

**Asia Pacific Arms Buildups
Part One:
Scope, Causes and Problems**

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Contents

I.	Introduction.....	1
II.	What is Happening in the Region?	2
	Defence Spending.....	2
	Arms Acquisitions	4
	Trends	25
III.	Why is it Happening?	28
IV.	About What Should We Be Concerned?.....	35
	Southeast Asia	35
	Northeast Asia	42
V.	Conclusion	57

Abstract

This paper examines the scope, nature and causes of recent conventional arms acquisitions in the Asia Pacific region and identifies current or prospective developments about which Canada should be concerned. Over the last ten years, most Asia Pacific states have improved their ability to patrol, defend and control their own territories and nearby coastal areas. Some states are now starting to acquire weapon systems that would enable them to patrol, defend and possibly control areas further afield. To an extent, the individual arms buildups across the region could be described as sensible examples of modernizing outdated equipment and rounding out unbalanced force postures. However, troubling consequences could result from the general change in the character of military equipment being introduced throughout the

region, as well as from the effects of recent procurements on existing disputes and insecurities. The paper is meant to be read in conjunction with a companion piece (Working Paper No 7) that explores means of curbing potentially troublesome developments and suggests the most feasible avenues for Canadian involvement.

Acronyms*

ABRI -- Indonesian Armed Forces	INCSEA -- Prevention of Incidents at Sea
ACDA -- (US) Arms Control and Disarmament Agency	ISIS -- Institute of Strategic and International Studies
APC -- armoured personnel carrier	JSDF -- Japan Self-Defense Force
APEC -- Asia Pacific Economic Cooperation	MBFR -- Mutual and Balanced Force Reduction (negotiations)
ARF -- ASEAN Regional Forum	MFN -- most favoured nation
ASDF -- Air Self-Defense Force	MSDF -- Maritime Self-Defense Force
ASEAN -- Association of Southeast Asian Nations	MTCR -- Missile Technology Control Regime
ASW -- anti-submarine warfare	NADK -- National Army of Democratic Kampuchea
AWACS -- airborne warning and control system	NTM -- national technical means
CCP -- Chinese Communist Party	ODA -- overseas development assistance
C ³ I -- command, control, communications and intelligence	OPV -- offshore patrol vessel
CFE -- (Treaty on) Conventional Armed Forces in Europe	PDMA -- Prevention of Dangerous Military Activities
COCOM -- Coordinating Committee on Multilateral Strategic Export Controls	P5 -- Permanent Five (members of the UN Security Council)
CPAF -- Cambodian People's Armed Forces	PLA -- People's Liberation Army
C(S)BM -- confidence- (and security-) building measure	PLAAF -- PLA Air Force
CSCA -- Conference on Security and Cooperation in Asia	PLAN -- PLA Navy
CSCAP -- Council for Security Cooperation in Asia Pacific	PMC -- Post-Ministerial Conference
CSCE -- Conference on Security and Cooperation in Europe	PRC -- People's Republic of China
DMZ -- demilitarized zone (Korea)	RAN -- Royal Australian Navy
DPRK -- Democratic People's Republic of Korea (North Korea)	ROK -- Republic of Korea (South Korea)
EEZ -- exclusive economic zone	RMN -- Royal Malaysian Navy
FPDA -- Five Power Defence Arrangement	SAM -- surface-to-air missile
FSX -- Fighter Support Experimental	SIPRI -- Stockholm International Peace Research Institute
FUNCINPEC -- Khmer People's National Liberation Front for an Independent, Neutral, Peaceful and Cooperative Cambodia	SLOC -- sea lanes (or lines) of communication
GSDF -- Ground Self-Defense Force	SOM -- Senior Officials Meeting
IDF -- Indigenous Defensive Fighter	SSBN -- ballistic missile submarine
IISS -- Institute for International and Strategic Studies	SSK -- attack submarine
	SSM -- surface-to-surface missile
	START -- Strategic Arms Reduction Treaty
	UNCLOS -- United Nations Convention on the Law of the Sea
	V/STOL -- vertical/short take-off and landing
	WPNS -- Western Pacific Naval Symposium

*As this list applies to both Working Papers No. 6 and 7, not all terms may appear in this particular paper.

I. Introduction¹

Over the past three years there have been numerous media reports of an “arms race,” or at least an “arms stroll,” in the Asia Pacific region.² Although the end of the Cold War has virtually extinguished the prospect of the threat or use of force among Asia Pacific’s major powers, the region has failed to parallel the global downward trend in military spending and arms acquisition. China’s Su-27s, Taiwan’s F-16s, Indonesia’s East German ships -- these are just the more prominent examples of a region-wide strengthening of arsenals.

Analysts disagree over whether, and about which acquisitions, the West should be concerned. Some argue that regional force modernization is proceeding at a modest pace and scale, and that postures are essentially defensive. Others argue that Asia Pacific states are developing a growing ability to project military power and that this should be of concern in a region rife with historical animosities, territorial and jurisdictional disputes, ethnic tensions, and uncertainty about the future nature and strategy of leadership in several key players.

This paper, the first in a series of two, hopes to bring some precision to the debate by examining what is happening in the region, suggesting why it is happening, and wondering about which developments Canada should be concerned. The second paper looks at what action might be taken to alleviate potentially troubling developments.

Why write another paper on the subject when several have already been written? To date, examinations of Asia Pacific arms buildups have tended to focus on particular subregions, or to identify causes and problems without also thoroughly exploring solutions. This paper attempts to carry the discussion further by cataloguing the nature of the buildups, the potential problems and the potential solutions. It is also the first attempt to present a Canadian perspective on region-wide developments in arsenals.

Canadian military commitments in the region are small, limited essentially to surveillance and protection of shipping off the country’s west coast. However, Asia Pacific arms buildups could work to the detriment of Canadian interests in the following ways.

- 1) Interactive arms acquisition could heighten regional and subregional tensions and militate against the sort of regional and subregional security dialogue that Canada has been trying to promote.
- 2) Regional improvements in naval capabilities could increase the potential for interference with shipping and sea lanes, thus disturbing Canada’s growing trade relations with the region.
- 3) Growth of regional arsenals could increase the likelihood and severity of armed conflict, which could lead to Canadian involvement through a United Nations or other multilateral coalition, and could threaten Canadian investments in the region.
- 4) Unconstrained arms acquisition within the region hampers the promotion of global arms transfer restraint, since some of the region’s players rely on arms sales to subsidize their own defence modernization.
- 5) The development of unfavourable conventional balances could spur proliferation of weapons of mass destruction.
- 6) To the extent that arms buildups are used against domestic forces and that they fuel regional conflicts, there are implications for Canada’s arms transfer, human rights and aid policies, as well as for ethnic tensions within Canada.

As Canada seeks to advance its economic interests in the Asia Pacific region and to promote regional dialogue and cooperation in such fora as APEC and the ASEAN Regional Forum, it will be

¹This paper and the related project have been made possible by a contribution from the Cooperative Security Competition Program (CSCP) of the Department of Foreign Affairs and International Trade, which I gratefully acknowledge. The views expressed herein are informed by interviews conducted in Australia, China, Hong Kong, Indonesia, Japan, Malaysia, Singapore and South Korea in June-August 1993, in Washington, D.C. in March 1994, and in Ottawa during various visits in 1993 and 1994. I wish to thank all those individuals, too numerous to mention here, who generously shared their knowledge and insights with me. I am also grateful to my colleagues at the Institute of International Relations, particularly the Director, Dr. Brian Job, for their assistance and support. The opinions expressed in this paper are those of the author and do not necessarily reflect those of the CSCP, the Department of Foreign Affairs, or the Institute of International Relations.

²See, for example, R. Jeffrey Smith, “Armament Fever Spreads in Asia as It Ebbs in Europe,” *International Herald Tribune*, March 10, 1992; “Asia’s Arms Race,” *The Economist*, February 20, 1993, pp. 19-22; Gerald Segal, “After the F-16 Sale to Taiwan,” *Jane’s Intelligence Review*, December 1992, pp. 564-565. For a longer exposition, see Gerald Segal, “Managing New Arms Races in the Asia/Pacific,” *The Washington Quarterly*, Summer 1992, pp. 83-101.

expected to be an informed and engaged player in regional security issues. A thorough assessment of the implications of recent and prospective regional arms buildups might help to identify developments that could harm Canadian interests; it might also point to ways in which Canada could encourage the forestalment or alleviation of potentially worrisome developments.

For the purposes of this study, Asia Pacific includes the North Pacific (Canada, China, Hong Kong, Japan, Mongolia, North Korea, Russia, South Korea, Taiwan and the United States), Southeast Asia (Brunei, Burma, Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam) and the South Pacific (Australia, New Zealand and the other Pacific Island states that are members of the South Pacific Forum). South Asia (Bangladesh, India, Pakistan, Sri Lanka), Afghanistan and the Central Asian republics of the former USSR are not considered. The period examined is roughly the decade between 1983 and 1993.

II. What Is Happening In The Region?

Defence Spending

The first hurdle one encounters in trying to determine whether to be worried about Asia Pacific arms acquisitions is trying to determine just what is being acquired. Changes in military spending might be taken as a general indication of trends in military capability. However, defence spending is notoriously difficult to measure, particularly in a part of the world where many governments are reluctant to release data to their own citizens, let alone to outsiders. Even in cases where governments are telling the truth about what they spend (and are including all relevant categories of expenditure), there is still the problem of developing an appropriate measure for comparing spending across time and across currencies. Most calculations are based on conversions into constant US dollars at official exchange rates. However, this does not take into account fluctuations in exchange rates over time (i.e. if an Asian currency has appreciated against the dollar, that country's spending will appear to have dropped when in fact it has not)³; neither does it account for purchasing power disparity. China can raise a battalion for what it costs Japan to maintain one soldier, but there is no standardized method of reflecting this. In some cases, corruption inflates the value of military budgets. For example, a weapons manufacturer might acknowledge a contract worth \$2 million, but after "service charges," "advance fees" and "commissions" are factored in, deliver a product worth only \$1.26 million.⁴ To compound the difficulty of analyzing defence spending, it is not clear which figures are more telling -- estimates in current and constant prices, or as a proportion of GDP, or on a per capita basis.

Bearing in mind the above caveats, one can attempt to glean a very general impression of Asia Pacific militarization over the last decade by looking at changes in defence spending. The figures vary depending on the source, but it seems safe to say that East Asia's share of world military expenditure increased during the 1980s, from 9.6% in 1981 to 11.5% in 1991, with a faster rate of growth during the second half of that period.⁵ This reflects in part a decline in defence spending in the United States, Europe and the former Soviet Union, but it is also the result of an increase in regional defence spending, particularly in Northeast Asia. Between 1982 and 1991, real defence spending grew by some 49% in Japan, 48% in South Korea and 43% in Taiwan. These figures are from the US Arms Control and Disarmament Agency (ACDA), measured in constant 1991 US dollars. Measuring at 1988 prices and exchange rates, the Stockholm International Peace Research Institute (SIPRI) comes up with slightly different figures for the same period, noting a growth in military spending of 46% in Japan, 47% in South Korea and 38% in Taiwan. The greatest discrepancy between the two sources has to do with North

³And vice versa. For example, China's official defence budget for 1994 (US\$6.21 billion at the official exchange rate) represents a 21% rise over the previous year's budget, but a 33% currency devaluation at the start of 1994 means the defence allocation has dropped in real terms from its 1993 US dollar value of 7.45 billion. *Jane's Defence Weekly*, February 19, 1994, p. 35.

⁴Example cited in Kenneth Stier and Bao Anyou, "The Bitter Truth Behind Thailand's Khaki Commerce," *Asia, Inc.*, October 1992, p. 34.

⁵Using SIPRI figures and adding estimates for China and Vietnam, *The Economist* reckons that if the US and the USSR are excluded from the world total, Asia's share of global military spending jumped from 15% in 1982 to over 25% in 1991. "Asia's Arms Race," p. 19.

Korea's military expenditure: ACDA records a *drop* of 29% while SIPRI posts an *increase* of 41%. According to both sources, China's defence expenditure declined slightly during the 1980s, then started to rise in 1990.⁶

In Southeast Asia, the picture is mixed and there is greater disagreement between sources. Measured in constant dollars, defence spending *fell* in Indonesia over the 1982-91 period -- by 14% according to ACDA and by 30% according to SIPRI. SIPRI figures indicate that spending also fell in Malaysia (by 37%) and in the Philippines (by 30%). However, ACDA registers a 5% growth in Malaysian defence spending and a 30% growth in the Philippine equivalent. Both note that spending rose by at least 30% in Thailand and by a whopping 90% in Singapore.⁷ Burma's military expenditure grew by an estimated 71%. By way of comparison, Canada's real defence spending increased by approximately 20% between 1982 and 1991.

Moving into the 1990s, real defence budgets continue to increase in almost all Asia Pacific countries⁸ and by more than 5% annually in Singapore and Thailand. Between 1989 and 1992, China's official defence spending rose by over one-third in constant dollar terms. Still, after adjusting for inflation, this left China's 1992 military budget at about the same level it had been ten years previous.⁹ However, Beijing's proffered figures are widely believed to underestimate the true level of defence spending by a factor as high as six. They do not capture spending on military research and development, subsidies for defence enterprises, pensions, special weapons projects, the paramilitary People's Armed Police, or the revenue earned by China's defence enterprises and arms sellers, part of which is directed to weapons acquisition. In testimony before the US Congress in 1993, the CIA estimated that the proceeds of China's military enterprises had reached US\$6.5 billion a year.¹⁰ The rate of growth of Japan's defence budget has fallen dramatically since the late 1980s (from 5.9% in 1989 to 0.9% in 1994, its lowest increase in 34 years), but this still represents the largest absolute increase in the region. It has been estimated that defence expenditures in East Asia and Australia amounted to some US\$105 billion in 1992 and will increase to more than \$130 billion by 1995.¹¹

Although growing, the level of defence spending in Southeast Asia remains modest compared to that in Northeast Asia. In 1993, the relevant figures in the former ranged from roughly US\$1 billion in the Philippines to \$3 billion in Thailand, as opposed to \$10.5 billion in Taiwan, \$12 billion in South Korea, an estimated \$12-24 billion in China and \$40 billion in Japan.¹² Just two countries, China and Japan, account for some 70% of East Asia's total military spending. However, as a region East Asia still falls behind each of North America, the ex-Warsaw Pact and NATO Europe, which together accounted for nearly three-quarters of the world's military expenditure in 1991.¹³

The growth of East Asian military budgets over the last decade can be attributed in part to the rapid growth rates of East Asian economies. Even though absolute levels have generally increased, military expenditure as a percentage of GNP has been static or declining. For example, in South Korea it fell from 6.2% in 1981 to 3.8% in 1991, in China from 8.2% to 3.3%, in Taiwan from 6.4% to 5.2%, in Malaysia from 6% to 3.7%, and in Thailand from 3.9% to 2.7%. In Japan and Singapore, defence expenditure remained respectively a constant 1% and 5-6% of GNP.¹⁴ Burma is an exception to the trend.

⁶US Arms Control and Disarmament Agency, *World Military Expenditures and Arms Transfers 1991-1992* (Washington, D.C., March 1994); *SIPRI Yearbook 1992: World Armaments and Disarmament* (Oxford University Press, 1992), p. 261; *SIPRI Yearbook 1993: World Armaments and Disarmament* (Oxford University Press, 1993), p. 387.

⁷ACDA: 30% in Thailand, 93% in Singapore. SIPRI: 32% in Thailand, 90% in Singapore.

⁸Exceptions include the Philippines, New Zealand, Vietnam and probably North Korea.

⁹*SIPRI Yearbook 1993*, p. 387. As noted earlier, China's official defence budget has dropped for 1994.

¹⁰Patrick Tyler, "China's Military Brass Plows Profits Back Into Business," *The Globe and Mail*, May 25, 1994, p. A11.

¹¹Desmond Ball, "Arms and Affluence: Military Acquisitions in the Asia-Pacific Region," *International Security*, Vol. 18, No. 3 (Winter 1993/94), p. 79.

¹²International Institute for Strategic Studies, *The Military Balance 1993-1994* (London: Brassey's, 1993); Chinese estimate from "Russia muscles in," *The Economist*, July 17, 1993, p. 33.

¹³*World Military Expenditures and Arms Transfers 1991-1992*, pp. 2-3.

¹⁴*World Military Expenditures and Arms Transfers 1991-1992*. The Malaysian trend may be about to reverse. In July 1993, Defence Minister Najib announced that Kuala Lumpur intends to increase the proportion of GDP it spends on defence from 2% to 6% over the next 10-15 years.

Defence spending as a percentage of GNP jumped from an average 3-4% in the 1980s to 5.8% in 1991. For 1992-93, Burma announced a planned defence budget increase of nearly 10%.¹⁵

Arms Acquisitions

While the *level* of defence spending is important within each country because of implications for other public expenditure and for private investment (i.e. the opportunity costs), more relevant for states within the region is the *nature* of the spending -- i.e. on what the money is being spent. A defence budget that grows because of inflation or because soldiers' pay packets are getting fatter does not have the same implications as one that is directed primarily to increased procurement of advanced weaponry. As was demonstrated between 1890 and 1914, serious weapons buildups can occur even without a corresponding increase in military spending.

A cursory glance at the figures gives the impression that Asia Pacific's rising defence expenditure has gone disproportionately to weapons procurement. While East Asia's share of world military spending rose only a couple of percentage points in the 1981-91 period, Asia's share of world spending on arms imports rose from 19% in 1983 to 30% in 1992.¹⁶ However, in arms acquisition as in defence spending, numbers alone cannot tell the tale. They may be inaccurate, and they do not reveal the age, range or sophistication of the equipment, the manner in which it is deployed, the quality of maintenance, or the availability of spare parts, ammunition and fuel. Even when one possesses reliable quantitative and qualitative indicators, it is difficult to make useful comparisons of force levels or to draw conclusions about "military balances." The capability of an armed force is a function not only of its weaponry but also of the quality of its personnel, training, logistics, organization, strategy and command. Factors such as these will be addressed later, in the discussion of troubling developments in the region. For the moment, what follows is a tour d'horizon of recent and prospective Asia Pacific arms acquisitions. Particular emphasis is placed on naval acquisitions because (1) Asia Pacific is primarily a naval environment; (2) it is in the naval sphere that most recent procurement has occurred; and (3) aside from the Korean Peninsula and China's land borders, it is at sea where inter-state battle in Asia Pacific is most likely to occur. The tables should be viewed as rough guides to the direction in which particular armed forces are developing, rather than as comparative tools between countries.

Australia

		1983	1988	1993
Total Armed Forces	72,473	70,500	63,200	
ARMY				
Men	32,850	32,000	28,600	
Battle Tanks (Heavy)	103	103	103	
NAVY				
Submarines	6	6	5	
Principal Surface Combatants*		11	12	11
Patrol and Coastal Combatants		20	22	18
Maritime Aircraft				
- Combat Aircraft	9	-	-	
- Armed Helicopters	6	5	15	
AIR FORCE				
Combat Aircraft	131	85	157	

*In this and the tables that follow, "principal surface combatants" refers to aircraft carriers, battleships, cruisers, destroyers and frigates, while "patrol and coastal combatants" refers to corvettes, missile craft, torpedo craft and patrol craft. All figures in this and subsequent similar tables come from *The Military Balance 1983-84, 1988-89 and 1993-94*.

While the number of personnel in Australia's armed forces has declined by some 9,000 since 1983, the number of tanks and ships in inventory has remained relatively constant. The most significant

¹⁵World Military Expenditures and Arms Transfers 1991-1992 and Ball, "Arms and Affluence," p. 80.

¹⁶The military spending figure is from ACDA, cited above; the arms import figure is from *SIPRI Yearbook 1993*, p. 476. The two figures are not directly comparable as SIPRI's measure does not include Australia, New Zealand and the South Pacific islands; it does include India, Nepal, Pakistan and Sri Lanka, which are not considered in the present study.

acquisitions have been aircraft, in particular, 52 F-18 fighter jets. The Air Force is slated to receive 15 ex-US F-111G strike bombers to add to the 22 it already possesses.¹⁷

Future years will see a marked improvement in naval capabilities. The Royal Australian Navy is in the midst of a modernization program, the aim of which is to create a more flexible force structure focused on maintaining a presence and undertaking cooperative missions in surrounding waters. Planned acquisitions include:

- eight ANZAC-class frigates, armed with missiles and equipped with *Seahawk* antisubmarine helicopters, to replace a smaller fleet of *River*-class frigates. The ships will be commissioned between 1996 and 2004. According to a May 1991 Force Structure Review, the Navy aims to increase its destroyer/frigate force to 16 by the year 2010;
- six diesel-powered *Collins*-class patrol submarines. These highly-capable Swedish-designed boats will more than double Australia's current submarine force of five. Fabrication work began in June 1989, with planned commissioning between 1995 and 1999;
- 12 offshore patrol vessels, possibly in a joint project with Malaysia. The new vessels will feature better seakeeping, endurance, weapons and sensors than the existing *Fremantle* class;
- up to six coastal minehunters (the RAN currently has none), to be delivered between 1997 and 2002; and
- two *Newport*-class tank landing ships, being acquired from the US, for training and helicopter support (to replace two existing ships). The US vessels will be modified to increase their 2,500 mile range, inter alia.¹⁸

Plans to build a training and helicopter support ship were scrapped due to moves to cut defence spending. Other projects, such as the acquisition of new armoured personnel carriers for use in the Australian north, and electronic support systems and forward-looking infra-red radar for the RAN's *Seahawk* helicopters have been deferred. Other major procurements include an over-the-horizon radar network, *Chinook* helicopters and P-3C updates.¹⁹

Brunei

		1983	1988	1993
Total Armed Forces	3,650	3,650	4,400	
ARMY				
Men	3,650	3,200	3,400	
Battle Tanks (Light)	16	16	16	
NAVY				
Patrol and Coastal Combatants		6	6	6
AIR FORCE				
Combat Aircraft	2	-	4	
Armed Helicopters	21	6	7	

Brunei has a very small, relatively modern force, which until recently was primarily directed against the danger of land-based threats from Malaysia or Indonesia, or an externally-sponsored revolt. In the 1980s, Brunei turned its attention to the protection of oil and natural gas fields located in the immediate offshore area. Brunei's last major acquisitions were in the late 1970s, when it procured three missile-armed fast-attack craft (*Waspada*-class) from Singapore and 36 *Exocet* missiles from France. Since then, the emphasis has been on increasing the Flotilla's reach and command and control capabilities rather than on acquiring new weapons systems. In 1988, the *Waspadas* began a modernization program to extend their service life and improve their fire control systems. The following year, Brunei reportedly placed an order for three *Vigilance*-class corvettes, but the deal fell through. Tenders have re-opened, but further delays have been caused by the priority being given to a purchase of 16 *Hawk* advanced jet trainer/light fighter attack aircraft from Britain (deliveries began in 1993, with an option for six more). The acquisition of corvettes would represent a qualitative leap for the Flotilla by, in effect, adding an offshore combat capability to a constabulary force. Meanwhile, Brunei has ordered three 1,000-ton

¹⁷The new F-111s, unlike Australia's current ones, will not be modified to carry the *Harpoon* long-range anti-ship missile. *Jane's Defence Weekly*, July 10, 1993, p. 15.

¹⁸Richard Sharpe, ed., *Jane's Fighting Ships 1994-95* (Coulson: Jane's Information Group Limited, 1994), pp. 23-31 and *The Military Balance 1991-92*, pp. 154-55.

¹⁹*Jane's Defence Weekly*, August 28, 1993, p. 16, and May 21, 1994, p. 6.

offshore patrol vessels from Britain, for delivery in the late 1990s. A small landing craft may also be ordered.²⁰

The acquisition of more ships will be somewhat of a moot point if there are insufficient personnel to operate them. Brunei's small population places a fundamental constraint on the country's military capabilities. The armed forces already consume approximately 13% of Brunei's total manpower pool -- estimated to be the highest proportion of any volunteer national defence force in the world. In 1991, the Flotilla could muster only 50 officers and 530 men.²¹

Burma (Myanmar)

	1983	1988	1991
Total Armed Forces	179,000	186,000	280,000
ARMY			
Men	163,000	170,000	259,000
Battle Tanks (Heavy)	25	20+	26
NAVY			
Patrol and Coastal Combatants	81	39	46
AIR FORCE			
Combat Aircraft	16	27	25

Although insurgency movements in Burma have dwindled substantially in recent years, the Burmese armed forces are growing in size, from 186,000 in 1988 to 280,000 in 1991. The reported goal is eventually 500,000.²² It has been claimed that military spending accounts for as much as 50% of Burma's budget and that nearly all heavy industry in the country is defence-related.²³ ACDA reports that Burmese military spending is closer to 20-25% of central government expenditure, which is still higher than that of other Southeast Asian countries.²⁴ Even if Rangoon's spending is near the upper bound of estimates, it -- and the rapid growth of the military -- could simply represent a Burmese job creation program, to deal with the country's growing number of unemployed.

Yet at least some of this money is going to weapons procurement. In the last decade, Burma has acquired numerous coastal patrol craft, including, most recently, three *PB-90*-class boats from Yugoslavia (delivered in late 1990) and 10 *Hainan*-class boats from China (in 1991 and 1993). The Yugoslav vessels are reportedly proving to be unsatisfactory in service. Two fast attack craft (gun) are under construction in Rangoon, for completion in 1994. There are also plans to augment Burma's four corvettes -- the most recent of which dates from 1960 -- with up to three Chinese frigates, possibly of the *Jiangnan* class.²⁵

The *Hainans* were part of a series of purchases made under a US\$1.2 billion sales agreement concluded with Beijing in 1989. Deliveries in 1990-92 of over 50 T-69II main battle tanks and over 50 Type 63 light tanks were supplemented in 1993 by another 250 armoured fighting vehicles, including 50 T-69IIs, 50 Type 63s and 150 Type 85 armoured personnel carriers.²⁶ The deal also included multiple rocket launchers, small arms and ammunition, 36 F-7 fighters and 24 A-5M close support aircraft. Two SAC Y-8D medium-range transport aircraft were delivered in September 1992, with a further two on order. Burma is also believed to have bought air defence radars and bombs.²⁷ China also supplied HN5 shoulder-fired anti-aircraft missiles, and five instructors from the PLA Air Force. In addition, Beijing is reported to have completed a munitions factory that produces rifles, light machine guns and ammunition. In 1991, Burma took delivery of six G-4 *Super Galeb* aircraft from Yugoslavia (limited to counter-insurgency use). In addition, Rangoon's first indigenously manufactured armoured vehicles came into

²⁰ *Jane's Fighting Ships 1994-95*, p. 70; S.E. Speed, "The Evolving Maritime Environment in Southeast Asia: ASEAN Naval Procurements and Regional Security," Unpublished paper, University of British Columbia, December 1993, p. 4; Amitav Acharya, *An Arms Race in Post-Cold War Southeast Asia? Prospects for Control*, Pacific Strategic Paper 8 (Singapore: Institute of Southeast Asian Studies, 1994), p. 66.

²¹ James Goldrick, "Navies in Asia: A Survey of the Development of Ten Navies in South and South East Asia, 1945-1992," November 1992, p. 197.

²² Eric Hyer, "Sideshow: The Developing China-Myanmar Security Relationship," Paper prepared for the International Studies Association 35th Annual Convention, Washington, D.C., March 29-April 1, 1994, pp. 6-7.

²³ Stier and Bao, "The Bitter Truth Behind Thailand's Khaki Commerce," p. 33.

²⁴ *World Military Expenditures and Arms Transfers 1991-1992*, p. 56.

²⁵ *Jane's Fighting Ships 1994-95*, pp. 76-77.

²⁶ *Jane's Defence Weekly*, November 27, 1993, p. 11.

