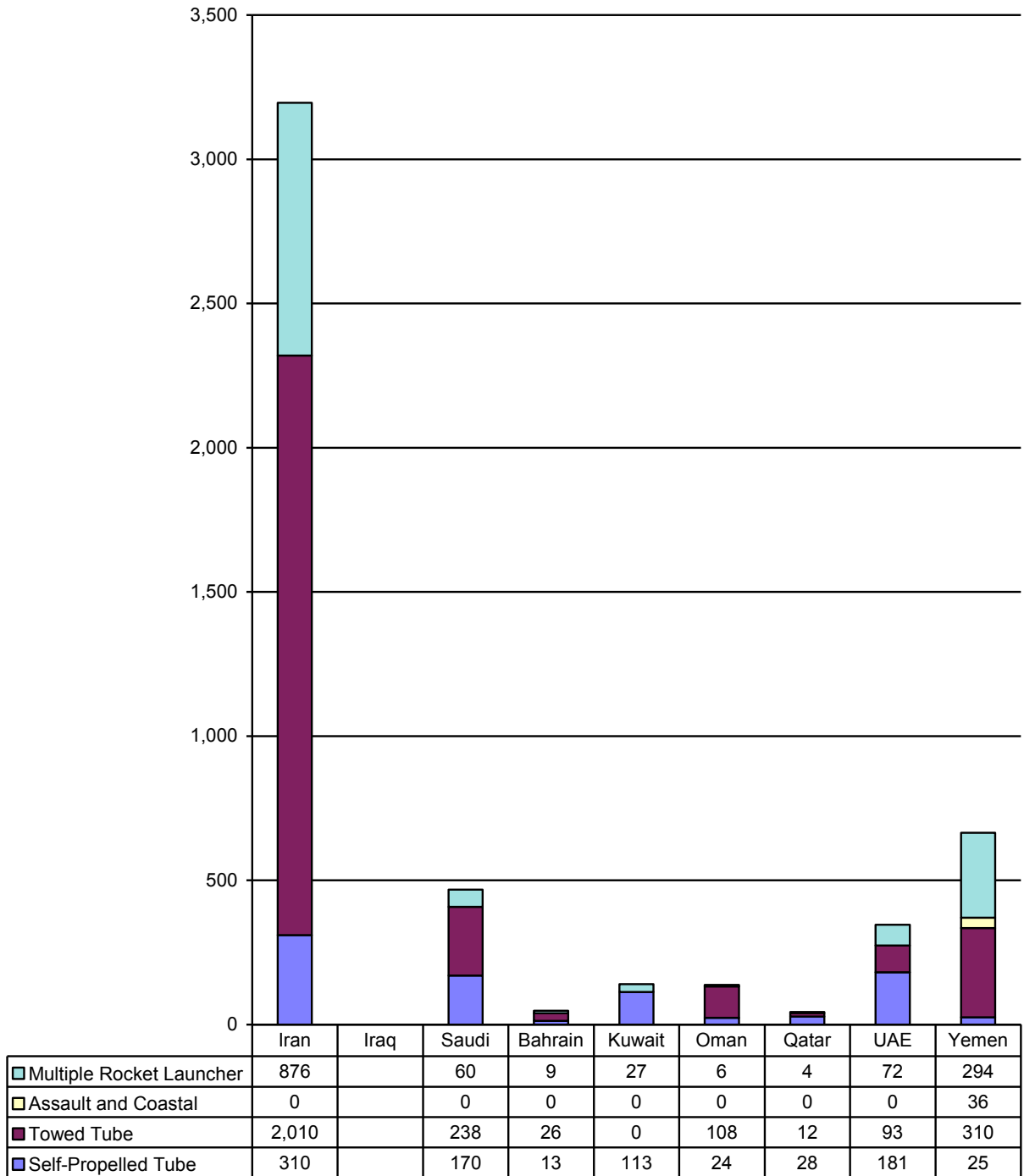
Figure 9: Total Operational Self-Propelled and Towed Tube Artillery and Multiple Rocket Launchers in Gulf Forces 1993-2008



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

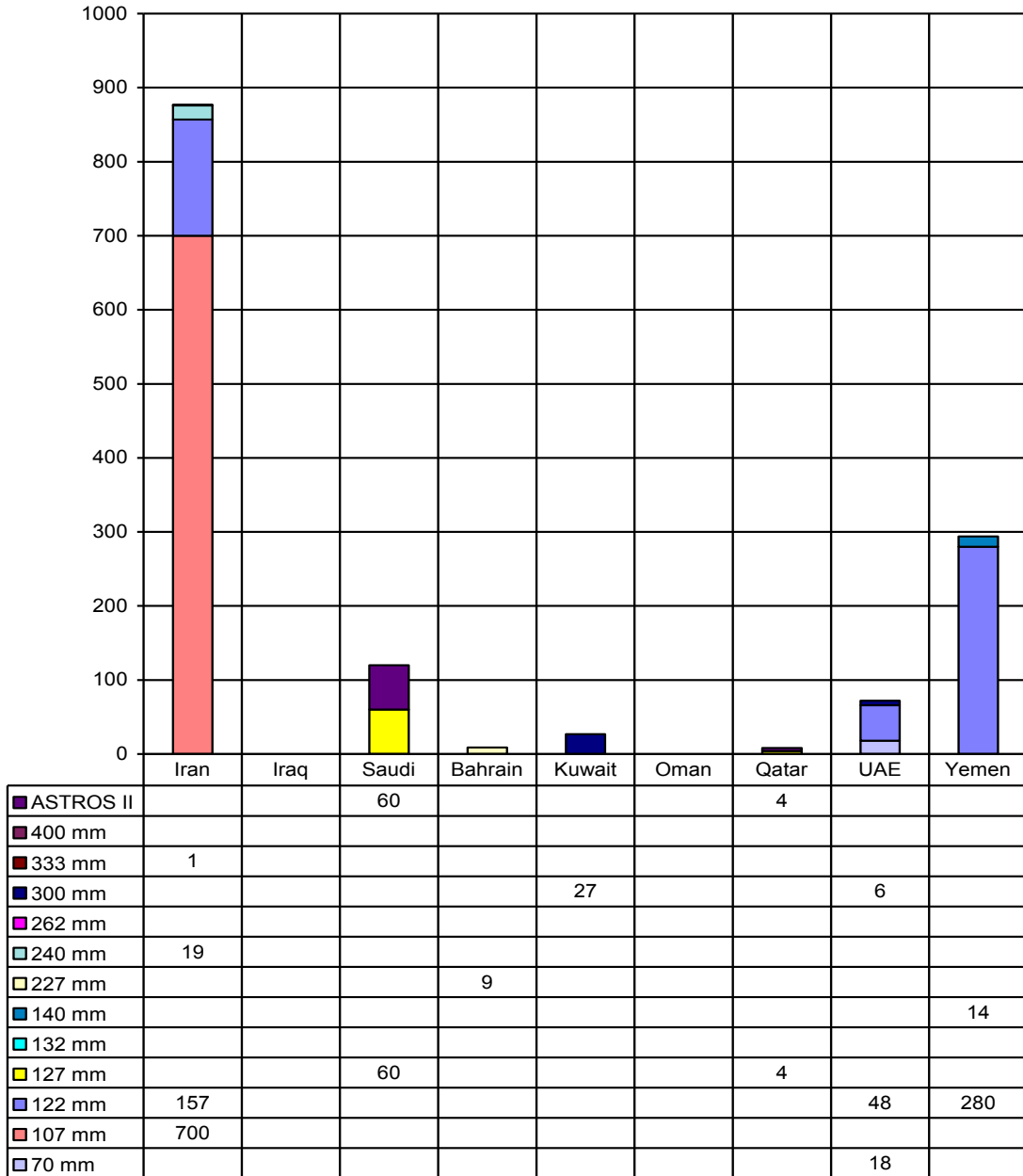
Figure 10: Total Operational Gulf Artillery Weapons in 2008



