

CSIS

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**Saudi Military Forces
Enter the 21st Century:**

Military Graphs and Tables

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Introduction

This draft analysis is to be circulated for comment as part of the CSIS “Saudi Arabia Enters the 21st Century Project.” It will be extensively revised before final publication.

Those interested in commenting, or in participating in the project, should contact Anthony H. Cordesman at the address shown on the cover sheet at Acordesman@aol.com.

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The CSIS “Saudi Arabia Enters the 21st Century Project”

The CSIS is undertaking a new project to examine the trends shaping the future of Saudi Arabia and its impact on the stability of the Gulf. This project is supported by the Smith Richardson Foundation and builds on the work done for the CSIS Strategic Energy Initiative, the CSIS Net Assessment of the Middle East, and the Gulf in Transition Project. It is being conducted in conjunction with a separate – but closely related -- study called the Middle East Energy and Security Project.

The project is being conducted by Anthony H. Cordesman, the Arleigh A. Burke Chair in Strategy. It uses a net assessment approach that looks at all of the major factors affecting Saudi Arabia’s strategic, political, economic, and military position and future implications of current trends. It is examining the internal stability and security of Saudi Arabia, social and demographic trends, and the problem of Islamic extremism. It is also examining the changes taking place in the Saudi economy and petroleum industries, the problems of Saudisation, changes in export and trade patterns, and Saudi Arabia’s new emphasis on foreign investment.

The assessment of Saudi Arabia’s strategic position includes a full-scale analysis of Saudi military forces, defense expenditures, arms imports, military modernization, readiness, and war fighting capability. It also, however, looks beyond the military dimension and a narrowly definition of political stability, and examine the implications of the shifts in the pattern of Gulf, changes in Saudi external relations such changes in Saudi policy towards Iran and Iraq. It examines the cooperation and tensions between Saudi Arabia and the other Southern Gulf states. It examines the implications of the conventional military build-up and creeping proliferation of weapons of mass destruction in the Gulf, the resulting changes in Saudi Arabia’s security position. It also examines the security and strategic implications of the steady expansion of Saudi Arabia’s oil, gas, and petrochemical exports.

This project is examining the succession in the Royal Family, the immediate political probabilities, and the generational changes that are occurring in the royal family and Saudi Arabia’s technocrats. At the same time, it examines the future political, economic, and social trends in Saudi Arabia, and possible strategic futures for Saudi Arabia through the year 2010.

This examination of the strategic future of Saudi Arabia includes Saudi Arabia’s possible evolution in the face of different internal and external factors -- including changes in foreign and trade policies towards Saudi Arabia by the West, Japan, and the Gulf states. Key issues affecting Saudi Arabia’s future, including its economic development, relations with other states in the region, energy production and policies, and security relations with other states will be examined as well.

A central focus of this project is to examine the implications of change within Saudi Arabia, their probable mid and long-term impacts, and the most likely changes in the nature or behavior of Saudi Arabia’s current ruling elite, and to project the possible implications for both Gulf stability and the US position in the Gulf.

Work on the project will focus on the steady development of working documents that will be revised steadily during the coming months on the basis on outside comment. As a result, all of the material provided in this section of the CSIS web page should be regarded as working material that will change according to the comments received from policymakers and outside experts. To comment, provide suggestions, or provide corrections, please contact Anthony H. Cordesman at the CSIS at the address shown on each report, or e-mail him at Acordesman@aol.com.

Related material can be found in the “Gulf and Transition” and “ Middle East Energy and Security” sections of the CSIS Web Page at CSIS.ORG.

Table of Contents

TABLE 6.1	1
THE SIZE AND MILITARY CAPABILITIES OF THE GULF STATES IN 2001	1
TABLE 6.2	2
GULF MILITARY FORCES IN 2001 - PART ONE	2
TABLE 6.2	3
GULF MILITARY FORCES IN 2001 - PART TWO	3
CHART 6.1	4
TRENDS IN TOTAL GULF MILITARY MANPOWER.....	4
TABLE 6.2	5
SAUDI MILITARY DEMOGRAPHICS VERSUS THOSE OF NEIGHBORING STATES IN 2001	5
CHART 6.2	6
SAUDI ACTIVE MILITARY MANNING – 1980-2000	6
CHART 6.3	7
TOTAL SAUDI ACTIVE MILITARY MANNING BY MILITARY SERVICE – 1980-2000	7
CHART 6.4	8
COMPARATIVE MILITARY EXPENDITURES OF THE GULF POWERS - 1984-1997	8
CHART 6.5	9
COMPARATIVE MILITARY EXPENDITURES OF THE HIGH EXPENDITURE GULF POWERS: 1983-1997.....	9
CHART 6.6	10
COMPARATIVE MILITARY EXPENDITURES IN THE GULF REGION: 1995-2000.....	10
CHART 6.7	11
MILITARY EXPENDITURES AND ARMS TRANSFERS AS AN ASPECT OF “STATISM”	11
CHART 6.8	12
COMPARATIVE ESTIMATES OF SAUDI MILITARY SPENDING: 1984-2000.....	12
CHART 6.9	13
SAUDI ESTIMATES OF SAUDI NATIONAL SECURITY SPENDING: 1981-2000	13
CHART 6.10	14
SAUDI GROSS NATIONAL PRODUCT, CENTRAL GOVERNMENT EXPENDITURES, MILITARY EXPENDITURES, TOTAL EXPORTS, TOTAL IMPORTS AND ARMS IMPORT DELIVERIES: 1984-1997.....	14
CHART 6.11	15
SAUDI GROSS NATIONAL PRODUCT, CENTRAL GOVERNMENT EXPENDITURES, MILITARY EXPENDITURES, TOTAL EXPORTS, TOTAL IMPORTS AND ARMS IMPORT DELIVERIES: 1984-1997.....	15
CHART 6.12	16

SAUDI MILITARY EFFORTS AS A PERCENT OF GNP, GOVERNMENT EXPENDITURES, AND IMPORTS AND MILITARY PERSONNEL PER 1,000 IN	
TOTAL POPULATION: 1972-1997.....	16
CHART 6.13.....	17
SHIFT IN SAUDI MILITARY EXPENDITURES AND ARMS DELIVERIES AS A PERCENT OF 1984 TOTAL: 1984-1997	
CHART 6.14.....	18
CHART 6.15.....	19
TREND IN ARMS DELIVERIES TO SAUDI ARABIA: 1973-1997	
CHART 6.17.....	20
SAUDI ARABIAN NEW ARMS AGREEMENTS VERSUS ARMS DELIVERIES: 1990-1999.....	
CHART 6.18.....	21
SAUDI TOTAL EXPORTS, TOTAL IMPORTS, AND ARMS IMPORT DELIVERIES: 1984-1997	
CHART 6.19.....	22
CUMULATIVE SAUDI ARMS IMPORTS RELATIVE TO THOSE OF THE OTHER GULF STATES - 1984-1997	
CHART 6.20.....	23
SAUDI ARMS DELIVERIES VERSUS DELIVERIES TO IRAN AND IRAQ: 1986-1997	
CHART 6.21.....	24
ARMS IMPORTS AS A PERCENT OF TOTAL IMPORTS IN MIDDLE EASTERN COUNTRIES	
CHART 6.22.....	25
ARMS DELIVERIES TO SAUDI ARABIA BY MAJOR SUPPLIER: 1973-1997	
CHART 6.23.....	26
TOTAL SAUDI ARABIAN ARMS AGREEMENTS AND DELIVERIES BEFORE AND AFTER THE GULF WAR: 1987-1999.....	
CHART 6.24.....	27
DECLINING ORDERS, RISING DELIVERIES: SAUDI ARABIAN NEW ARMS AGREEMENTS AND DELIVERIES BY MAJOR SUPPLIER BEFORE AND AFTER	
THE GULF WAR: 1987-1999	27
TABLE 6.3	28
KEY SAUDI EQUIPMENT DEVELOPMENTS - PART ONE	
TABLE 6.4	31
THE PACE OF US ARMS SALES BEFORE AND AFTER THE GULF WAR: ANNUAL US FOREIGN MILITARY SALES (FMS), COMMERCIAL ARMS	
EXPORT AGREEMENTS, MILITARY ASSISTANCE PROGRAMS (MAP), AND INTERNATIONAL MILITARY EDUCATION AND TRAINING (IMET)	
PROGRAMS WITH SAUDI ARABIA: FY1985-1996	
CHART 6.25.....	32
SHAPING THE MID TO LATE 1990S: US ARMS SALES AND DELIVERIES TRANSFERS TO SAUDI ARABIA BY CATEGORY FROM US FISCAL YEAR	
1996-2000.....	32
CHART 7.1.....	33
SAUDI ACTIVE LAND FORCE MANNING – 1980-2001	
CHART 7.2.....	34

THE GROWTH IN SAUDI ARMY WEAPONS STRENGTH - 1979-2001	34
CHART 7.2	35
THE GROWTH IN SAUDI ARMORED WEAPONS STRENGTH - 1979-2001	35
CHART 7.3	36
TOTAL GULF OPERATIONAL ARMORED FIGHTING VEHICLE STRENGTH IN 2001	36
CHART 7.4	37
TRENDS IN TOTAL GULF MAIN BATTLE TANK INVENTORY: 1979-2000	37
CHART 7.5	38
TOTAL OPERATIONAL MAIN BATTLE TANKS IN ALL GULF FORCES 1979 TO 2000	38
CHART 7.6	39
MEDIUM TO HIGH QUALITY MAIN BATTLE TANKS BY TYPE IN 2001	39
CHART 7.7	40
HOLDINGS OF LOW QUALITY MAIN BATTLE TANKS BY TYPE IN 2001	40
CHART 7.9	41
TOTAL OPERATIONAL OTHER ARMORED FIGHTING VEHICLES (LT. TANKS, SCOUT, AIFVs, APCs, RECONNAISSANCE VEHICLES) IN GULF FORCES: 1990-2000	41
CHART 7.10	42
GULF OTHER ARMORED FIGHTING VEHICLES (OAFVs) BY CATEGORY - 2001	42
CHART 7.11	43
ADVANCED ARMORED INFANTRY FIGHTING VEHICLES, RECONNAISSANCE VEHICLES, SCOUT VEHICLES AND LIGHT TANKS BY TYPE IN 2001 ..	43
CHART 7.12	44
ARMORED PERSONNEL CARRIERS (APCs) IN GULF ARMIES – 2001	44
CHART 7.13	45
THE GROWTH IN SAUDI ARTILLERY WEAPONS STRENGTH - 1979-2001	45
CHART 7.14	46
TOTAL OPERATIONAL SELF-PROPELLED AND TOWED TUBE ARTILLERY AND MULTIPLE ROCKET LAUNCHERS IN GULF FORCES 1990-2000	46
CHART 7.15	47
TOTAL OPERATIONAL GULF ARTILLERY WEAPONS - 2001	47
CHART 7.16	48
GULF INVENTORY OF SELF-PROPELLED ARTILLERY BY CALIBER IN 2001	48
CHART 7.17	49
GULF INVENTORY OF TOWED ARTILLERY BY CALIBER IN 2001	49
CHART 7.18	50
GULF INVENTORY OF MULTIPLE ROCKET LAUNCHERS BY CALIBER IN 2001	50
CHART 9.1	52
TOTAL GULF NAVAL MANPOWER: 2001	52

CHART 9.2.....	53
GULF NAVAL SHIPS BY CATEGORY IN 2001	53
CHART 9.3.....	54
GULF WARSHIPS WITH ANTI-SHIP MISSILES IN 2001	54
CHART 9.4.....	55
GULF MINE WARFARE SHIPS IN 2001	55
CHART 9.5.....	56
GULF AMPHIBIOUS WARFARE SHIPS IN 2001.....	56
CHART 9.6.....	57
GULF NAVAL AIRCRAFT AND HELICOPTERS AIRCRAFT IN 2001.....	57
CHART 10.1.....	58
SAUDI ARABIA: FIXED WING AND ROTARY WING COMBAT AIR STRENGTH - 1979-2001.....	58
CHART 10.2.....	59
TOTAL GULF AIR FORCE AND AIR DEFENSE MANPOWER: 2001.....	59
CHART 10.3.....	60
TOTAL GULF HOLDINGS OF COMBAT AIRCRAFT – 2001.....	60
CHART 10.4.....	61
GULF HIGH AND MEDIUM QUALITY FIXED WING FIGHTER, FIGHTER ATTACK, ATTACK, STRIKE, AND MULTI-ROLE COMBAT AIRCRAFT BY TYPE - 2001	61
TABLE 10.1.....	62
ADVANCED COMBAT AIRCRAFT BY TYPE IN GULF FORCES IN 2001	62
CHART 10.5.....	63
GULF LOW QUALITY FIXED WING FIGHTER, FIGHTER ATTACK, ATTACK, STRIKE, AND MULTI-ROLE COMBAT AIRCRAFT BY TYPE - 2001 ...	63
CHART 10.6.....	64
GULF RECONNAISSANCE AIRCRAFT IN 2001	64
CHART 10.7.....	65
SENSOR, AWACS, C ⁴ I, EW AND ELINT AIRCRAFT IN 2001.....	65
CHART 10.8.....	66
GULF ATTACK HELICOPTERS IN 2001	66
TABLE 11.1.....	67
GULF LAND-BASED AIR DEFENSE SYSTEMS IN 2001	67

Table 6.1

The Size and Military Capabilities of the Gulf States in 2001

<u>Country</u>	<u>Total Active Manning</u>	<u>Total Active Army Manning</u>	<u>Tanks</u>	<u>OAFVs</u>	<u>Artillery</u>	<u>Combat Aircraft</u>	<u>Armed Helicopters</u>
Iran	513,000	475,000	1,410	1,105	3,224	304	100
Iraq	387,500	350,000	2,700	3,400	2,200	353	120
Bahrain	11,000	8,500	106	411	107	24	26
Kuwait	15,300	11,000	385	455	68	76	20
Oman	43,500	31,500	141	219	109	40	0
Qatar	11,100	8,500	44	284	44	18	12
Saudi Arabia	162,500	127,000	1,055	4,285	568	432	33
UAE	64,500	59,000	237	1,138	289	99	49
Yemen	66,300	61,000	1,030	1,290	702	89	8
Djibouti	9,600	8,000	0	31	6	0	0
Eritrea	200,000	180,000	-	-	-	-	-
Ethiopia	325,500	300,000	500	220	300	71	24
Somalia	-	-	-	-	-	-	-
Sudan	94,700	90,000	280	598	806	51	9
Turkey	639,000	525,000	4,205	2,515	4,453	440	37

Source: Adapted by Anthony H. Cordesman, CIA World Factbook and IISS, Military Balance.

Table 6.2

Gulf Military Forces in 2001 - Part One

	<u>Iran</u>	<u>Iraq</u>	<u>Bahrain</u>	<u>Kuwait</u>	<u>Oman</u>	<u>Qatar</u>	<u>Saudi Arabia*</u>	<u>UAE</u>	<u>Yemen</u>
Manpower									
Total Active	545,600	429,000	11,000	15,300	43,500	11,800	162,500	64,500	66,300
Regular	420,600	429,000	11,000	15,300	37,000	11,800	105,500	64,500	66,300
National Guard & Other	125,000	0	0	0	6,500	0	57,000	0	0
Reserve	350,000	650,000	0	23,700	0	0	20,000	0	40,000
Paramilitary	40,000	50,000	10,150	5,000	4,400	0	15,500	1,100	70,000
Army and Guard									
Manpower	450,000*	375,000	8,500	11,000	31,500	8,500	127,000	59,000	61,000
Regular Army Manpower	350,000	375,000	8,500	11,000	25,000	8,500	70,000	59,000	61,000
Reserve	350,000	450,000	0	0	0	0	20,000	0	40,000
Active Main Battle Tanks	1,345	1,900	106	293	117	44	710	237	1,030
Total Main Battle Tanks***	1,410	2,700	106	385	141	44	1,055	237	1,320
Active AIFV/Recce, Lt. Tanks	555	1,600	71	355	78	112	1,655	578(20)	650
Active APCs	550	1,800	340	100	103	172	2,630	570	640
Total APCs	550	2,000	340	140	103	172	3,440	570	640
ATGM Launchers	420+	480+	15	118	68	124+	480+	275	71
Self Propelled Artillery	290	150	62	41 (59)	18	28	190	177	30
Towed Artillery	2,170	1,800	36	0	91	12	318(58)	46	452
MRLs	764+	150	9	27	0	4	60	66 (24)	220
Mortars	6,500	2,000+	18	50+	89	39	510+	135	600
SSM Launchers	46	36?	0	0	0	0	10	6	30
Light SAM Launchers	700	1,100	62	0	72	0	650	100	300
AA Guns	1,700	5,500	24	0	26	0	10	62	442
Air Force Manpower	25,000	35,000	1,500	2,500	4,100	1,500	18,000	4,000	3,500
Air Defense Manpower	25,000	17,000	0	0	0	0	4,000	0	0
Total Combat Aircraft	304	353	24	76	40	18	432	99	89(40)
Bombers	0	6?	0	0	0	0	0	0	0
Fighter/Attack	140	130	12	40	12	18	160	43	27
Fighter/Interceptor	114	180	12	8	0	0	191	22	16
Recce/FGA Recce	15	8	0	0	12	0	10	8	0
AEW C4I/BM	0	0	0	0	0	0	5	0	0
MR/MPA**	5	0	0	0	0	0	0	0	0
OCU/COIN/CCT	0	18	0	28	16	0	21	26	0
Other Combat Trainers	5	155	0	0	0	0	50	0	6
Transport Aircraft****	54	34	3	4	21	6	72	22	16
Tanker Aircraft	5	2	0	0	0	0	15	0	0
Total Helicopters	613	500	33	32	31	24	184	97	25
Armed Helicopters****	100	120	26	20	0	12	33	49	8
Other Helicopters****	113	380	7	12	31	6	151	47	17
Major SAM Launchers	155	340	8	24	0	0	128	36	57
Light SAM Launchers	65	200	0	60	28	9	309	134	120
AA Guns	-	6,000	-	60	-	-	270	-	-

Table 6.2

Gulf Military Forces in 2001 - Part Two

	<u>Iran</u>	<u>Iraq</u>	<u>Bahrain</u>	<u>Kuwait</u>	<u>Oman</u>	<u>Qatar</u>	<u>Saudi Arabia*</u>	<u>UAE</u>	<u>Yemen</u>
Total Naval Manpower	40,600*	2,000	1,000	1,800	4,200	1,800	13,500	1,500	1,800
Regular Navy	20,600	2,000	1,000	1,800	4,200	1,800	10,500	1,500	1,800
Naval Guards	20,000	0	0	0	0	0	0	0	0
Marines	2,600	-	-	-	-	-	3,000	-	-
Major Surface Combatants									
Missile	3	0	3	0	2	0	8	4	0
Other	2	1-2	0	0	0	0	0	0	0
Patrol Craft									
Missile	20	1	4	6	4	3	9	8	5
(Revolutionary Guards)	5	-	-	-	-	-	-	-	-
Other	42	5	6	5	7	4	17	9	8
Revolutionary Guards (Boats)	40	-	-	-	-	-	-	-	-
Submarines	3	0	0	0	0	0	0	0	0
Mine Vessels	7	4	0	0	0	0	7	0	6
Amphibious Ships	9	0	0	0	1	0	0	0	1
Landing Craft	17	-	4	2	4	1	8	5	2
Support Ships	25	3	5	6	5	-	7	2	2
Naval Air	2,000	-	-	-	-	-	-	-	-
Naval Aircraft									
Fixed Wing Combat	0	0	0	0	0	0	0	0	0
MR/MPA	8	0	0	0	(7)	0	0	0	0
Armed Helicopters	9	(6)	0	0	0	0	21	(8)	0
SAR Helicopters		0	0	0	0	0	4	(6)	0
Mine Warfare Helicopters	2	0	0	0	0	0	0	0	0
Other Helicopters	-	-	2	-	-	-	6	-	-

Note: Equipment in storage shown in the higher figure in parenthesis or in range. Air Force totals include all helicopters, including army operated weapons, and all heavy surface-to-air missile launchers.

* Iranian total includes roughly 100,000 Revolutionary Guard actives in land forces and 20,000 in naval forces.

** Saudi Totals for reserve include National Guard Tribal Levies. The total for land forces includes active National Guard equipment. These additions total 450 AIFVs, 730(1,540) APCs, and 70 towed artillery weapons.

*** Total tanks include tanks in storage or conversion.

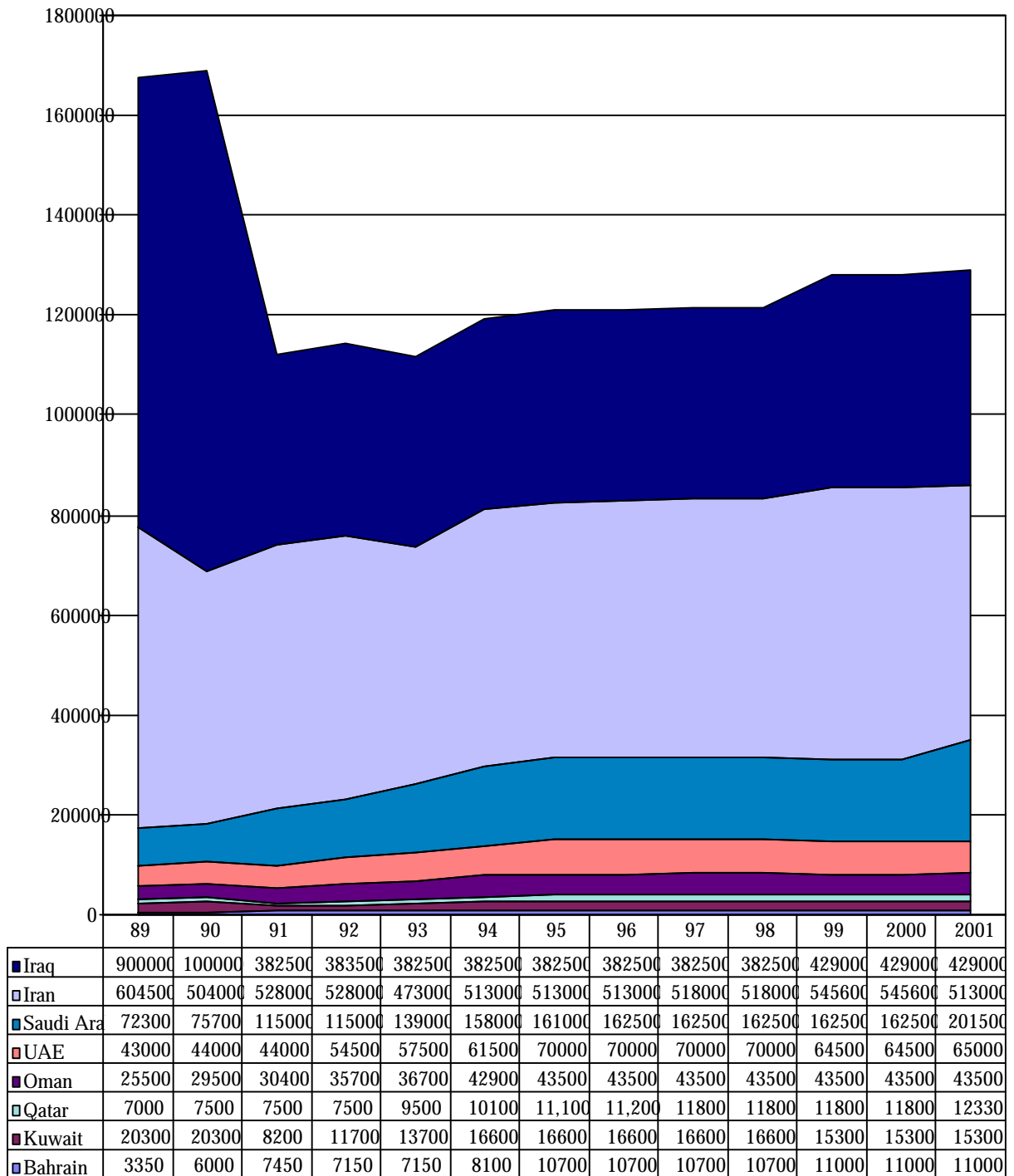
**** Includes navy, army, national guard, and royal flights, but not paramilitary.

***** Includes in Air Defense Command

Source: Adapted by Anthony H. Cordesman from interviews, International Institute for Strategic Studies, Military Balance (IISS, London); Jane's Sentinel, Military Technology, World Defense Almanac; and Jaffee Center for Strategic Studies, The Military Balance in the Middle East (JCSS, Tel Aviv)

Chart 6.1

Trends in Total Gulf Military Manpower



Source: Estimated by Anthony H. Cordesman using data from various editions of the IISS Military Balance, Jane's Sentinel, and Military Technology. Note that Saudi includes full-time active National Guard, Oman includes Royal Guard, Iran includes Revolutionary Guards, and Iraq includes Republican Guards and Special Republican Guards.

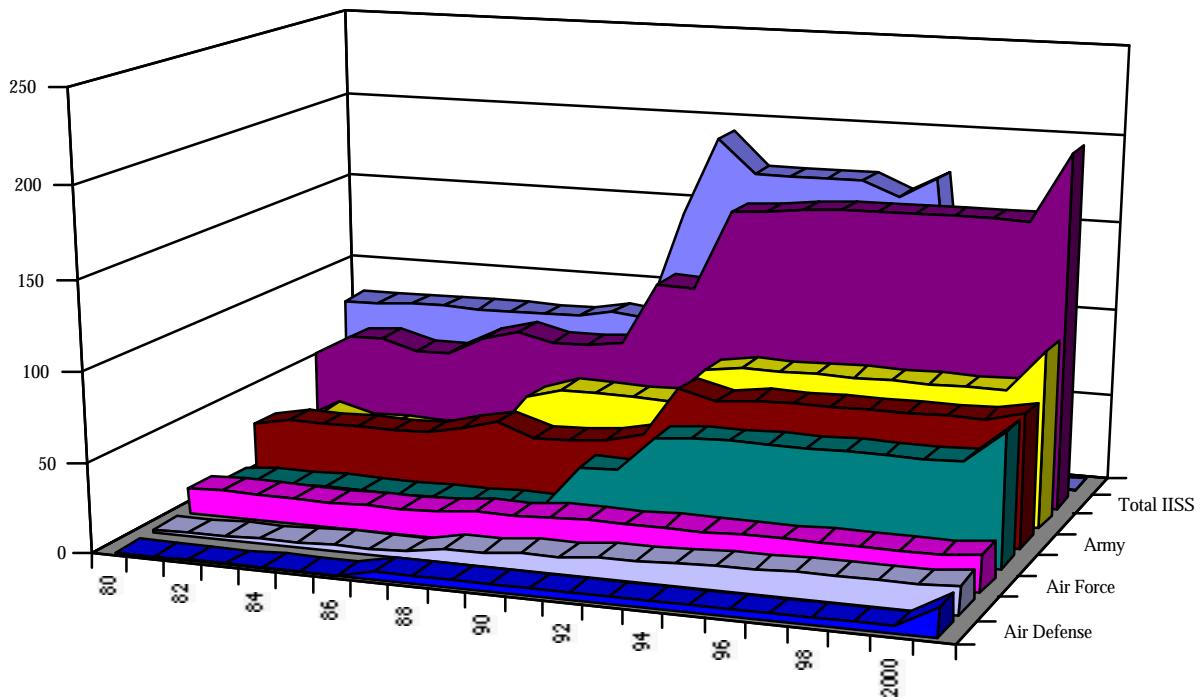
Table 6.2Saudi Military Demographics Versus Those of Neighboring States in 2001

<u>Country</u>	<u>Total Population</u>	<u>Males Reaching Military Age Each Year</u>	<u>Males Between the Ages of</u>			<u>Males Between 15 and 49</u>	
			<u>13 and 17</u>	<u>18 and 22</u>	<u>23 and 32</u>	<u>Total</u>	<u>Medically Fit</u>
Iran	65,620,000	801,000	4,587,000	3,827,000	5,771,000	17,762,000	10,546,000
Iraq	22,676,000	260,000	1,498,000	1,281,000	1,894,000	5,675,000	3,177,000
Bahrain	634,000	5,699	33,000	26,000	40,000	221,000	121,000
Kuwait	1,974,000	17,919	120,000	103,000	147,000	749,000	447,000
Oman	2,553,000	25,527	131,000	106,000	154,000	763,000	425,000
Qatar	744,000	6,471	25,000	21,000	35,000	307,000	161,000
Saudi Arabia	22,024,000	221,000	1,348,000	1,133,000	1,670,000	5,786,000	3,226,000
UAE	2,369,000	24,506	86,000	84,000	143,000	785,000	422,000
Yemen	17,479,000	234,000	974,000	788,000	1,293,000	3,936,000	2,209,000
Afghanistan	25,839,000	244,958	1,451,000	1,178,000	2,014,000	6,402,000	3,432,000
Djibouti	451,000	-	41,000	34,000	55,000	106,000	62,000
Eritrea	4,136,000	-	246,000	205,000	311,000	-	-
Ethiopia	64,117,000	687,000	3,842,000	3,083,000	4,617,000	14,184,000	7,393,000
Somalia	7,253,000	-	607,000	494,000	707,000	1,773,000	984,000
Sudan	35,080,000	386,000	1,940,000	1,644,000	2,471,000	8,144,000	5,014,000
Turkey	65,667,000	664,000	3,266,000	3,254,000	6,098,000	18,524,000	11,228,000
Egypt	68,360,000	704,000	3,634,000	3,218,000	5,067,000	18,164,000	11,767,000
Gaza	1,132,000*	-	-	-	-	-	-
Israel	5,842,000	50,348	281,000	270,000	526,000	1,499,000	1,227,000
Jordan	4,999,000	55,742	274,000	245,000	444,000	1,399,000	994,000
Lebanon	3,578,000	-	213,000	195,000	391,000	958,000	592,000
Palestinian	2,900,000*	-	163,000	140,000	233,000	-	-
Syria	16,306,000	197,000	1,042,000	853,000	1,210,000	4,221,000	2,359,000
West Bank	2,020,000*	-	-	-	-	-	-

Source: Adapted by Anthony H. Cordesman, CIA World Factbook, and IISS, Military Balance

Chart 6.2

Saudi Active Military Manning – 1980-2000
(1,000s of Personnel)

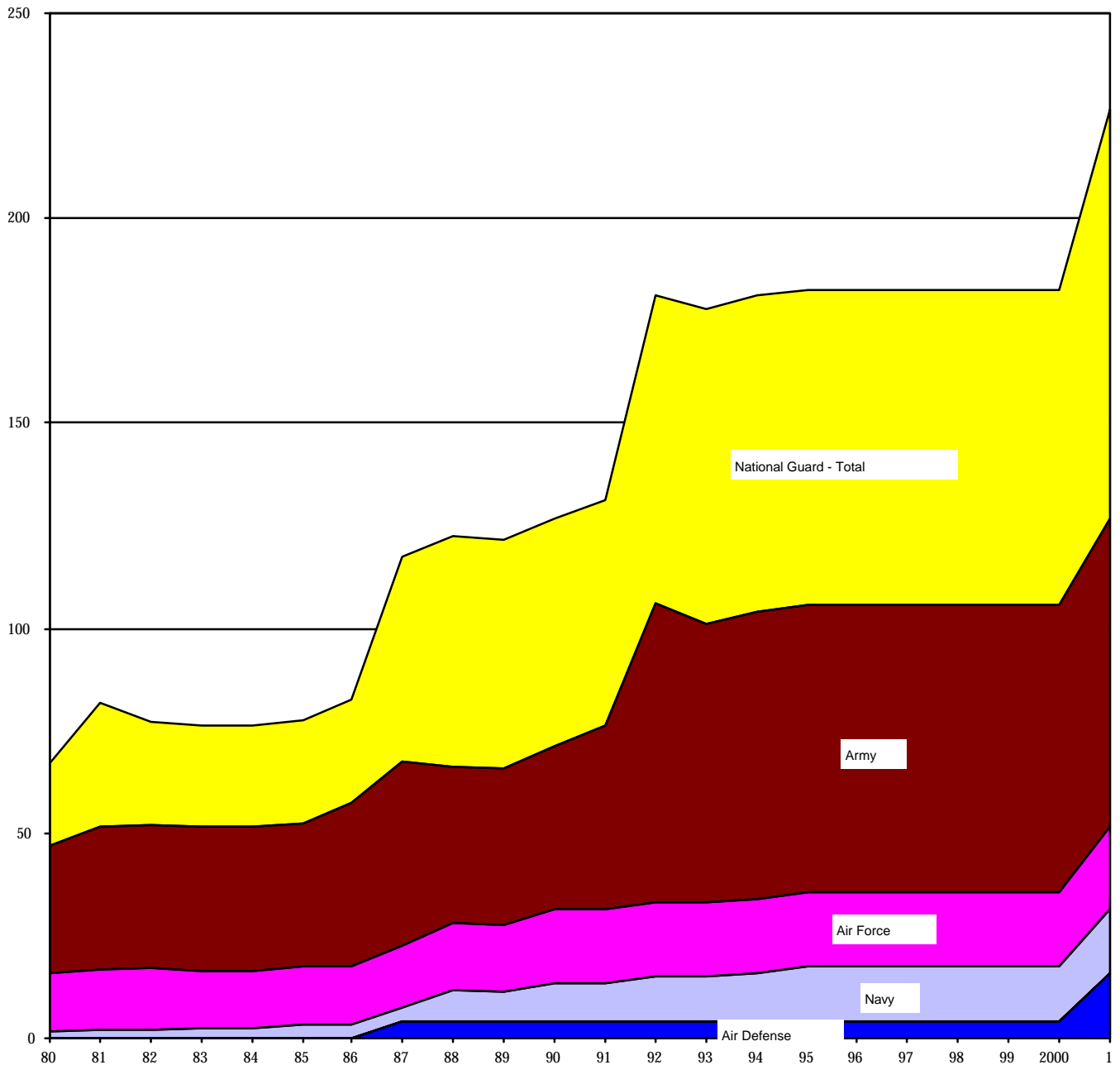


	80	81	82	84	85	86	87	89	90	91	92	93	95	96	97	98	2000	1
■ Air Defense							4	4	4	4	4	4	4	4	4	4	4	16
■ Navy	1.5	2.2	2.2	2.5	3.5	3.5	3.5	7.2	9.5	9.5	11	11	13.5	13.5	13.5	13.5	13.5	15.5
■ Air Force	14.5	14.5	15	14	14	14	15	16.5	18	18	18	18	18	18	18	18	18	20
■ National Guard -Active	8	10	10	10	10	10	10	10	35	35	55	57	57	57	57	57	57	75
■ Army	31	35	35	35	35	40	45	38	40	45	73	68	70	70	70	70	70	75
■ National Guard - Total	20	30	25	25	25	25	50	56	55	55	75	77	77	77	77	77	77	100
■ Total IISS	55	66.7	67.2	61.5	72.5	77.5	73.5	75.7	113	112	157	158	163	163	163	163	163	202
■ Total ACDA	79	79	80	80	80	80	80	82	146	191	172	172	172	164	175	-	-	

Source: Adapted by Anthony H. Cordesman from ACDA, *World Military Expenditures and Arms Transfers, 1995*, ACDA/GPO, Washington, 1996 and US State Department, *World Military Expenditures and Arms Transfers, 1998*, Bureau of Arms Control, Washington, 1999; various editions of the IISS, *Military Balance*, the JCSS, *Military Balance in the Middle East*, and material provided by US experts.