²⁷ *Jane's Defence Weekly*, December 11, 1993, p. 13.

service early in the decade: 30 *Mazda* reconnaissance vehicles and some *Hino* armoured personnel carriers.²⁸

China has also assisted Burma with the construction of new naval bases at Hanggyi Island at the mouth of the Bassein River, at Sittwe in Arakan State near the border with Bangladesh, at Mergui in Mon State near the Thai border, and of a radar and listening post at Great Coco Island adjacent to India's Andaman Island chain. In return, the PRC's naval flotillas touring the Bay of Bengal and the Indian Ocean are believed to have secured access to all of Rangoon's existing and planned ports.²⁹

Singapore has emerged as a supplier or conduit for small arms and, joined recently by South Africa, of ammunition.³⁰

Cambodia

	1983	1988	1993
Total Armed Forces	25,000	60,000	102,000
ARMY			
Battle Tanks (Heavy)	80	150	
- Light	10	10	
NAVY			
Patrol and Coastal Combatants		11	10
AIR FORCE			
Combat Aircraft	12	21	

The inventories of the weapons of each party to the Cambodian conflict that were supposed to be taken under the disarmament phase of the 1991 Paris Peace Plan were not completed, thus little information exists about the level of arms in the country. When Vietnam withdrew from Cambodia in 1989, it transferred a number of MiG-21 fighters to the Cambodian Air Force and some T-54 tanks to the Army. Only one of the MiG-21s is reported to be serviceable.³¹ Naval forces include: two Soviet *Turya*-class fast attack craft (hydrofoil), in a poor state of repair but still used for river operations; four modified *Stenka*-class fast attack craft (patrol), of which three are operational; two *Zhuk*-class coastal patrol craft, transferred from the USSR via Vietnam between 1985 and 1987; and four *Shmel*-class river patrol craft, in poor condition.³² FUNCINPEC's National Army of Independent Kampuchea (Anki) has mainly 1960s-vintage US equipment. For the rest, Chinese or Vietnamese equipment such as the AK-47 automatic rifle are the mainstay. Though the Khmer Rouge's National Army of Democratic Kampuchea's (NADK) arms lifeline from Thailand and China has been cut off, NADK still gets revenue from timber and gem trading across the Thai border, thus is in a position to buy weapons.³³

The commanders of the Cambodian People's Armed Forces (CPAF), Anki and the Buddhist Liberal Democratic Party's (FUNCINPEC's former guerrilla ally) Khmer People's National Liberation Armed Forces have supported the unification of their units in the Royal Cambodian Army. The biggest challenge lies in establishing a central command structure and in coping with unpaid, ill-disciplined and increasingly restless soldiers. In March 1994, Cambodia signed a US\$15 million military cooperation agreement with North Korea, under which Pyongyang would train and equip two special warfare battalions of the Cambodian Army, and would help build and operate a factory for producing small arms ammunition and repairing tanks, artillery and small arms.³⁴ In May it was reported that the United States and Australia were considering supplying arms to the Cambodian Army in view of its recent battlefield defeats at the hands of the Khmer Rouge.³⁵

²⁸Andrew Mack, *Arms Proliferation in the Asia-Pacific: Causes and Prospects for Control*, Working Paper 1992/10 (Canberra: Department of International Relations, Research School of Pacific Studies, Australian National University, December 1992), p. 7; Stier and Bao, "The Bitter Truth Behind Thailand's Khaki Commerce," p. 33; Hyer, "Sideshow," pp. 9-12; *The Military Balance 1991-92*, p. 156.

²⁹"South East Asian Naval Programmes, Part III," *Naval Forces*, Vol. XIV, No. 1 (1993), p. 27.

³⁰"But will the flag follow trade?" *The Economist*, October 8, 1994, p. 36.

³¹Even the best CPAF pilots are relatively inexperienced, with less than 1,000 operational flying hours. Martin Soong, "Phnom Penh may seek to retain power by force," *The Straits Times*, June 12, 1993, p. 19.

³²*Jane's Fighting Ships 1994-95*, p. 82.

³³Soong, "Phnom Penh may seek to retain power by force," p. 19.

³⁴Nate Taylor, "Cambodia signs \$15m accord with N. Korea," *Jane's Defence Weekly*, July 2, 1994, p. 1.

³⁵Philip Shenon, "US Considers Supplying Arms to Help Sihanouk in Cambodia," *The New York Times*, May 15, 1994, p. A1.

China

	1983	1988	1993
Total Armed Forces	4,100,000	3,200,000	3,030,000
ARMY			
Men	3,250,000	2,300,000	2,300,000
Battle Tanks			
- Heavy	11,450	9,000	7,500-8,000
- Light	600	2,000	2,000
NAVY			
Submarines (excluding SSBNs)	102	113	45 (+50 non-operational)
Principal Surface Combatants	35	53	56
Patrol and Coastal Combatants	1,022	850	870
Maritime Aircraft			
- Combat Aircraft	800	900	880
- Armed Helicopters	-	12	65
AIR FORCE			
Combat Aircraft	5,300	6,000	4,970

Since Mao Tse-tung's death in 1976, China has gradually moved away from the concept of "people's war" and an emphasis on manpower to an emphasis on advanced weaponry and tactics. The 1980s saw an enormous reduction in the size of the People's Liberation Army (PLA), although the announced cut of one million troops in 1985 may actually have been closer to 700,000, and most of those may in fact have been transferred to paramilitary forces.³⁶ PLA modernization was accelerated in 1989, probably spurred in part by the leadership's desire to reward the military for its loyalty during the Tiananmen Square uprising. It was given an added boost in 1991, when Beijing drew appropriate lessons from the defeat of Iraq's Chinese-style army by the West's superior technology in the Gulf War.

Previously organized to defend China against massive Soviet attack from the north, parts of the army are now being restructured to form rapid deployment forces (with airborne drop and amphibious landing capabilities), in line with Beijing's view that threats will increasingly be limited to low-intensity conflicts around the Chinese periphery.³⁷ Specialized troops such as airborne army units, electronic units, climatology units, mountain troops, marine units, nuclear-powered submarine units and ground-to-air missile units are constituting a greater proportion of PLA manpower. Officers are younger, more educated, and more specialized than in the past.³⁸ Redundant chains of command have been streamlined and the number of military regions has been reduced from eleven to seven. The emphasis is on improved command and control systems, better training for soldiers, and increased manoeuvrability, including combined arms operations.³⁹ Military airlift is also being significantly upgraded. The Air Force has begun taking delivery of several Ilyushin IL-76 heavy transport aircraft while continuing to obtain the smaller, locally produced Yun-8 transport.⁴⁰

These changes notwithstanding, the ground force is the lowest priority in the PLA's modernization. Aside from the purchase of some 400 T-72 main battle tanks from Russia, few replacements have been introduced for the army's outmoded weapons and equipment. Indigenous weapons improvements include production of a third-generation Type-85 II main battle tank -- an adaptation of the Russian T-54/55 that incorporates technology acquired from the West and Israel and provides considerably improved firepower and reliability over the Chinese Type 69 -- and computerized firing systems for armour and artillery. Rather, the bulk of the PLA's weapons modernization is taking place in the Navy.

³⁶Tai Ming Cheung in Charles A. Meconis, ed., *Asia-Pacific Dialogue on Maritime Security and Confidence Building Measures*, Transcript of Proceedings, Seattle, September 11-13, 1992, p. 63. Tai also says that the 1992 reduction of 300,000 troops involved only support units.

³⁷Six divisions among the PLA's 24 group armies are believed to have been chosen as quick response forces. These are spread around the country, with each assigned to cover a designated area, and are comprised of light infantry units, some supplemented by army aviation forces equipped with Zhi-9 and heavier transport helicopters to provide improved tactical mobility. *Jane's Defence Weekly*, February 19, 1994, p. 27.

³⁸Xu Xin, *Changing Chinese Security Perceptions*, NPCSD Working Paper No. 27 (York University, April 1993), pp. 17-18.

³⁹Taeho Kim, "China's Military Buildup in a Changing Security Climate in Northeast Asia," Paper prepared for publication in *China Military Yearbook 1992/93*, p. 13.

⁴⁰Until now the transport fleet has only had light cargo aircraft. The growth of China's civilian airline industry is also boosting military transport capabilities. *Jane's Defence Weekly*, February 19, 1994, p. 27.

Prior to the early 1980s, the PLA Navy's main mission was to support the ground forces in war actions and to provide coastal defence. In the 1980s, China adopted a new maritime doctrine known as the "green water active defence" strategy. According to Chinese naval strategists, "active defence" is defence exercised for anti-attack purposes (i.e. it does not exclude the possibility of offensive strikes for the purpose of self-defence) or for offence after a period of defence.⁴¹ The PLAN would confront the enemy in the outer approaches and stop any advance before incursions into Chinese coastal waters occurred. The scope of green waters (*jin hai*) was defined to reach from Vladivostok in the north to the Straits of Malacca in the south to the first island chain of the Western Pacific in the east. The swath extends up to 1,000 nautical miles from the Chinese mainland and includes Japan, the Philippines and the South China Sea.⁴²

Long-term development plans envision the Navy becoming a green water fleet in the 1990s, a blue water fleet by 2020, and a "world class" fleet by 2050. In all phases, weapons upgrading is a priority. The early 1990s have seen the introduction into service of several new classes of vessels, including:

- the *Luhu*-class destroyer, of which the first was commissioned in 1994, with the second planned for 1995, and two more later on. Thanks to the assistance of Western technology, such as US-made General Electric gas turbine engines, licence-built French sonars and the same combat direction system found on French *La Fayette*-class frigates, the *Luhu* marks a major step forward in capability;
- the *Jiangwei*-class missile frigate, of which four were completed between 1991 and 1994, with a fifth scheduled for completion in 1996 and a possible sixth planned;
- the *Houxin*-class fast attack craft (missile), of which eight have been built and three are under construction, to replace the older *Hegu/Hoku*-class;
- the *Houjian*-class fast attack craft (missile), of which one was commissioned in 1991, probably with the export market in mind; as well, three Type 037/1A offshore patrol vessels were ordered in December 1992, apparently a larger and slower version of the *Houjian*-class, with considerable endurance, possibly for export; and
- the *Huludao*-class fast attack craft (patrol), of which four have been built and a fifth is under construction. Again, these are probably intended for export.

In addition, Beijing has upgraded the *Luda*-class destroyer and introduced new types of amphibious and support vessels, capable of sustaining operations farther from shore and for longer periods.⁴³

Reliance on big guns has been substituted by emphasis on long-range, precision-guided, over-the-horizon missiles. Fire control and navigation equipment has been upgraded through the purchase of Western arms and technology. The deployment of imported armed helicopters has improved the fleet's anti-submarine warfare (ASW) capability. There are unconfirmed reports that China has ordered three *Kilo*-class patrol submarines to be built either in Russia or in China under licence, for completion in 1996-97. These would replace the obsolescent *Romeo/Ming* design.⁴⁴

For the past several years, rumours of Chinese intentions to acquire an aircraft carrier have swirled throughout the region. Foreign Minister Qian Qichen announced in October 1992 that China had abandoned plans to purchase a carrier. Hopes of buying the *Varyag*, under construction in the Ukraine, were scotched, some say due to US pressure on Russia. The emphasis now seems to be on indigenous development. In March 1993, for the first time, a senior naval commander (Vice Admiral Zhang Yuanhai) admitted that China had put carrier research and development into top gear. Deng Xiaoping has reportedly approved construction, and 1.2 billion yuan was allocated for development in 1993. Factories in Shanghai, Xian and Chongqing have been ordered to develop onboard planes. The stated intention is to have two 48,000 ton aircraft carriers leading two task fleets by 2005. Development will be speeded if China can acquire from Russia technology for items like steam catapults for launching aircraft, arrester

⁴¹In general, new Chinese strategic principles and combat methods place greater emphasis on "gaining the initiative by striking first," rather than waiting for the enemy to strike -- i.e. pre-emption. Michael D. Swaine, *The Modernization of the Chinese People's Liberation Army: Prospects and Implications for Northeast Asia*, NBR Analysis, Vol. 5, No. 3 (October 1994), p. 9.

⁴²You Ji, "The Chinese Navy in the Changing World Order: The South China Sea Theatre," Paper prepared for Seminar on Maritime Power in the China Seas: Capabilities and Rationale, Canberra, May 7, 1993, pp. 4-5.

⁴³*Jane's Fighting Ships 1994-95*, pp. 113-135; Norman Friedman, "World Navies in Review," *Proceedings*, March 1993, p. 111.

⁴⁴*Jane's Fighting Ships 1994-95*, p. 115.

wires and elevators. Though purchase of a carrier would have advanced the Chinese march to a blue water navy by about a decade, building a carrier is not without its benefits. It will help China upgrade its technology in fields such as anti-air and anti-surface missiles, early warning and electronic countermeasure technology, the design and development of onboard aircraft, and effective C³I. It is also intended to stimulate the training of a new generation of professional soldiers.⁴⁵

The goal of the Chinese naval buildup appears to be to deter regional threats without fighting, or to win any conflicts that do arise with quick, low-cost strikes. By the end of the century, the PLAN aims at possessing: (1) a relatively large radius of action, reaching the first island chain of the North and South China Seas; (2) a strong rapid response capability, as structured in "fist formations" set up in all three fleets; (3) reasonably effective amphibious power; (4) independent air protection and attack forces; and (5) a credible second-strike nuclear deterrence capability.⁴⁶

The PLA Air Force (PLAAF) is also benefitting from modernization, although less so than the PLAN. The PLA continues to produce locally, with some outside technical assistance, the F-7 (a MiG-21 variant), the Q-5 (a MiG-19 variant) and Chinese-designed planes such as the more advanced J-8 fighter, the H-6 bomber and the Z-8 helicopter.⁴⁷ With Israeli assistance, China has acquired sophisticated electronic warfare capabilities and an advanced radar system for the J-8II under development at Shenyang. Recent acquisitions include 26 Su-27 *Flanker* strike fighters from Russia, delivered in 1992, with possibly another 48 to come.⁴⁸ These are the first truly modern combat aircraft in China's inventory. In 1992, China also began taking delivery of 24 MiG-31 *Foxhound* interceptor fighters from Russia, with the possibility of local manufacture in Shenyang of up to 300 more. In 1993, China acquired four batteries of the Russian S-300 high-altitude missile air defence system and may seek a further 12 batteries in 1994.⁴⁹ In 1992, China signed a contract for 100 RD-33 aircraft engines with Russia, which Moscow uses to power the MiG-29 and China will use to upgrade its export-oriented Super F-7 fighter.⁵⁰

Discussions have reportedly taken place with Russian aircraft manufacturers concerning the acquisition of supersonic Tu-22 M *Backfire* bombers. Moscow has also reportedly offered to develop an airplane midway between the MiG-29 and the MiG-31, for which Russian companies would provide most of the technical input and design work but manufacture -- of some 100-150 aircraft per year -- would take place in China.⁵¹ Other Russian military items on China's shopping list include rocket engines, air-to-air missiles, navigation systems, radar technology and helicopter technology.

China has also recently acquired in-flight refuelling technology to extend the range of its fighter and fighter-bomber forces. It is not clear which country supplied the technology; sources variously refer to Russia, Israel and Iran.⁵² Once the practice of mid-air refuelling is perfected by the PLAAF (in about six to eight years), China's forces will be able to operate under friendly air cover anywhere in Eastern Asia (although initially the number of aircraft able to be supported by this technology will remain small). It is expected that several of China's H-6 bombers and Uyn-8 transport aircraft will be converted into aerial tankers.⁵³

⁴⁵You Ji, "The Chinese Navy in the Changing World Order," pp. 18-21; *Jane's Fighting Ships 1994-95*, p. 47.

⁴⁶You Ji, "The Chinese Navy in the Changing World Order," p. 9.

⁴⁷China is working to upgrade the H-6 into a multi-role interceptor naval strike aircraft capable of launching a cruise missile.. Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 13.

⁴⁸The second batch of the sale has stalled due to Beijing's insistence that Russia transfer production equipment and related expertise rather than completed aircraft. *Jane's Defence Weekly*, January 22, 1994, p. 3.

⁴⁹*Jane's Defence Weekly*, January 22, 1994, p. 3.

⁵⁰*Jane's Defence Weekly*, February 19, 1994, p. 26.

⁵¹Stephen J. Blank, *Challenging the New World Order: The Arms Transfer Policies of the Russian Republic* (Carlisle Barracks, Pennsylvania: Strategic Studies Institute, US Army War College, October 1993), p. 58.

⁵²Young-Koo Cha and Bon-Hak Koo, "Multilateral Confidence-Building Measures in Northeast Asia," Paper prepared for the 1st Northeast Asia Defense Forum, Seoul, November 3-5, 1993, pp. 2-3; Ball, "China's Disturbing Arms Build-up," pp. 23-24; International Institute for Strategic Studies, *Strategic Survey*, 1992-93, p. 135. There are reports that a British company is outfitting the H-6 bomber with an inflight refueling capability, to be used with the Q-5 ground attack aircraft. Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 13.

⁵³Shawn MacWha, "The Strategic Significance of a Modernized Chinese Military: A Canadian Perspective," Paper prepared for the Annual Meeting of the Canadian Political Science Association, Calgary, June 12, 1994, p. 10.

China is now developing its first wholly indigenous fighter aircraft, the Xinjian (XJ)-10, envisaged to be in the same performance class as the MiG-29 and F-16. The XJ-10 will incorporate advanced technology from abroad, in particular from Israel which is believed to have provided some of the technologies from its defunct Lavi fighter project. Design work began in the late 1980s and a prototype could be ready in two to three years, although the first production aircraft would be unlikely to become operational before the end of the decade. Beijing has explored the possibility of Russian technological assistance, in which Russian aerospace firms would provide up to two-thirds of the required technical and design work as well as avionics and powerplant for the new fighter.⁵⁴ Aviation design bureaus are also reportedly working on a boxy prototype of a stealth aircraft, similar to the US F-117.⁵⁵

China continued its already extensive missile program with the development of the CSS-4 intercontinental ballistic missile (range of 12,000 km), the CSS-5 intermediate-range ballistic missile (1,700 km) and the CSS-6 (M-9) and CSS-7 (M-11) short-range missiles. It is now developing the DF-25 (1,700 km), the DF-31 (8,000 km) and DF-41 (12,000 km).⁵⁶ There are reports that China will procure the Russian AS-15 air-launched cruise missile (range: 3,000 km), for deployment on Chinese B-6D bombers.⁵⁷ In January 1993, the CIA confirmed that China has some US *Patriot* anti-tactical ballistic missile technology, probably transferred from Israel.⁵⁸

Indonesia

	1983	1988	1993
Total Armed Forces	281,000	284,000	270,900
ARMY			
Men	210,000	215,000	202,900
Battle Tanks (Light)	93	100	125
NAVY			
Submarines	3	2	2
Principal Surface Combatants		9	15
Patrol and Coastal Combatants		28	29
Maritime Aircraft			45
- Combat Aircraft	8	15	18
- Armed Helicopters	10	9	25
AIR FORCE			
Combat Aircraft	68	70	80

Modernization of the Indonesian Armed Forces (ABRI) over the past decade has centred on improving ABRI's ability to patrol and deploy itself across the country's vast archipelagic span. Upgrades have tended to be incremental rather than comprehensive, glamour has not been a major factor in choosing equipment, and Indonesia has not embarked on overly ambitious defence programs. As one observer notes, "ABRI's ability to integrate and absorb new equipment has not been overstretched."⁵⁹

As has been the case in most other armed forces in the region, the navy has received the bulk of new equipment. Under a 20-year plan for naval development announced in 1980, the minimum force was to be based on four fast frigates and six submarines, supplemented by a range of fast attack and patrol craft and auxiliaries. Economic problems intervened, however, and the navy has not yet reached its objectives.⁶⁰ Acquisitions during the last decade include:

- three *Tribal*-class frigates from the UK. Built in the early 1960s, the vessels were refit to restore equipment to operational status, but did not receive any modernization before transfer to Indonesia in 1985-86;
- six *Van Speijk*-class frigates from the Netherlands, transferred between 1986 and 1990. The boats were constructed during the 1960s and underwent mid-life modernization in the late 1970s. After transfer, they were fitted with *Harpoon* missiles;

⁵⁴ *Jane's Defence Weekly*, February 19, 1994, p. 28.

⁵⁵ Patrick Tyler, "China's Military Brass Plows Profits Back Into Business," *The Globe and Mail*, May 25, 1994, p. A11.

⁵⁶ *The Nonproliferation Review*, Vol. 1, No. 1 (Fall 1993), p. 56.

⁵⁷ Derek da Cunha, "Strain Ahead Between China and Japan," *International Herald Tribune*, July 21, 1993, p. 6.

⁵⁸ *Arms Control Reporter*, 1993, p. 706.B.103.

⁵⁹ J.N. Mak, "Armed, But Ready? ASEAN Conventional Warfare Capabilities," *Harvard International Review*, Spring 1994, p. 22.

⁶⁰ Goldrick, "Navies in Asia," p. 213.

- (since 1982) about 14 large patrol craft of various classes from various sources, and 18 coastal patrol craft built in Indonesia between 1987 and 1990; four more *Singa*-class large patrol craft are reportedly on order;
- two mine warfare vessels, commissioned in 1988; and, most prominently,
- 39 former East German vessels, purchased in December 1992. The package includes 16 corvettes, 12 amphibious landing ships, nine coastal minesweepers and two support ships. The corvettes were built in 1981-85, the minesweepers from 1971 onwards and the landing ships from 1976 to 1979. All are being refurbished in German shipyards before transfer to Indonesia, which began in 1993 and is expected to be completed by the end of 1994.

Indonesia possesses Southeast Asia's only submarines -- two Type-209 subs from Germany, commissioned in 1981 and overhauled in 1986-89 -- and is in the market for two more. Ambitious plans for 23 new frigates have probably been postponed indefinitely in favour of the German corvettes.⁶¹ Six *Airtech* CN-235-100 medium-range maritime patrol aircraft are being delivered.

Indonesia has also increased its stock of combat aircraft over the last decade. It added 12 F-16s (8 -As, 4 -Bs) in 1989 and is considering the purchase of up to 42 more. In 1993, Indonesia ordered 24 *Hawk* jets from British Aerospace for delivery in 1995. Up to 16 more may be ordered.⁶²

In 1991 the Indonesian Army increased its armoured personnel carrier (APC) holdings by 140 V-150 *Commandos*. Since 1988/89, the Army has acquired 25 *Rapier* surface-to-air missiles (SAMs) and 40 RBS-70 fire units.⁶³

Japan

		1983	1988	1993
Total Armed Forces	241,000	245,000	237,700	
ARMY				
Men	156,000	156,000	149,900	
Battle Tanks (Heavy)	950	1,170	1,200	
NAVY				
Submarines	14	14	17	
Principal Surface Combatants		48	61	62
Patrol and Coastal Combatants		19	14	8
Maritime Aircraft				
- Combat Aircraft	93	83	93 (+15 in store)	
- Armed Helicopters	62	70	75	
AIR FORCE				
Combat Aircraft	280 340 (+39 in store)		438 (+54 in store)	

Japan's large, very modern force is designed to provide limited defence of Japan and to support US forces based in Japan.⁶⁴ In 1981, the Reagan Administration convinced Tokyo to accept primary responsibility for the defence of sea lanes within 1,000 nautical miles of Japan, a distance that extends south to the Philippines. This mandated quantitative and qualitative improvements to the MSDF and encouraged a ship-building program that has continued steadily over the last decade.

Since 1983, Japan has commissioned 12 new submarines, 22 destroyers, eight frigates, two fast attack hydrofoils and numerous amphibious, mine warfare and auxiliary vessels. Some 22 ships are currently under construction or planned. These include:

- two *Harushio*-class submarines, plus two improved (larger displacement) *Harushio*-class subs. The 2,450 ton *Harushios*, of which one per year has been launched since 1989, are replacing the 1,850-ton *Uzushio* class;
- three *Kongo*-class destroyers, to add to the first of the class, commissioned in March 1993. The *Kongo* is an enlarged and improved version of the US Navy's *Arleigh Burke* class. The vessels are equipped with a lightweight version of the Aegis air defence system and armed with surface-to-surface and surface-to-air guided missiles, guns, torpedoes and rockets for anti-submarine work. Their

⁶¹*Jane's Fighting Ships 1994-95*, pp. 296-306.

⁶²Acharya, *An Arms Race in Post-Cold War Southeast Asia?*, p. 66; *The Straits Times*, June 12, 1993, p. 23. The order consists of 14 *Hawk* 100 combat-capable trainer aircraft and 10 more advanced single-seat *Hawk* 200 fighters. Indonesia already has 20 *Hawk* trainers in service since the early 1980s.

⁶³*The Military Balance 1991-92*, p. 155.

⁶⁴The Maritime Self-Defense Force (MSDF) focuses on cooperation with the US, the Ground Self-Defense Force (GSDF) focuses on Japanese defence, and the Air Self-Defense Force (ASDF) falls in between the two.

- sophisticated air defence and command and control systems make them suitable for either independent operations or support of aircraft carriers in battle groups. One *Kongo*-class destroyer will be assigned to each of the MSDF's four ocean-going escort flotillas. Although designated as destroyers, the boats are actually of cruiser size, with a standard displacement of 7,250 tons (9,485 tons full load);
- four modified *Asagiri*-class destroyers (displacement 4,400 tons), with eventual plans to achieve a class of eight. The ships are more like a mini-*Kongo* than an enlarged *Asagiri*, with a vertical launch system and some stealth features. They are a more cost-effective alternative to the *Kongo*, of which Japan had originally hoped to acquire as many as eight;
 - two *Sparviero*-class fast attack hydrofoils, built with Italian assistance and armed with SSM-1B missiles. Two more will likely be approved in future, bringing the final total to six;
 - one 8,900 ton amphibious landing ship, approved in the 1993 estimates, capable of transporting 1,000 troops and 10 Type-90 tanks. The ship will be the first Japanese vessel with a flat full-length flight deck to be built since the Second World War, will be equipped with C-47 type ASW helicopters, and should also be capable of taking V/STOL multi-role fighters like the Harrier. An earlier proposal to build a 20,000 ton aircraft carrier has been put on hold due to considerable opposition within Japan and abroad.⁶⁵

The Air Self-Defense Force has also benefitted from modernization over the last decade. Since the early 1980s, Japan has added 158 F-15 fighters to its inventory of combat aircraft (these were produced under licence with McDonnell Douglas) and upgraded its 72 F-4EJs. The 1994 budget calls for the purchase of four more F-15s as well as two Boeing E-767 Airborne Warning and Control System (AWACS) aircraft. This is in addition to two AWACS that had been approved in the 1993 budget. Although the doubling of the AWACS fleet will enable Japan to mount a round-the-clock watch on North Korea, the decision may have been motivated more by the desire to placate Washington's worries about Tokyo's trade surplus than by military concerns.

Japan is also proceeding with development of the Fighter Support Experimental (FSX) with the United States. This is the first plane to be developed jointly by Japanese and US airframe manufacturers, as distinct from being produced jointly under licence from a US firm. However, it is questionable whether the project, already over its original budget, will go into production, especially since the AWACS purchase will mandate a cutback on other defence items. Even if the FSX is never produced, the project has already provided Japan with extensive high technology transfers that are likely to stimulate other advances.⁶⁶ There are also reports that Japan is planning develop a stealth helicopter, and to acquire tanker aircraft to extend the range of its air coverage.⁶⁷

Modernization of the GSDF's equipment has proceeded at a somewhat slower pace. In 1991, the GSDF added 40 155mm towed F-70s and introduced a new tank, the Type-90, which mounts a 120mm gun, to replace the Type-61 (which was already being pushed aside by Type-74 tanks throughout the 1980s). The GSDF has also added small numbers of Type-87 reconnaissance vehicles, Type-89 armoured infantry fighting vehicles, and Type-82 APCs. Maritime reconnaissance aircraft and ASW helicopter numbers in squadron service have both increased since the late 1980s.⁶⁸

The report of a Prime Ministerially-mandated defence review panel, released in August 1994, recommends (in view of the reduced threat from Russia and the prospect of increased peacekeeping involvements), inter alia, that the Self-Defense Forces should: improve their C³I capability; shift from an emphasis on heavy equipment such as tanks and artillery to more sophisticated equipment with increased mobility and high-tech applications; reduce the number of ships and aircraft for antisubmarine and anti-mine warfare and build up a more balanced maritime defence capability; strengthen maritime transport and seaborne supply; reduce the number of fighters; and study the introduction of midair refuelling. It also recommends building "a certain degree of long-haul transport capability" and, with the US,

⁶⁵Jane's *Fighting Ships 1994-95*, pp. 351-363; "Japan Supports Navy with 4th Aegis Award," *Defense News*, July 26, 1993; Meconis, *Asia-Pacific Dialogue on Maritime Security and Confidence Building Measures*, p. 71. An escort flotilla consists of eight destroyers and eight ASW helicopters.