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

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

Figure 11: Gulf Inventory of Multiple Rocket Launchers by Caliber in 2008

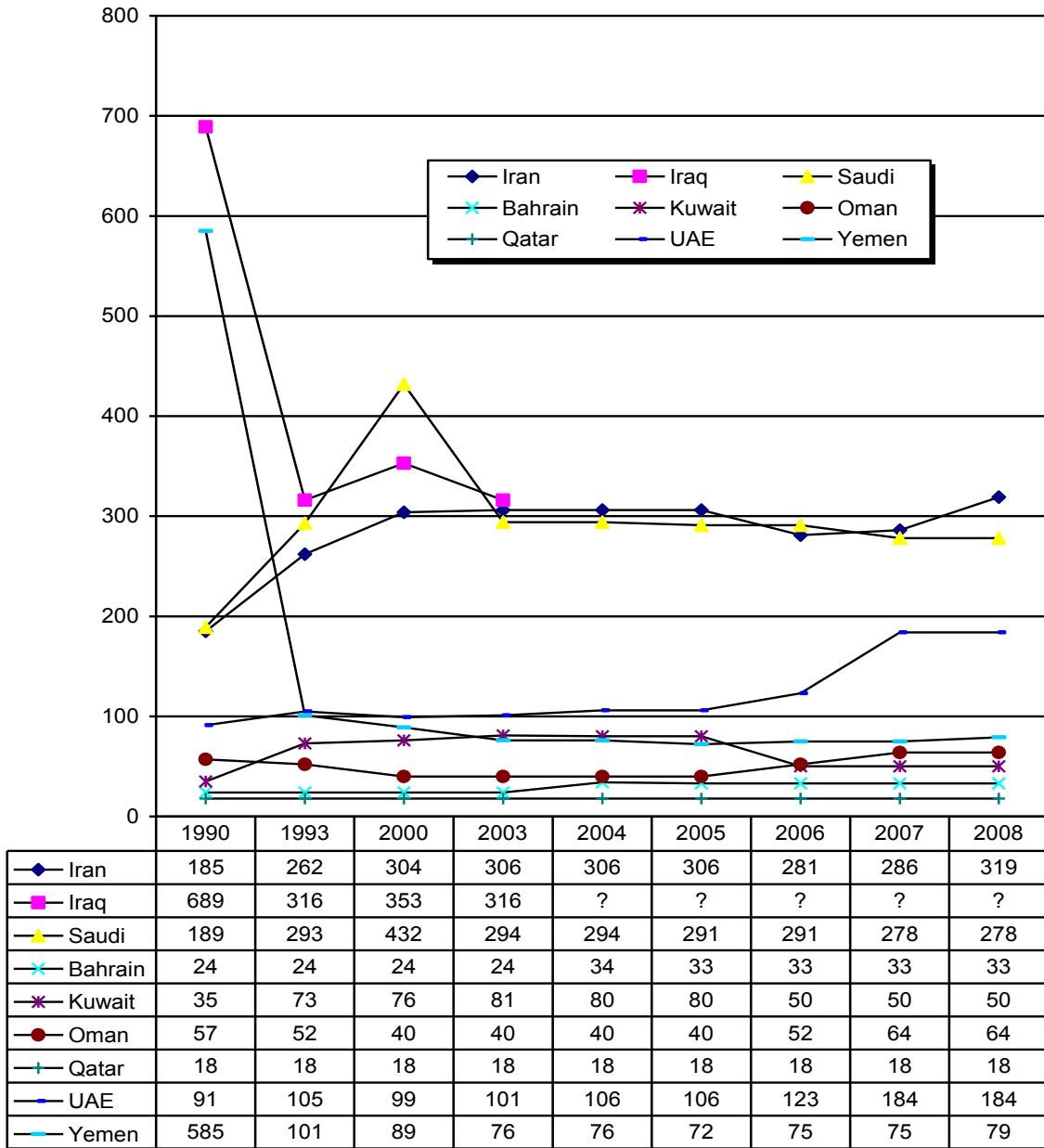


Note: Iranian totals include active forces in the Revolutionary Guards. Saudi totals include active National Guard. Omani totals include Royal Household Guard. Iraq has a total of approximately 200 Multiple-Rocket Launchers.

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

Figure 12: Total Operational Combat Aircraft in All Gulf Forces 1993-2008

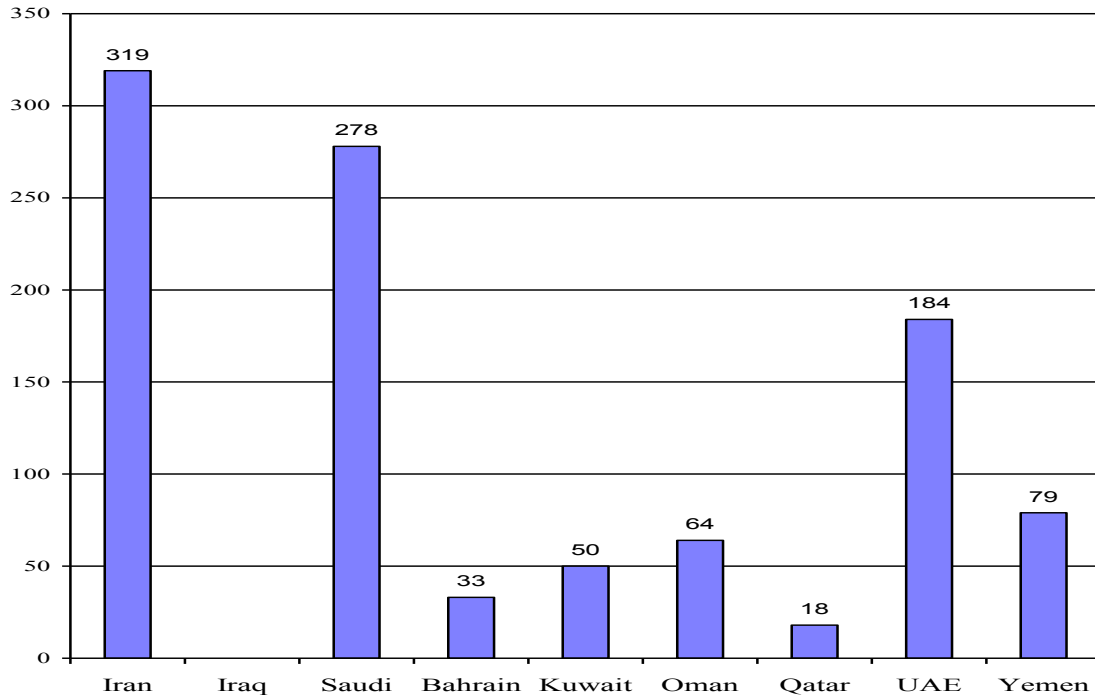
(Does not include stored or unarmed electronic warfare, recce or trainer aircraft)



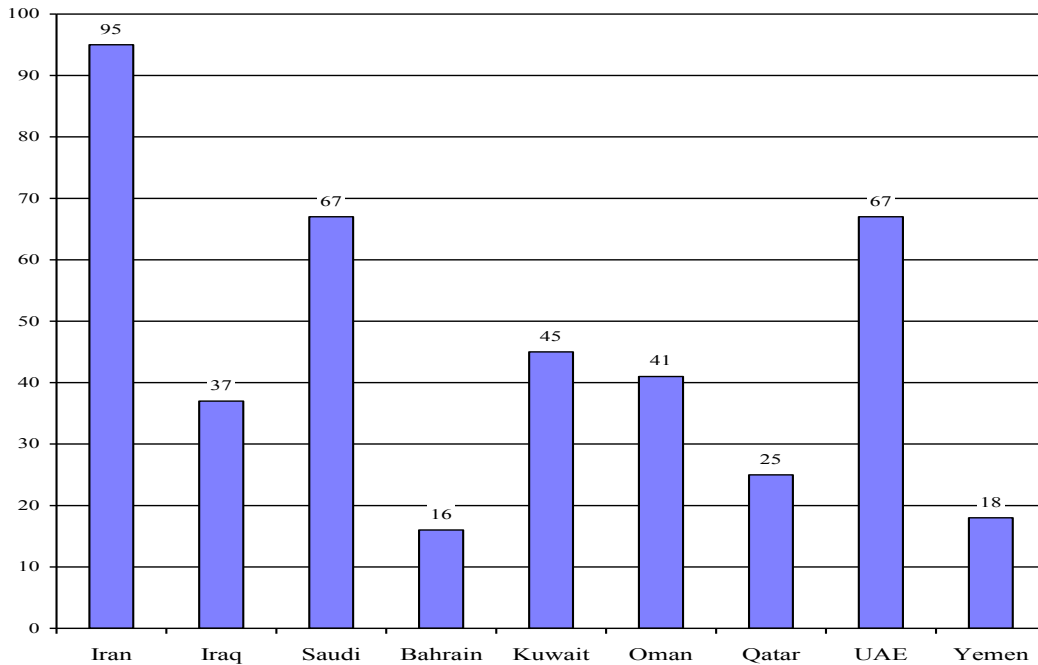
Source: Adapted by Anthony H. Cordesman from various sources and IISS, The Military Balance, various editions.

