Executive Summary

This chapter overviews the strategic environment in Asia as it affects the military modernization efforts being undertaken by states in the region.

MAIN ARGUMENT:

Asian militaries are transforming their capabilities in order to cope with various kinds of strategic uncertainty. The defense transformation strategies followed by different Asian states reflect their specific threat environments, economic performance, security dilemmas, and national regime and state structures. This change has the potential to alter the region's strategic balance, and poses significant opportunities and challenges for both the U.S. and Asia.

POLICY IMPLICATIONS:

- Although a broad consensus exists across Asian states regarding the necessity of peace and political stability for the achievement of economic prosperity, a number of structural drivers, reinforced by internal considerations, are pushing states to invest in military modernization.
- China, India, Russia, Japan, and the U.S. are each qualitatively improving the force structure, warfighting capabilities, and deployed inventory of their armed forces. Most states are also increasing defense outlays and incorporating RMA components into their military modernization programs, with significant consequences for the regional balance of power.
- The U.S. will be called upon to maintain or even increase its role as regional security guarantor for a number of Asian states. This will require the U.S. to preserve its current military dominance, protect its existing alliances, and develop new ties to major states that are not allied or opposed to Washington. Not doing so would likely lead to military build-ups, increased tension, and even nuclear weapons proliferation.
- China will increasingly be the most important actor in Asia, both for other Asian countries as well as for the U.S. Many Asian powers are responding, at least in part, by developing military capabilities and outlaying defense expenditures as a safeguard against China's rise.

Overview

Military Modernization in Asia

Ashley J. Tellis

There is now a broad consensus that the Asian continent is poised to become the new center of gravity in global politics. From a historical perspective, this transformation is momentous in that—if present trends hold—for the first time since the beginning of modernity (circa 1500) the single largest concentration of global economic power will be found not in Europe or the Americas but rather in Asia. As the pioneering work of Angus Maddison has demonstrated, the Asian continent accounted for approximately 65% of the global product in 1500, in contrast to the 20% and .03% respective shares of Europe and the Americas. The era that followed saw the rise of colonialism, the emergence of revolutionary technical change, new patterns of global trade, and the phenomenon of major inter-state war. Asia's share of the global product declined precipitously during this new era, largely thanks to the fluctuating fortunes of key states such as China, Japan, and India. By 1950 Europe's share of the global product had risen to 29%, the Americas had claimed a hefty 38%, while the Asian portion of the total had fallen to only 18%.[1]

The end of World War II and the concomitant restructuring of the global system that followed ushered in new conditions that served to engender the recrudescence of Asia. The demise of the colonial order, the imperial (though contested) peace that was created and sustained by U.S. power, and the presence of purposive national elites in many Asian countries all combined to create the appropriate conditions for the success of specific national

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[1] Calculated from data in Angus Maddison, *The World Economy: A Millennial Perspective* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2001), 261. Russia's contribution to the global output was excluded in these figures.

economic strategies that would produce sustained growth over time.[2] These economic strategies—which consisted of directed capitalism first witnessed in Japan and then in North and Southeast Asia, China, and India—paved the way for an explosion of national economic growth and an expansion of Asia's share in the global product. By 1998 Asia's share of global GNP had risen to about 37%, and most projections indicate that this proportion is likely to increase even further over the next decade and beyond. Lower growth in the labor force, reduced export performance, diminishing returns to capital, changes in demographic structure, and the maturation of the economy all suggest that national growth rates in several Asian states—in particular Japan, South Korea, and possibly China—are likely to decline in comparison to the latter half of the Cold War period. Asia's share of the global economy is, however, nevertheless likely to reach about 43% by 2025—and thus will constitute the largest locus of economic power worldwide.[3]

The current and prospective growth of the Asian economy will likely lead to larger military expenditures and different forms of military modernization. This expectation is based on the realist hypothesis that, since economic growth creates expanding national assets, all states embedded in a competitive system of international politics inevitably seek to protect these resources by increasing their military capabilities.[4] This crude causal relationship is qualified by a variety of factors, however, including a country's size, its geographical location, historical burdens, the salience of its immediate threats, regime character and state structure, and the structure of the larger regional or international system.[5]

Size is important because large states—whether in physical or economic terms—usually have immediate command over more resources than small states. Geographical location is likewise crucial, as strategically placed states must often allocate a relatively greater amount of military resources in order to protect their privileged position. Historical burdens become important when a state's experience of past threats, warfare, or defeat might motivate military investments. The salience of immediate threats is important for obvious reasons: the greater the security competition facing a state, the

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[2] Ashley J. Tellis, "Smoke, Fire, and What to Do in Asia," *Policy Review*, no. 100 (April and May 2000), http://www.policyreview.org/apr00/tellis.html; and Ashley J. Tellis, et al., "Sources of Conflict in Asia," in *Sources of Conflict in the 21st Century: Regional Futures and U.S. Strategy*, ed. Zalmay Khalilzad and Ian O. Lesser (Santa Monica: RAND, 1998), 43–170.