⁶⁶Bob Johnstone, "Air Supremacy," *Far Eastern Economic Review*, July 22, 1993, p. 64.

⁶⁷Ball, "Arms and Affluence," pp. 85-86; Gregory R. Copley, ed., *Defense and Foreign Affairs Handbook 1994* (London: International Media Corporation Limited, 1994), p. 602.

⁶⁸*The Military Balance 1991-92*, p. 155; *The Military Balance 1993-94*, p. 148.

introducing systems for dealing with ballistic missiles.⁶⁹ Whether and at what pace these recommendations will be implemented is far from clear.

Laos

		1983	1988	1993
Total Armed Forces	53,000	55,500	37,000	
ARMY				
Men	50,000	52,500	33,000	
Battle Tanks				
- Heavy	0	30	30	
- Light	25	25	25	
NAVY				
Patrol and Coastal Combatants		8	40	56
AIR FORCE				
Combat Aircraft	20	30	31	

Laos is believed to have acquired some 40 patrol vessels from the USSR in the mid-1980s, as well as 26 MiG-21 combat aircraft. The latter are presumed not to be a threat because of the poor quality of Laotian pilots, although they were reportedly used against the insurgent Lao Liberation Army in early 1990.⁷⁰ After losing the support of both Vietnam and Russia in the early 1990s, Laos was left struggling for spare parts, ammunition, training and new equipment. This problem has apparently been solved with the signing, in late 1993, of a defence cooperation accord between Beijing and Vientiane. In early 1994, China provided Laos with some 1,600 tonnes of military equipment, believed to consist mainly of ammunition. A second shipment, focusing on "heavy weaponry," is scheduled for delivery in 1996. The accord also provides for training of Laotian military personnel in China.⁷¹

Malaysia

		1983	1988	1993
Total Armed Forces	99,700	113,000	114,500	
ARMY				
Men	80,000	90,000	90,000	(reducing to 85,000)
Battle Tanks (Light)	-	26	26	
NAVY				
Principal Surface Combatants		2	4	4
Patrol and Coastal Combatants		38	37	37
Maritime Aircraft (Armed Helicopters)		-	6	12
AIR FORCE				
Combat Aircraft	32	58	77	

In 1979, the Malaysian Defence Ministry announced a long-term plan for expansion of the armed forces. Over the next two years, orders were placed for several new weapon systems, including two corvettes, four minehunters, two support ships and numerous A-4 ground-attack fighters. By the mid-1980s, however, recession halted implementation of the plan. Following a June 1983 order for two offshore patrol vessels -- selected as a cheaper alternative to the preferred corvettes -- no new naval construction was authorized until 1992, although Malaysia did acquire 16 *Wasp* ASW helicopters from the UK between 1988 and 1991.⁷²

Improvements in the Malaysian economy in the 1990s have made it possible to resume the force development plan. Particular emphasis is being placed on the expansion of air and naval power. In June 1993, Malaysia announced that it intended to buy 18 Russian MiG-29 fighters and 8 American F/A-18D *Hornet* fighter/ground attack aircraft. Delivery of the F/A-18s is expected in 1996. The version of the MiG-29 Malaysia is proposing to acquire is apparently the most up-to-date one, which includes the R-27 medium-range missile and the R-73 short-range infrared guided missile. The latter is considered to be the

⁶⁹*The Modality of the Security and Defense Capability of Japan: The Outlook for the 21st Century*, Advisory Group on Defense Issues (Tokyo, August 1994), pp. 21-24.

⁷⁰*Defense and Foreign Affairs Handbook 1994*, pp. 655-656.

⁷¹Robert Karniol, "Agreement confirms China's link with Laos," *Jane's Defence Weekly*, June 11, 1994, p. 6.

⁷²Goldrick, "Navies in Asia," pp. 169-170; *Jane's Fighting Ships 1994-95*, pp. 411-416.

most sophisticated of its type in existence, and a decade ahead of current US *Sidewinder* missiles.⁷³ Malaysia is also buying 28 *Hawk* aircraft from Britain (10 *Hawk* 100 and 18 *Hawk* 200), for delivery in 1993-95.

The Navy has on order two guided missile *Leiku*-class frigates with *Seawolf* point defence missiles from Britain, for delivery in 1996. This will be followed by a program to procure up to 24 offshore patrol vessels, possibly in a joint project with Australia. The first of an initial batch of four is to be delivered in 1997. The vessels, which will be fitted for surface-to-surface and surface-to-air missiles (probably *Exocet* and VL *Seawolf*),⁷⁴ will replace the RMN's 20-odd *Kedah*, *Sabah* and *Kris* class patrol boats, all of 1960s vintage. The OPV commitment acknowledges the RMN's progressive move from being primarily a coastal patrol navy to a greater emphasis on ocean-going surveillance. In addition, four *Super King Air* maritime patrol aircraft will enter into service in 1994.

As early as 1980, Malaysia indicated a desire to acquire submarines, and maintained this as a long-term goal even through the cutbacks of the mid-1980s. The navy regards submarines as a high-tech way to deter the numerically superior Chinese force in the South China Sea and to give Malaysia a technological advantage in any conflict in the Spratlys.⁷⁵ However, acquisition of a submarine force would be at the expense of replacing much of the rest of the Navy's increasingly obsolete combatant capability, and plans seem to have been shelved -- at least temporarily -- in favour of the frigate and OPV programs. Nonetheless, Malaysia continues to send naval personnel to several European countries for training in submarine operations and maintenance, and the Malaysian Defence Minister said in June 1993 that Kuala Lumpur is now looking for second-hand boats, presumably as a less costly alternative.⁷⁶

The Malaysian Army acquired its first SAM in 1991: 48 *Javelin* and 12 *Rapier* fire units. In 1993, it took delivery of 42 Korean Infantry Fighting Vehicles. Malaysia is also forming a divisional sized rapid deployment force, including both armour and special forces.⁷⁷ In addition, Kuala Lumpur has sanctioned a tentative deal between a Malaysian company and a Chinese arms maker (Norinco) to manufacture armoured vehicles in Malaysia (for domestic sale as well as export). The Malaysian Army is desperately short of equipment in view of its commitment to supply some 1,500 troops for UN peacekeeping in Bosnia. Before any assembly or production in Malaysia starts, some APCs could be bought outright from China. South Korean and British companies are also fishing for the contract.⁷⁸

Mongolia

		1983	1988	1993
Total Armed Forces	25,100	24,500	21,250	
ARMY				
Men	25,000	21,000	20,000	
Battle Tanks (Heavy)		650	650	
AIR FORCE				
Combat Aircraft	12	30+	15	
Armed Helicopters	-	-	12	

The Mongolian Armed Forces exist mainly as a symbol of national sovereignty. They are too small to defend their vast territory against neighbouring China and Russia. There are mixed reports on the direction of the Mongolian Army since the withdrawal of Russian troops from the country (completed by the end of 1992, with the exception of a signals intelligence listening station). One source says manpower and defence spending is down; another says manpower is up and an artillery and an air-defence brigade have been formed, as has an airborne battalion.⁷⁹ All Mongolian equipment is of Soviet origin.

⁷³Blank, *Challenging the New World Order*, pp. 69-70.

⁷⁴*Jane's Fighting Ships 1994-95*, p. 414.

⁷⁵Goldrick, "Navies in Asia," p. 169.

⁷⁶Meconis, *Asia-Pacific Dialogue on Maritime Security and Confidence Building Measures*, p. 37; "KL studying joint venture with Canberra to build patrol boats," *The Straits Times*, June 4, 1993, p. 22.

⁷⁷*The Military Balance 1991-92*, pp. 155-56.

⁷⁸Michael Vatikiotis, "Political Weapons," *Far Eastern Economic Review*, August 26, 1993, p. 12.

⁷⁹*Defense and Foreign Affairs Handbook 1994*, p. 776; *The Military Balance 1993-94*, p. 148.

New Zealand

		1983	1988	1993
Total Armed Forces	12,943	12,800	10,800	
ARMY				
Men	5,675	6,000	4,800	
Battle Tanks (Light)	26	26	26	
NAVY				
Principal Surface Combatants		5	4	4
Patrol and Coastal Combatants		4	4	4
Maritime Aircraft (Armed Helicopters)		-	7	6
AIR FORCE				
Combat Aircraft	33	43	38	

New Zealand's modest force has seen hardly any improvement over the last decade. Wellington commissioned four inshore patrol craft in the mid-1980s, as well as a Korean-built replenishment tanker in 1988. It is now building, in a joint program with Australia, two ANZAC-class guided missile frigates, for delivery in 1997 and 1998, and has an option for two more. It also plans to acquire a military sealift ship for the Army's Ready Reaction Force as well as for disaster relief.⁸⁰

In the late 1980s New Zealand upgraded its six P-3K *Orion* long-range patrol aircraft and its 20 or so A-4K combat aircraft. The requirements for combat airpower and maritime surveillance and anti-submarine capabilities are now under review.⁸¹ Wellington's main problem is to determine where to focus its limited defence budget -- on maintaining peace and stability in the South Pacific, on contributing to the defence of Australia or on undertaking wider collective security tasks -- and to justify this to the New Zealand electorate in a manner that makes it possible to maintain a credible capability for the task.

North Korea

		1983	1988	1993
Total Armed Forces	784,500	842,000	1,127,000	
ARMY				
Men	700,000	750,000	1,000,000	
Battle Tanks				
- Heavy	2,675	3,175	3,700	
- Light	150	300	500	
NAVY				
Submarines (excluding midget)		21	21	25
Principal Surface Combatants		4	2	3
Patrol and Coastal Combatants		431	365	387
AIR FORCE				
Combat Aircraft	740	800	730	
Armed Helicopters	-	80	50	

Although most North Korean military technology is from the 1950s and 60s, much equipment has been manufactured within the last 15 years and incorporates modern innovations. Not surprisingly, given North Korea's concentration on ground force operations, the bulk of the DPRK's arms buildup during the 1980s occurred on land. Since the late 1970s, Pyongyang has added over 1,000 tanks to its arsenal, including an estimated 600 T-62 main battle tanks, built in North Korea, and over 300 light tanks, including the indigenously produced M-1985, the Soviet PT-76 and the Chinese Type-62 and 63 variants. North Korea also produced a significant amount of self-propelled artillery, by mating towed artillery tubes with chassis already in inventory.⁸² The 1980s also saw the production and deployment of some 30 *Scud* B and C type mobile SSMs, which, with a range of 500-800 km, can cover all targets in South Korea and many in Russia, China and Western Japan. In 1993, North Korea successfully flight-tested the *Rodong-1*, with a range of 1,000 km. The missile could become operational with North Korean forces by

⁸⁰The navy may convert a commercially-built ship or lease an Australian vessel while a longer-term solution is worked out. *Jane's Fighting Ships 1994-95*, pp. 451-52.

⁸¹I.A. Hunter, "The Maritime Priorities of New Zealand," in Ross Babbage and Sam Bateman, eds., *Maritime Change: Issues for Asia* (St. Leonards: Allen & Unwin, 1993), p. 174.

⁸²*North Korea: The Foundations for Military Strength*, (Washington, D.C.: Defense Intelligence Agency, 1991), pp. 40-41. North Korea relies on massive numbers of artillery systems to support ground operations, in part to compensate for the perceived vulnerability of the North Korean Air Force.

the end of 1995. The *Rodong-2*, with a range of 1,500-2,000 km, is reportedly under development, as are the two-staged *Taepo Dong 1* and 2, with ranges of 2,000 km and up to 3,500 km respectively.⁸³

In addition to artillery, North Korea relies heavily on air defence. In the mid-1980s, the Soviet Union supplied over 30 SA-3 surface-to-air missiles, designed for short-range defence against low-flying aircraft or helicopters. These were supplemented in 1987 with Soviet supplied SA-5 SAMs, designed for high-altitude targets, with the longest range in the Soviet SAM inventory.⁸⁴

The North Korean Air Force also acquired some all-weather air defence and ground-attack aircraft from the Soviet Union during the 1980s, including 36 Su-25s, 46 MiG-23s and at least 14 MiG-29s, the most modern interceptors in North Korea's inventory.⁸⁵ In addition, the North Koreans substantially increased their helicopter inventory during the 1980s, from 40 to 275. This includes 50 Mi-24 *Hine* attack helicopters, as well as 87 US *Hughes* helicopters (civilian versions), which Pyongyang circumvented American export controls to buy in 1985. Some of these have probably been modified to carry guns and rockets and could be disguised to look like South Korean aircraft.⁸⁶

The main additions to the North Korean Navy during the last decade were over 50 submarines (mainly midget) and a large number of fast attack craft of various classes. North Korea also built 23 coastal minesweepers, over 95 hovercraft estimated to carry 35-55 light infantry troops each, and 24 medium landing ships, each capable of taking four to five medium tanks. The North Korean navy is primarily a coastal defence force, separated into East and West Coast fleets which do not exchange vessels and cannot offer mutual support. The Navy's main strength is its ability to carry out clandestine inshore operations with midget subs and low-profile attack craft.⁸⁷

The North Korean arms buildup has been slowed by Russia's decisions to first (in 1991) start demanding immediate payment in hard currency for new weapon sales, and then (in 1992) to halt arms sales to Pyongyang altogether -- although it will still supply the North with spare parts. China has also stopped exporting at "friendship prices." Without Soviet logistics assistance, it is questionable whether North Korea's many Russian systems will remain workable. In late 1993, North Korea bought some 40 aging attack submarines from Russia, ostensibly for scrap metal. The boats will probably be used for spare parts for North Korea's own obsolescent *Romeo*-class submarines -- basic attack vessels with virtually no ASW potential -- which the DPRK continues to produce at the rate of about one every two years.⁸⁸

However, economic problems and the curtailment of Russian support notwithstanding, the size and capability of North Korea's weapons inventory continues to increase. North Korea is largely self-sufficient in the production of military equipment, the major exceptions being aircraft, sophisticated radars and electronic equipment. Although most North Korean equipment follows Soviet designs, Pyongyang produces its own versions of armoured personnel carriers, artillery, missiles, light tanks, high-speed missile boats and landing craft, submarines, small arms and munitions. The cut-off of Russian assistance will likely promote increased self-reliance in weapons improvement programs (although successful implementation of the nuclear framework agreement might lead to resumed Russian and Chinese arms deliveries). The resumption of oil deliveries under the framework agreement should make it easier for North Korea to sustain its defence industrial base, which has been squeezed by constrained access to international petroleum markets.

Philippines

1983

1988 1993

⁸³The Taepo Dong 2 could be capable of reaching Guam, where the US has air force and naval facilities. Barbara Starr, "N. Korea casts a longer shadow with TD-2," *Jane's Defence Weekly*, March 12, 1994, p. 1.

⁸⁴*North Korea: The Foundations for Military Strength*, p. 51.

⁸⁵*North Korea: The Foundations for Military Strength*, pp. 47, 50. There are reports the Russians have provided production facilities to build MiG-29s in North Korea. Tai Ming Cheung in Meconis, *Asia-Pacific Dialogue on Maritime Security and Confidence Building Measures*, p. 27.

⁸⁶*North Korea: The Foundations for Military Strength*, p. 50; Douglas Barrie and Jenny Pite, "World's Air Forces," *Flight International*, August 24-30, 1994.]

⁸⁷*Jane's Fighting Ships 1994-95*, pp. 47, 383-387.

⁸⁸Joseph R. Morgan, *Porpoises Among the Whales: Small Navies in Asia and the Pacific*, East-West Center Special Report No. 2, March 1994, p. 27; *Jane's Fighting Ships 1994-95*, pp. 47, 383.

Total Armed Forces	104,800	147,500	106,500
ARMY			
Men	60,000	65,000	68,000
Battle Tanks (Light)	28	28	41
NAVY			
Principal Surface Combatants		7	3 1
Patrol and Coastal Combatants		88	102 33
AIR FORCE			
Combat Aircraft	92	50 (+12 in store)	53
Armed Helicopters	-	60	106

Secure under the umbrella of the US Navy at Subic Bay, and preoccupied with internal insurgency movements, the Philippines bucked the ASEAN trend of defence modernization during the 1980s. Aside from the acquisition of 13 *Scorpion* light tanks, some armoured fighting vehicles and about 100 armed helicopters, the armed forces made no major purchases in the decade to 1991.

With the US departure from local bases, the Philippines is now turning its attention to its naval force, which is the most obsolete in ASEAN and virtually incapable of engaging in operations beyond internal waters. The major surface combatants are ex-US navy vessels of World War II vintage, without the weapons, sensors, and command, control and surveillance systems possessed by other regional fleets. It has been estimated that the lack of modern naval vessels costs the Philippines US\$2 billion worth of fish to poachers annually, as well as a lesser amount of goods to pirates.⁸⁹

Many decrepit ships were paid off and sold for scrap between 1989 and 1990. In 1991, the Navy requested 1.8 billion pesos (US\$80 million) to finance a 10-year force modernization program envisioning the acquisition of between 60 and 100 ships; however, the Philippine Congress approved only 324 million pesos.⁹⁰ As it continues to retire old ships, the Navy is using its limited funding to procure six large patrol craft, two of which were commissioned in 1990 and 1994 respectively; the other four will be added at the rate of one every 18 months up to the year 2000. As well, the Navy has on order three gun-armed fast patrol boats, to be built in Australia and delivered by 1996; three *Cormoran*-type fast patrol boats equipped with *Exocet* missiles from Spain, also to be delivered by 1996; up to 35 coastal patrol craft (eight -- built in the US -- have been delivered; the remainder will be built in the Philippines); and one logistic support ship from China, with an option on a second. Two logistic support transport vessels were recently commissioned for amphibious operations, capable of carrying vehicles, containers or cargo plus 150 troops.⁹¹ More ambitious plans for corvettes and large attack craft are still in need of adequate funding, but with the US exit the resource base for modernization disappears. Even if sufficient funds can be found, the process of reconstruction will take at least 10 years.

The Philippines Air Force is also woefully under-equipped, with only two or three combat-capable aircraft.⁹² It is now buying 18 trainer/light attack aircraft from Italy and 18 strike trainers from the Czech Republic, 15 *Bronco* counter-insurgency aircraft from the United States, 22 *Defender* light combat helicopters and 18 MG-520 attack helicopters. Manila is also discussing the purchase of *Mirage 5* fighters from Belgium. The Air Force's 10-year modernization plan calls for 27 fighters, new radar systems and surface-to-air missiles, but the Philippines' ability to fund this program is highly doubtful. Plans to purchase F-16s from the US and F-5Es from South Korea were shelved after the total cost was assessed. The ground forces are being beefed up with the purchase of 150 *Simba* armoured vehicles from Britain.⁹³ Fuel is a major problem for all three services, jeopardizing operational mobility.⁹⁴

Russia

	1983	1988	1993
PACIFIC FLEET			

⁸⁹“South East Asian Naval Programmes, Part III,” *Naval Forces*, Vol.XIV, No. 1 (1993), p. 30.

⁹⁰M.J. Dumancas, “The Maritime Priorities of the Philippines,” in Babbage and Bateman, *Maritime Change: Issues for Asia*, p. 139; “South East Asian Naval Programmes, Part III,” p. 30.

⁹¹*Jane's Fighting Ships 1994-95*, pp. 47, 496-498.

⁹²The June 1991 eruption of Mount Pinatubo caused significant damage to many of the Philippines' fixed wing combat aircraft.

⁹³Acharya, *An Arms Race in Post-Cold War Southeast Asia?* p. 67.

⁹⁴Since the departure of US forces (from which the Philippines could buy its supplies duty-free), the military has had to pay 25% taxes on its fuel bill. John McBeth, “Broken Toys,” *Far Eastern Economic Review*, September 9, 1993.

Submarines				
- Strategic	25	112	20	
- Tactical	95	82	44	
Principal Surface Combatants		85	73	49
Patrol and Coastal Combatants		215 [*]	100	55
Maritime Aircraft				
- Combat Aircraft	330	320	220	
- Armed Helicopters	-	110	45	
AIR FORCE				
Combat Aircraft	68	70	80	

^{*}Minor combatants.

Russian force levels in the Far Eastern and Pacific theatres have declined substantially since the late 1980s. Under the doctrine of “reasonable sufficiency,” Gorbachev cut ground forces stationed east of the Urals and reduced both the scope of operations and the size of the Pacific Fleet. The USSR withdrew all combat forces from Mongolia in 1989-1991 and, by 1991, had reduced its forces in the Far East by 120,000 troops, mainly along the border with China.⁹⁵ In general, procurement of weapons for Soviet ground forces declined 40% between 1988 and 1991, while purchases for the air force dropped by half and those for naval forces by a third.⁹⁶ Although Russia still maintains a sizable military force in East Asia, its war-fighting capacity is questionable, given the shortage of operating funds, the reduction of regular maintenance, and the lack of a clear mission since the end of the Cold War. Morale has reportedly suffered badly due to a sharp drop in the living standards of both troops and officers. Of the four Soviet fleets, the Pacific Fleet has suffered most in terms of damage caused by lack of maintenance and insufficient fuel to go to sea. It is estimated that only one-third of the Pacific Fleet’s attack submarines, 40% of its main surface warships and half of its land-based naval aircraft are operational.⁹⁷ According to a Russian naval officer, by 1995 the active strength of the Pacific fleet will be down 40% compared to 1985.⁹⁸ Blue water military activity has dropped sharply over the last three years.

Nonetheless, the core of a strong military force remains and, even though numbers may be down, improvements have not come to a complete halt.

From the low point of 1992, the Navy is slowly recovering its poise as well as some of its shipbuilding and maintenance budget....It will take some years to change the standards, but an impressive start has been made to match the Russian seagoing fleet to its new and rationalized infrastructure, to instil initiative into its officers and to attract the right quality of volunteers to serve in the lower ranks. A smaller Fleet is emerging, but it is only small by comparison with what it had become in the Soviet era. By any other yardstick this is still a very large navy, with adequate numbers of modern surface ships to defend its intended sphere of influence, backed up by naval air-power, much of which is based ashore.⁹⁹

Russia continues to build and deploy the *Oscar II*-class nuclear-powered guided missile submarine (first launched in 1985) and the *Akula*-class nuclear-powered attack submarine (first launched in 1984) at the rate of one or two a year. It continues to develop the *Sovremenny*-class destroyers, of which six were deployed in the Pacific between 1984 and 1990, and is now developing a new class of frigates known as the *Neustrashimy*. The first was commissioned in 1993 and two more are under construction; it is not clear where they will be deployed. Five *Udaloy*-class destroyers were deployed with the Pacific Fleet from 1984 on, the latest in 1991. One of a follow-on class is now under construction,

⁹⁵In April 1990, China and the Soviet Union signed an agreement on force reductions and confidence-building along their mutual border, in which the USSR agreed to undertake greater reductions than China, given the Soviet edge in technology. Negotiations on which units and military equipment should be reduced continued after the demise of the Soviet Union, resulting in a signed agreement in 1994. Some Russians have suggested that the nature of the demilitarization agreement will in practice result not just in pullback, but in demobilization of the Russian forces involved.

⁹⁶Paul Marantz, “Moscow and East Asia: New Realities and New Policies,” in Sheldon W. Simon, ed., *East Asian Security in the Post-Cold War Era* (New York: M.E.Sharpe, 1993), p. 33.

⁹⁷“Asia’s Arms Race,” p. 20.

⁹⁸Captain N. Vlasov, Chief of the Eastern Department, Main Staff of the Russian Navy, Notes prepared for the Seventh Asia Pacific Roundtable, Kuala Lumpur, June 6-9, 1993.

⁹⁹*Jane’s Fighting Ships 1994-95*, pp. 38-39.

although progress is slow and only one may be completed.¹⁰⁰ Past vessels were mostly designed with defence purposes in mind, but the newer ships have an endurance to range further afield.

On land, Russia continues to modernize its tanks, armoured infantry fighting vehicles, multiple rocket launchers, heavy artillery and armoured helicopters. As a result of the November 1990 Treaty on Conventional Armed Forces in Europe, which limits deployments west of the Urals, much sophisticated weaponry has been transferred to Siberia. Outdated aircraft have been replaced such that all combat aircraft in the Far East are now third and fourth generation planes, such as the Tu-22M *Backfire*, the MiG-29, the MiG-31, the Su-25 and the Su-27.¹⁰¹ Russia continues to modernize the Tu-22M and is going ahead with plans for the fifth-generation MFI fighter and the T-60 supersonic strike aircraft, despite harsh budget constraints.¹⁰²

Singapore

		1983	1988	1993
Total Armed Forces	55,500	55,500	55,500	
ARMY				
Men	45,000	45,000	45,000	
Battle Tanks (Light)	273	350	350	
NAVY				
Patrol and Coastal Combatants		30	26	30
AIR FORCE				
Combat Aircraft	106	151	193	
Armed Helicopters	-	-	20	

With size of its defence budget fixed (at 6%) to the size of its growing GNP and with a small, constant complement of servicemen, Singapore has had ample funds to provide more equipment for its already capable armed forces over the last decade. The ground forces have acquired over 70 light tanks since 1983 and Singapore is considering the purchase of armoured personnel carriers and amphibious armoured vehicles. Recent naval acquisitions include six *Victory*-class missile corvettes, commissioned in 1990 and 1991; 12 inshore patrol craft, also delivered in 1990-91; and four E-2C *Hawkeye* unarmed surveillance helicopters, delivered in 1987 (the purchase of up to four more is being considered). A squadron of four Fokker F50 maritime patrol/ASW aircraft will become operational later this year. On order are 12 missile fast attack craft and four *Landsort*-class Swedish-designed minehunters.¹⁰³ Singapore is also considering purchasing offshore patrol vessels and has expressed an interest in acquiring submarines.

The Singapore Air Force has also grown over the last decade, acquiring eight F-16s in 1990¹⁰⁴ and a much larger number of A-4 *Skyhawks*, which have been upgraded with new engines and avionics. In 1992, Singapore announced it would take a three-year lease on nine more F-16s, to be based in Arizona. At the end of this period Singapore will buy up to thirteen F-16 C/Ds (five or six have already been ordered, with an option on another seven), although it has lately been considering F/A-18s instead. There have been rumours of orders for more troop transport helicopters, in connection with a proposal to establish an airborne assault brigade.¹⁰⁵ Singapore also plans to acquire new radars for an enhanced C³I capability, which will enable it to monitor traffic all along the Malacca Straits and into the South China Sea.

South Korea

		1983	1988	1993
Total Armed Forces	662,000	629,000	633,000	
ARMY				

¹⁰⁰*Jane's Fighting Ships 1994-95*, pp. 534-556.

¹⁰¹Satoshi Morimoto, "The Japanese Self-Defense Force: Its Role and Missions in the Post-Cold War Period," Paper prepared for the National Defense University 1994 Pacific Symposium, Washington, D.C., February 15-16, 1994.

¹⁰²*Jane's Defence Weekly*, April 9, 1994, p. 5. The MFI, or Mgogo-Funktsilny Istrebityel, is being developed as the Russian Air Force's air superiority equivalent of the US Air Force's F-22.

¹⁰³*Jane's Fighting Ships 1994-95*, pp. 619-622.

¹⁰⁴The planes were purchased in 1988 but were kept in the US for two years because Singapore did not want to create a "misunderstanding" among its neighbours by being the first to introduce such advanced planes to Southeast Asia.

¹⁰⁵*Defense and Foreign Affairs Handbook 1994*, p. 1032.