Figure 13: Total Gulf Holdings of Combat Aircraft in 2008

Fixed Wing Combat Aircraft



Armed and Attack Helicopters

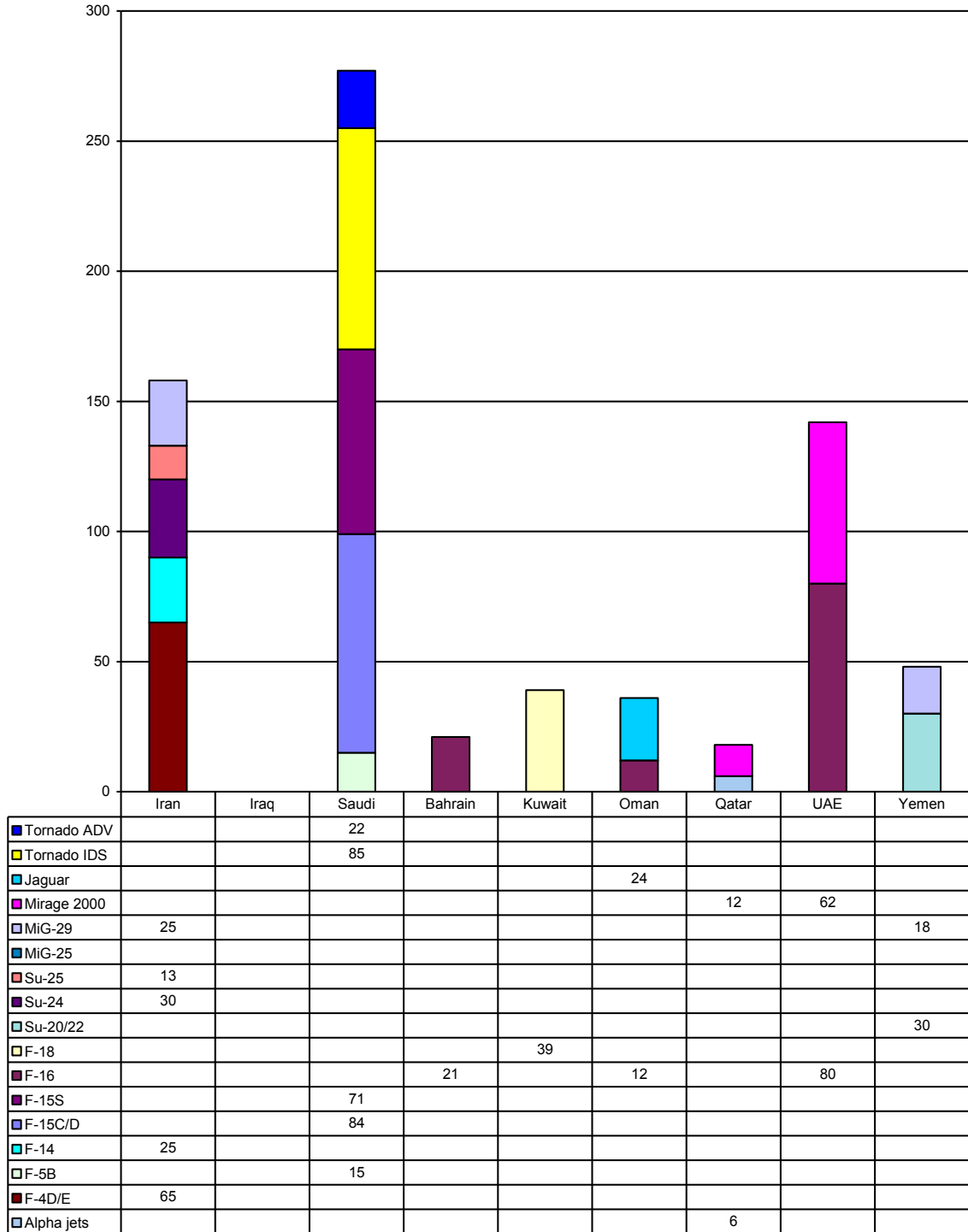


Note: Only armed or combat-capable fixed wing combat aircraft are counted, not other trainers or aircraft. Note: Yemen has an additional 5 MiG-29S/UB on order. Iraq totals are for March 2003, before the Iraq War.

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

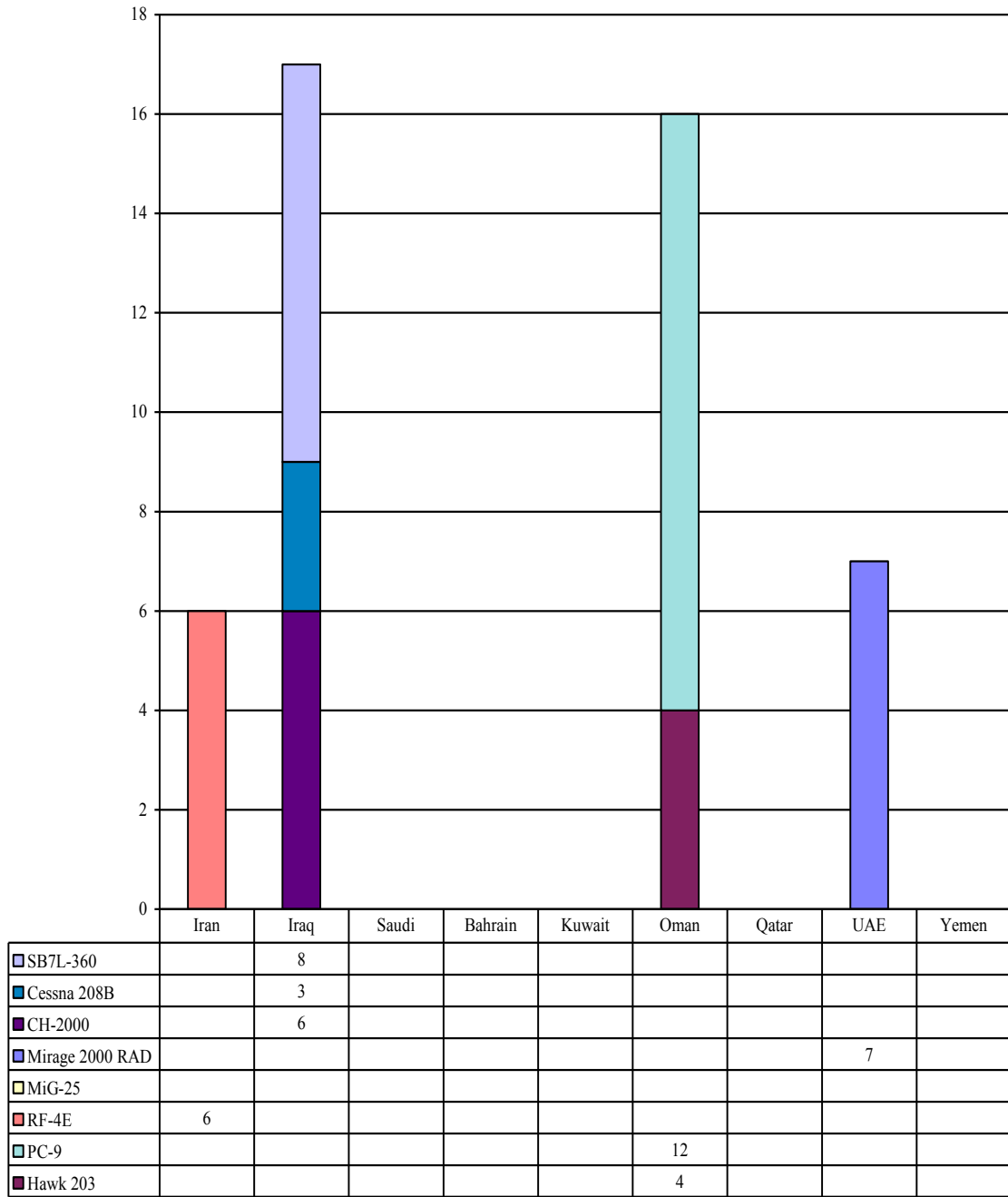
Figure 14: Gulf High and Medium Quality Fixed Wing Fighter, Fighter Attack, Attack, Strike, and Multi-Role Combat Aircraft By Type in 2008

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



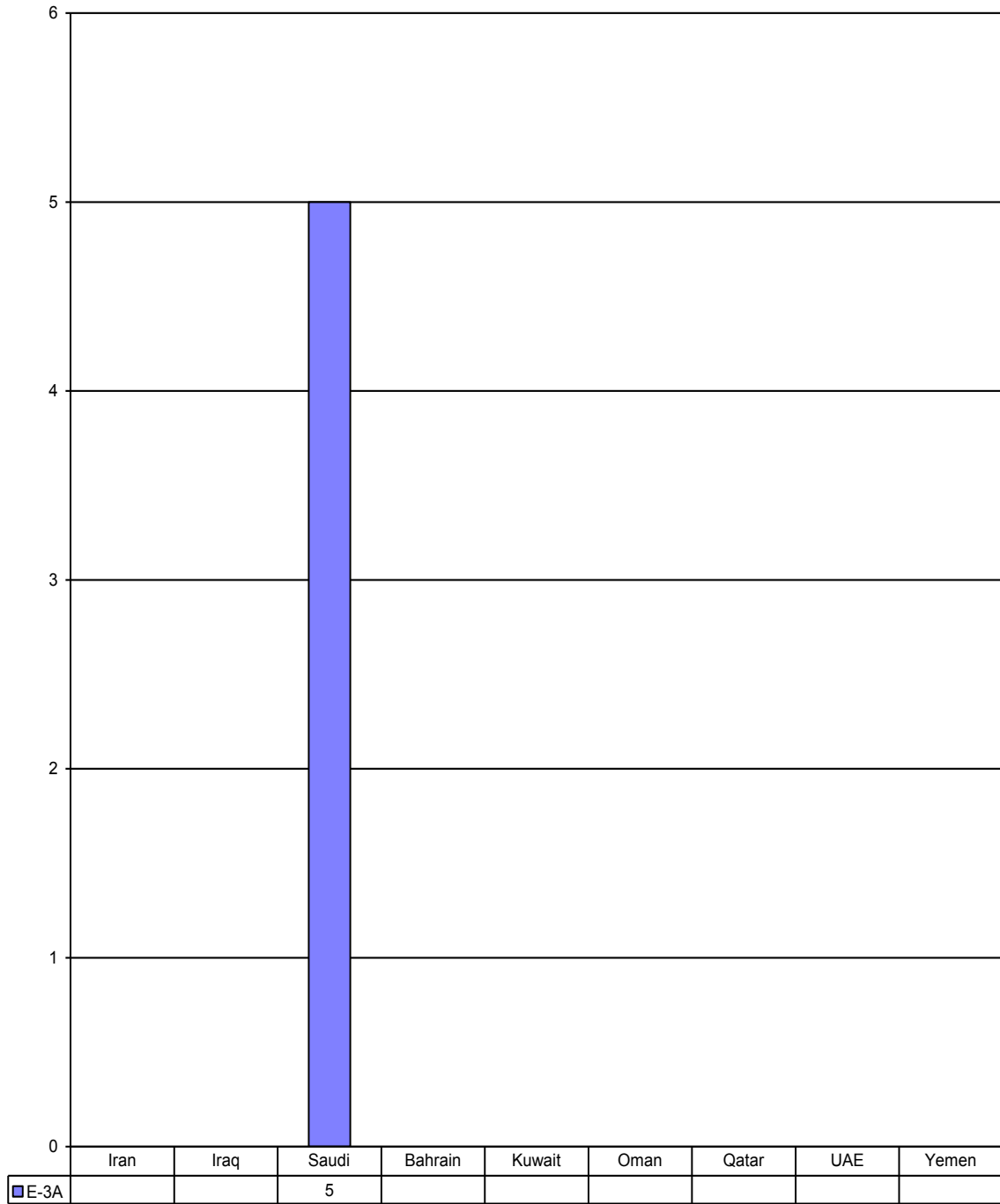
Source: Adapted by Anthony H. Cordesman from various sources and IISS, *The Military Balance*, various editions.