[3] Norihisa Sakurai, "Growth Potential of Asian Economy," Central Research Institute of Electric Power Industry, annual research report, 2001, http://criepi.denken.or.jp/en/e_publication/a2001/01seika45.pdf.

[4] See the historical evidence as reviewed in Paul Kennedy, *The Rise and Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000* (New York: Random House, 1987).

[5] Jasen Castillo, et al., *Military Expenditures and Economic Growth* (Santa Monica: RAND, 2001).

larger the incentives are to neutralize threats through military preparation, whether via internal balancing or external alliances. Regime character and state structure are critical because they determine how able a country is in accurately processing information concerning its external environment. These two variables also shape resource allocation for internal versus external defense, as well as condition outside perceptions of a country's fears, ambitions, and ideology. Finally, the structure of the larger regional or international system is important because it defines, in a Parsonian sense, the "system of action" within which a country must operate: the international structure describes the distribution of power, particularly the potential for alliances insofar as they either exacerbate or mitigate the security dilemmas facing any particular state.

Asia as a Cynosure for Military Modernization

All of the above factors are examined, explicitly or implicitly, in the various country and regional studies gathered in this volume on military modernization in Asia. Taken together, the chapters show that military modernization, as a response to uncertainty, remains alive and well throughout "Strategic Asia." The forms such modernization takes, the challenges it is oriented to address, and the urgency with which it is undertaken, however, reflect both the diversity of the region itself and the challenges peculiar to each of the "security complexes" of which Asia is composed.[6] If military expenditures are any indication, then defense spending by key actors in Strategic Asia's prism of focus suggests an upward trend positively correlated with each country's pattern of economic growth in the post-1990 period. This phenomenon is not surprising when viewed against the backdrop of their grand strategies: the military capabilities of the various Asian states in general and their modernization efforts in particular reveal that the Asian continent remains an arena of active high politics.

The sheer productivity of the continent ensures this outcome in the first instance. Apart from the United States, which is an Asian power by virtue of both its global preeminence and its security presence on the continent, the region hosts a concentration of major economic centers: Japan, China, South Korea, India, Australia, and important though lesser Southeast Asian states. The continuing growth of these centers, which is in large part due to foreign trade, strengthens their connectivity both with the United States and increasingly with one another. This dynamic of economic growth has result-

[6] For more on the term "security complexes," see Barry Buzan, *People, States and Fear: An Agenda for International Security Studies in the Post-Cold War Era* (Boulder: Lynne Rienner Publishers, 1991), 190 ff.

ed ineluctably in rising energy requirements, most of which cannot be satisfied domestically. As a result, almost every major Asian economic power has begun to look outward for dependable sources of energy; this in turn has led to a mix of competitive acquisition strategies that may require military components to assure their effectiveness.[7] The chapters on China, Japan, and India conclude that the protection of energy access constitutes one of the key drivers of military modernization among the large Asian states.

While the demands of sustaining economic growth may thus by themselves assure the continuing relevance of military instruments in Asia—at least for all the major powers and for many of the lesser states as well, the vitality of traditional inter-state politics in Asia further guarantees their prominence well into the foreseeable future.

First and foremost, the Asian continent remains the arena wherein the interests of three great powers—the United States, Russia, and China—actively intersect. Japan and India have also leveled claims for similar recognition through their expressed desire for permanent United Nations Security Council membership. At the moment, peaceful relations exist between all five of these states. Whether such a state of tranquility can last in perpetuity, however, is unclear. China and India are rising powers both haunted by historical humiliations and intent on securing their rightful place in the emerging international order. As a result, the two countries are extraordinarily sensitive to issues of sovereignty and status, and both face secessionist (or potential secessionist) movements. Not surprisingly, then, Beijing and New Delhi have also embarked on major programs of military modernization in a bid to consolidate existing capabilities while simultaneously developing new competencies. In this volume, David Shambaugh's chapter on China and John Gill's chapter on India document the multiple dimensions of this phenomenon.

While both China and India constitute conspicuous examples of rising Asian powers, the challenge of integrating the former into the international system is, for multiple reasons, likely to be far more difficult than integrating the latter. First, Chinese efforts to resolve the "secessionist threat" posed by Taiwan (which Beijing—despite having no physical control over the island—regards as an inalienable part of China) puts China into potential conflict with the United States. As "long cycle" theorists of international politics have persuasively pointed out, systemic wars often arise not so much because rising states mount direct attacks on a hegemon, but rather because such states happen to attack either key allies of the existing hegemon or important neu-

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[7] Thomas P.M. Barnett, "Asia's Energy Future: The Military-Market Link," in *Globalization and Maritime Power*, ed. Sam J. Tangredi (Washington D.C.: National Defense University Press, 2003), 189–200.

trals.[8] Such regional conflicts often degenerate into systemic struggles that conclude only when the existing hegemon—which enters the fray initially to protect an embattled ally or neutral—has effectively arrested the threatening shift in the future balance of power.[9]