Men	540,000	542,000	520,000	
Battle Tanks (Heavy)	1,200	1,500	1,800	
NAVY				
Submarines	-	3	4	
Principal Surface Combatants		19	29	38
Patrol and Coastal Combatants		50	105	120
Maritime Aircraft				
- Combat Aircraft	-	17	15	
- Armed Helicopters	-	21	47	
AIR FORCE				
Combat Aircraft	450	473	445 (+52 in store)	
Armed Helicopters	10	-	-	

South Korea's armed forces have seen substantial improvements over the last decade, particularly within the last five years. In a series of five-year Force Improvement Programs dating back to 1976, Seoul has been seeking -- and achieving -- greater defence self-sufficiency. In part this is a response to American actions. With the reduction of US troops in South Korea by some 5,000 to a total of 35,500, and with the prospect of further US reductions in store, South Korea is preparing to assume more responsibility for its own defence. The US has pressed South Korea to correct various military deficiencies, including inadequate capabilities to counter North Korean artillery, to fight at night and to follow doctrine that calls for considerable battlefield manoeuvrability. Washington is urging Seoul to buy more artillery, more modern tanks and more ammunition, and has encouraged South Korea to purchase *Patriot* antimissile systems to help protect major cities south of Seoul.¹⁰⁶

Recent acquisitions are also, however, suggestive of South Korean concerns about developments beyond the Korean Peninsula and of a desire to be taken seriously as a regional power. Although American armament of Korea has focused on the army, many recent and planned ROK procurements place an emphasis on air, and especially naval, power. Since 1981, the South Korean fleet has acquired nine frigates, 27 corvettes (at least one more is scheduled for completion in 1994); six minehunters (two more are planned); one *Alligator*-class tank landing ship, of which a second is under construction; several support vessels; and 11 *Super Lynx* shipborne anti-ship helicopters. A further order of six ASW versions is expected.¹⁰⁷

The South Korean shipbuilding program will add at least 27 vessels to the fleet over the next few years. South Korea is acquiring nine German Type-209 submarines, of which two have already been commissioned. Only one of the nine is German-made; all of the others are being built in South Korea. Original plans for a total of 18 submarines are unlikely to be funded. South Korea also has a 3,900-ton *KDX-2000* class frigate under construction, with plans to acquire nine more. It is also expected to order a 3,300-ton minelayer. For maritime patrol, the Navy has ordered eight P-3C *Orions* equipped with Update III standard mission avionics for delivery in 1995. Also, 10 UH-60 land-based maritime aircraft are replacing older UH-1Hs. In addition, design work started in 1993 for a new class of heavy destroyers, with a planned in-service date of 2003.¹⁰⁸ Up to 17 new destroyers and 68 fast patrol boats may also be acquired.¹⁰⁹ Work is also underway on new naval base facilities that will house a submarine combat simulator among other training aids.¹¹⁰

In 1986, the Korean Air Force received 36 F-16C/D aircraft to replace aging F-8s, and in 1991 ordered 120 more. Twelve of the planes are being manufactured in the US, 26 are being provided as kits for assembly by Samsung Aerospace in Korea, and the remainder are being built under licence by Samsung. Under the offset agreement, Lockheed may help with development of the Korean KTX-2 jet trainer. Korea has ordered 20 *Hawk* 60s as an advanced trainer.¹¹¹

¹⁰⁶R. Jeffrey Smith, "US Pressures S.Korea to Buttress its Forces," *Washington Post*, March. 25, 1994, p. A27. The US has sent one Patriot battalion to South Korea (192 Patriots plus 84 Stinger SAMs), capable only of defending US military bases near Seoul.

¹⁰⁷*Jane's Fighting Ships 1994-95*, pp. 388-397.

¹⁰⁸*Jane's Fighting Ships 1994-95*, pp. 388-397.

¹⁰⁹Cha and Koo, "Multilateral Confidence-Building Measures in Northeast Asia," p. 5.

¹¹⁰"South East Asian Naval Programmes, Part II," *Naval Forces*, Vol.XIII, No. 6 (1992), p. 16.

¹¹¹Barrie and Pite, "World's Air Forces."

The ROK Army upgraded its fleet of M-48 main battle tanks during the 1980s, adding diesel engines and 105mm guns. It also undertook an ambitious program to develop the indigenous Type 88 (or K-1) tank, of which some 450 have been delivered. Many of the tanks' subsystems, which were procured from abroad, are now manufactured under licence in South Korea. The Army is planning to spend about US\$1 million on American arms, including 37 AH-64A *Apache* helicopters and 775 *Hellfire* missiles. Eighty UP-60P *Black Hawks* are being licence-built by Korean Air, and Seoul is planning to acquire up to 100 light helicopters, to be assembled in Korea.¹¹² South Korea is also building more Type 88 tanks and self-propelled artillery, and is nearing the completion of a contract to purchase some counterartillery systems. However, it has resisted buying the additional artillery and *Patriot* systems urged by the US because of their high costs; there are reports it would prefer to reserve its funds for AWACS planes or submarines instead, as a hedge against Japanese military expansion.¹¹³

Seoul will also be receiving some US\$180 million worth of military equipment from Russia by 1996, as partial repayment of an estimated \$400 million in overdue loans. Negotiations are underway to determine the composition of the package; it will likely include tanks, APCs and anti-air weapons, although Moscow has also reportedly expressed a willingness to transfer MiG-29s and submarines if Seoul wishes. Seoul had earlier reportedly been contemplating the purchase of a small number of MiG-29s or MiG-31s -- for training purposes and to enable the air force to evaluate North Korean capabilities.¹¹⁴ Since the Russian equipment will be incompatible with Korea's largely American-made arsenal, and since Moscow is reluctant to provide continuous logistical support, the new weapons may be used only for training and research purposes.¹¹⁵

Taiwan

		1983	1988	1993
Total Armed Forces	464,000	405,500	442,000	
ARMY				
Men	310,000	270,000	312,000	
Battle Tanks				
- Heavy	310	309	309	
- Light	1,120	925	905	
NAVY				
Submarines	2	4	4	
Principal Surface Combatants		33	36	33
Patrol and Coastal Combatants		64	69	98
Maritime Aircraft				
- Combat Aircraft	-	-	32	
- Armed Helicopters	12	12	34	
AIR FORCE				
Combat Aircraft	474	500	484	

Aided by large foreign exchange reserves and -- since 1989 -- by Western suppliers less concerned about offending China, Taiwan has been able to concentrate on an ambitious plan aimed at upgrading all three branches of the armed forces. In August 1991, Defence Minister Chen Li-an pronounced "modernization of weapons" as the "key task," and, according to one report, Taiwan plans to spend \$40 billion on arms over the next decade.¹¹⁶

The past decade already witnessed substantial improvements to the Taiwanese fleet. Since the early 1980s Taiwan has acquired two 2,600 ton *Hai Lung*-class submarines (based on the Dutch *Zwaardvis* class), built in the Netherlands and armed with torpedoes capable of carrying a 250 kg warhead up to 12 km; two Taiwanese-built *Cheng Kung*-class frigates, equipped with Hsiung Feng II SSMs, torpedoes and advanced SAMs; four coastal minehunters built in Germany; four attack transports;

¹¹²Barrie and Pite, "World's Air Forces."

¹¹³Smith, "US Pressures S.Korea to Buttress its Forces," p. A27.

¹¹⁴Blank, *Challenging the New World Order*, p. 64.

¹¹⁵*The Korean Herald*, September 8, 1994, p. 2.

¹¹⁶Annie Huang, "Taiwan on shopping spree to build up armed force," *Jerusalem Post*, August 22, 1991; Morgan, *Porpoises Among the Whales*, p. 22.

and one combat support ship, which is the largest unit built so far for the Taiwanese Navy. As well, most of Taiwan's 1940s-vintage destroyers were modernized and equipped with surface-to-air missiles.

Sixty-seven ships are now on order or planned. Taiwan's destroyers will be replaced by modern frigates, including six 3,500 ton *La Fayette*-class boats ordered from France in 1991 and scheduled for delivery by the end of 1996. A second batch of 10 was to be built in Taiwan, but latest reports indicate a switch to corvettes as a cheaper alternative. Taiwan is also building four more *Cheng Kung*-class frigates and two 4,300 ton PFG-2 class frigates, a more advanced design, to be operational by 1999.¹¹⁷ Taiwan plans to lease up to nine *Knox*-class ASW frigates from the United States, to add to three acquired in 1993. Ten 1,500-ton corvettes, to be equipped with *Hsiung Feng II* SSMs, are planned for 1995. The first will be acquired from a Western shipbuilder and the rest constructed locally. A 500-ton prototype offshore patrol craft is also under construction; a total of 10 may eventually be ordered. Also on order are one utility landing craft, up to 12 minehunters and three attack transports. *Fokker* maritime patrol aircraft and A3 fighter bombers may be acquired by the emerging naval air command. Taiwan also plans to acquire eight patrol submarines in the 1990s, if it can find a Western shipbuilder prepared to risk China's wrath in supplying them. Germany and the Netherlands have already declined to sell complete boats, but a Dutch shipyard may be willing to sell sections for Taiwan to assemble.¹¹⁸

The most notable Air Force acquisition is the deal, announced in August 1992, to buy 150 F-16 (A and B) fighters from the United States. Production of the F-16s will begin in 1996. Taiwan has also ordered 60 *Mirage 2000-5* multirole aircraft from France. In addition, Taiwan is developing its own defensive fighter, the *Ching-Kuo*, of which ten test versions are already in operation and up to 300 will eventually be ordered to replace F-5 and F-104 fighters. As an interim measure, Taipei is obtaining 34 refurbished C-7 *Kfirs* and six TC-7s from Israel. Taiwan also has a licensing deal with Israel for production of the *Gabriel* missile, and one with Raytheon of the US for co-production of the *Patriot* in Taiwan.¹¹⁹ It has, since the mid-1980s, been developing an indigenous air defence system. Taiwan is also carrying out major improvements of its early warning, surveillance and operational command and control capabilities. It will reportedly continue to phase out aging C-119s while purchasing new C-130Hs, AWACS and early warning aircraft.¹²⁰ The Army is benefitting from the gradual introduction of over 300 new M-48H tanks.

Thailand

		1983	1988	1993
Total Armed Forces	235,300	256,000	295,000	
ARMY				
Men	160,000	166,000	190,000	
Battle Tanks				
- Heavy	55	95	153 (+over 50 in store)	
- Light	144	134 (+340 in store)	510	
NAVY				
Principal Surface Combatants		6	5	9
Patrol and Coastal Combatants		29	53	63
Maritime Aircraft				
- Combat Aircraft	15	22	29	
- Armed Helicopters	0	8	8	
AIR FORCE				
Combat Aircraft	188	143	156	

¹¹⁷The *Cheng Kung* -- a modified version of the US *Oliver Hazard Perry* class -- are particularly effective in an ASW role. In addition to the standard hull-mounted sonar, they are equipped with a passive towed array to improve effectiveness in detecting submarines (future models will feature an active towed array), and with two Sikorsky S-70C (M) helicopters, primarily designed for ASW. Ten such helicopters were delivered from the US in 1991, and may also be deployed on the *La Fayette*s.

¹¹⁸*Jane's Fighting Ships 1994-95*, pp. 668-679. Reports in April 1994 that Taiwan would buy 10 German submarines (which would be sent in separate parts to the US or South Korea for assembly prior to delivery to Taiwan, as a means of circumventing the German government ban on arms sales to areas of tension, and for which Bonn would be rewarded with a contract for high-speed trains) were denied by the German government.

¹¹⁹*Arms Control Reporter*, 1993, p. 706.B.104.

¹²⁰Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 15.

Since the late 1970s, Thailand's armed forces have been reorganized and modernized on such a scale that, by the early 1990s, the country was described by the director of the local Institute for Strategic and International Studies as being in the midst of "the largest procurement program in the kingdom's history."¹²¹ The 1979 Vietnamese invasion of Cambodia prompted a substantial upturn in defence spending and a restructuring of the Thai Army to deal with large-scale conventional land battles rather than counter-insurgency operations. Between 1983 and 1993, Thailand's inventory of tanks tripled, thanks in part to a 1987 purchase of 106 *Stingray* light tanks from the US (44 of which later developed hull cracks). Other purchases included Chinese armoured personnel carriers, T-69 tanks and artillery. In 1980, the Thai Navy began an ambitious program for "defence in depth" of the Gulf of Thailand, with a view both to the worst case contingency of an attack by Vietnam and to Thailand's increasing commitment to natural gas production and other civilian maritime activities. Planning started for the creation of a submarine force, for expansion of the naval air wing to include more modern maritime patrol and fighter/strike aircraft, for doubling the number of effective surface combatants, and for the production of indigenous amphibious ships to replace elderly US-built units. Acquisitions during the 1980s included two large and highly sophisticated missile corvettes from the US; three Fokker F27 maritime aircraft from the Netherlands; two minehunters from Germany; two 3,500 ton amphibious landing ships (tank), based on a French design and constructed in Thailand; three fast attack craft; and six large patrol craft, also built in Thailand.¹²² The main air force acquisition during the 1980s was a squadron of 18 F-16A and B fighters.

Future years are likely to see smaller forces but continued equipment improvements. Bangkok recently embarked on a two-stage, 10-year program to develop a leaner, more professional military. Between 1992 and 1997, the Thai army will be trimmed by 50,000 men; then, in the subsequent five years, it will be cut by a further 10%. The savings are expected to be spent on establishing a better reserve system and on "new equipment to catch up with new technology," emphasizing anti-tank, anti-aircraft and communications systems.¹²³ Thailand has abandoned its policy of buying Chinese weapons and is now looking mainly to the United States for its needs, which include M-60 and M-48A5 tanks.¹²⁴ Russia is reportedly offering to supply troop-transport helicopters to Thailand, and is willing to accept half-payment in barter, including rice.¹²⁵

The naval program has been subject to interruptions due to increasing costs and restrictions on funding. Nonetheless, it continues into the 1990s, with the commissioning of four Chinese-built *Chao Phraya*-class (modified *Jianghu*-class) frigates and three UK-built ASW corvettes in 1991-92. Two more *Chao Phrayas* with improved design are to be built in Thailand. Other vessels under construction or on order include:

- two guided missile frigates to be delivered in 1994-95. These are being built in China and will be fitted with Western sensors and weapon systems after delivery;
- two ex-US *Knox*-class frigates, to be transferred on lease in 1994 and 1996. Two more may eventually be acquired.
- an 11,485 ton helicopter carrier, being built in Spain, for commissioning in 1997. The hangar can hold up to 10 *Sea Harrier* short take-off and landing aircraft or 10 *Sea King* helicopters;
- three P-3B *Orion* aircraft, for maritime reconnaissance and ASW, for delivery in 1995/96;
- six S-70B *Seahawk* multi-mission (patrol, surveillance and search and rescue) helicopters, for delivery in 1997.

Negotiations for some 30 A7-E *Corsair* fighter bombers from the US Navy are also underway.¹²⁶ Plans to acquire submarines, which had been suspended in 1987 in favour of the corvettes, are still under consideration and Bangkok is reportedly discussing with Moscow the purchase of the *Kilo* variety. The Navy is training submarine personnel in the Netherlands and planning a docking facility for up to three

¹²¹Sukhumbrand Paribatra quoted in Smith, "Armament Fever Spreads in Asia as it Ebbs in Europe."

¹²²Goldrick, "Navies in Asia," pp. 149-150.

¹²³Mak, "Armed, But Ready?" pp. 21-22.

¹²⁴*The Military Balance 1991-92*, p. 156.

¹²⁵"Thai Army Chief to Visit Russia to Boost Military Ties," *The Sunday (Straits) Times*, July 11, 1993, p. 14.

¹²⁶*Jane's Fighting Ships 1994-95*, pp. 683-694.

SSKs.¹²⁷ New batches of patrol craft, utility landing craft, coastal minesweepers, Bell 212 helicopters and Dornier 228 surveillance aircraft are planned. There is also interest in a second helicopter carrier.¹²⁸

The Thai Air Force has ordered 30 L-39 light attack aircraft from the former Czechoslovakia and the Thai Cabinet has approved the purchase of six *Alenia* B222 transport aircraft from Italy. The United States is considering a Spanish request for the resale of eight AV-8S and 2 TAV-8S *Matador* (*Harrier*) fighters to Thailand, for delivery no sooner than 1997. Thailand also plans to acquire an additional 18 F-16A/B fighter aircraft from the United States to add to its existing squadron. Some defence analysts believe the Russians are trying to interest the Thais in their MiG-31 high-altitude interceptor. In addition, Thailand is reportedly discussing the purchase of 100 *Leopard 1* main battle tanks from Germany.¹²⁹

Vietnam

	1983	1988	1993	
Total Armed Forces	1,220,500	1,252,000	857,000	
ARMY				
Men	1,200,000	1,100,000	700,000	
Battle Tanks				
- Heavy	1,900	1,760	1,300	
- Light	600	450	600	
NAVY				
Principal Surface Combatants		4	7	7
Patrol and Coastal Combatants		37	62	55
AIR FORCE				
Combat Aircraft	287	250	240	
Armed Helicopters	36	30	28 (+many in store)	

During the 1980s, Vietnam received a number of ex-Soviet vessels in return for the USSR's use of Cam Ranh Bay naval base. However, arms imports have dwindled considerably since the early 1990s, when Moscow began to withdraw from Cam Ranh Bay and started demanding payment of market prices for weapons. Vietnam has been trimming its armed forces since the late 1980s, and although it still has a relatively large force on paper, the combat capability is questionable due to poor maintenance and training. Hanoi has attempted to modernize some of its rusting ex-US and Soviet vessels with surface-to-surface and surface-to-air missiles, but the age of the ships and the difficulty of finding spare parts, due to trade restrictions, means the ships will have limited operational capabilities. In fact, stockpiles of most spares will run out in 1995, unless use is cut back even further.¹³⁰

Trends

Asia Pacific is a vast region characterized by such disparities in countries' physical size, military capability and threat perceptions that it can be misleading to generalize about trends in arms acquisition. Some regional states, such as the Philippines and New Zealand, have not engaged in any arms buildup to speak of over the last decade; others, like Indonesia, have done so only sporadically; still others, including Russia and Vietnam, have been disarming. Nevertheless, these tend to be the exceptions. Overall, there has been a marked improvement in the capabilities of Asia Pacific armed forces since the early 1980s, a tendency that continues into the 1990s. Moreover, there are notable similarities in the nature of equipment being acquired, particularly in the growth of naval and air power.¹³¹

¹²⁷Meconis, *Asia-Pacific Dialogue on Maritime Security and Confidence Building Measures*, p. 37.

¹²⁸*The Straits Times*, June 12, 1993, p. 23.

¹²⁹Acharya, *An Arms Race in Post-Cold War Southeast Asia?*, p. 68; "Russia muscles in," p. 33.

¹³⁰*Defense and Foreign Affairs Handbook 1994*, p. 1294.

¹³¹Other regional trends in arms acquisition are identified and discussed in Ball, "Arms and Affluence." These include the development or significant expansion of: electronic warfare capabilities; strategic and tactical intelligence systems, many concerned with ocean surveillance as well as with more general signals intelligence collection; national command, control and communications systems; and rapid deployment forces. A further significant development since the early 1980s has been the growth of ballistic missile capabilities in Northeast Asia. China, North Korea and Taiwan began or expanded indigenous missile programs, and Japan and South Korea started sophisticated space-launch programs that could be converted into missile programs fairly quickly.

Growth of Naval Power

The most conspicuous feature of most recent acquisition programs is the priority placed on the development of naval and maritime air capabilities in favour of increased sea-keeping and endurance. The period between 1983 and 1993 saw a 33% jump in the number of principal surface combatants (aircraft carriers, destroyers and frigates) in Asia Pacific navies (see Table 1). The growth has been qualitative as well as quantitative: the new vessels are typically of the latest, most combat-capable types, with better surveillance systems and multi-dimensional weapons, and sensors that add anti-submarine and anti-air capabilities to the previous focus on missile-armed anti-surface craft. Although the number of patrol and coastal combatants (corvettes, missile craft, torpedo craft and patrol craft) declined over the same period (see Table 2), the figures are misleading. The majority of deletions were aged, gun-equipped Chinese, North Korean and Philippine vessels (which, in the Chinese case, may simply have been reassigned to paramilitary forces or put into storage). In their place throughout the region have come modern, highly effective corvettes and fast attack craft armed with guided missiles. Through the remainder of the 1990s, Asia Pacific navies are slated to procure some 66 principal surface combatants and close to 100 patrol and coastal combatants. Though the emphasis to date has been on surface combatants, a new trend may be about to take off. Approximately 34 submarines are on the order book for the 1990s, a number that will increase by one-third the current total of about 100 (of which many North Korean and Chinese examples are no longer operational).

The strike capabilities of regional navies are being further extended by an emphasis on the procurement of guided missiles. The number of modern anti-ship missile launchers in the region -- currently around 1,600 -- is likely to more than double through the 1990s, as most states are equipping their new surface combatants with *Harpoons*, *Exocets* or indigenous versions like the Chinese C-801 and the Taiwanese *Hsiung Feng II*.¹³² Miniaturization and other technological advances have made it possible to pack increasing firepower onto smaller vessels. "A small Fast Attack Craft armed with *Harpoon*...can deliver a more powerful munition, over a greater range, and with far more accuracy than a World War II battleship. Fired from over-the-horizon, a *Harpoon* can blow a frigate in half."¹³³

A further recent emphasis in all expanding navies has been on elements required for improved surveillance and command and control. This is largely a result of the increased perceived need to maintain watch over claimed waters (see below), but it also points to the increasing sophistication of the operations of the region's various navies.

Table 1: Principal Surface Combatants* in Asia Pacific Navies

		1983	1993	Building or Planned
Australia	11	11	8	
China	35	56	9	
Indonesia	9	17	0	
Japan	48	62	7	
Malaysia	2	4	2	
New Zealand	5	4	2	
North Korea	4	3	?	
Philippines	7	1	0	
South Korea	19	38	14	
Taiwan	33	33	21	
Thailand	6	9	3	
Vietnam	4	7	?	
		----	----	----
Total	183	245	66	

* Aircraft carriers, battleships, cruisers, destroyers, frigates.

Sources: *The Military Balance 1983-84* and *1993-94*; *Jane's Fighting Ships 1994-95*.

¹³²Most of the new fighter aircraft and long-range maritime patrol aircraft being introduced to the region are also being fitted with anti-ship missile capabilities. See Ball, "Arms and Affluence," pp. 100-101.

¹³³Mack, *Arms Proliferation in the Asia-Pacific*, p. 11.

Table 2: Patrol and Coastal Combatants* in Asia Pacific Navies

		1983	1993	Building or Planned
Australia	20	18	12	
China	1,022	870	22	
Indonesia	28	45	4	
Japan	19	8	2	
Malaysia	38	37	4	
New Zealand	4	4	0	
North Korea	431	387	?	
Philippines	88	33	20	
Singapore	30	30	12	
South Korea	50	120	1	
Taiwan	64	98	20	
Thailand	29	63	0	
Vietnam	37	55	?	
Total	1,860	1,768	97	-----

*Corvettes, missile craft, torpedo craft, patrol craft.

Sources: *The Military Balance 1983-84* and *1993-94*; *Jane's Fighting Ships 1994-95*.

Improvements in Air Power

A second region-wide trend is the procurement of advanced air power. Here, improvements to date have been manifested more on the qualitative than the quantitative side (see Table 3), although it has been estimated that Asia Pacific countries will procure some 3,000 new fighters and strike aircraft during the 1990s. Most of these will be deployed by China (about 550), Taiwan (466), Japan (400) and South Korea (160).¹³⁴ In addition, existing fighters and strike aircraft are being upgraded with new mission avionics and armaments. The aircraft being acquired are extremely capable, suited to maritime attack roles as well as to air-superiority manoeuvres. In most cases the new planes are F-16s (e.g. Taiwan, Singapore, Indonesia, Thailand, South Korea), although F/A-18s (Malaysia, Australia), F-15s (Japan), Mirage 2000s (Taiwan), Su-27s (China), MiG-29s (North Korea, Malaysia) and MiG-31s (China) have also been procured.

The emphasis on advanced air power is in part related to the emphasis on naval power. The capability for maritime attack operations is an important factor in most new fighter programs, and the number of maritime surveillance aircraft in the region, such as P-3Cs, will also close to double under present acquisition programs.

Air power plays a vital role in all of the missions for which small navies are employed. The surveillance function of constabulary navies depends on long-range patrol aircraft to detect illegal activities in the EEZ.... [C]oastal defense...is effective only when augmented by shore-based airpower. Diesel submarines and small surface ships, even those armed with the most modern guided missiles, can rarely beat off a determined foe attempting an amphibious assault, but control of the air by a defender will virtually always succeed in thwarting a landing. Land-based air also serves to protect small surface craft, which are generally armed with surface-to-surface rather than surface-to-air missiles.... Land-based air can be a key element in a war fought in the regional seas in the Western Pacific, where distances are short and the range of aircraft need not be great.¹³⁵

Recent acquisitions may also have been spurred by the 1991 Gulf War where, for the first time, airpower employing precision guided bombs and missiles played a decisive role in war.

¹³⁴Ball, "Arms and Affluence," p. 98.

¹³⁵Morgan, *Porpoises Among the Whales*, p. 16.

Table 3: Number of Asia Pacific Combat Aircraft*

		1983	1993
Australia	140	157	
Burma	16	25	
China	6,100	5,850	
Indonesia	76	85	
Japan	373	600	
Malaysia	32	77	
New Zealand	33	38	
North Korea	740	730	
Philippines	92	53	
Singapore	106	193	
South Korea	450	512	
Taiwan	474	516	
Thailand	203	185	
Vietnam	287	240	
Total	9,122	9,261	-----

*Includes planes in navy and/or air force service.

Sources: *The Military Balance 1983-84* and *1993-94*.

In one sense, the emphasis on naval power is not surprising. *Asia Pacific* is primarily a maritime environment. Many countries in the region are located on islands, archipelagos or peninsulas; others have long coastlines. The waters in the region -- the South China Sea, the Gulf of Thailand, the Java Sea, the Molucca Sea and the Straits of Malacca, Sunda, Ombai-Wetar and Makassar -- are among the world's busiest in terms of shipping movements. Most of the maritime boundary demarcations in the area are in dispute. Except for North-South Korea and the land borders around China, the bulk of the force that could be brought to bear against a state would have to come from the sea. Security planning in the region necessarily focuses on the maritime realm. Nonetheless, the recent emphasis on naval development stands out because most Asia Pacific force improvements prior to the 1980s occurred on land.

III. Why Is It Happening?

There has clearly been an arms buildup in Asia Pacific over the last decade, exemplified both by an increase in real defence spending and by a quantitative and qualitative increase in arms holdings. What accounts for the "paradox of Asia furiously strapping on the armour when it has seldom been more at peace"?¹³⁶ This question, in less alarmist form, is the subtext to the flourishing business of regional security dialogue and to proposals for regional confidence-building measures. To determine whether states are plugging gaps in defence or preparing to maraud about the Pacific (or something in between), it is helpful to take a look at the factors prompting the acquisitions. Causes of weapons procurements can provide clues to intentions about weapons employment, which can provide guides to what ought to worry us and what ought not. In addition, causes can provide clues to potential remedies.

If the dominant motive for arms acquisition in a particular region is the suspicion and mistrust between states, then confidence-building, verification and compliance measures would go some distance towards reducing this cause. If, however, the main motive stems from internal politics, then such measures are unlikely to stem proliferation (or even to be accepted).¹³⁷

Different causes are important in different proportions in different countries. Nonetheless, the reasons behind most recent arms acquisitions in the Asia Pacific fall into the following, often linked, categories.

¹³⁶Asia's Arms Race," p. 19.

¹³⁷Keith R. Krause, "The Compliance and Verification Aspects of Proliferation: An Action Plan for Policy-Relevant Research," in *Non-Proliferation in All its Aspects: Verification of Compliance Effectiveness*, Workshop Proceedings (Toronto: Centre for International and Strategic Studies, York University, December 1992), p. 81.