Figure 15: Gulf Reconnaissance Aircraft in 2008



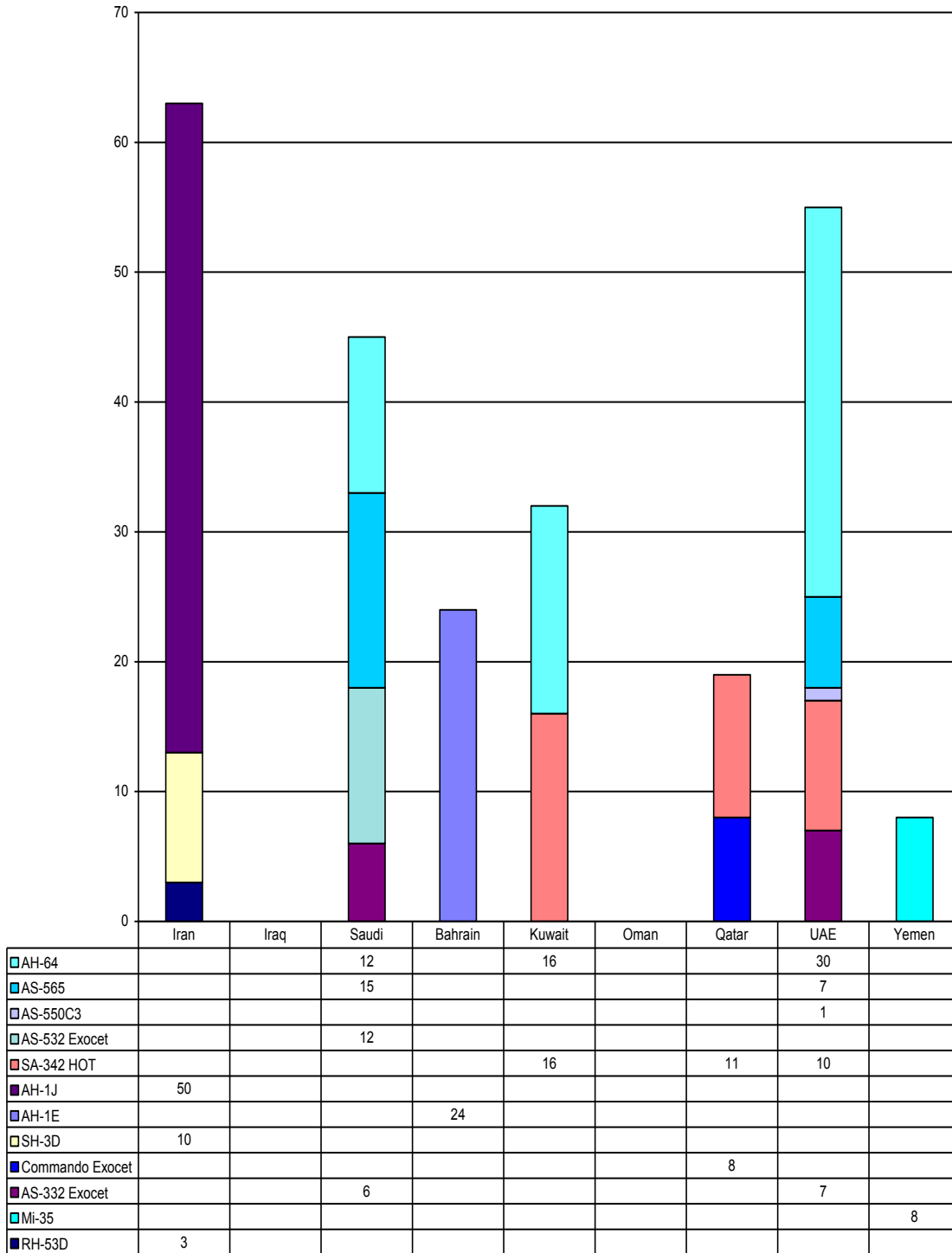
Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions.

Figure 16: Sensor, AWACS, C4I, EW and ELINT Aircraft in 2008



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

Figure 17: Gulf Attack, Anti-Ship and ASW Helicopters in 2008



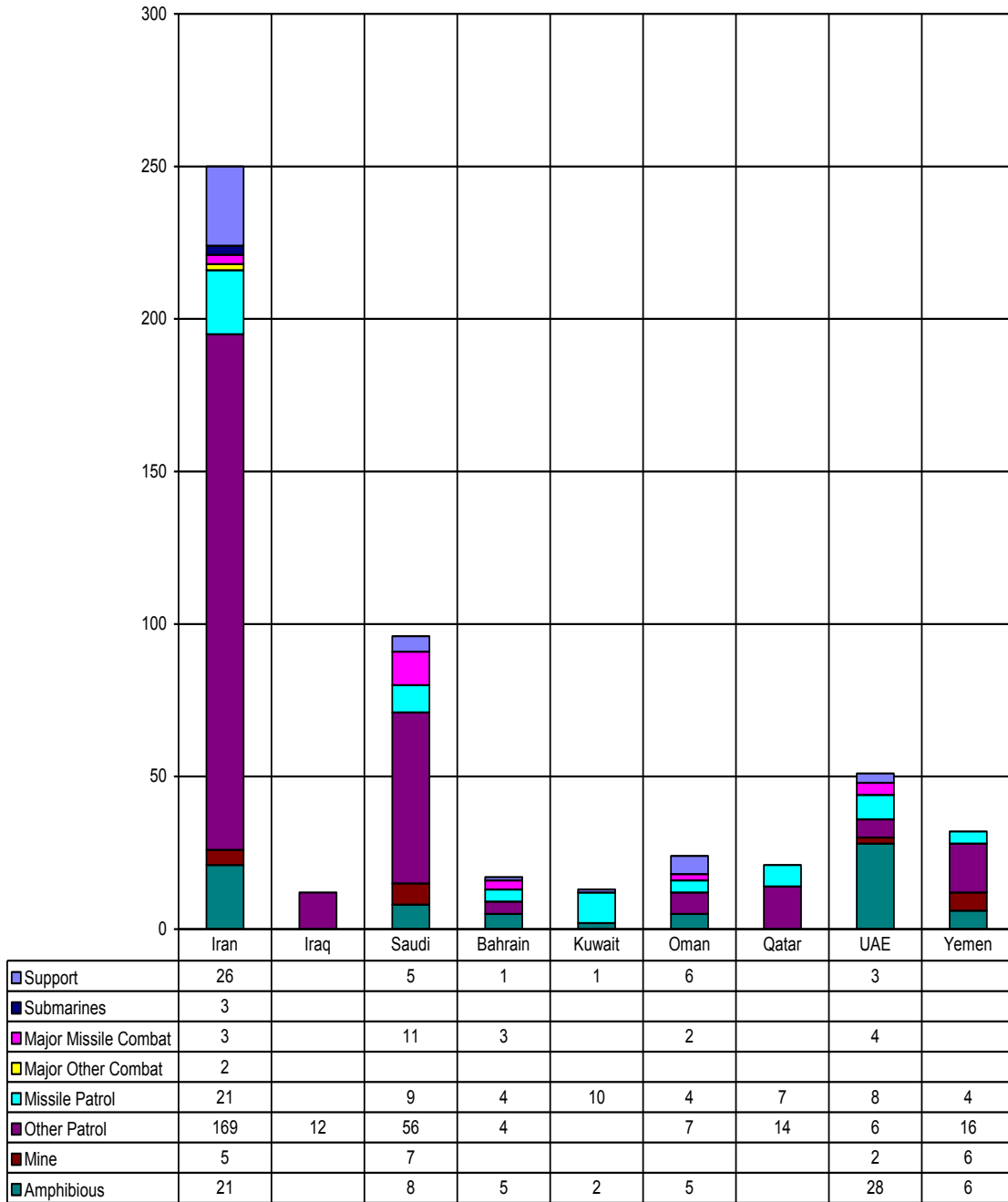
Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions.