Second, China (unlike India) historically presided over a unique system of regional hierarchy where its primacy was acknowledged (even when its power was challenged) by the surrounding states.[10] If the current Chinese effort at accumulating national power is successful, Beijing is likely to pursue some facsimile of that same historical order that served China's power and status so well. The prospect of such an outcome, which could eventually include an effort to marginalize the United States in Asia, has already spurred both the United States and regional powers (such as Japan and India) to carefully scrutinize China's emerging military capabilities. Michael O'Hanlon, Christopher Hughes, and John Gill each expand on this point in their respective chapters on U.S., Japanese, and Indian military modernization. That Taiwan is particularly concerned about China's political objectives should not come as a surprise. In their chapter on Taiwan's military modernization, Michael Swaine and Roy Kamphausen note, however, that Taipei's pressing security concerns have, partly for reasons of domestic politics and partly because of sclerotic bureaucratic processes, not translated into an entirely coherent military acquisition and force structure response. Even in Southeast Asia where, as Sheldon Simon points out in his chapter, military modernization is driven more by internal rather than by external security drivers, concern about China's strategic trajectory remains strong. Key Southeast Asian states not only desire a continued U.S. presence to balance China, but given their interests as trading states may also be willing to countenance an Indian and Japanese naval presence designed specifically to protect the sea lines of communication so vital to their national security.

Concerns regarding China's growing power and future trajectory are felt keenly even in Russia, a country that has contributed more to the modernization of Beijing's military capabilities than any other. Moscow's assistance to Beijing—which stems from an effort to sustain Russia's military-industrial complex until the national economy can stabilize—carries grave risks, however. As Stephen Blank notes in his chapter, though Russia fears "the rise of China and Beijing's attendant enhanced ability to project power into Central Asia, Korea, and Taiwan," Moscow appears unable to "compete

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[8] The *locus classicus* of long cycle theory remains George Modelski, *Long Cycles in World Politics* (Seattle: University of Washington Press, 1987).

[9] See Michael D. Swaine and Ashley J. Tellis, *Interpreting China's Grand Strategy: Past, Present, and Future* (Santa Monica: Rand, 2000), 182–229.

[10] John K. Fairbanks, ed., *The Chinese World Order* (Cambridge: Harvard University Press, 1968).

with China's booming wealth and power. Many Russian scholars fear that Russia has no strategy toward China (or Asia in general), let alone one to deal with urgent threats like the nuclearization of North Korea. Thus Russia risks dependence upon China."

Thus concerns about the future of Beijing's growing power are present in all the major states along China's periphery. If Beijing decides to pursue a policy of actively asserting Chinese centrality in the Asian security order at some future point in time, conflict with the United States and possibly with other regional entities would almost certainly follow. Cognizant of this prospect, Beijing has in recent years adopted "a kinder, gentler turn" in its grand strategy.[11] This change is designed both to allay the fears of the international community and preempt the rise of balancing coalitions against China. Despite these efforts, fears that China might increasingly assert itself in line with its growing economic power have already evoked suspicion—occasionally bordering on mistrust—in the United States and Asia. This problem is exacerbated by other issues involving trade, currency arrangements, border disputes, and the extent of Beijing's military modernization. Although both U.S. and Asian policymakers politely welcome China as an emerging power into the international community, there is a palpable sense of uncertainty—and a subliminal disquiet—concerning China's future interests and behavior.

The prospect that China may be able to sustain such rapid growth some time into the future only strengthens concerns regarding Beijing's long-term intentions. Dwight Perkins' special study in this volume on the future of China's growth captures two dimensions of this issue. He notes that despite significant weakness in the financial system, severe environmental degradation, and the challenges posed by large-scale rural to urban migration, Chinese economic growth is likely to be sustained "for at least the next decade" as long as exogenous problems such as Taiwan can be successfully avoided. This in turn implies that Beijing's military spending and technological modernization will likely continue to rise (as it has since 1996) in real terms. Such a continued increase will probably exacerbate anxiety over Chinese military capabilities that are now prevalent in the United States, Japan, India, Russia, and some Southeast Asian states. Since high rates of economic growth are essential for China's political stability, however, and since protectionist responses in the United States to this growth would only exacerbate the already high bilateral tensions, Perkins prudently concludes that the United States (and its European allies) should not assist Beijing's de-

[11] Ashley J. Tellis, "China's Grand Strategy," IISS *Strategic Comments* 10, no. 9 (November 2004), http://www.carnegieendowment.org/publications/index.cfm?fa=view&id=16178.

fense modernization efforts. Outside of this lone strategy, there is little these Western countries can do to prevent rising Chinese military expenditures.