Uncertainty

The end of the Cold War has become a cliché to explain almost any development on the world stage since 1989, and Asia Pacific arms acquisitions are no exception. According to this argument, regional arms buildups can be attributed at least in part to “uncertainty” accompanying the demise of the relatively stable US-USSR-China Cold War structure. With Russia momentarily out of the picture and the long-term US commitment to the region appearing shaky, the restraints on possibilities for action by other regional powers, notably China and Japan, are less strong. States are having a hard time guessing what the region’s power distribution and security arrangements will look like over the next five to ten years; they cannot say for sure whence threats might come. Even if the general source of danger can be divined, the precise nature of challenges is near-impossible to determine. In this view, states are bolstering their arsenals to contend with a less predictable strategic environment; they are preparing to fill an anticipated “power vacuum” or to counter others filling one.¹³⁸

While greater-than-usual uncertainty about the region’s future strategic architecture is undoubtedly conditioning thinking in Asia Pacific defence ministries, the extent to which it is driving current acquisition programs is less clear. Most weapons now entering service were ordered or planned before the end of the Cold War. The Southeast Asian naval buildup began in 1980. China’s “green water” strategy was adopted in 1982. Northeast Asian arms expenditure has been overheated for at least a decade. Where uncertainty might be having an effect is in the *type* of forces being acquired: in numerous instances, it looks as though arms are being selected to hedge bets -- to create or to fill out a rounded defence posture rather than to meet an identifiable threat. But even in these cases, other explanations can often be found, as will be seen below. In short, one has to delve deeper than “uncertainty” to try to explain what is happening in the region.

Perception of US Withdrawal

Breaking “uncertainty” into its constituent parts, the most germane factor is a diminution of American commitment to Asia Pacific -- both actual and anticipated. The perceived withdrawal is with respect to both presence (i.e. deployments) and security guarantees (i.e. willingness to come to allies’ aid in the event of a conflict).¹³⁹ Notwithstanding American statements to the contrary, there is a widespread belief in Asian capitals that the US is not likely to have the will or the economic wherewithal to sustain its present security commitment to the region through the end of the century.¹⁴⁰ The curtailment of US-Soviet hostility has removed the main rationale for a US presence in Northeast Asia. Between April 1990 and December 1992, the US reduced its forward-deployed personnel in the region by approximately 10%. Although plans for further withdrawals have been suspended until the North Korean nuclear issue is cleared up, many Asians see this as a portent of a larger-scale, longer-term US withdrawal.¹⁴¹ Even if the US wants to hang on to its commitments, it may not be able to fulfil them. Naval analysts note that as the overall navy shrinks, the Seventh Fleet will undoubtedly be reduced in size.¹⁴²

Asia Pacific countries are thus enhancing their own defence capabilities in the anticipation they will have to rely on them, not only in potential regional conflicts (e.g., the Korean Peninsula, the South China Sea or Taiwan), but also in the routine patrol and early warning operations that the US would normally conduct. Again, this belief may have preceded the end of the Cold War, particularly in Southeast Asia. As far back as 1969, the “Nixon Doctrine” made clear that the US was no longer prepared

¹³⁸The changing balance-of-power argument has a “chicken and egg” element to it. The United States still maintains a major military presence in the region; if it is believed to be in relative decline, it must mean that others in the region have built up their forces -- i.e. the buildup could be causing the relative decline rather than vice versa.

¹³⁹The US has alliance commitments to Japan, South Korea, Thailand, the Philippines and Australia.

¹⁴⁰See, for example, Cha and Koo, “Multilateral Confidence-Building Measures in Northeast Asia,” pp. 2-3.

¹⁴¹Under the original East Asia Strategic Initiative, announced in April 1990, two subsequent phased reductions (in 1993-95 and 1996-2000) would draw US forces in the Western Pacific down to less than 100,000. United States Department of Defense, *A Strategic Framework for the Asian Pacific Rim: Looking Toward the 21st Century* (Washington, April 1990) and *A Strategic Framework for the Asian Pacific Rim: Report to Congress* (Washington, July 1992).

¹⁴²“The fleet will certainly get smaller; whether or not it gets too small to support US interests in the increasingly insecure Asia-Pacific region remains to be seen.” Morgan, *Porpoises Among the Whales*, p. 14.

to make an automatic commitment of conventional forces to its regional allies. This was followed by the 1975 US withdrawal from South Vietnam, the withdrawal of US forces from bases in Thailand, and the demise of the Southeast Asia Treaty Organization in 1977, all of which added to the view that the United States could not be relied upon to provide a permanent security umbrella in the region.¹⁴³ Indonesia adopted a self-reliant defence policy in the 1960s, Thailand began to move in this direction in the 1970s, and Malaysia in the 1980s.

More recent US drawdowns have had a direct effect on arms acquisitions in South Korea and the Philippines. In other cases, including Taiwan, Japan, Australia and ASEAN, the effect is indirect. Thus even though most Asia Pacific arms buildups predate the end of the Cold War, post-Cold War doubt about the future nature and extent of US commitment has become one of several factors giving impetus for buildups to continue.

US withdrawal is also influencing the nature of recent acquisitions. For most Asia Pacific states, increased self-reliance requires improved surveillance, warning and intelligence capabilities to monitor regional developments, especially in the maritime approaches, as well as an ability to defend such approaches -- thus the emphasis on maritime strike capabilities. It also requires an ability to move further out to sea in order to patrol and defend areas that US forces used to take care of, and a rapid reaction capability to respond to regional contingencies, which could develop at short notice.

Fear of Japan and/or China

The other major component of “uncertainty” is concern about the future power and intentions of Japan and/or China. Many Asia Pacific countries worry that a sizable US retrenchment could prompt Japan to adopt a less constrained defense posture, a prospect viewed with some alarm in view of Japan’s military activities during the first half of the century. There are also region-wide doubts about Chinese intentions, and fears that an economically stronger China will attempt to exercise hegemony in the region. Indeed, it could be argued that regional arms buildups have less to do with the end of the Cold War than with the rise of China as an economic power. The prospect of Japan and China competing -- or colluding -- to dominate East Asia sends chills up the spines of Asia Pacific defence planners, especially in countries that have territorial disputes with Tokyo or Beijing. Concern about China is playing a part in Southeast Asian buildups, especially in Malaysia and -- to a lesser degree -- Indonesia. Singapore is more concerned about Japan. In Northeast Asia, Taiwan and South Korea -- each involved in territorial disputes with China and Japan respectively -- are both hedging against being caught in the vortex.¹⁴⁴ One of the factors fuelling China’s military modernization is concern about an economically powerful Japan becoming less closely tied to the United States and more militarily capable in the region.

Replacement and Modernization

Many acquisitions in the region can be ascribed to the replacement or modernization of aging capabilities. Thailand’s new frigates will replace World War II-vintage units; Australia’s *Collins*-class subs will replace *Oberon*-class boats built in the 1960s; Taiwan’s F-16s will replace 40-year old F-104s and 30-year old F-5Es. China’s submarine designs date back to the mid-1970s and most of its fighter aircraft are decrepit. Without Malaysia’s planned acquisitions, the RMN would be facing the obsolescence of almost its entire fleet. Since a typical weapons system life cycle is about 20 years, states are now having to order replacements for equipment constructed in the late 1970s. Almost invariably, the replacements are much more capable than their predecessors, leading not only to a maintenance of force levels but also to a ratcheting up of capabilities.

Simply by maintaining seagoing capability, which necessitates the renewal of hulls at twenty to thirty year intervals, in an era of rapid technological change, navies can experience enormous increases in their own military capability. This is particularly apparent in southern Asia because development -- up to a certain point -- has tended to favour smaller services with sea denial

¹⁴³See Speed, “The Evolving Maritime Environment in Southeast Asia,” p. 15.

¹⁴⁴Worry about India as another would-be regional hegemon is having some effect on defence planning in Indonesia, Thailand and China.

missions ahead of larger ones whose task is sea control. The mine, the missile, the torpedo, the fast attack craft and the submarine are all weapons of a weaker power.¹⁴⁵

In some cases states have deliberately been seeking more capable weapons. For example, the acceleration of the PLA's modernization since the early 1990s is due in part to a deep Chinese concern regarding the performance of Western weapons during the Gulf War, which demonstrated that a technologically superior army could easily defeat a numerically superior force armed with archaic weapons. Many of Iraq's weapons were of Chinese manufacture, and Iraq's doctrine, based largely on attrition warfare conducted by infantry and armour-led forces, was also Chinese.¹⁴⁶

Even if new acquisitions are primarily a question of maintaining pre-existing force levels, the fact that force levels are being maintained, rather than going down, says something about the regional security environment, or about other factors influencing defence decision-making. Also, replacement does not necessarily have to mean improvement, as Indonesia's East German purchase demonstrates.

Growth of Maritime Responsibilities

In Southeast Asia, the modernization process involves a shift in emphasis from largely land-based forces focused on the maintenance of internal security to naval and air forces focused on the protection of claimed offshore areas. The promulgation of 200 nautical mile exclusive economic zones (EEZs) by regional states and the extension of the allowable width of territorial seas to 12 nautical miles under the 1982 UN Convention on the Law of the Sea (UNCLOS), has created claims -- in many cases overlapping -- over resource-rich areas that require surveillance and policing.

The improved security of land borders and internal territories for all ASEANs except the Philippines means that countries have been able to turn their attention to protection of these claims. As well, countries in both Southeast and Northeast Asia are demonstrating an increased interest in the security of seaborne trade. Asia's merchant fleets have almost doubled in capacity over the last ten years.¹⁴⁷ The world's two largest container ports -- Singapore and Hong Kong -- are in East Asia.¹⁴⁸ The Malacca and Singapore Straits may be the world's most important shipping channel, accommodating the passage of over 200 merchant ships each day, including tankers carrying Middle East oil to Japan, South Korea and Taiwan. The effect of expanded sea-lane defence responsibilities on Japanese naval procurements was mentioned earlier. Even for China, the decision to open the economy to Western investment has increased the importance of offshore areas and especially of regional sea lanes. Regional states have also turned their attention to combatting the increasing level (and increasing sophistication) of illegal activity in the region's waterways, including piracy, smuggling and unlicensed fishing.

As a fairly typical example of what regional navies are now expected to accomplish, the Malaysian navy's tasks were expanded in the 1980s from coastal defence to include: safeguarding the sovereignty of all claimed territories, territorial waters and the EEZ; maintaining law and order in Malaysian waters and the EEZ; protecting Malaysia's sea lines of communication; protecting offshore hydrocarbon deposits and other non-living seabed resources; managing fishery resources; regulating scientific research; and controlling the inflow of illegal Vietnamese immigrants.¹⁴⁹

States feel they cannot ensure the sovereignty and security of claimed offshore areas without naval and air capabilities to enforce those claims, and most states in the region are citing one facet or another of their expanding maritime responsibilities to justify force improvements. "Virtually all countries feel the need for a navy to practice gunboat diplomacy and if necessary to engage in actual combat to enforce their claims" or to carry out surveillance to ensure resources are not illegally taken by

¹⁴⁵Goldrick, "Navies in Asia," p. 239.

¹⁴⁶The Gulf War confirmed a lesson the Chinese had already learned first-hand in the PLA's very poor performance during the Sino-Vietnam border conflict of 1979-80. Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 7.

¹⁴⁷The gross tonnage of ASEAN merchant fleets (excluding Brunei) grew from 11,767,645 in 1980-81 to 20,953,667 in 1991-92, while the number of vessels grew from 3,105 to 4,863. D. Stuart Pert, "Southeast Asia: Needs a Marshal, Not a Policeman," *Proceedings*, March 1993, pp. 80-81.

¹⁴⁸In 1990, the major ports of East and Southeast Asia handled a total of about 28 million containers -- four times as many as the West Coast ports of the United States. Sam Bateman, "Maritime Developments in the Western Pacific -- Implications for Australia," Address to the Australian Institute of International Affairs of Queensland, Brisbane, May 20, 1993, p. 7.

¹⁴⁹J.N. Mak, "The Maritime Priorities of Malaysia," in Babbage and Bateman, *Maritime Change: Issues for Asia*, p. 119.

foreigners.¹⁵⁰ The potential for maritime conflict over EEZs or disputed offshore islands or illegal activity generates a requirement for improved surveillance capabilities, longer-endurance surface combatants, platforms able to launch anti-ship missiles, and longer-range aircraft. It also helps to explain the emphasis on frigates in most building programs, as these tend to be the most suitable ships for convoying merchant vessels.

Economic Prosperity

If uncertainty, UNCLOS and illegal activities have furnished the need for extensive defence modernization programs, economic prosperity has supplied the resources. There has been a strong, positive correlation between defence expenditure and GNP growth in Asia Pacific over the last decade. As noted earlier, rapid rates of economic growth across the region have typically permitted increased spending on arms without any increase -- and in some cases with a decrease -- in the percentage of GDP allocated to defence spending. While offshore protection has always been a matter of some concern in the region, in the past most states have not had the wherewithal to buy the type or numbers of sophisticated military equipment needed to adequately patrol air and sea space. In fact, economic growth alone may have provided the incentive for the region's arms shopping spree, irrespective of need.

Recent research indicates that the single best indicator for increased defence expenditure is...the rate of increase in GDP.... [This] helps explain situations like that in Thailand where the major perceived threat -- that from a Soviet-backed Vietnam -- collapsed, yet where defence expenditure continued to soar.... [N]ational economic decline may be most effective means to control rising defence budgets and hence arms imports.¹⁵¹

Buyer's Arms Market

Asia Pacific states have money to spend on arms just at the time it is most advantageous to do so. Major weapons exporting states have a plentiful supply of surplus arms and are willing to accept lower prices than previously as they try to replace desiccated Cold War markets and prevent the collapse of domestic defence industries. Russia, in particular, is trying to carve a niche for itself in the regional market, offering cut-rate prices -- for example, a MiG-29 at less than half the price of an F/A-18 -- and accepting part payment in commodities rather than cash.¹⁵² But Russia is not the only eager seller. Britain, France and the US are keen to retain their traditional shares of the market. The F-16 sale to Taiwan was largely motivated by concerns about preserving American jobs (and votes). The competition among suppliers means that buyers can acquire sophisticated weapons systems and technology that East and West would once have been reluctant to sell, such as Su-27s, MiG-31s and F/A-18s.

Corruption

Greed is an oft-underestimated factor in regional weapons purchases. In a number of Asia Pacific countries, powerful individuals or groups can earn private revenue from arms transactions, leading to acquisitions that otherwise make little military sense. For example, "service charges" from arms sellers to senior Thai military officials reportedly typically represent 13-17% of the deal.¹⁵³ Thailand is not alone. The murder of a senior Taiwanese naval officer has led to reports of widespread corruption and mismanagement in Taiwan's secretive arms procurement process. Similarly, a 1993 investigation of corruption in South Korean defence procurement found that huge amounts of money had been spent on weapons that are inappropriate, faulty or incompatible with existing ones. Examples include an anti-aircraft gun without an optical mechanism to differentiate between friend and foe, an obsolete radar system, a tank with a tendency to stall, and a naval battery that will not load American ammunition.¹⁵⁴

¹⁵⁰Morgan, *Porpoises Among the Whales*, p. 4.

¹⁵¹Mack, *Arms Proliferation in the Asia-Pacific*, p. 3.

¹⁵²According to a Malaysian defence analyst, the MiG-29s were chosen because they were offered at "garage-sale prices." Malaysia is hoping to pay Russia partly in palm oil.

¹⁵³See Stier and Bao, "The Bitter Truth Behind Thailand's Khaki Commerce," pp. 34-36. They note, for example, that Thailand's F-16 purchase was far beyond the necessary given that the only air threat to the country came from Vietnam's obsolete US and Russian planes. "The important thing to remember when you sell to the Thai military is not what a weapon can do, it's how much it can produce in under-the-counter payments," says an unnamed arms-sales specialist quoted on p. 36.

¹⁵⁴"Operation Yulgok," *The Economist*, January 29, 1994, p. 36.

Generals in Indonesia, Malaysia and China are also believed to have benefitted financially from arms purchases.

National and Armed Service Prestige

There is a psychological dimension to some recent arms purchases that could be described as “macho symbolism” or “toys for the boys.” State-of-the-art weapon systems have a prestige value for military establishments and, more generally, for the nation at large. “The possession of high-technology weapons systems, and the demonstrated ability to operate and maintain them, is regarded as an indicator of political and economic modernization.”¹⁵⁵ Since the military plays a dominant role in decision-making in many regional states -- either directly as governors or indirectly as key guarantors of the civilian regime -- they are in a strong position to argue for the acquisition of systems that will bolster their own image or position. For example, in China the military may be requesting and receiving modern weapons as a reward for its loyalty in the 1989 Tiananmen Square killings.¹⁵⁶

Technology Acquisition and Economic Development

Although the growth in arsenals has generally been import-led, particularly in Southeast Asia, there has also been an increase in domestic arms production, typically under licensing agreements, as the industrial base of regional states has grown developed and states have become keen to promote defence self-reliance, to generate employment and to gain new technologies for future defence and civilian development purposes. For example, the number of “major conventional weapons” systems produced under licence in Indonesia, Taiwan, Singapore and Australia increased from one in 1967 to 24 in 1988.¹⁵⁷ North Korea is largely self-sufficient in arms production, making its own versions of armoured personnel carriers, artillery, missiles, light tanks, high-speed missile boats and landing craft, submarines, small arms and munitions. China is also virtually self-sufficient, producing a wide range of fairly unsophisticated aircraft, warships, submarines, tanks, small arms and ammunition, as well as missiles. Japan -- although also a big weapons importer -- produces as much as 90% of its own military equipment. South Korea makes tanks, mortars and other ground equipment, as well as helicopters, and has developed a fairly sophisticated shipbuilding program over the last decade.

In several cases, countries have been willing to pay many times the market price and to forego timely delivery to build their own weapons, suggesting that other than straightforward defence and financial calculations are at work: Japan’s FSX, Taiwan’s indigenous defensive fighter and Thailand’s *Sattahip*-class large patrol boats are all examples. Indonesia has enacted regulations to prevent many navy purchases overseas, as part of a push to create an indigenous shipbuilding industry.¹⁵⁸ In all cases, once the capacity for domestic production is created, there is strong pressure from local defence contractors to ensure that their allocation of work continues -- even though few Asian armed forces are large enough to provide a continuity of orders.¹⁵⁹

Some weapon systems are being acquired primarily to gain new technologies that might be transferred to the civilian sector, or to promote the development of domestic high-tech sectors (both military and civilian) through local design and production.

Many modern technologies, such as satellite launch vehicles and super-computers, are dual-use, so that investments for defence purposes can also stimulate indigenous commercial developments. Small numbers of modern fighter aircraft can be used to introduce new composite materials; combat information systems aboard modern frigates provide access to integrated data

¹⁵⁵Ball, “Arms and Affluence,” p. 92.

¹⁵⁶The PLA’s political influence and budget have both grown since Tiananmen. In June 1990, new commanders or political commissars were appointed to six of China’s seven military regions. All the new appointees were generals who had assisted in the June 1989 crackdown. MacWha, “The Strategic Significance of a Modernized Chinese Military,” p. 9.

¹⁵⁷Mack, *Arms Proliferation in the Asia-Pacific*, p. 2.

¹⁵⁸Even the 1992 purchase of 39 East German ships falls within this plan, as Jakarta hopes to transform the acquisition into a US\$1.1 billion five-year public works project that entails, inter alia, upgrading 15 shipyards and constructing a new deep water port in Sumatra. Indonesia’s minister for research and technology, Bachruddin Habibie, reportedly authorized the deal without prior consultation with the navy and over the opposition of the defence minister. Adam Schwarz and Mark Clifford, “Naval Manoeuvres,” *Far Eastern Economic Review*, May 13, 1993, pp. 54-55.

¹⁵⁹See Goldrick, “Navies in Asia,” p. 244.

management systems; and advanced electronic warfare systems are at the leading edge of communication and signal processing technologies.¹⁶⁰

Thus regional defence acquisition programs are increasingly tied to joint ventures and offset agreements in which there is a marked effort on the part of recipients, particularly in Northeast Asia, to obtain the transfer of technology and related skills. Weapons have sometimes been chosen not on the basis of how effectively they will contribute to the country's defence, but on how much technology the manufacturer is willing to transfer. China, for example, in its high-tech weapons deals first with the West and now with Russia, has been buying small quantities and trying to gain the technology, either through the right to produce the equipment locally or through reverse engineering. South Korea's 1993 decision to buy French *Mistral* missiles instead of American *Stingers* after the Americans refused to pass on guidance and warhead technologies is another prime example.¹⁶¹ While it will typically take an Asia Pacific state several years to master the technology, such transfers can lead to major improvements in the quality of indigenously produced weapons,¹⁶² and may ultimately be cheaper than pouring money into flawed domestic research and development or than buying off-the-shelf equipment.

Preparation for Particular Contingencies

Some weapons are being bought for what one might assume would be the most likely reason for buying weapons: to deter or to prepare to fight in particular possible conflicts. Asia Pacific is peppered with strongly-rooted historical animosities and unresolved territorial and boundary disputes. Contingency planning to deter and prepare for such disputes turning into conflicts drives requirements for particular weapons. The requirement to be able to assert a presence in the disputed Spratlys is a prime factor in Malaysian force structure calculations, in Brunei's planned naval expansion, and in the Philippines' procurement plans. North and South Korean acquisitions are above all driven by the contingency of possible war with the other, and the prospect of a Korean war in turn affects Japanese procurements. Taiwan's acquisitions are to break a possible Chinese blockade, attacks on shipping, and invasion. Some weapons are for internal security: Indonesia is battling armed separatist movements in East Timor, Aceh and Irian Jaya; the Philippines is also dealing with insurgents; Malaysia's rapid deployment force may be for the rapid projection of security forces to suppress unrest in Borneo.¹⁶³ Beijing is worried about the effects of instability in neighbouring Russia and Central Asia on China's minorities, as well as the effects of uneven economic development on the poorer provinces.

Arms Racing

There has been much speculation as to whether what is happening in Asia Pacific should be called an arms race, with an arms race understood to involve (1) (usually) a rapid rate of acquisition and (2) competitive reciprocal purchasing, where states acquire weapons to match or counter or surpass the arms acquisitions of another party or parties.

It should be clear from the above discussion that many Asia Pacific states are buying arms for reasons not directly related to what their neighbours are purchasing. As well, the rate of acquisition would suggest that what is in progress is more of a "stroll" than a "race." In terms of interactivity of purchasing, there are some manifestations of arms racing; for example, Singapore's purchase of F-16s is thought to have in part spurred similar acquisitions by Indonesia and Thailand and to have stimulated Malaysia's interest in a strike fighter, but even here other considerations were relevant, including the importance of air defence and strike capabilities in enhanced self-reliance.¹⁶⁴ There may also be elements of arms racing in the China-Taiwan case, where Taiwan has justified its F-16s and Mirage 2000s by pointing to China's Su-27s and other acquisitions. But here again, other factors -- including the need to modernize Taiwan's aging air force -- played a role.

¹⁶⁰Ball, "Arms and Affluence," p. 92.

¹⁶¹"Operation Yulgok," p. 36.

¹⁶²They can also increase the capability of existing foreign-built systems.

¹⁶³Acharya, *An Arms Race in Post-Cold War Southeast Asia?*, p. 31.

¹⁶⁴Ball, "Arms and Affluence," pp. 94-95.

To the extent that competitive purchasing exists in the region, it may be due as much to prestige factors (i.e. “keeping up with the Jones”) as to traditional arms race considerations. For example, ABRI chief General Feisal Tanjung told a meeting of Indonesia’s top military brass that the Indonesian armed forces modernization “is not for the purpose of competing to outdo the capability of friendly neighbouring countries. It is *solely to make Indonesia stand as equals with them* and support one another in accordance with regional needs.”¹⁶⁵

More generally, imitative dynamics have entered the acquisition processes through concerns common to many defense establishments that their capabilities for surveillance of air and sea approaches and of activities in disputed maritime areas be as effective as those of their neighbours, and of particular countries to reap the prestige that is attendant on the acquisition of modern technology and to demonstrate that they are just as capable of operating and maintaining high technology systems as their neighbours.¹⁶⁶

IV. About What Should We Be Concerned?

In trying to determine about which, if any, of these acquisitions, or trends in acquisition, Canada should be concerned, one must delve deeper than the weapons themselves and consider a number of additional factors. These include states’ intentions, doctrines and strategies -- clues to which might be provided by the acquisitions themselves. They include states’ abilities to effectively use their new-found equipment, which depend on the quality of personnel and training, the availability of maintenance and spare parts, and other support, logistic and command factors mentioned earlier. They also include the political context in which the acquisitions are taking place -- whether relations between potential adversaries are deteriorating or improving. One could get a misleading picture looking at regional military buildups without also considering the developing security-related dialogue and cooperation in the region. One should also look at the threat perceptions of countries closest to the buildups. If neighbours are not worried, should outsiders be?

In general, Canada should be troubled by acquisitions that increase the likelihood of, or make less containable, tension or armed conflict that would harm Canadian political or economic interests; or would require Canadian involvement (e.g. through UN peacekeeping or a Gulf War-like coalition effort); or would provoke conflict between ethnic groups within Canada itself. It is important to note that the question being asked in this study is about which arms buildups (or developments in arms buildups) Canada should be concerned. This is a slightly different question than about which tensions, or potential Asia Pacific hot-spots, Canada should be concerned. There are numerous longstanding disputes in the region. The question is whether recent acquisitions have a determining effect on these, and, if so, what that effect might be. Such an assessment necessarily involves much speculation. As the old saw goes, “prediction is difficult, especially of the future.” Trends rarely travel in straight lines. The purpose of what follows is to suggest potential problem areas to which those interested in regional security might want to direct their attention.

Southeast Asia

Although the ASEAN countries are acquiring weaponry of increasing reach and lethality, they seem mainly preoccupied with being able to monitor, patrol and defend their coastal waters and EEZs rather than with conducting military operations against a particular adversary. The ASEANs have a newfound ability to control proximate areas but are not yet able to operate at extended ranges from their home bases. They lack major surface warships in significant numbers, hardened shelters for their aircraft (with the probable exception of Singapore), and C³ for military forces in the field.

There are, of course, differences in the missions and capabilities of the region’s various forces. The Philippines military remains preoccupied with countering domestic insurgency; its navy is capable of

¹⁶⁵Emphasis added. “Jakarta Military ‘To Stay Neutral in Any Conflict,’” *The Straits Times*, July 10, 1993, p. 18. Notwithstanding the latter part of the General’s justification, there is little evidence that Asia Pacific countries are buying weapons with a view to constructing a regional or sub-regional complementarity of forces.

¹⁶⁶Ball, “Arms and Affluence,” pp. 94-95. A similar point is made by Acharya, *An Arms Race in Post-Cold War Southeast Asia?*, p. 30.

police functions only and could not deal with a sea-based threat of any sophistication. Brunei can conduct territorial and coastal defence but is not capable of much offshore activity. Indonesia's armed forces are focused on internal security functions rather than on sophisticated naval warfare operations, although EEZ surveillance and marine police duties are also important. The German ship purchase can reasonably be explained in terms of the need to provide effective presence and surveillance in vast archipelagic waters.¹⁶⁷

Malaysia's naval capability remains quite limited. Its two corvettes -- armed with *Exocets* -- do have some potential for offshore force projection, but the bulk of the Malaysian navy consists of patrol vessels. Although Malaysia has a large number of amphibious craft, they are suited more for logistic and general supply work than for landing troops on an enemy's shore. The force is "woefully inadequate" in C³I, naval reconnaissance and surveillance; for example, its long-range maritime patrol aircraft are limited to clear weather operations.¹⁶⁸

Singapore has the most combat-capable force of all the ASEANs, with increasingly sophisticated capabilities for surveillance and sea control beyond its EEZ. Its new corvettes are potent systems, armed with surface-to-surface and surface-to-air missiles, as well as guns and torpedoes. With a range of 4,000 nautical miles, they are capable of operating far beyond their usual stations in the Singapore and Malacca Straits and could move into the southern part of the South China Sea off Vietnam, around the Philippines, the Indian Ocean and the Andaman Sea. The Singapore Air Force is also highly capable and equipped with range of "smart" weapons, including Maverick missiles and laser-guided bombs. The choice of capabilities -- corvettes, coastal minehunters, light maritime patrol aircraft -- suggests a determination to create a credible trade protection and forward (i.e. seaward) defence force that can cover not only the Singapore Strait but also the sea lanes in the Malacca Straits and the South China Sea.¹⁶⁹ Nonetheless, Singapore continues to limit its sea lane protection sphere to 500 miles, and this would be demanding enough.¹⁷⁰

Thailand's intentions are rather harder to determine, as will be discussed below. The Navy's capabilities are still inadequate to provide defence of the entire Thai coastline, but they could be moving in the direction of force projection. Other regional arms acquisitions are of little concern, at least as far as threats to neighbours go. Although the Vietnamese Navy is relatively large, it is old, poorly maintained, and probably incapable of mounting even a small-scale amphibious assault on any of its ASEAN neighbours, let alone of taking on China. Cambodia's ill-disciplined forces pose a problem for its own citizens, but not for the region at large (although government incompetence may return the country to civil war -- undoubtedly a regional security concern, but not a product of arms buildups). The Laotian-Thai border disputes that fuelled conflict in the 1980s seem to be settled. Burma raises a slightly different set of questions, covered below.

