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The Asian Conventional Military Balance in 2006:

Overview of major Asian Powers

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Introduction

The rise of China as a major power has triggered a new debate over the military balance in Asia, but it is only one of the trends shaping regional military forces. Taiwan's faltering military development has helped destabilize the Taiwan Straits. Japan is reasserting its strategic role in the region, causing tension with both China and South Korea. North Korea's persistence in creating nuclear forces is changing the balance on the Korean Peninsula, as are cuts in US forces. The shift in US forces from Okinawa to Guam, and increased US reliance on long-range strike forces is also affecting the balance.

There are fewer signs of significant shifts in the balance in Southeast Asia. The major change in the threat has been the emergence of transnational threats from neo-Salafi Islamist extremists, and continuing internal ethnic, sectarian, and tribal tensions. The main concern is internal security and not the military balance.

In the case of South Asia, Indian and Pakistan continue to build-up their nuclear and missile forces, and India is seeking to expand its strategic reach in the Indian Ocean area. Kashmir remains a potential military fault line. Once again, however, the emergence of transnational threats from neo-Salafi Islamist extremists, and continuing internal ethnic, sectarian, and tribal tensions dominates the security problems in the region. Like the rest of Asia, internal security has become a dominant concern.

The following analysis of quantitative force strength and trends can only address some of these issues. It focuses on conventional and nuclear forces, military spending, and other quantifiable aspects of the military balance. As such, it can only touch on a few aspects of force quality, and cannot begin to address the problem of internal security. There is no way to portray the relative strength of ideology and religion, and counts of the manpower strength of non-state actors are virtually meaningless.

It is important, however, to look beyond debates over strategy and possible intentions and to consider those facts that can actually be measured. Far too often analysts pick key trends out of context, and exaggerate the overall presence or build-up of opposing military forces. Data on military spending are taken out of context, as are arms purchases that may introduce important new military technologies and capabilities but only have a limited impact on overall force modernization.

Accordingly, the tables and charts that follow are not intended to provide a comprehensive picture of military capability or effort. They are only intended to be a tool that provides perspective. It is also important to recognize that they do have significant uncertainties. The sources they are drawn from are unclassified, and have many gaps and contradictions. The authors have had to extrapolate in some cases, and use a mix of sources in others. The data and trends shown are almost certainly broadly correct, but there is no way to create such an analysis that is precise and certain.

Trends in Military Expenditures

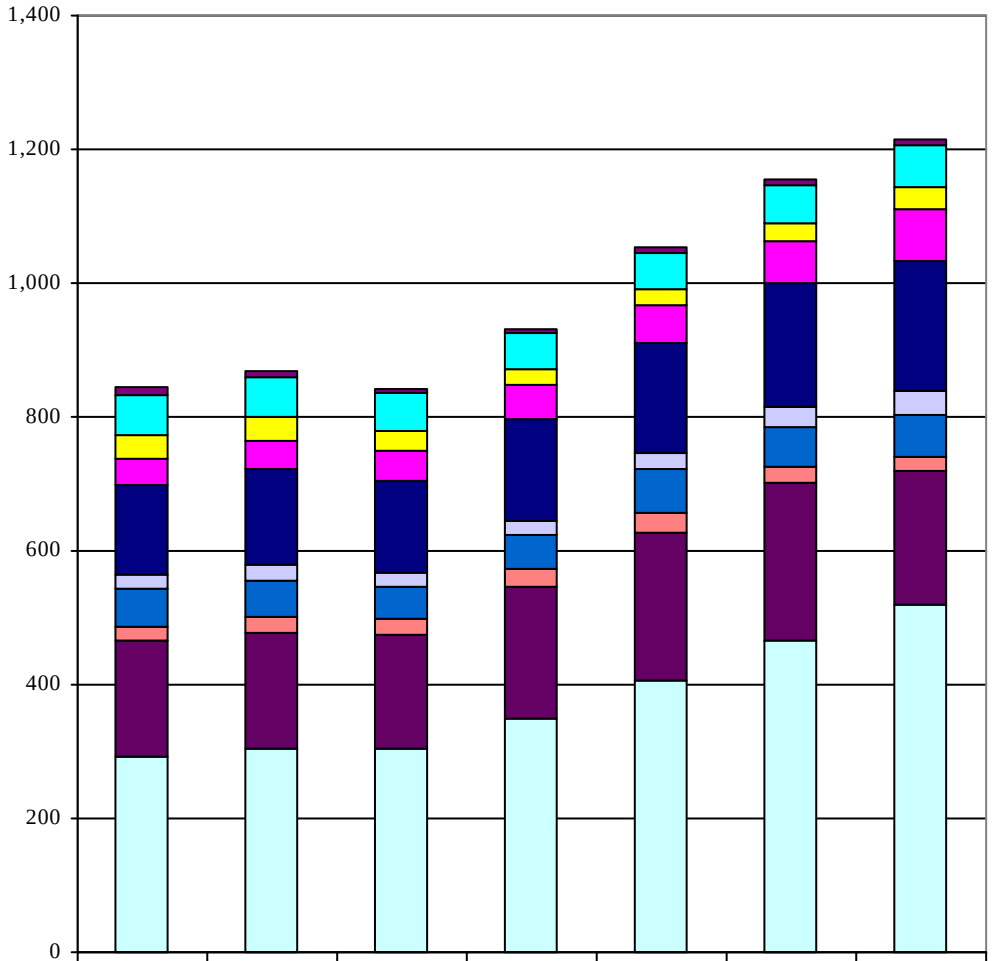
In theory, comparisons of military expenditures provide a basis for making comparisons of overall effort. In practice, countries report in such different ways, and pay such different costs for given types of forces that such comparisons are at best of broad value. The problem is further compounded in the case of state-dominated economies and largely conscript military forces. In both cases, the state does not pay anything approaching market prices, and the only way to develop comparability is to make a separate estimate of the comparable cost of a nation's forces in market terms.

- Figure 1 does show, however, that Asian and US military expenditures have dominated recent increases in military spending, and that China has dominated the increases in Asia.
- Figure 2 shows these trends are equally true when spending is measured in constant 2006 dollars, although the real increase in US and Chinese spending is much smaller.
- Figure 3 looks only at regional spending in Asia. Chinese spending again drives the overall regional increase, but Australia, India, Indonesia, Myanmar, North Korea, South Korea, and Vietnam all made major increases in military spending relative to their previous national spending during 1999-2005.
- Figure 4 shows the same data as Figure 3, but in constant 2006 dollars. Once again, the rate and scale of increases is significantly smaller than in current dollars.
- Figures 5 and 6 compare the spending trends of the major Asian powers in current and constant dollars. In both figures, China emerges are the dominant regional spending, vastly outpacing Japan. The real level of the Chinese increase could also be much higher. Many experts believe that an estimate of Chinese spending based on comparable cost would put annual Chinese spending at well over $100 billion by 2005.
- Figures 5 and 6 show that Taiwan has made no attempt to react to the increase in Chinese effort and has actually sharply reduced its real military spending. It has effectively forced the US to spend for Taiwan's defense.
- Figures 5 and 6 show that South Korea greatly outspends North Korea, but that North Korea has increased its military spending more quickly. North Korean expenditures are low, however, because state determination of prices and the ability to enforce very low manpower costs. Its expenditures would be significantly higher if measured in comparable prices.
- Figures 5 and 6 show that India outspent Pakistan by 4:1 in 1999, and that this disparity had increased to 5:1 by 2005.

List of Tables and Charts

Figure 1: World Military Expenditures: 1999-2005

(In $US Billions, current)

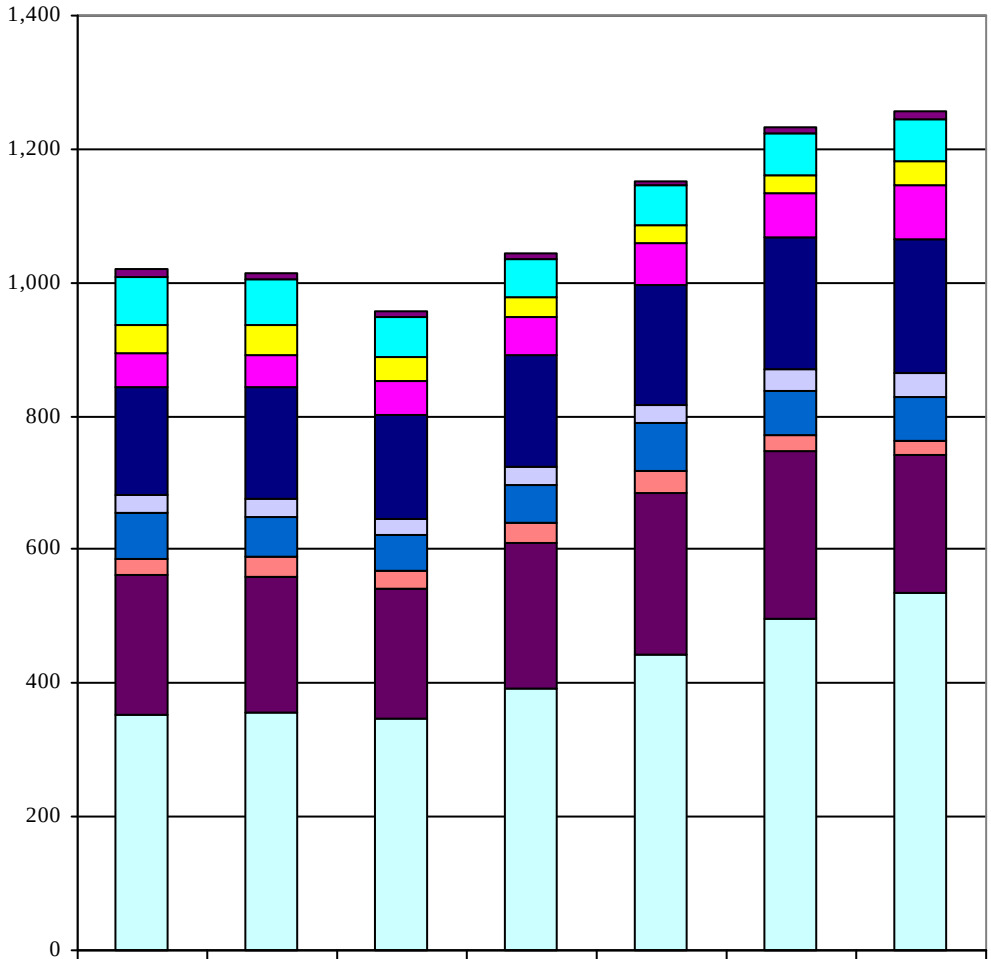


	1999	2000	2001	2002	2003	*2004	*2005
Sub-Saharan Africa	9.8	8.8	7.1	7.7	7.7	10.3	9.7
MENA	60.0	59.9	54.8	52.1	54.1	57.2	62.4
Carib/Lat America	35.3	35.9	30.5	25.3	25.1	25.6	32.4
**China	39.9	42.0	43.6	51.2	55.9	62.5	80.0
East Asia	135.2	143.2	137.5	150.1	164.4	184.8	192.7
Central/South Asia	21.0	22.9	22.5	22.0	24.4	29.3	35.2
***FSU-Russia	56.8	52.0	46.1	50.8	65.2	61.9	65.0
Non-NATO Europe	20.0	25.8	24.7	26.8	30.1	23.4	19.3
NATO Europe	173.3	173.0	169.3	197.4	221.1	235.0	201.5
US	292.1	304.1	305.5	348.6	404.9	466.0	518.1
Total NATO	473.8	477.1	474.8	545.9	626.0	712.4	730.5
Total Europe	193.3	198.8	194.0	224.2	251.3	258.4	220.7
World	812.0	825.7	798.1	880.8	997.2	1,094.8	1,147.2

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *2004 and 2005 data estimates are partly based on appropriated defense budgets for these years; **US experts' estimates; *** Data for Russia and China are based on PPP exchange rates.

Figure 2: World Military Expenditures: 1999-2005

(In $US Billions, 2006 dollars)

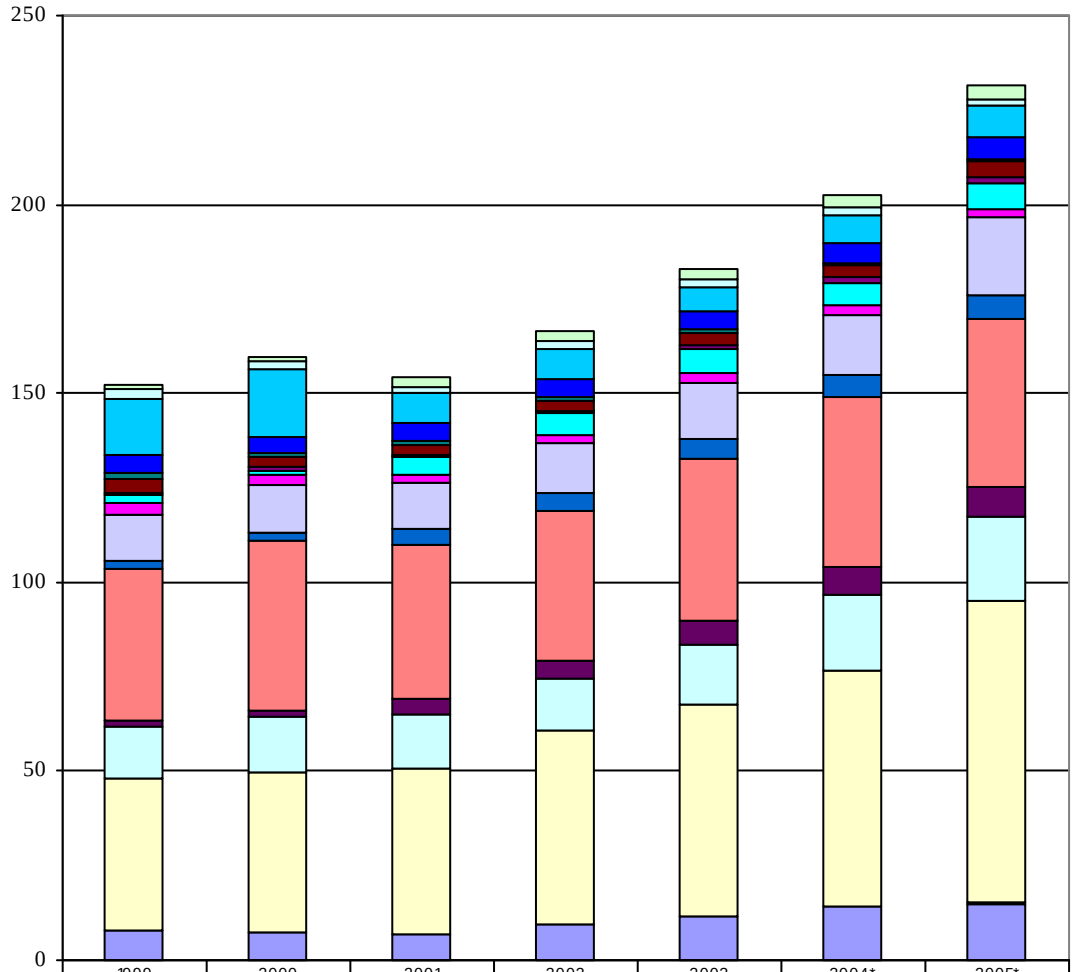


	1999	2000	2001	2002	2003	*2004	*2005
Sub-Saharan Africa	11.9	10.3	8.1	8.6	8.4	11.0	10.0
MENA	72.6	70.1	62.4	58.4	59.3	61.0	64.4
Carib/Lat America	42.7	42.0	34.7	28.3	27.5	27.3	33.4
**China	48.3	49.2	49.6	57.4	61.2	66.7	82.5
East Asia	163.5	167.6	156.4	168.1	180.0	197.1	198.8
Central/South Asia	25.4	26.8	25.6	24.6	26.7	31.3	36.3
***FSU-Russia	68.7	60.9	52.5	56.9	71.4	66.0	67.1
Non-NATO Europe	24.2	30.2	28.1	30.0	33.0	25.0	19.9
NATO Europe	209.6	202.4	192.6	221.1	242.1	250.7	207.9
US	353.3	355.8	347.6	390.5	443.1	497.1	534.6
Total NATO	573.1	558.3	540.2	611.9	685.5	759.6	753.7
Total Europe	233.8	233.0	220.7	251.1	275.2	275.6	227.7
World	982.1	966.2	908.7	986.3	1,092.0	1,167.8	1,183.6

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *2004 and 2005 data estimates are partly based on appropriated defense budgets for these years: **US experts' estimates; *** Data for Russia and China are based on PPP exchange rates. Inflation rates based on data from the U.S. Department of Labor, Bureau of Labor Statistics.

Figure 3: Asian Military Expenditures: 1999-2005

(In $US Billions, current)

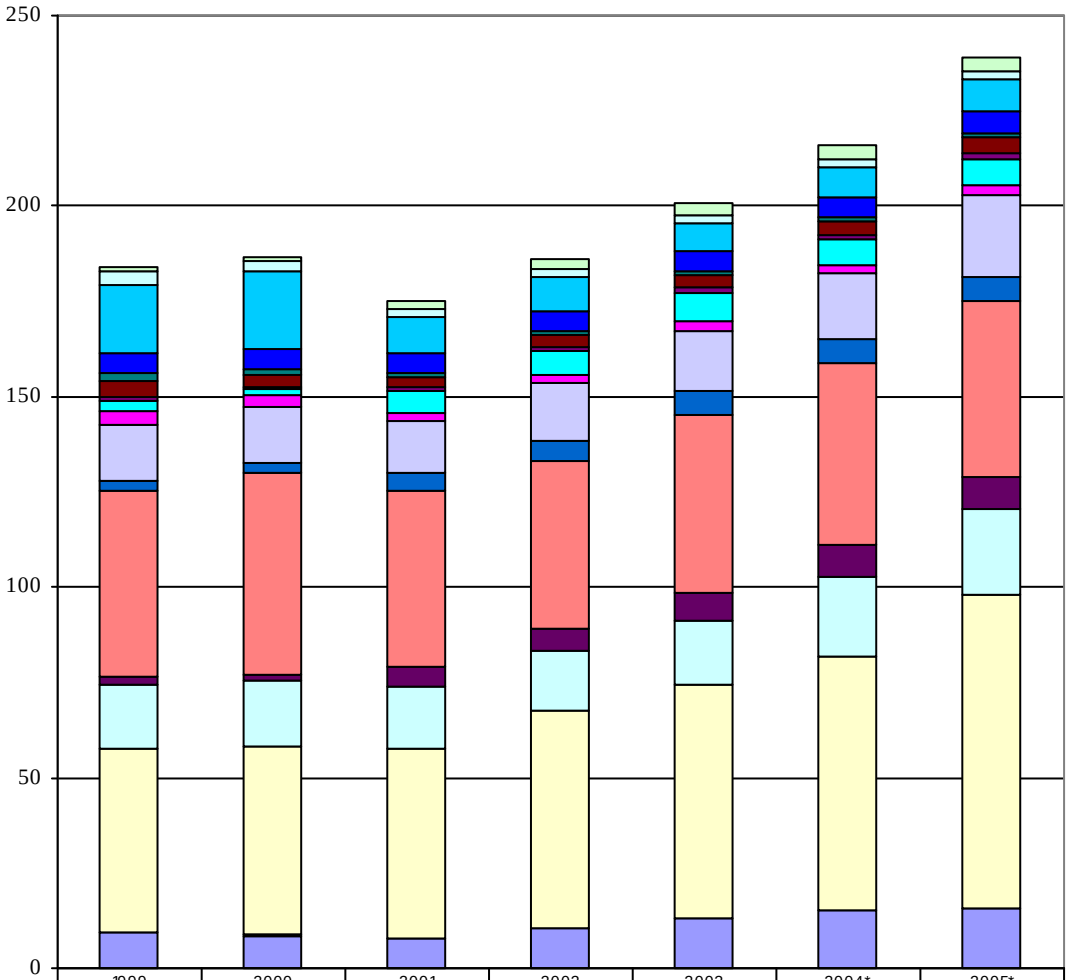


	1999	2000	2001	2002	2003	2004*	2005*
Vietnam	0.89	0.931	2.22	2.64	2.901	3.17	3.47
Thailand	2.638	2.419	1.739	1.832	1.931	1.93	1.95
Taiwan	14.964	17.597	8.223	7.911	6.632	7.51	8.32
Singapore	4.696	4.316	4.369	4.581	4.741	5.04	5.57
Philippines	1.627	1.357	1.155	1.11	0.783	0.824	0.844
Pakistan	3.523	2.522	2.484	2.687	3.129	3.33	4
New Zealand	0.824	0.804	0.678	0.759	1.171	1.12	1.42
Myanmar	1.995	1.02	4.941	5.623	6.62	6.23	6.85
Mongolia	0.019	0.023	0.023	0.025	0.015	0.017	0.017
Malaysia	3.158	2.579	1.921	2.184	2.412	2.25	2.47
Laos	0.022	0.02	0.12	0.011	0.038	0.01	0.01
South Korea	12.088	12.749	11.919	13.237	14.623	16.3	20.7
North Korea	2.1	2.091	4.5	5	5.5	5.5	6
Japan	40.383	45.316	40.496	39.2	42.835	45.1	44.7
Indonesia	1.502	1.493	4.36	5.187	6.443	7.55	8
India	13.895	14.765	14.368	13.749	15.508	19.6	22
China**	39.889	42	43.551	51.159	55.948	62.5	80
Cambodia	0.176	0.195	0.071	0.065	0.068	0.069	0.073
Australia	7.775	7.384	7.028	9.299	11.758	14.3	15

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *2004 and 2005 data estimates are partly based on appropriated defense budgets for these years; **Estimates by US experts.