Finally, the authoritarian character of China's domestic regime makes Beijing the object of suspicion in the United States as well as in many other countries. Beijing has been gradually accumulating sophisticated military capabilities, first in the realm of hardware but equally and perhaps more importantly in the area of integration, which includes advances made in manpower quality, organization, doctrine, tactics, training, education, maintenance, logistics, and infrastructure. That such a powerful, non-democratic regime is improving its military capabilities in this way has strengthened concerns regarding the future of Chinese power in a way that does not carry over comparably to a democratic state like India. U.S. Secretary of State Condoleezza Rice conveyed these anxieties carefully when she stated:

> … China's internal evolution is still undetermined. And as we look at issues of religious freedom, issues of human rights, as we look to the relationship between Taiwan and China, we see that there are matters of concern that still might take a bad turn, and so our policies have to be aimed at trying to [make] the most of our opportunities to mitigate against that circumstance in those cases.
>
> … We want a confident China that can play an increasing role [in the region]. It is nonetheless a good thing that China plays that role in the context of democratic alliances like the United States and Japan that bring not just [strength], economic and other strengths, but bring democratic values to the core of this region. So, as we look to China's life, I really do believe that the U.S.-Japan relationship, the U.S.-South Korean relationship, the U.S.-Indian relationship, all are important in creating an environment in which China is more likely to play a positive role than a negative role. These alliances are not against China; they are alliances that are devoted to a stable security and political and economic and, indeed, values-based relationships that put China in the context of those relationships, and a different path to development than if China were simply untethered, simply operating without that strategic context.[12]

Exacerbating such fears are China's relatively faster economic growth and larger concentration of capabilities relative to India. Moreover, the fact that many of the military instruments now being acquired primarily for employment against Taiwan have great utility beyond this contingency (i.e., can be used to support a regional dominance role) and the fact that the Communist regime in Beijing has had a history of ruthlessly employing force against its own subjects, only makes the nature of the Chinese state a critical variable with respect to integrating that country into the global order.

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[12] Secretary of State Condoleezza Rice, "Remarks at Sophia University," Tokyo, March 19, 2005, http://www.state.gov/secretary/rm/2005/43655.htm.

The integration of the region's rising powers has a direct bearing on military modernization in Asia. Managing the evolution of other established states, however, also affects stability in different ways. One example is Russia, which—though possessing enormous nuclear capabilities, a significant military-industrial complex, and large natural resources—must come to terms with its own weakness. While Moscow is no doubt attempting comprehensive modernization, Stephen Blank's chapter concludes that "summing up Russia's overall strategic environment, defense reforms, and defense economy, the unavoidable conclusion is that Russia—much like the USSR—remains trapped on a 'treadmill of reforms.'"

North Korea embodies even more complicated problems. The last Stalinist regime on earth oversees a totalitarian political structure, a brittle and decaying economy, a large and capable—though currently stagnant—conventional military force, and new nuclear capabilities of uncertain magnitude. In his survey of the Koreas in this volume, Jonathan Pollack reminds readers, however, that although there have been repeated predictions of its demise, the Democratic People's Republic of Korea (DPRK) has demonstrated "grim resilience and a knack for exploiting external aid and economic ties." South Korea, a loyal U.S. ally throughout the Cold War, now appears to have reached a strategic crossroads. Seoul struggles to accommodate a competitive but failing North, while South Korea's democratic efflorescence appears to be leading the nation away from the United States and back into China's sphere of influence—where it has historically resided across the centuries. Pollack's essay urges U.S. policymakers to recognize the fact that the ROK "no longer describes the DPRK as the ROK's 'major enemy.'" but more importantly, that South Korean leaders presently believe that their country "cannot achieve its full power potential in the absence of normal relations with the North and more equitable ties with the United States." This quest for equitable ties, Pollack warns, portends "a major redefinition of ROK national interests and a parallel commitment to pursue policies independent of the United States."

A comparable dynamic may be underway in Australia, another traditional ally of the United States. In his special study on Australian strategic policy in this volume, Hugh White cautions that, at least as far as the rise of China is concerned, Canberra's attitudes now differ greatly from those of Washington. White notes that Canberra has identified one of its interests as preventing the emergence of Chinese hegemony in Asia, and is investing in maritime capabilities that will allow it to support the United States in the Western Pacific over coming decades. As in many other Asian states, however, China's economic influence has begun to change political calculations even in Australia, and White accordingly warns that "Australia will not

support a U.S. approach that forces its allies to choose between the United States and China."

While Australia has not yet articulated a definitive approach to China, Japan is clearly moving in a more decisive direction. This is partly due to Japan's physical proximity to China, the ongoing difficulties in Sino-Japanese relations, and the historical rivalry between the two countries. Continuing a strategic shift dating back to the 1980s, Japan appears to be slowly but surely stepping out of its atypical postwar straitjacket of being an economic strength married to military weakness. The prospect of such a new role for Japan not only evokes mixed feelings around the Asian periphery but also holds significant implications for the larger balance of power. As Christopher Hughes observes in his chapter, an "increasing emphasis on military modernization will provide a route for Japan to achieve its long-debated, more proactive and 'normal' role in regional and global security, and one closely identified with expanded U.S.-Japan alliance cooperation." He cautions, however, that "Japanese policymakers—as is the case with other 'normal' key allies—will remain mindful of entrapment, and will thus seek to maintain their 'double hedge' against both exclusive reliance on military power and the U.S.-Japan alliance as a security guarantee." The various Southeast Asian states remain engrossed in managing domestic problems even as they sustain impressive rates of economic growth, manage the threats of terrorism and interethnic rivalries, and attempt to positively engage China through economic interdependency. Viewed in this context, Sheldon Simon concludes that "by maintaining an ongoing air and naval presence in the region, the United States can both assist Southeast Asian states with external balancing vis-à-vis China and support anti-piracy, maritime, and anti-terrorism efforts."