Some Southeast Asian purchases are less impressive than they sound. For example, Thailand's Chinese-supplied frigates are suffering from metal corrosion, poor damage control capabilities, and problems with communication wires, inter alia. It is questionable how useful they will be even as simple patrol craft. In addition, the ability of most ASEANs to take full advantage of their new-found capabilities is doubtful. Several states are introducing particular weapons types into their inventories for the first time: examples include Brunei's fixed-wing fighter planes and maritime patrol craft; Malaysia's frigates; Thailand's helicopter carrier; and the Philippines' missile patrol craft. It is far from evident that the purchasers -- most of which have rudimentary public education systems -- have the skilled manpower

¹⁶⁷Nation-building is also a consideration for most Southeast Asian armed forces; e.g. Indonesian landing ships play an important role in ferrying civilian personnel, vehicles and stores between islands.

¹⁶⁸One thing Malaysia is capable of is choke-point control, with its mining capability. Morgan, *Porpoises Among the Whales*, pp. 20-21, and J.N. Mak, "The Maritime Priorities of Malaysia," in Babbage and Bateman, *Maritime Change: Issues for Asia*, p. 122.

¹⁶⁹James Goldrick, "Navies in Asia," pp. 186-187; Morgan, *Porpoises Among the Whales*, p. 18; "South East Asian Naval Programmes, Part III," *Naval Forces*, Vol. XIV, No. 1 (1993), p. 30.

¹⁷⁰"Singapore's maritime forces have a strategic intent which is very much defensive, even if some of the equipment and tactical methods rely very much upon the tactical offensive." James Goldrick, "Implications for Southeast Asia and Australia," Unpublished paper, Sydney, Spring 1993, p. 13.

necessary to operate and maintain these complicated systems.¹⁷¹ Modern weapons systems are in many ways easier to manage than their predecessors, because of advances in engineering and the advent of solid-state electronics. Still, as the range of weapons increases, the cost of operation tends to increase by a square and the difficulty of reaching one's target by a cube.¹⁷² Although states are finding means to buy the weapons, follow-up resources for training and spares are often lacking.

In addition, most ASEANs are having difficulty defining strategies that effectively incorporate their new systems. "The acquisition and integration of comparatively simple systems such as [main battle tanks] and medium artillery have proven to be quite a challenge for some ASEAN nations despite lead times of a decade or more. The integration of highly complex naval and aircraft systems will be fraught with even greater difficulties."¹⁷³ The "in operation" rates of Indonesian weapon systems are very low, with only about 10% of the forces' F-16s in service at any one time. Singapore fares much better, at an estimated 70%, but even here the integration of new capabilities into existing forces has not always gone smoothly. According to foreign observers, the Thai Navy has difficulty just moving personnel from ship to ship during manoeuvres, and the Thai Army has demonstrated an inability to hit targets when firing from a stationary tank during demonstrations.¹⁷⁴

The eclectic mix of weapons being chosen within individual services adds to maintenance difficulties. For example, while the acquisition of MiG-29s and F/A-18s will in theory give the Malaysian Air Force a technological advantage relative to its ASEAN counterparts, the choice of different aircraft for air defence and strike roles will complicate maintainability, spares holdings, sustainability and eventual operational effectiveness. The *Stingray* tanks acquired by Thailand have not been bought by anyone else in the world, making them, in effect, unsupportable by a military supply system.¹⁷⁵

Moreover, recent Southeast Asian arms acquisitions are taking place within a context of increasing economic, political, and even security cooperation, as evidenced in regular joint exercises and joint patrols. There are many disputes between and among the ASEANs, but these are widely believed to be containable. Why should Canada worry about acquisitions that, taken in their individual contexts, are explainable and pose no immediate threat to regional stability? Still, there are some troubling elements.

Thailand's Unclear Intentions

Of all Southeast Asian procurement programs, Thailand's is the least explainable, or most unsatisfactorily explained, at least in terms of conventional defence rationales. The developing force structure seems out of proportion to probable threats to Thailand. Bangkok remains somewhat preoccupied with land-based threats from Cambodia and Burma; it is also concerned about activities in the eastern Indian Ocean. Still, these do not seem to warrant either the scale or the direction of Thailand's arms acquisition program. The country's naval buildup is the most extensive in the subregion, and it is transforming the Thai Navy from a coastal defence force into a fleet with significant capabilities for offshore operations. Even though non-threat explanations like prestige and corruption can be found, recent purchases are still troubling to neighbours.

The most prominent purchase is the helicopter carrier. While primarily a prestige item, the stated purpose of which has ranged from protection of the western (Gulf of Thailand) coast to "disaster relief" in the south, the purchase worries other ASEANs and could condition Indian naval developments. Given the distances involved in deployments between the Gulf of Thailand and the Andaman Sea, the carrier could usefully provide at-sea replenishment for escorts and could protect the very long sea lanes at the southern end of the country in the event of naval warfare. Still, smaller units would make more sense both as

¹⁷¹See Acharya, *An Arms Race in Post-Cold War Southeast Asia?*, p. 24.

¹⁷²Goldrick, "Implications for Southeast Asia and Australia," p. 7. For example, in moving from an *Exocet* to a *Harpoon*, a state must equip itself with over-the-horizon targeting and commit itself to constant practice to derive any real benefit from the extended range.

¹⁷³Mak, "Armed, But Ready?" p. 24.

¹⁷⁴Mak, "Armed, But Ready?" p. 21. According to Mak, Thailand still has to absorb lessons from the 1987-89 clashes along the Thai-Lao border, in which it lost an estimated 400 troops and suffered from abysmal command and control facilities, poor tactical intelligence, a lack of professionalism among senior officers, logistics and resupply problems, poor intelligence coordination, equipment breakdowns and poor artillery.

¹⁷⁵Stier and Bao, "The Bitter Truth Behind Thailand's Khaki Commerce," pp. 36-37, note that the hull cracks that appeared on 44 of the vehicles were blamed by the Thai Army on "an ill-matched light hull and an over-powerful 105 mm gun," but the *Stingray's* American manufacturers faulted Thai cavalry men, "who overstressed the hull by making spectacular but tactically useless 'jumps' with the tank."

amphibious vessels for Marine Corps operations, and for rescue and relief operations. The Thai Navy has informally justified the carrier as allowing an intervention capability in the Spratlys, and is now talking of purchasing a second one. A key clue to intentions will come in the choice of aircraft for the carrier: whether these are helicopters for ASW operations in the Gulf of Thailand; or V/STOL (*Harrier*) aircraft, which could give Thailand some measure of sea control over its offshore waters (i.e. the ability to do things rather than just to prevent others from doing them).

The Thai Navy remains deficient in many respects, including minesweeping, patrol and surveillance, amphibious operations, and missiles.¹⁷⁶ The draw-off of funding to the carrier and its airborne assets is unlikely to improve the situation. Nonetheless, the carrier represents a new level of naval activity in Southeast Asia. As long as the ultimate purpose of Thai naval development remains unclear, such development should be watched with concern.

The Burma-China Link

Potentially troublesome consequences could result from China's military assistance to Burma, which represents a fundamental shift away from Burma's traditional policy of non-alignment. Beijing may be taking advantage of Rangoon's isolation to satisfy its own regional power ambitions, particularly its desire to counter India in the Indian Ocean and the approaches to the South China Sea. Chinese access to Burmese ports provides an opening for the PLAN to deploy occasionally in these waters, thus making clear to India that China has a strategic interest in the region and an intent to ensure the security of its seaborne commerce. General Zhao Nanqi, then director of the PLA's general logistics department, reportedly said in July 1992 that China "should increase [its] visits to the countries in South Asia. We cannot recognize the Indian Ocean as India's ocean."¹⁷⁷ The facility at Great Coco Island is an ideal location from which to keep an eye on Indian naval assets, especially those at Port Blair, and will also be able to monitor India's ballistic missile test range at Balasore and the satellite launching station at Sri Hari Kota. The facility at Hanggyi island is also probably directed at India.¹⁷⁸ Such moves are likely to aggravate Indo-Chinese suspicion and rivalry, and could provoke a buildup of Indian garrisons in the Andaman and Nicobar island chains neighbouring Burma and Indonesia.

Indonesia, Thailand and even Japan have also expressed concern about the growing Chinese toehold in the region. The radar on the Cocos -- which is not far from western Sumatra -- can monitor ships entering the northern end of the Malacca Straits. As well, military assistance from China increases the ability of the Burmese junta to suppress internal resistance, which could exacerbate refugee flows into Thailand and Bangladesh.¹⁷⁹

It is hard to make a convincing case for how a military relationship with unstable Burma brings much strength to China. Trade -- especially a route to vital markets for Yunnan Province -- seems a more plausible reason than the Indian Ocean outlet for China's involvement.¹⁸⁰ Still, as in the case of Thailand, existing rivalries and insecurities are being exacerbated by unexplained directions in arms development.

Increased Risk of Incidents and Accidents

The growing number of vessels and aircraft, equipped with weapons of greater range and deadliness, operated by so many different states in a relatively small area could increase the risk of military incidents and accidents. This danger is exacerbated by the fact that most Southeast Asians are not adept at operating their new equipment. Submarines and long-range missile systems require well-developed operational procedures and effective command and control systems, yet few Southeast Asians have these capabilities. Although all regional navies are acquiring long-range anti-ship missiles, few are

¹⁷⁶Morgan, *Porpoises Among the Whales*, p. 23.

¹⁷⁷James Walsh, "A Leaner, Meaner Fighting Machine," *Time*, May 10, 1993, p. 33.

¹⁷⁸Bilveer Singh, "China gives S-E Asia two causes for anxiety," *Singapore Business Times*, June 9, 1993, p. 23.

¹⁷⁹Sheldon W. Simon, "Regional Security Structures in Asia: The Question of Relevance," in Simon, *East Asian Security in the Post-Cold War Era*, p. 23; also Thomas W. Robinson, "Post-Cold War Architecture for Peace and Security in the Asia-Pacific Region," Paper prepared for the Seventh Asia-Pacific Roundtable, Kuala Lumpur, June 6-9, 1993, p. 15.

¹⁸⁰A similar pattern may be developing in China's relationship with Laos, which -- in addition to defence cooperation -- involves Chinese construction of roads, bridges and possibly a railway, in part to improve links between Yunnan and the rest of Southeast Asia.

capable of effective over-the-horizon targeting (e.g., the *Harpoon* has a 100 km range while shipborne radar has a 15 km range) and most do not have enough new missiles to afford to practice with them, raising the prospect of error. Although a single incident is unlikely to create a conflagration when inter-state relations are good, there is a greater risk of crisis instability and inadvertent escalation when relations are bad. An incident in an area of disputed sovereignty -- particularly an incident involving a state not encompassed by ASEAN's supposedly soothing bonds, such as China, Taiwan or Vietnam -- could be (mis)interpreted by one or both parties as a provocation.

Potential Threats to Navigation

Recent acquisitions have made Southeast Asian states much more capable of interfering with freedom of navigation in subregional waters -- a matter of importance to outsiders given that the South China Sea and connecting straits host an estimated 40% of the world's seaborne trade by volume and are essential for countries wanting to move naval forces expeditiously between the Pacific and Indian Oceans (and thence to the Persian Gulf). The fast attack craft that figure so prominently in regional procurement programs are ideally configured for choke-point control and are capable of causing damage far out of proportion to their size with their ship-to-ship missiles. The emphasis on mine countermeasure equipment in regional navies is testimony to the fact that Southeast Asia's key shipping routes and approaches to major ports are characterized by large stretches of shallow water that are well-suited to mining.¹⁸¹

So far East Asia has not experienced challenges to freedom of navigation by display or threat of force. With some 50-60 nations using the region's sea lanes, any attempt at blockade would draw enormous, immediate, angry attention, which in itself acts as a deterrent. Shipping could be interrupted as a side effect of armed clashes between coastal states, but even this is not a given. For example, the 1974 and 1988 Chinese-Vietnamese skirmishes over the Paracels and Spratlys respectively did not affect freedom of navigation.¹⁸² Perhaps more likely are attempts during peacetime or crisis to unilaterally regulate maritime passage or to interdict sea lanes in contravention of the letter and spirit of UNCLOS.

The increasing ability of [Indonesia, Malaysia and Singapore] to control traffic within and near their waters must have an effect on their intent to police such traffic. We are already seeing this, for wholly legitimate reasons, in the Malacca Straits with moves to improve traffic control and anti-pollution precautions. But the creeping jurisdiction which all this implies may well help to move the region into more determined assertion against outsiders of the archipelagic doctrines which have developed over the last 30 years.¹⁸³

Already, in 1988, Indonesia announced that both the Lombok and Sunda Straits (which it considers part of archipelagic waters) would be closed temporarily while it held naval weapons firing exercises.

The costs of trade disruption could be huge. It has been estimated that avoiding the Straits of Malacca (in this case by going through Indonesia's Makassar Strait between Kalimantan and Sulawesi) would cost Japanese oil tanker operators an extra 16.6 billion yen a year and would add close to six days to a round trip journey.¹⁸⁴

Adds to Suspicion and Mistrust

Even if Southeast Asians are interested only in protecting coastal areas and offshore assets, this can still cause problems where economic zones and territories are contested. Intentions may not always be clear. What Malaysia regards as defensive with respect to the Spratlys may not seem so to

¹⁸¹Joseph Morgan, in *Porpoises Among the Whales*, p. 9, points to Iran's activities during the 1980-88 Iran-Iraq war as an example of the havoc even a militarily-weak coastal state can cause for commercial and military traffic. "Iran interfered with tanker shipping [in the Strait of Hormuz] by using mines, aircraft, ship-to-ship missiles, land-based Silkworm missiles, and a fleet of fast motor boats armed with rockets and machine guns operated by Iranian Revolutionary Guards. More than 200 neutral ships were damaged, and a total of 75 warships from France, the Soviet Union, the United Kingdom, and the United States were deployed to keep the sea lanes open. This multi-national force ultimately succeeded, but the capability of Iran's virtually nonexistent navy combined with air- and land-based missile forces was notable."

¹⁸²Michael Leifer, "The Maritime Regime and Regional Security in East Asia," *The Pacific Review*, Vol. 4, No. 2 (1991), pp. 130-131. Leifer argues that as long as the US maintains a credible maritime forward deployment in East Asia, it is unlikely any maverick external power or coastal state would undertake to challenge freedom of navigation.

¹⁸³Goldrick, "Implications for Southeast Asia and Australia," pp. 6-7.

¹⁸⁴*Japan Times*, July 29, 1993, p. 12.

China or the Philippines. The combination of advanced fighter planes, fast attack craft and precision-guided missiles that offers Southeast Asians a relatively inexpensive means of defending maritime approaches also provides those countries with a strike capability that is well-suited to offensive operations. The assertive potential of new acquisitions is supported by several emergent concepts in Southeast Asian defence planning, including the establishment of rapid deployment forces (e.g. Singapore, Malaysia), a focus on combined air/naval arms operations (Thailand, Singapore); and an emphasis on forward defence (Singapore).

Although factors such as training, maintenance and logistic support could make a big difference in a conflict situation, they do not make the same difference in outsiders' assessment of threat. Since prudent defence planners have to assume that potential adversaries will eventually be able to use their equipment, the danger is perceived immediately, even if it is not, in fact, yet extant. In the end, when political relationships worsen, perceived threats become a function of capabilities. Potentially offensive acquisitions can create insecurity not only in the minds of potential adversaries, but also of potential friends. Several purchases -- the Thai helicopter carrier, the *Harpoons*, the numbers of F-16s -- do not seem to be linked to identifiable policies or reasonable planning scenarios. They can often be explained by some of the non-contingency causes listed earlier (corruption, prestige, prosperity, etc.). However, once in service, they can generate inter-state tensions and counter-acquisitions, due to the tendency to base planning on worst-case assumptions.

The ASEANs do have misgivings about each other and about some arms purchases, but they do not want to point accusing fingers, at least publicly. They worry that in drawing outside attention to others' acquisitions, they might also draw attention to their own; as well, sounding alarm bells could provide a justification for outside interference with sovereignty in the form of imposed security regimes or arms control, which no ASEAN member wants.¹⁸⁵ To the extent the ASEANs have defined "threats," they tend to focus on action by another ASEAN member.

While there is no expectation that Southeast Asians will try to resolve their conflicts by use of force, it is not beyond the realm of possibility. Suspicion engendered or fed by recent arms acquisitions could sour relations and lead to lesser military incidents. Tensions are already resulting from the attempts by some countries to discern the intentions of their neighbours. For example, the espionage controversy that damaged relations between Malaysia and Singapore in late 1989 was reportedly due, least in part, to Singapore's efforts to collect information on a Malaysian arms deal with Britain. Subtle frictions continue. Malaysia complains about Singaporean military reconnaissance in the Malaysian state of Johor, and Singapore grumbles that Malaysia is trying to outgun it with sophisticated weapons.¹⁸⁶ This is not the only volatile combination in the region. The April 1988 arrest by the Malaysian navy of 49 Filipino fishermen operating in a disputed border area apparently provoked a military mobilization by the Philippines, and December 1991 saw shooting involving Thai and Malaysian forces in the Padang Besar area on their common border.

There are several potential sources of dispute within ASEAN, as well as between ASEANs and others such as China and Vietnam: fisheries, hydrocarbons, boundaries,¹⁸⁷ the Spratlys, the treatment of ethnic minorities. Rapid economic growth and burgeoning populations may generate new frictions in the form of resource scarcity, cross-border pollution and "environmental refugees." Recent acquisitions add to suspicion and mistrust and make it more possible for ASEANs to up the ante in such disputes. In a worst-case scenario, the problems posed by command and control of new equipment (little warning, rapid speed, short flight time) could create pressures for preemption in a crisis.

¹⁸⁵For example, a prominent Indonesian diplomat, after questioning Singapore's purchases and hinting of their potential dangers concluded, "Why can't they buy these things? They are a sovereign country." There is little notion in the region of room for legitimate questioning of regional arms buildups by the local or international community.

¹⁸⁶Marcus W. Brauchli, "Frictions Are Increasing in Southeast Asia," *The Wall Street Journal*, March 31, 1993, p. A10.

¹⁸⁷About 12 out of the 15 possible maritime boundaries in the South China Sea, excluding the Gulf of Thailand, are in dispute.

Affects Local Conflicts

Although the overall size of the Southeast Asian arms buildup is not large, new acquisitions could have an effect on states' bargaining and fighting power when it comes to low-level conflicts in regional waters. The short distances involved in the "narrow sea" in which the Spratlys fall means that land-based aircraft and missiles and smaller ships like fast attack craft become important players.¹⁸⁸ With the possible exception of China, the claimant states are not capable of sustained naval operations in the Spratlys. However, given the size of most of the islands and garrisons, assaults or "invasions" would not necessarily require complex operations. Frigates and destroyers, with their range and firepower, would have a tactical advantage, but patrol and missile-armed ships, supported by air operations, could have a considerable impact. The result could be strengthened deterrence against, e.g. Chinese, intervention. It could also, however, lead to attempts to grab an advantage before others catch up.

Will Present Trends Continue?

Will the relatively rapid expansion of Southeast Asian arsenals continue, or will the recent growth in capabilities give way to a period of consolidation? Resource constraints could tend in favour of the latter. Indonesia's naval budget will be tied up for most of the rest of the century refurbishing the East German ships. Brunei and Malaysia face manpower problems: the former due to population size, the latter due to the proclivity of bright young men for entering the private sector, rather than the armed forces. Even Singapore will find it costly to maintain a one-for-one approach to replacing combatants, let alone augmenting them. The shift from inshore territorial defence to offshore roles entails a magnification of costs that follows an upwards curve, rather than a straight line.¹⁸⁹ As well, as is discussed more fully in the follow-on to this paper, there is increasing maritime cooperation and security dialogue in the region, which could serve to mute the felt need for weapons.

On the other hand, most Southeast Asians believe that they have not yet built up an adequate capability to shepherd their EEZs, and that more weapons are required to fill holes in "legitimate defence." All in the region except the Philippines and Vietnam are capable of spending more on defence in real terms without harming economic development or other central government expenditures, because of continuing high growth rates. As well, the momentum created by present orders means that arsenals will continue to swell well into the late 1990s.

If future acquisitions are focused not on extending reach into deep waters but on improving states' abilities to control, monitor and survey traffic in local waters, there will be less cause for concern. There are danger signals that outside observers can watch for: potential acquisitions that -- if they look like becoming actual -- should trigger closer investigation because they suggest less than benign intentions or are likely to provoke counter-reactions. These include:

- for Indonesia, the purchase of new, modern frigates from China (the Type 25 T class has been mentioned), which could signal plans to adopt a more aggressive naval policy. The acquisition of secondhand frigates from the Netherlands or settling for use of the ex-German corvettes as a frigate substitute would suggest the opposite.¹⁹⁰ Concentration on improving the submarine force could also indicate a more outward focus;¹⁹¹
- for Malaysia: submarines;
- for Singapore, serious interest in a submarine force or in larger units than the *Victory*-class corvettes (particularly if large enough to include a V/STOL flight deck), which could indicate sea assertion rather than sea denial;

¹⁸⁸Charles W. Koburger, *Narrow Seas, Small Navies and Fat Merchantmen -- Naval Strategies for the 1990s* (New York: Praeger, 1990), p. 140.

¹⁸⁹Goldrick, "Navies in Asia," p. 251.

¹⁹⁰Morgan, *Porpoises Among the Whales*, pp. 19-20.

¹⁹¹Many regional waters, including the Malacca and Singapore Straits and the southern part of the South China Sea, are too shallow for effective submarine operations. However, submarine operations, especially by quiet conventional vessels, would be of considerable use in the deeper Lombok, Ombai and Wetar Straits. Also, the area's uncertain bathymetry makes submarine detection, and hence counteraction, virtually impossible. Apart from open ocean operations against shipping or for surveillance, the main value of submarines lies in their ability to deny movement through the many focal areas in the region, especially the entry and exit points for important straits, and to conduct covert operations (i.e. intelligence collection, surveillance or clandestine landings). (I am indebted to Sam Bateman for this observation.)

- for Thailand: V/STOL aircraft deployed on the first helicopter carrier; a second helicopter carrier; submarines.

Over the long term, there is the danger of a continuing spiral upwards -- a series of purchases not tied to what is strictly necessary, but bought "just-in-case" because there is underlying tension, others are buying and the money is there to spend. This is more likely to happen if Southeast Asian security is seen to be linked, as it is, with what is happening in Northeast Asia.

Northeast Asia

Northeast Asia differs from Southeast Asia in the overall scale of arms buildups, in the size of equipment involved, and in the bilateral character of most subregional conflicts, which makes it easier to point to traditional security reasons for the acquisitions. However, there are important links between the two subregions, namely the role of the United States, China and Japan, and the growing overlapping interest in maritime issues, particularly the security of seaborne trade.

China

Reasons to worry

It is easy to point to troubling elements in China's defence program. Much new Chinese equipment is quite sophisticated and some of it has almost certainly been procured with an offensive purpose in mind. For example, recent additions to the already large amphibious fleet improve Beijing's ability to take Taiwan by force, as well as to transport a sizable contingent to the Spratlys or elsewhere in the South China Sea.¹⁹² China's new destroyers and frigates, with their impressive missile systems, give the PLAN an enhanced sea control ability. The Su-27 is capable of long-range missions and, if supported by an aircraft carrier or in-flight refuelling, could put all of Asia within China's combat range.

As the PLA Navy and Air Force become more capable of operating in the Western Pacific, their deployments display an intention to do so. There has been a recent emphasis on strengthening the South Sea Fleet; two of the three *Yukang*-class tank landing ships, the PLAN's newest and largest, have been transferred to it. China's ability to project power in the South China Sea has been enhanced with the construction of an airbase capable of supporting Su-27 operations and of anchorages for three frigate-sized vessels on Woody Island in the Paracels. Tank and anti-aircraft gun batteries are permanently stationed on the island, and a mini-fleet of high speed missile and patrol boats is anchored there, increasing the Navy's ability to respond rapidly to regional contingencies. One marine unit, trained for operations in a tropical environment, is based on Hainan Island. The PLAN's mission involves plans to capture, occupy and defend the islands China claims in the South China Sea. Recovering those held by Vietnam may move up the agenda as China acquires more lethal equipment and improves its organization and training.¹⁹³ In July 1992, China seized yet more atolls from Vietnam in the South China Sea; later that year it positioned an oil rig in Vietnamese waters. In 1993, the PLA carried out an unprecedented series of military exercises, mostly along the coast of southern China, involving ground troops, air force fighters and bombers, warships and marines. Much larger than previous manoeuvres, the exercises appeared partly aimed at testing the interoperability of these forces and involved a lot of new moves, including rapid reaction and airborne drops in support of amphibious operations.¹⁹⁴

Further north, Taiwan claims that China is placing more and better equipped forces opposite it, now that troops have been freed from the Sino-Russian border. The deployment of the 26 Su-27s south of Shanghai in late 1992 (initial reports said they were to be based at Hainan) suggests they are geared towards Taiwan and Japan. In 1991, the PLAN held major exercises in the Pacific that demonstrated an interest in long-range fleet deployments. In August 1994, China conducted a military exercise on the

¹⁹²In 1988, the PLA Navy demonstrated a capacity to deploy a balanced amphibious force as far south as Brunei. Pert, "Southeast Asia: Needs a Marshal, Not a Policeman," p. 81.

¹⁹³"One chief technical reason that China confined its 1988 operations in the Spratlys to a few small islets was said to be its calculation that the navy had not possessed sufficient number of major surface combatants and long-range aircraft for a protracted confrontation with Vietnam." You Ji, "The Chinese Navy in the Changing World Order," pp. 23-25.

¹⁹⁴Tai Ming Cheung and Nayan Chanda, "Exercising Caution," *Far Eastern Economic Review*, September 2, 1993.

Liaotung Peninsula to train troops reportedly for possible landing operations on the Korean Peninsula.¹⁹⁵ Other disturbing behaviour includes PLAN harassment of fishing and commercial vessels on the high seas. Targets have included Japanese, Russian, Taiwanese and Vietnamese ships. According to a Hong Kong government report, of the nearly 100 attacks on shipping in the South China Sea in the 18 months prior to March 1994, about half appear to have been carried out by ships of the Chinese navy, many outside of Chinese waters. The piracy could be happening without central government acquiescence, but the government has not done much to stop it.¹⁹⁶

These activities are all the more worrisome in the context of China's apparent unwillingness to relinquish the use of force in pursuing its territorial claims in the region. In February 1992, China promulgated a law claiming the Spratlys and Senkakus, including the airspace and seabed, as sovereign Chinese territory; it also reserved the right to use military force to prevent any violation of its waters. Chinese military officers talk airily of the need to secure the Malacca Straits.¹⁹⁷ China continues to reserve the right to reunite Taiwan with the mainland by force.