Chart 6.3

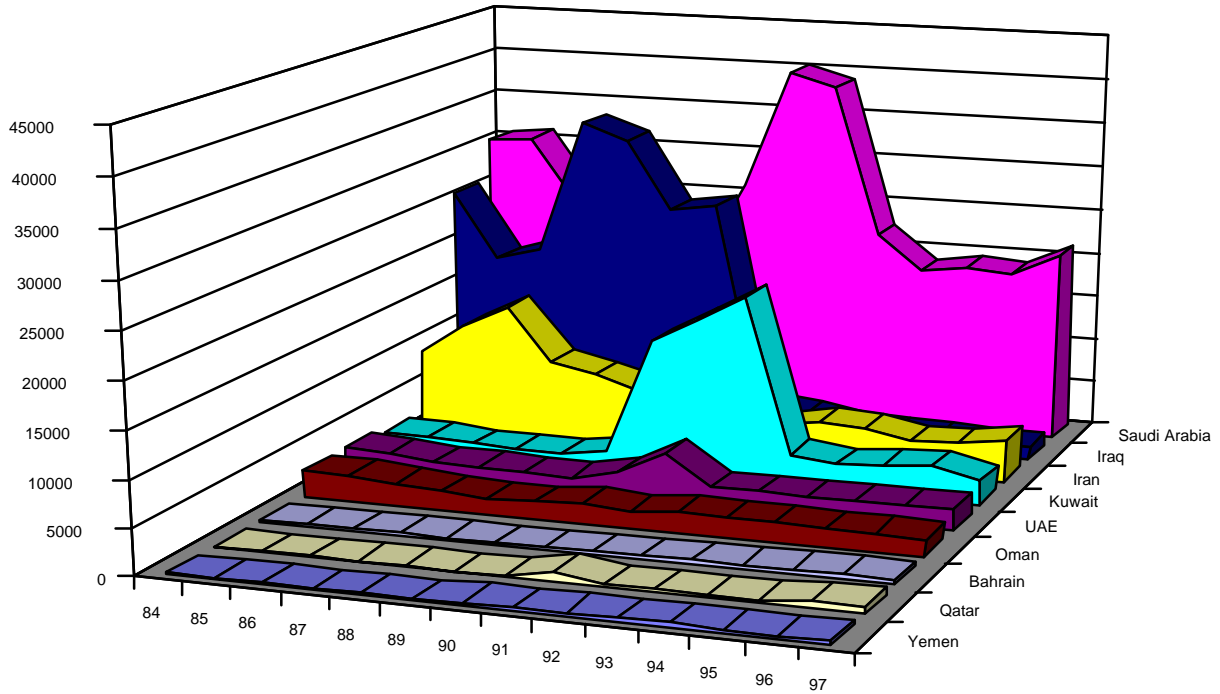
Total Saudi Active Military Manning by Military Service – 1980-2000
(1,000s of Personnel)



Source: Adapted by Anthony H. Cordesman from ACDA, *World Military Expenditures and Arms Transfers, 1995*, ACDA/GPO, Washington, 1996 and US State Department, *World Military Expenditures and Arms Transfers, 1998*, Bureau of Arms Control, Washington, 1999; various editions of the IISS, *Military Balance*, the JCSS, *Military Balance in the Middle East*, and material provided by US experts.

Chart 6.4

Comparative Military Expenditures of the Gulf Powers - 1984-1997
(\$97 Constant Millions)

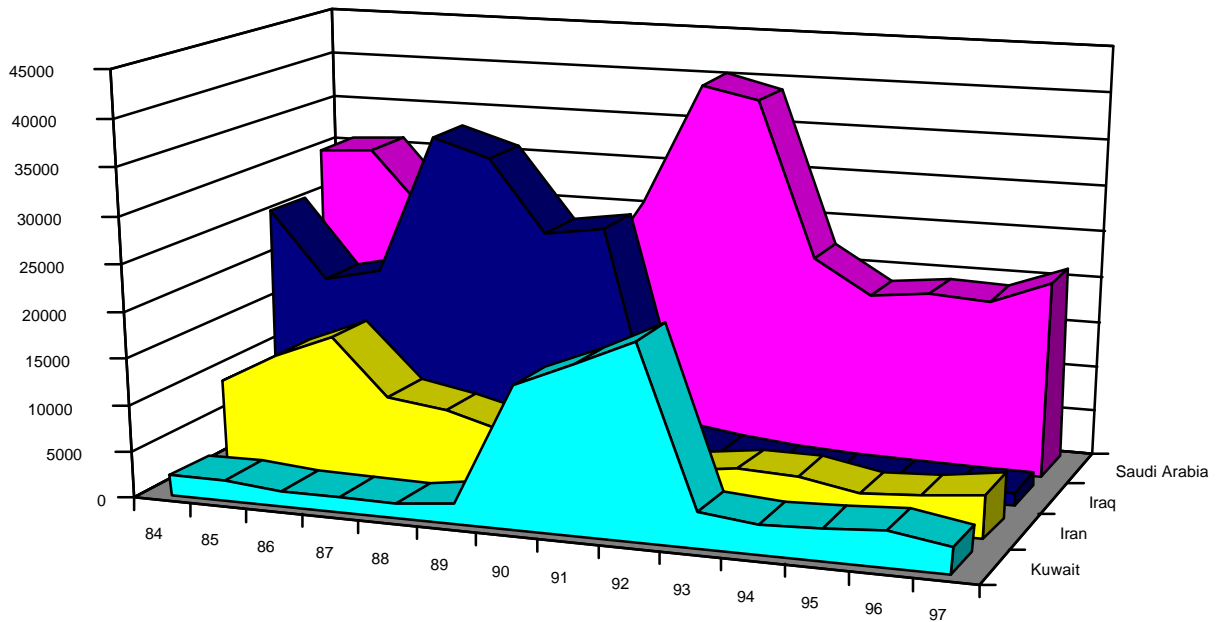


	84	85	86	87	88	89	90	91	92	93	94	95	96	97
■ Yemen	192	179	183	89	161	183	372	403	430	431	536	419	379	411
■ Qatar	109	117	113	145	119	111	209	1032	284	346	310	330	700	755
■ Bahrain	235	225	218	214	237	238	253	315	414	505	508	519	531	533
■ Oman	2911	2855	2389	2020	1710	1890	2230	1890	2230	2060	2130	2080	1940	1820
■ UAE	3000	2666	2187	2120	2010	1930	3030	5550	2330	2290	2270	2250	2250	2310
■ Kuwait	2190	2160	1768	1630	1560	2310	1520	1780	2070	3810	3190	3550	3900	2760
■ Iran	9386	1268	1532	9350	8330	6820	7160	6710	4170	4950	4770	3640	3940	4730
■ Iraq	2589	1867	2005	3500	3320	2550	2640	3500	2800	2000	1750	1750	1500	1440
■ Saudi Arabia	3050	3090	2401	2160	1720	1790	2710	4020	3880	2210	1840	1910	1880	2110

Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996 and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.5

Comparative Military Expenditures of the High Expenditure Gulf Powers: 1983-1997
(\$97 Constant Millions)



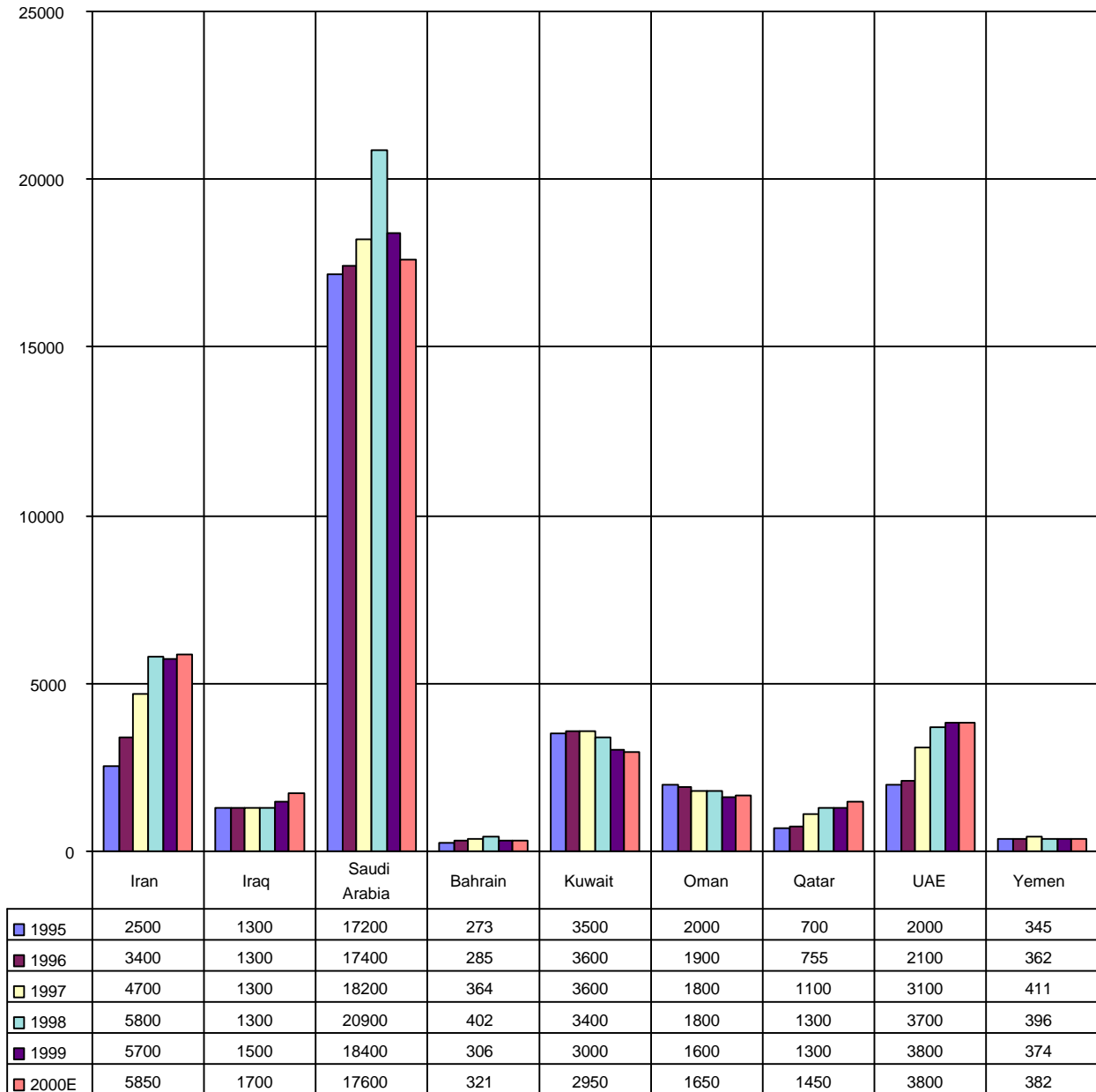
	84	85	87	88	89	90	92	93	94	95	97
■ Kuwait	2190	2160	1630	1560	2310	15200	20700	3810	3190	3550	2760
■ Iran	9386	12680	9350	8330	6820	7160	4170	4950	4770	3640	4730
■ Iraq	25890	18670	35000	33200	25500	26400	2800	2000	1750	1750	1440
■ Saudi Arabia	30500	30900	21600	17200	17900	27100	38800	22100	18400	19100	21100

Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996 and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.6

Comparative Military Expenditures in the Gulf Region: 1995-2000

(\$Current US Millions)

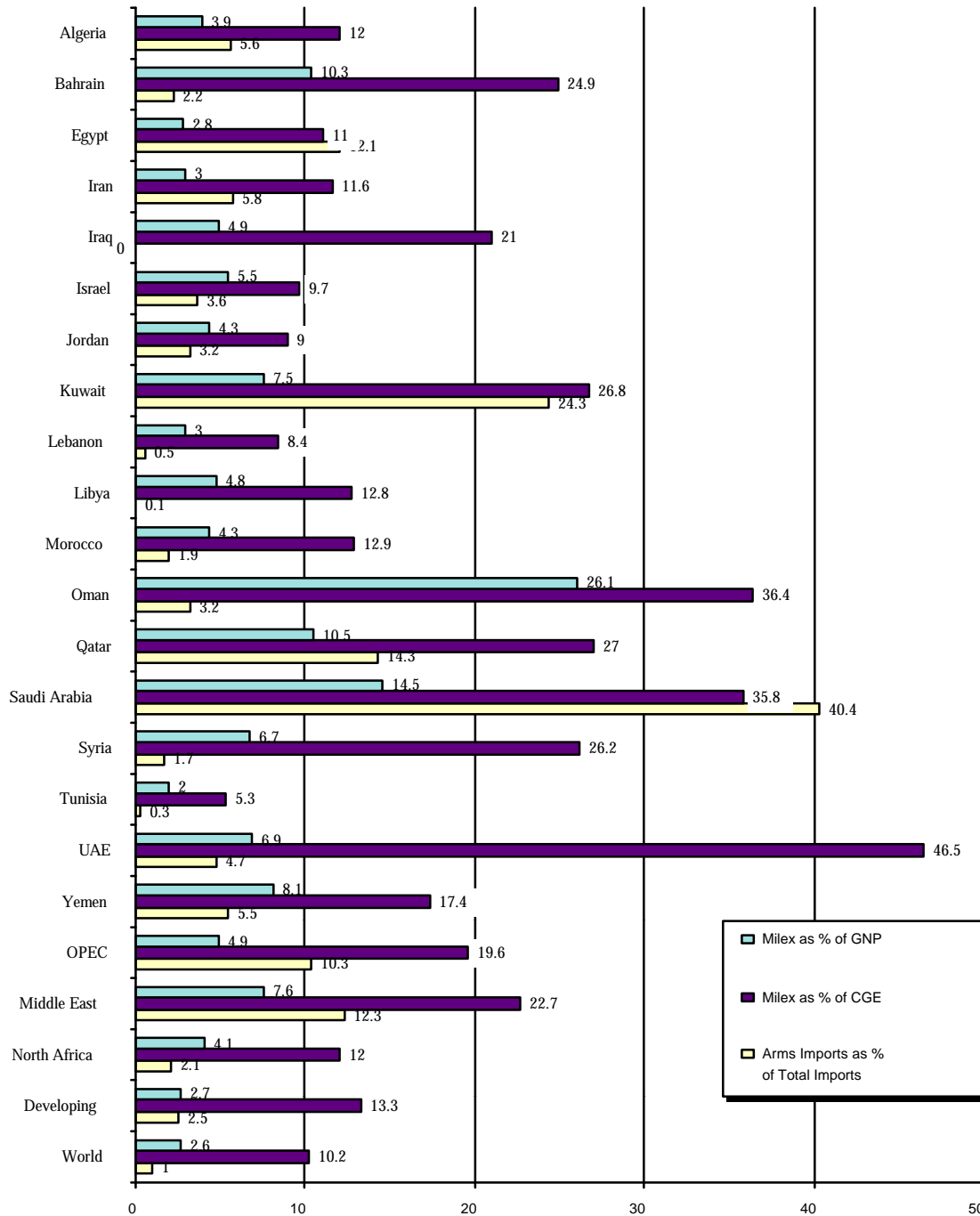


Source: Adapted by Anthony H. Cordesman from various editions of the IISS, Military Balance. The author has adjusted a number of figures and has provided trend estimates for the year 2000.

Chart 6.7

Military Expenditures and Arms Transfers as an Aspect of “Statism”

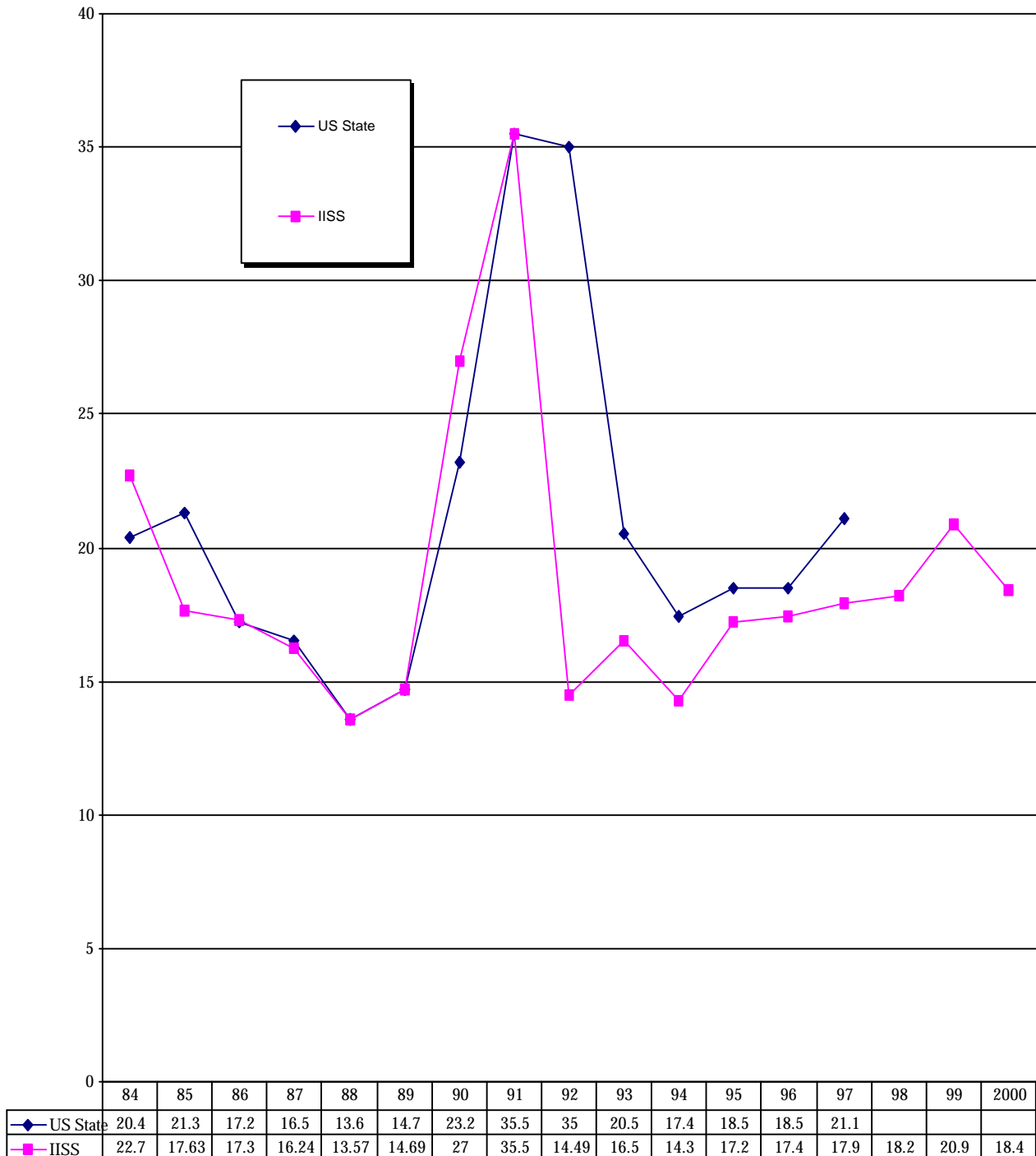
(Military spending as a percent of Central Government Expenditures (CGE) and Gross National Product (GNP), and Arms Imports as a Percent of Total Imports)



Source: Adapted by Anthony H. Cordesman from US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.8

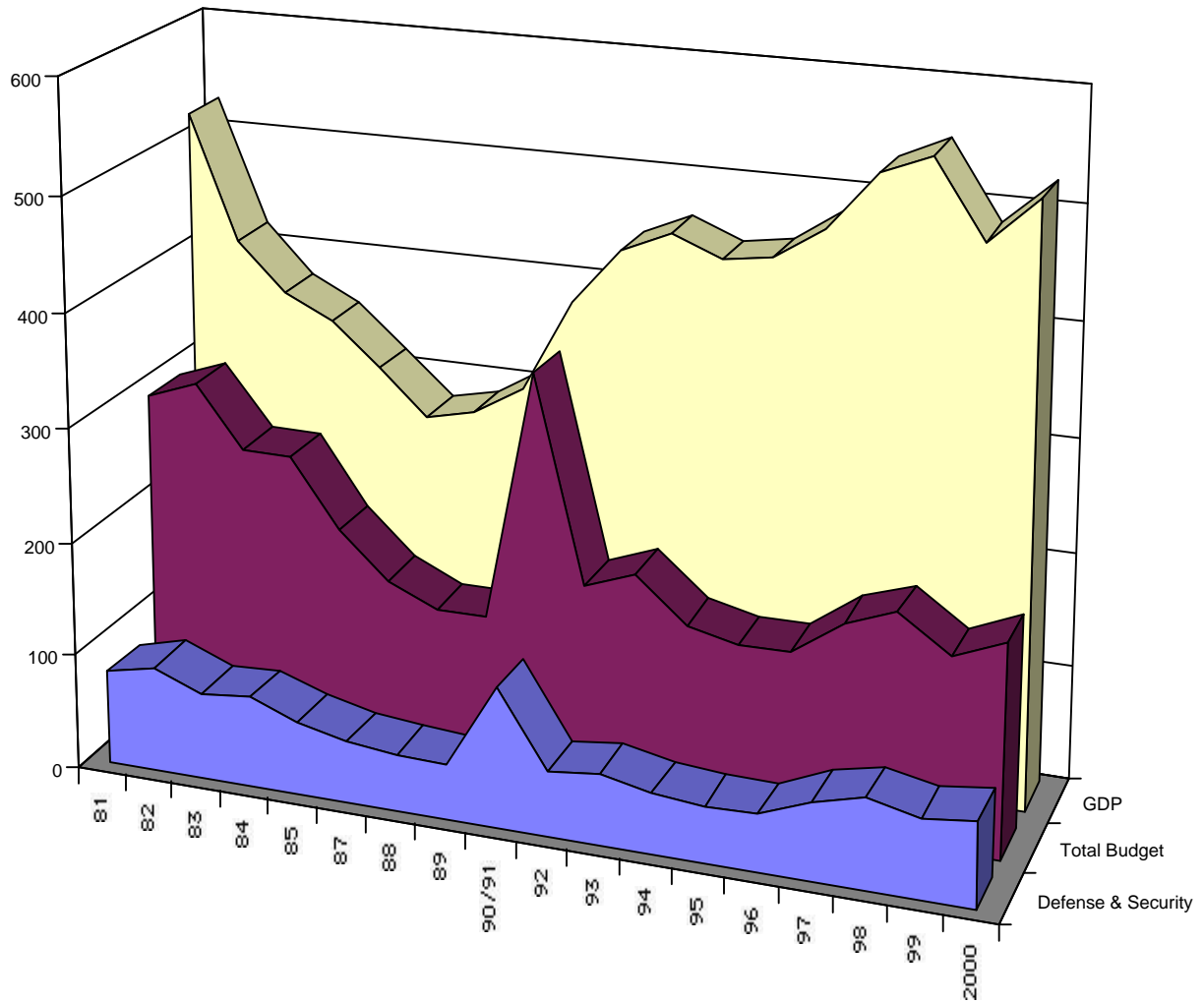
Comparative Estimates of Saudi Military Spending: 1984-2000
(Current \$US Billions)



Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996; US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999, and various editions of the IISS, Military Balance.

Chart 6.9

Saudi Estimates of Saudi National Security Spending: 1981-2000
(Current Millions of Saudi Riyals)

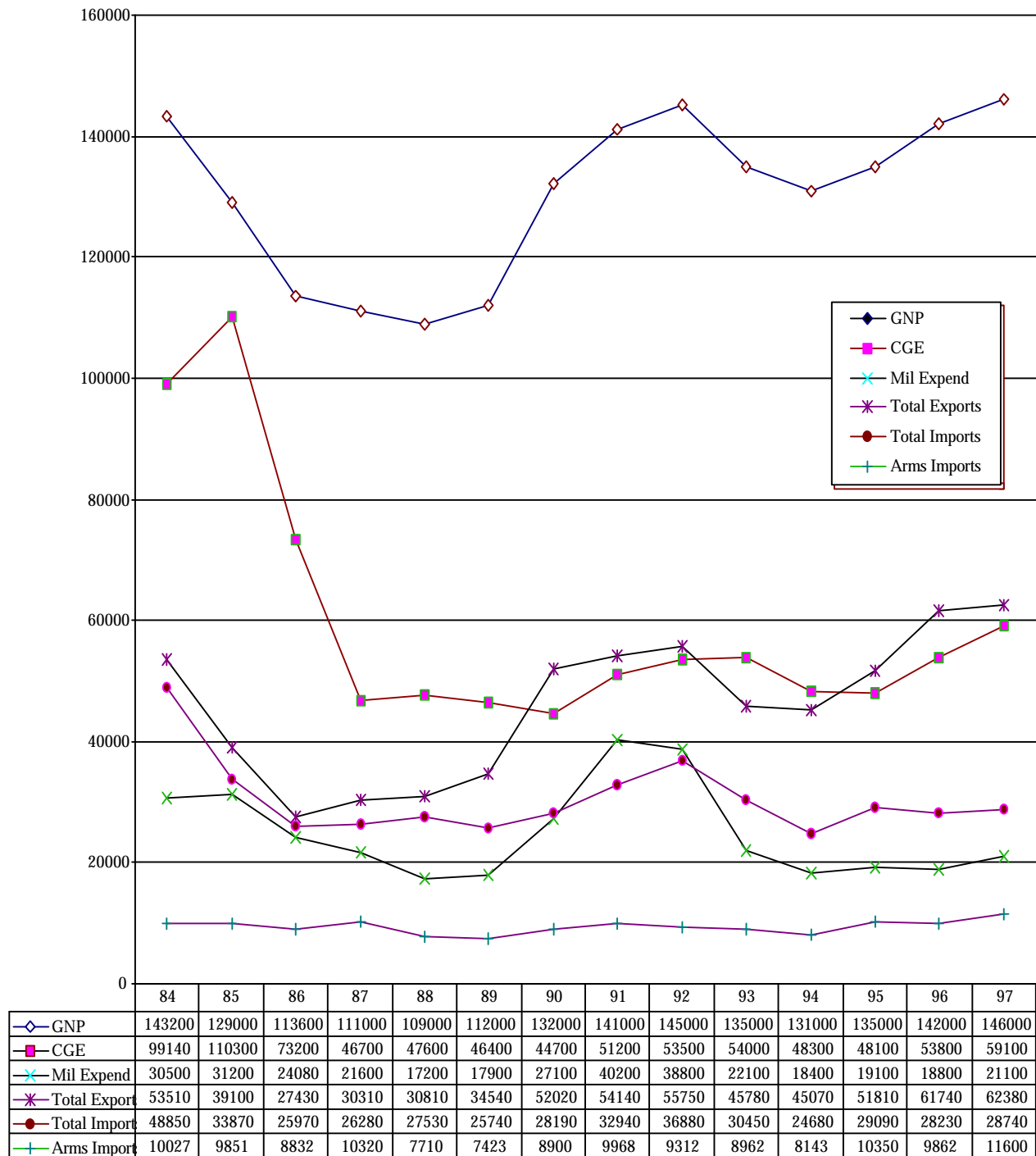


	81	82	83	84	85	87	88	89	90/91	93	94	95	96	97	98	99	2000
Defense & Security	82.5	92.9	75.6	79.9	64.9	54.2	50.1	47.8	122.7	61.7	53.5	49.5	50	68	78.2	68.7	74.9
Total Budget	298	313.4	260	260	200	159.6	141.2	140.5	359.6	197	160	150	150	181	196	165	185
GDP	524.7	415.2	372	351.4	313.9	275.5	285.1	310.8	392	461.4	443.8	450	478.7	529.3	548.6	480.8	522

Source; Adapted by Anthony H. Cordesman from material provided by the Saudi Arabian Monetary Agency

Chart 6.10

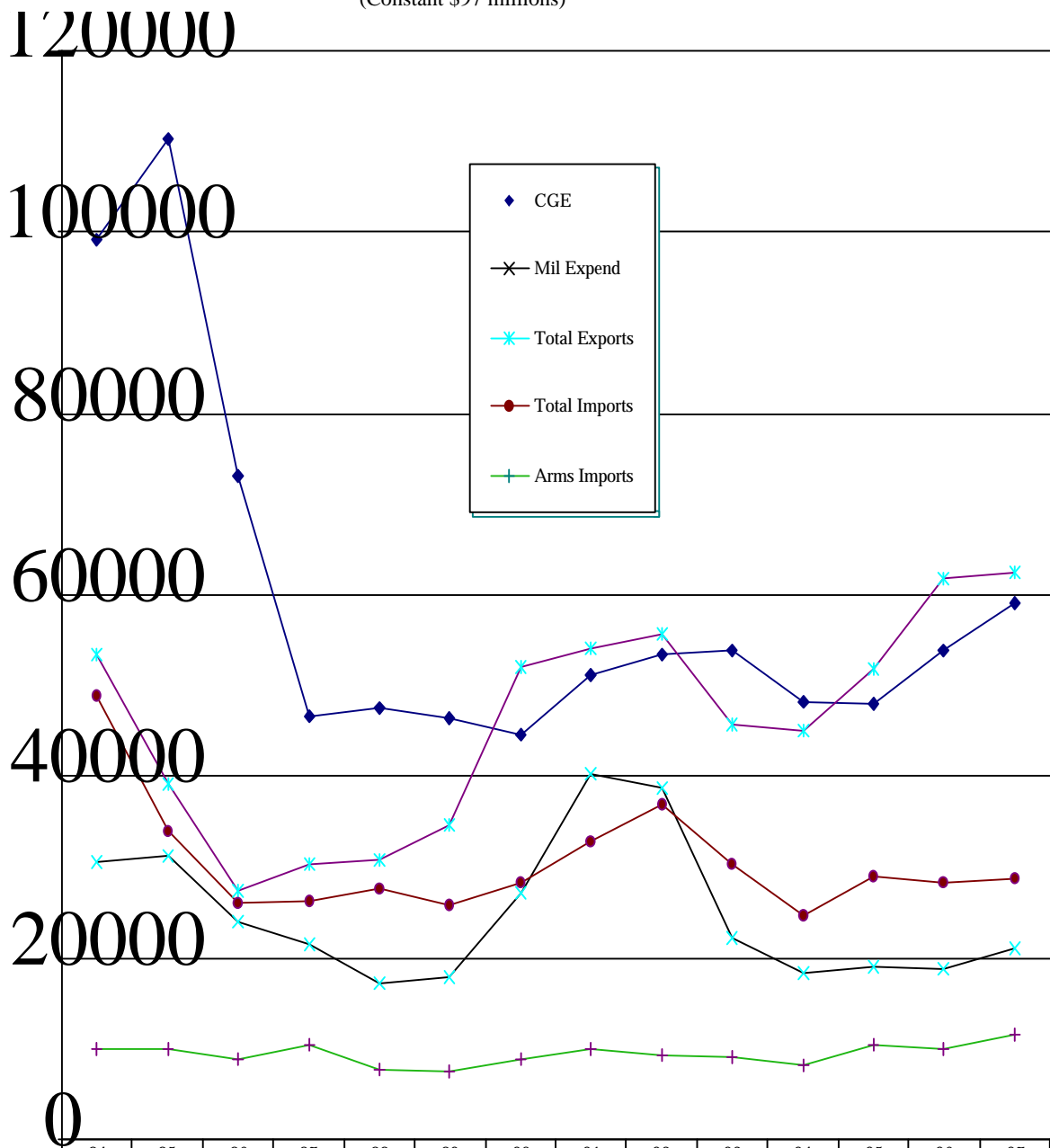
Saudi Gross National Product, Central Government Expenditures, Military Expenditures, Total Exports, Total Imports and Arms Import Deliveries: 1984-1997
(Constant \$97 millions)



Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996 and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.11

Saudi Gross National Product, Central Government Expenditures, Military Expenditures, Total Exports, Total Imports and Arms Import Deliveries: 1984-1997
(Constant \$97 millions)

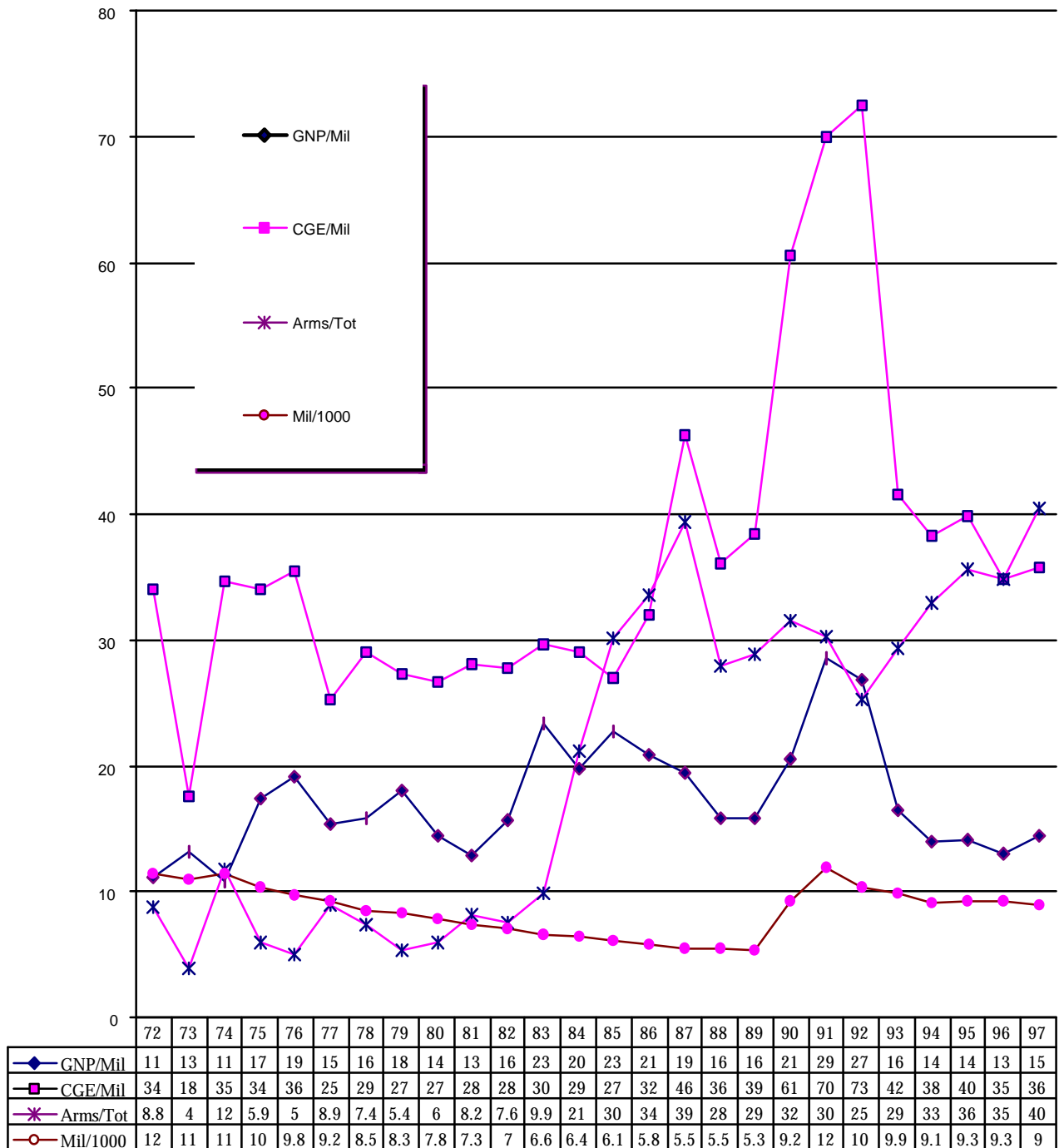


	84	85	86	87	88	89	90	91	92	93	94	95	96	97
◆ CGE	99140	110300	73200	46700	47600	46400	44700	51200	53500	54000	48300	48100	53800	59100
✕ Mil Expend	30500	31200	24080	21600	17200	17900	27100	40200	38800	22100	18400	19100	18800	21100
* Total Export	53510	39100	27430	30310	30810	34540	52020	54140	55750	45780	45070	51810	61740	62380
● Total Import	48850	33870	25970	26280	27530	25740	28190	32940	36880	30450	24680	29090	28230	28740
+ Arms Import	10027	9851	8832	10320	7710	7423	8900	9968	9312	8962	8143	10350	9862	11600

Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996 and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.12

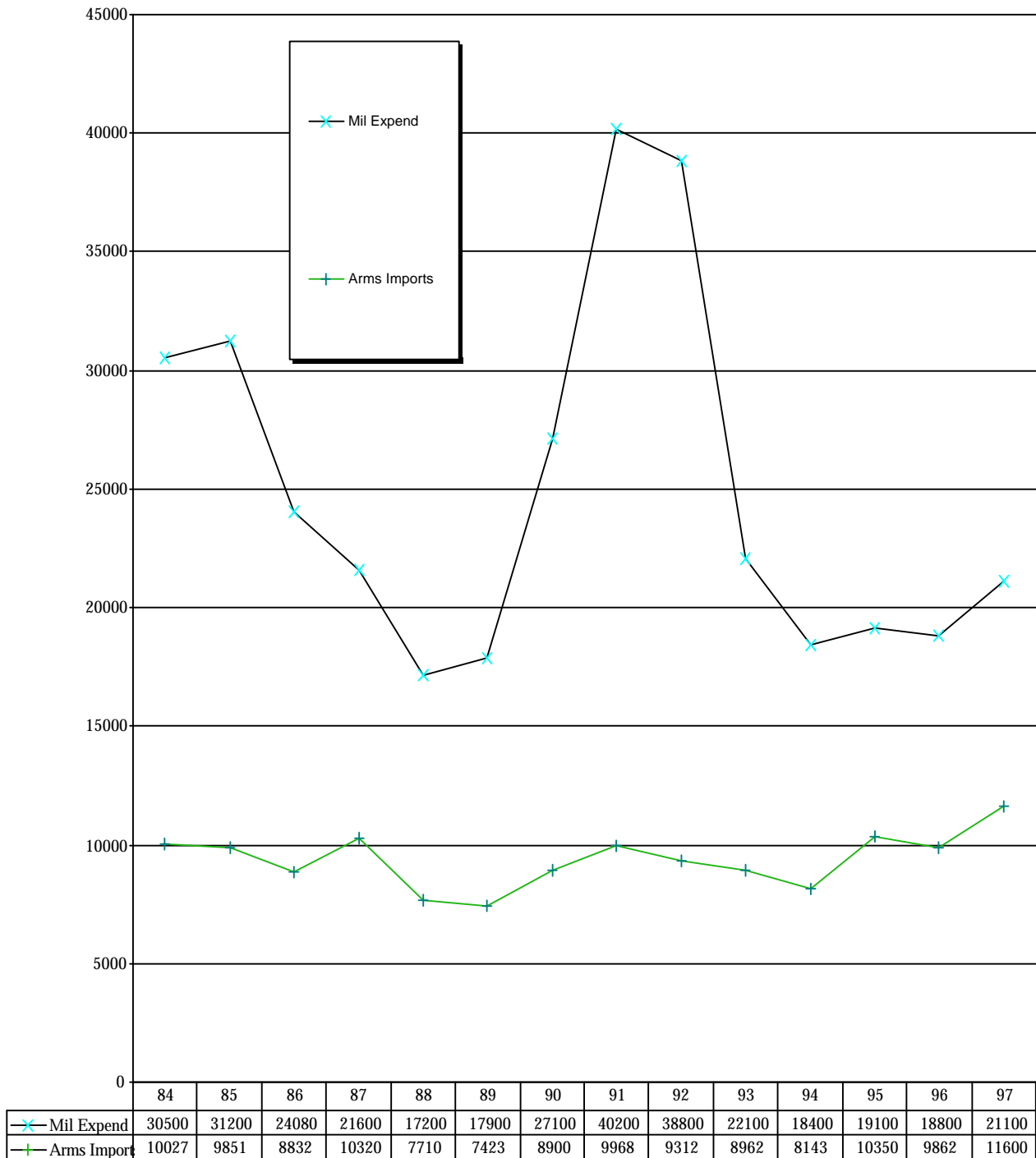
Saudi Military Efforts as a Percent of GNP, Government Expenditures, and Imports and Military Personnel per 1,000 in Total Population: 1972-1997
 (All percentages are measured in absolute manpower and constant 1997 US dollars)



Source: Adapted by Anthony H. Cordesman from ACDA, *World Military Expenditures and Arms Transfers*, 1995, ACDA/GPO, Washington, 1996 and US State Department, *World Military Expenditures and Arms Transfers*, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.13

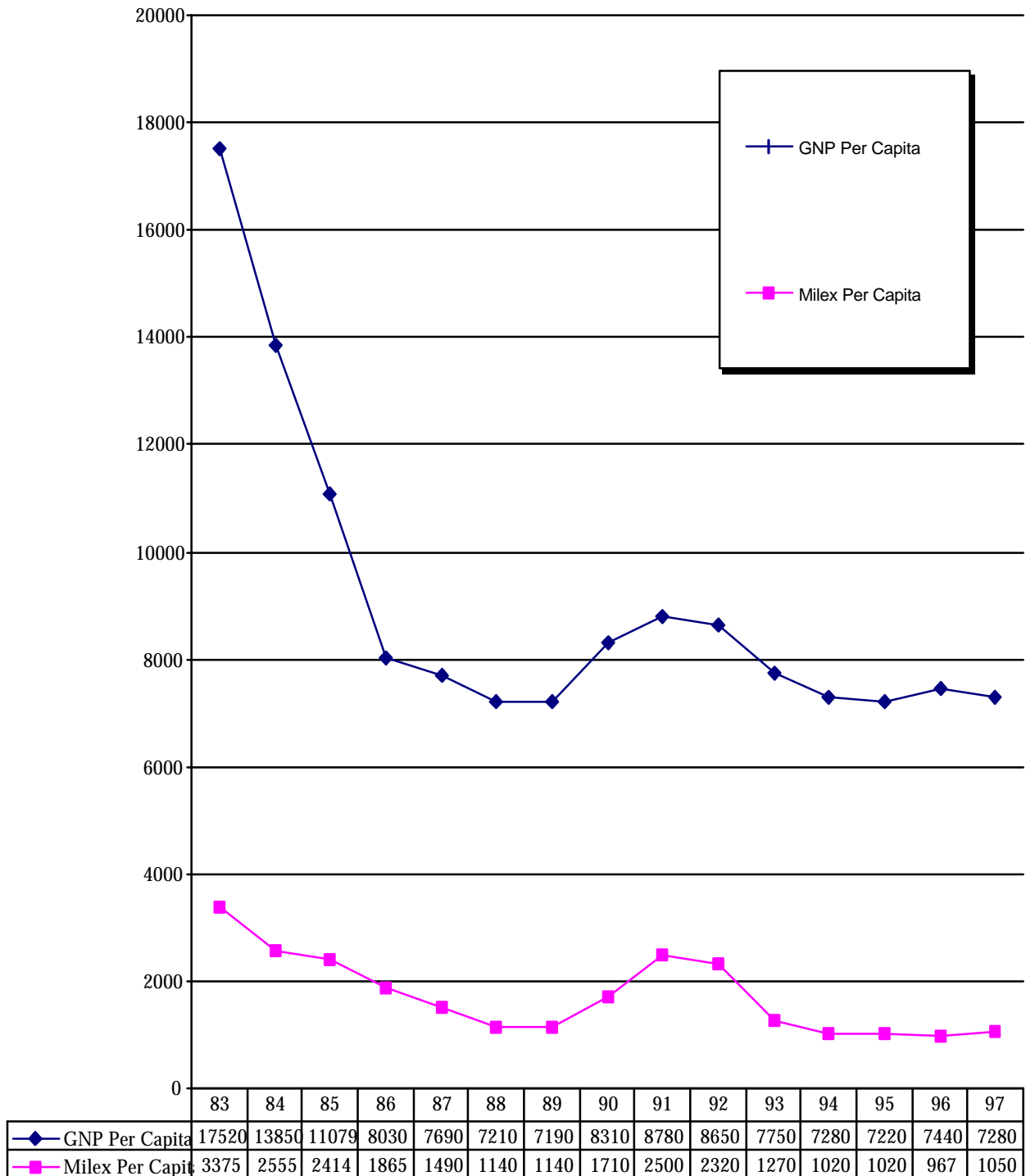
Shift in Saudi Military Expenditures and Arms Deliveries as a Percent of 1984 Total: 1984-1997
(Constant \$US 1997 millions)



Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996 and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.14

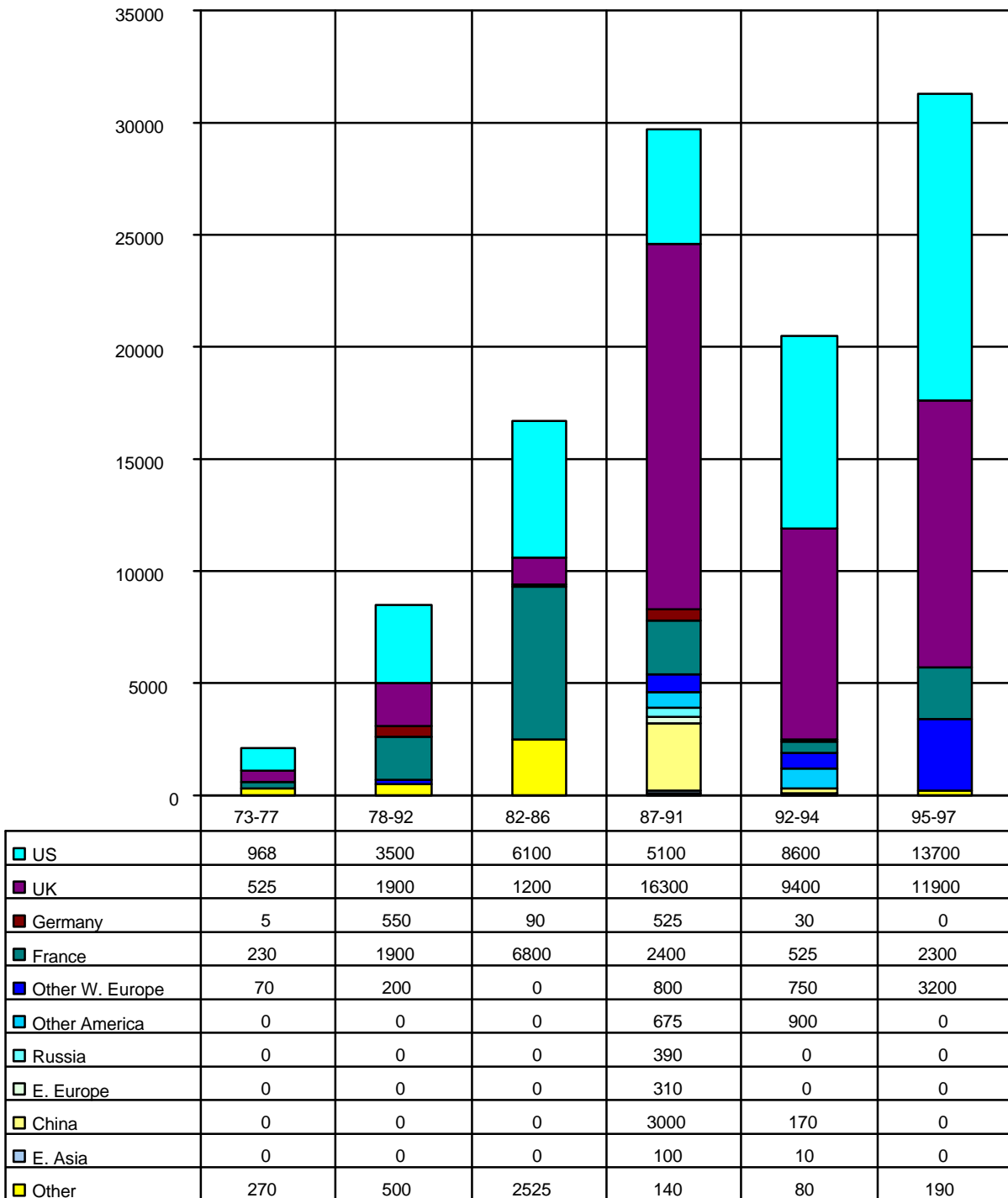
Saudi GNP Per Capita Versus Military Expenditures Per Capita: 1983-1997
(Constant \$97)



Source: Adapted by Anthony H. Cordesman from ACDA, *World Military Expenditures and Arms Transfers, 1995*, ACDA/GPO, Washington, 1996 and US State Department, *World Military Expenditures and Arms Transfers, 1998*, Bureau of Arms Control, Washington, 1999.

Chart 6.15

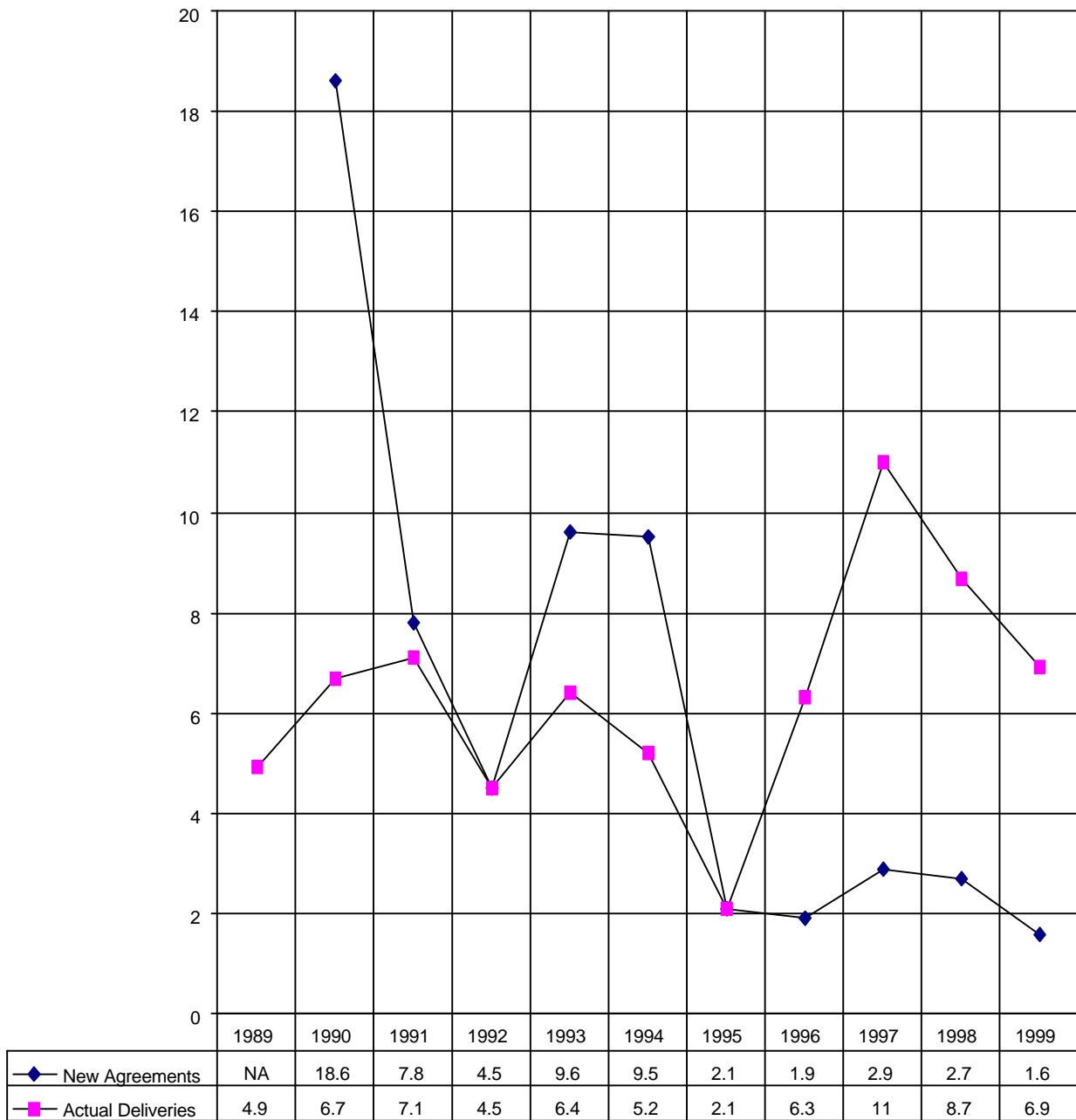
Trend in Arms Deliveries to Saudi Arabia: 1973-1997
(In \$US Current Millions)



Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, various editions, and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.17

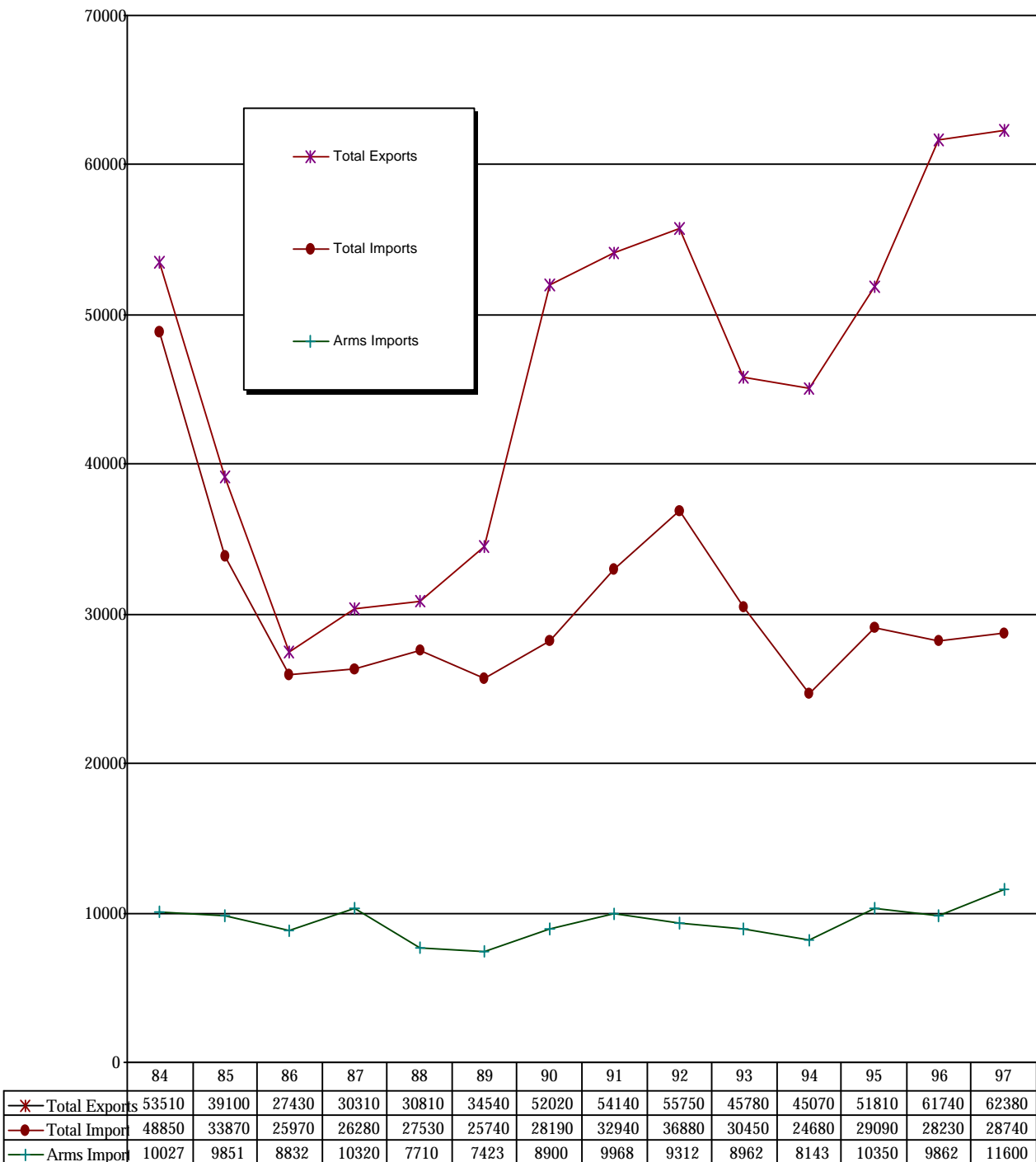
Saudi Arabian New Arms Agreements versus Arms Deliveries: 1990-1999
(Current Millions)



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

Chart 6.18

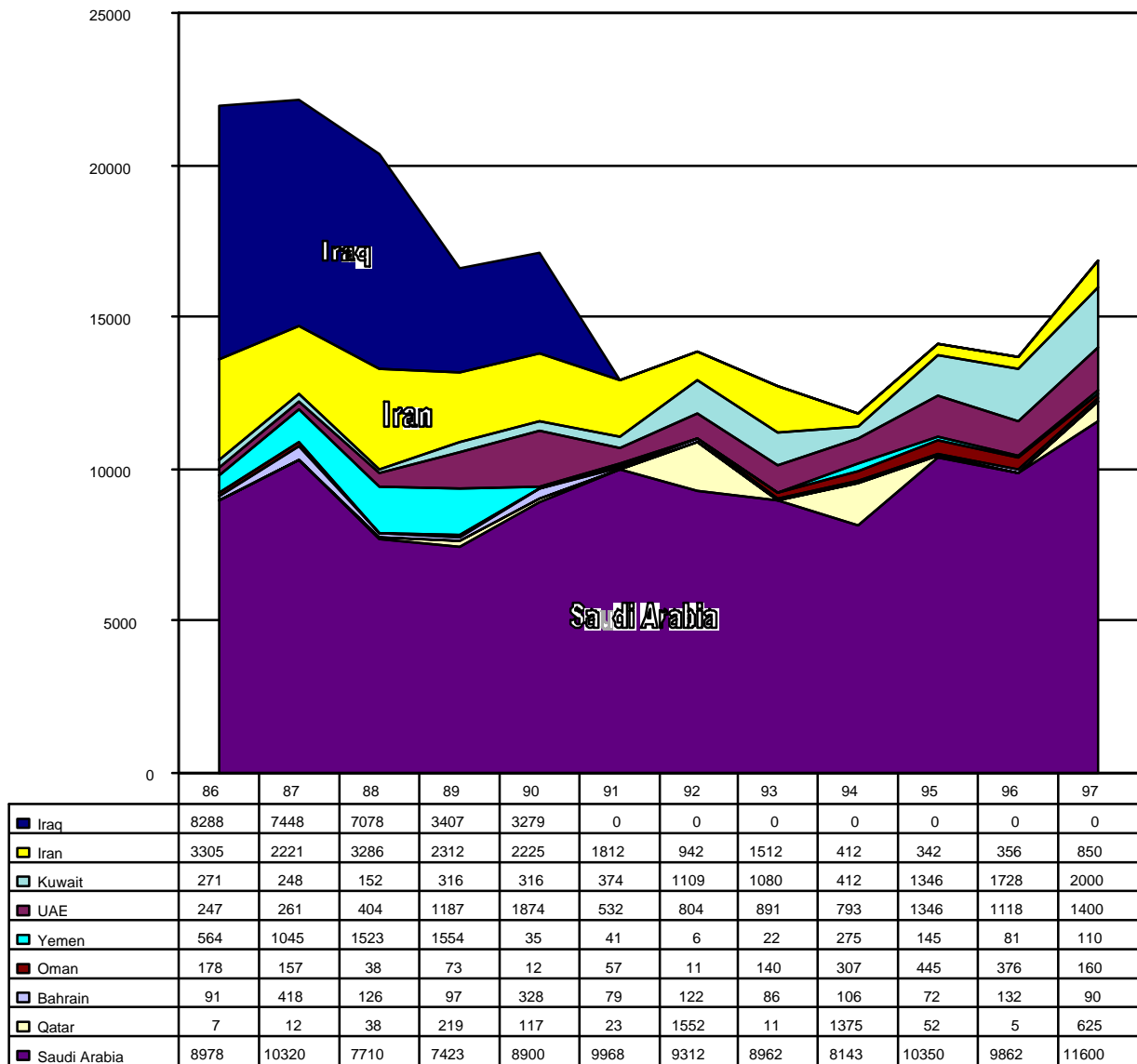
Saudi Total Exports, Total Imports, and Arms Import Deliveries: 1984-1997
(Constant \$97 millions)



Source: Adapted by Anthony H. Cordesman from ACDA, *World Military Expenditures and Arms Transfers, 1995*, ACDA/GPO, Washington, 1996 and US State Department, *World Military Expenditures and Arms Transfers, 1998*, Bureau of Arms Control, Washington, 1999.

Chart 6.19

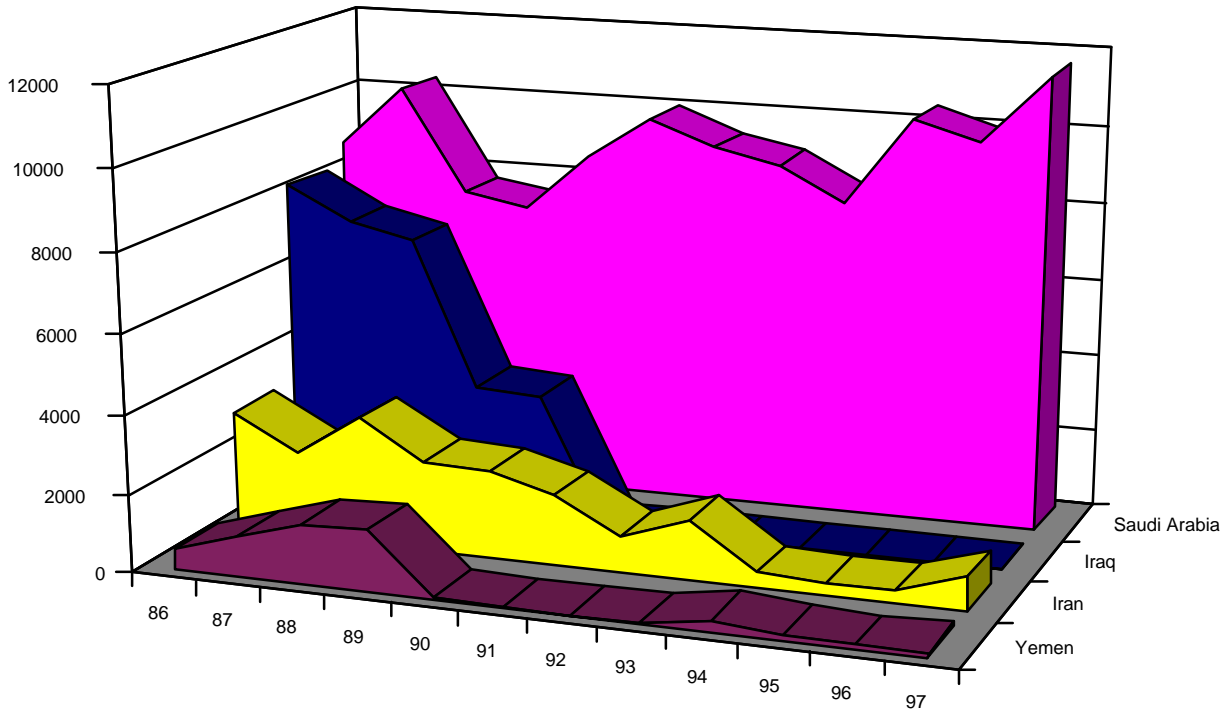
Cumulative Saudi Arms Imports Relative to Those of the Other Gulf States - 1984-1997
(Value of Deliveries in Constant \$1997 Millions)



Source: Adapted by Anthony H. Cordesman from US Arms Control and Disarmament Agency, World Military Expenditures and Arms Transfers, GPO, Washington, various editions.