Figure 4: Asian Military Expenditures: 1999-2005

(In $US Billions, 2006 dollars)

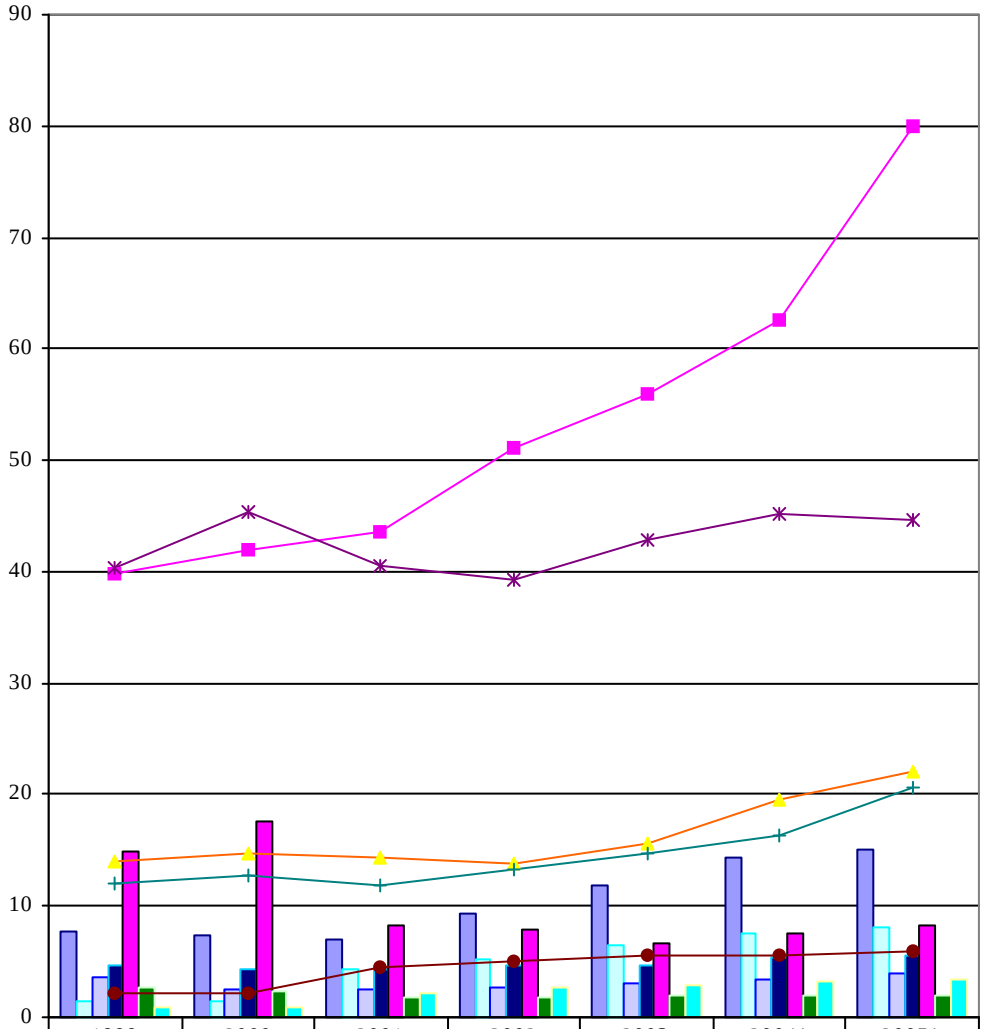


	1999	2000	2001	2002	2003	2004*	2005*
Vietnam	1.08	1.09	2.53	2.96	3.18	3.38	3.58
Thailand	3.19	2.83	1.98	2.05	2.11	2.06	2.01
Taiwan	18.09	20.59	9.35	8.86	7.26	8.01	8.58
Singapore	5.41	5.06	4.97	5.13	5.19	5.38	5.75
Philippines	1.97	1.59	1.32	1.24	0.85	0.87	0.87
Pakistan	4.26	2.95	2.82	3.01	3.43	3.55	4.13
New Zealand	0.99	0.94	0.77	0.85	1.28	1.19	1.47
Myanmar	2.42	1.19	5.62	6.29	7.25	6.65	7.07
Mongolia	0.019	0.023	0.023	0.025	0.015	0.017	0.017
Malaysia	3.82	3.02	2.18	2.44	2.64	2.4	2.55
Laos	0.022	0.02	0.012	0.011	0.038	0.01	0.01
South Korea	14.62	14.92	13.56	14.83	16.01	17.39	21.36
North Korea	2.54	2.46	5.12	5.6	6.02	5.87	6.19
Japan	48.84	53.03	46.08	43.91	46.91	48.11	46.12
Indonesia	1.81	1.77	4.96	5.81	7.05	8.05	8.25
India	16.8	17.28	16.35	15.4	16.88	20.91	22.7
China**	48.25	49.15	49.55	57.3	61.27	66.67	82.54
Cambodia	0.22	0.23	0.08	0.07	0.07	0.07	0.075
Australia	9.41	8.64	8	10.42	13.17	15.25	15.48

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *2004 and 2005 data estimates are partly based on appropriated defense budgets for these years; **Estimates by US experts. Inflation rates based on data from the U.S. Department of Labor, Bureau of Labor Statistics.

Figure 5: Military Expenditures by the Major Asian Powers: 1999-2005

(In $US Billions, current)

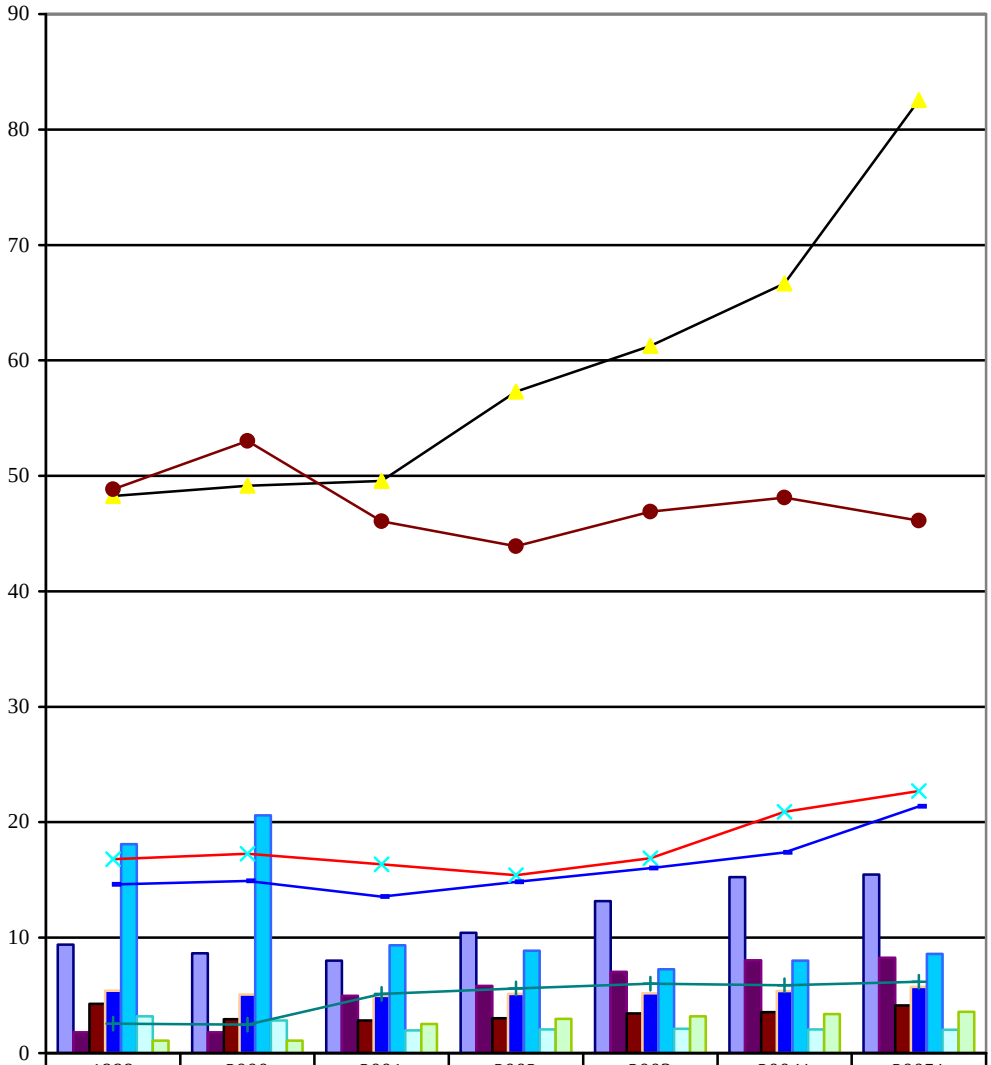


	1999	2000	2001	2002	2003	2004*	2005*
Australia	7.775	7.384	7.028	9.299	11.758	14.3	15
Indonesia	1.502	1.493	4.36	5.187	6.443	7.55	8
Pakistan	3.523	2.522	2.484	2.687	3.129	3.33	4
Singapore	4.696	4.316	4.369	4.581	4.741	5.4	5.57
Taiwan	14.964	17.597	8.223	7.911	6.632	7.51	8.32
Thailand	2.638	2.419	1.739	1.832	1.931	1.93	1.95
Vietnam	0.89	0.931	2.22	2.64	2.901	3.17	3.47
China**	39.889	42	43.551	51.159	55.948	62.5	80
India	13.895	14.765	14.368	13.749	15.508	19.6	22
Japan	40.383	45.316	40.496	39.2	42.835	45.1	44.7
North Korea	2.1	2.091	4.5	5	5.5	5.5	6
South Korea	12.088	12.749	11.919	13.237	14.623	16.3	20.7

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *2004 and 2005 data estimates are partly based on appropriated defense budgets for these years; ** Estimates for 2004 and 2005 by US experts.

Figure 6: Military Expenditures by the Major Asian Powers: 1999-2005

(In $US Billions, 2006 dollars)



	1999	2000	2001	2002	2003	2004*	2005*
Australia	9.41	8.64	8	10.42	13.17	15.25	15.48
Indonesia	1.81	1.79	4.96	5.81	7.05	8.05	8.25
Pakistan	4.26	2.95	2.82	3.01	3.43	3.55	4.13
Singapore	5.41	5.06	4.97	5.13	5.19	5.38	5.75
Taiwan	18.09	20.59	9.35	8.86	7.26	8.01	8.58
Thailand	3.19	2.83	1.98	2.05	2.11	2.06	2.01
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China**	48.25	49.15	49.55	57.3	61.27	66.67	82.54
India	16.8	17.28	16.35	15.4	16.88	20.91	22.7
Japan	48.84	53.03	46.08	43.91	46.91	48.11	46.12
North Korea	2.54	2.46	5.12	5.6	6.02	5.87	6.19
South Korea	14.62	14.92	13.56	14.83	16.01	17.39	21.36

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, , London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *2004 and 2005 data estimates are partly based on appropriated defense budgets for these years; **Estimates by US experts. Inflation rates based on data from the U.S. Department of Labor, Bureau of Labor Statistics.

The Overall Regional Military Balance

The following figures provide a summary comparison of the forces of the major Asian powers, organized in ways that show both comparative force size on a regional basis, and the comparative strength of the states most likely to go to war.

It is important to understand that such numbers do not portray capability against internal security threats or transnational threats like Islamist extremism. In many cases, the key threat is not one that either conventional or nuclear military forces can deal with. Moreover, even if it were possible to make useful quantified comparisons of internal security forces, intelligence forces, and counterterrorism forces, they would not provide a clear picture of the strength of any nation's internal security. Political and social reform, and economic growth and modernization, are often far more important. So is the ability to create meaningful political, religious, cultural, and economic bridges across ethnic and sectarian divisions.

Furthermore, Asian nations differ sharply in the extent to which they have modernized and reorganized their forces to deal with radical changes in military tactics, technology, and training; and in their ability to deploy and sustain given portions of their total forces in actual combat. Many of the countries involved are unlikely to ever fight each other, and could only deploy a small portion of the total forces shown if they tried to do so.

Force Quantity versus Force Quality: The Advantages of New Tactics, Technology, and Training in Conventional Warfare

It may be decades before it is clear just how far changes in technology and tactics are changing the nature of warfare, or whether such changes will slow to the point where they bring any stability. Recent conflicts like the Gulf, Afghan, and Iraq Wars have shown, however, that several areas of military innovation have created a virtual "revolution in military affairs" and greatly enhanced the value of force quality over force quantity in conventional warfighting for nations like the US that transform their forces to use them:

- *Unity of command:* The level of unity of command, and "fusion," achieved during the Gulf War was scarcely perfect, but it was far more effective than that possible in most states. Advanced powers have improved its unity of command and ability to conduct joint operations.
- *Jointness, Combined operations, combined arms, and the "AirLand Battle":* Advanced powers can use technology to train and integrate in ways that allow far more effective approaches to jointness, combined arms and combined operations. They have developed tactics that closely integrated air and land operations.
- *Emphasis on maneuver:* The US had firepower and attrition warfare until the end of the Vietnam War. In the years that followed, it converted its force structure to place an equal emphasis on maneuver and deception. This emphasis has been adopted by Britain and France and other advanced states.
- *Emphasis on deception and strategic/tactical innovation:* No country has a monopoly on the use of deception and strategic/tactical innovation. High technology powers with advanced battle management and information systems will, however, be able to penetrate the enemy's decision-making system and react so quickly that the opponent cannot compete.
- *"24 hour war" - Superior night, all-weather, and beyond-visual-range warfare:* "Visibility" is always relative in combat. There is no such thing as a perfect night vision or all-weather combat

system, or way of acquiring perfect information at long-ranges. Advanced technology air and land forces, however, have far better training and technology for such combat than they ever had in the past, and are designed to wage warfare continuously at night and in poor weather. Equally important, they are far more capable of taking advantage of the margin of extra range and tactical information provided by superior technology.

- *Near Real-Time Integration of C^4I/BM/T/BDA:* New C^4I/BM/T/BDA organization, technology, and software systems make it possible to integrate various aspects of command, control, communications, computers, and intelligence (C^4I); battle management (BM); targeting (T); and battle damage assessment (BDA) to achieve a near real time integration and decision making-execution cycle.

- *A new tempo of operations:* Superiority in virtually every aspect of targeting, intelligence gathering and dissemination, integration of combined arms, multi-service forces, and night and all-weather warfare make it possible to achieve both a new tempo of operations and one far superior to that of the enemy.

- *A new tempo of sustainability:* Advanced forces will have maintainability, reliability, reparability, and the speed and overall mobility of logistic, service support, and combat support force activity that broadly match their maneuver and firepower capabilities. The benefits of these new capabilities are already reflected in such critical areas as the extraordinarily high operational availability and sortie rates of Western combat aircraft, and the ability to support the movement of heliborne and armored forces.

- *Rapidly moving, armed, computerized supply and logistics:* Rather than steadily occupy and secure rear areas, and create large logistic and rear area supply forces, focus on creating computerized logistic systems capable of tracing the location of supplies and the needs of forward combat units. Send supplies and service support units forward to meet demand on a near real-time basis. Send supply, logistics, maintenance, and recovery units forward to meet demand using air power and long-range firepower to secure the lines of communication and flanks of land forces. Arm and train logistic and service support units to defend themselves against insurgents and light attacking forces. Ensure that armor, rotary wing, and fixed wing combat units can move forward as quickly as possible.

- *Beyond-visual-range air combat, air defense suppression, air base attacks, and airborne C^4I/BM:* The Coalition in the Gulf had a decisive advantage in air combat training, beyond-visual-range air combat capability, anti-radiation missiles, electronic warfare, air base and shelter and kill capability, stealth and unmanned long-range strike systems, IFF and air control capability, and airborne C^4I/BM systems like the E-3 and ABCCC. These advantages allowed the Coalition to win early and decisive air supremacy in the Gulf and Kosovo conflicts, and paralyze the Iraqi Air Force in the Iraq War. Advanced forces will steadily improve the individual capability of these systems and their integration into “net-centric” warfare.

- *Focused and effective interdiction bombing*: Advanced forces organize effectively to use deep strike capabilities to carry out a rapid and effective pattern of focus strategic bombing where planning is sufficiently well coupled to intelligence and meaningful strategic objectives so that such strikes achieve the major military objectives that the planner sets. At the same time, targeting, force allocation, and precision kill capabilities have advanced to the point where interdiction bombing and strikes are far more lethal and strategically useful than in previous conflicts.

- *Expansion of the battle field: "Deep Strike":* As part of its effort to offset the Warsaw Pact's numerical superiority, US tactics and technology emphasized using AirLand battle capabilities to extend the battlefield far beyond the immediate forward “edge” of the battle area (FEBA) using advanced near-real time targeting systems, precision weapons, and area munitions. The UN Coalition exploited the resulting mix of targeting capability, improved air strike capabilities, and land force capabilities in ways during the Gulf War that played an important role in degrading Iraqi ground forces during the air phase of the war, and which helped the Coalition break through

Iraqi defenses and exploit the breakthrough. In Kosovo, the US and NATO began to employ more advanced "deep strike" targeting technologies and precision strike systems. These capabilities made striking further advances in the Iraq War, and far more advanced systems are in development.

- *Technological superiority in many critical areas of weaponry:* The West and some moderate regional states have a critical “edge” in key weapons like tanks, other armored fighting vehicles, artillery systems, long-range strike systems, attack aircraft, air defense aircraft, surface-to-air missiles, space, attack helicopters, naval systems, sensors, battle management, and a host of other areas. This superiority goes far beyond the technical "edge" revealed by "weapon on weapon" comparisons. Coalition forces exploited technology in "systems" that integrated mixes of different weapons into other aspects of force capability and into the overall force structure.

- *Integration of precision-guided weapons into tactics and force structures:* Advanced forces exploit a technical “edge” in the ability to use precision-guided weapons coupled to far more realistic training in using such weapons, and the ability to link their employment to far superior reconnaissance and targeting capability.