Figure 18: Gulf Land-Based Air Defense Systems in 2008

Country	Major SAM	Light SAM	AA Guns
Bahrain	8 I Hawk	60 RBS-70 18 FIM-92A Stinger 7 Crotale	26 guns 15 Oerlikon 35 mm 12 L/70 40 mm
Iran	16/150 I 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 30 Rapier 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
Iraq	SA-2? SA-3? SA-6?	Roland 1,500 SA-7 850 (SA-8) Some SA-9 Some SA-13 Some SA-14, SA-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	4/24 I Hawk Phase III 5 Patriot PAC-2	6/12 Aspide 48 Starburst	12 Oerlikon 35mm
Oman	None	Blowpipe 2 Mistral SP 34 SA-7 6 Blindfire 20 Javelin 40 Rapier S713 Martello	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 I Hawk 4-6/16-24 Patriot 17/141 Shahine Mobile 2-4/160 PAC-2 launchers 17 ANA/FPS-117 radar 73/68 Crotale/Shahine	40 Crotale 500 Stinger (ARMY) 500 Mistral (ADF) 500 FIM-43 Redeye (ARMY) 500 Redeye (ADF) 73-141 Shahine static 500 FIM-92A Stinger (ARMY) 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 35mm 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 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, 6	Some 800 SA-7, 9, 13, 14	50 M-167 20mm 20 M-163 Vulcan SP 20mm 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

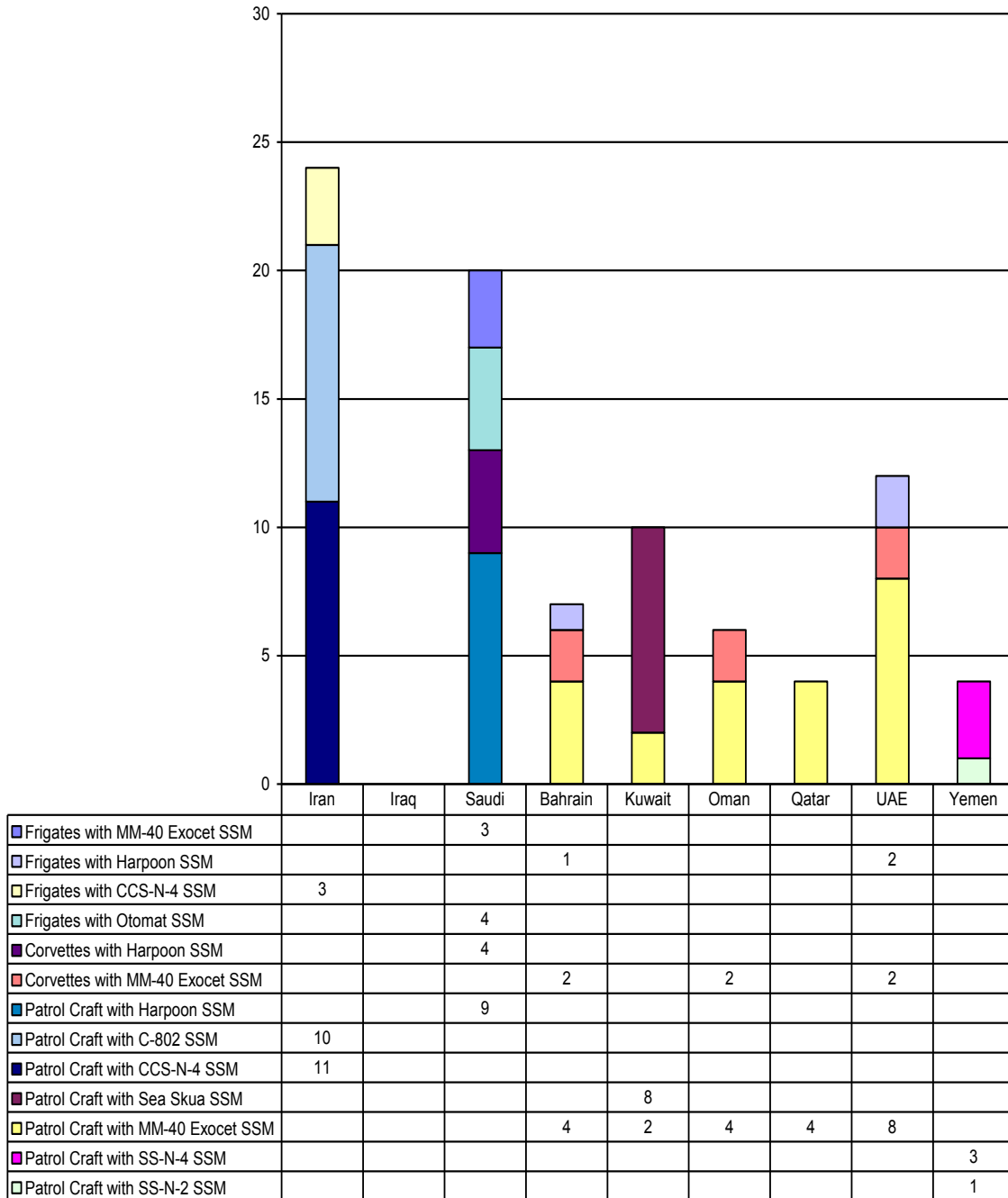
Source: Adapted by Anthony H. Cordesman from IISS, [The Military Balance](#), [Periscope](#), JCSS, [Middle East Military Balance](#), Jane's [Sentinel](#) and [Jane's Defense Weekly](#). Some data adjusted or estimated by the author.

Figure 19: Gulf Naval Ships by Category in 2008



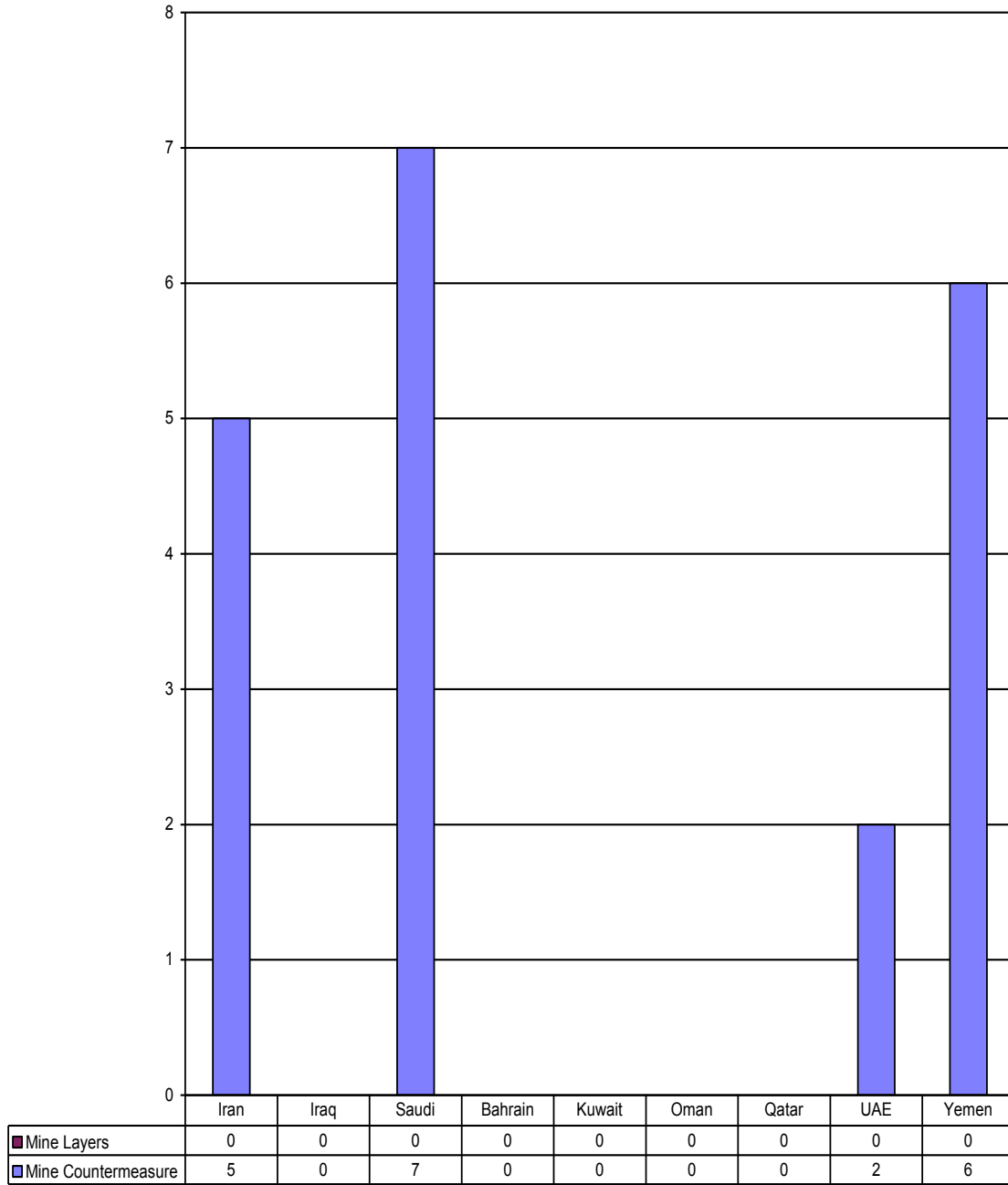
Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions.