Chart 6.20

Saudi Arms Deliveries versus Deliveries to Iran and Iraq: 1986-1997
(\$97 Constant Millions)

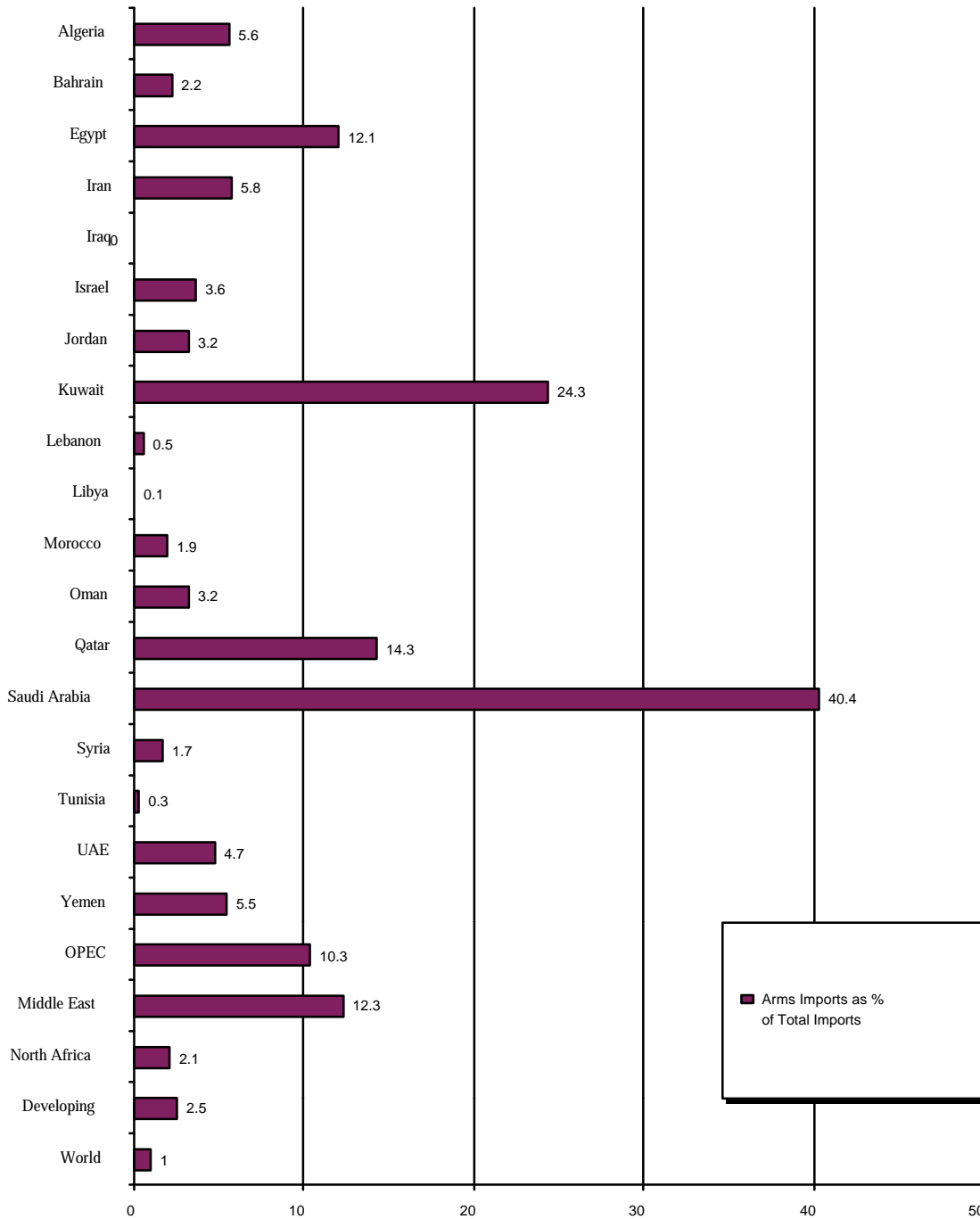


	86	87	88	89	90	91	92	93	94	95	96	97
■ Yemen	564	1045	1523	1554	35	41	6	22	275	145	81	110
■ Iran	3125	2221	3289	2312	2225	1812	942	1512	412	342	356	850
■ Iraq	8288	7448	7078	3407	3279	0	0	0	0	0	0	0
■ Saudi Arabia	8832	10320	7710	7423	8900	9968	9312	8962	8143	10350	9862	11600

Source: Adapted by Anthony H. Cordesman from US Arms Control and Disarmament Agency, World Military Expenditures and Arms Transfers, GPO, Washington, various editions.

Chart 6.21

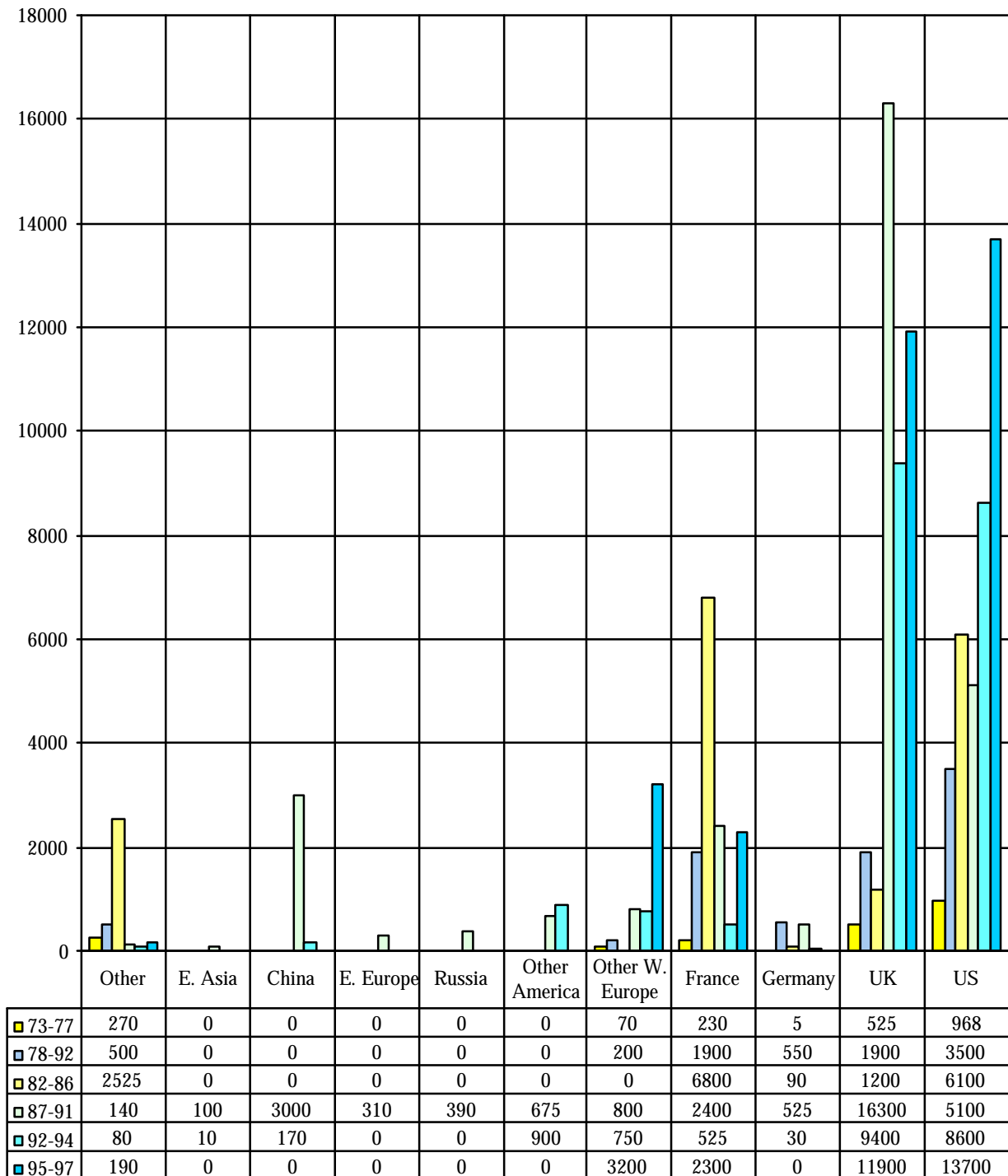
Arms Imports as a Percent of Total Imports in Middle Eastern Countries



Source: Adapted by Anthony H. Cordesman from US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.22

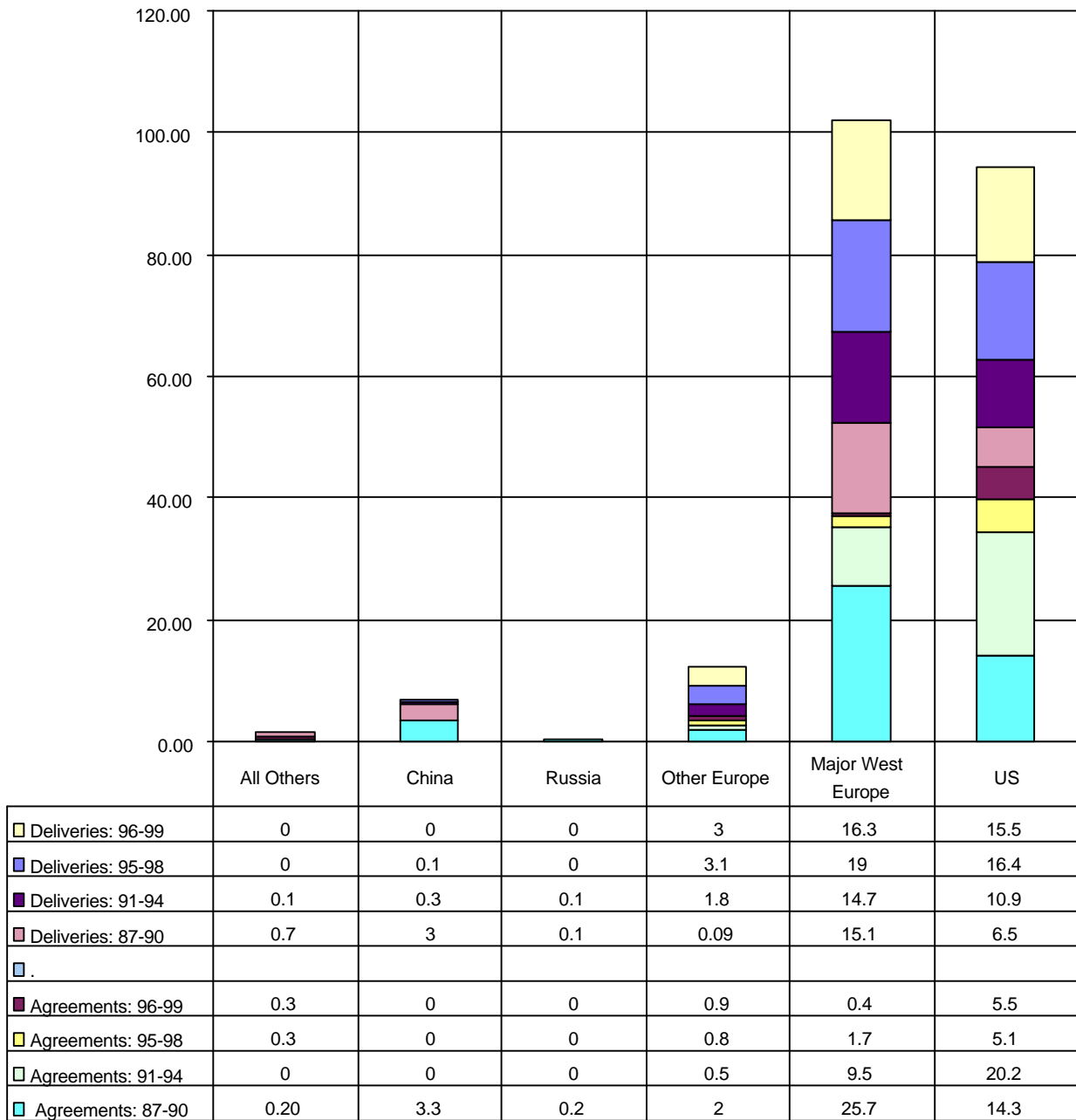
Arms Deliveries to Saudi Arabia by Major Supplier: 1973-1997
(In \$US Current Millions)



Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, various editions, and US State Department, World Military Expenditures and Arms Transfers, 1998, Bureau of Arms Control, Washington, 1999.

Chart 6.23

Total Saudi Arabian Arms Agreements and Deliveries Before and After the Gulf War: 1987-1999
(\$Current Millions)

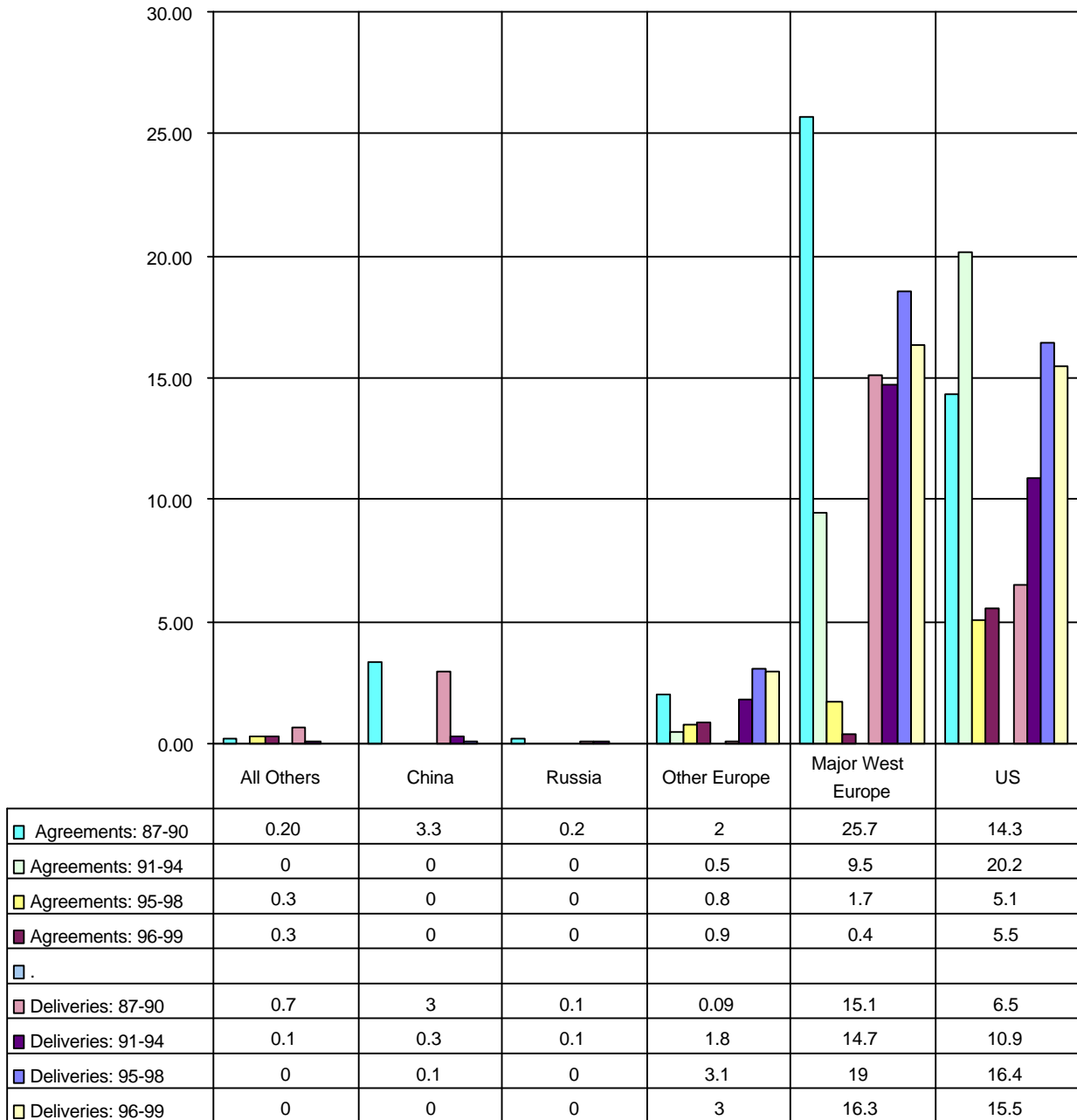


0 = less than \$50 million or nil, and all data rounded to the nearest \$100 million.

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

Chart 6.24

Declining Orders, Rising Deliveries: Saudi Arabian New Arms Agreements and Deliveries by Major Supplier Before and After the Gulf War: 1987-1999
(\$Current Millions)



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

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

Table 6.3Key Saudi Equipment Developments - Part One

- During Gulf War bought 315 M-1A2s, 30 M-88A1 tank recovery vehicles, 175 M-998 utility trucks, 224 heavy tactical trucks, 29 heavy equipment transporters, 268 five ton trucks, spares and support equipment, logistics support, ammunition, facilities design and construction, training aids and devices, and US military training services.
- Has discussed plans to buy 235-350 additional M-1A2s, Challenger 2s, or Le Clercs, but funding plan unclear.
- Bought 400 M-2A2s, 200 M-113 armored personnel carriers, 50 M-548 cargo carriers, 17 M-88A1 recovery vehicles, and 43 M-578 recovery vehicles.
- Has talked about replacing 110 M-109A/A2s with M-109A6, VSEL AS90, and Giat GCT-1. Funding plan even more uncertain.
- Considered order for 9 Multiple Launch Rocket Systems (MLRS), including vehicle mounted rocket launchers, 2,880 tactical rockets, 50 practice rockets, 9 MV-755A2 command post carriers, training and training equipment, but canceled in 1993. Need to supplement present strength of four 180 mm SS-40s and 127 mm SS-30s.
- Army has 12 AH-64 Apache attack helicopters, 155 Hellfire missiles, 24 spare Hellfire launchers, six spare engines and associated equipment. Has discussed possible total of 48 AH-64s.
- Army aviation formed in 1986, and now has 12 S-70As, 22 UH-60s, 6 SA-356Ns, and 15 Bell 406CSs - addition to AH-64s. Considering buy of 88 Westland WS-70 Black Hawks or similar lift helicopters.
- Building new a military city near Jizan, which is on Red Sea coast near border with Yemen. Some cost estimates range up to \$8 billion.
- Has negotiated a deal with Spain for the purchase of 200 BMR-600 6x6 armored personnel carriers at a cost of up to \$440 million.
- Has ordered 12 AS-532 A2 Cougar Mk II search and rescue helicopters from Eurocopter, all due to be delivered by the end of 2001 at a cost of \$589 million.

Table TwelveKey Saudi Equipment Developments - Part Two

- Saudi National Guard (SANG) has bought 400 to 450 versions of the Piranha light armored vehicle.
- SANG bought 1,117 LAV-25s (light armored vehicles) from General Motors of Canada through the US Army Tank Automotive Command (TACOM) at cost of \$3.4 billion. Package included 116 TOW launchers with 2000 missiles, 27 M-198 155mm howitzers, support systems, training, and facilities.
- The SANG took delivery of the first of 73 120 mm armored mortar systems in 1998.
- Refitting four F-2000 frigates with roughly 50 “item” changes, 40 minor. Are adding NBC protection and improving Otomat missile system to enhance search patterns and add re-attack capability. Not improving Crotales to use latest VT1 rounds, but improving Airsys Castor 2B X-band fire control radar to Castor 2C standard. Will complete during 1997-2001.
- Buying two new Lafayette-class F-3000 frigates as part of \$3.5 billion November 1994 agreement. To complete delivery by 2005.
- Ordered a third La Fayette class anti-aircraft frigate equipped with the new Aster 15 missile
- Four Sandown minelayers entering service, beginning in 1995.
- Considered buy of several AEGIS-class warships to give it advanced battle management, Harpoon anti-ship missiles, Tomahawk strike capability, ASW, anti-aircraft, and anti-ship missile defense capabilities. Too expensive.
- Refitting two logistic replenishment tankers.
- Has considered buying coastal submarines.

Table 6.3Key Saudi Equipment Developments - Part Three

- Bought 24 F-15S aircraft designed for air combat, and 48 F-15S aircraft dual-capable in both the air defense and strike/attack missions: 24 spare engines, 48 targeting and navigation pods, 900 AGM-65D/G Maverick air-to-surface missiles, 600 CBU-87 bombs, 700 GBU-10/12 bombs, and special mission planning systems.
- Bought 1,500 upgraded AIM-9 air-to-air missiles for use on the F-15 Eagle at a cost of \$115 million.
- Bought 20 more Hawk 65 jets and 20 more Swiss Pilatus PC-9 turboprop trainers. Needs better trainers than either Hawk or Pilatus.
- Examining replacement for roughly 100 F-5s. Reports considered funding 12-24 F-15s in an initial buy, and 1 selling F-5s to help fund its new F-15s. Boeing offer included a major depot maintenance facility involving significant offsets, and hires of Saudis. The facility might improve Saudi capability to service its F-15s, and US F-15s, in combat.
- Longer term requirements for replacement for 60 F-15s in 2005-2010 timeframe. F-22, EF-2000, Rafael possible candidates.
- Examined plans to buy up to 70 C-130J-like transports during next decade, and up to 10 additional airborne tankers to supplement its 8 KC-130Hs.
- Examined buying up to 21 Patriot batteries (2 training) with 1,055 missiles. Two units funded.
- New Peace Shield system becoming fully operational, and installation was completed in November 1995. Has central C⁴I center, five regional centers, and 17 long-range radars.
- Upgrading 17 MIM-23B I-Hawk batteries.
- Considering upgrade of 170 Shahine mobile and static light SAMs. Possibly with Crotale NG.
- Examining replacement of French AMX-30 SA air defense guns.

Table 6.4

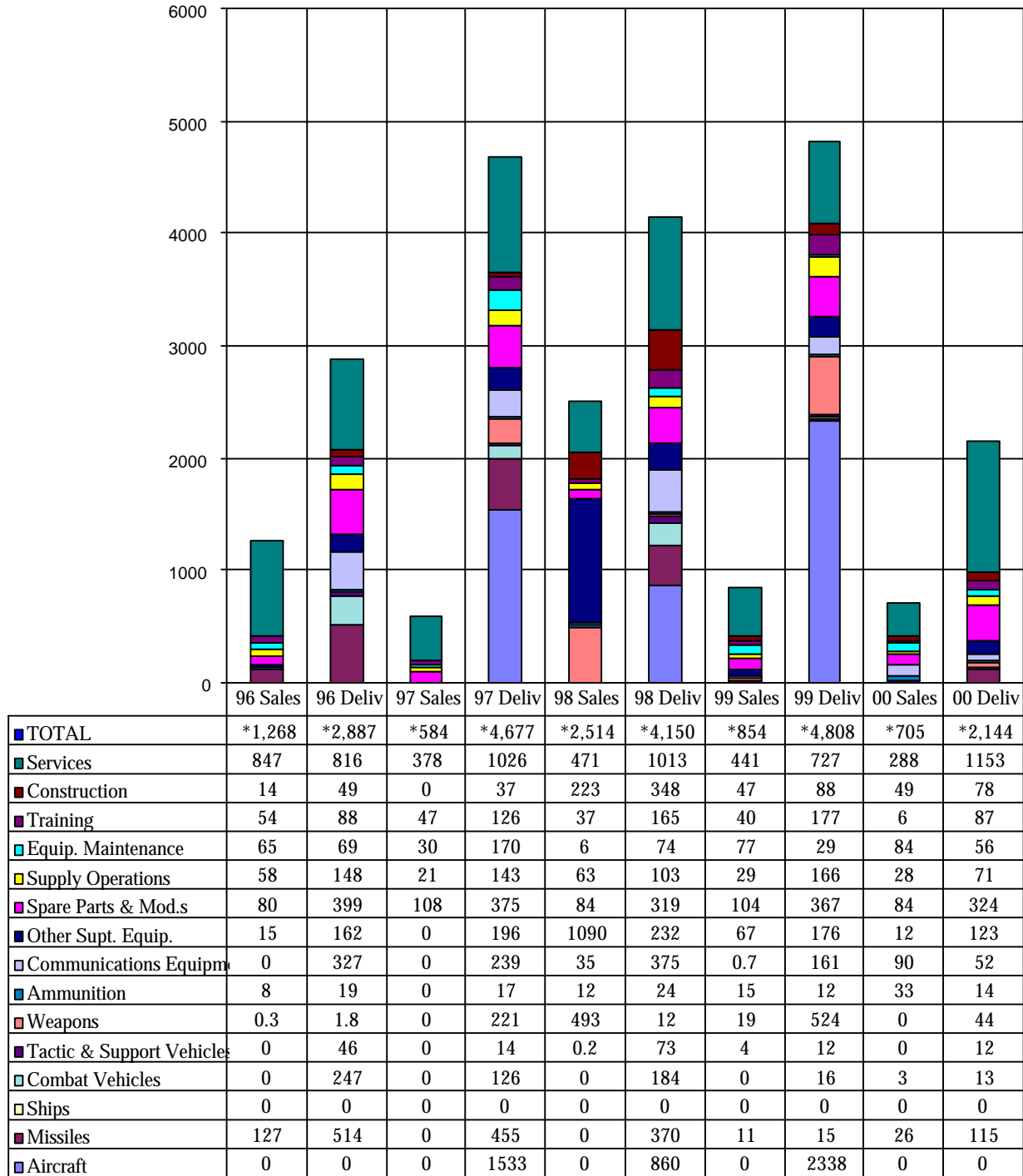
The Pace of US Arms Sales Before and After the Gulf War: Annual US Foreign Military Sales (FMS), Commercial Arms Export Agreements, Military Assistance Programs (MAP), and International Military Education and Training (IMET) Programs With Saudi Arabia: FY1985-1996
(Current millions)

	<u>86</u>	<u>87</u>	<u>88</u>	<u>89</u>	<u>90</u>	<u>91</u>	<u>92</u>	<u>93</u>	<u>94</u>	<u>95</u>	<u>96</u>	<u>97</u>	<u>98</u>	<u>99</u>
Foreign Military Financing Program														
Payment Waived	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DoD Direct	-	-	-	-	-	-	-	-	-	-	-	-	-	-
DoD Guarantee	-	-	-	-	-	-	-	-	-	-	-	-	-	-
FMS Agreements	682	6350	1,671	1,140	9,120	9,175	936	11,379	1,627	445	1,275	742	2,153	1,369
Commercial Sales	814	183	168	68	912	67	89	53	8	27	48	12	12	8
FMS Construction Agreements	6	-	19	-	563	394	4	632	6	6	14	-	187	20
FMS Deliveries	2,199	2,872	938	619	874	2,742	2,387	3,453	1,992	3,568	3,854	4,660	3,959	3,445
FMS Construction Deliveries	na	na	na	na	263	273	216	121	91	108	49	37	349	88
MAP Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAP Deliveries	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAP Excess Defense Articles Program	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAP Excess Defense Articles Deliveries-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IMET Program/ Deliveries	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Adapted from data provided by the US Defense Security Assistance Agency (DSAA), "Foreign Military Sales, Foreign Military Construction Sales and Military Assistance Facts as of September 30, 1996", Department of Defense, Washington, 1997 and by the Defense Security Cooperation Agency on March 19, 2001.

Chart 6.25

Shaping the Mid to Late 1990s: US Arms Sales and Deliveries Transfers to Saudi Arabia by Category from US Fiscal Year 1996-2000
(\$US Current Millions)

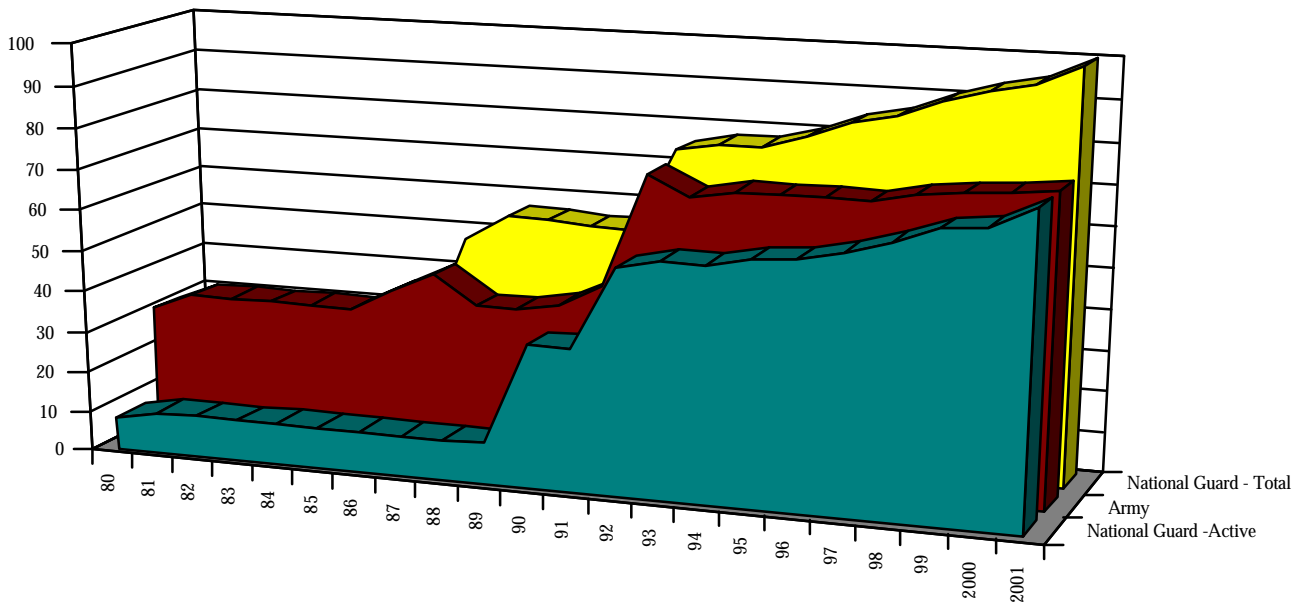


Total

Source: Adapted from data provided by the Defense Security Cooperation Agency on March 19, 2001

Chart 7.1

Saudi Active Land Force Manning – 1980-2001
(1,000s of Personnel)

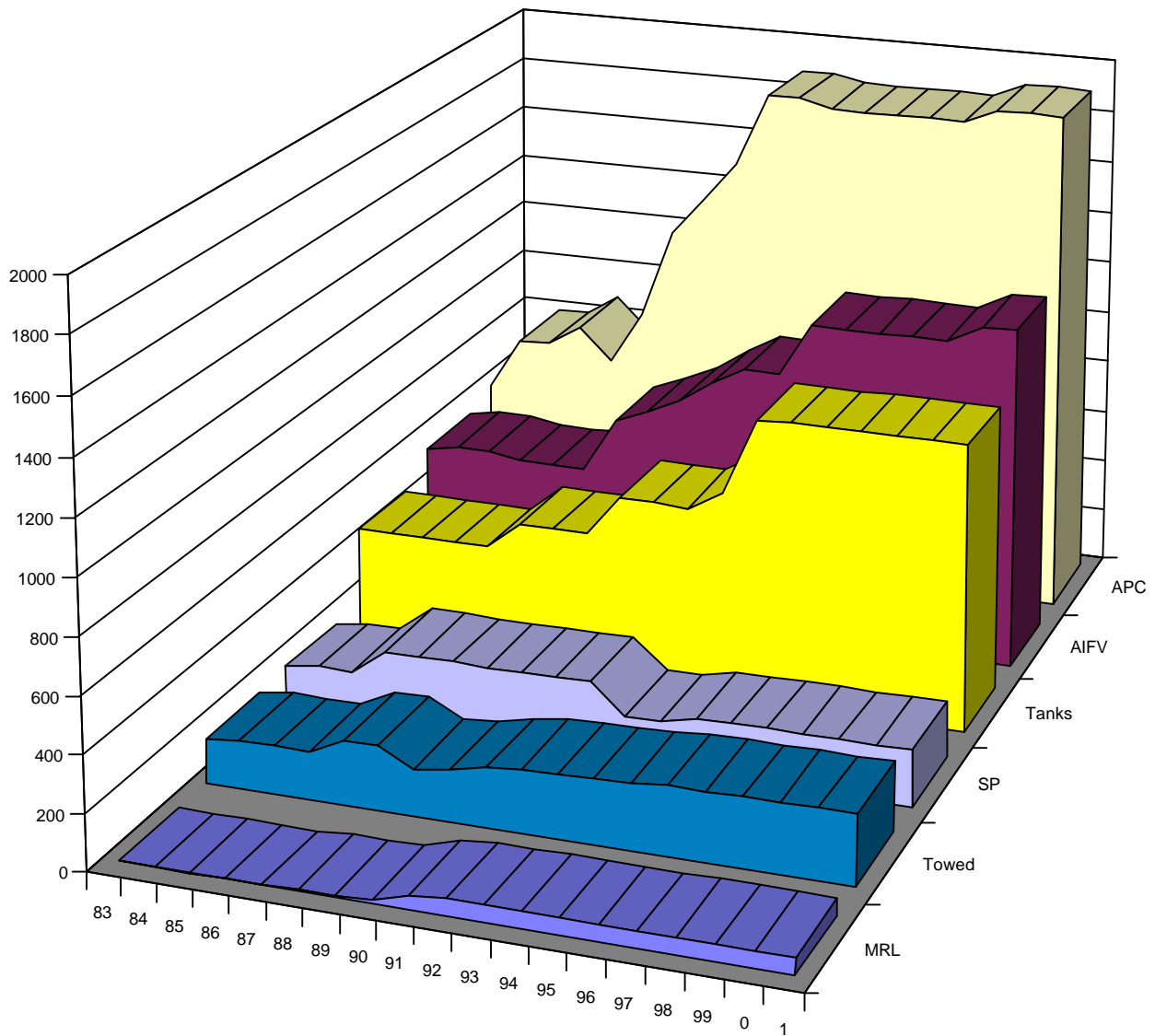


	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	2000	2001
■ National Guard - Active	8	10	10	10	10	10	10	10	10	10	35	35	55	57	57	59	60	62	65	69	70	75
■ Army	31	35	35	35	35	35	40	45	38	38	40	45	73	68	70	70	70	70	72	73	74	75
■ National Guard - Total	20	30	25	25	25	25	25	50	56	56	55	55	75	77	77	80	84	86	90	93	95	100

Note: Statistical base differs somewhat from that used for Charts 6.2 and 6.3.
 Source: Adapted by Anthony H. Cordesman from ACDA, World Military Expenditures and Arms Transfers, 1995, ACDA/GPO, Washington, 1996; US State Department, World Military Expenditures and Arms Transfers, 1999, Bureau of Arms Control, Washington, 2000; various editions of the IISS, Military Balance, the JCSS, Military Balance in the Middle East, and material provided by US experts.