- *Realistic combat training and use of technology and simulation:* During the Gulf and Iraq Wars, the US and Britain took advantage of training methods based on realistic combined arms and AirLand training, large-scale training, and adversary training. These efforts proved far superior to previous methods and were coupled to a far more realistic and demanding system for ensuring the readiness of the forces involved. They show the value of kinds of training that allow forces to rapidly adapt to the special and changing conditions of war.

- *Emphasis on forward leadership and delegation:* Technology, tactics, and training all support aggressive and innovative leadership.

- *Heavy reliance on NCOs and highly skilled enlisted personnel:* Advanced forces place heavy reliance on the technical skills, leadership quality, and initiative of non-commissioned officers (NCOs) and experienced enlisted personnel.

- *High degree of overall readiness:* Military readiness is a difficult term to define since it involves so many aspects of force capability. RMA forces, however, will have more realistic standards for measuring readiness and ensuring proper reporting, and adequate funding over a sustained period of time.

The Vulnerabilities of Less Advanced Powers

Put differently, nations that make such changes are able to exploit weaknesses in the conventional warfighting capabilities of less advanced powers in ways the military forces of such powers have little near-term hope of countering. Regardless of the numbers shown in the following Figures, the countries that fail to reform have the following vulnerabilities:

- *Authoritarianism and over-centralization of the effective command structure:* The high command of many countries is dependent on compartmentalized, over-centralized C^4I/BM systems that do not support high tempo warfare, combined arms, or combined operations and lack tactical and technical sophistication. Many forces or force elements report through a separate chain of command. C^4I/BM systems often are structured to separate the activity of regular forces from elite, regime security, and ideological forces. Systems often ensure major sectors and corps commanders report to the political leadership, and separations occur within the branches of a given service. Intelligence is compartmentalized and poorly disseminated. Air force command systems are small, unit oriented and unsuited for large-scale force management. Coordination of land-based air defense and strike systems is poorly integrated, vulnerable, and/or limited in volume handing capability. Combined operations and combined arms coordination are poor, and command interference at the political level is common.

- *Lack of strategic assessment capability:* Many nations lack sufficient understanding of Western war fighting capabilities to understand the impact of the revolution in military affairs, the role of high technology systems, and the impact of the new tempo of war. Other countries have important gaps in their assessment capabilities reflecting national traditions or prejudices.

- *Major Weaknesses in battle management, command, control, communications, intelligence, targeting, and battle damage assessment:* No Middle Eastern country except Israel has meaningful access to space-based systems, or advanced theater reconnaissance and intelligence systems unless data are provided by states outside the region. Most lack sophisticated reconnaissance, intelligence, and targeting assets at the national level or in their individual military services. Beyond-visual-range imagery and targeting is restricted to largely vulnerable and easily detectable reconnaissance aircraft or low performance UAVs. Many rely on photo data for imagery, and have cumbersome download and analysis cycles in interpreting intelligence. Many have exploitable vulnerabilities to information warfare. Most are limited in the sophistication of their electronic warfare, SIGINT, and COMINT systems. Their communications security is little better, or worse, than commercial communications security. They have severe communications interconnectivity, volume handling, and dissemination problems. Additionally, they cannot provide the software and connectivity necessary to fully exploit even commercial or ordinary military systems. They lack the C^4I/BM capability to manage complex deep strikes, complex large-scale armor and artillery operations, effective electronic intelligence, and rapid cycles of reaction in decision-making.

- *Lack of cohesive force quality:* Most countries' forces have major land combat units and squadrons with very different levels of proficiency. Political, historical, and equipment supply factors often mean that most units have much lower levels of real-world combat effectiveness than the best units. Further, imbalances in combat support, service support, and logistic support create significant additional imbalances in sustainability and operational effectiveness. Many states add to these problems, as well as lack of force cohesion, by creating politicized or ideological divisions within their forces.

- *Shallow offensive battlefields:* Most states face severe limits in extending the depth of the battlefield because they lack the survivable platforms and sensors, communications, and data processing to do so. These problems are particularly severe in wars of maneuver, in wars involving the extensive use of strike aircraft, and in battles where a growing strain is placed on force cohesion.

- *Manpower quality:* Many states rely on the mass use of poorly trained conscripts. They fail to provide adequate status, pay, training, and career management for NCOs and technicians. Many forces fail to provide professional career development for officers and joint and combined arms training. Promotion often occurs for political reasons or out of nepotism and favoritism.

- *Slow tempo of operations:* Most military forces have not fought a high-intensity air or armored battle. They are at best capable of medium tempo operations, and their pace of operations is often dependent on the survival of some critical mix of facilities or capabilities.

- *Lack of Sustainability, Recovery, and Repair:* These initial problems in the tempo of operations are often exacerbated by a failure to provide for sustained air operations and high sortie rates, long-range sustained maneuver, and battlefield/combat unit recovery and repair. Most forces are heavily dependent on re-supply to deal with combat attrition whereas Western forces can use field recovery, maintenance, and repair.

- *Inability to prevent air superiority:* Many states have far greater air defense capability on paper than they do in practice. Most have not fought in any kind of meaningful air action in the last decade, and many have never fought any significant air action in their history. C^4I/BM problems are critical in this near real-time environment. Most countries lack sophisticated air combat and land-based air defense simulation and training systems, and do not conduct effective aggressor and large-scale operations training. Efforts to transfer technology, organization, and training methods

from other nations on a patchwork basis often leaves critical gaps in national capability, even where other capabilities are effective.

- *Problems in air-to-air combat:* Air combat training levels are often low and the training unrealistic. Pilot and other crew training standards are insufficient, or initial training is not followed up with sustained training. There is little effective aggressor training. AWACS and ABCCC capabilities are lacking. EW capabilities are modified commercial grade capabilities. Most aircraft lack effective air battle management systems, and have limited beyond-visual-range and look down shoot down capability. Most air forces supplied primarily by Russia or Eastern European states depend heavily on obsolete ground-controlled vectoring for intercepts. Key radar and control centers are static and vulnerable to corridor blasting.

- *Problems in land-based air defense:* Many states lack anything approaching an integrated land-based air defense system, and rely on outdated or obsolete radars, missile units, and other equipment. Other states must borrow or adapt air defense battle management capabilities from supplier states, and have limited independent capability for systems integration — particularly at the software level. They lack the mix of heavy surface-to-air missile systems to cover broad areas, or must rely on obsolete systems that can be killed, countered by EW, and/or bypassed. Most Middle Eastern short-range air defense systems do not protect against attacks with stand-off precision weapons or using stealth.

- *Lack of effective survivable long-range strike systems:* Many nations have the capability to launch long-range effective air and missile strikes, but have severe operational problems in using them. Refueling capabilities do not exist or are in such small numbers as to be highly vulnerable. Long-range targeting and battle damage assessment capabilities are lacking. Training is limited and unrealistic in terms of penetrating effective air defenses. Platforms are export systems without the full range of supplier avionics or missile warheads. Assets are not survivable, or lose much of their effective strike capability once dispersed.

- *Combined (Joint) Operations, Combined Arms, and Interoperability:* Many states fail to emphasize the key advances in the integration of warfighting capabilities from the last decade. They have not developed combined arms capabilities within each service, much less inter-service joint warfare capabilities. When they do emphasize combined arms and joint operations, they usually leave serious gaps in some aspects of national warfighting capability. There is little or no emphasis on interoperability with neighboring powers.

- *Rough/Special terrain warfare:* Although many forces have armed helicopters, large numbers of tracked vehicles, and can create effective rough terrain defenses if given time, they have problems in conducting high tempo operations. Many tend to be road-bound for critical support and combined arms functions, and lack training for long-range, high-intensity engagements in rough terrain. Many are not properly trained to exploit the potential advantages of their own region. They are either garrison forces, or forces that rely on relatively static operations in pre-determined field positions. These problems are often compounded by a lack of combat engineering and barrier crossing equipment.

- *Night and All-Weather Warfare:* Most forces lack adequate equipment for night and poor weather warfare, and particularly for long-range direct and indirect fire engagement, and cohesive, sustainable, large-scale maneuver.

- *Armored operations:* Most countries have sharply different levels of armored warfare proficiency within their armored and mechanized forces. Few units have advanced training and simulation facilities. Most land forces have interoperability and standardization problems within their force structure — particularly in the case of other armored fighting vehicles where they often deploy a very wide range of types. Many are very tank heavy, without the mix of other land force capabilities necessary to deploy infantry, supporting artillery, and anti-tank capabilities at the same speed and maneuver proficiency as tank units. Most forces have poor training in conducting rapid, large-scale armored and combined operations at night and in poor weather. Effective battle

management declines sharply at the force-wide level — as distinguished from the major combat unit level — and sometimes even in coordinating brigade or division-sized operations.

- *Artillery operations:* Many states have large numbers of artillery weapons, but serious problems in training and tactics. They lack long-range targeting capability and the ability to rapidly shift and effectively allocate fire. Many rely on towed weapons with limited mobility, or lack off-road support vehicles. Combined arms capabilities are limited. Many units are only effective in using mass fire against enemies that maneuver more slowly than they do.

- *Attack and combat helicopter units:* Some countries do have elite elements, but many do not properly train their helicopter units, or integrate them into combined or joint operations.

- *Commando, paratroop, and specialforces:* Many countries have elite combat units that are high quality forces at the individual combat unit level. In many cases, however, they are not trained or organized for effective combined and joint warfare, or for sustained combat. This seriously weakens their effectiveness in anything but limited combat missions.

- *Combat training:* Training generally has serious problems and gaps, which vary by country. Units or force elements differ sharply in training quality. Training problems are complicated by conversion and expansion, conscript turnover, and a lack of advanced technical support for realistic armored, artillery, air-to-air, surface-to-air, and offensive air training. Mass sometimes compensates, but major weaknesses remain.

- *Inability to use weapons of mass destruction effectively:* Any state can use weapons of mass destruction to threaten or intimidate another or to attack population centers and fixed area targets. At the same time, this is not the same as having an effective capability and doctrine to obtain maximum use of such weapons, or to manage attacks in ways that result in effective tactical outcomes and conflict termination. Many states are acquiring long-range missiles and weapons of mass destruction with very limited exercise and test and evaluation capabilities. This does not deny them the ability to target large populated areas, economic centers, and fixed military targets, potentially inflicting massive damage. At the same time, it does present problems in more sophisticated military operations. Many will have to improvise deployments, doctrine, and war fighting capabilities. In many cases, weaknesses and vulnerabilities will persist and they will only be able to exploit a limited amount of the potential lethality of such systems.

Limits to Conventional Military Forces and the Challenge of Asymmetric Warfare

The practical problem with even the most advanced efforts at "transformation," however, is that they still leave major gaps in the capabilities of all conventional forces that current and potential enemies can exploit.

Conventional combat is only one way of waging war or exerting military power. The fighting in Iraq and Afghanistan has made it clear that even US preeminence in conventional warfighting does not mean the US has any lead in counterterrorism or counterinsurgency, or that the has mastered conflict termination, or that it is effective in stability operations and nation building.

Depending on the nation, culture, and conflict both the quality and quantity of the forces shown in the following Figures may be offset by nations and transnational forces that use asymmetric warfare, terrorism, and insurgency to exploit the following vulnerabilities in regular military forces:

- *Sudden or surprise attack:* Power projection is dependent on strategic warning, timely decision making, and effective mobilization and redeployment for much of its military effectiveness.

- *Saturation and the use of mass to create a defensive or deterrent morass:* There is no precise way to determine the point at which mass, or force quantity, overcomes superior effectiveness, or force

quality — historically, efforts to emphasize mass have been far less successful than military experts predicted at the time. Even the best force, however, reaches the point where it cannot maintain its "edge" in C^4I/battle management, air combat, or maneuver warfare in the face of superior numbers or multiple threats. Further, saturation may produce a sudden catalytic collapse of effectiveness, rather than a gradual degeneration from which the Israeli Defense Force could recover. This affects forward deployment, reliance on mobilization and reliance on defensive land tactics versus preemption and "offensive defense."

- *Limited capability to take casualties:* War fighting is not measured simply in terms of whether a given side can win a battle or conflict, but how well it can absorb the damage inflicted upon it. Many powers are highly sensitive to casualties and losses. This sensitivity may limit its operational flexibility in taking risks, and in sustaining some kinds of combat if casualties become serious relative to the apparent value of the immediate objective.

- *Limited ability to Inflict casualties and collateral damage:* Dependence on world opinion and outside support means some nations increasingly must plan to fight at least low and mid-intensity conflicts in ways that limit enemy casualties and collateral damage to its opponents.

- *Low-intensity and infantry/insurgent dominated combat:* Low-intensity conflict makes it much harder to utilize most technical advantages in combat — because low-intensity wars are largely fought against people, not things. Low-intensity wars are also highly political. The battle for public opinion is as much a condition of victory as killing the enemy. The outcome of such a battle will be highly dependent on the specific political conditions under which it is fought, rather than RMA-like capabilities.

- *Hostage-taking, kidnapping, executions, and terrorism:* Like low-intensity warfare, hostage-taking, kidnapping, executions, and terrorism present the problem that advanced technology powers cannot exploit their conventional strengths, and must fight a low-level battle primarily on the basis of infantry combat. HUMINT is more important than conventional military intelligence, and much of the fight against terrorism may take place in urban or heavily populated areas.

- *Urban and Built-Up Area Warfare:* Advanced military powers are still challenged by the problems of urban warfare. In spite of the performance of US forces in the Iraq War, cases like Fallujah and Sadr's urban operations have shown that truly pacifying a hostile city or built-up area can be extremely difficult. It also is not clear what would happen if a more popular regime – such as the government of Iran – tried to create an urban redoubt. Moreover, most western forces are not trained or equipped to deal with sustained urban warfare in populated areas during regional combat — particularly when the fighting may affect large civilian populations on friendly soil.

- *Extended conflict and occupation warfare:* Not all wars can be quickly terminated, and many forms of warfare — particularly those involving peacekeeping and peace-enforcement — require prolonged military occupations. The result imposes major strains on the US politically, economically, and militarily.

- *Weapons of mass destruction:* The threat or actual use of such weapons can compensate for conventional weakness in some cases and deter military action in others.

- *Proxy warfare and false flags:* As the Lockerbie case demonstrated, states can successfully carry out major acts of terrorism through proxies without having their identity quickly established or suffering major military retaliation. Al Khobar is a more recent case where Iran's full role still remains uncertain and no retaliation has occurred. Similarly, the various charges that Iraq was the source of the first World Trade Center attack, and the conspiracy theories that follow, indicate that false flag operations are feasible. So do the number of terrorist incidents where unknown groups or multiple groups have claimed responsibility, but the true cause has never been firmly established.

- *HUMINT, area expertise, and language skills:* US and Western capabilities to conduct operations requiring extensive area knowledge and language skills are inherently limited. Similarly, high technology IS&R assets have not proved to be a substitute for HUMINT sources and analytic skills, although they can often aid HUMINT at both the operational and analytic level.

- *Attack rear areas and lines of communication:* The US talks about "swarm theory" and discontinuous battlefields, but Iraqi regular and irregular forces quickly learned—as Iraqi insurgents did later—that US rear area, support, and logistic forces are far more vulnerable than US combat elements. Such "swarming" may be slow, if irregular forces are not in place, but potential opponents understand this and can fight discontinuous battles of their own.

- *Political, ideological, and psychological warfare:* As has been discussed earlier, the US is vulnerable to such attacks on the grounds of ethnicity, religion, its status as a superpower active in the region, and its ties to Israel, Ironically, some can exploit its ties to moderate and conservative regimes on the grounds it fails to support reform, while others can exploit its efforts to advance secular political and economic reforms on the grounds they are anti-Islamic.

Threat of Asymmetric Innovation

Guerilla, terrorist, and insurgent movements have repeatedly shown in conflicts ranging from Afghanistan and Iraq to Sri Lanka and Kashmir that they can exploit such vulnerabilities. They are able to draw on the history of past successes, adopt new tactics proven by other movements and actors on a near real-time basis, and innovate on their own.

Recent conflicts provide so many case examples of "lessons" that mix innovation with historical experience that it is only possible to touch upon some of the more specific "innovations" that insurgents have used, but even a short list is impressive:

- *Attack the structures of governance and security by ideological, political, and violent means:* Use ideological and political means to attack the legitimacy of the government and nation building process. Intimidate and subvert the military and security forces. Intimidate and attack government officials and institutions at the national, regional, and local levels. Strike at infrastructure, utilities, and services in ways that appear to show the government cannot provide essential economic services or personal security.

- *Create alliances of convenience and informal networks with other groups to attack the US, moderate regional governments, or efforts at nation building.* The informal common fronts operate on the principal that the "enemy of my enemy" is my temporary friend. At the same time, movements "franchise" to create individual cells and independent units, creating diverse mixes of enemies that are difficult to attack.

- *Link asymmetric warfare to crime and looting; exploit poverty and economic desperation.* Use criminals to support attacks on infrastructure and nation building activity; raise funds, and undermine security. Exploit unemployment to strengthen dedicated insurgent and terrorist cells. Blur the lines between threat forces, criminal elements, and part time forces.

- *Co-opt the middle; create links to more moderate and popular causes:* Linking extremist action to popular causes, like the Israeli-Palestinian conflict has become a more common tactic in large part because the conflict has continued to escalate and has had such visibility. Many movements, however, have found additional ways to broaden their base. These include creating humanitarian and political wings; claiming to be pro-democracy and reform, attacking failed governance and corruption; calling opponents anti-Islamic; or invoking terms like Crusader, Zionist, imperialist, etc.

- *Maintain a strategy of constant attrition, but strike hard according to a calendar of turning points and/or at targets with high political, social, and economic impact:* Insurgents and Islamists in Afghanistan and Iraq (and in the Israeli-Palestinian conflict and other regional struggles) have

learned the importance of a constant low-level body count and creating a steady climate of violence. This forces the US into a constant, large-scale security effort and ensures constant media coverage. At the same time, insurgents and Islamists have shown a steadily more sophisticated capability to exploit holidays, elections and other political events, and sensitive targets both inside the countries that are the scene of their primary operations and in the US and the West. Attacks on Kurdish and Shi'ite religious festivals, and the Madrid bombings are cases in point. Terrorists and insurgents know that such targeted and well timed attacks can successfully undermine the Israeli-Palestinian peace process and can help drive the Israeli-Palestinian conflict. A handful of terrorists in Hamas and the PIJ, and the Israeli who killed Rabin, effectively defeated both Israel and the Palestinian Authorsity. Dramatic incidents of violence in Beirut and Somalia have also created political and psychological conditions that have helped catalyze US withdrawal.

- *Push "hot buttons." Try to find forms of attack that provoke disproportionate fear and "terror" force the US and its allies into costly, drastic, and sometimes provocative responses:* Terrorists and insurgents have found that attacks planned for maximum political and psychological effects often have the additional benefit of provoking over-reaction. Hamas and the PIJ exploited such tactics throughout the peace process. The US response to the attacks on the World Trade Center and Pentagon led to US over-reactions—particularly at the media and Congressional level—that helped alienate the Arab and Islamic worlds from the US. At a different level, a limited Anthrax attack had a massive psychological impact in the US, inflicted direct and indirect costs exceeding a billion dollars, drew immense publicity, and affected the operations of a key element of the US government for several weeks.

- *Use media as an intelligence and communication system and for information warfare:* Islamist movements, Palestinian groups, and many others, have learned how to capture maximum exposure in regional media, use the Internet, and above all exploit the new Arab satellite news channels. In contrast, US officials often confuse their occasional presence with successful impact.

- *"Game" and manipulate regional, Western, and other outside media:* Use interview access, tapes, journalist hostage takings and killings, politically-led and motivated crowds, drivers and assistant to journalists, and timed and targeted attacks to attempt to manipulate Western and outside media. Manipulate US official briefings with planted questions.