Figure 20: Gulf Warships with Anti-Ship Missiles in 2008



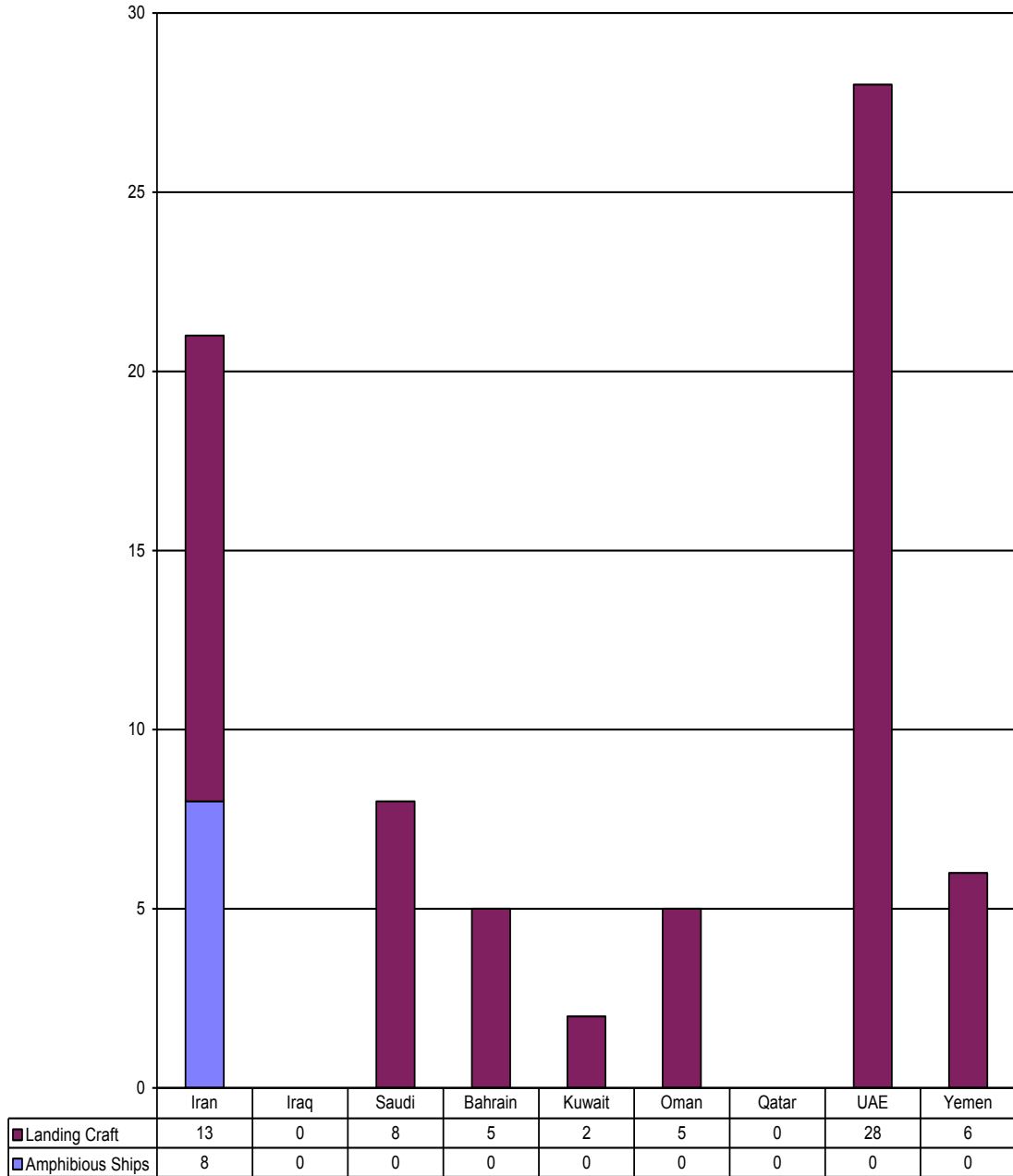
Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions and material provided by US experts.

Figure 21: Gulf Mine Warfare Ships in 2008



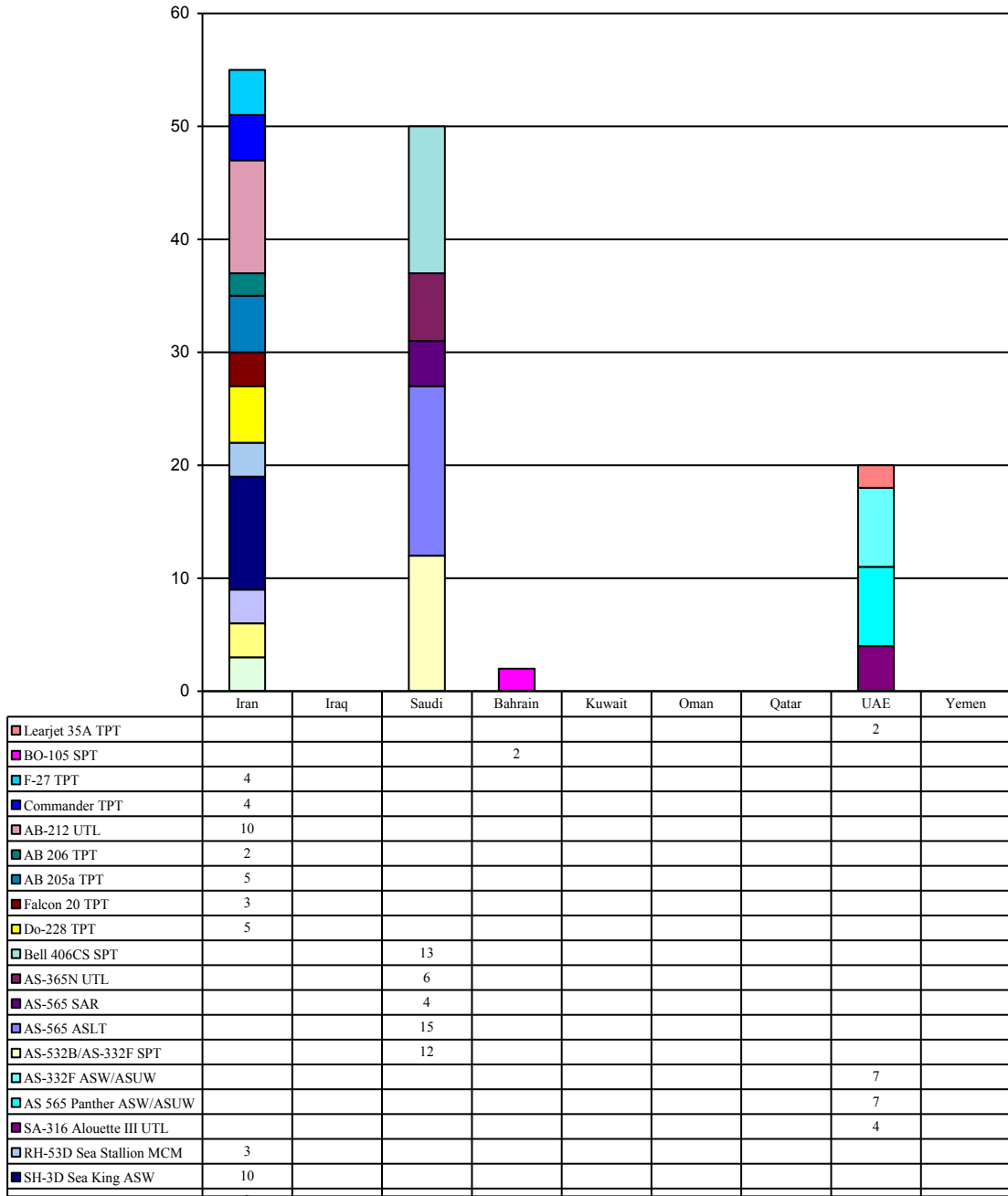
Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions and material provided by US experts.