Chart 7.2

The Growth in Saudi Army Weapons Strength - 1979-2001

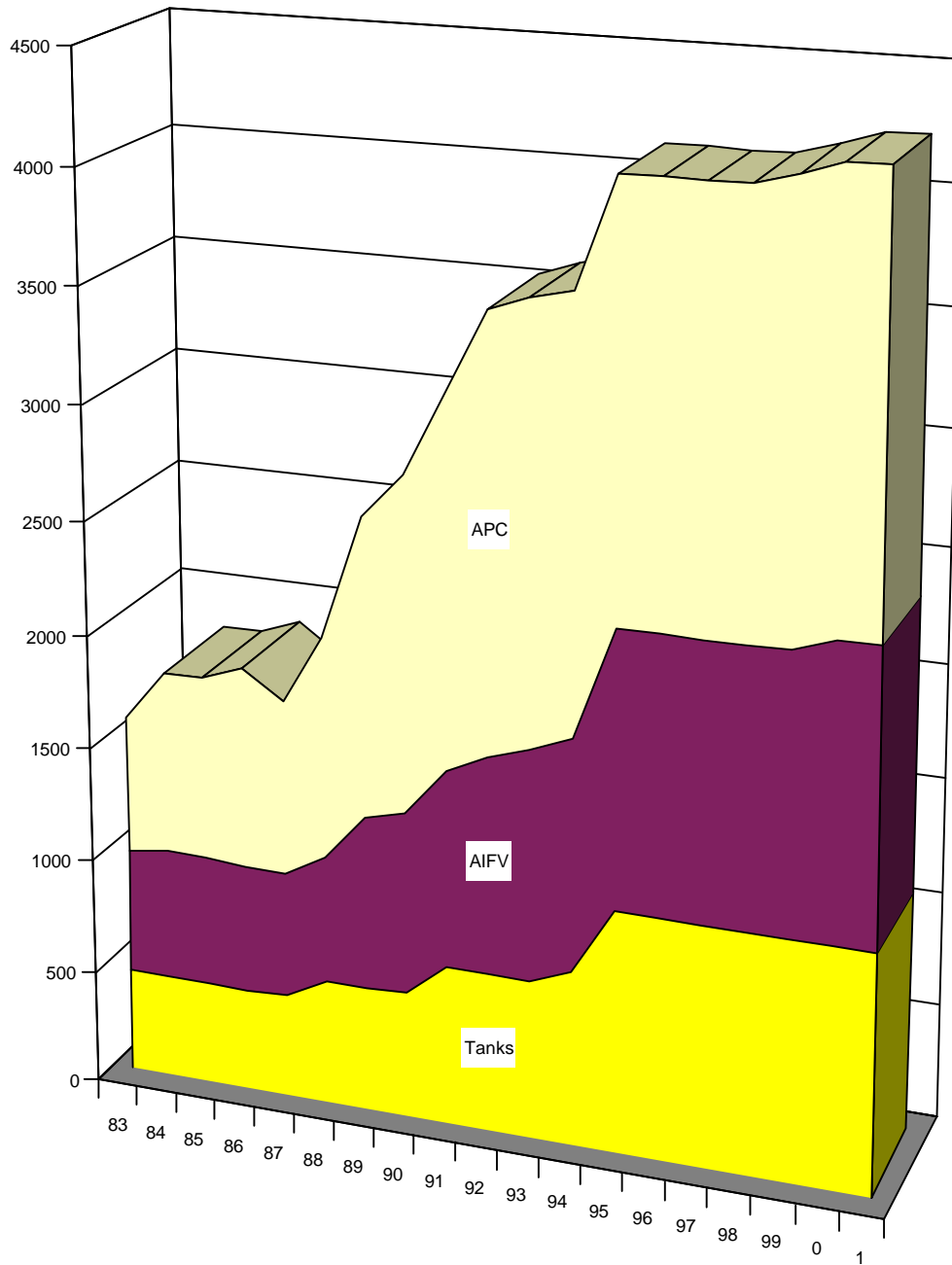


	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1
■ MRL	0	0	0	0	0	6	6	12	50	60	60	60	60	60	60	60	60	60	60
■ Towe	160	171	171	171	230	230	168	180	210	224	230	230	238	248	248	248	248	248	248
□ SP	170	185	185	275	275	275	275	275	275	275	170	170	200	200	200	200	200	200	200
■ Tanks	450	450	450	450	450	550	550	550	700	700	696	770	1055	1055	1055	1055	1055	1055	1055
■ AIFV	550	570	570	550	550	550	750	800	860	940	1005	1005	1205	1205	1205	1205	1205	1270	1270
□ APC	600	800	800	880	760	960	1300	1450	1600	1880	1880	1850	1850	1850	1850	1850	1900	1900	1900

Source: Adapted by Anthony H. Cordesman from various editions of the IISS, Military Balance, the JCSS, Military Balance in the Middle East, and material provided by US experts.

Chart 7.2

The Growth in Saudi Armored Weapons Strength - 1979-2001

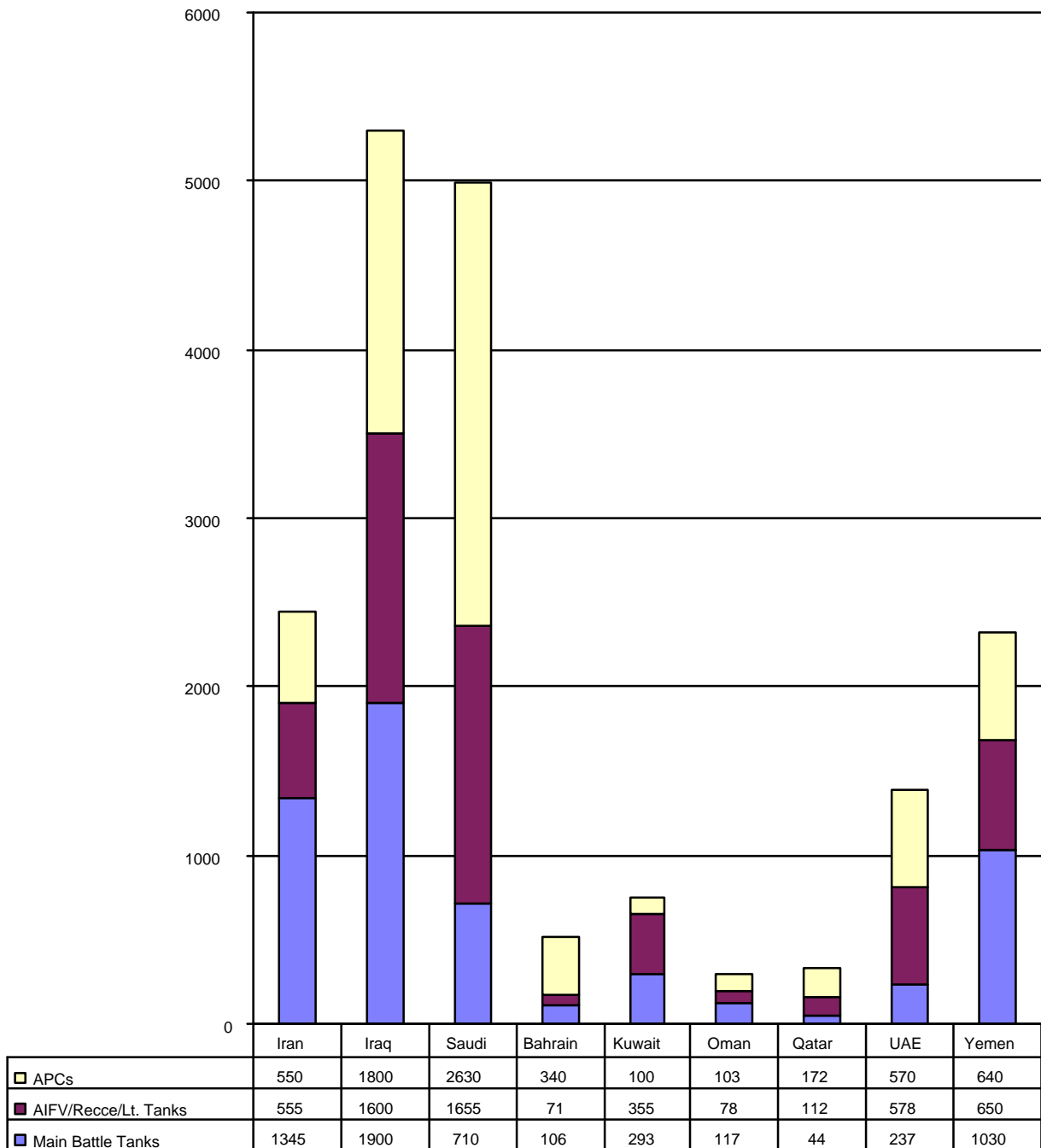


	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1
□ APC	600	800	800	880	760	960	1300	1450	1600	1880	1880	1850	1850	1850	1850	1850	1900	1900	1900
■ AIFV	550	570	570	550	550	550	750	800	860	940	1005	1005	1205	1205	1205	1205	1205	1270	1270
■ Tanks	450	450	450	450	450	550	550	550	700	700	696	770	1055	1055	1055	1055	1055	1055	1055

Source: Adapted by Anthony H. Cordesman from various editions of the IISS, Military Balance, the JCSS, Military Balance in the Middle East, and material provided by US experts.

Chart 7.3

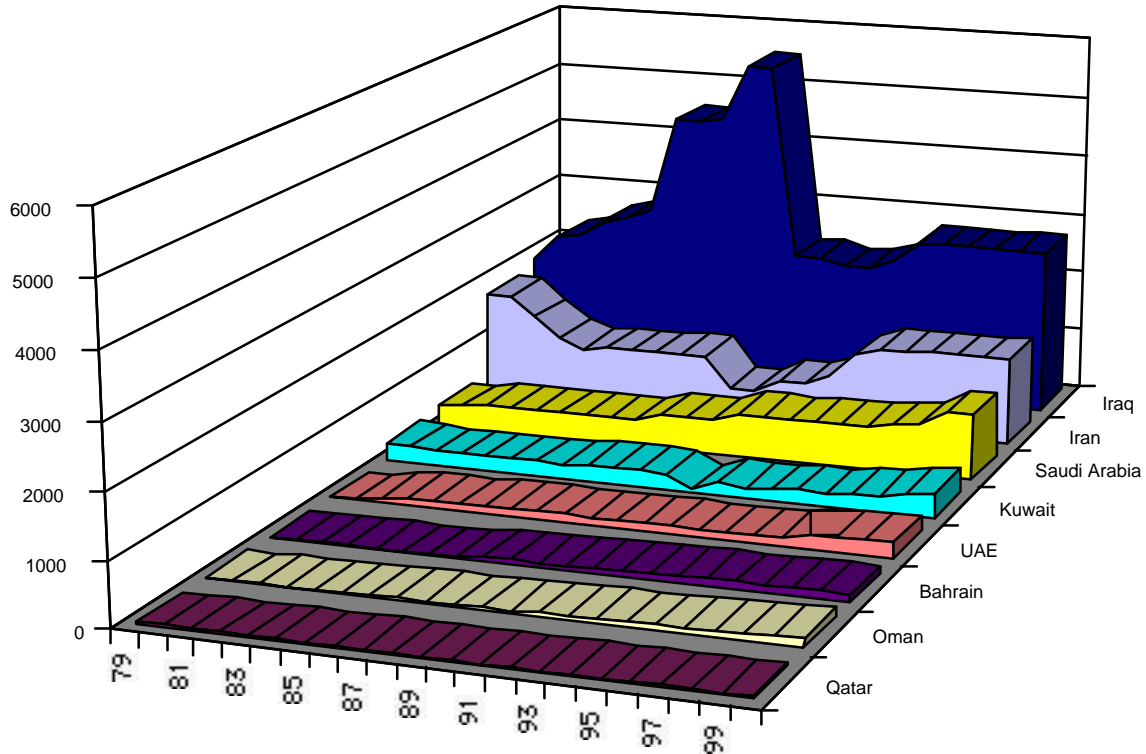
Total Gulf Operational Armored Fighting Vehicle Strength in 2001



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

Chart 7.4

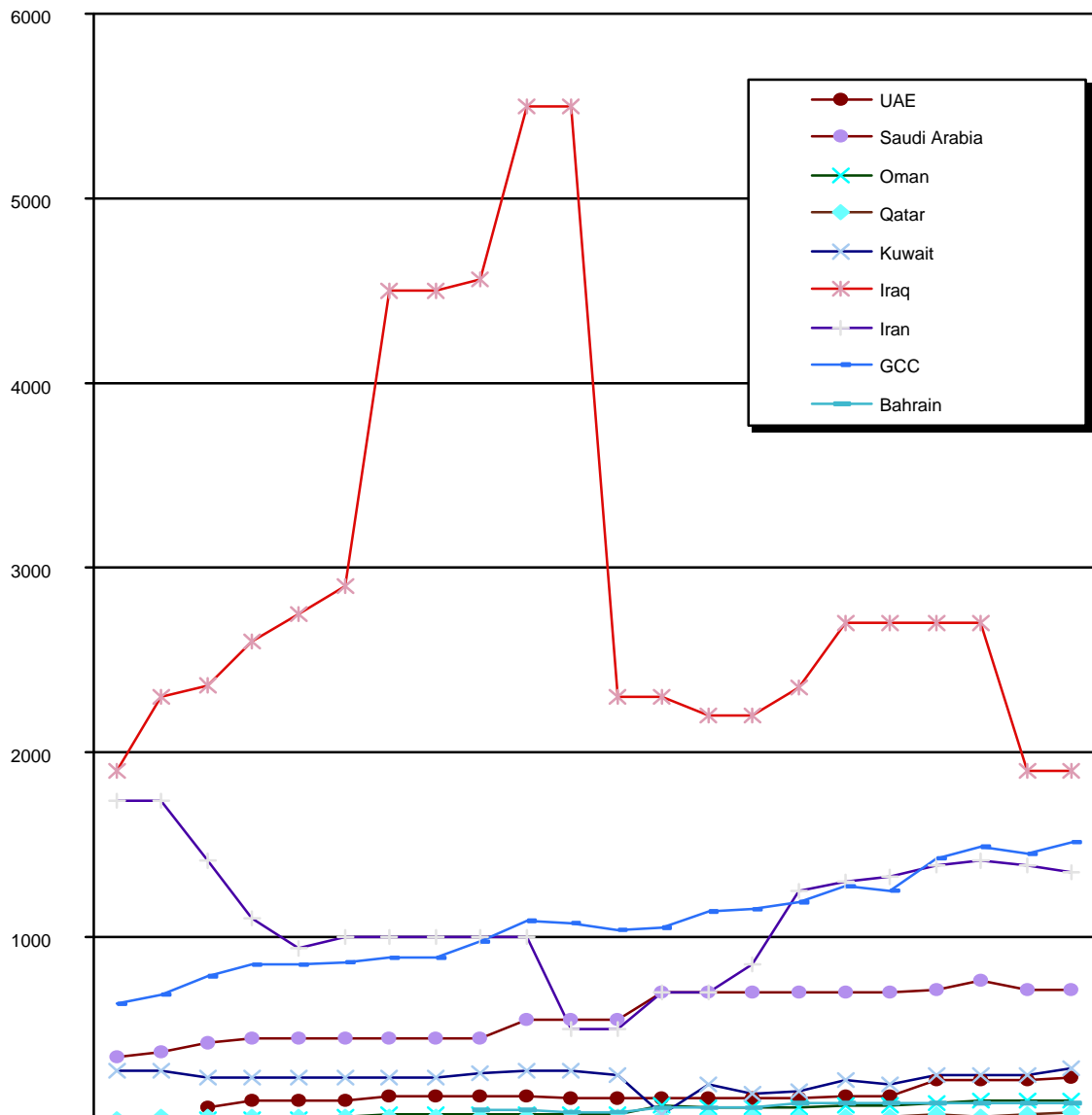
Trends in Total Gulf Main Battle Tank Inventory: 1979-2000



	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0
■ Qatar	12	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	34	34	34	44
□ Oman			18	18	18	26	33	39	39	39	39	39	82	78	73	73	91	91	97	117	141	141
■ Bahrain									60	60	54	54	81	81	81	106	106	106	106	106	106	106
■ UAE			75	118	118	118	136	136	136	136	131	131	131	131	125	125	133	133	231	231	231	237
■ Kuwait	280	280	240	240	240	240	240	240	260	275	275	245	36	200	150	164	220	198	249	249	341	385
■ Saudi Arabia	350	380	430	450	450	450	450	450	450	550	550	550	700	700	696	700	700	700	765	810	1055	1055
■ Iran	1735	1735	1410	1100	940	1000	1000	1000	1000	1000	500	500	700	700	850	1245	1390	1390	1410	1410	1410	1410
■ Iraq	1900	2300	2360	2600	2750	2900	4500	4500	4560	5500	5500	2300	2300	2200	2200	2350	2700	2700	2700	2700	2700	2700

Chart 7.5

Total Operational Main Battle Tanks in All Gulf Forces 1979 to 2000

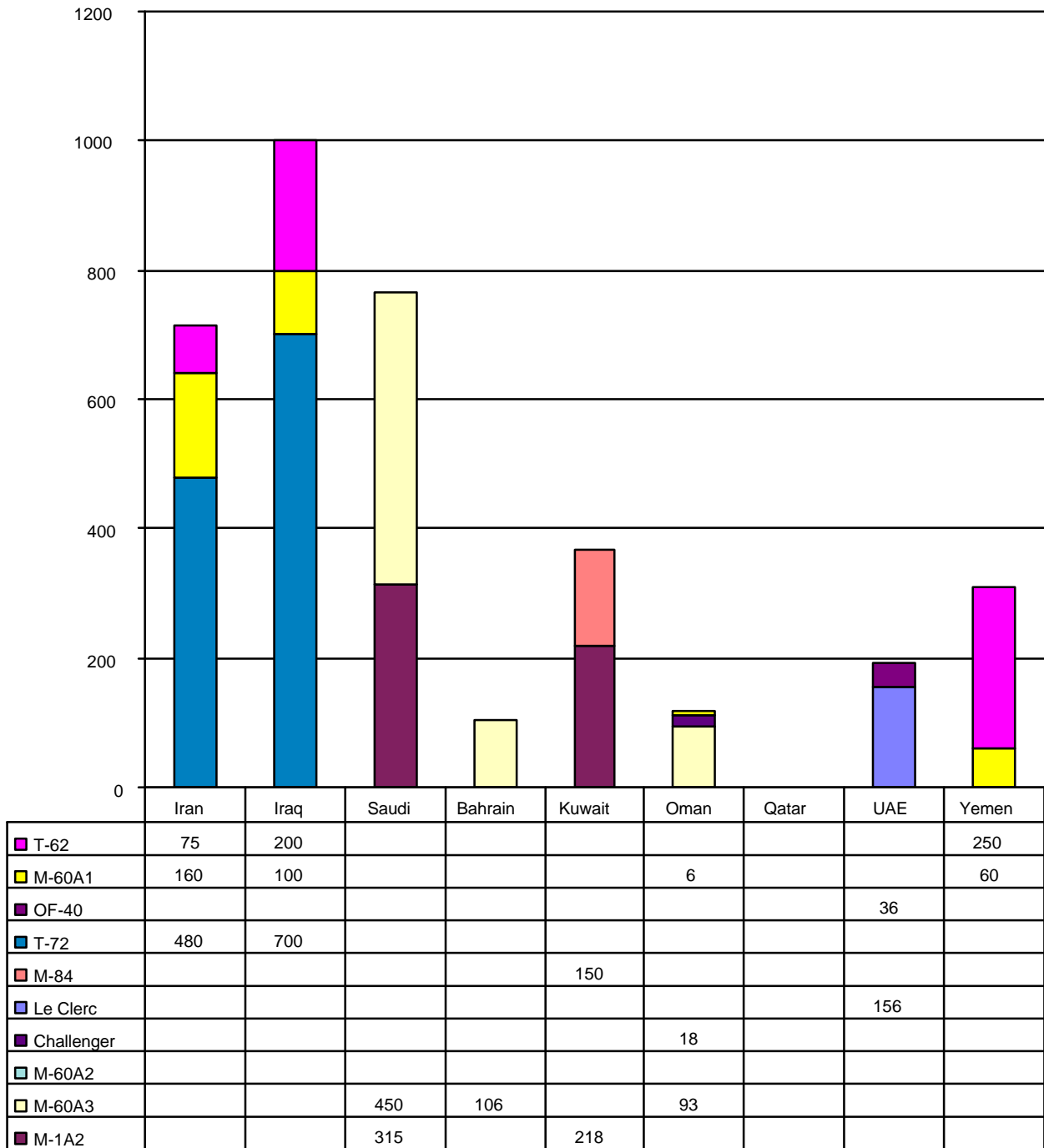


	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0
UAE			75	118	118	118	136	136	136	136	131	131	131	131	125	125	133	133	231	231	231	237
Saudi Arabia	350	380	430	450	450	450	450	450	450	550	550	550	700	700	696	700	700	700	710	760	710	710
Oman			18	18	18	26	33	39	39	39	39	39	82	78	73	73	91	91	97	117	117	117
Qatar	12	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	24	34	24	34	44
Kuwait	280	280	240	240	240	240	240	240	260	275	275	245	36	200	150	164	220	198	247	249	249	293
Iraq	190	230	236	260	275	290	450	450	456	550	550	230	230	220	220	235	270	270	270	270	190	190
Iran	173	173	141	110	940	100	100	100	100	100	500	500	700	700	850	124	130	132	139	141	139	134
GCC	642	684	787	850	850	858	883	889	969	108	107	104	105	113	114	119	127	125	142	148	144	150
Bahrain									60	60	54	54	81	81	81	106	106	106	106	106	106	106

Note: Iran includes active forces in the Revolutionary Guards. Saudi Arabia includes active National Guard. Source: Adapted by Anthony H. Cordesman from various sources and the IISS, Military Balance, various editions.

Chart 7.6

Medium to High Quality Main Battle Tanks By Type in 2001

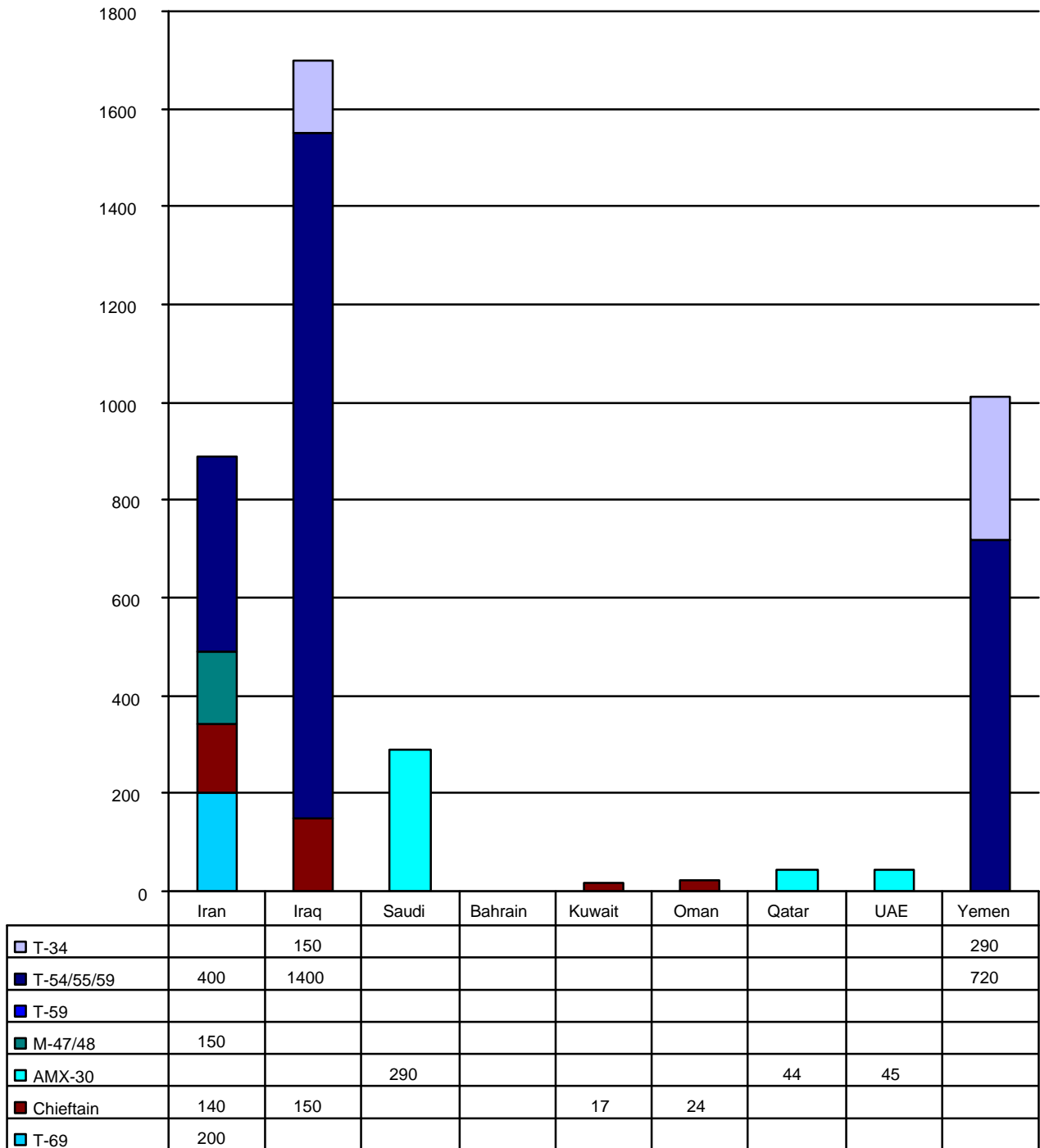


Source: Adapted by Anthony H. Cordesman from the IISS, Military Balance.