- *Externalize the struggle:* Bring the struggle home to the US and its allies as in the cases of the World Trade Center, Pentagon, and Madrid. Get maximum media and political impact. Encourage a "clash between civilizations." Avoid killing fellow Muslims and collateral damage. Appear to be attacking Israel indirectly. Undermine US ties to friendly Arab states.

- *Use Americans and other foreigners as proxies:* There is nothing new about using Americans and other foreigners as proxies for local regimes, or attacking them to win support for ideological positions and causes. There has, however, been steadily growing sophistication in the timing and nature of such attacks, and in exploiting softer targets such as American businessmen in the country of operations, on striking at US and allied targets in other countries, or in striking at targets in the US. It is also clear that such attacks receive maximum political and media attention in the US.

- *Attack UN, NGO, Embassies, aid personnel, and foreign contractor business operations:* Attacking such targets greatly reduces the ability to carry out nation building and stability operations to win hearts and minds. Attacking the "innocent," and curtailing their operations or driving organizations out of country has become an important focus of insurgents and Islamist extremist attacks.

- **"***Horror" attacks, atrocities, and alienation:* Whether or not the tactics were initially deliberate, insurgents in Iraq have found that atrocities like desecrating corpses and beheadings are effective political and psychological weapons for those Islamist extremists whose goal is to divide the West from the Islamic world, and create an unbridgeable "clash of civilizations." Experts have long pointed out that one of the key differences between Islamist extremist terrorism and previous forms of terrorism is that they are not seeking to negotiate with those they terrorize, but rather to

create conditions that can drive the West away, undermine secular and moderate regimes in the Arab and Islamic worlds, and create the conditions under which they can create "Islamic" states according to their own ideas of "Puritanism." This is why it serves the purposes of Islamist extremists, as well as some of the more focused opponents of the US and the West, to create massive casualties and carry out major strikes, or carry out executions and beheadings, even if the result is to provoke hostility and anger.

The goal of Bin Laden and those like him is not to persuade the US or the West, it is rather to so alienate them from the Islamic and Arab world that the forces of secularism in the region will be sharply undermined, and Western secular influence can be controlled or eliminated. The goal of most Iraqi insurgents is narrower – drive the US and its allies out of Iraq – but involves many of the same methods. Seen in this context, the more horrifying the attack, or incident, the better. Simple casualties do not receive the same media attention. They are a reality of war. Killing (or sometimes releasing) innocent hostages does grab the attention of the world media. Large bombs in crowds do the same, as does picking targets whose innocence or media impact grabs headlines. Desecrating corpses, beheadings, and similar acts of violence get even more media attention -- at least for a while.

Such actions also breed anger and alienation in the US and the West and to provoke excessive political and media reactions, more stringent security measures, violent responses and all of the other actions that help provoke a "clash of civilizations." The US and the West are often provoked into playing into the hands of such attackers. At the same time, any attack or incident that provokes massive media coverage and political reactions, appears to be a "victory" to those who support Islamist extremism or those who are truly angry at the US – even though the actual body count is often low, and victory does not mean creating stronger forces or winning political control. Each such incident can be used to damage the US and Western view of the Arab and Islamic worlds.

- *Keep "failed states" failed and/or deprive local governments and nation building efforts of legitimacy. Attack nation building and stability targets:* There is nothing new about attacking key economic targets, infrastructure, and aspects of governance critical to the functioning of the state in an effort to disrupt its economy, undermine law enforcement and security, and encourage instability. The Al Qa'ida and Taliban attacks on road works and aid workers; Iraqi insurgent and Islamist attacks on aid workers and projects; and their role in encouraging looting, sabotage, and theft does, however, demonstrate a growing sophistication in attacking stability efforts and tangible progress in aid and governance. These tactics also interact synergistically with the above tactics.

- *Confuse the identity of the attacker; exploit conspiracy theories:* Insurgents and Islamists have learned that a mix of silence, multiple claims to be the attacker, new names for attacking organizations, and uncertain levels of affiliation both make it harder for the US to respond. They also produce more media coverage and speculation. As of yet, the number of true false flag operations has been limited. However, in Iraq and elsewhere, attacks have often accompanied by what seem to be deliberate efforts to advance conspiracy theories to confuse the identity of the attacker or to find ways to blame defenders of the US for being attacked. In addition, conspiracy theories charging the US with deliberately or carelessly failing to provide an adequate defense have been particularly effective.

- *Shelter in Mosques, Shrines, high value targets, and targets with high cultural impact:* Again, exploiting facilities of religious, cultural, and political sensitivity is not a new tactic. However, as operations against Sadr and in Fallujah have shown, the tactics raise the media profile, create a defensive deterrent, and can be exploited to make the US seem anti-Islamic or to be attacking a culture and not a movement.

- *Exploit, exaggerate, and falsify US attacks that cause civilian casualties and collateral damage, friendly fire against local allies, and incidents where the US can be blamed for being anti-Arab and anti-Islam:* Terrorists and insurgents have found they can use the media, rumor, and

conspiracy theories to exploit the fact the US often fights a military battle without proper regard to the fact it is also fighting a political, ideological, and psychological war.

- Real incidents of US misconduct such as the careless treatment of detainees and prisoners, and careless and excessive security measures are cases in point. So too are careless political and media rhetoric by US officials and military officers. Bin Laden, the Iraqi insurgents, etc., all benefit from every Western action that unnecessarily angers or frustrates the Arab and Islamic worlds. They are not fighting to influence Western or world opinion; they are fighting a political and psychological war to dominate Iraq and the Arab and Islamic worlds.

- *Mix Crude and sophisticated IEDS:* Hezbollah should be given credit for having first perfected the use of explosives in well structured ambushes, although there is nothing new about such tactics -- the Afghans used them extensively against the Soviets. Iraq has, however, provided a unique opportunity for insurgents and Islamist extremists to make extensive use of IEDs by exploiting its mass stocks of arms. The Iraqi attackers have also learned to combine the extensive use of low grade IEDs, more carefully targeted sophisticated IEDs, and very large car bombs and other devices to create a mix of threats and methods that is much more difficult to counter than reliance on more consistent types of bombs and target sets.

- *Suicide bombs, car bombs, and mass bombings:* The use of such tactics has increased steadily since 1999, in part due to the high success rate relative to alternative methods of attack. It is not always clear that suicide bombing techniques are tactically necessary outside struggles like the Israel-Palestinian conflict, where one side can enforce a very tight area and perimeter, and point target security. In many cases, timed devices might produce the same damage.

Events in Iraq have shown, however, that suicide bombers still have a major psychological impact and gain exceptional media attention. They also serve as symbols of dedication and commitment, can be portrayed as a form of Islamic martyrdom, and attract more political support and attention among those sympathetic to the cause involved.

At the same time, regional experts must be very careful about perceiving such methods of attack as either a recent development or as Islamic in character. For instance, Hezbollah used suicide bombings in the 1980s, with an attack on the US Embassy in Beirut in 1981 and in six attacks in 1983 killing 384 people– including 241 US Marines. Moreover, Hindu terrorists and the Tamil Tigers made extensive use of suicide bombings long before the Palestinians. In fact, Hindu terrorists still lead in the amount of suicide bombings committed by a particular group. The Tamil tigers have carried out 168 such attacks since 1987 versus 16 for the Hezbollah versus Israel (1983-1985), 44 for the Palestinians (1999-2004), and 28 for Al Qa'ida (1999-2004. A profiling of the attackers in some 168 attacks also found that only a comparative few could in any sense be called religious fanatics rather than believers in a cause.[1]

- *Attack LOCs, rear area, and support activity:* Iran and Afghanistan have shown that dispersed attacks on logistics and support forces often offer a higher chance of success than attacks on combat forces and defended sites, and makes the fight wars based on "deep support" rather than "deep strikes" beyond the FEBA.

- *Better use of light weapons and more advanced types; attack from remote locations or use timed devices:* While much will depend on the level of insurgent and Islamist extremist access to arms, Iraq and Afghanistan have seen a steady improvement in the use of systems like mortars and anti-tank weapons, and efforts to acquire Manpads, ATGMs, mortars, rockets, and timed explosives. The quality of urban and road ambushes has improved strikingly in Iraq, as has the ability to set up rapid attacks, and exploit the vulnerability of soft skinned vehicles.

- *Create informal distributed networks for command, control, communications, computer/battle management (C4IBM), and intelligence, surveillance, and reconnaissance (IS&R)—deliberately or accidentally*: Like drug dealers before them, Islamist extremists and insurgents have learned enough about communications intelligence (COMINT) and signals intelligence (SIGINT) to stop using most vulnerable communications assets, and to bypass many – if not most – of the efforts to control cash flow and money transfers.

The use of messengers, direct human contact, and more random methods of electronic communication are all cases in point. At the broader level, however, insurgents in Iraq seem to have adapted to having cells and elements operate with considerable autonomy, and by loosely linking their operations by using the media and reporting on the overall pattern of attacks to help determine the best methods and targets.

Smuggling, drug sales, theft and looting, and direct fund transfers also largely bypass efforts to limit operations through controls on banking systems, charities, etc. Under these conditions, a lack of central control and cohesive structure may actually be an asset, allowing highly flexible operations with minimal vulnerability to roll-up and attack.

The existence of parallel, and not conflicting, groups of hostile non-state actors provides similar advantages and has the same impact. The fact that insurgent and Islamist extremist groups operate largely independently, and use different tactics and target sets, greatly complicates US operations and probably actually increases overall effectiveness.

The Meaning of Quantitative Comparisons

Given this background, the Figures that follow have serious limitations in measuring military power that at best can be offset by full-scale war gaming and simulation that take all major qualitative and quantitative factors into account. Even then, much of the analysis would have to be highly speculative. Many Asian nations have never fought a modern war, and their military have no real world experience with serious combat. Many have evolved force structures that owe more to historical momentum than any meaningful

rationale for force development, and many preserve a total force structure for internal political purposes that they cannot afford to "transform," modernize, or recapitalize.

The detailed figures on force structures that follow also reflect very different mixes of equipment in terms of basic physical capability to fight combined arms and joint warfare, and deploy and sustain given force elements. In many cases, nations maintain a mix of units with very different force structures, training levels, and modernization. There is no consistency within a given service or even force element within a given type of force within a service. This makes it impossible for even the most sophisticated war game or simulation to model conflicts in more than broad terms. That said, there are still some aspects of force quantity that do have meaning:

Figure 7: Asian Military Forces in 2006: Part 1

	China	Taiwan	Japan	N. Korea	S. Korea	India	Pakistan	Vietnam
Manpower (1,000s)								
Total Active	2,255	290	239.9	1,106	687.7	1,325	619	484
Regular	2,255	290	239.9	1,106	687.7	1,325	619	484
National Guard/Other	-	-	-	-	-	-	-	-
Reserve	800	1,653.5	44.4	4,700	4,500	1,155	-	3-4,000
Paramilitary	3,969	22	12.25	189	22	1,293.3	302	5,080
Strategic Missile Forces (1,000s)	100	-	-	-	-	-	-	-
ICBM	46	-	-	-	-	-	-	-
IRBM	35	-	-	-	-	-	-	-
SSBN/SRBM	725	-	-	-	-	-	-	-
Army and Guard Manpower (1,000s)	1,600	200	148.2	950	560	1,100	550	412
Regular Army Manpower	1,600	200	148.2	950	560	1,100	550	412
Reserve (1,000s)	-	1,500	-	600	?	960	-	-
Total Main Battle Tanks	7,580	926	980	3,500	2,330	3,978	2,461	1,315
Active AIFV/Lt. Tanks	2,000	1,130	170	560	40	1,900	-	920
Total APCs	5,500*	950	730	2,500	2,480	817	1,266	1,380
Self-Propelled Artillery	1,200	405	250	4,400	1,089	150	260	30
Towed Artillery	17,700	1,060	480	3,500	3,500	5,625	1,629	2,300
MRLs	2,400	300	110	2,500	185	180	52	710
Mortars	some	?	1,140	7,500	6,000	6,720	2,350	-
SSM Launchers	some	some	100	64	12	some	166	some
Light SAM Launchers	284	581	1,220	10,900	1,090	3,500	2,990	some
AA Guns	7,700	400	60	11,000	600	2,339	1900	12,000
Air Force Manpower (1,000s)	400	45	45.6	110	64	170	45	30
Air Defense Manpower	210	-	?	-	-	-	-	-
Total Combat Aircraft	2,643	479	300	590	540	852	333	221
Bombers	222	-	-	80	-	-	-	-
Fighter/Ground Attack	1,169	128	130	211	283	380	51	-
Fighter	1,252	293	150	299	210	386	145	204
Recce/FGA Recce	53	8	20	-	57	9	15	-
COIN/OCU	-	-	-	-	-	-	-	-
AEW C4I/BM/EW	4	6	11	-	4	-	2	-
MR/MPA	-	-	-	-	-	2	-	4
Transport Aircraft	296	39	30	318	34	288	27	28
Tanker Aircraft	10	-	-	-	-	6	-	-
Total Helicopters	80	35	40	306	28	296	some	75
Armed Helicopters	-	-	-	24-	-	60	?	26
Major SAM Launchers	1,078	-	1,440	798	-	some	150	-
Light SAM Launchers	500	-	some	some	-	some	some	some
AA Guns	16,000	-	some	-	-	-	-	some

* Includes Lt. Tank, AIFV, and APC
** Total SAM Launchers

Figure 7: Asian Military Forces in 2006: Part 2

	China	Taiwan	Japan	N. Korea	S. Korea	India	Pakistan	Vietnam
Total Naval Manpower (1,000s)	255	45	44.4	46	63	55	24	15
Major Surface Combatants								
Carriers	-	-	-	-	-	1	-	-
Destroyer-Guided Missile	21	9	40	-	6	8	-	-
Other Destroyer	-	-	5	-	-	-	-	-
Frigate-Guided Missile	42	22	9	-	9	9	6	-
Other Frigate	-	-	-	3	-	8	1	6
Corvettes	-	-	-	6	28	28	-	5
Patrol Craft								
Missile	96	62	9	43	5	8	5	8
Torpedo and Coastal	130	-	-	125	-	6	1	10
Inshore, Riverine	117	-	-	133	75	10	1	19
Submarines								
SLBN	1	-	-	-	-	-	-	-
SSN	5	-	-	-	-	-	-	-
SSG	1	-	-	-	-	-	-	-
SS/SSK	61	4	18	88	20	19	7	2
Mine Vessels	130	12	31	23	15	18	3	15
Amphibious Ships	50	18	4	10	12	7	-	6
Landing Craft	285	325	23	260	36	10	-	30
Support Ships	163	20	28	7	14	32	9	18
Marines (1,000s)	10	15	-	-	28	1.2	1.4	27
Naval Air	26,000	-	9,800	-	-	7,000	?	-
Naval Aircraft	436	32	80	-	16	34	10	-
Bomber	68	-	-	-	-	-	-	-
FGA	274	-	-	-	-	15	-	-
Fighter	74	-	-	-	-	-	-	-
MR/MPA	4	-	80	-	8	20	10	-
Armed Helicopters	16	20	98	-	11	34	12	-
ASW Helicopters	8	20	88	-	11	25	6	-
SAR Helicopters	27	-	18	-	-	6	-	-
Mine Warfare Helicopters	-	-	10	-	-	-	-	-
Other Helicopters	8	-	27	-	34	51	7	-

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 8: US Forces in the Pacific in 2006: Part 1

Pacific Command (PACOM) Headquartered in Hawaii

	Army	Navy	Air Force	Marine Corps
Hawaii	15,000 US ARPAC 1 lt inf div (25th) 2 lt inf bde 1 sign bde 1 tpt grp 1 reg supp cmd	7,500 US PAC Fleet HQ for: 36 SSN* 3 CG 6 DDG 2 FFG 1 spt/misc	28,000 PACAF 13th AF 1 wg: 2 C-135B/C 1 wg (ANG): 15 F-15A/B 4 C-130H 8 KC-135R	8,500 Marine Forces Pacific cmd
Japan	1,793 1 Corps HQ base & spt units	6,783+14019(at sea) HQ 7th Fleet, Yokosuka: 1 CV 9 surface combatants 1 LCC Sasebo: 4 amph ships 1 MCM sqn 3 C-9 1 special ops grp 4 MC-130P: 4 MC-130H	13,092 1 AF HQ (5th AF) 2 wg: 84 cbt ac 36 F-16 48 F-15C/D 15 KC-135 8 HH-60G 2 E-3B Sentry 1 Airlift Wg: 10 C-130E/H 4 C-21A UH-1N	16,013 1 MEF
South Korea	21,000 1 Army HQ (8th) (UN comd) 1 inf div 1 AD bde 1 avn bde 1 armd bde 1 cav bde (2 ATK hel bn) 1 *Patriot* SAM bn EQPT: 116 MBT 126 AIFV 111 APC 45 arty/MRL/mor	378 several joint staff detachments	9,000 1 AF HQ (7th AF) 2 ftr wg 84 cbt ac 3 sqn 60 F-16C/D 12 OA-10 12 A-10 C-12 1 special ops sqn 5 MH-53J some U-2	241
Alaska	8,900 172nd Stryker bde 3 inf btl 1 Arty btl 1 cavlry sqad 4th Brigade Combat Team (Airborne 1 sign btl	-	9,600 AF HQ (11th AF) 3rd wg, 3sq F-15C/E 1sq airlift C-12, C-130H 1 sq AAC E-3B/C 354th wg, 1 sq F-16 C/D 1 sq A-10/OA-10	-

* includes all PACOM SSN.

Figure 8: US Forces in the Pacific in 2006: Part 2

Corps	Army	Navy	Air Force	Marine
Australia	some	50 1 Comms facility at NW Cape 1 SEWS/SIGINT at Pine Gap 1 SEWS station at Nurrungar	59	31
Singapore	-	90 spt facilities	39 log spt sqn fighter trn sqad	24
Guam	43	2,100 1 submarine tender 2 SSN Naval air station comms and spt facilities	2,100 36th wing	4
Diego Garcia668(globalsec)	-	370 MPS-2 5 ships with eqpt for 1 MEB Naval air station spt facilities	701	-
Thailand	156	10	30	29
US West Coast	-	-	-	1 MEF
US Pacific Fleet at Sea HQ: Pearl Harbor, HI Main Base: Pearl Harbor Other Bases: Bangor, Everett, Bremerton (WA), San Diego (CA)	-	250,000 13,470 reserve 30,000 civilians	-	-

Submarines	Principle Surface Combatants	Amphibious Ships		Other
SSBN – 9	Carriers CVN/CV – 7	LHA – 3	AG – 1	MCM – 2
SSGN – 2	Cruisers – 13	LHD – 4	MSC – 59	aux ships – 8
SSN – 24	Guided Missile Destroyers – 25	LSD – 7		
	Guided Missile Frigates – 15	LST – 1		

3rd Fleet (HQ: San Diego) covers Eastern and Central Pacific, Aleutian Islands, Bering Sea; typically 5 CVBG, 4 URG, amph gp

7th Fleet (HQ: Yokosuka) covers Western Pacific, J, Pi, ANZUS responsibilities, Indian Ocean; typically 1-2 CVBG (1 CV, 8-15 surface combatants), 2 LHD/LPD, 4-8 LSD/LST, 1 LCC, 4 AO, 2 MCM

Aircraft: 363 tactical, 203 helicopter, 77 P-3, 162 other (2002 data).