There is no sign that the Chinese arms drive is about to slacken off. Even if defence spending ceases to rise as a percentage of GNP, the sheer size of China's economy and its rate of growth means that a lot of money will continue to be available for new equipment, particularly if PLA manpower continues to drop. Although China cannot yet operate freely in the South China Sea without air cover because of the speed at which the ASEANs are buying airpower, in 10-15 years it could afford to re-equip its whole air force, while the ASEANs are much closer to the limit of what they can afford. A leadership anxious to secure the allegiance of the armed forces is unlikely to significantly constrain purchases; the PLA is in any case raising a considerable portion of its funds on its own, through arms sales and extensive commercial operations, and is able to spend these on whatever it wishes.¹⁹⁸ The acquisition of sophisticated equipment and direct technology transfers from Western states, Israel and Russia have stimulated China's indigenous weapons research and development and laid the basis for further expansion, unconstrained by outsiders.¹⁹⁹

Mindset, as well as money and technology, will provide continued impetus for arms acquisition. The Chinese believe that they deserve the equipment of a major power -- after all, no one objected when the US and the USSR acquired aircraft carriers -- and regard a strong, modern military as a necessary guarantor of recent economic achievements. The argument made by a senior Chinese officer in October 1992 that "[t]he faster China develops its economy, carries out reform and opens its door to the rest of the world, the more necessary it is to strengthen national defence" is representative of thinking in Beijing.²⁰⁰ The development of strong capabilities for deployment in the East and South China Seas is believed necessary to support Chinese claims to disputed islands and surrounding resources, as well as to underscore Chinese pretensions to regional hegemony.

More generally, Chinese leaders view many post-Cold War developments in the Asia Pacific region as forming a common pattern of encirclement, threatening to strangle China in much the same way as Western actions did at the turn of the century. The growth of Japanese defence capabilities, the arms buildup in Taiwan, the opposition to China's sovereignty claims in the South China Sea and the warming of US-Indian relations are all seen as part of a concerted encirclement strategy which can only be countered by strengthening China's offensive capabilities.²⁰¹

¹⁹⁵*The Korea Times*, November 1, 1994, p. 6.

¹⁹⁶"China Clippers," *The Economist*, March 26, 1994, p. 44. It is possible that some attacks are the result of PLAN incompetence (i.e. they do not know where the 12-mile limit is).

¹⁹⁷"Asia unleashed," *The Economist*, April 3, 1993, p. 15.

¹⁹⁸CCP General Secretary and Chairman of the Central Military Commission Jiang Zemin has apparently secured the support of the PLA's top brass by giving carte blanche to procurements and to the large-scale development of army business. Willy Wo-Lap Lam, "China Slides Into Fever Over Life After Deng," *South China Morning Post*, July 14, 1993, p. 19. PLA enterprises are reportedly the country's largest foreign exchange earner. The money made from sidelines such as bakeries, farms and factories stays at the unit level, for training, housing and food; some is also funnelled to PLA headquarters, but none to central government coffers.

¹⁹⁹Post-1997, Hong Kong could become an important conduit for introducing dual-use high technology to China.

²⁰⁰Quoted in Desmond Ball, "China's Disturbing Arms Build-up," *The Independent Monthly*, February 1993, pp. 23-24.

²⁰¹Ball, "China's Disturbing Arms Build-up," pp. 23-24.

Chinese strategists continue to pay close attention to the concept of balance of power. With Russia no longer in a position to offset American might, Beijing worries that Washington aims to subvert the remaining “socialist” states through “peaceful evolution” -- using such levers as economic and cultural penetration and trade and human rights badgering -- and to create a US-dominated coalition that will control the international system.²⁰² There is strong suspicion in Beijing that the West is antagonistic to China’s aims and would like to prevent China from assuming its “natural” mantle of East Asian overlord.

The fact that China has embarked on a significant defence modernization program and has, in recent memory, used military force to assert claims in the Paracels and Spratlys leads to justifiable concern. That concern is amplified by China’s lack of transparency with respect to the purposes of its new capabilities, as well as to the ultimate dimensions of the Chinese buildup. And, what transparency China does engage in, such as official defence budget figures, is considered highly suspect.

Looking at potential worst-case scenarios, a continued arms buildup could leave China in a position to bully Southeast Asians on the Spratlys, to strangle Japanese and Korean oil supply routes to the Middle East (and interfere with Canadian trade interests in the region), and to squash any Taiwanese independence movement by threat or use of force. It could also prompt arms races with both Japan and India. Any of these would certainly aggravate relations with the West and could conceivably lead to a military clash with the United States.

Reasons not to worry

Set against the troubling factors in China’s arms buildup are a number of indicators pointing in the other direction. For starters, although China’s armed forces are the largest in the region, they are technologically among the most obsolete. Many Chinese military units are not motorized and still rely on equipment that was used during World War II. Communication and transportation links are limited and outdated; the bottlenecks they are imposing on the civilian economy would similarly hamper any massive military movement. Most of China’s fighter aircraft and submarines are decrepit; the latter cannot stay submerged for very long and can easily be detected with modern sonar. Many destroyers and frigates lack antisubmarine and antiair arms and modern fire-control systems for their guns. Even China’s new generation of aircraft, such as the J-8II, are based on Soviet prototypes from the 1960s. Chinese command and control capabilities are very poor. Although old equipment is being replaced, the rate of replacement is such that only a very thin layer of the PLA is being modernized. Most of the procurement funds allocated to the ground forces over the next several years will go towards upgrading the handful of units already selected as rapid deployment forces. The Air Force is unlikely to replace its obsolete frontline equipment until after the year 2000, and the PLAN’s blue-water ambitions will not be realized until well into the 21st century. The technological gap between both China and Taiwan and China and ASEAN will likely continue to grow for at least another decade. China is simply not buying or manufacturing equipment in quantities large enough to make a substantial difference in the near term.²⁰³

In addition, China’s military posture remains essentially defensive. The PLA Navy is still a coastal fleet. The Navy’s mission profiles are organized around the country’s “peripheral defence” concept, in which the armed forces are expected to engage in limited retaliation, followed by seizing the initiative along the country’s borders. It is a sea denial rather than a sea control posture. China’s numerous conventionally-powered submarines and fast attack craft are for defensive purposes, with

²⁰²Paul H.B. Godwin, “China’s Asian Policy in the 1990s: Adjusting to the Post-Cold War Environment,” in Simon, *East Asian Security in the Post-Cold War Era*, p. 127.

²⁰³“Preliminary studies conducted by researchers at the RAND Corporation of PLAAF fighter production and retirement/attrition rates suggest that if the Chinese attempt to keep their fighter force at current levels, over 1,500 additional aircraft would probably be required between 1995 and 2005. Assuming that J-8 production could be more than doubled, to 40 units per year, J-7 production would still need to exceed 140 per year, a major increase. This would result in a force composed of almost 60 percent J-7 and J-8 aircraft, capable of intercepting aircraft over China but still inadequate for power projection and ground attack. The acquisition by China of another 24-48 Su-27s or comparable aircraft during the remainder of the decade will certainly not resolve these basic problems.” Swaine, *The Modernization of the Chinese People’s Liberation Army*, p. 16.

Many of the new weapons being developed domestically, particularly those incorporating foreign technology, are intended for export (e.g. the Super-7 fighter and most of the Type 85-II tanks). *Jane’s Defence Weekly*, February 19, 1994, p. 27.

limited operational range, as is its large force of minesweepers. China is particularly weak in amphibious lift capabilities. The majority of its landing craft are small and incapable of open ocean navigation. Although China has recently started to build larger units, these are still few in number and far from adequate to support sustained offshore operations.²⁰⁴ Similarly, although the Chinese support fleet has more than doubled in size over the past decade, there are still just a handful of ocean-going supply ships. The PLAAF's IL-76 heavy cargo planes could move large quantities of troops and equipment, but China would need many more than the present number of 10 to have an effect, and there is little evidence of Chinese para-training operations (i.e. things dropping out of planes). The fighter force is also defensively structured, and the fighter bomber fleet has a combat radius of only about 280 nautical miles.²⁰⁵ So far the Su-27s have been mainly limited to basic flight activities around their base at Wuhu near Shanghai. They will probably be used as interceptors, although they may also be adapted to a ground-attack role.²⁰⁶

China has legitimate security concerns in the region, including instability in Russia, Japan's growing military power, the prospect of war on the Korean Peninsula, potential Taiwanese independence and Indian military expansion. "[T]here is an increasingly valid perception both in and out of the PRC that East Asia is a potentially volatile region with many simmering border disputes and traditional rivalries that may erupt into potentially serious conflicts.... [A]lthough conflict may not be the first choice in China, Beijing realizes the possibility of a regional conflict igniting which could grow to involve China -- just as the Iraq-Kuwaiti conflict grew to involve the United States."²⁰⁷

As for concerns about the Spratlys, the South Sea Fleet is not the most modern of the three Chinese fleets but is instead composed primarily of older classes of destroyers and frigates. The number of planes China can put on its Woody Island strip is not large. The Navy has not been developing the fleet train (i.e., vessels that provide the fuel, ammunition and stores) to operate at a long distance and for long periods away from its home ports. Even though the *Luda*-class destroyers have been modified for alongside underway replenishment (eventually all Chinese destroyers will be so fitted), Beijing shows no indication of developing replenishment ships to support these forces at sea.²⁰⁸ US Department of Defense analysts estimate that the PLAN could move one infantry division with tanks to the Spratlys for a maximum of thirty days. Even the reconnaissance aircraft stationed in Hainan can spend only a few minutes over the Spratlys because China's in-flight refuelling capabilities remain extremely limited. Without aerial refuelling, the Su-27's attack radius is limited to around 400 nautical miles.²⁰⁹ Now, from a fixed base, Chinese aircraft could barely make it to Malaysia and back. In short, China has considerable logistical difficulties to overcome in asserting effective military control, both in the South China Sea and with respect to Taiwan. The passage of the February 1992 law may have been more internally, than externally, directed, aimed at shoring up the legitimacy of a regime that relies on nationalism and patriotism.²¹⁰

Chinese equipment is poorly maintained. The Chinese typically do not buy service contracts when they buy weapons, and they lack the trained technicians (and the schools to train technicians) to repair weapons themselves. Indigenously-produced equipment is often shoddily made. Beijing's efforts to develop advanced combat aircraft have been largely unsuccessful because of the backwardness of the local aviation industry, especially in the areas of metallurgy, engine design and manufacturing, and systems integration.²¹¹ The J-8 fighter continues to be plagued by engine and fuel consumption problems,

²⁰⁴ You Ji, "The Chinese Navy in the Changing World Order," p. 17.

²⁰⁵ Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 16.

²⁰⁶ *Jane's Defence Weekly*, January 22, 1994, p. 3 and February 19, 1994, p. 26.

²⁰⁷ MacWha, "The Strategic Significance of a Modernized Chinese Military," pp. 7-8.

²⁰⁸ Friedman, "World Navies in Review," p. 111. The two largest of China's 33 or more tankers, built in 1979, are capable of underway replenishment, but their limited size and cargo capacity make them only marginally useful.

²⁰⁹ William Tow, "Naval Power and Alternative Security Postures in a 'Post-Cold War' Asia-Pacific Order," *Journal of the Australian Naval Institute*, November 1991, p. 46.

²¹⁰ You Ji, "The Chinese Navy in the Changing World Order," p. 36.

²¹¹ Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 13. In a later cancelled mid-1980s deal to upgrade the most advanced Chinese-built interceptor (the Shenyang F-8), an American firm involved in the project discovered that some of the airframes were of such poor quality they could not be refurbished. *Jane's Defence Weekly*, February 19, 1994, p. 28.

poor avionics integration and limited weapons options. The engines of F-7 fighter bombers are reportedly good for only 150 to 200 flying hours before they need replacement or overhauling, compared with 1,000 to 5,000 for Western engines.²¹² The problem is not restricted to air power. The *Luda*-class destroyers and *Jianghu*-class frigates are said to experience recurring problems with on-board weapons, equipment and power plants.

Beyond this, Chinese servicemen lack the skills necessary to successfully operate much of their new equipment. China's main experience up to now has been with ground force operations, and the PLA's mindset remains essentially geared to land rather than sea, let alone combined arms operations. Many recruits are illiterate. While efforts are being made to improve training and professionalism, it will be some time before the PLA reaches Western levels of competence. If China has indeed acquired an air-to-air refuelling capability (some analysts doubt even this), the PLAAF will have to surmount the more basic problem of flying planes close to one another.²¹³ Chinese pilots have never before operated heavy, long-range fighter jets like the Su-27. Similarly, acquisition of an aircraft carrier would severely challenge China's extremely limited shipborne aviation capabilities. "Launching and retrieving V/STOL or fixed-wing aircraft is a very difficult proposition. It would likely be a decade before China could make effective operational use of the carrier."²¹⁴

China's military expansion will also run up against resource limits. One should not assume that China's current economic growth rate will continue into the next decade; thus far it seems to be mainly a surface phenomenon, restricted to coastal areas. Stellar economic performance notwithstanding, there are severe constraints on what Beijing can realistically achieve in terms of force improvements over the next 10 to 15 years. Defence modernization is subordinate to China's other three modernizations, namely industry, agriculture, and science and technology. Even with bargain basement buys, Su-27s are still expensive in terms of China's budget. The sharp decline in Chinese arms sales since the late 1980s could also have a serious impact on the domestic defence industry's ability to fund future projects.²¹⁵ A shortage of funds has reportedly stymied the signing of *Kilo* submarine contracts. It will take at least a decade and tens of billions of dollars of investment before China acquires sufficient advanced weaponry to make the PLA capable of fighting a high-tech war. A prolonged leadership succession struggle, especially if accompanied by downturn in the economy, could divert energies and attention away from force modernization.²¹⁶

Within the military, a substantial portion of the budget, particularly the increases since 1990, has been spent on improving living standards of the troops, in an attempt to improve morale. Similarly, many of the profits from the PLA's commercial enterprises are being invested back into new commercial activity, or are being spent on the welfare of the military units that control businesses, not on weapons. The extensive business involvement of the PLA has had a deleterious effect on readiness and training.²¹⁷ Many units are undermanned, and personnel are often employed in economic production activities rather than in maintaining readiness. Some analysts believe it would take weeks, if not months, for most of the PLA's group armies to become combat capable.²¹⁸ In short, the PLA is "too busy making money to think about national defence."²¹⁹ In late 1993, military authorities ordered a crackdown barring military personnel and most units from direct participation in business activities, but this is not expected to have a lasting impact.

²¹²Stier and Bao, "The Bitter Truth Behind Thailand's Khaki Commerce," p. 28.

²¹³To give an indication of just how far behind other Asia Pacific militaries the PLA is, the Chinese military press bragged in the early 1990s about the PLA's first deployment of a unit by a civilian aircraft -- a technique long-mastered by any other sizable force in the region.

²¹⁴Speed, "The Evolving Maritime Environment in Southeast Asia," p. 24.

²¹⁵See *Jane's Defence Weekly*, February 19, 1994, p. 30.

²¹⁶Swaine, *The Modernization of the Chinese People's Liberation Army*, p. 18.

²¹⁷Even something as innocuous as the PLA's habit of leasing its paging networks for commercial use could hamper timely response to a crisis.

²¹⁸*Jane's Defence Weekly*, February 19, 1994, p. 27.

²¹⁹Tyler, "China's Military Brass Plows Profits Back Into Business," p. A11. The concern over the impact market reforms are having on the PLA has reached the top echelons of the CCP. The official army newspaper has warned of a "sense of crisis" within the PLA, reporting plummeting troop morale, resistance to the party within army ranks and growing corruption as a result of market reforms. "China's Market Reform Endangering Party's Grip on Military," *The Korea Times*, July 28, 1993, p. 4.

Finally, China seems to recognize that it is not in its interests to adopt an aggressive force posture in the region. The priority of the current Chinese leadership is reforming the economy and managing the impact of economic reforms on social and political behaviour. To achieve these goals, China requires a calm international environment and access to foreign capital and technology. China has been improving relations with its neighbours, including the ASEANs, South Korea and Japan, and has repeatedly emphasized its peaceful intentions in the region. Beijing has been relatively cooperative on regional security issues such as Cambodia and (less so) North Korea. The PLA is itself so involved in the civilian economy that it has a great interest in regional stability. It is unlikely that China, in the short term, would do anything that might damage its political and economic relationships in the region. Meanwhile, Beijing has more pressing security concerns than the Pacific to which to turn its attentions, namely the effects of instability (and Islamic influence) in neighbouring Russia and Central Asia on China's provinces that contain large Muslim minorities.²²⁰

On balance

Putting the worrisome and non-worrisome signs together, what is one left with?

Clearly, China aims to be a major regional, and ultimately global, military power. The "Central Kingdom" mentality remains strong in China, "vigorous denials of any ambition for hegemony by current leaders notwithstanding."²²¹ China is aware of deficiencies in its force structure and is moving to correct these. A new class of top military officers is extremely serious about modernization and wants to bring the PLA up to a level that equals or surpasses the Russian military and possibly that of the United States. The PLA has significant hurdles to overcome before it can become a world-class military power. But, *if* present trends continue and *if* China stays together -- both very large "ifs" --, China will emerge from the next two or three decades with a large, modern force capable of reaching far into the Pacific and potentially of dominating East Asia. How quickly China reaches this objective will depend on future economic growth rates and defence spending levels, and on how successfully the PLA is able to acquire and incorporate new technology and related training and tactics.

In the short term, the effects of China's arms buildup on regional stability should be minimal. As long as China is preoccupied with economic development and requires a peaceful environment and Western investment towards this end, it is unlikely to use its new arms for aggressive ends. However, China could still pose a localized problem. However inadequate the Chinese Navy is in modern "great power" terms, its size gives it real capabilities in the regional context.²²² Beijing's "active defence" concept, while not aggressive, relies heavily on preemption and power projection to the limits of China's "strategic boundary," (i.e., the air and sea space China feels it needs to control to be secure) which extends beyond China's actual borders. China is not an expansionist power, but it will protect what it believes to be its territory, including claimed areas. Its military modernization is intended to send a message to this effect, i.e. to deter moves towards Taiwanese independence; to reinforce the supremacy of China's claims in the Spratlys and elsewhere; and to dissuade other great powers from acting in the region without first consulting Beijing. China is unlikely to pick a fight -- except, perhaps, with Vietnam, but this is becoming increasingly difficult as Vietnam draws closer to ASEAN and the West -- though it will respond if provoked, or if it perceives itself to be provoked (e.g. by an unintended incident).²²³

²²⁰Indeed, when China started to raise its defence budget in the 1990s, the CIA concluded that the bulk of new funds would probably be directed towards meeting concerns about the military's ability to quell future domestic, rather than regional, crises. Tow, "Naval Power and Alternative Security Postures in a 'Post-Cold War' Asia-Pacific Order." Even the presence of military units on Hainan could be attributed to the need to deal with peasant revolts there.

²²¹Robert A. Scalapino, "The China Policy of Russia and Asian Security in the 1990s," in Simon, *East Asian Security in the Post-Cold War Era*, p. 163.

²²²For example, the *Romeo*-class subs reportedly deployed by China in the Spratlys "may not possess much modern operational capacity, but -- in this situation -- they are more than any other nation can field." Goldrick, "Implications for Southeast Asia and Australia," p. 3.

²²³China's acts of force at sea have been exclusively directed against Vietnam; they have also been carefully calculated to take advantage of circumstances that would limit political costs involved in the undertaking. Leifer, "The Maritime Regime and Regional Security in East Asia," p. 135. The 1988 fighting between China and Vietnam in the Spratlys was triggered by China's construction of an observation station on an unoccupied reef. The fighting involved only small surface combatants and infantry (both sides avoided introducing submarines or aircraft) and China made no move to try to recapture islets that had already been taken. It is likely China made its move primarily in order to avoid being marginalized in any talks on the dispute. You Ji, "The Chinese Navy in the Changing World Order," pp. 26-27.

Competitive oil drilling in the South China Sea may increase tensions and lead to skirmishes between the PLAN and other navies.

Problems could be exacerbated if any of a number of potential scenarios develop. These include:

- economic failure in China, which could lead to more centralized leadership and the adoption of a more assertive foreign policy;
- a breakdown of central authority, leading to local conflicts and destabilized border areas;
- skirmishing over Deng's succession, which could lead one faction or another to court military support by taking a strong stand on issues such as Taiwan, Hong Kong, Macao and the South China Sea.

Even continued political stability and economic growth, coupled with regional ambition (or global power aspirations), could create significant tensions. Any power of China's size building up its military forces must cause concern among neighbours, especially when no neighbour on its own is a match for China. No one has to think China has any aggressive intentions today. The question centres on what Chinese intentions will be twenty years from now, particularly as China moves through a period of leadership change and political uncertainty. China's arms buildup is gradually giving it the strength to be a regional bully should Chinese intentions turn nasty. Once China has developed its muscles, will it choose to flex them more? "The PRC is anticipating the evolution of a regional order in which Chinese demands are generally fulfilled. In this respect it is possible that diplomatic efforts to achieve certain ends may break down and China may be forced to rely upon the PLA to secure its interests."²²⁴

The Chinese still think of security primarily in military terms.²²⁵ Beijing believes that the PLA needs to be powerful because it is the only way China will be taken seriously on the world stage. China is concentrating on economic construction, both to "make its people rich" and "to make the country strong."²²⁶ It is not a question of swords versus ploughshares, but rather of swords guaranteeing ploughshares. As long as Beijing regards the two as tightly linked, it is highly unlikely to back off on its arms buildup. The possibility of a wealthy but lightly armed China (à la Japan) is unlikely.

The fact that the picture is so mixed, that Chinese intentions are so veiled, and that what transparency exists is false or misleading does not add to confidence. The Chinese show little interest in explaining to their neighbours what they are doing. As a major power, they feel they do not have to. Meanwhile, uncertainty about future Chinese developments encourages others in both North and Southeast Asia to maintain relatively strong force levels and to continue force improvement programs, which in turn confirms Chinese apprehensions.

To watch for

China is not a threat, but rather a potential source of instability that should be watched closely. Canada should become more concerned if China starts to devote a greater proportion of its resources to power projection capabilities or starts to deploy more of its resources further from home. Troubling developments would include acquisition of:

- an aircraft carrier. A carrier would give the PLA a platform from which to extend its fighter cover over the South China Sea; it would also enable the Navy to engage in air and naval operations against Taiwan's eastern coast, which houses many strategic installations and naval bases.²²⁷
- more amphibious assault vehicles and small landing craft, which would be required for offensive power projection;
- logistic supply ships with greater range and carrying capacity, also required for power projection;
- Tu-22M *Backfire* bombers. With an unrefueled range of 4,000 km, these would enormously extend China's combat radius.²²⁸

²²⁴MacWha, "The Strategic Significance of a Modernized Chinese Military," p. 28.

²²⁵Albeit they increasingly realize that military power must be buttressed by economic and technological strength. See Godwin, "China's Asian Policy in the 1990s," p. 128.

²²⁶Lu Chunlin, Speech at the "Asia-Pacific Dialogue on Maritime Security and Confidence Building Measures," Bandung, June 15, 1993, p. 5.

²²⁷"South East Asian Naval Programmes, Part 1," *Naval Forces*, Vol.XIII, No. 5 (1992), p. 33. Some Western analysts regard a first generation of Chinese carriers as of more symbolic significance than real threat, given the inhospitality of the shallow waters around the Spratlys to a carrier and its supporting vessels, and the vulnerability to attack by Malaysia's MiG-29s. But a first generation of carriers would say something about Chinese intentions, and would put China in a strong position to build a second generation, which might be more threatening.

²²⁸Though finding spare parts for the *Backfire* could prove to be a problem. Blank, *Challenging the New World Order: The Arms Transfer Policies of the Russian Republic*, p. 59.

- modernized attack submarines and upgraded large diesel submarines, which would again enhance China's long-range strike capability;
- improved destroyers and frigates, capable of operating well offshore, to support China's submarines and long-range bombers;
- further batches of Su-27s, especially if for carrier purposes;
- extensive air defence systems; or
- effective air-to-air refuelling

Japan

Japan spends more on defence than any other country in the region, and has a substantial and very modern force. However, Japan maintains a defensive posture, sufficient to deal effectively with limited acts of aggression only in its immediate area (although the coastal defence functions of the MSDF are meant to be carried out at greater distances from shore than many other navies). Deficient in fleet train and lacking intrinsic air cover, the JSDF is not capable of transporting and supporting a significant military force abroad for an extended period.

Recent and planned acquisitions do not change this posture, although some in the region have questioned the continuance of the *Kongo*-class destroyer program now that the original justification for the vessels -- the Soviet naval threat -- has disappeared.²²⁹ Rather, the worry with respect to Japan, as expressed in Southeast Asia, the Koreas, China and Taiwan, is that if Washington reduces its security commitment to Tokyo (particularly in the context of a continued Chinese arms buildup and/or confirmation of a North Korean nuclear capability), Japan might reconsider the constitutional restraints on the JSDF and adopt a more assertive posture. Were Japan to develop its military power commensurate with its economic influence, it would be a formidable contender in the region -- a prospect most in the region find distinctly unrelishing given Japan's military history in Asia Pacific.²³⁰ Although Prime Minister Tomiichi Murayama has gone farther than any of his predecessors in apologizing for Japan's past brutality in the region, statements by Japanese cabinet ministers denying some of Japan's wartime actions tend to undermine any regional confidence that might be generated by the country's defensive military stance. When the head of Japan's parliamentary committee on security affairs recently broached the possibility of a revision of the SDF law to allow the dispatch of planes overseas for emergency purpose, such as to evacuate Japanese nationals from the Korean Peninsula, *The Korea Times* editorialized that this "could be connected with [Tokyo's] far-flung strategy to broaden the scope of its military commitment and influence in the international community as part of its ulterior goals of becoming a military power."²³¹

Japan is well aware of apprehensions about its military role in the region and continues to avoid acting independently of the United States or of the United Nations. It has consistently denied requests to supply arms and other military technology to Asia Pacific states, and has turned down Thai invitations to hold joint naval exercises in the South China Sea. There is continuing strong opposition within Japan to playing a larger military role regionally and internationally, as illustrated in the debate over passage of the 1992 Law on Cooperation in UN Peacekeeping Operations. The recent downturn in economic growth is likely to make the Japanese even less willing to countenance higher defence outlays. Already two guided-missile destroyers, five other vessels and ten aircraft have been cut from the 1993-95 production program. Analysts have speculated that Japanese naval strength could actually decline by the turn of the century. The JSDF is also plagued by large shortfalls in recruiting, due to the low prestige and inadequate compensation of a Japanese military career. Most ships are manned at only 60-80% of their intended

²²⁹For example, Seoul identified Japan officially in the 1991-92 Korean Defence White Paper as bent on developing offensive forces. Simon, "Regional Security Structures in Asia: The Question of Relevance," p. 16.

The August 1992 Japanese Defense White Paper significantly toned down its presentation of the former Soviet Union's military power, describing it as only a "factor of uncertainty" for Northeast Asian security, but Japan's contingency planning still appears to be primarily directed against Russia.

²³⁰Michael May argues that given the size and resource limitations imposed by Japan's geography, Japan will always be too vulnerable to itself become a strategic power and source of protection for allies. Michael M. May, "Japan as a Superpower?" *International Security*, Vol. 18, No. 3 (Winter 1993/94), p. 183.

²³¹*The Korea Times*, October 1, 1994, p. 6.

complements.²³² An aging population means the decline in eligible youths will continue into the next century.

Major changes in defence policy are unlikely any time soon. An amendment to Article 9 of the constitution would require a two-thirds majority in both houses plus a majority in a national referendum. This is not in the cards, given the lack of decisive political leadership and the absence of a strong domestic constituency in favour of a more assertive military role. Some mid-level Japanese bureaucrats and youngish colonels favour the JSDF making a larger contribution to regional and global stability by moving from “host nation to host region support” and from “burden to responsibility sharing” (e.g. by providing more intelligence and logistic support to the Americans). The August 1994 report of the defence review panel hinted that Japan should invest in rapid deployment equipment to help it play a larger security role in Asia. But such arguments presuppose acting within the framework of the alliance or under the auspices of the United Nations. As long as the US-Japan security relationship is maintained, there is no strong incentive for Japan to deviate from a policy that has served it so well since 1945. More broadly, the Japanese seem to have what might be termed a psychological problem in striking out independently of the United States. It would take an enormous change in Japan’s security environment to alter public and political opinion on this issue.