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Chart 7.7

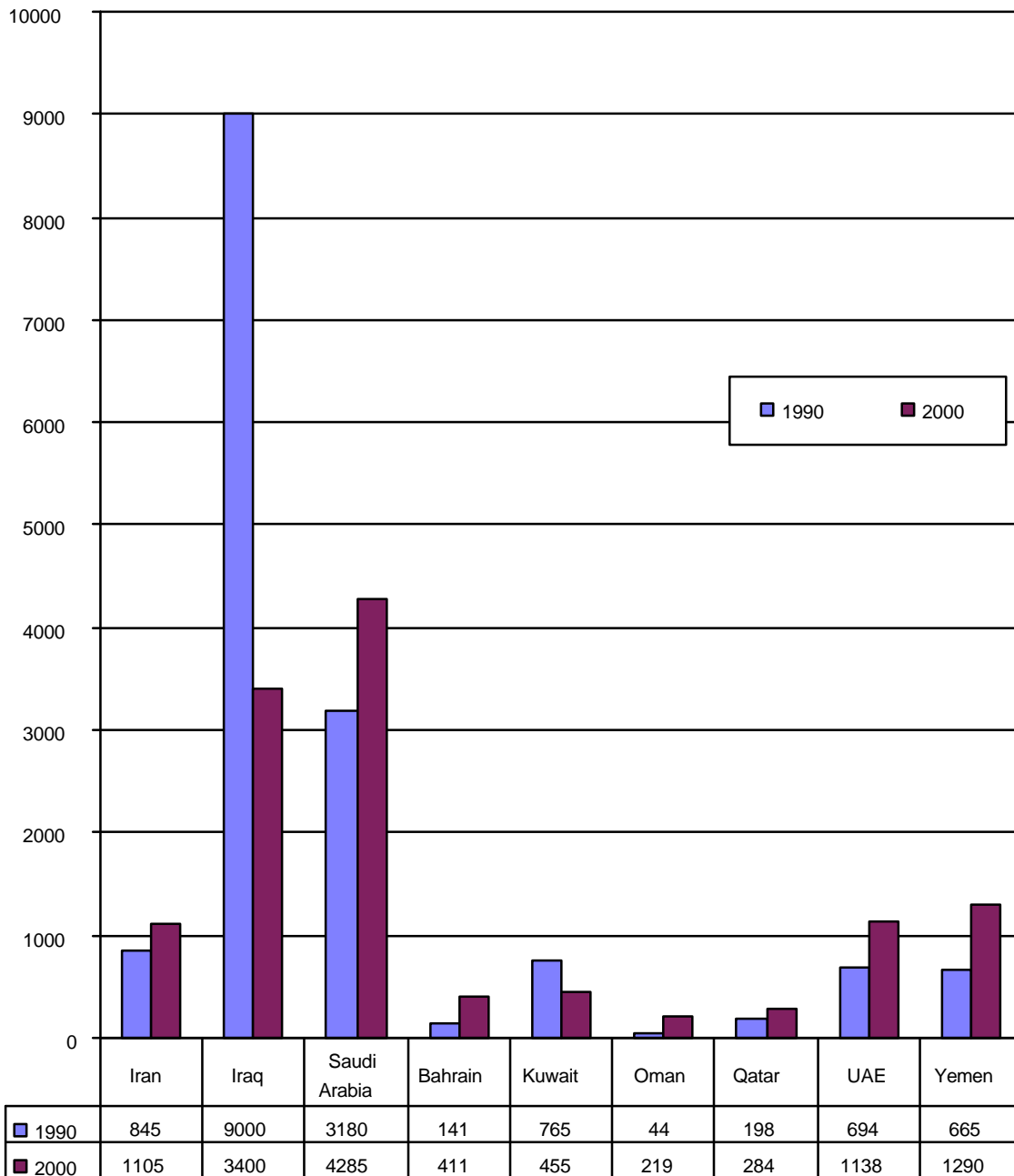
Holdings of Low Quality Main Battle Tanks By Type in 2001



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

Chart 7.9

Total Operational Other Armored Fighting Vehicles (Lt. Tanks, Scout, AIFVs, APCs, Reconnaissance Vehicles) in Gulf Forces: 1990-2000

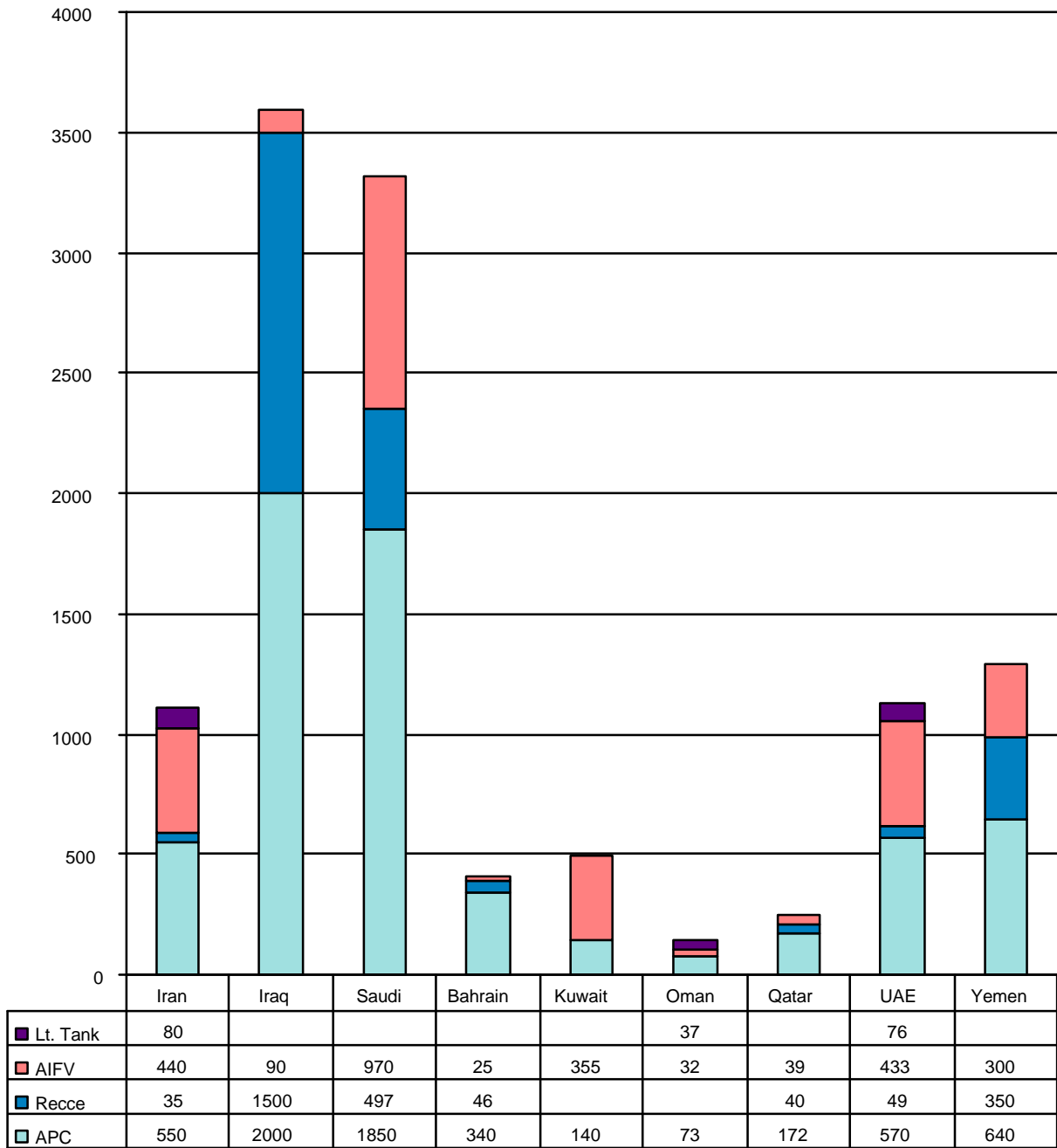


Note: Iran includes active forces in the Revolutionary Guards. Saudi Arabia includes active National Guard.

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

Chart 7.10

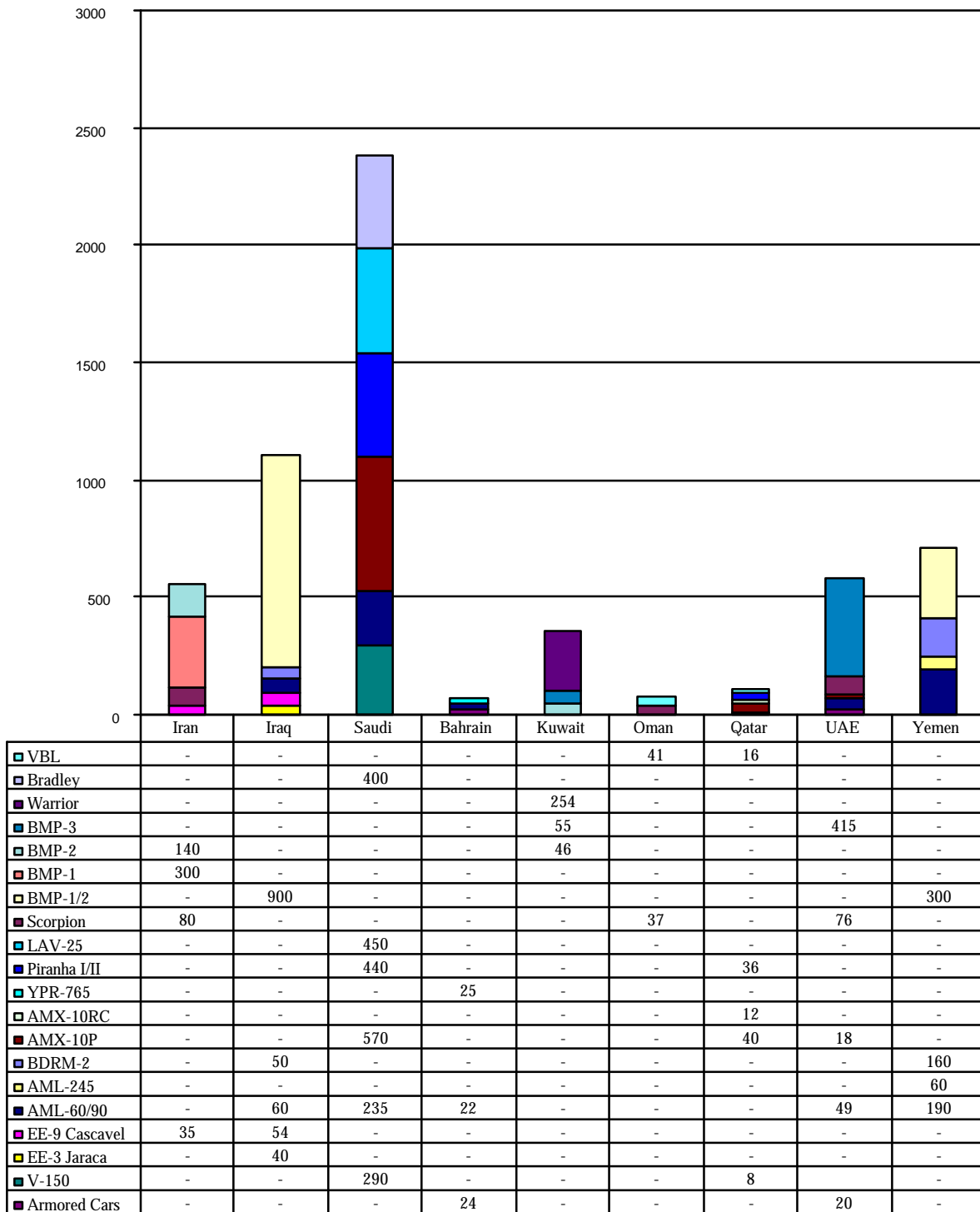
Gulf Other Armored Fighting Vehicles (OAFVs) by Category - 2001



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

Chart 7.11

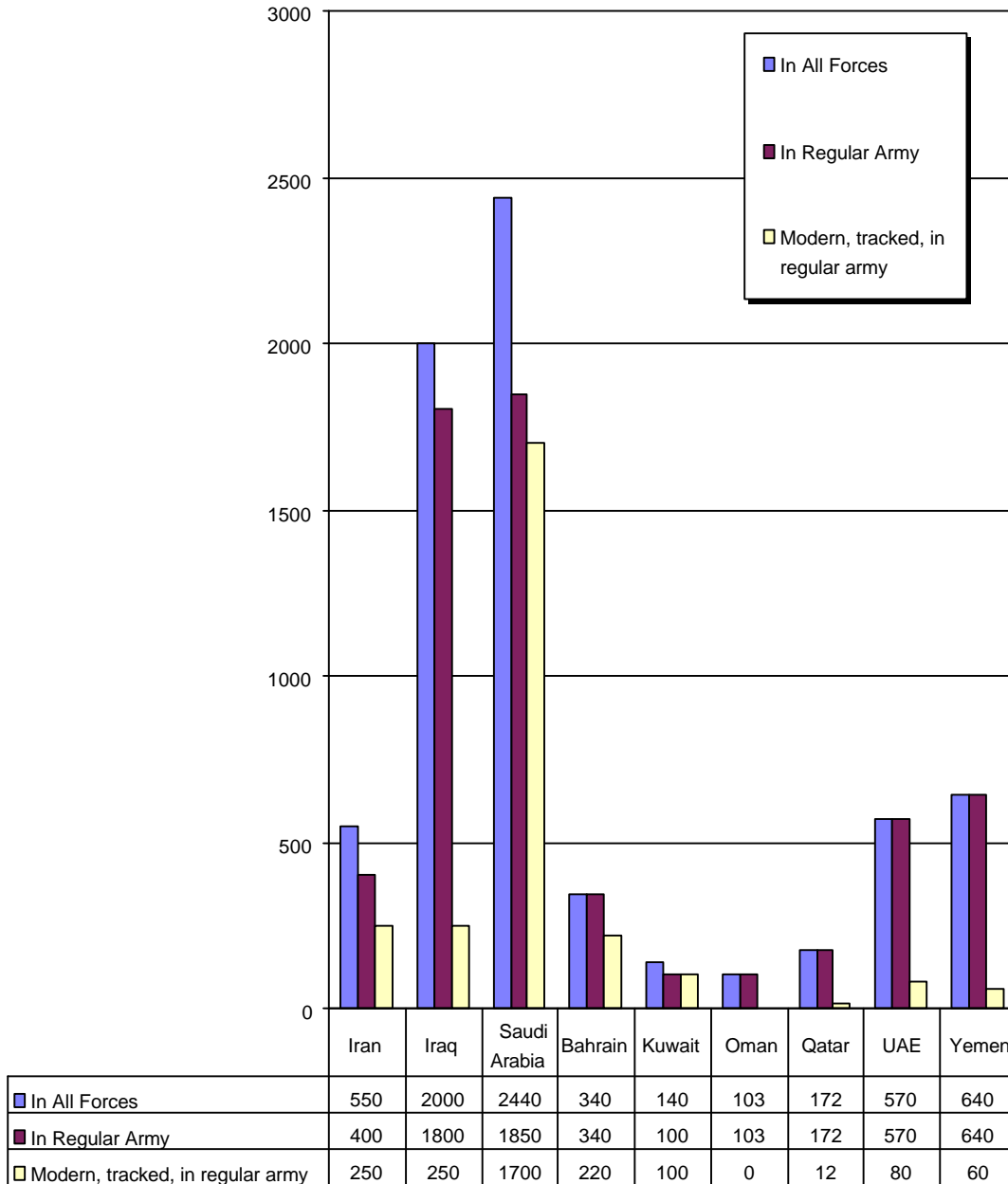
Advanced Armored Infantry Fighting Vehicles, Reconnaissance Vehicles, Scout Vehicles and Light Tanks by Type in 2001



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

Chart 7.12

Armored Personnel Carriers (APCs) in Gulf Armies – 2001

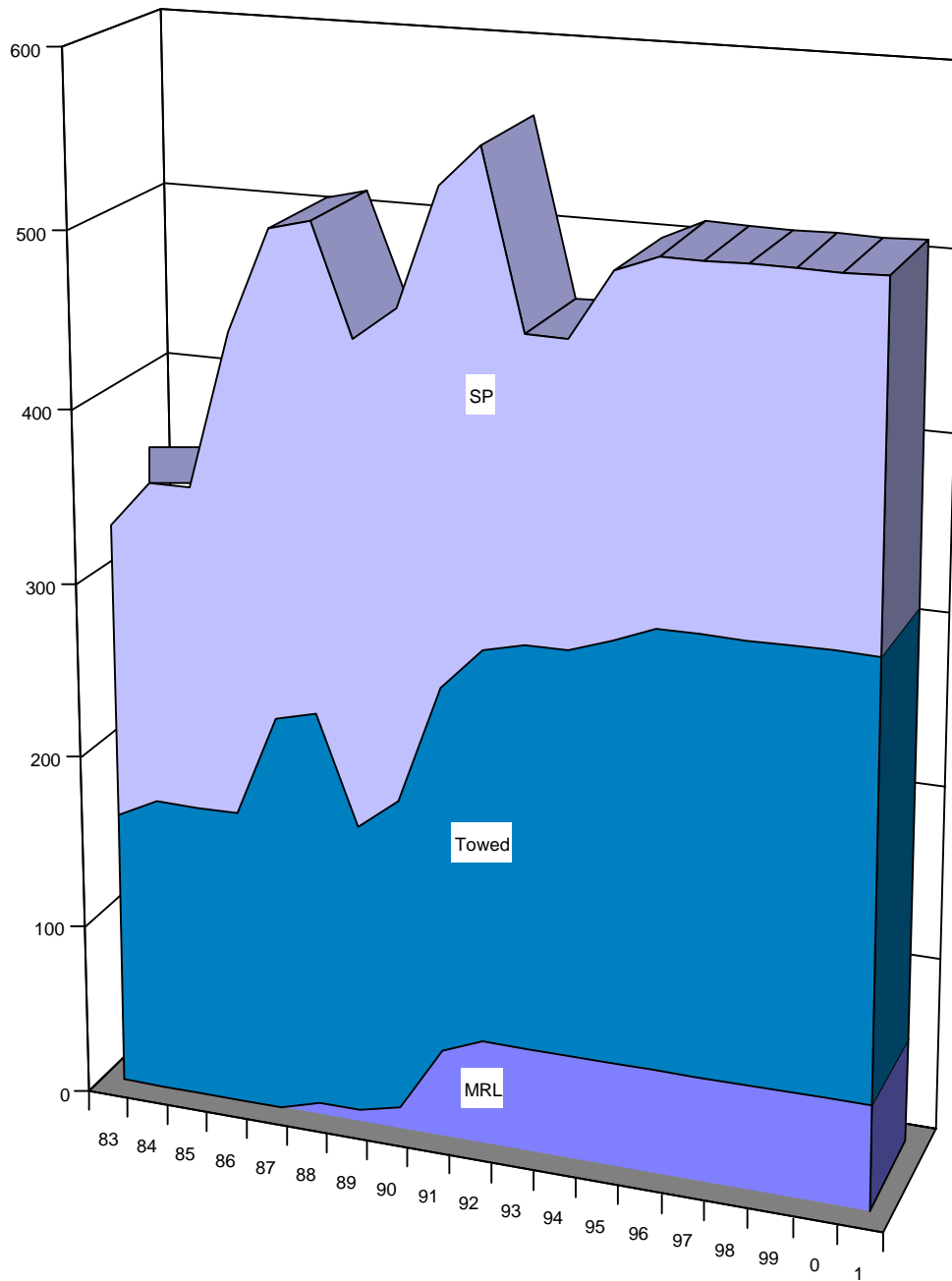


Note: Iran includes active land forces in the Revolutionary Guards. Saudi Arabia includes the active forces in the National Guard

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

Chart 7.13

The Growth in Saudi Artillery Weapons Strength - 1979-2001



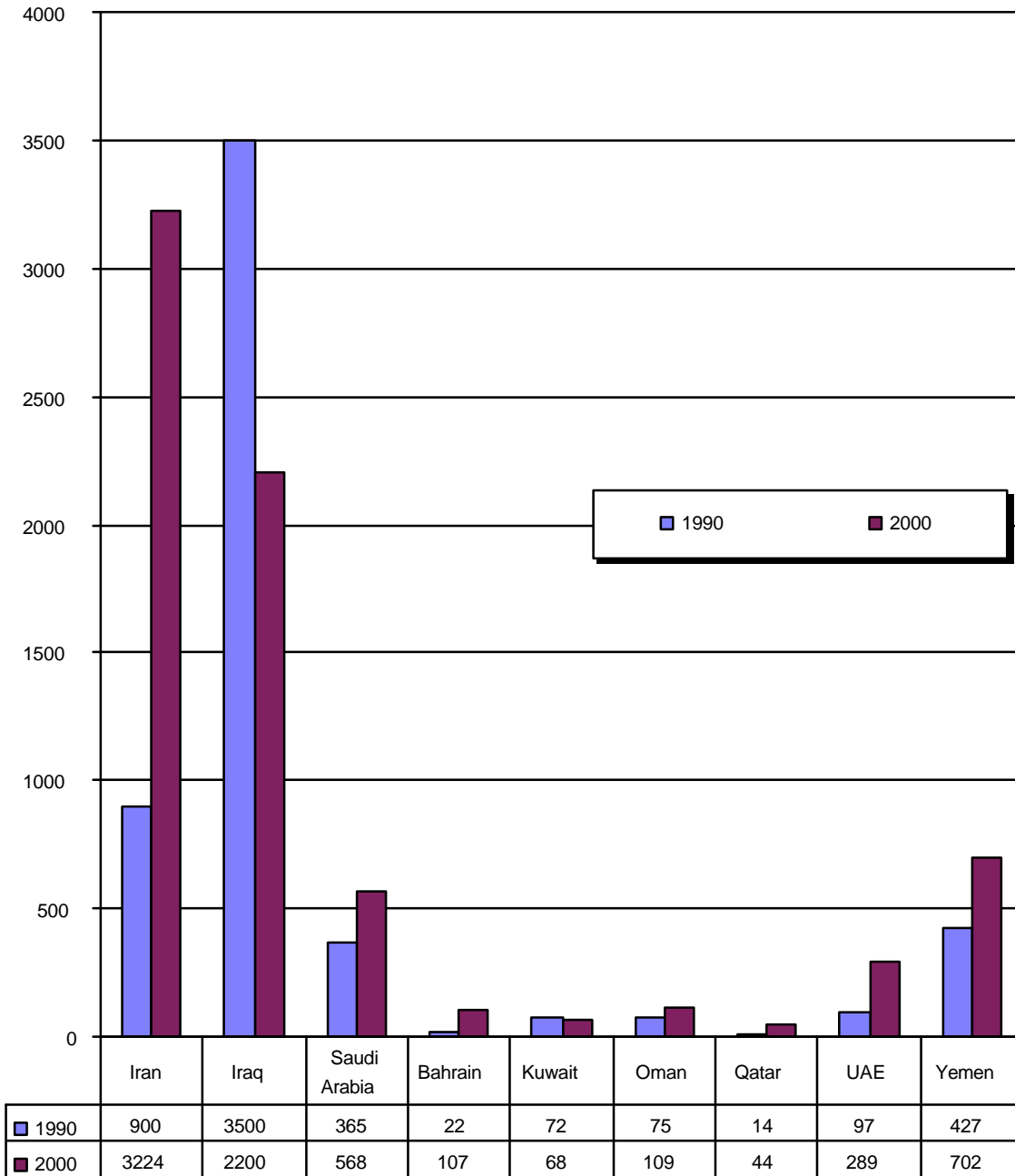
	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	0	1
SP	170	185	185	275	275	275	275	275	275	275	170	170	200	200	200	200	200	200	200
Towe	160	171	171	171	230	230	168	180	210	224	230	230	238	248	248	248	248	248	248
MRL	0	0	0	0	0	6	6	12	50	60	60	60	60	60	60	60	60	60	60

Source: Adapted by Anthony H. Cordesman from various editions of the IISS, Military Balance, the JCSS, Military Balance in the Middle East, and material provided by US experts.

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Chart 7.14

Total Operational Self-Propelled and Towed Tube Artillery and Multiple Rocket Launchers in Gulf Forces 1990-2000

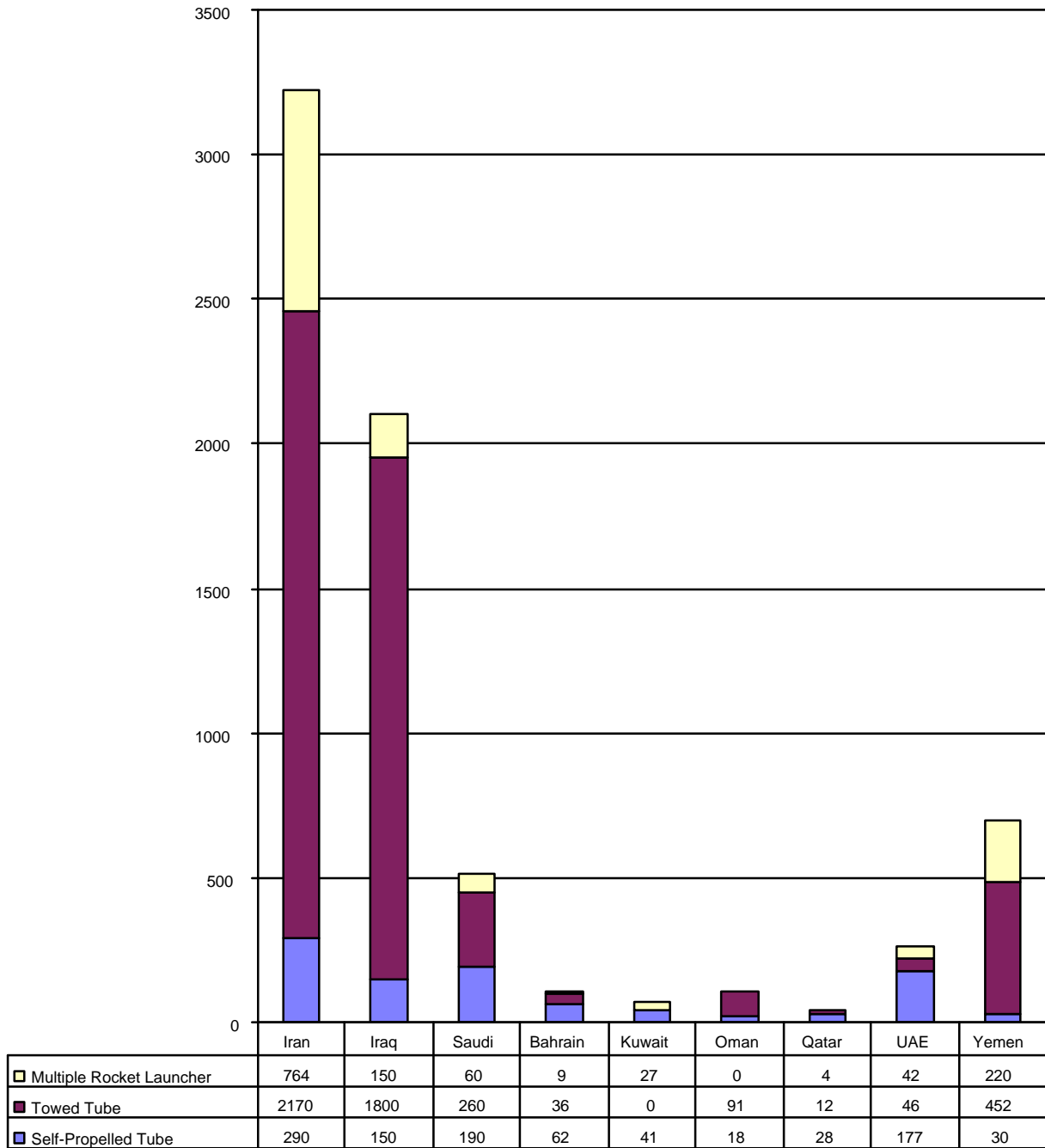


Note: Iran includes active forces in the Revolutionary Guards. Saudi Arabia includes active National Guard.

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

Chart 7.15

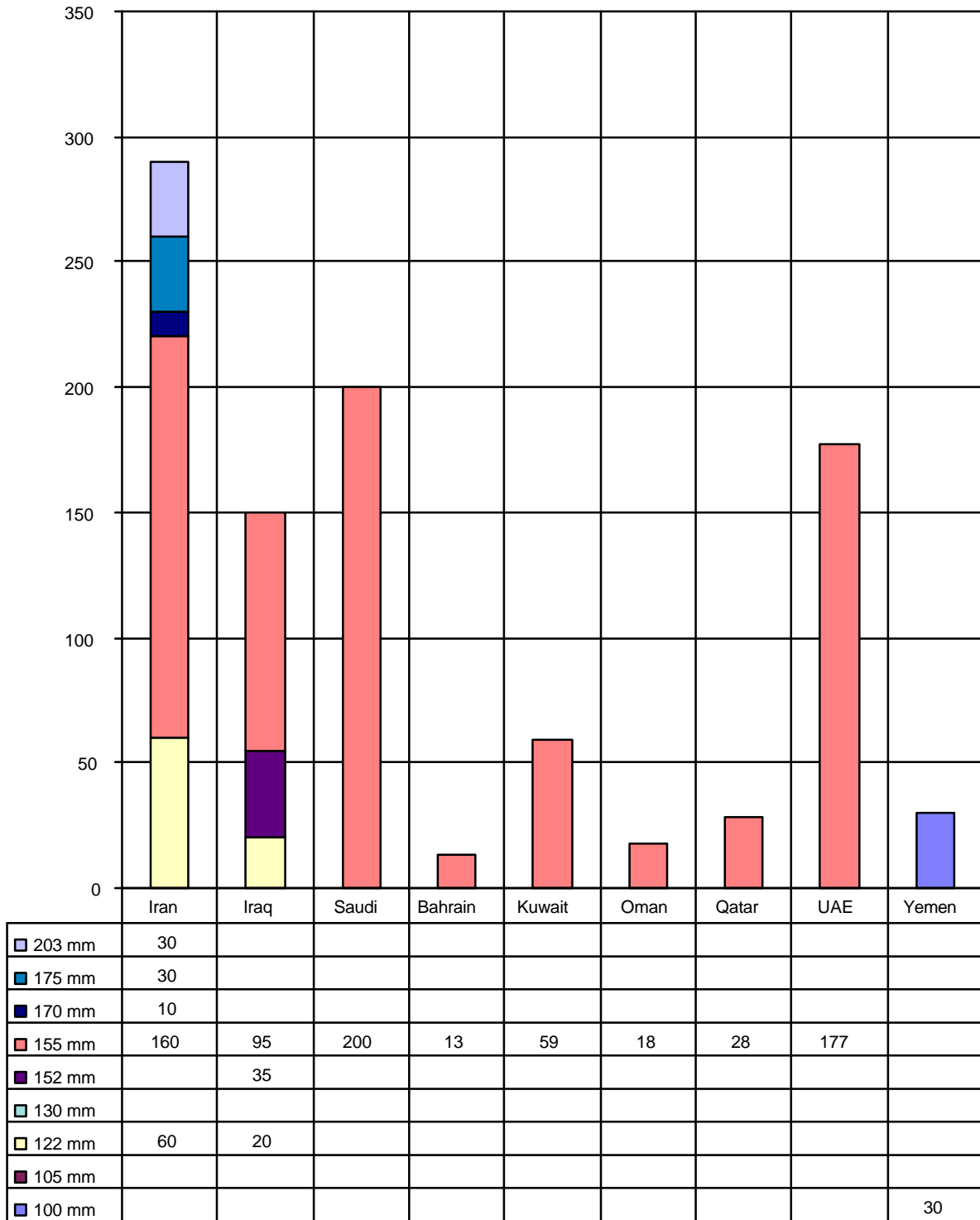
Total Operational Gulf Artillery Weapons - 2001



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

Chart 7.16

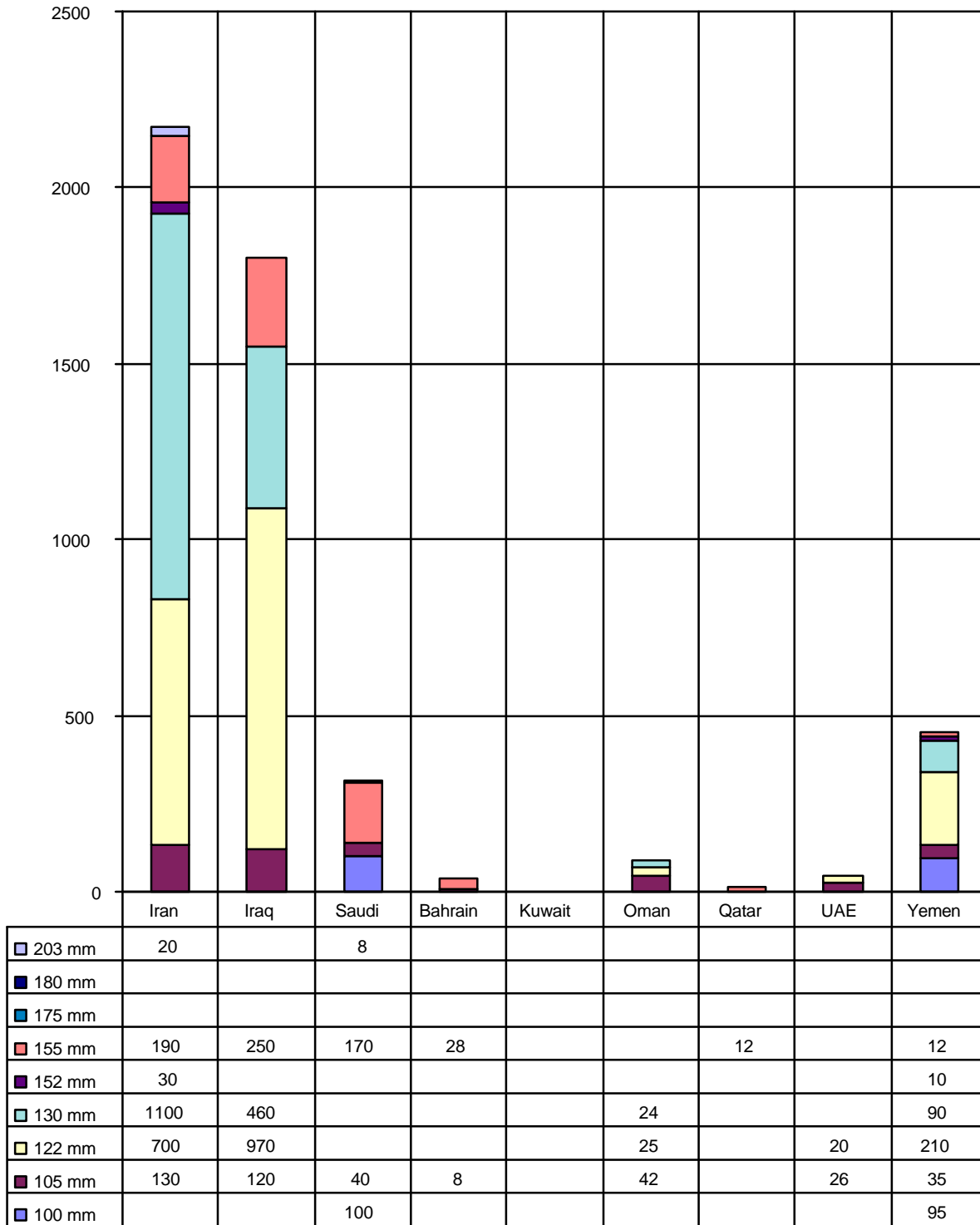
Gulf Inventory of Self-Propelled Artillery by Caliber in 2001



Source: Prepared by Anthony H. Cordesman, based upon discussions with US experts.