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 9: The Nuclear Dimension: Part 1

Country	Sea-Based	Land Based	Air Force
US (33,500 nuclear weapons)*	16 SSBN/432 SLBM (+1/16 Poseidon C-3 tubes in ex-SSBN) 10 SSBN-734 with up to 24 Trident D-5 (240 SLBM) 6 SSBN-726 with up to 24 Trident C-4 (192 SLBM)	500 Minuteman III 2/21 B-2A 4/82 B-52H 5/88 B-1B	151 Active
Russia KH101/555 (62,500 nuclear weapons)*	15 SSBN/204 SLBM 3 Typhoon each with 20 SS-N-20 (60) 6 Delta IV each with 16 SS-N-18 (48) 6 Delta III each with 16 SS-N-23 (96) 8 Oscar II SSGN/ 24 SS-N-19 10 Akula SSN/ SS-N-21 2 Sierra II SSN/ SS-N-21 5 Victor III SSN/SS-N-15	570 ICBM/2,035 Whd. (4 reg START Accountable) 80 SS-18 (RS-20 74 START-accountable Mostly Mod4/5 w/ 10 MIRV 150 SS-19 (RS-18) Mostly Mod 3, 6 MIRV 40 SS-27 Topol M2 300 SS-25 (RS-12M) single warhead mobile (360) & silo launch (10) in Russia 36 SH-11 Galosh & 64 SH-08 Gazelle	124 Hvy Bomber 16 Tu-160 each with 7 Tu-95 & 1 Tu-160 test aircraft each with KH101/555 124 Tu-22M/MR + 58 naval aviation
France (1,400 nuclear weapons)*	4 SSBN/64 SLBM 1 L'Inflexible with 16 M-45 SLBM each with 6 TN-75 whds 3 Le Triomphant 16 M-45 SLBM each with 6 TN-75 whds	none	180 Mirage-2000N (ASMP, R-550 Magic 2) 24 Super Etendard (AMSP)
United Kingdom (1,100 nuclear weapons)*	4 SSBN/58 SLBM 4 Vanguard SSBN with up to 16 Trident D-5 each and maximum of 48 warheads per boat. (Each missile can be MIRV'd to 12 warheads)	none	none

Figure 9: The Nuclear Dimension: Part 2

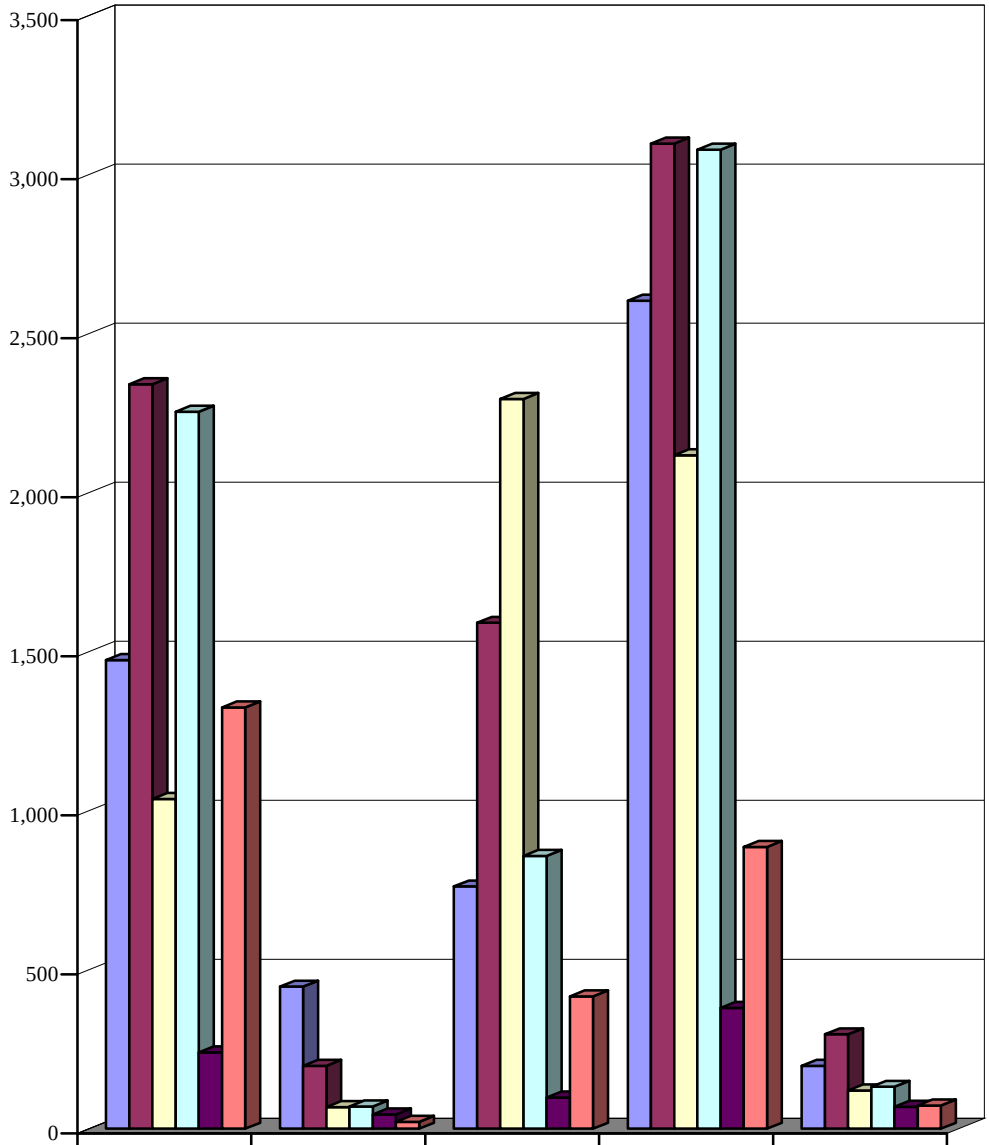
Country	Sea-Based	Land Based	Air Force
China	1 Xia SSBN with 12 CSS-N-3 (J-1)	20 CSS-4 (DF-5A) MIRV ICBM	76 H-6/H-6E/F/H, 20 nuclear capable
(500-1,300 nuclear weapons)*	1 mod Romeo SSGN with 6 CSS-N-4	20 CSS-3 (DF-4) ICBM 2 CSS-2 (DF-3A) IRBM 33 CSS-5 (DF-21) IRBM	some H-5
	17 DDG each with 2-4 quads CSS-N-4 (YJ-1)	25L/200M DF-15 CSS-6/M-9 SRBM (600 km)	
	15 FFG each with 1-8 quads CSS-N-4 (YJ-1)	500 DF-11 CSS-7/M-11 SRBM (120-300 KM)	
North Korea	none	some Taep'o Dong 1/2 MRBM/ICBM	none
(550 nuclear weapons)**		10 No Dong (est. 90+ msl)	
		30+ Scud B/Scud C (200+ msl)	
India	none	24 IRBM: 12 Agni-2; 8-12 Agni-3	none
(55-90 nuclear weapons)***		45 SRBM: SS-150 Prithvi/SS-250 Prithvi/SS-350 Prithvi	
Pakistan	none	up to 20 Hatf 5 Ghauri	none
(55-90 nuclear weapons)***		6 Hatf 4 Shaheen	
		50 Hatf 3 (PRC –M-11)	

* Without nuclear warhead or weapons, Estimate by Sergei Rogov in 2002.
** Federation of American Scientists, *North Korea Special Weapons Guide*, December 2005, available at http://www.fas.org/nuke/guide/dprk/missile/index.html.
*** K. Alan Kronstadt, "Pakistan-U.S. Relations", *Congressional Research Report 67139*, May 9, 2006.

Source: Adapted by Anthony H. Cordesman from the IISS Military Balance 2005-2006, London, Routledge, 2005; James Foley, "Korean reconciliation still a distant dream," *Jane's Intelligence Review*, February 1, 2002.

The Major Asian Powers

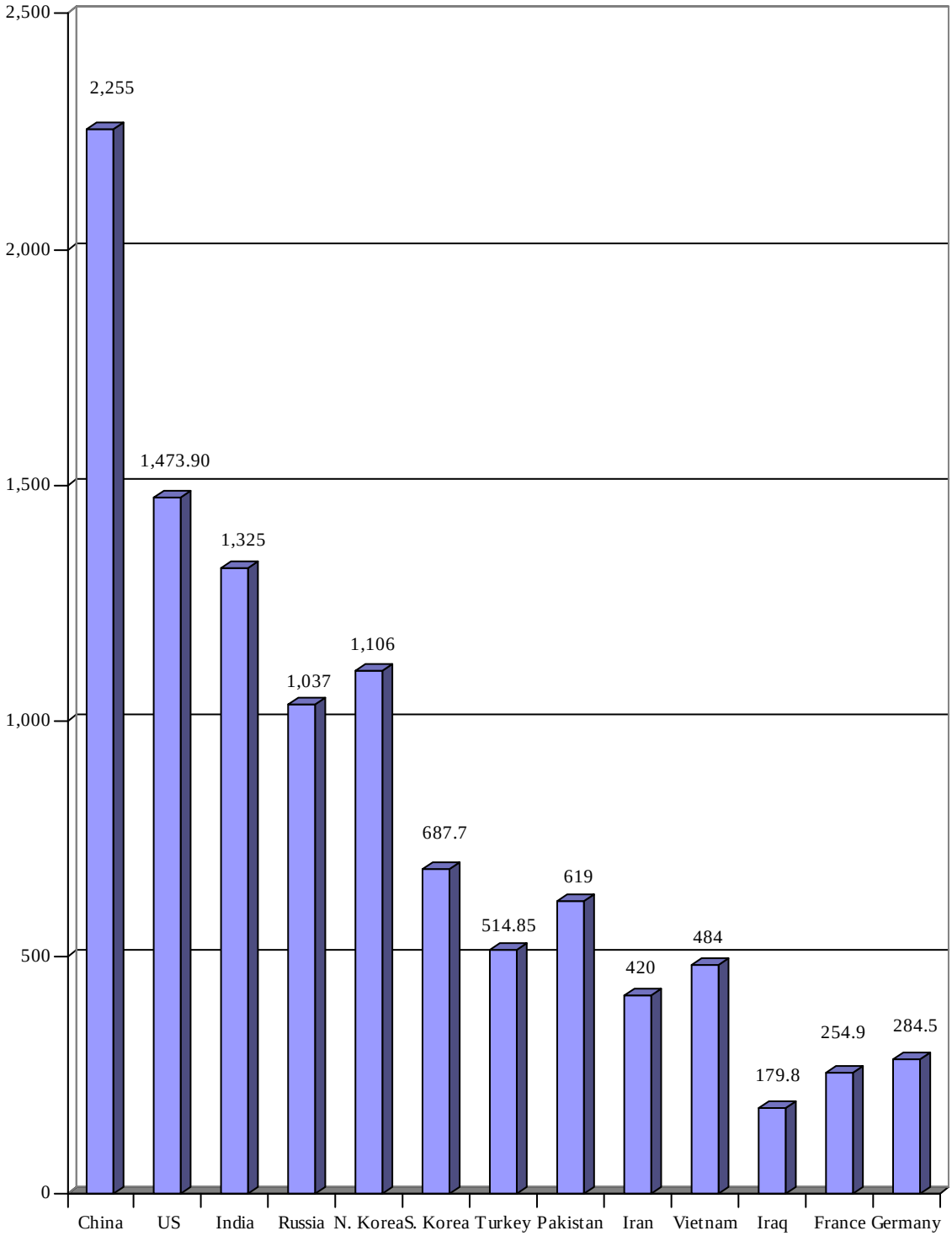
Figure 10: Comparative Mil. Strength of Mjr. Asian Powers and Global Power Blocs in 2006



	Military Manpower (1,000s)	Defense Spending (Billions$)	Tanks (x 10)	Combat Aircraft	Major Combat Ships
US	1,474	447	762	2,604	198
NATO-Europe	2,341	198	1,591	3,098	297
Russia	1,037	68	2,295	2,118	120
China	2,255	70	858	3,079	132
Japan	240	45	98	380	69
India	1,325	22	416	886	73

Source: Adapted by Anthony H. Cordesman from the IISS Military Balance 2005-2006, London, Routledge, 2005.

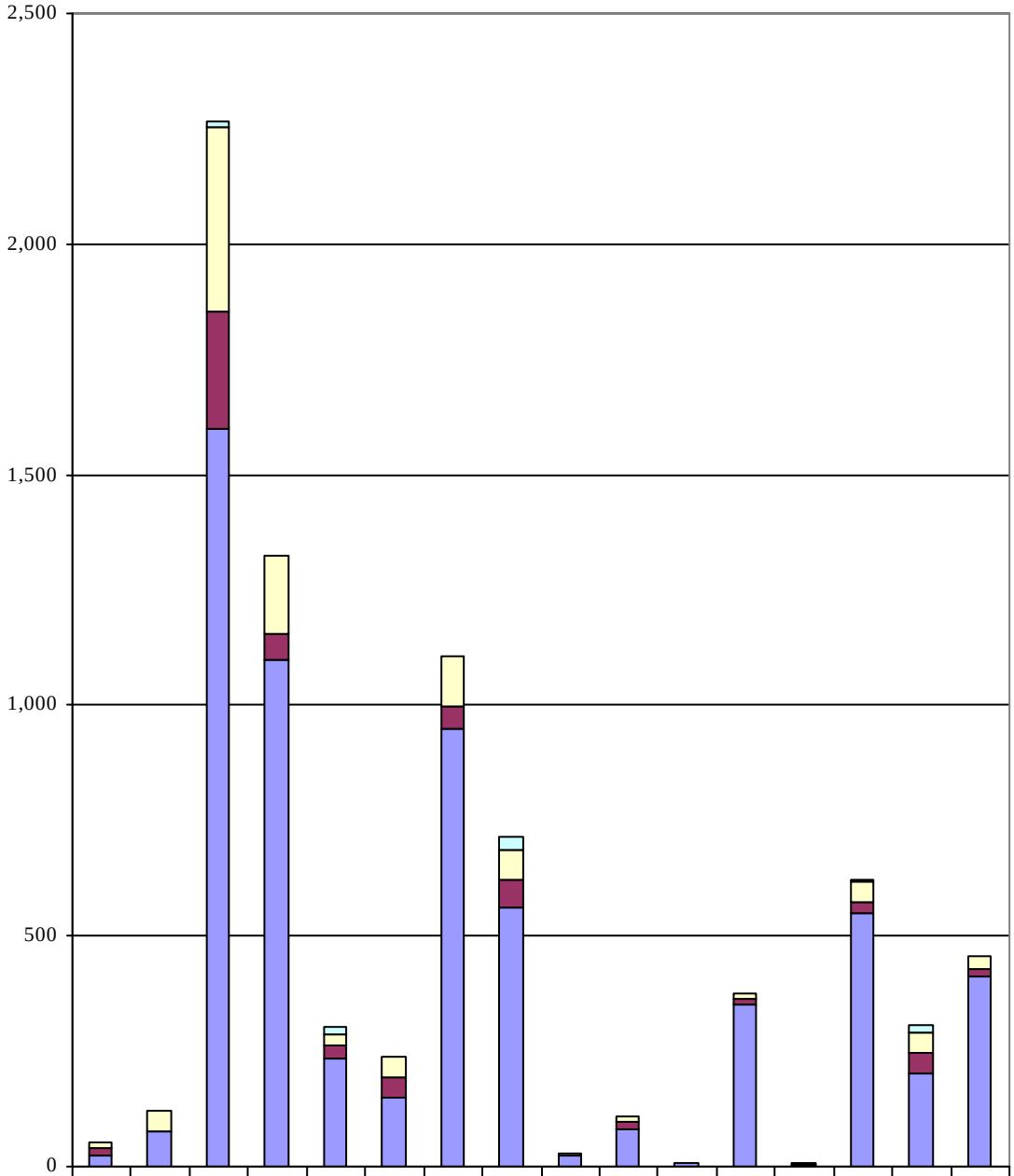
Figure 11: Total Military Manpower in Selected Major Military Powers: 2006
(in thousands)



Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 12: Asian Military Manpower by Service: 2006

(in thousands)

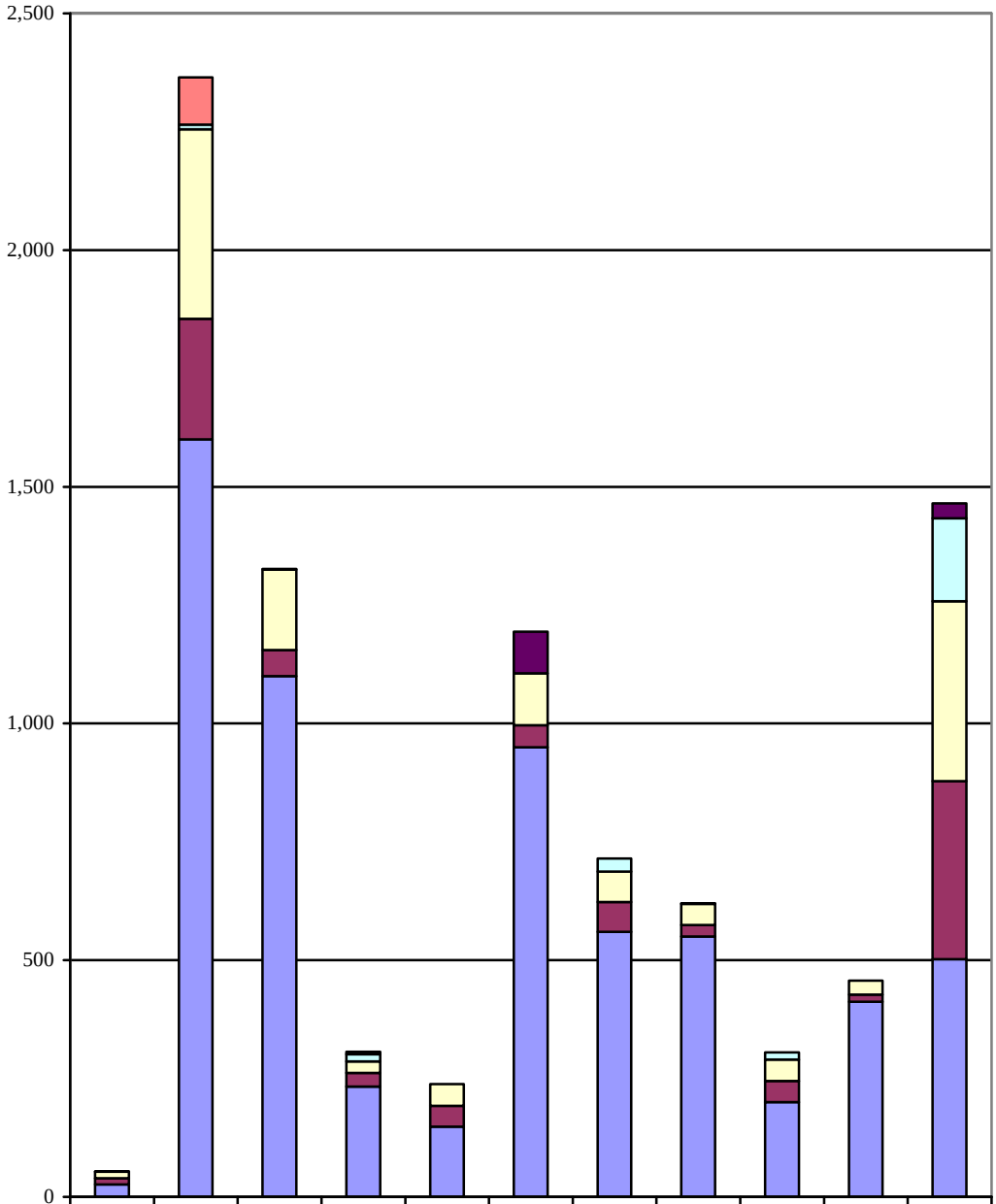


	Australia	Cambodia	China	India	Indonesia	Japan	North Korea	South Korea	Laos	Malaysia	Mongolia	Myanmar	New Zealand	Pakistan	Taiwan	Vietnam
Marine	0	0	10	1.2	15	0	0	28	0	0	0	0	0	1.4	15	0
Air Force	13.67	45	400	170	24	45.6	110	64	3.5	15	0.8	12	2.25	45	45	30
Navy	13.17	2.8	255	55	29	44.4	46	63	0	15	0	13	1.98	24	45	15
Army	26.04	75	1,600	1,100	233	148.2	950	560	25.6	80	7.5	350	4.43	550	200	412