Figure 22: Gulf Amphibious Warfare Ships in 2008



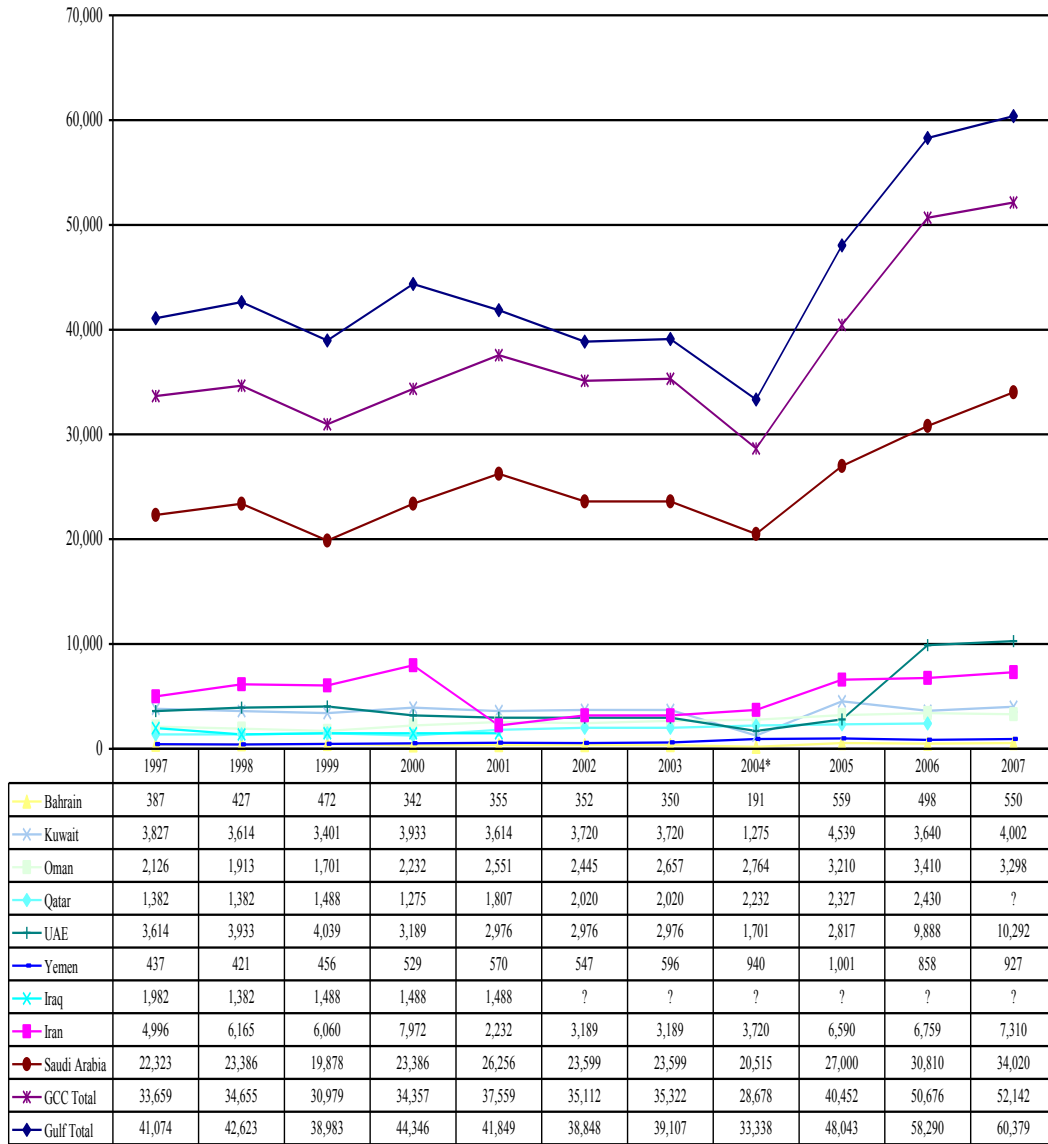
Source: Adapted by Anthony H. Cordesman from IISS, The Military Balance, various editions and material provided by US experts.

Figure 23: Gulf Naval Aircraft and Helicopters Aircraft in 2008



Source: Adapted by Anthony H. Cordesman from the IISS, The Military Balance.

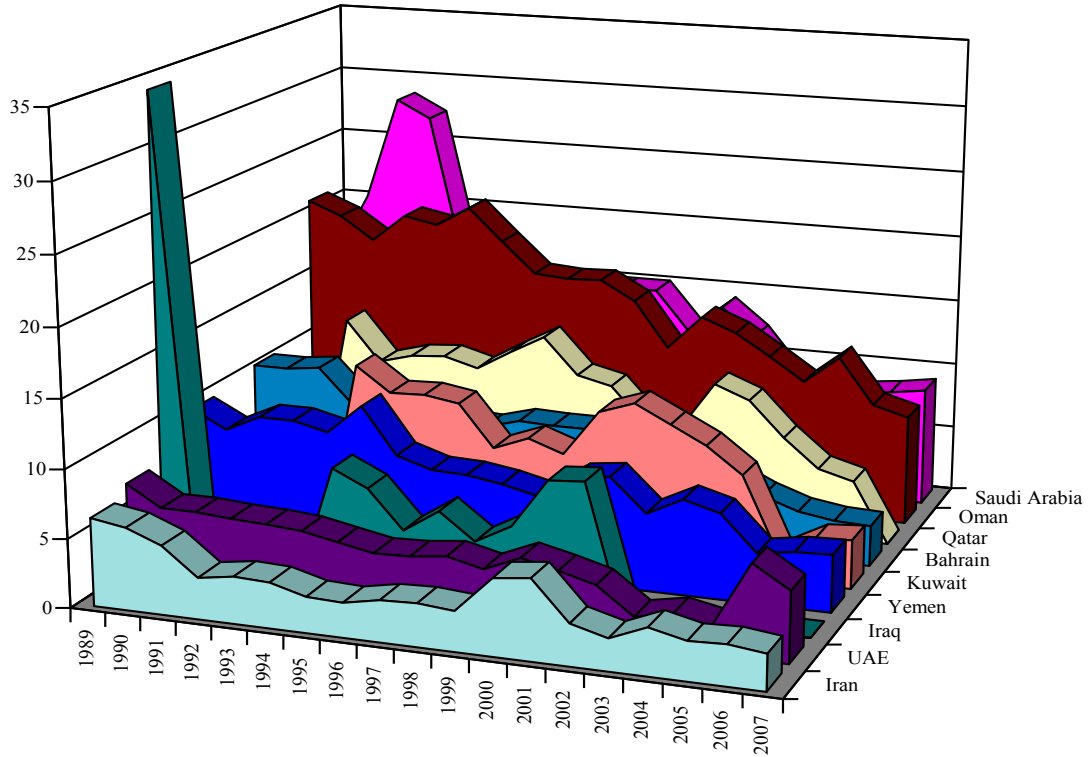
Figure 24: Southern Gulf Military Expenditures by Country: 1997-2007
(in 2008 Current Millions)



Source: International Institute of Strategic Studies, Military Balance, various editions.

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

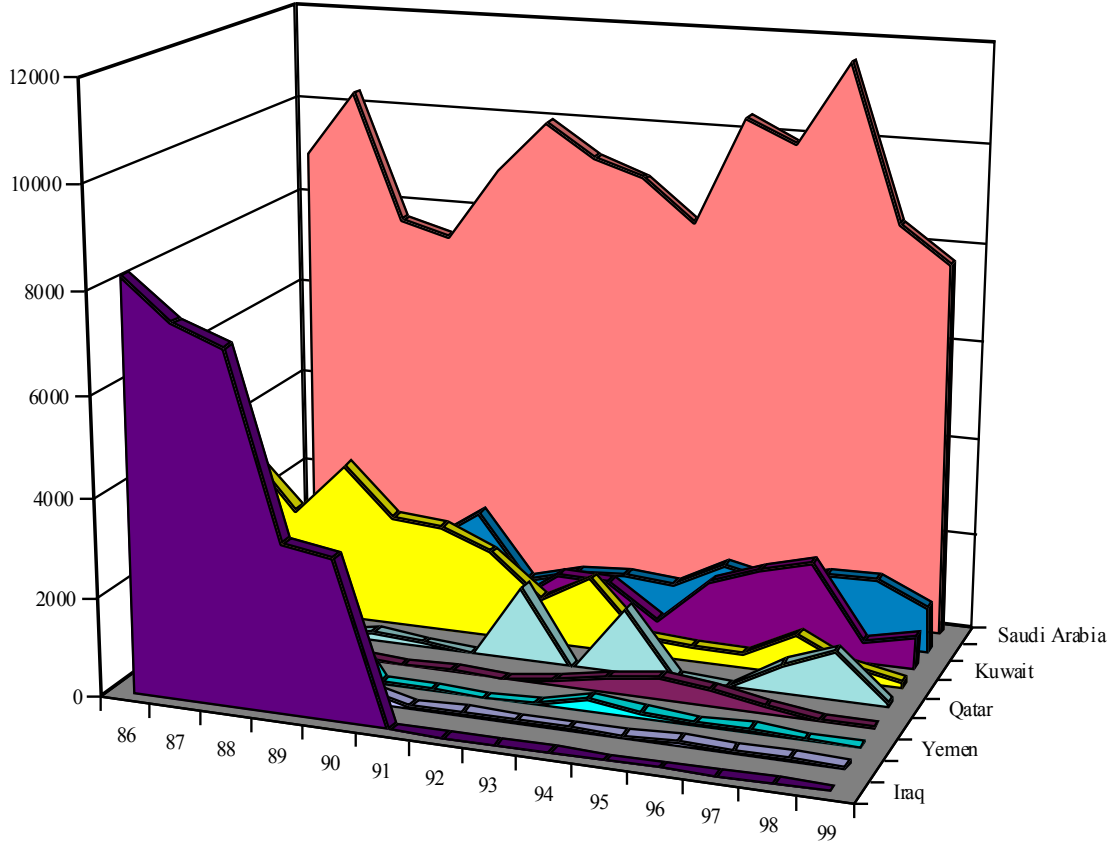
Figure 25: Comparative Military Expenditures of the Gulf Powers as a Percent of GNP - 1989-2007



	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Iran	6.4	6	5	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	2.6
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	5.1
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
Kuwait	6.1	{53.1	{101.	{77.0	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	3.6
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
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	-
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	8.2
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	8.9

Source: Adapted by Anthony H. Cordesman 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.