Chart 7.17

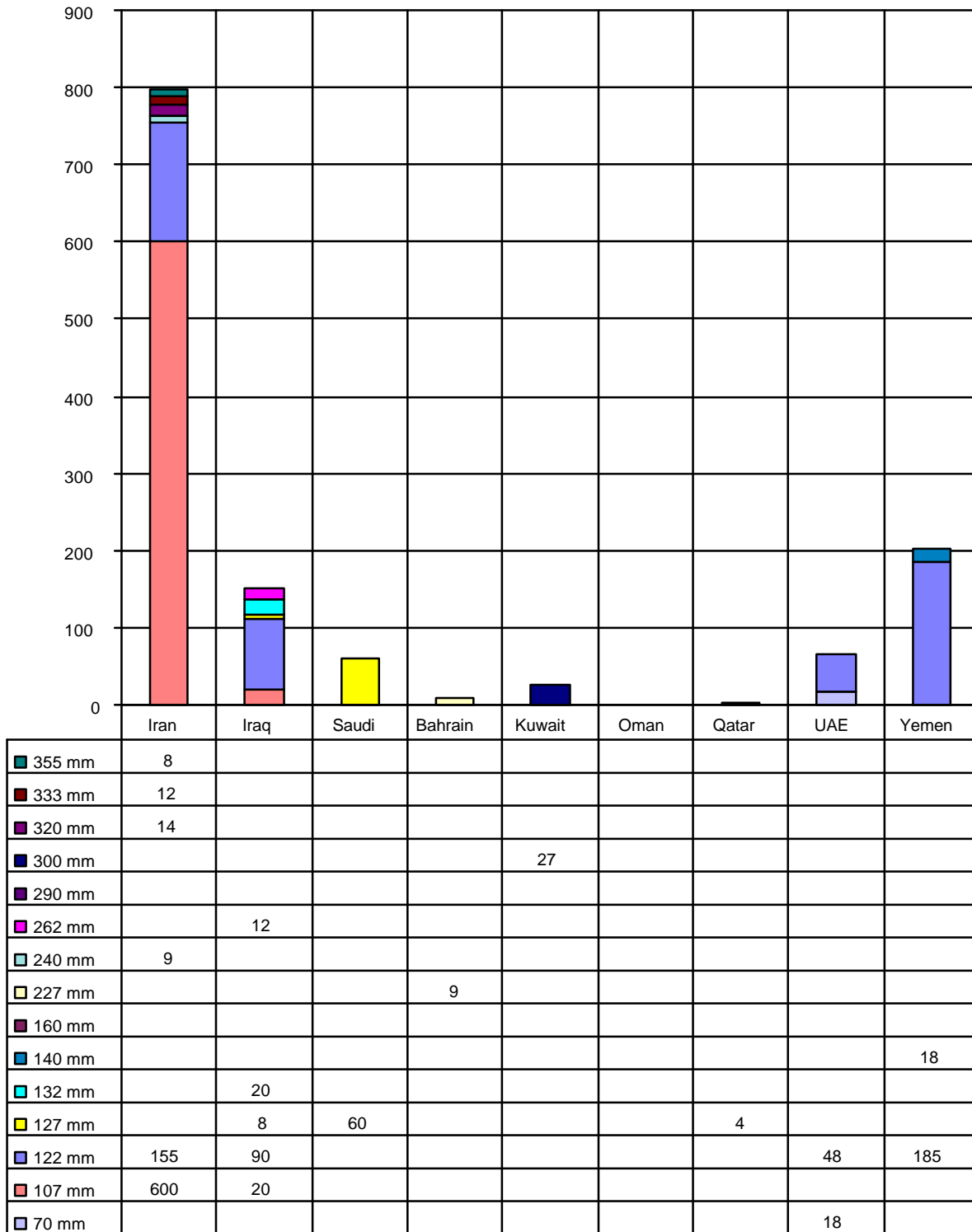
Gulf Inventory of Towed Artillery by Caliber in 2001



Note: Syria has 100 additional 122 mm weapons in storage. Jordan has 25 additional 203 mm weapons in storage.
 Source: Prepared by Anthony H. Cordesman, based upon discussions with US experts.

Chart 7.18

Gulf Inventory of Multiple Rocket Launchers by Caliber in 2001



Source: Prepared by Anthony H. Cordesman, based upon discussions with US experts.

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Table 8.1The Saudi National Guard Order of Battle in Mid-2001Headquarters: Riyadh

- Turki Mechanized Brigade (in formation)
- IMBS Mechanized Brigade
- PSAR Mechanized Brigade
- King Khalid Light Infantry Brigade
- Support brigade
- MP battalion
- King Khalid Light Infantry Brigade support battalion.
- Training Base: Signal School. Medical School, NGMS, KKMA, recruiting.
- Support Base: Signal Corps, Medical Corps, Weapons and ammunition, Logistics base, and engineers.

Eastern Region Headquarters: Dammam (Brigades at Dammam and Hofuf)

- KAA Mechanized Brigade (in formation)
- Guard Battalion
- MP battalion
- Recruiting.
- Support Base: Signal Corps, Medical Corps, Weapons and ammunition, Logistics base, and engineers.

Western Sector Headquarters: Jeddah (Brigades at Jeddah, Medina, and Taif)

- KFB Mechanized Brigade
- KSB Mechanized Brigade
- KOKB Mechanized Brigade
- Guard Battalion
- MP battalion
- Recruiting.
- Support Base: Signal Corps, Medical Corps, Weapons and ammunition, Logistics base, and engineers.

Independently deployed light infantry battalions

- Arar (?)
- Yanbu
- Rafha
- Hail (?)

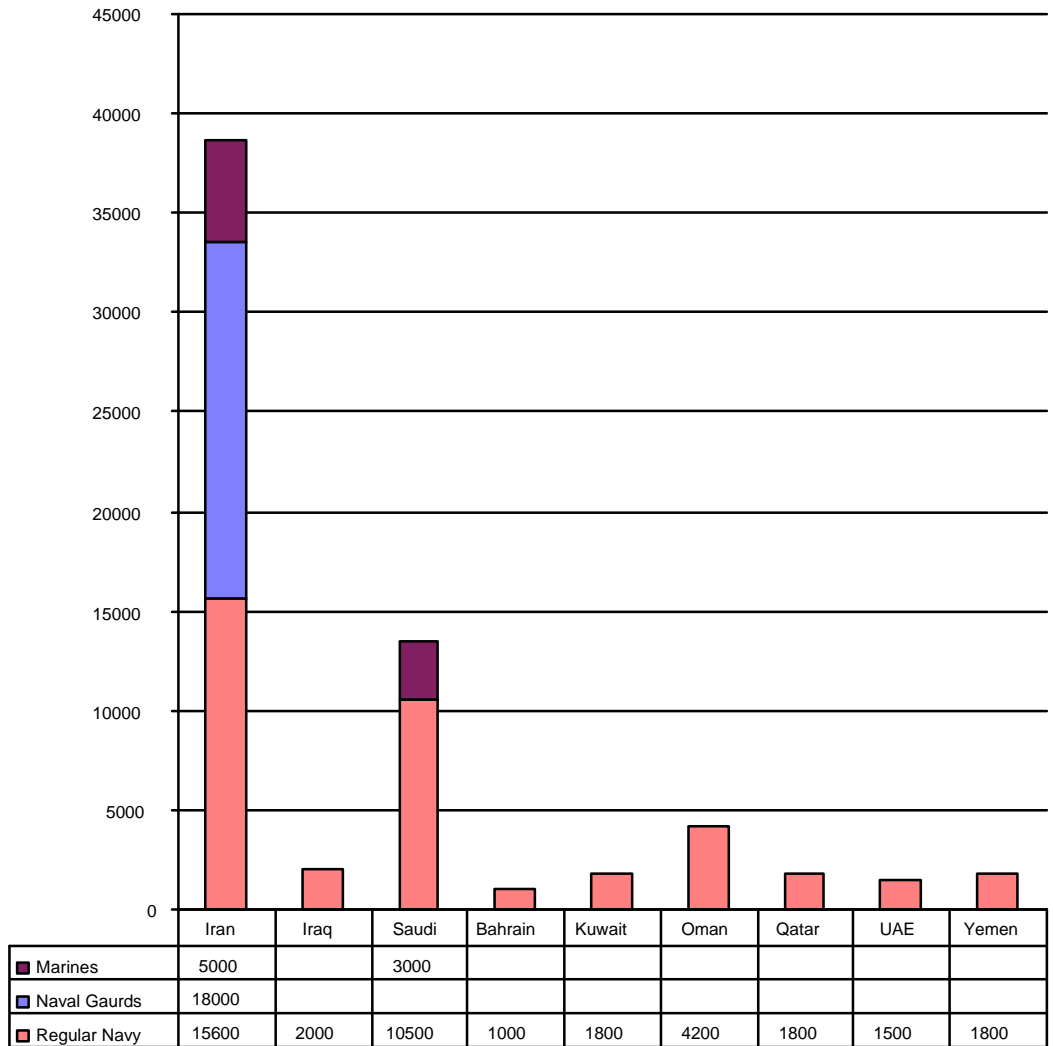
Independent Regular National Guard Element or Presence: Arar, Tabuk, Rafha, Hail, Buraydah, Hofuf, Medina, Yanbu, Mecca, Taif, Khamis Mushayt, Najran, Jizan, Sharawrah.

Independent Tribal Forces or "Fowj" Element or Presence: Arar, Dammam, Rafha, Hail, Buraydah, Hofuf, Medina, Jeddah, Yanbu, Mecca, Taif, , Najran, Jizan, Sharawrah, Riyadh.

Source: Author's interviews in Saudi Arabia, April 2000 and February 2001

Chart 9.1

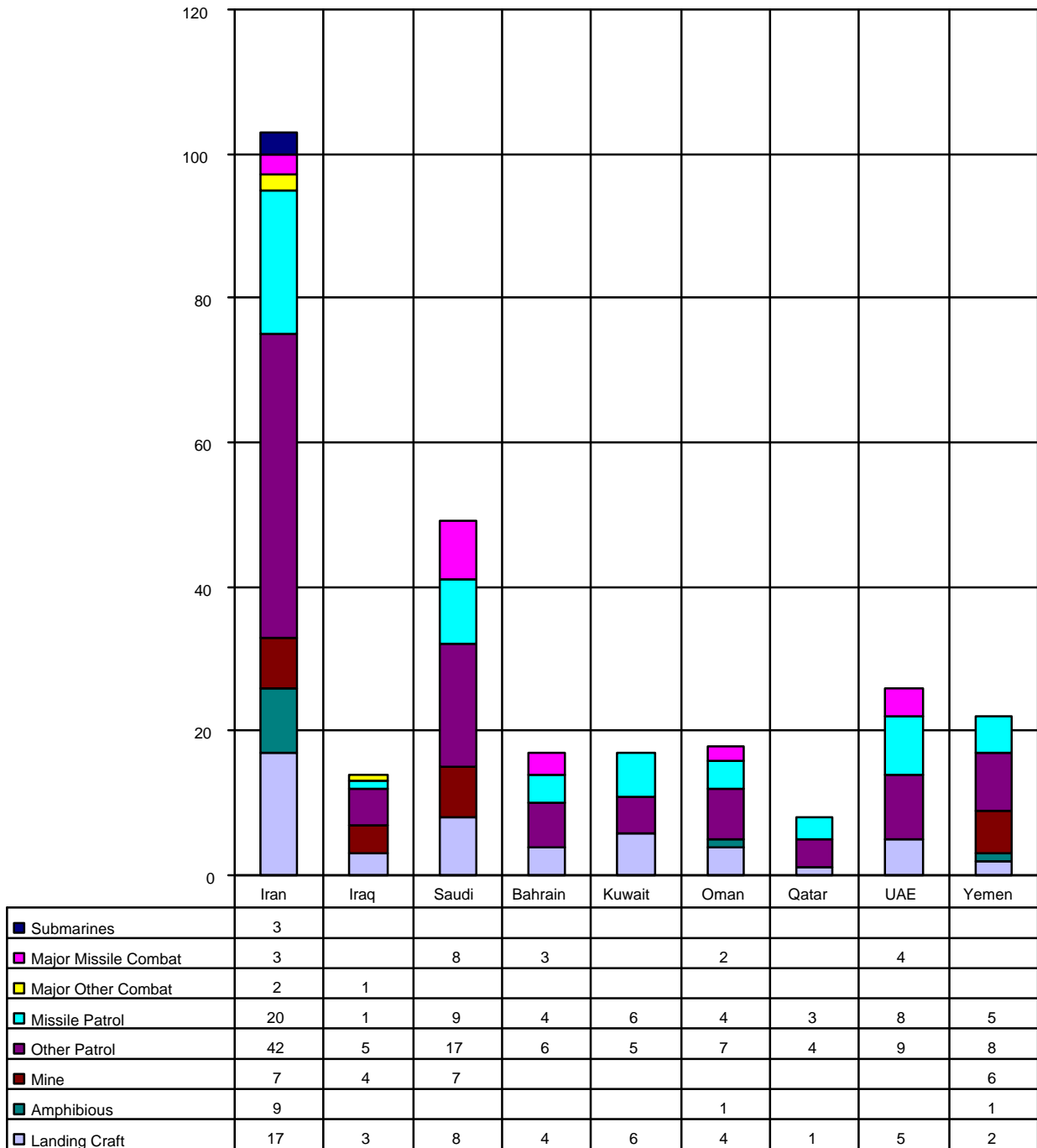
Total Gulf Naval Manpower: 2001



Source: Estimated by Anthony H. Cordesman using data from the IISS Military Balance.

Chart 9.2

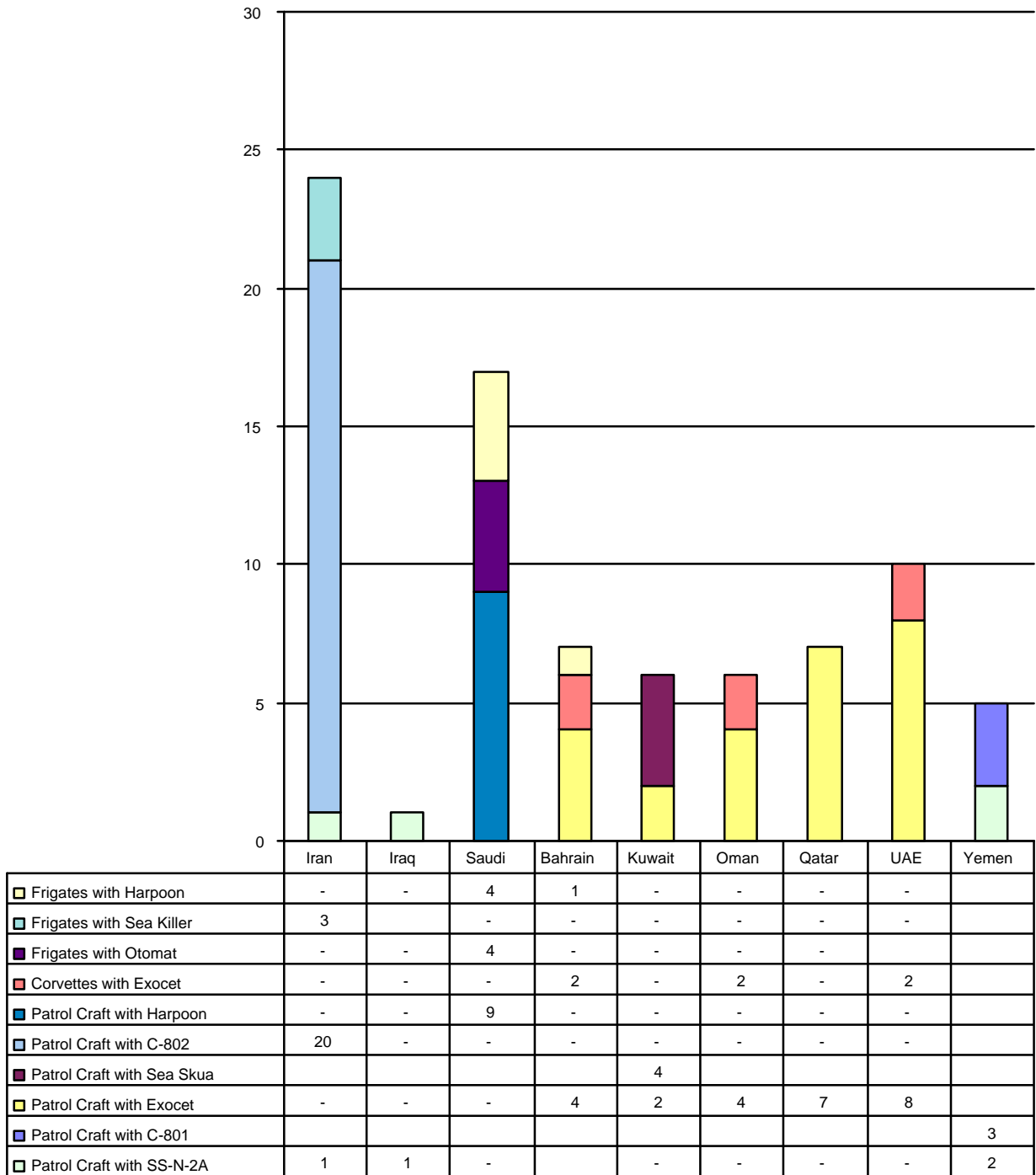
Gulf Naval Ships by Category in 2001



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

Chart 9.3

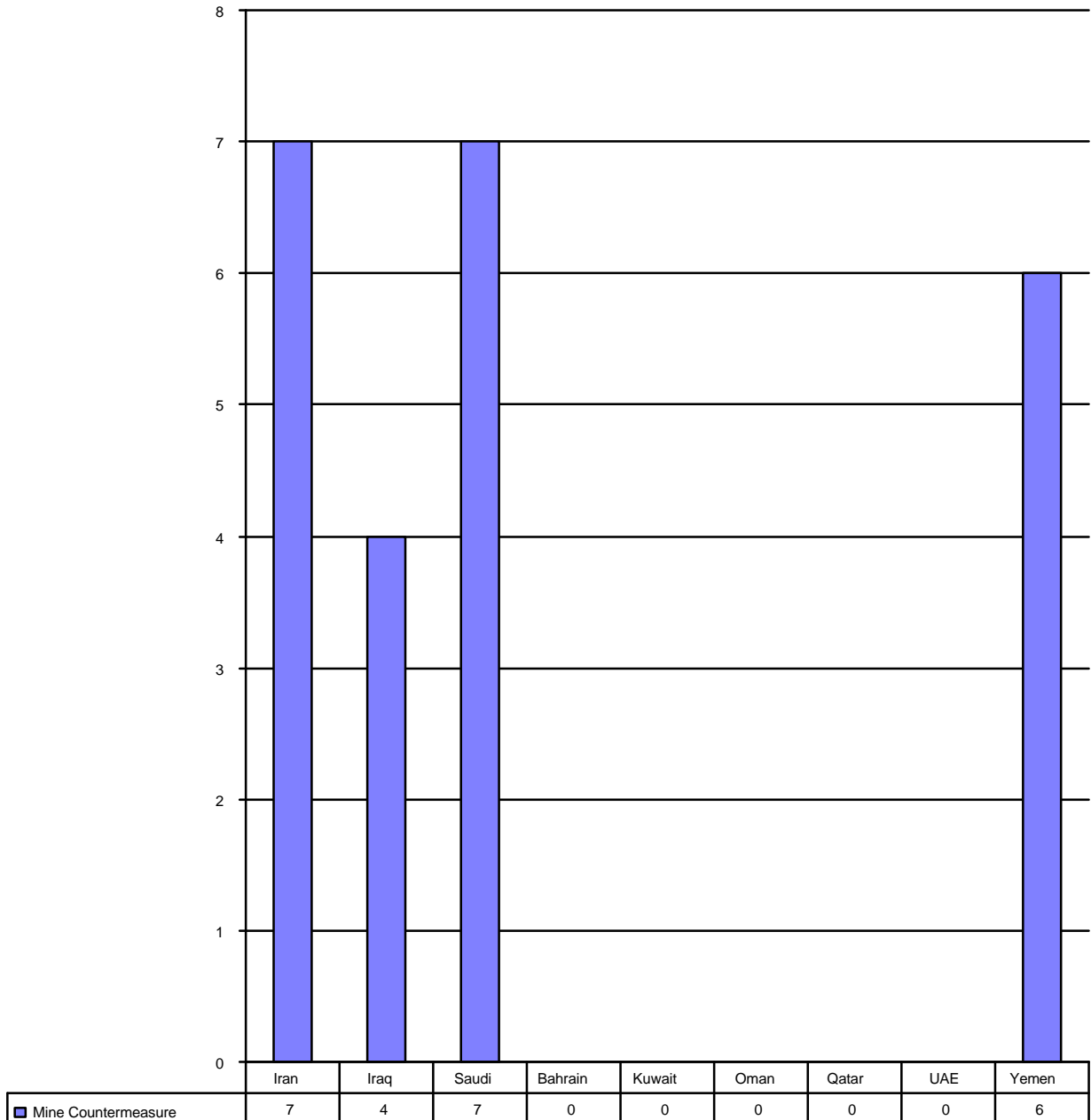
Gulf Warships with Anti-Ship Missiles in 2001



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

Chart 9.4

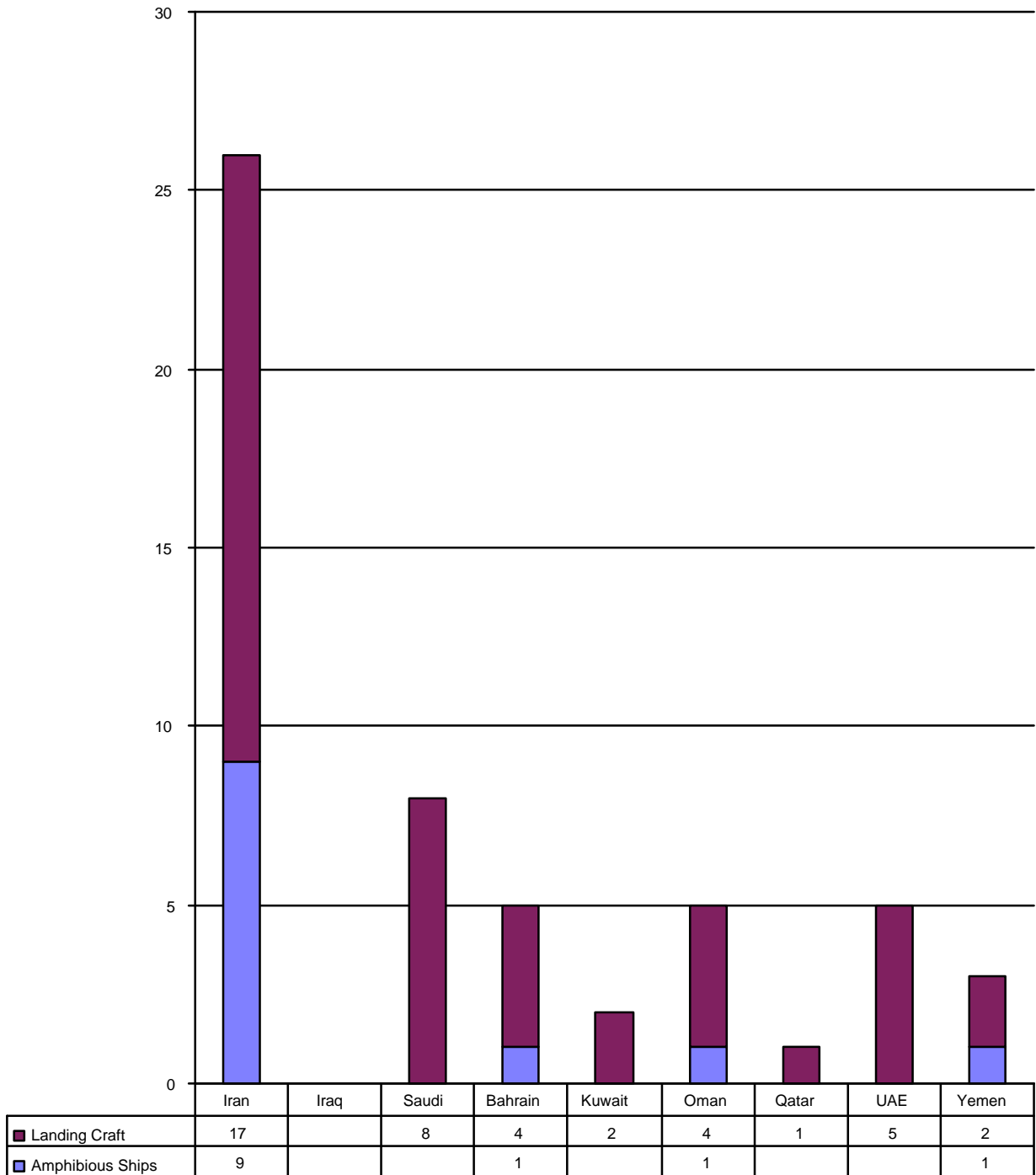
Gulf Mine Warfare Ships in 2001



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

Chart 9.5

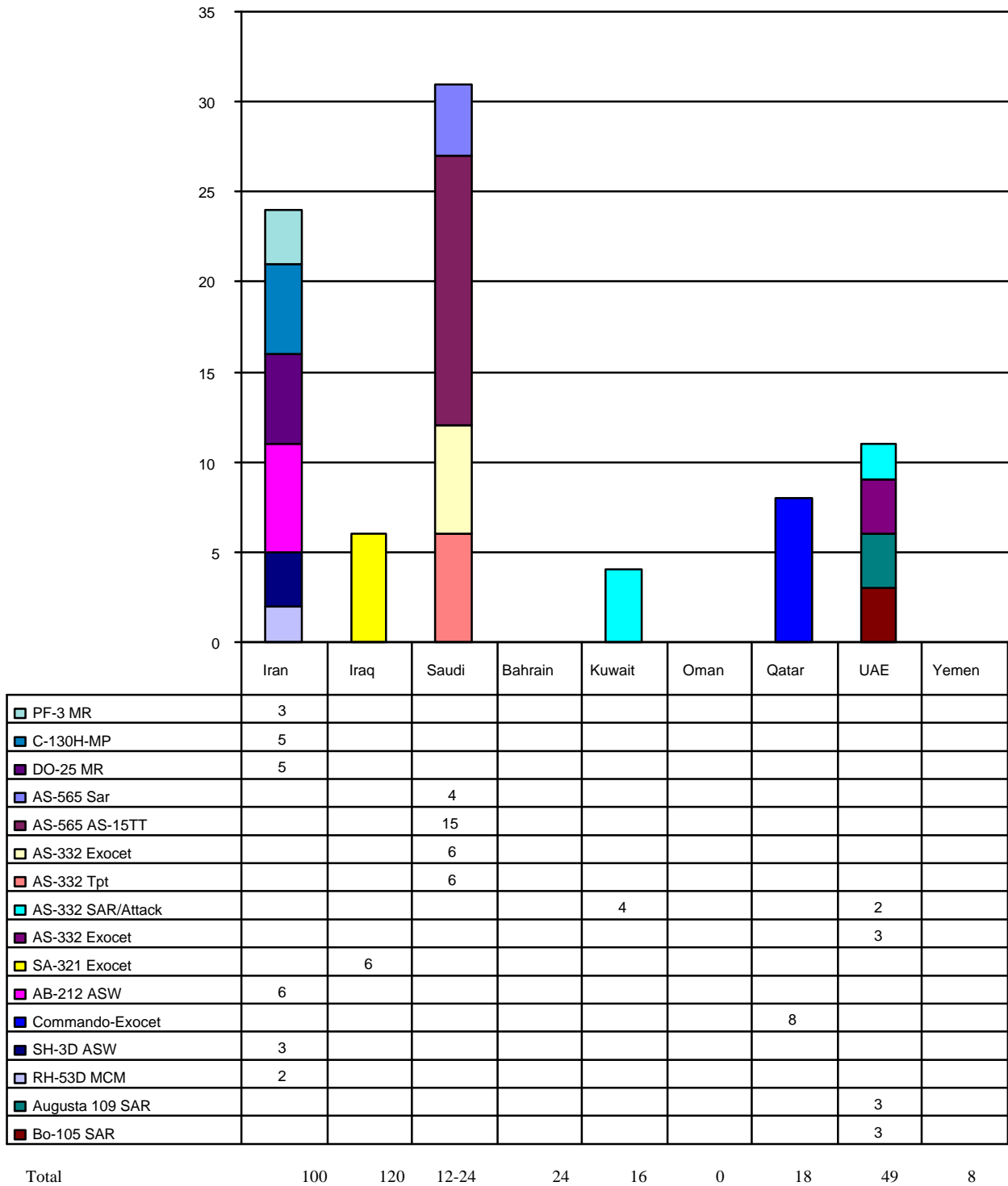
Gulf Amphibious Warfare Ships in 2001



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

Chart 9.6

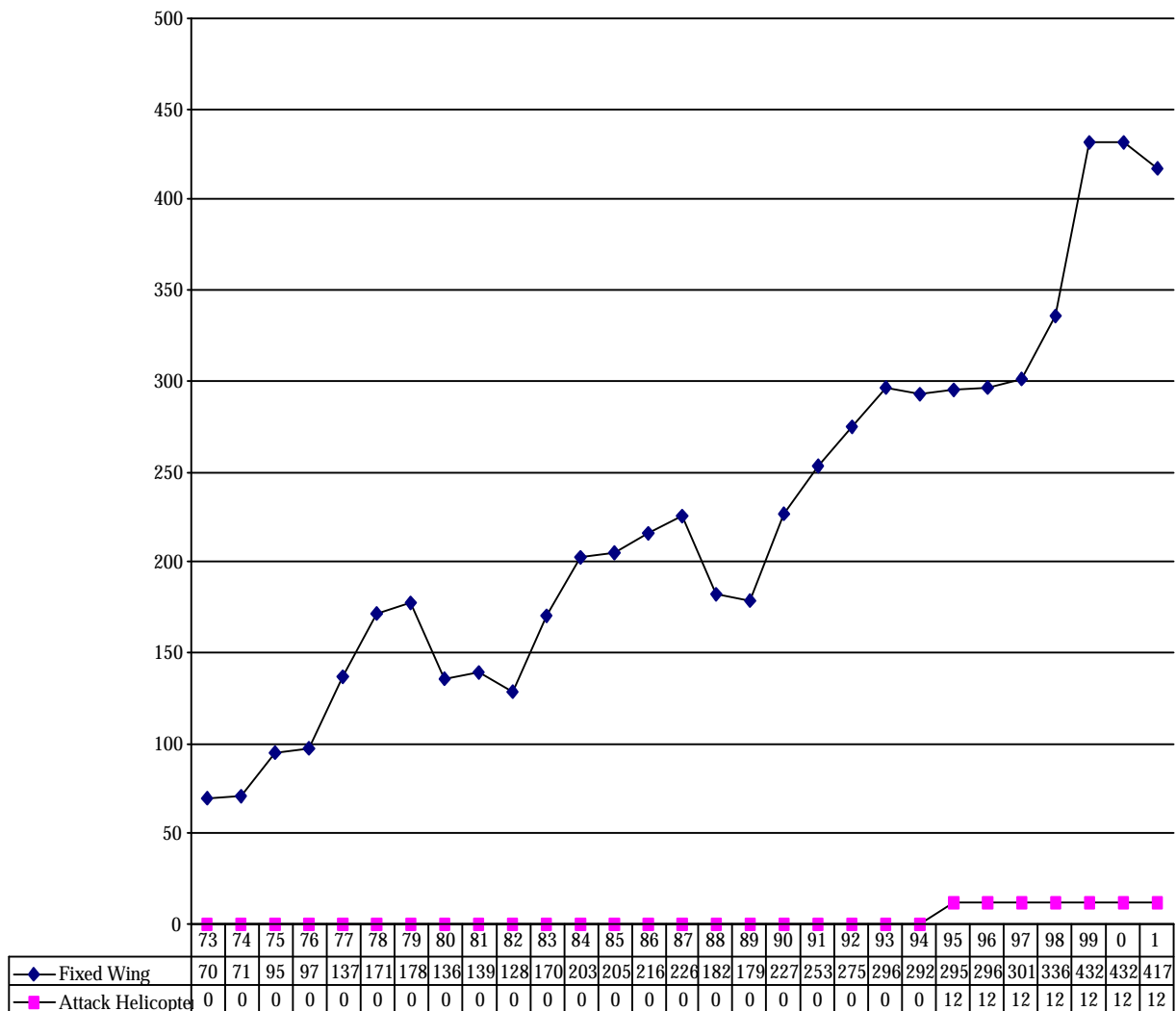
Gulf Naval Aircraft and Helicopters Aircraft in 2001



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

Chart 10.1

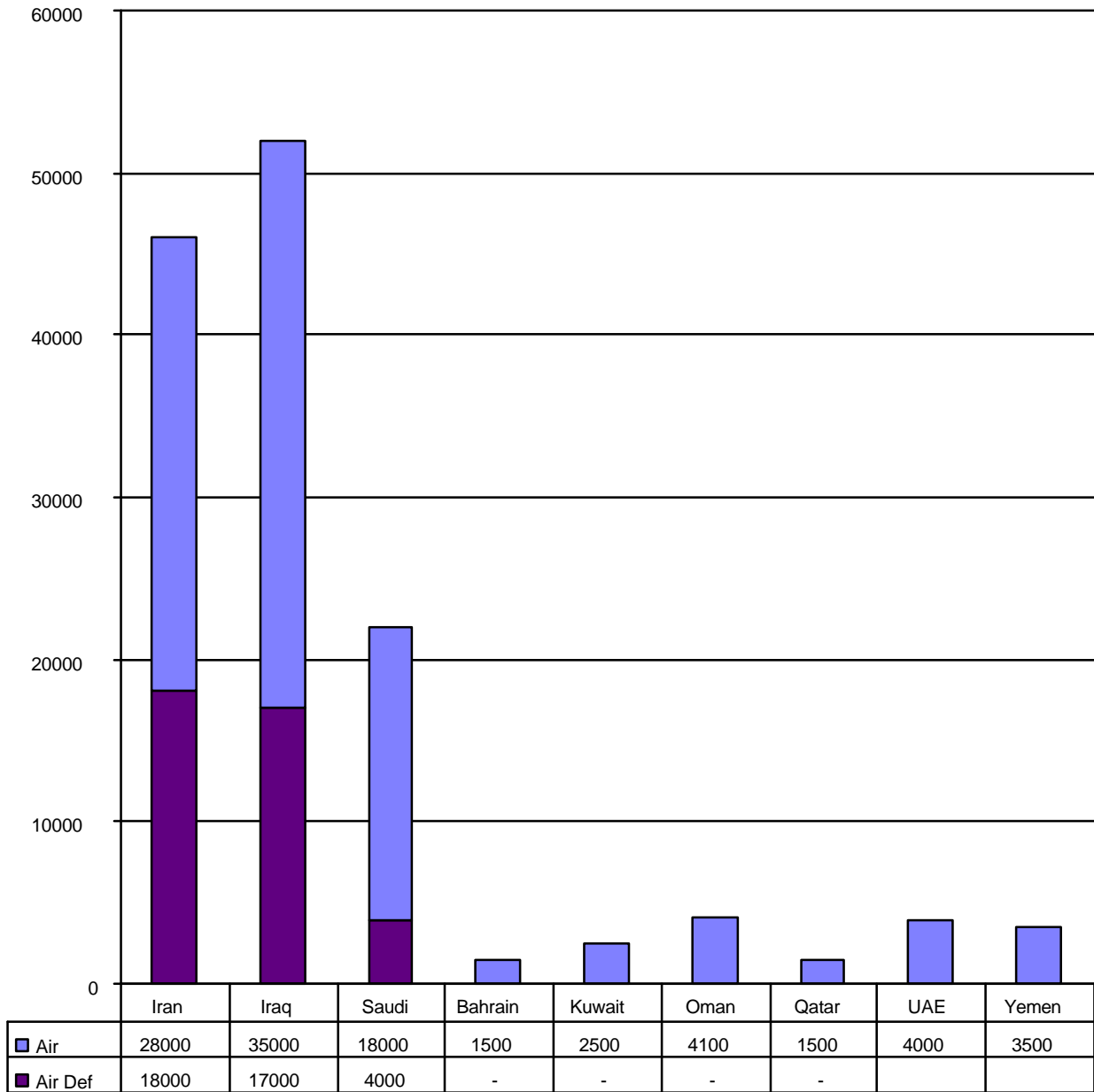
Saudi Arabia: Fixed Wing and Rotary Wing Combat Air Strength - 1979-2001



Source: Adapted by Anthony H. Cordesman from various editions of the IISS, Military Balance, the JCSS, Military Balance in the Middle East, and material provided by US experts. Does not include armed naval helicopters.