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 13: Asian Military Manpower in Key Powers by Service: 2006

(in thousands)

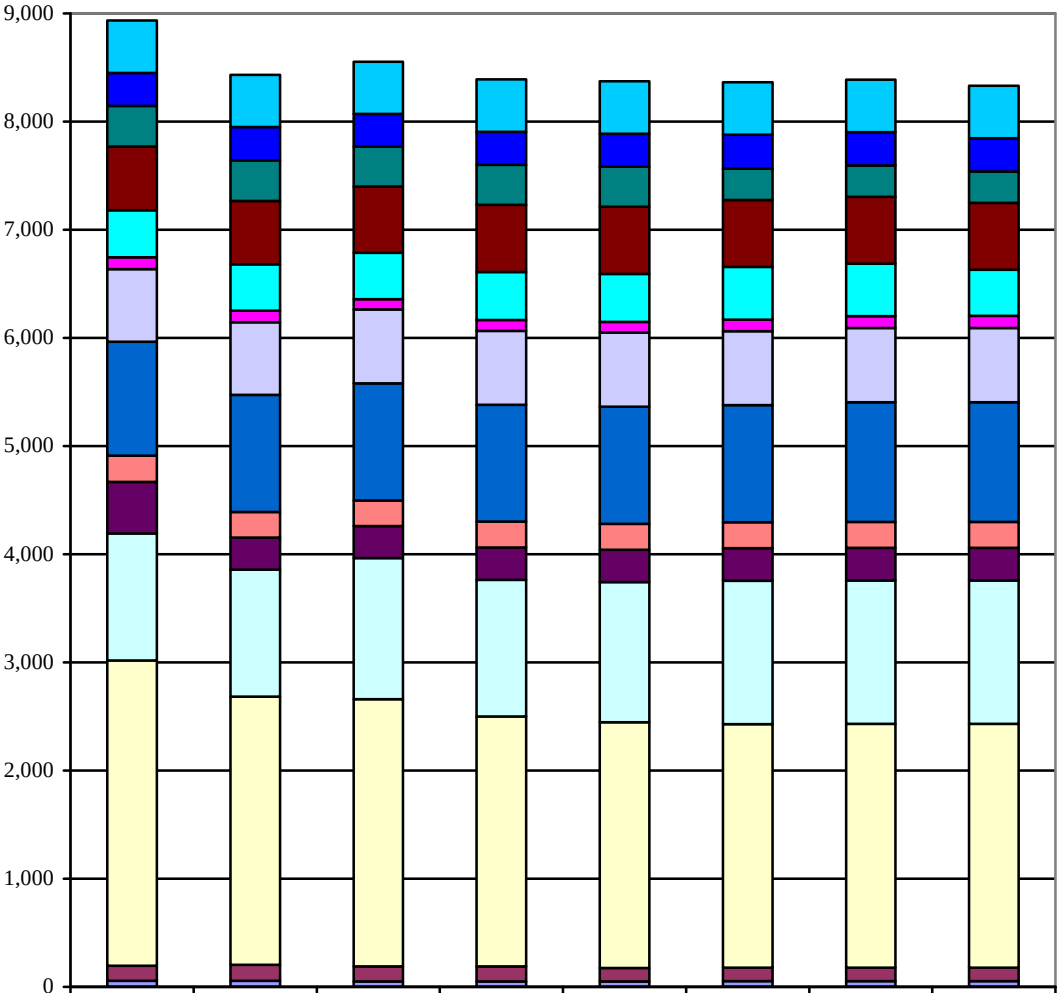


	Australia	China	India	Indonesia	Japan	North Korea*	South Korea	Pakistan	Taiwan	Vietnam	U.S.
Strategic	0	100	0	0	0	0	0	0	0	0	?
Special Forces	0.7	0	0	5.3	0	88	0	0	0	0	31.5
Marine	0	10	1.2	15	0	0	28	1.4	15	0	175.35
Air Force	13.67	400	170	24	45.6	110	64	45	45	30	379.5
Navy	13.167	255	55	29	44.4	46	63	24	45	15	376.5
Army	26.035	1,600	1,100	233	148.2	950	560	550	200	412	502

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *Special Forces number includes Special Purpose Forces Command.

Figure 14: Manpower in Key Asian Powers: 1999-2006

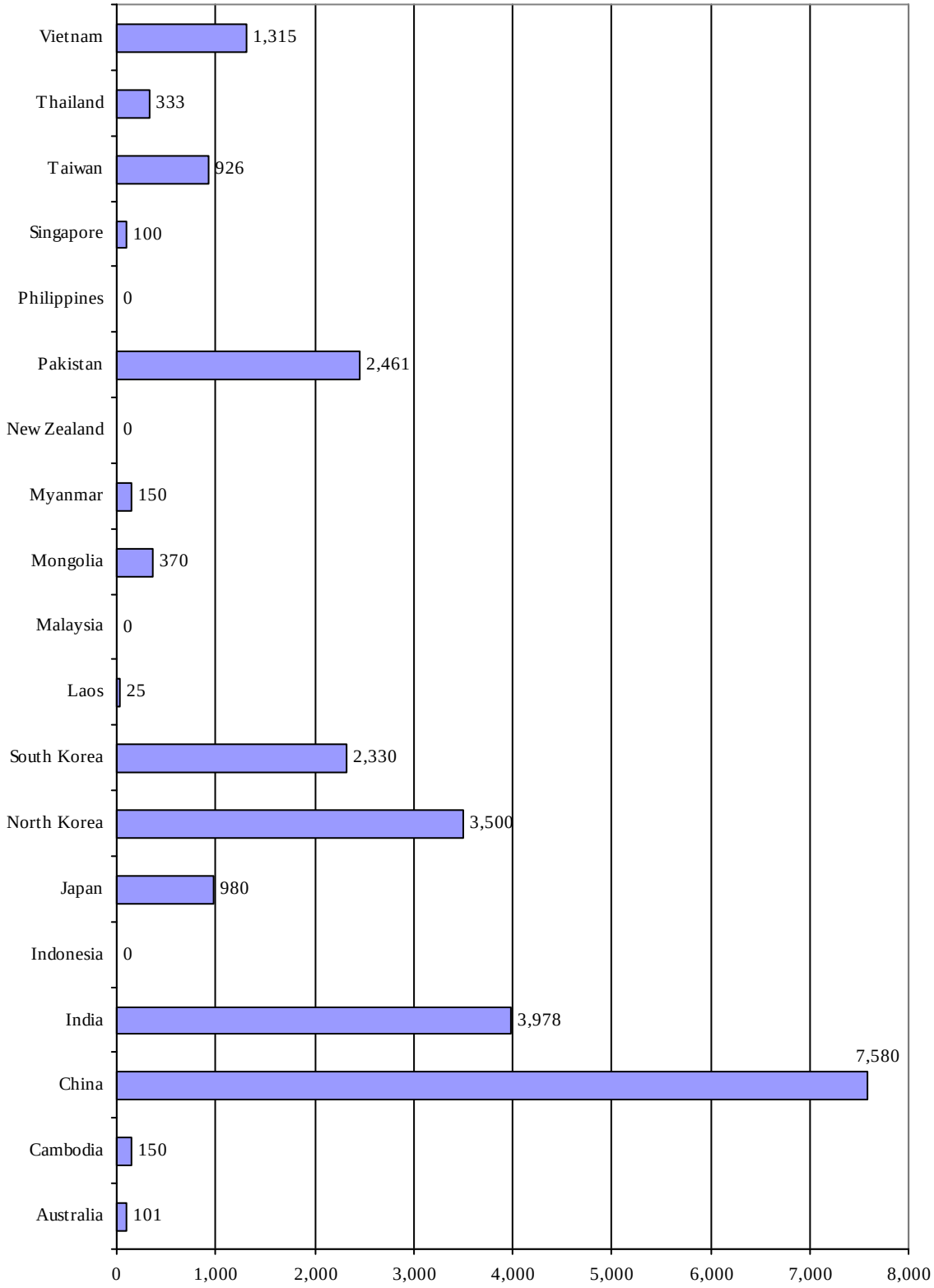
(in thousands)



	1999	2000	2001	2002	2003	2004	2005	2006
Vietnam	484	484	484	484	484	484	484	484
Thailand	306	306	301	306	306	314.2	306.6	306.6
Taiwan	376	376	370	370	370	290	290	290
Pakistan	587	587	612	620	620	620	619	619
Myanmar	434.8	429	429	444	444	488	485	428
Malaysia	110	105	96	100.5	100	104	110	110
South Korea	672	672	683	683	686	686	687.7	687.7
North Korea	1,055	1,082	1,082	1,082	1,082	1,082	1,106	1,106
Japan	242.6	236.3	236.7	239.8	239.9	239.9	239.9	239.9
Indonesia	476	298	297	297	297	302	302	302
India	1,175	1,173	1,303	1,263	1,298	1,325	1,325	1,325
China	2,820	2,480	2,470	2,310	2,270	2,250	2,255	2,255
Cambodia	139	149	140	140	125	125	124.3	124.3
Australia	57.4	55.2	50.6	50.7	50.92	53.65	51.8	52.872

Source: Based primarily on material in the IISS Military Balance, 1998-1999 to 2005-2006, London, Routledge, 1999-2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

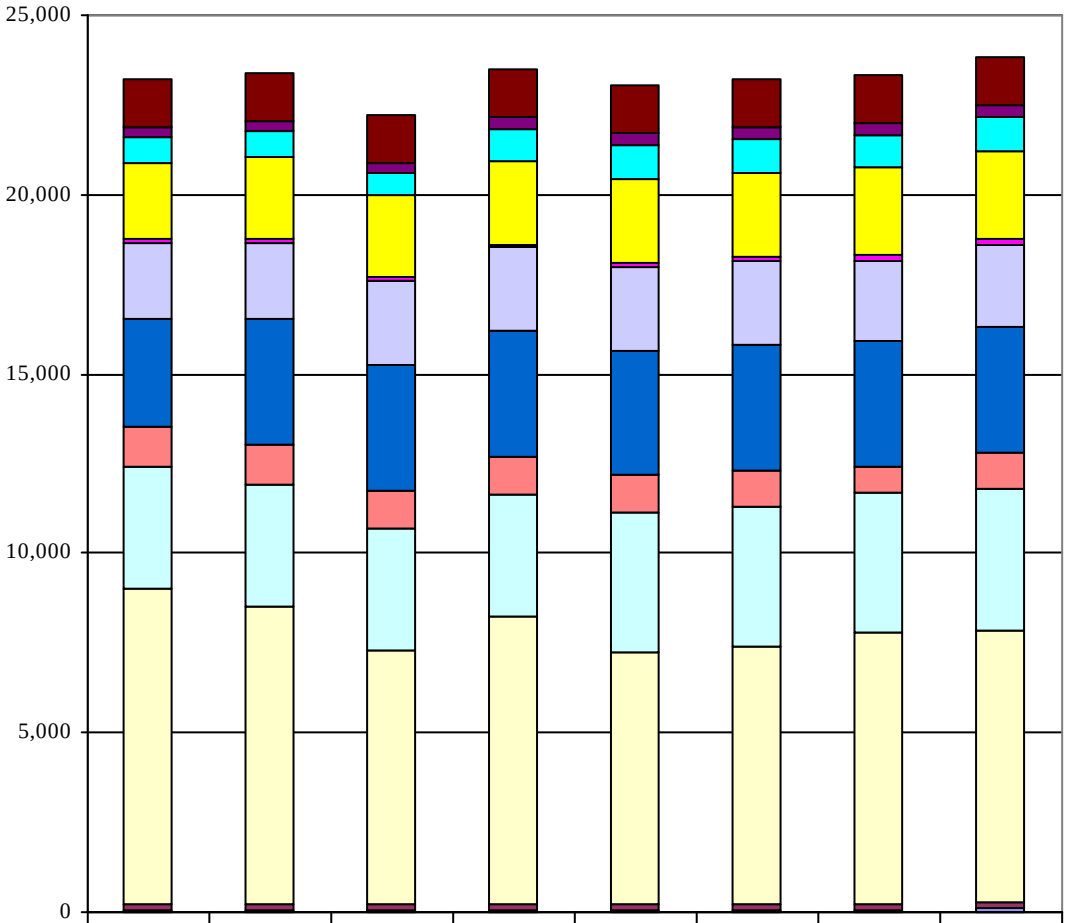
Figure 15: Asian Main Battle Tanks: 2006
(Number in active service)



Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 16: Main Battle Tanks in Key Asian Powers: 1999-2006

(in thousands)

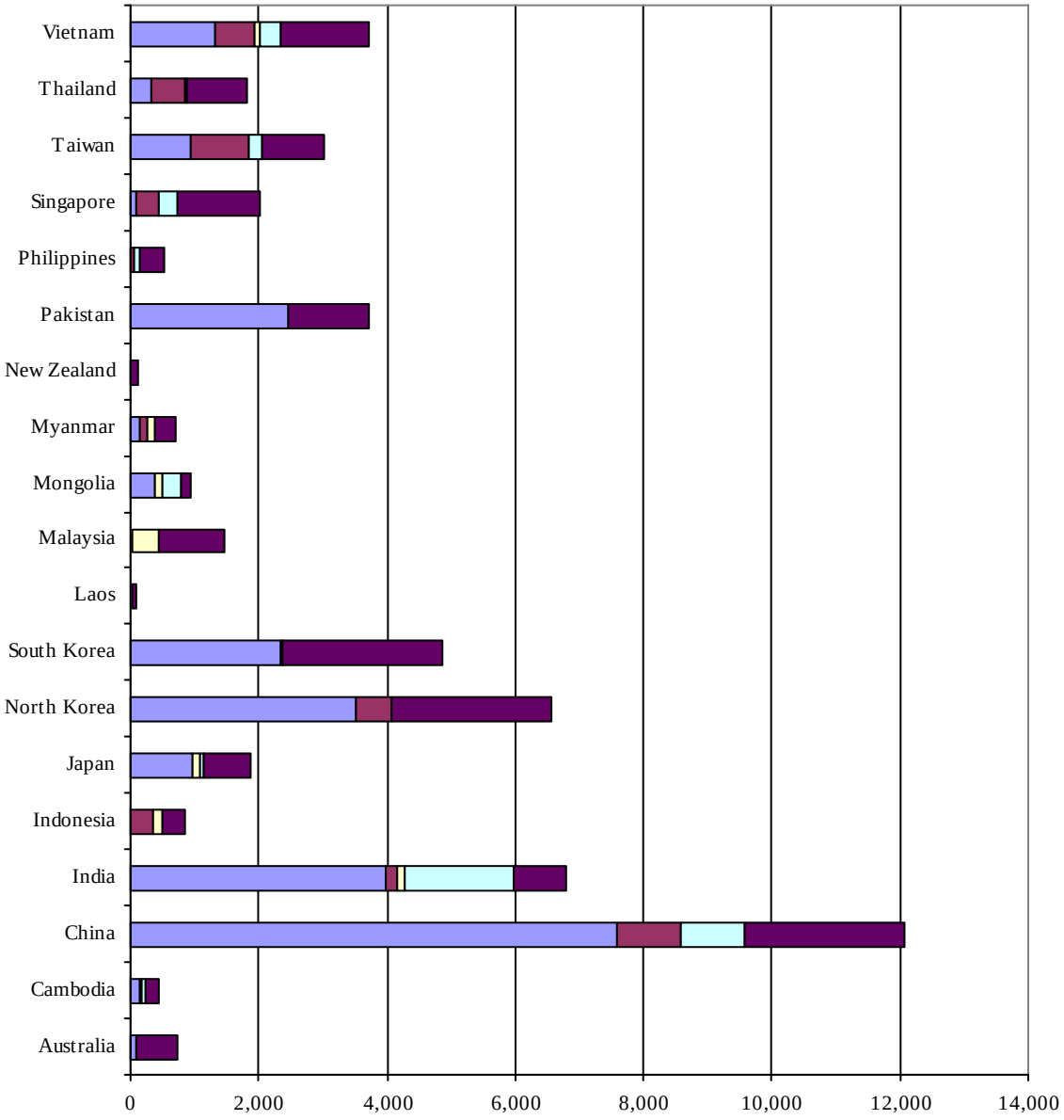


	1999	2000	2001	2002	2003	2004	2005	2006
Vietnam	1,315	1,315	1,315	1,315	1,315	1,315	1,315	1,315
Thailand	277	289	282	333	333	333	333	333
Taiwan	719	719	639	926	926	926	926	926
Pakistan	2,120	2,320	2,285	2,300	2,357	2,368	2,461	2,461
Myanmar	126	100	100	100	100	100	150	150
Malaysia	0	0	0	0	0	0	0	0
South Korea	2,130	2,130	2,330	2,330	2,330	2,330	2,250	2,330
North Korea	3,000	3,500	3,500	3,500	3,500	3,500	3,500	3,500
Japan	1,090	1,080	1,070	1,050	1,040	1,020	700	980
Indonesia	0	0	0	0	0	0	0	0
India	3,414	3,414	3,414	3,414	3,898	3,898	3,898	3,978
China	8,800	8,300	7,060	8,000	7,010	7,180	7,580	7,580
Cambodia	150	150	150	150	150	150	150	150
Australia	71	71	71	71	71	71	71	101

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 1999-2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 17: Asian Armored Fighting Vehicles: 2006

(Number of MBTs, Lt Tanks, RECCE, AIFVs, and APCs in active service)

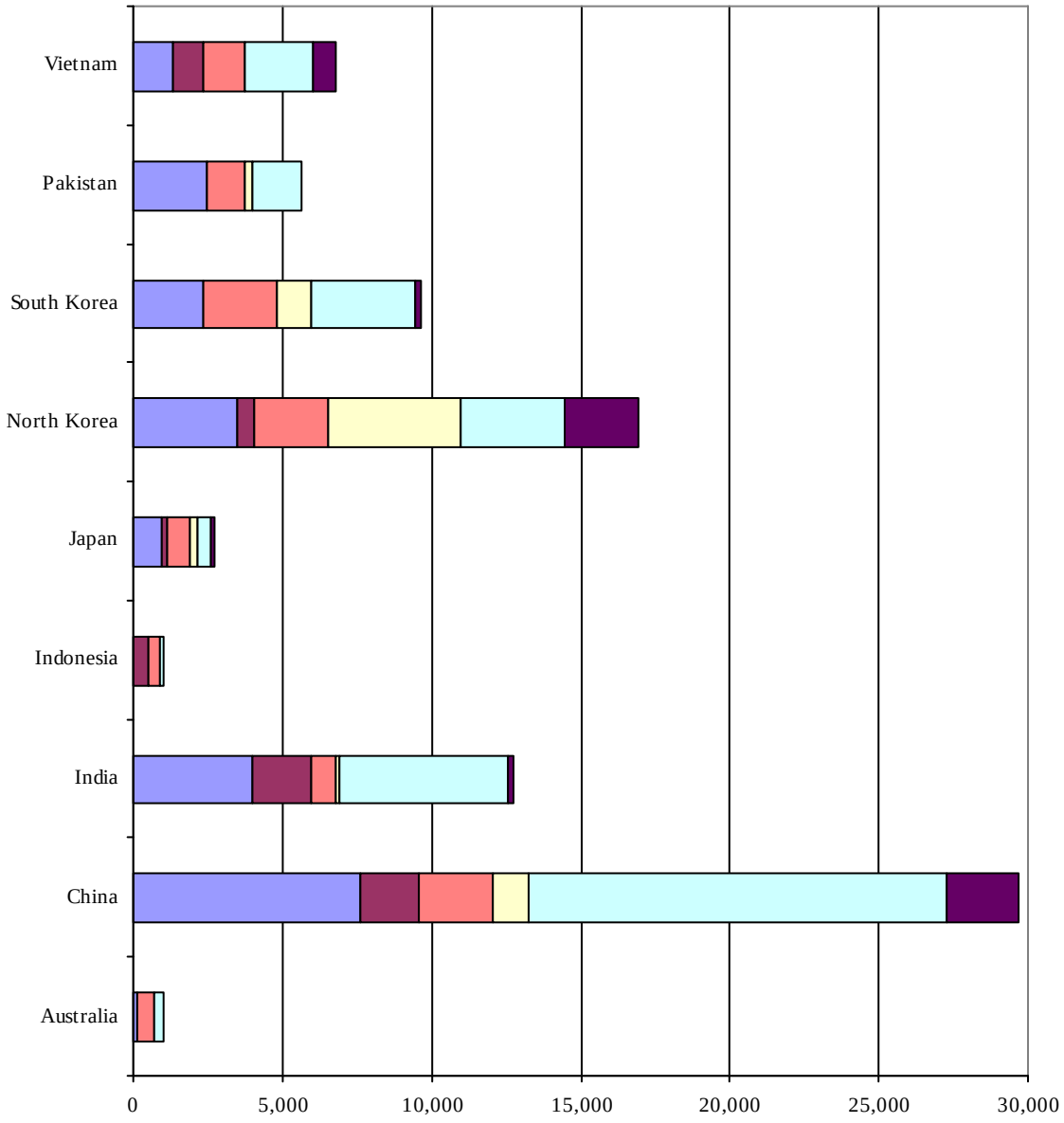


	Australia	Cambodia	China	India	Indonesia	Japan	North Kor	South Kor	Laos	Malaysia	Mongolia	Myanmar	New Zealand	Pakistan	Philippines	Singapore	Taiwan	Thailand	Vietnam
APCs	619	190	2,50	817	356	730	2,50	2,48	50	1,02	150	325	105	1,26	370	1,28	950	950	1,38
AIFVs	0	70	1,00	1,70	11	70	*	40	0	0	310	0	0	0	85	294	225	0	300
RECCE	0	*	0	110	142	100	0	0	0	418	120	115	0	0	0	0	0	32	100
Lt Tanks	0	20	1000	190	350	0	560	0	10	26	0	105	0	0	65	350	905	515	620
MBTs	101	150	7,58	3,97	0	980	3,50	2,33	25	0	370	150	0	2,46	0	100	926	333	1,31

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *indicates an unspecified number.