In the greater South Asian region, Pakistan—a critical battlefront in the global war on terrorism—remains in the process of an ongoing internal transformation, one which unfortunately has not yet been thorough or successful enough. As John Gill's contribution points out, this failure is in part due to Islamabad's continued support of *jihadi* insurgents who operate in Indian Kashmir and elsewhere as "a low-cost means of occupying and demoralizing Indian ground forces." This strategy has not only "come to threaten Pakistan itself," but also other countries around globe—as the recent terrorist activities in London and elsewhere have demonstrated. Further west, Iran continues to be ruled by Islamist clerics. After years of economic stagnation, rising oil prices have recently granted Tehran a reprieve. If the current discussions with the EU-3 (France, Germany, and the United Kingdom) fail to produce a satisfactory outcome, however, Iran will likely continue along the path toward development of a nuclear weapons capability. Mitchell Reiss's contribution on "Patterns of Future Nuclear

Proliferation in Asia" notes, however, that "Tehran's nuclear program is not nearly as advanced as Pyongyang's," which "may make it relatively easier to dismantle facilities—such as uranium enrichment and plutonium separation facilities—that present the greatest proliferation risks. In short, in Iran's case there is time for diplomacy to work."

Finally, to the north of Iran lies the cluster of post-Soviet Central Asian states that have historically been—and are again today—objects of a Great Game. In her survey of the region, Kimberly Marten observes that these states remain locked in the crisis of transition that defined their existence since their separation from the Soviet Union: the effort to consolidate democratic institutions and market economies continues amidst authoritarian efforts to maintain power, an ongoing (and justified) war on terrorism and religious extremism (which various regional political leaders unfortunately exploit to discredit their legitimate opposition), and the presence of rampant corruption and suffocating state dominance of the national economy. Against this backdrop, the Central Asian states—much like their counterparts in Southeast Asia—view the rise of China as merely one more challenge to overcome alongside such others as defeating Islamist opposition groups, the acquisition of "defense-related external support to be used as a domestic political resource; improving defense against external threats, including border disputes among states in the region; and the use of defense support as a means of competition between the external great powers."

These diverse realities condition military modernization in Asia in complex ways. They suggest beyond a doubt that military instruments are in no danger of becoming irrelevant in Asia and, given the significant security competition and interstate disputes that define the continental landscape, will continue to remain crucial. Many interstate disputes in Asia stem from historical legacies, including the status of Taiwan, China's boundary disagreements with India, competing claims in the South China Sea, the rivalry between India and Pakistan, Japan's territorial disputes with Russia, and the challenges of Korean unification. In this context, issues revolving around Taiwan, Korea, and the Indian subcontinent remain the most important contingencies likely to further intensify military modernization well into the foreseeable future. Interstate disputes, including those between local entities and the United States, also drive the perennial interest in weapons of mass destruction (WMD). The cases of North Korea and Iran (both emerging nuclear powers) and China (an established nuclear power) are clear examples. As Gaurav Kampani succinctly stated in last year's Strategic Asia volume:

> Three out of the world's four remaining states suspected of possessing chemical weapons are in Asia, and all of the states with biological weapons programs are Asian as well. Similarly, five of the current eight nuclear weapon powers

> are located on the continent, which is also home to the two other countries widely suspected of pursuing nuclear weapons programs—North Korea and Iran. Within Asia, new demand for WMD is concentrated in three subregions: the Korean Peninsula, South Asia, and the Middle East. North Korea's ruined economy has left the Kim Jong Il regime with few assets other than WMD and ballistic missiles to trade with the outside world. In South Asia, recurrent Indo-Pakistani crises over Jammu and Kashmir have led most observers to conclude that the region is perhaps the likeliest site for a future nuclear exchange. The Middle East has a history of autocratic governance, political violence, and WMD use in both intrastate and interstate conflict. The region's problems with Islamism, sectarian religious conflicts, high population growth, economic stagnation, and popular disaffection with ruling regimes conjure up nightmare scenarios of political instability, revolution, civil war, failed states, and WMD terrorism. The intersection of mass destruction capabilities and the rise of religious extremism, political disaffection, economic disarray, and deep interstate and intrastate conflicts make Asia the most disaster-prone region in the world.[13]