The more interesting question, as Washington and some domestic voices urge Japan to assume more of the military burden in the region, is where the line of comfort for all parties (in terms of Japanese military operations abroad) will be drawn. The fact that Japan’s defensive posture has *not* put to rest lingering concerns about Japan’s military involvement in the region says something about the underlying level of mistrust.²³³ There is a widespread belief in Beijing, for example, that Western encouragement of a broader Japanese military role is really an attempt to create a buffer against Chinese military power.²³⁴ Neighbours will be watching closely to see how the Japanese translate their growing interest in international security cooperation -- including a permanent seat on the UN Security Council -- into changes in exercises, deployments and procurement. If Japan is to participate effectively in Cambodia-style peacekeeping operations, it needs more long-range transport aircraft, but buying this type of equipment in large quantities could alarm other Asia Pacific states. Similarly, Tokyo’s reported interest in developing a network of military satellites (to shed its dependence on Washington for intelligence information) is unlikely to comfort those that would fall below the orbits of those satellites. The longer-term question is how US, Chinese and Korean actions might start to change the security debate within Japan. The prospect of a North Korean nuclear capability has probably already been factored into Japanese security planning. It is not clear the same can be said about a nuclear-armed united Korea.

In short, the problem with Japan in the region has little, if anything, to do with recent arms acquisitions. It stems from the fact that Japan’s pre-1945 identity as an imperial power seeking to dominate Asia has never been credibly replaced. As long as other Asia Pacific states do not trust Japanese intentions, they will remain wary of Japanese actions abroad and will take care to construct their military forces accordingly.²³⁵

To watch for

Serious Japanese interest in any of the following could indicate an intent to play a larger, less defensive regional military role:

- a fixed-wing aircraft carrier;
- nuclear-powered attack submarines;
- long-range bombers and missiles;

²³²Friedman, “World Navies in Review,” p. 114.

²³³According to public opinion surveys conducted by the Japanese foreign ministry, more Malaysians, Singaporeans and Indonesians believed in 1992 that Japan might become a military power than in 1987, although the number of Thais and Filipinos who believed this declined. *Asahi Shimbun*, August 12, 1992, p. 2.

²³⁴Derek da Cunha, “Strain Ahead Between China and Japan,” *International Herald Tribune*, July 21, 1993, p. 6.

²³⁵For example, the recognition of Japanese concerns about SLOC safety has provided incentives for ASEAN states to provide regional stability so as to preclude Japanese naval activities in Southeast Asia. Speed, “The Evolving Maritime Environment in Southeast Asia,” p. 27.

- significant amphibious capability;²³⁶
- capable underway replenishment vessels;
- sea lane protection beyond 1000 nautical miles;
- base facilities in Southeast Asia;
- expansion and upgrading of the now almost completely neglected Japanese reserve force. This would be one way for Japan to overcome its manpower shortage -- a problem that would almost certainly have to be addressed before any general military buildup could occur;²³⁷ and/or
- Japanese arms exports, which could enlarge the very small Japanese defence sector and help subsidize an increase in domestic procurement.

The Korean Peninsula

While recent international attention has focused on North Korea's nuclear program, Pyongyang's conventional military capability also merits concern. North Korea fields the world's fifth-largest armed forces, after China, India, the United States and Russia. It boasts the only Asia Pacific army clearly configured to seize and hold territory. A good two-thirds of the DPRK's soldiers are deployed within 100 km of the demilitarized zone at the border with South Korea. Although old, North Korea's air transport fleet can deliver over 2,000 troops in a single lift. For its part, the Navy can move up to 6,000 troops at a time. The forward positioning of infantry, armoured and artillery units by the North means that the South would have little warning of an attack.

How well North Korea's forces would fare in a war on the Peninsula -- particularly a protracted one -- is anyone's guess. The Gulf War provided a taste of the ease with which Western command-and-control systems and advanced weaponry can dispatch a blitzkrieg by a Third World army reliant on Soviet equipment and doctrine. If the DPRK's experience training Zimbabwean forces between 1981 and 1986 is any guide, North Korea has problems with logistics, esprit de corps, coordinating the manoeuvres of dispersed companies and platoons, and equipment maintenance. By 1986, much of the North Korean equipment used by the Africans was out of commission due to poor care and lack of spare parts.²³⁸ Closer to home, it has been estimated that only half of the North Korean submarine fleet is operational, thanks to mechanical problems.²³⁹ North Korean pilots have minimal experience in night flying or extensive offshore flying. The reduction, since the early 1990s, in North Korea's oil supply is believed to have hurt military training and operations, especially with respect to air and tank forces.²⁴⁰ However, during the same period North Korea is thought to have increased its ground exercises (including ground simulations for pilots), added to its troops, artillery and rocket launchers along the border, and stockpiled enough ammunition, food and oil in hardened underground facilities to sustain combat for several months without outside assistance. Recently, the DPRK has reportedly stepped up its aerial drills and sea exercises.²⁴¹

For the purposes of this study, the salient question is whether there is anything troubling about North Korea's arms buildup over the last decade that was not already present before. Pyongyang's medium-range missile capability is a definite new concern, which could have effects beyond the Peninsula. If armed with conventional warheads, ballistic missiles are less cost effective than strike aircraft against countries with some air defence capabilities -- which includes both South Korea and Japan. The main concern is that North Korea's missiles might be armed with nuclear, chemical or biological warheads. Beyond this, North Korea's buildup perpetuates the armed stand-off on the Peninsula.

Greater implications may spring from what has been happening on the other side of the DMZ. South Korea's acquisitions, supported by Seoul's widening lead in economic performance, are resulting

²³⁶The planned acquisition of an advanced-design amphibious landing ship could signal the beginning of a force with enhanced power projection capabilities. The upper deck will be capable of carrying amphibious vehicles and serving as a flight deck for helicopters or even vertical take-off and landing fighters. Acquisition of a number of such vessels would be a worrisome development.

²³⁷Ralph Dean, "Japan: The Nature of the Sword," *Proceedings*, March 1993, p. 75.

²³⁸*North Korea: The Foundations for Military Strength*, p. 26.

²³⁹Morgan, *Porpoises Among the Whales*, p. 27.

²⁴⁰*North Korea's Nuclear Program: Challenge and Opportunity for American Policy*, Special Report (Washington: United States Institute of Peace, 1994), p. 12.

²⁴¹*The Korean Herald*, October 6, 1994, p. 2.

in a gradual shift in balance between North and South. The North still enjoys a 2.5:1 advantage in armour and a 2.6:1 advantage in artillery, and the South is still the underdog when it comes to forces readily available for the initial phase of war. Nonetheless, Seoul has a growing advantage in logistic support (except in the area of ammunition) and in the ability to sustain prolonged combat, something that is acknowledged by even the South Korean defence ministry.²⁴² It has also been honing its edge in airpower, which could prove decisive in battle.

The admission, however informal, by the South Koreans that there exists a quasi-balance in the military capability [of the two sides] marks a striking change in their attitude. Even a few years ago, they claimed that it will be another 5-10 years before the South would reach the 70 (a magic number deemed necessary for defensive purposes) percent level of North Korea's capability.²⁴³

This slow turning of the tide in South Korea's favour may have the positive effect of strengthening deterrence. Pyongyang seems lately to want to avoid provoking Washington and Seoul, and appears to be trying to break out of its diplomatic and economic isolation -- witness the nuclear framework agreement. Recent force improvements almost certainly increase Seoul's capacity to resist a North Korean advance should deterrence fail. On the other hand, these improvements could lead an increasingly desperate North to contemplate a strike on the South before the conventional balance turns even further, or to rely more heavily on nuclear, chemical and biological arms. Some North Korean statements suggest that Pyongyang is preparing to reunify the Peninsula by force, with 1995 being a target date for completing necessary military preparations, although this may just be a propaganda effort to rally domestic support and justify the North's bloated military budget.²⁴⁴ As long as the respective buildups are happening in the context of no prospect of arms control, a possible North Korean nuclear bomb, and the general unpredictability of the North Korean regime, there are few grounds for complacency.

An important question for the future is whether South Korea will, once it reaches rough parity with the North,²⁴⁵ be content to rest at this stage, or will go on to seek superiority -- a not unrational strategy and probably one favoured by Seoul's military planners. However, the South Korean Defence Ministry may have a hard time garnering funds for future acquisitions in the context of an increasingly open democracy and declining tension with the North. The termination of South Korea's National Defence Tax in 1990 may be a harbinger of the future. A recent study suggested that to be able to afford the equipment it wanted, the military would have to cut 300,000 troops, not a welcome prospect given that the ROK forces are already facing a manpower shortage.²⁴⁶ With prospects for further US force reductions and in the interest of avoiding unnecessary military expenditure, South Korean defence analysts have been considering alternatives to the "trip wire" deterrent. One idea is to replace "line defence" (intended to seal off invading North Korean forces with US and South Korean firepower) with a "strongpoint defence" that would feature mobile defensive units applying maximum firepower at points where Northern forces are anticipated to penetrate during the initial stages of an invasion. Such a strategy could be implemented with roughly half the number of men in the current South Korean Army.²⁴⁷ Any future changes will likely rely more, not less, on advanced equipment.

Another important question is the effect of continued Peninsular arms buildups on other Northeast Asian arms developments. The birth of a South Korean "green water" navy is most striking; while it is in part designed to counter the North Korean submarine force, it also is thought to betray a

²⁴²Tow, "The Military Dimensions of the Korean Confrontation," in Simon, *East Asian Security in the Post-Cold War Era*, pp. 74-75.

²⁴³Tong Whan Park, "Military Balance on the Korean Peninsula Through Modernization: An Unconventional Approach to Arms Control," Paper prepared for the International Studies Association 35th Annual Convention, Washington, D.C., March 28-April 1, 1994, p. 22.

²⁴⁴*North Korea's Nuclear Program: Challenge and Opportunity for American Policy*, note, p. 19. North Korea's recent military buildup may be due not to any plan to attack the South, but to defend itself against attack. Many US and South Korean actions and statements do seem threatening to Pyongyang (e.g., the talk of military strikes against North Korean nuclear installations; the Team Spirit exercise, which is a rehearsal for war on the Peninsula), particularly in the context of a changing conventional balance and the loss of Russian and Chinese allies. See Andrew Mack, "North Korea's Nuclear Program: The Options Are Shrinking," Paper prepared for the Conference on Nuclear Policies in Northeast Asia, Seoul, May 25-27, 1994, p. 6.

²⁴⁵Parity being a very difficult condition to determine, especially in the context of potential future deployment of North Korean nuclear weapons and further US force reductions. It is also complicated by Seoul's physical proximity to the DMZ.

²⁴⁶Thirty combat ships have to be moored at bases because the Navy lacks personnel to operate them. *The Korea Times*, October 7, 1994, p. 2.

²⁴⁷Tow, "The Military Dimensions of the Korean Confrontation," pp. 75-76.

concern about Japan's future role. The growing emphasis on amphibious and ocean-going support ships could be an indication of South Korea's wider maritime intentions. Each of Japan and South Korea has already begun to think of the other as a principal post-Cold War threat. "The danger in these cases is probably not large-scale war or the grand territorial grabs of a century ago. But it is certainly tension, an arms buildup, possibly border conflicts, and in some cases the attempt to acquire nuclear weapons."²⁴⁸ Korean unification would solve some, but also introduce new, regional tensions. Many Japanese see a unified Korea as a potent economic rival and possible military threat. China is probably no more desirous of having a united Korea on its borders. With the prospect of a Korean war, and the doubts about the desirability of a unified Korea, continued arms buildups on the Peninsula will not prompt moderation on the part of others.

Taiwan

Overshadowed by reportage of China's acquisitions, Taiwan's arsenal has been undergoing a robust modernization process that seems to aim more at the development of a force-in-being rather than the capability to launch an attack. Although recently rehabilitated and rearmed, the effectiveness and reliability of Taiwan's destroyers are hampered by their age. Taiwan's only landing craft are leftovers from the Nationalist retreat to Taiwan, when there were plans to carry out offensive operations.²⁴⁹ The new combat support ship, which is the largest unit built so far for the Taiwanese Navy, represents a major step forward, but is not sufficient to support a large offshore operation. The F-16 model the Americans decided to sell Taiwan is the "A," the oldest one available and not as capable as the newer "C" and "D." The dramatic improvements in the Taiwanese navy seem to aim mainly at sea lane defence, reflecting a shift in Taiwan's military priorities from preparing to meet a full-scale PLA invasion to defending against a blockade or other forms of limited warfare.²⁵⁰ Some analysts suggest that Taiwan is designing a force structure for contingencies involving Japan. Still, Taiwan's acquisitions will transform it into a modern, relatively sophisticated naval force by the end of the decade and one of the most powerful air forces in East Asia.

The implications of the buildup depend largely on how it is perceived in Beijing. On the one hand, China is concerned about the Taiwanese acquisitions, which it is unable to match either in quantity or quality. On the other, there has been increasing economic cooperation between the two, such that Taiwan is now the second-largest investor in mainland China. There has also been an explosion of cultural and other links across the straits, right up to officially unofficial "conversations" on the normalization of relations. The Chinese response to the *Mirage* sale was softer than that to an earlier Dutch sale of submarines to Taiwan, suggesting that Taiwanese defence modernization is being taken in stride in Beijing.

There is considerable potential for friction, including armed bullying, in the Taiwan-China relationship, but this stems primarily from growing support for the pro-independence Democratic Progressive (opposition) Party in Taiwan, not from arms sales. China has made clear that any attempt by Taipei to seek independence would be one of four grounds for Beijing to use force against the island. This in turn raises the potential for conflict between the US and China, although US policy on Taiwan's security is ambiguous, which in itself might encourage -- or more accurately, fail to discourage -- Chinese aggression. People in Taiwan are well aware of the dilemma and will probably continue to try to finesse the issue, by strengthening international ties while avoiding declaring *de jure* independence.

As long as Taiwan continues its arms buying spree, China is unlikely to constrain its buildup. Taiwan's buildup may also be one of many factors encouraging continued modernization on the part of the ASEANs. If anything, Taiwan's official line on Chinese claims in the South China Seas is tougher than Beijing's, although it is highly unlikely Taiwan would initiate any military action in the region.

²⁴⁸Thomas L. McNaugher, "Reforging Northeast Asia's Dagger? US Strategy and Korean Unification," *Brookings Review*, Summer 1993, pp. 13-17.

²⁴⁹Morgan, *Porpoises Among the Whales*, p. 22.

²⁵⁰In June 1992, the Taiwanese Navy staged its first sea control exercises in which there was a simulated attempt by the PLA Navy to cut off Taiwan's seaborne trade by mining harbours and attacking commercial shipping to and from the island. "South East Asian Naval Programmes, Part III," *Naval Forces*, Vol.XIV, No. 1 (1993), p. 33.

Taiwan has the foreign exchange reserves to continue its buildup and the F-16 sale may have cleared the way for Taiwan to acquire advanced weapons more easily than before, as Western countries are beginning to compete for the market.²⁵¹ But there are still constraints on how far Taiwan is going to be able to improve its forces over the next several years. Washington is placing qualitative limits on what it sells to Taipei and it, as well as other suppliers, will probably try to avoid incurring Chinese wrath. The difficulty Taiwan is having acquiring Western submarines may be more indicative of the future than the F-16 sale. As a result of China's reprisals for the *Mirage* sale, France has said that it will not sell the Taiwanese any more weapon systems. As well, even Taiwan's military budget is going to have trouble sustaining a program that includes the IDF, the *Mirage* and F-16s. Taiwan itself may feel that it has reached a level of sufficiency for the time being, given the moderate pace of China's buildup and Taiwan's technological edge. Taiwan's Defence Minister Sun Chen last year told members of parliament that Taiwan's stable of fighter jets, including those recently ordered, will be sufficient for the island's air defence purposes at least until the year 2000.²⁵²

A Word About Russia

Russian capability in the Pacific is likely to continue to be limited due to a severe fuel shortage, lack of operating funds, low morale, a disintegrating command structure, and the absence of clear direction on missions and roles.²⁵³ Even the Japanese, who continue to list Russia as one of their top security concerns (the others are North Korea and China) have reduced their spending on forces designed expressly to cope with the Russians. While Moscow still has concerns in the Far East, focused on Japan's claim to the Northern Territories, potential turmoil in China, and the Korean Peninsula, Northeast Asia is secondary in Russian defence policy. The main threats are thought to arise in the Transcaucasus and Central Asia.

Nonetheless, the Far East could be important as the main depository for the Russian Army's sophisticated equipment, given treaty limitations on deployments in Europe and political limitations on deployments close to the Central Asian republics. This in itself could be a source of controversy with Japan and China.²⁵⁴ Also, the Soviet ballistic missile submarine bastion in the Sea of Okhotsk is likely to increase in importance as a result of START I and II, thus providing a justification for continued high deployment of other naval and air assets in the region (which can also serve other military purposes)²⁵⁵ and making the Northern Territories very difficult for Russia to give up.²⁵⁶ The Pacific Fleet is still a powerful force in being, and the Russians will want to check any further decline, though recovery is not likely before the turn of the century. Meanwhile, concerns could arise from the spillover effects of internal instability, from Russian arms sales, and/or from hardline leadership changes.

²⁵¹For example, there was unconfirmed speculation in the Taipei Press this spring that Germany might sweeten the Siemens bid for the Taipei-Kaohsiung high speed rail link by promising to relax Germany's controls on the export of high and dual-use technology to Taiwan.

²⁵²"Defence Secure Claims Minister," *South China Morning Post*, July 13, 1993, p. 8.

²⁵³According to Japan's Defense Agency, Moscow effectively withdrew an air unit of about 40 MiG-23 fighters from Etorofu in July 1993 as part of a reorganization forced by fiscal and logistic difficulties. "Russian Congress Sees Budget Hike as Industry Cure," *Defense News*, July 26-August 1, 1993, pp. 3, 29.

²⁵⁴Even though Russian forces in the Far East lack the amphibious capability to get to Japan, and the SDF are specifically structured to repel a Russian invasion.

²⁵⁵In the late 1980s, just to protect 22-24 SSBNs (of which only three or four were deployed at any given time), Moscow had to deploy about 40 nuclear powered attack subs and more than 150 naval aviation aircraft, as well as country's largest surface fleet. Vladimir I. Ivanov, "Russia's New Military Doctrine: Implications for Asia" in Michael D. Bellows, ed., *Asia in the 21st Century: Evolving Strategic Priorities* (Washington, DC: National Defense University Press, 1994), p. 221.

²⁵⁶Probably the most important military consideration since the later 1970s has been concern over the use that might be made of the islands in hostile hands to facilitate antisubmarine operations against ballistic missile submarines in the Sea of Okhotsk.... The Russian Navy has more recently also claimed that loss of the southern Kuriles would constrain Russian land-based aircraft from reaching approaching US carriers because "Japan's Air Defence System will be significantly expanded to the north and our aircraft do not have the combat radius to fly around it." Harry Gelman, *Russo-Japanese Relations and the Future of the US-Japanese Alliance* (Santa Monica: RAND, 1993), pp. ix and 7.

V. Conclusion

Over the last ten years, most Asia Pacific states have improved -- in some cases dramatically -- their ability to patrol, defend and control their own territories and nearby coastal areas. Some states, such as China and Thailand, are now starting to acquire weapon systems that would enable them to patrol, defend and possibly control areas further afield. However, with the exception of North Korea, no Asia Pacific state appears to be seeking the type of equipment necessary to mount successful invasions against neighbours. A sudden change in national security policies is unlikely. In no country is there a strong faction arguing for a more militaristic or aggressive stance.

To an extent, the individual arms buildups across the region could be described as sensible examples of modernizing outdated equipment and rounding out unbalanced force postures. On the positive side, this could promote enhanced national security and stable deterrence, especially as the United States draws down its deployments in the region. It could also foster national self-confidence, which is arguably an important prerequisite for regional mutual confidence. However, there are long-term problems with counting on self-reliance to promote region-wide confidence. Since it is impossible for any state (short of a superpower) to be wholly self-reliant in defence terms, national planners can always make a case for more equipment. And, "since the requirements for defence self-reliance cannot be defined without some consideration of the capabilities possessed by neighbours and potential adversaries further afield, there must come a point when further acquisitions begin to generate counter programs -- to the detriment of both self-reliance and regional security."²⁵⁷

Even where real growth in defence spending has stopped, most regional defence budgets now contain relatively high votes for capital procurement, which are likely to be maintained over the foreseeable future. Also, the concerns prompting the acquisitions -- economic prosperity, corruption, the need to modernize outdated equipment, the buyer's market, etc. -- are likely to continue. This, coupled with the pervasive, underlying mistrust in the region could lead to a steady buildup, in which Taiwan's continued growth feeds China's continues growth, which feeds Japan's, which feeds South Korea's, with North Korea not needing to be fed by anyone and the ASEANs falling in step behind. One does not have to spend long in the region before speculative fears about all the combinations and permutations start being trotted out: Sino-Japanese arms race, Sino-Japanese collusion, Japanese-Korean arms race, Sino-Russian collusion, and so on.

Even though a lot of the technology is rudimentary from a Western point of view, and even though most Asia Pacific states are buying only small quantities of advanced weapons, the last decade has also seen an important change in the character of military equipment being introduced throughout the region. The growing reach, technical sophistication and lethality of Asia Pacific weapon systems are bringing neighbours within closer range of one another and making it possible for local forces to move away from manpower-intensive postures. Although all regional defence establishments would argue that their new weapons are intended to be used in defensive, or counter-offensive, contingencies, many have a distinctly offensive potential.²⁵⁸ There is an increasingly outward-looking focus to forces, something that could be described as a movement in the direction of power (or force) projection capabilities, with "power projection" understood as the capability to strike distant military targets or the capability to put the assets or territory of another state at risk.

The advent of maritime forces, submarines, air forces, missiles, long range intelligence monitoring and airborne projection forces signals a very different kind of Asian military future than what took place during the Cold War. Now, for the first time in the modern period, Asian countries will have some capacity to reach one another in ways that do not require massive domestic disruption or such large-scale logistic efforts as to create its own deterrence. Rather than focusing in on any particular weapon system or any specific military activity, it is this

²⁵⁷Ball, "Arms and Affluence," p. 104.

²⁵⁸It is difficult to define a weapon as "defensive" or "offensive." Weapons usually lend themselves to both forms of combat. E.g., airborne early warning capabilities, like EC2 *Hawkeyes* and AWACS, are defensive, but they are also the command and control aircraft essential to any large offensive strike force. Nonetheless, most weapon systems tend to be better suited for either offense or defence.

broader transformation in the character of Asian military forces that should be the main object of students of Asian security.²⁵⁹

Stumbling blocks notwithstanding, the basis is being laid for even more consequential improvements in Asia Pacific military capabilities in the decade ahead. The main significance of many recent acquisitions is the opportunity they afford regional militaries to familiarize themselves with third- and fourth-generation equipment, and thus to prepare themselves for high-tech war. Not only will this affect the design and development of domestically-produced equipment. It could also revolutionize regional military operations and training as forces adapt their tactics to take advantage of new capabilities. The probability of an Asian military force posing a serious high-tech challenge to a US-led coalition is low in the short term; however, technological improvements could have decisive implications in local conflicts. Improvements are also leaving several Asia Pacific states well-positioned to move into serious power projection in the next century, if they choose to do so.

One could argue that the problem is really more one of avoiding crisis than of worrying about arms acquisitions. "The origin of most strategic concerns within the region lies in the possibility that conflicts may emerge as a result of clashes of national interest and not because of perceptions that there are 'arms races' or instabilities resulting from the acquisition of new and highly capable weapons systems."²⁶⁰ But crises could be generated or exacerbated by weapons themselves. As long as the Asia Pacific security environment continues to be relatively "fluid," improvements in weapons and related technology are likely to take on increasing importance in regional defence calculations. Whereas defence planning used to involve making predictions about specific threats or particular contingency situations, now, in Asia Pacific, the potential enemy or contingency is much less certain. Questions like "where is technology going?" become more important in their own right, and perhaps more capable of generating imitative arms strolls. Each regional state can justify its acquisitions in non-threatening ways, but the types of weapons being acquired are also capable of being used for threatening purposes, and political relationships not solid enough for neighbours to exclude those possibilities from their own defence planning. The very existence of large number of weapons is especially important when political relationships worsen, and relationships in the Asia Pacific region are on nowhere near a sure-enough footing to be assumed never to turn bad.²⁶¹

There is a range of issues over which military intimidation and even armed conflict is imaginable in Asia Pacific, including competing sovereignty claims, domestic challenges to government legitimacy, economic disputes, environmental challenges, illegal migration and maritime resource arguments.²⁶² The threat or use of force over these issues could adversely affect Canadian economic interests by interfering with trade and by lowering the value of Canadian investments in the region. It could undermine Canadian political interests by jeopardizing the emerging liberal capitalist democracies in Asia (e.g. South Korea), with which Canada has been forging links in multilateral fora and hoping to work with on issues dear to the Canadian heart, like fisheries management and non-proliferation. It could also put Canadian lives at risk, by drawing Canada directly into war (remember Korea), or into a peacekeeping operation (ditto Cambodia), or into an international coalition to protect shipping or to enforce an arms embargo.²⁶³

²⁵⁹Paul Bracken, "Future Security Cooperation in Northeast Asia: Problems and Opportunities," Paper prepared for the 1st Northeast Asia Defense Forum, Seoul, November 3-5, 1993, p. 4.

²⁶⁰Goldrick, "Implications for Southeast Asia and Australia," p. 1.

²⁶¹The shift to a multipolar system adds to the danger; in past multipolar systems, complexity seems to have contributed to miscalculation and miscalculation to war. And mitigating factors that have promoted peace in multipolar Europe (ex-Yugoslavia notwithstanding) are not at work to the same extent in Asia (i.e. a uniting governmental and societal form, a shared identity, and intra-regional economic and institutional ties). See Aaron L. Friedberg, "Ripe for Rivalry: Prospects for Peace in a Multipolar Asia," *International Security*, Vol. 18, No. 3 (Winter 1993/94), pp. 8-9, 15-24.

²⁶²As an example of a scenario ripe for miscalculation and escalation, Richard Betts asks: "Has any part of the US national security establishment seriously considered what if anything to do if China fights with the Philippines and Vietnam over a couple of the Spratlys, Tokyo reacts by fortifying the Senkakus, and Beijing threatens retaliation if the Japanese do not pull back?" Richard K. Betts, "Wealth, Power and Instability: East Asia and the United States after the Cold War," *International Security*, Vol. 18, No. 3 (Winter 1993/94), p. 65.

²⁶³Of the problems listed in this paper, one could argue that Canada has a greater interest in those in Northeast Asia than in Southeast Asia. The economic stakes are greater (the vast majority of Canada's cross-Pacific trade is with Japan); also, the larger size of potential conflicts in the subregion is more likely to lead to international repercussions. But Cambodia is a prime example of how Canada can get caught up in a conflict where it has only marginal interests. As long as Canada makes active multilateralism -- at both global and regional levels -- the hallmark of its

All of these issues are potentially resolvable -- or at least containable -- through skillful diplomacy. And there are number of encouraging signs in the region, including:

- growing intra-Asian economic ties;
- the establishment of the ASEAN Regional Forum and its associated Senior Officials Meetings;
- numerous unofficial (or less official) dialogues that touch on security matters;
- the regularization of several bilateral military dialogues;
- the negotiation of bilateral confidence-building measures, such as the Sino-Russian agreement on border troop reductions and the Japan-Russia agreement on prevention of incidents at sea.

Will these processes be sufficient to contain the problems -- actual and potential -- resulting from regional arms buildups? Or will the buildups act as constraints on emerging security dialogue and economic cooperation? These questions, addressed in Part Two of this study, are key ones for Canada, as it tries to institutionalize its relations in Asia Pacific through a cooperative security approach.

foreign policy, it will find it next to impossible to draw lines about what it should, and should not, be concerned with in the region (something that, when combined with shortage of governmental resources, risks leading to superficial involvement everywhere and serious involvement nowhere).