Figure 18: Asian Land Weapons in Key Powers: 2006

(Number in active service)

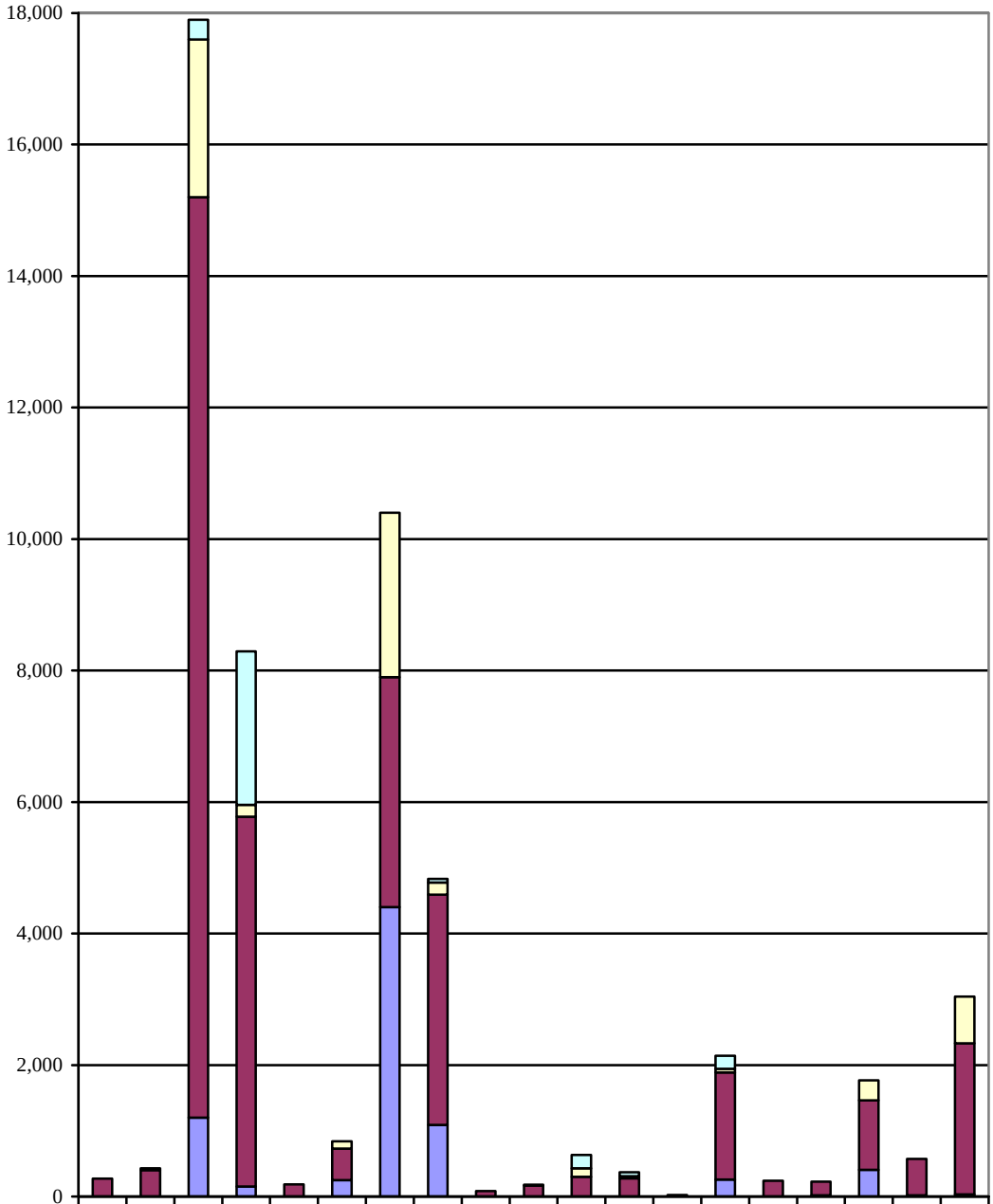


	Australia	China	India	Indonesia	Japan	North Korea	South Korea	Pakistan	Vietnam
MLRS	0	2,400	180	0	110	2,500	185	52	710
Towed Arty	270	14,000	5,625	185	480	3,500	3,500	1,629	2,300
SP Arty	0	1,200	150	0	250	4,400	1,089	260	31
APCs	619	2,500	817	356	730	2,500	2,480	1,266	1,380
OAFVs	0	2,000	2,000	503	170	560	40	0	1,020
MBTs	101	7,580	3,978	0	980	3,500	2,330	2,461	1,315

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 19: Asian Artillery Strength: 2006

(Number in active service)

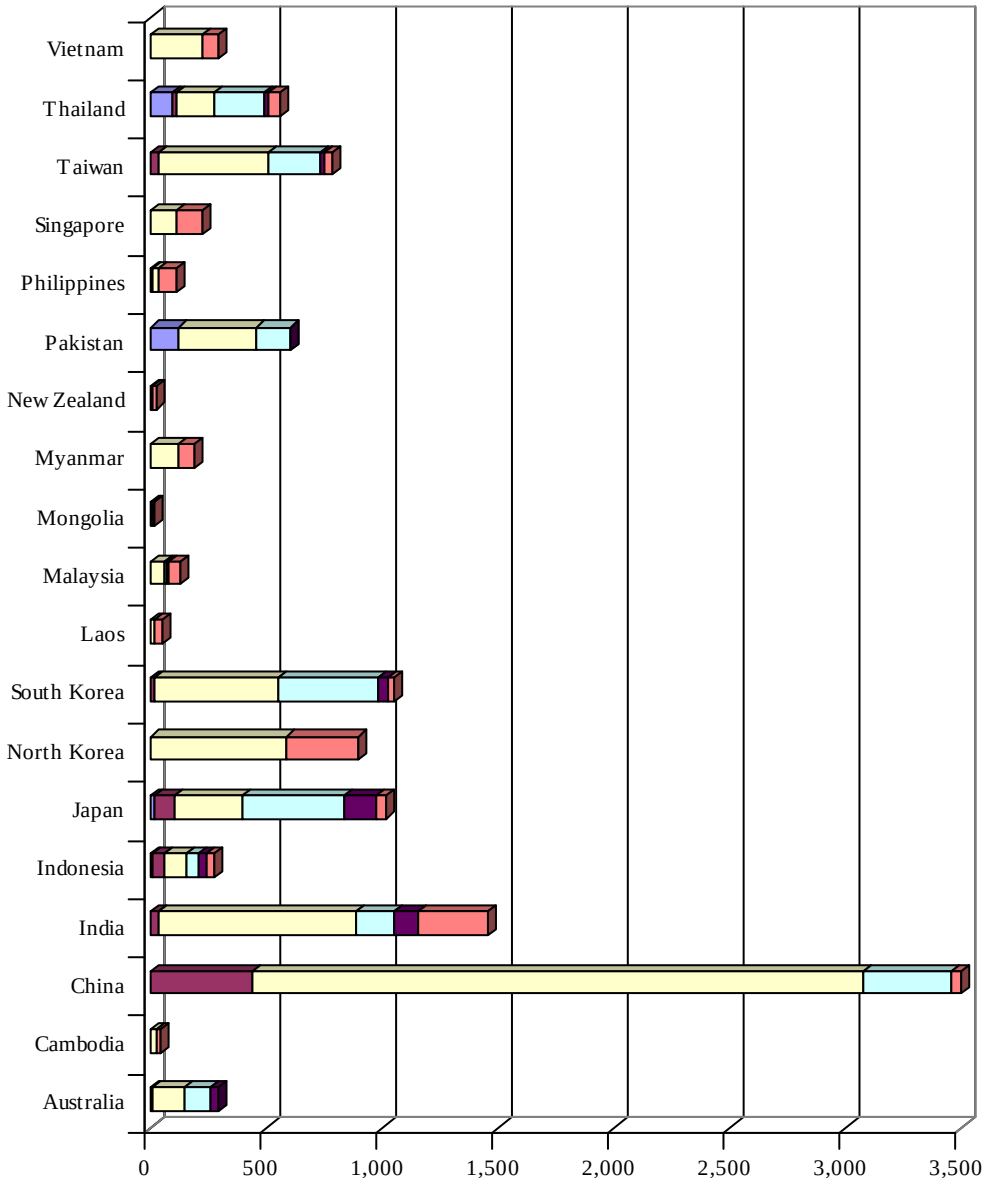


	Australia	Cambodia	China	India	Indonesia	Japan	North Kor	South Kor	Laos	Malaysia	Mongolia	Myanmar	New Zealand	Pakistan	Philippines	Singapore	Taiwan	Thailand	Vietnam
Assault Guns	0	0	300	2,33	0	0	*	58	0	0	200	60	0	200	0	0	0	0	*
MLRS	0	28	2,40	180	0	110	2,50	185	0	18	130	31	0	52	0	0	300	*	710
Towed	270	400	14,0	5,62	185	480	3,50	3,50	82	164	300	278	24	1,62	242	206	1,06	553	2,30
Self-Propelled	0	0	1,20	150	0	250	4,40	1,08	0	0	0	0	0	260	0	18	405	20	31

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *indicates an unspecified number.

Figure 20: Asian Fixed and Rotary Wing Combat Aircraft: 2006

(Number in active service)

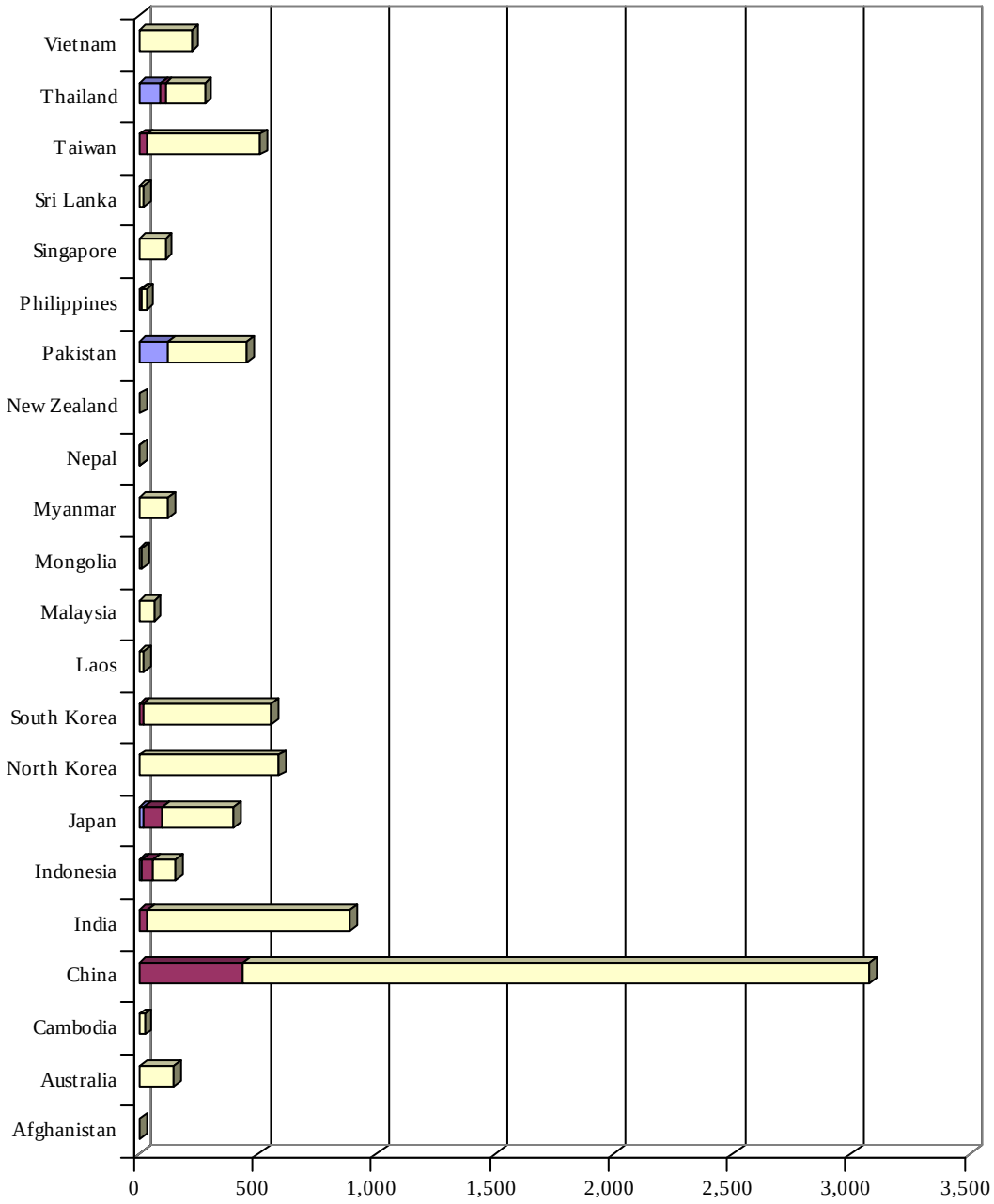


	Australia	Cambodia	China	India	Indonesia	Japan	North Kor	South Kor	Laos	Malaysia	Mongolia	Myanmar	New Zea	Pakistan	Philippines	Singapore	Taiwan	Thailand	Vietnam
Air Force Hel	*	18	80	296	38	40	306	28	27	53	13	66	19	*	80	110	35	47	75
Navy Hel	35	0	0	109	37	143	0	45	0	6	0	0	5	0	4	0	20	23	0
Army Hel	117	0	375	162	51	433	0	424	0	9	0	0	0	153	0	0	220	212	0
Air Force Fixed Wing	140	24	2,64	852	94	300	590	540	22	63	9	125	6	331	21	111	479	165	221
Navy Fixed Wing	0	0	436	34	48	80	0	16	0	0	0	0	0	0	6	0	32	18	0
Army Fixed Wing	6	0	0	0	11	20	0	0	0	0	0	0	0	124	4	0	0	93	0

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *indicates an unspecified number.

Figure 21: Asian Fixed Wing Combat Aircraft: 2006

(Number in active service)

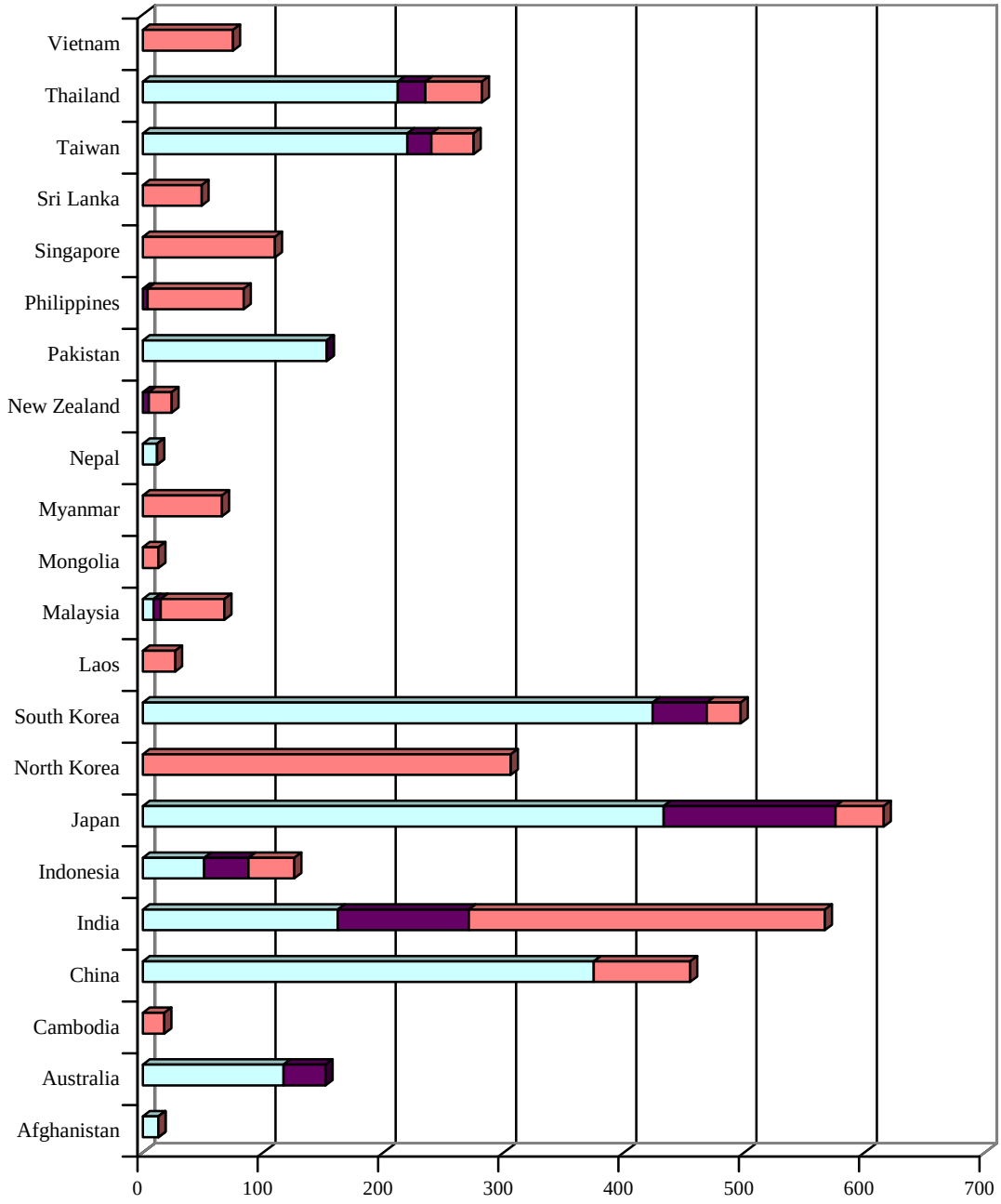


	Afghani	Australi	Cambodi	China	India	Indonesi	Japan	North Ko	South Ko	Laos	Malaysia	Mongol	Mynm	Nepal	New Ze	Pakistan	Philippin	Singapo	Sri Lank	Taiwan	Thailan	Vietnam
Air Force Fixed Wing	5	140	24	2,6	852	94	300	590	540	22	63	9	125	0	6	331	21	111	21	479	165	221
Navy Fixed Wing	0	0	0	436	34	48	80	0	16	0	0	0	0	0	0	0	6	0	0	32	18	0
Army Fixed Wing	0	6	0	0	0	11	20	0	0	0	0	0	0	2	0	124	4	0	0	0	93	0