While Kampani's judgments are sobering, Mitchell Reiss's essay emphasizes that "the United States will likely remain the key actor in preventing [further] nuclear proliferation in the region but this will require significant time and resources." This responsibility would require Washington to pay attention to the reinvigoration of international institutions and regimes that manage proliferation—such as the International Atomic Energy Agency (IAEA), Nuclear Non-Proliferation Treaty (NPT), and the U.S. Cooperative Threat Reduction (Nunn-Lugar) program. It is equally important to stress, however, that what will determine the success or failure of all international nonproliferation efforts is not merely upholding certain universal rules but preserving the potency of U.S. power, especially its military instruments. Accordingly, Reiss persuasively concludes that, because the temptations for countries to pursue WMD ambitions (especially nuclear programs) will endure for a variety of reasons, the United States ought to adopt a broader, more strategic approach that is more in tune with the interests of Washington's friends and allies in Asia while continuing to maintain the requisite deterrence capabilities necessary to assure the success of this strategy. The most recent innovations in both U.S. policy (such as the Bush administration's recent agreement on civil nuclear cooperation with India) and in U.S. nuclear strategy (as exemplified by the Nuclear Posture Review) ought to be viewed in this light.[14]

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[13] Gaurav Kampani, "WMD Diffusion in Asia: Heading Towards Disaster?" in *Strategic Asia 2004–05: Confronting Terrorism in the Pursuit of Power*, ed. Ashley J. Tellis and Michael Wills (Seattle: The National Bureau of Asian Research, 2004), 381–82.

[14] For details, see The White House, "Joint Statement Between President George W. Bush and Prime Minister Manmohan Singh," July 18, 2005, http://www.whitehouse.gov/news/releases/2005/07/20050718-6.html; and Department of Defense, "Special Briefing on the Nuclear Posture Review," January 9, 2002, http://www.defenselink.mil/transcripts/2002/t01092002_t0109npr.html.

The complexity of the security environment in Asia explains the emphasis on, and variation in, military modernization in the region. These structural drivers behind military modernization in Asia are reinforced, moreover, by internal drivers, which include bureaucratic politics, the presence of product champions within various domestic political systems, interest groups with a stake in continued military modernization, and the co-existence of different ideologies, many of which advocate and justify the need for strong national military capabilities. Despite the presence of all these variables, however, a remarkable consensus obtains throughout the continent that political stability and the absence of war are essential for the successful conclusion of Asia's current economic transition. Whether by allowing for the completion of ongoing domestic reforms, raising trade intensity as a function of GNP, or increasing participation in regional economic bodies so as to raise growth levels and secure larger shares of the global product, national leaders and elites in all of the major Asian states (China, Japan, South Korea, India, Russia, and Australia) remain preoccupied with enhancing economic performance. In order to reach such ambitious goals, a long peace is essential. Consequently, all the Asian countries agree that—barring any grave provocation or threat—recourse to military action is undesirable. Thus most, if not all, states seek to avoid disturbing the territorial status quo. Even where revisionist activities are underway—mostly notably in Taiwan with respect to China and Pakistan vis-à-vis India—they take the form of political activism and terrorism rather than concerted challenges involving overt military action.

Despite the strong conviction of various national leaders that peace is indispensable for the successful culmination of their economic renewal efforts, Asian countries continue with defense inventory expansion, upgrade, and diversification. The fact that military modernization persists in the major regional states alongside a robust commitment to economic development suggests that the most consequential players in Asia have reached at least three preliminary conclusions (insofar as such modernization is driven at least as much by structural as by bureaucratic interests). First, they do not perceive military modernization to be in any way subversive of larger economic aims. Second, there is sufficient strategic uncertainty in the future security environment that Asian leaders feel the need—despite a fervent commitment to economic renewal—to acquire the relevant military capabilities. Third, national leaders are not convinced that the current surge in economic activity and the accompanying growth in economic interdependence witnessed all around Asia provide sufficient guarantees for the spread of peace and prosperity in the foreseeable future—or at least a peace secure enough so as to obviate the need for military modernization in the interim.

Asian Military Modernization in this Volume

This volume, titled *Strategic Asia 2005–06: Military Modernization in an Era of Uncertainty*, reexamines a theme—namely military capabilities of various Asian states as seen in the context of their grand strategies—that was first explored five years ago in the inaugural work, *Strategic Asia 2001–02: Power and Purpose*. The continuing ferment in Asia provides ample justification for revisiting the nature and patterns of military modernization in the continent, and particularly in the specific geographic areas of interest to the Strategic Asia Program. For the purposes of this volume, the definition of military modernization is deliberately broad and inclusive. As there is no single universally understood or accepted concept of military modernization, this volume focuses on the improvement of military capabilities. Military modernization is thus defined as the relevant upgrade or improvement of existing military capabilities through the acquisition of new imported or indigenously developed weapons systems and supporting assets, the incorporation of new doctrines, the creation of new organizational structures, and the institutionalization of new manpower management and combat training regimes. The chapters in this volume all suggest that varied and diverse activities in the areas listed above are underway in each of the countries or regions covered by the Strategic Asia Program. A focused and systematic analysis of these activities is worthwhile for at least three specific reasons.