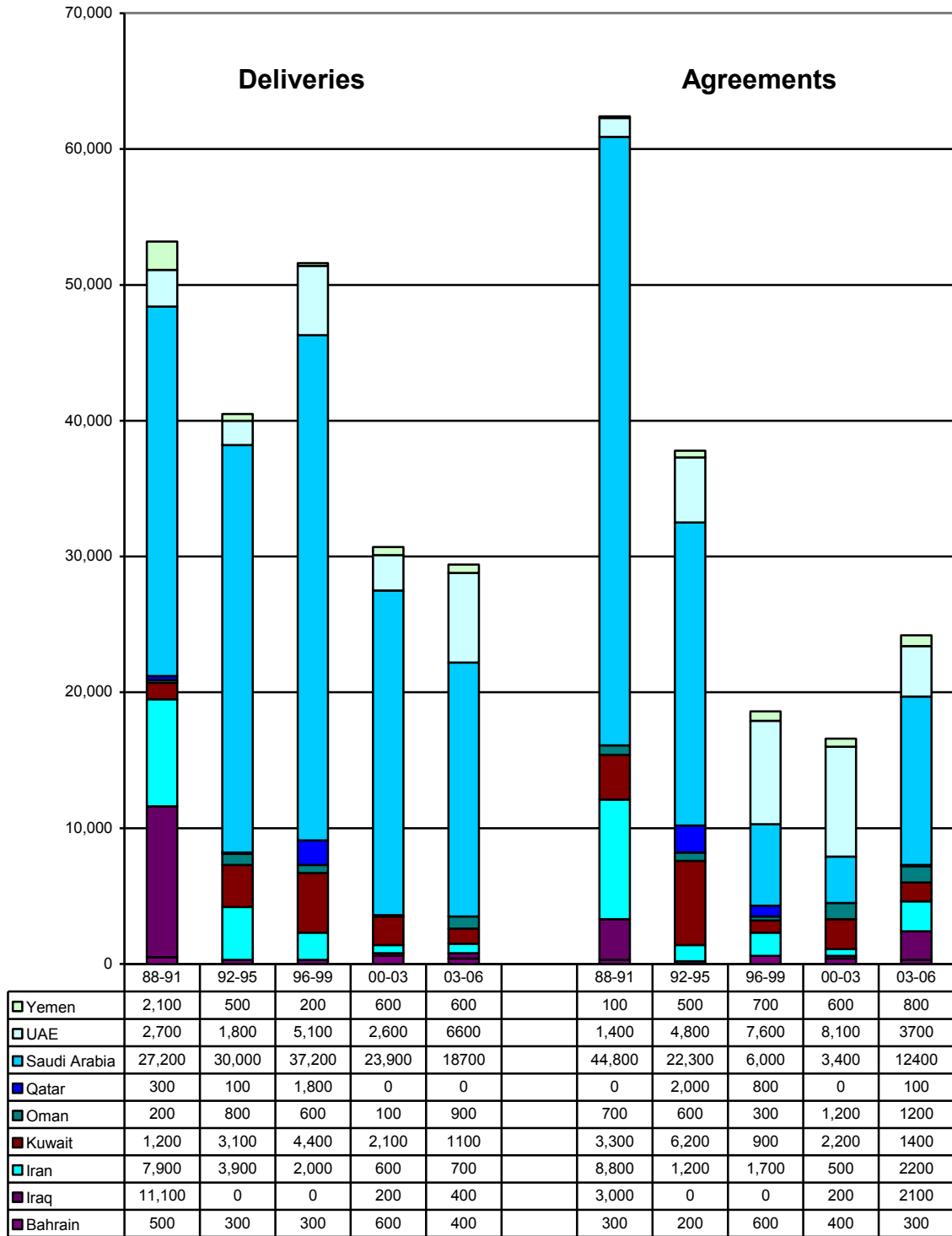
Figure 26: Cumulative Arms Imports of the Other Gulf states - 1984-1999
 (Value of Deliveries in Constant \$US Millions)



	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 by Anthony H. Cordesman from State Department, World Military Expenditures and Arms Transfers, GPO, Washington, various editions.

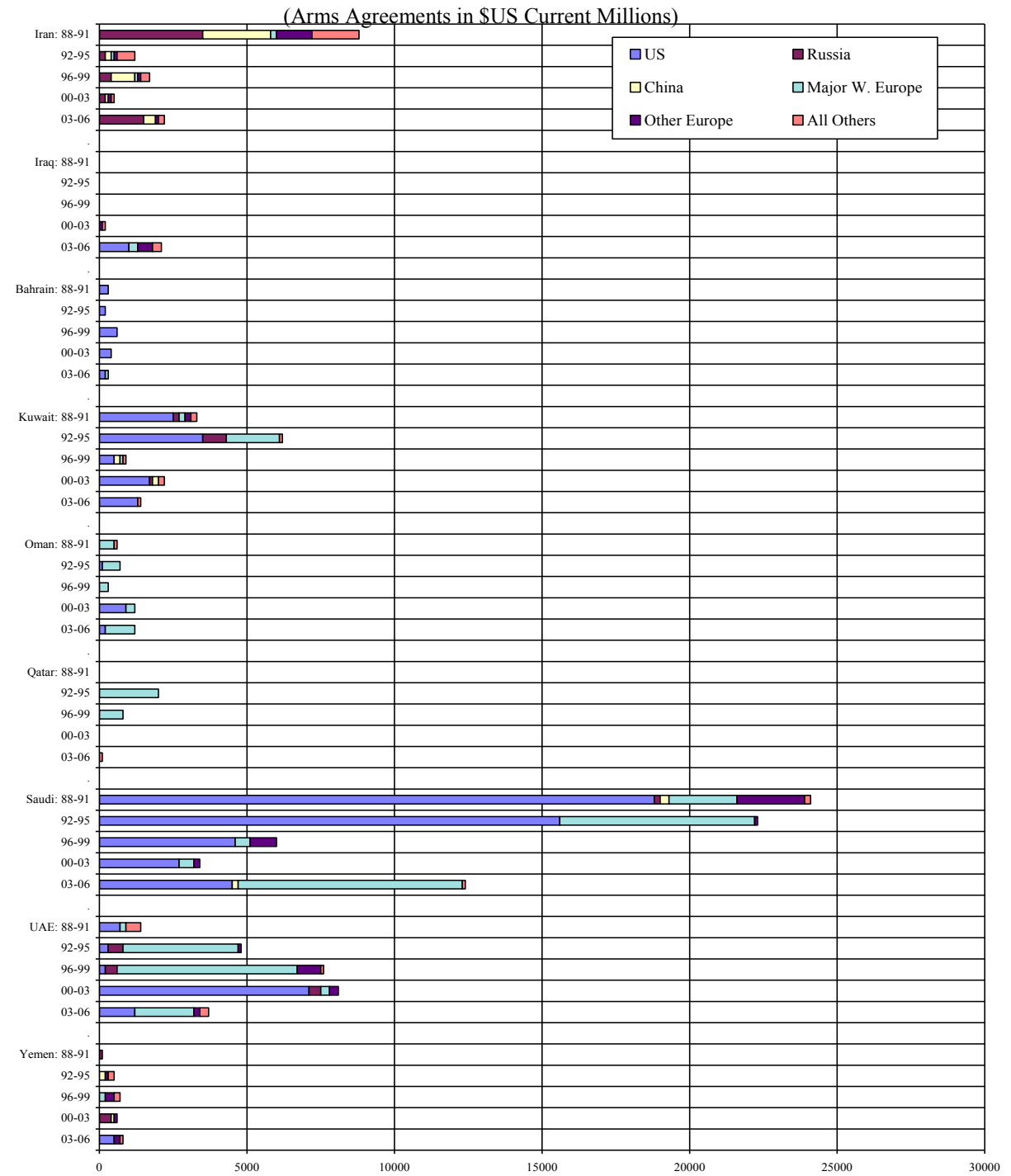
Figure 27: Gulf Arms Agreements and Deliveries by Country: 1988-2006
(in \$US Current Millions)



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: 1988-2006



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

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

ⁱ The U.S. Department of Defense, “Eagle Resolve’ Focused on Reducing WMD Vulnerabilities,” Gulf Exercise, May 23, 2005.