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 22: Asian Rotary Wing Combat Aircraft: 2006

(Number in active service)

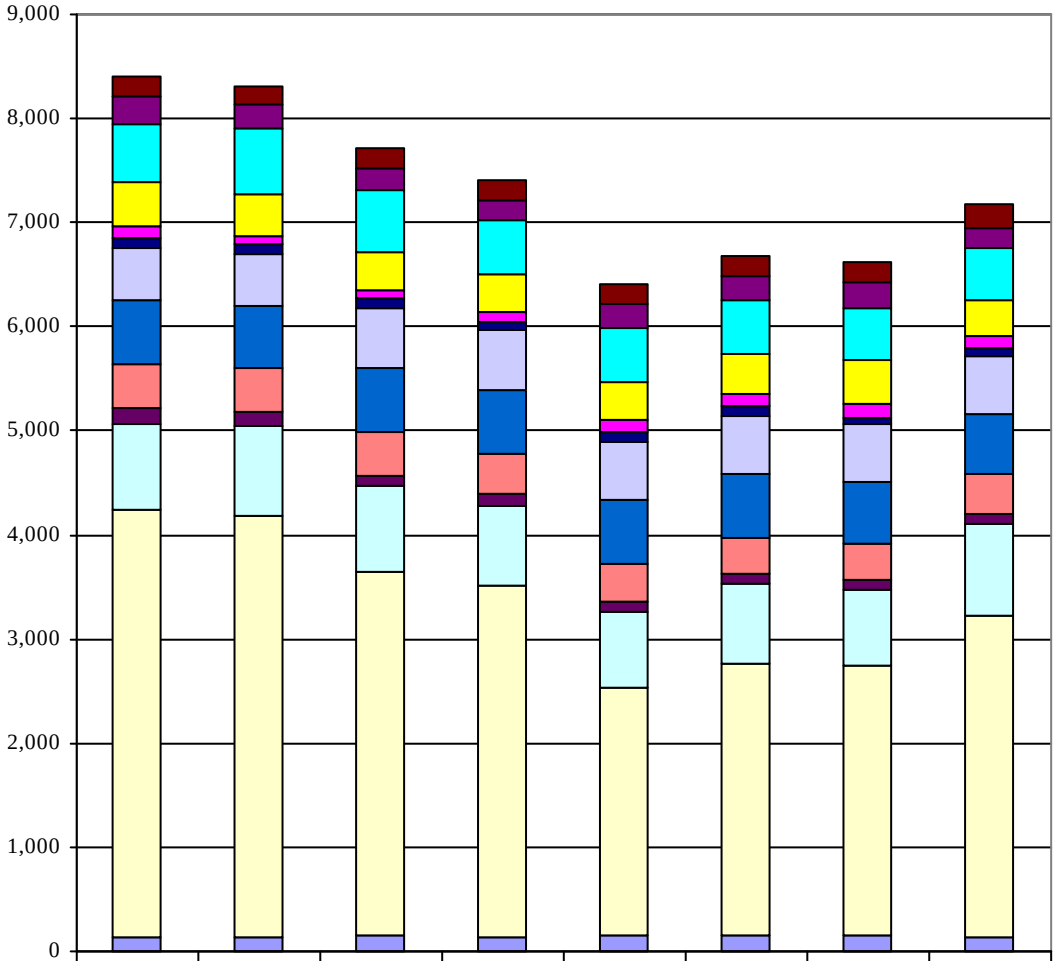


	Afghanista	Australia	Cambodi	China	India	Indonesia	Japan	North Kor	South Kor	Laos	Malaysia	Mongolia	Myanmar	Nepal	New Zea	Pakistan	Philippines	Singapore	Sri Lanka	Taiwan	Thailand	Vietnam
Air Force Hel	0	*	18	80	296	38	40	306	28	27	53	13	66	0	19	*	80	110	49	35	47	75
Navy Hel	0	35	0	0	109	37	143	0	45	0	6	0	0	0	5	0	4	0	0	20	23	0
Army Hel	13	117	0	375	162	51	433	0	424	0	9	0	0	12	0	153	0	0	0	220	212	0

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *indicates an unspecified number.

Figure 23: Fixed Winged Combat Aircraft* in Key Asian Powers: 1999-2006

(in thousands)

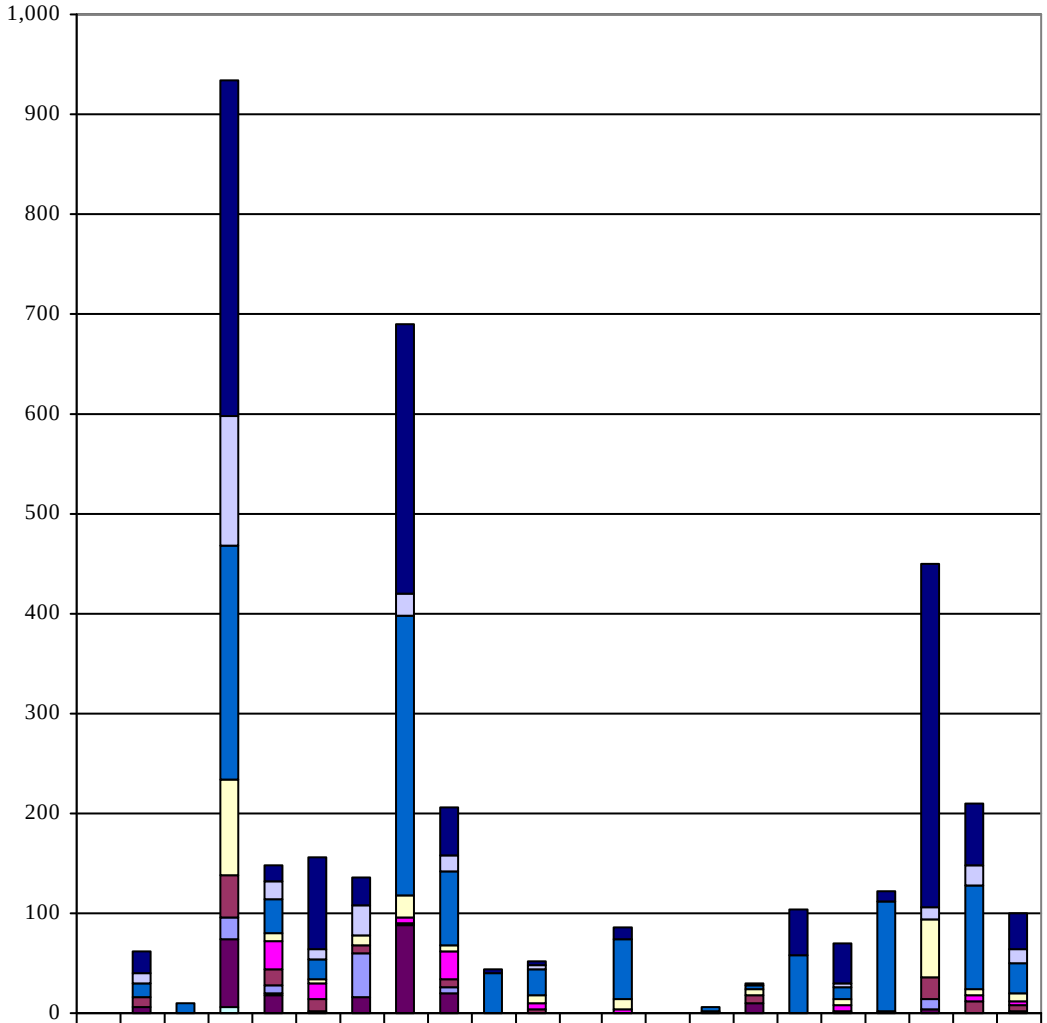


	1999	2000	2001	2002	2003	2004	2005	2006
Vietnam	201	189	189	189	189	189	195	221
Thailand	260	229	220	197	238	238	234	183
Taiwan	560	629	601	514	511	511	511	511
Pakistan	417	396	358	358	372	380	421	340
Myanmar	121	83	83	113	113	123	125	125
Malaysia	89	87	84	71	95	95	73	63
South Korea	511	512	578	571	554	554	554	556
North Korea	607	593	621	621	621	605	584	590
Japan	429	420	411	378	360	350	360	380
Indonesia	140	140	108	108	90	90	94	94
India	839	853	811	775	736	779	714	886
China	4,107	4,061	3507	3,371	2,372	2,600	2,600	3,079
Australia	126	126	148	141	156	161	152	140

Source: Based primarily on material in the IISS Military Balance 1998-1999 to 2005-2006, London, Routledge, 1999-2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *number includes aircraft of all military branches.

Figure 24: Asian Naval Combat Ships: 2006

(Number in active service)

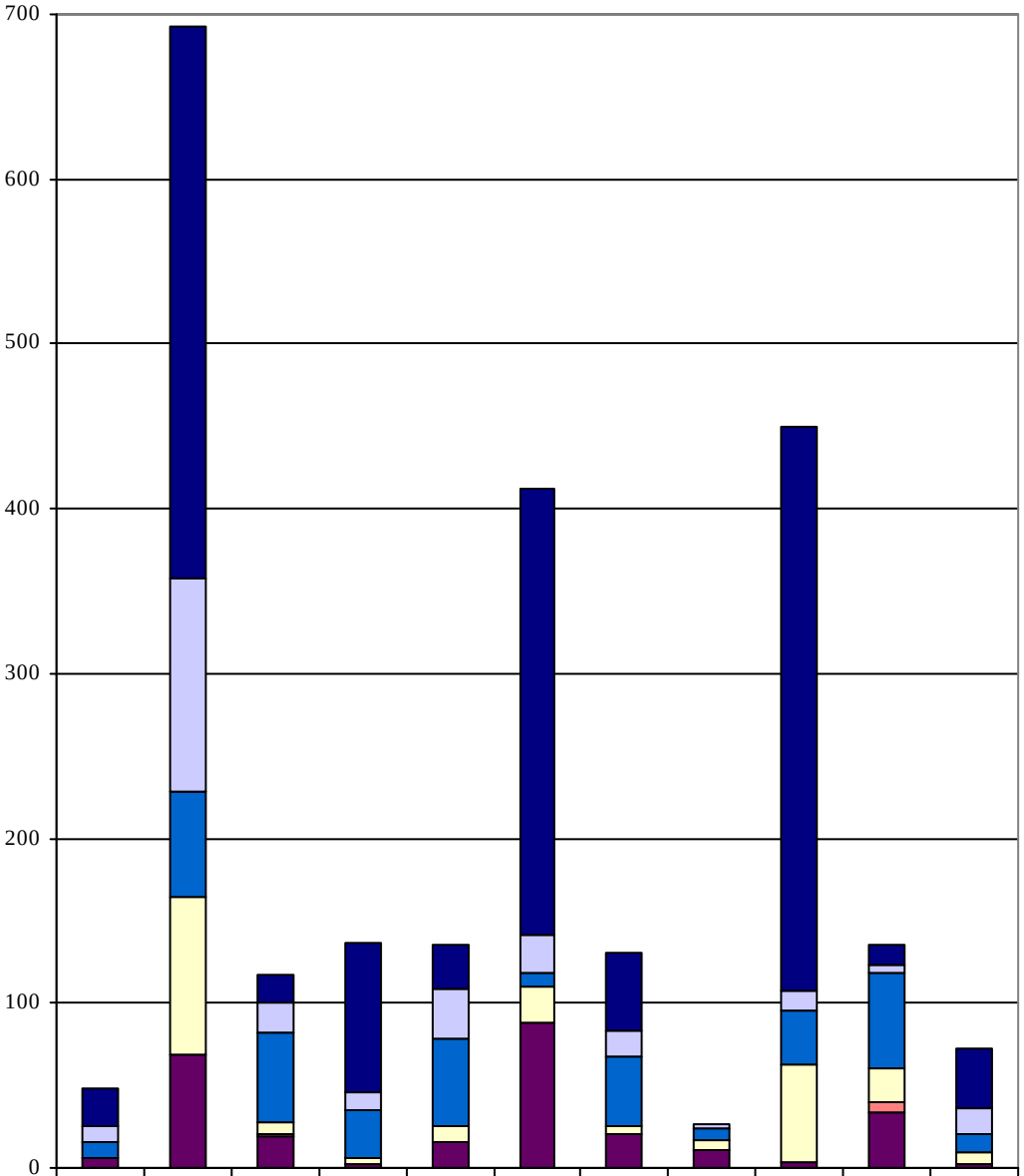


	Afghanistan	Australia	Cambodia	China	India	Indonesia	Japan	North Ko	South Ko	Laos	Malaysia	Mongolia	Myanma	Nepal	New Zea	Pakistan	Philippin	Singapore	Sri Lanka	Taiwan	Thailand	Vietnam
Amphibious	0	23	0	335	17	91	27	270	48	4	3	0	11	0	0	0	46	40	9	343	62	36
Mine	0	9	0	130	18	11	31	23	15	0	4	0	0	0	0	3	0	4	0	12	20	15
Other Patrol	0	15	10	235	33	19	0	279	75	40	27	0	60	0	4	4	58	11	111	0	104	29
Missile Patrol	0	0	0	96	8	4	9	22	5	0	8	0	11	0	0	6	0	6	2	59	6	8
Corvettes	0	0	0	0	28	16	0	6	28	0	6	0	4	0	0	0	0	6	0	0	5	5
Frigates	0	10	0	42	17	13	9	3	9	0	4	0	0	0	2	7	1	0	0	21	12	6
Destroyers	0	0	0	21	8	0	44	0	6	0	0	0	0	0	0	0	0	0	0	11	0	0
Carriers	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Submarines	0	6	0	69	19	2	16	88	20	0	0	0	0	0	0	11	0	3	0	4	0	2
SSNs	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

Figure 25: Asian Naval Combat Ships in Key Powers: 2006

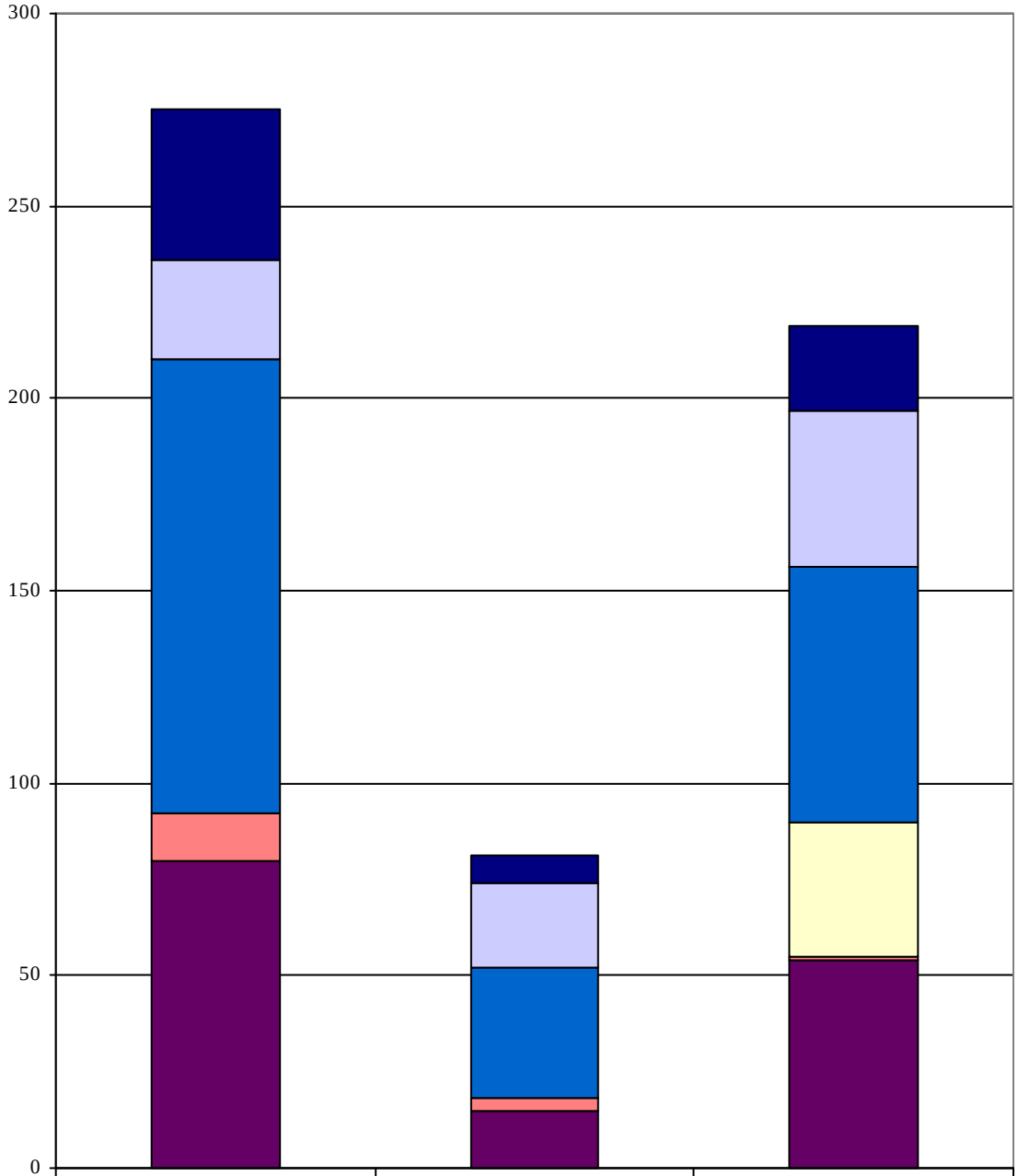
(Number in active service)



	Australia	China	India	Indonesia	Japan	North Korea	South Korea	Pakistan	Taiwan	US PACOM*	Vietnam
Amphibious	23	335	17	91	27	270	48	0	343	12	36
Mine	9	130	18	11	31	23	15	3	12	4	15
Major Surface	10	63	54	29	53	9	43	7	32	58	11
Missile Patrol	0	96	8	4	9	22	5	6	59	21	8
Carriers	0	0	1	0	0	0	0	0	0	6	0
Submarines	6	69	19	2	16	88	20	11	4	34	2

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors. *"Missile Patrol" includes all patrol craft.

Figure 26: Western Naval Combat Ships Affecting the Asian Balance: 2006



	US	UK	Russia
Amphibious	39	7	22
Mine	26	22	41
Major Surface	118	34	66
Missile Patrol	0	0	35
Carriers	12	3	1
Submarines	80	15	54

Source: Based primarily on material in the IISS Military Balance 2005-2006, London, Routledge, 2005 plus data drawn from USPACOM sources and US experts. Some data estimated or corrected by the authors.

[1] See Col. Ernie Howard, "The Strategic Logic of Suicide Terror," Air University Warfare Studies Institute, April 2004.