First, Asian economic growth has picked up considerably following the financial hiccups of the late 1990s, and the region has now returned to its role as the engine of global economic growth. Not surprisingly, Asian defense budgets are therefore rising once again, and the region is probably the largest arms market in the world—the Asia-Pacific region alone acquired more than $150 billion worth of arms between 1990 and 2002. Some of the world's most prolific arms buyers are located in this region, including Taiwan, Japan, Australia, China, South Korea, and India. Richard Bitzinger has called attention to the steadily rising defense budgets in the region:

> Military expenditures in the Asia-Pacific market grew by nearly 27 percent in real terms over the past decade, and an extra $126 billion was added to regional defense budgets between 1992 and 2002. India's defense budget has doubled since the early 1990s, for example, while Chinese military expenditures increased by more than 140 percent in just the past six years (1997–2003).[15]

[15] For a superb overview of this issue, see Richard A. Bitzinger, "The Asia-Pacific Arms Market: Emerging Capabilities, Emerging Concerns," *Asia-Pacific Security Studies* 3, no. 2 (March 2004). This and the following paragraph draw extensively from Bitzinger's paper.

A multitude of evidence suggests that all the major countries in the Asia-Pacific region (with the lone exception of Thailand) increased their overall defense spending during the decade from 1992–2002. Even taking into account the 1997 Asian financial crisis, the remaining states were at least able keep their military budgets above their 1992 levels (See **Figure 1**). The purchases that the various Asian states are making, the integration of these new capabilities, and the strategic and operational purposes behind these new acquisitions are therefore worthy of sustained examination.

Most informed observers conclude that rising regional military expenditures—and the concomitant trend in rising arms imports—are unlikely to abate any time soon. China, Japan, South Korea, Taiwan, India, and Australia have all unveiled multibillion-dollar military modernization programs that will be implemented in the coming decade. Chinese defense spending will likely continue to grow at double-digit rates for some time to come. South Korea intends to invest more than $17 billion in modernizing its armed forces from 2003 to 2007. Taiwan will spend more than $20 billion over the next decade on new military equipment, including eight diesel-electric submarines, antisubmarine warfare (ASW) aircraft, and an anti-ballistic missile system. For three consecutive years now, India has announced double-digit increases in defense spending. After a hiatus of many years, Pakistan has increased defense expenditures by more than 15 percent in its national budget for 2005–06. Japan, Malaysia, and Singapore have also recently committed to major increases in defense expenditures over the next few years. Uncertainties in the future strategic environment appear to be the common ingredient underlying this phenomenon. As one industry analyst has described the situation:

> One aspect of Asian defense is [that] it is very difficult to know what the future threat will look like. Procurement has to be based on a variety of scenarios and allow for a variety of potential opponents equipped with a variety of potential systems. It is difficult to determine where the next 10 years will go. The one thing that is certain is that air dominance remains absolutely the most important thing.[16]

Second, the current geopolitical environment in Asia is changing in ways that are likely to have global consequences over the long term. China's ascent to great power status has so far proceeded more or less successfully. China has managed to sustain relatively high rates of economic growth for close to thirty years now, and continues to pursue accelerated military modernization across both the nuclear and conventional realms. This modern-

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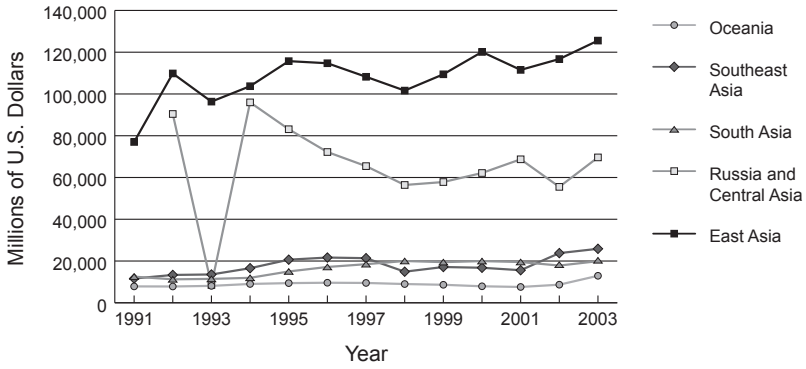
[16] Richard Aboulafia, senior analyst, Teal Group, cited in Amy Bickers, "Asia: Military Spending," *GlobalSecurity.org*, March 6, 2000, http://www.globalsecurity.org/wmd/library/news/china/2000/-000306-prc1.htm.