Chart 10.2

Total Gulf Air Force and Air Defense Manpower: 2001

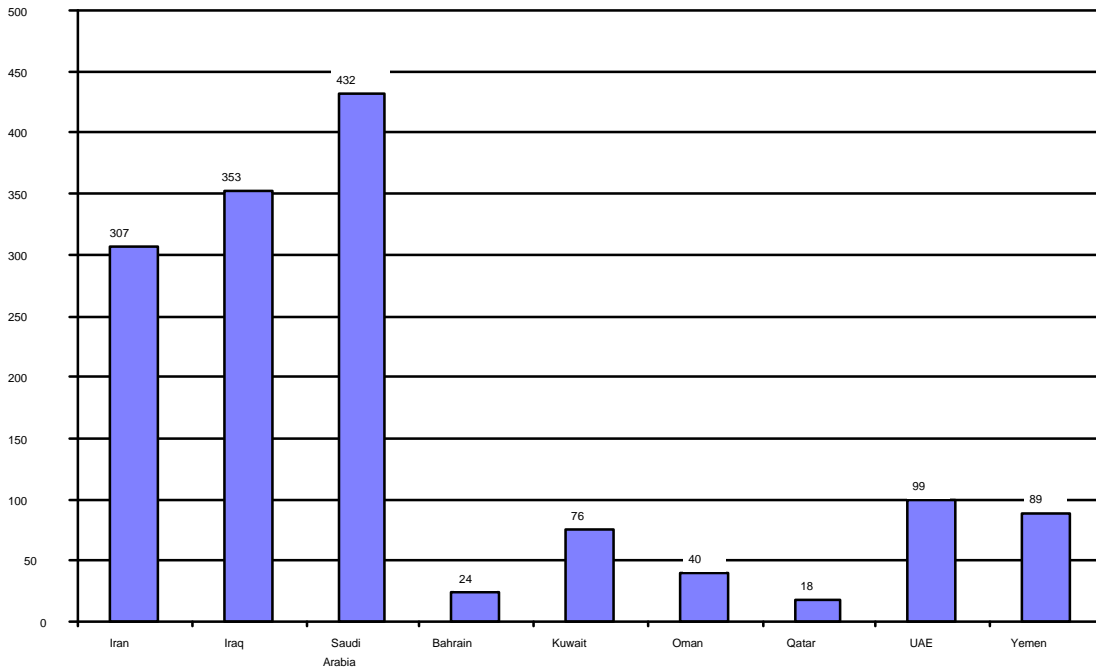


Source: Estimated by Anthony H. Cordesman using data from the IISS Military Balance.

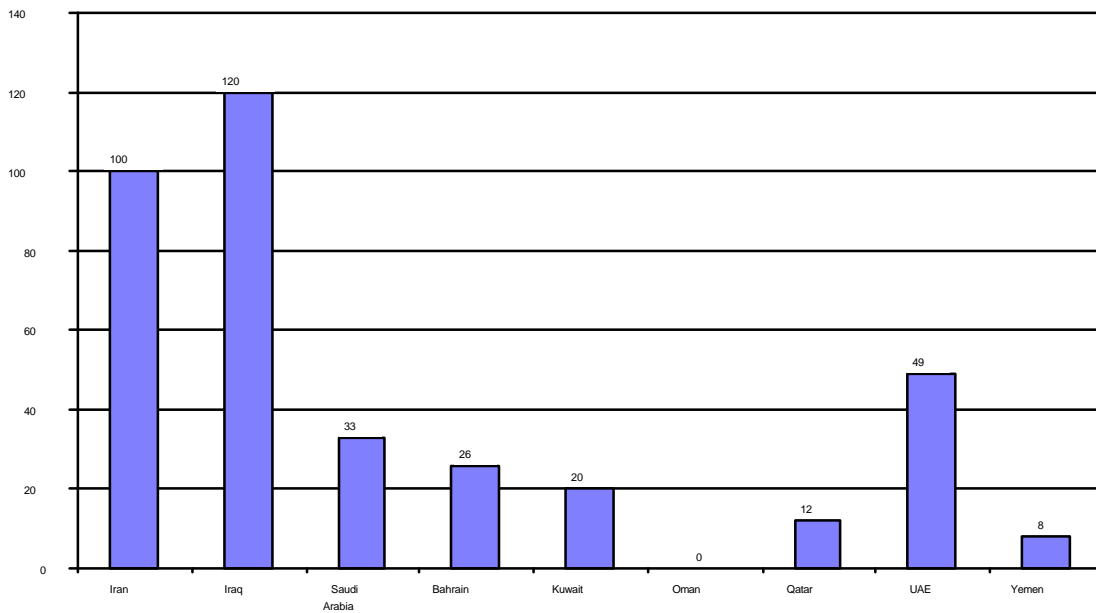
Chart 10.3

Total Gulf Holdings of Combat Aircraft – 2001

Fixed Wing Combat Aircraft



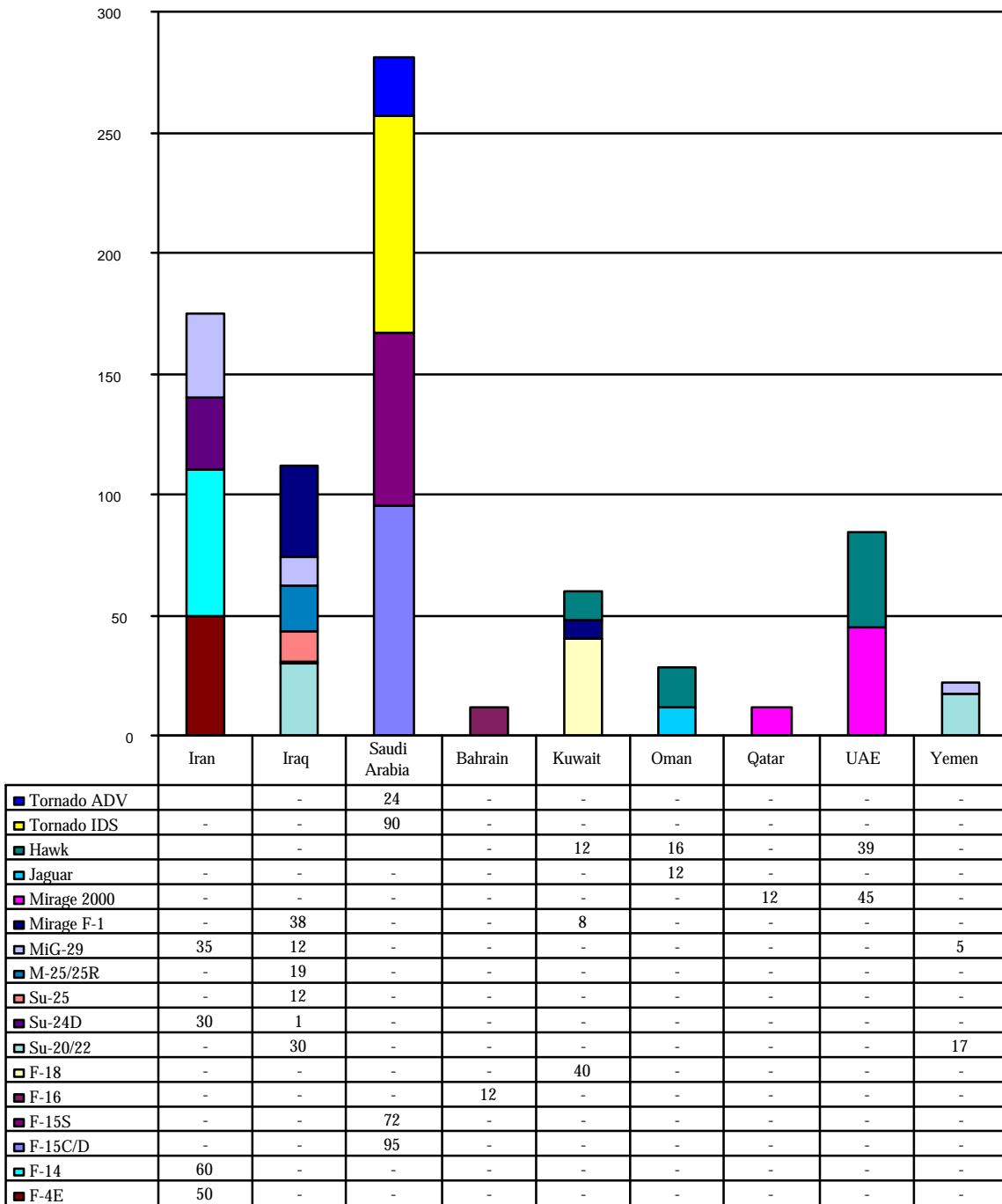
Armed and Attack Helicopters



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

Chart 10.4

Gulf High and Medium Quality Fixed Wing Fighter, Fighter Attack, Attack, Strike, and Multi-Role Combat Aircraft By Type - 2001



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

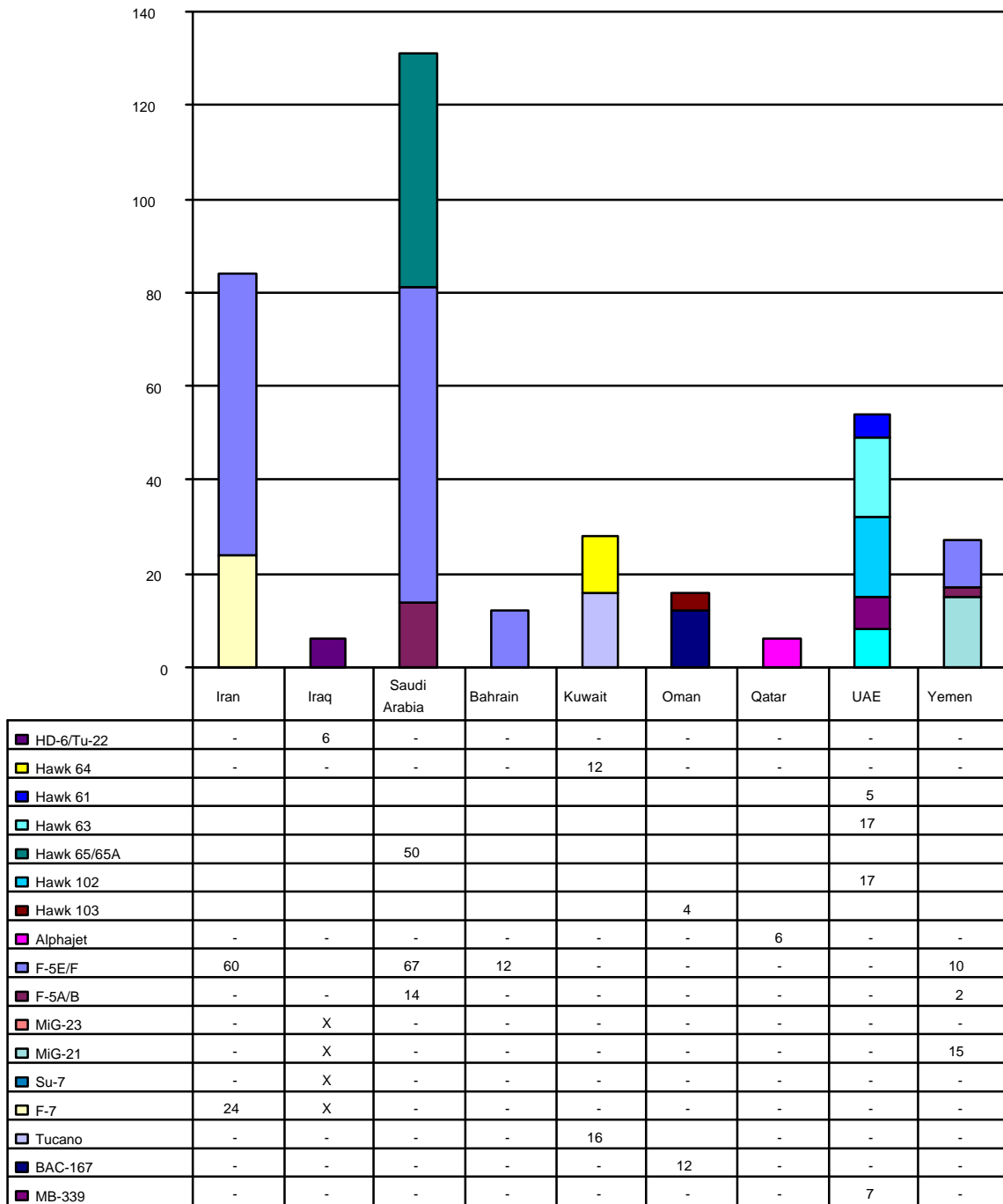
Table 10.1Advanced Combat Aircraft by Type in Gulf Forces in 2001

	<u>Number</u>	<u>Type</u>
<u>Bahrain:</u>	24	Total Fixed Wing Combat
	12	F-16C/D
<u>Iran:</u>	304	Total Fixed Wing Combat
	90	Modern Combat Aircraft
	30	Su-24D
	30	MiG-29
	60	F-14
<u>Iraq:</u>	353	Total Fixed Wing Combat
	81	Modern combat Aircraft
	30	Su-20
	1	Su-24D
	12	Su-25
	38	Mirage F-1EQ5/200
	12	MiG-29
	15	MiG-25
	4	MiG-25R
<u>Kuwait:</u>	76	Total Fixed Wing Combat
	48	Modern Combat Aircraft
	40	F/A-18C/D
	8	Mirage F1
<u>Oman:</u>	40	Total Fixed Wing Combat
	0	Modern Combat Aircraft
	(12)	Jaguar (SO) Mark 1, T-2
<u>Qatar:</u>	18	Total Fixed Wing Combat
	12	Mirage 2000-5 EDA/DDA
<u>Saudi Arabia:</u>	432	Total Fixed Wing Combat
	286	Modern Combat Aircraft
	90	Tornado IDS
	24	Tornado ADV
	95	F-15C/D
	72	F-15S
	5	E-3A
<u>UAE:</u>	99	Total Fixed Wing Combat
	45	Modern Combat Aircraft
	9	Mirage 2000E
	22	Mirage 2000EAD
	6	Mirage 2000DAD
	8	Mirage 2000RAD
	(72)	F-16C/D Block 60 on order
<u>Yemen</u>	49	Total Fixed Wing Combat (40 more in storage)
	23	Modern Combat Aircraft
	5	MiG-29
	17	Su20/22

Note: Older aircraft with inferior avionics are not included. Supersonic flight performance is not regarded as more than a marginal measure of combat performance. Adapted by Anthony H. Cordesman from the IJSS, Military Balance

Chart 10.5

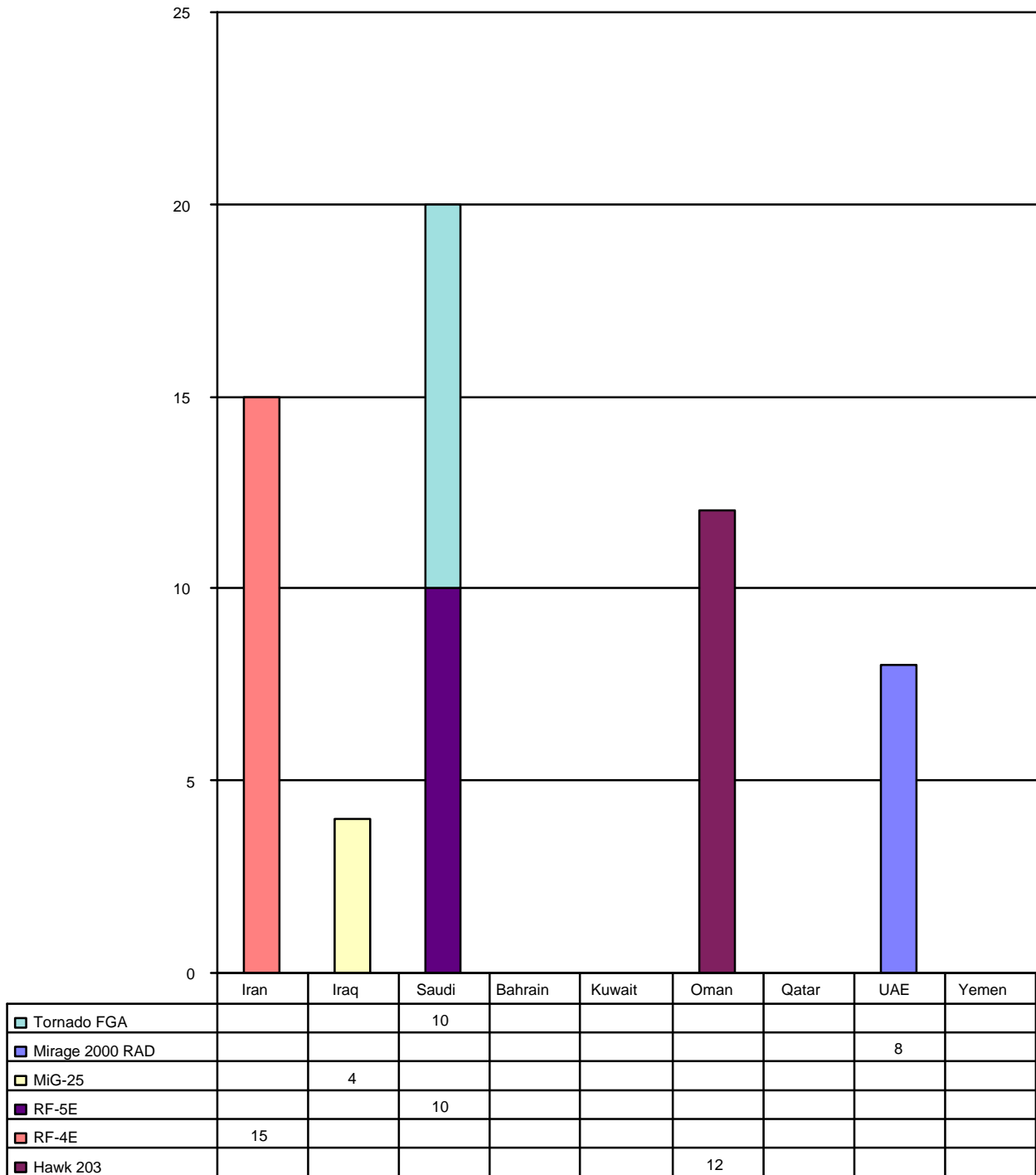
Gulf Low Quality Fixed Wing Fighter, Fighter Attack, Attack, Strike, and Multi-Role Combat Aircraft By Type - 2001



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

Chart 10.6

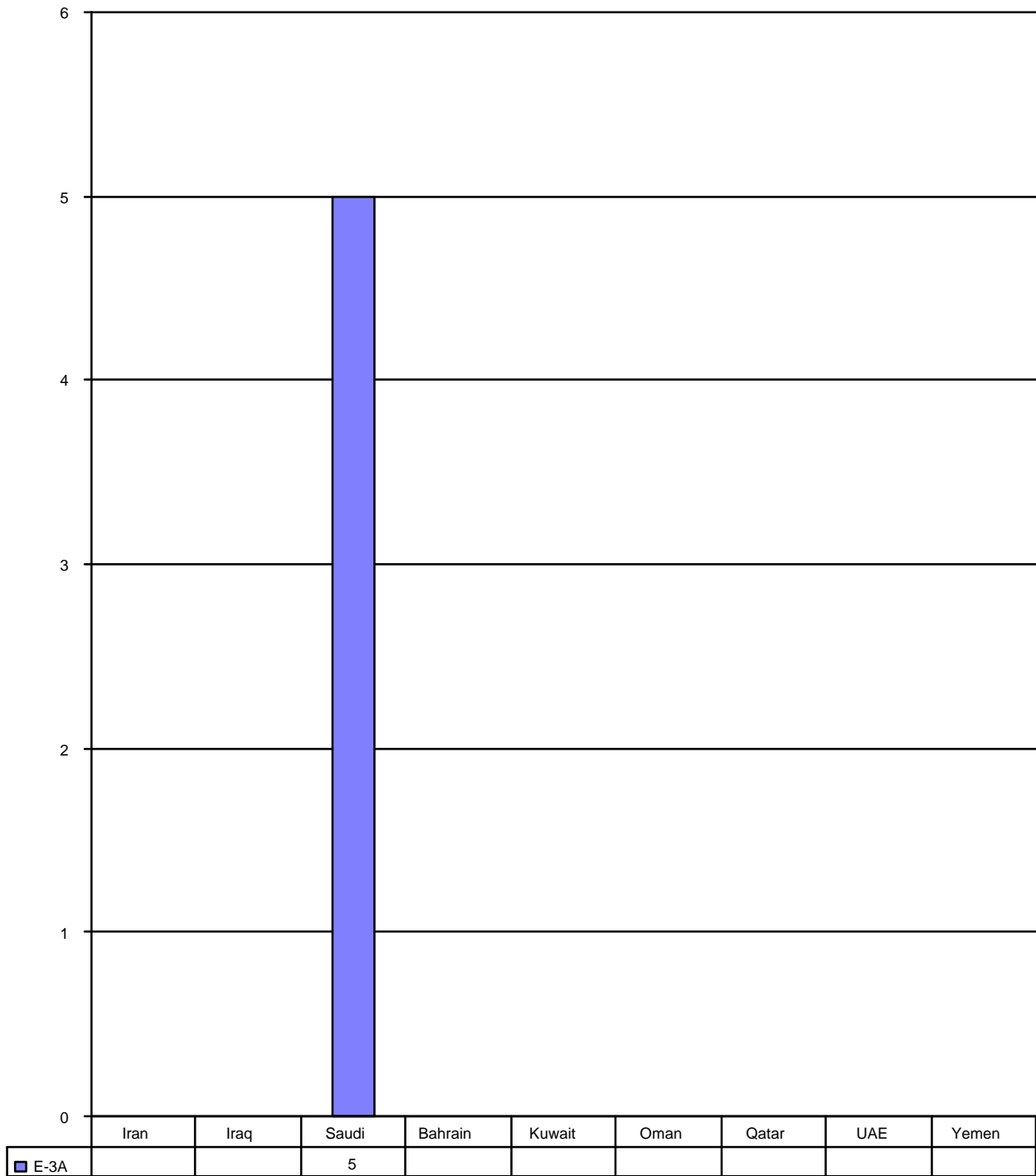
Gulf Reconnaissance Aircraft in 2001



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

Chart 10.7

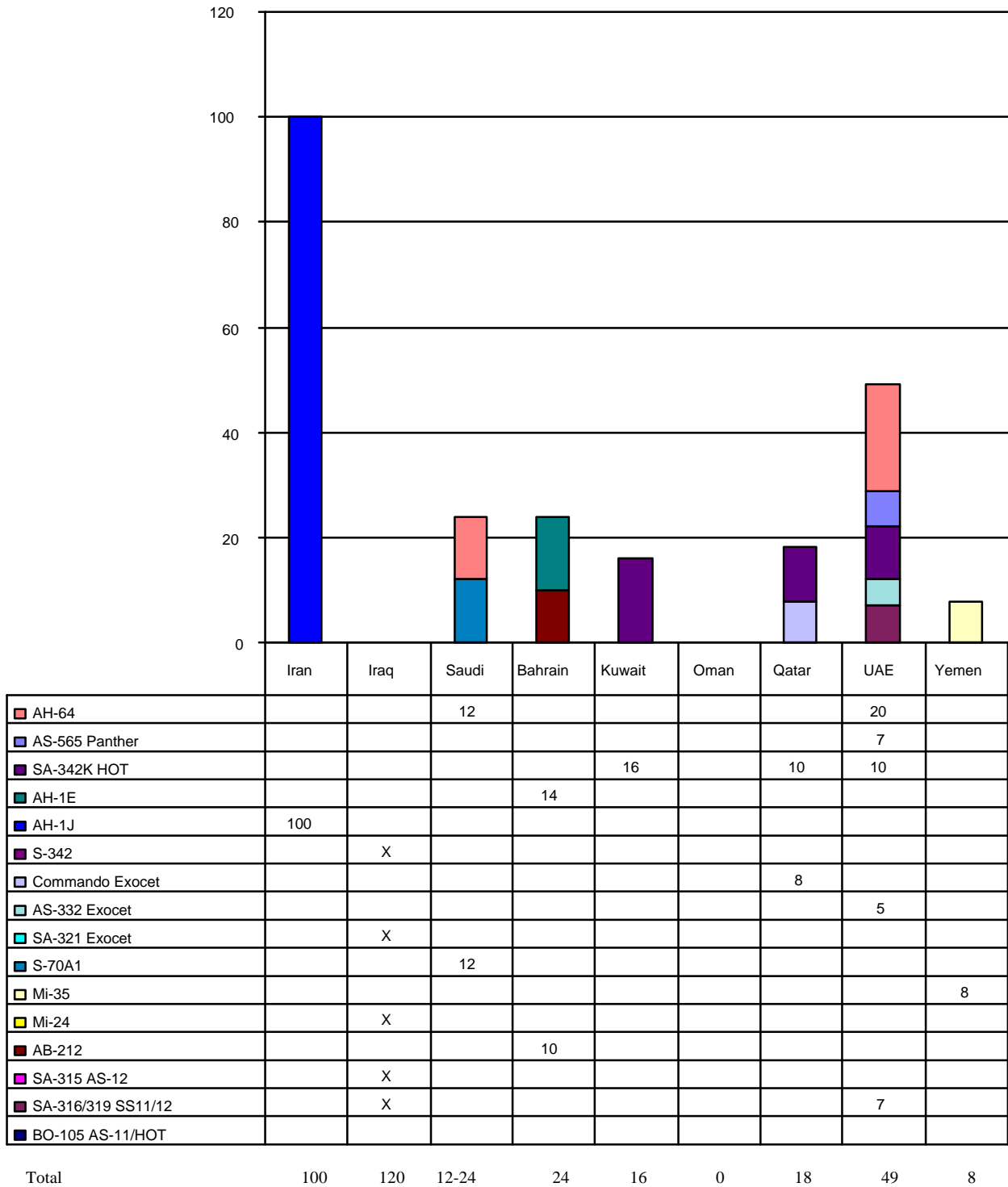
Sensor, AWACS, C⁴I, EW and Elint Aircraft in 2001



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

Chart 10.8

Gulf Attack Helicopters in 2001



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

Table 11.1Gulf Land-Based Air Defense Systems in 2001

<u>Country</u>	<u>Major SAM</u>	<u>Light SAM</u>	<u>AA Guns</u>
<u>Bahrain</u>	8 IHawk	40+ RBS-70 15 Stinger 7 Crotale	12 Oerlikon 35 mm 12 L/70 40 mm
<u>Iran</u>	16/100 I Hawk 3/10 SA-5 45 HQ-2J (SA-2) ? SA-2	SA-7 HN-5 5/30 Rapier FM-80 (Ch Crotale) 15 Tigercat SA-7 Stinger (?)	1,700 Guns ZU-23, ZSU-23-4, ZSU-57-2, KS-19 ZPU-2/4, M-1939, Type 55
<u>Iraq</u>	SA-2 SA-3 SA-6	Roland SA-7 SA-8 SA-9 SA-13 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
<u>Kuwait</u>	4/24 I Hawk 4/16 Patriot	6/12 Aspede 48 Starburst	6/2X35mm Oerlikon
<u>Oman</u>	None	Blowpipe 34 SA-7 <u>28 Javelin</u> 28 Rapier	10 GDF 35 mm 4 ZU-23-2 23 mm 12 L-60 40 mm
<u>Qatar</u>	None	Blowpipe <u>12 Stinger</u> 9 Roland Stinger, SA-7, Mistral	?
<u>Saudi Arabia</u>	16/128 I Hawk ? Patriot	Crotale Stinger <u>500 Redeye</u> 17/68 Shahine mobile 40 Crotale 73 Shahine static	50 AMX-30SA 30 mm 92 M-163 Vulcan 150 L-70 40 mm (in store)
<u>UAE</u>	5/30 I Hawk Bty.	20+ Blowpipe <u>Mistral</u> 12 Rapier 9 Crotale 13 RBS-70 100 Mistral	42 M-3VDA 20 mm SP 20 GCF-BM2 30 mm
<u>Yemen</u>	SA-2, SA3, SA-6	SA-7, SA-9, SA13, SA-14	52 M-167 20mm 20 M-163 Vulcan 20mm 100 ZSU-23-4 23 mm 150 M-1939 23 mm 120 S-60 37 mm KS-12 85 mm

Source: Adapted from the IISS, Military Balance, various years. Some data adjusted or estimated by the author.