Figure 1. Asian Defense Expenditures by Region



Source: International Institute for Strategic Studies, *The Military Balance*, (London: Oxford University Press, various years).

ization, though motivated immediately by Beijing's desire to deter Taiwan independence, could, in the words of the Pentagon's most recent report on China's military modernization, "provide China with a force capable of prosecuting a range of military operations in Asia—well beyond Taiwan—potentially posing a credible threat to modern militaries operating in the region."[17] According to the U.S. Department of Defense, the character, extent, and pace of China's military modernization are already "such as to put regional military balances at risk" and have significant implications for the Asian continent as a whole.[18] Furthermore, Japan, India, and Russia (among others) have already begun to respond in both overt and subtle ways to the growth of Chinese military power.

Partly in anticipation of the rise of China, the United States is implementing plans to revamp its global basing strategy. Such a development will carry major implications for Washington's capacity to project power in Asia and thereby sustain current (and prospective) U.S. alliances in the region. The structural principles motivating this new basing strategy transcend China, however, and are rooted in the larger obligations associated with the maintenance of U.S. global primacy. In order to accomplish these aims, Washington intends to maintain a ring of permanent military hubs on the U.S. mainland and overseas territories (such as Guam) as well as in closely allied countries (such as the United Kingdom and Japan). Many of the major

[17] Department of Defense, "The Military Power of the People's Republic of China, 2005," annual report to Congress, 13.

[18] Ibid.

bases on which the United States had relied in the past, however—such as those in Saudi Arabia, Turkey, Germany, and South Korea—are slated to be replaced by dozens of spartan "forward operating bases" and "forward operating locations." These so-called "lily pads," which will be located throughout southern Europe, the Middle East, and Asia, will be maintained by small, permanent support units. Taken together, these "lilies across a pond" will be the base of operations for highly sophisticated and flexible U.S. and coalition units that will deploy with maximum speed into trouble spots lying along a vast "arc of instability" running from the Andean region in the Southern Hemisphere through North Africa to the Middle East and into and around Southeast Asia.[19] In Asia, the challenges of dealing with a wide gamut of contingencies—ranging from the defeat of Islamist terrorism to the rise of China—have compelled Washington to supplement traditional U.S. bases in Northeast Asia with new access arrangements and facilities in Central and Southeast Asia (extending as far east as Guam). These new facilities will likely become a new hub for the deployment of U.S. long-range bombers, an Air Force fighter wing, refueling aircraft, long-range unmanned air vehicles (UAV), an aircraft carrier, and additional nuclear attack submarines. Examining how these developments condition the grand strategic choices of various Asian states—including the prospects for new alliances and other forms of security cooperation, options for developing national deterrents involving WMD, as well as all the more usual alternatives involving conventional military modernization—remain an object of great interest to this volume.

Third, the revolution in military affairs (RMA), first dramatized during the 1991 Gulf War and further reflected in the U.S. military's performance in both Afghanistan since 2001 and Iraq since 2003, has changed the conception of modern warfare. If the promise of the RMA is to be realized, however, new generations of weaponry and concomitant doctrinal, organizational, and training innovations must follow the growth in networked information technologies. While the United States remains the leading proponent of the incorporation of the RMA within its military force structure, defense transformation is not, and will never be, an enduring monopoly of the United States.[20] The major changes currently transforming both technology and the character of conflict almost certainly ensure that various competitors—such as the large, well-endowed, and resource-advantaged states in Asia—will likely absorb RMA technologies into their military forces. This

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[19] Vernon Loeb, "New Bases Reflect Shift in Military: Smaller Facilities Sought for Quick Strikes," *Washington Post*, June 9, 2003.

[20] Andrew F. Krepinevich, "Defense Transformation," testimony before the United States Senate Committee on Armed Services, April 9, 2002, 3.

may occur either in a straightforward emulative way or, in some instances, in an asymmetric fashion intended to obstruct the United States from successfully prosecuting its own operational objectives.

The Bush administration's emphasis on defense transformation is undoubtedly linked to the preservation of U.S. primacy. The strategic objective in this instance is to create capabilities that are "strong enough to dissuade potential adversaries from pursuing a military build-up in hopes of surpassing, or equaling, the power of the United States."[21] At a more prosaic level, however, defense transformation is aimed at resolving critical operational problems that confront the exercise of U.S. power—in particular, the challenge of protecting the homeland while simultaneously preserving the capacity to engage in unhindered power projection operations worldwide. The United States must meet these twin objectives in the face of global terrorism, a significant number of states armed with WMD and long-range delivery systems, and several regional competitors in possession of both capable military forces and ingenious ways of employing military instruments. In order to overcome these challenges, the United States is exploiting the emerging RMA to address what the 2001 Quadrennial Defense Review termed "critical operational goals."[22] These goals include the protection of critical bases of operation both at home and abroad through the use of both conventional forces and the deployment of extended air and missile defenses; combating chemical, biological, radiological, nuclear, and high-explosive weapons and their delivery systems; prevailing in offensive and defensive information warfare; projecting and sustaining U.S. forces in an anti-access/area-denial environment (A2/AD) and defeating A2/AD threats; denying enemies sanctuary from U.S. attack; preserving U.S. capabilities to operate effectively in a competitive outer space environment; and leveraging information technologies and innovative operational concepts in order to develop a truly interoperable, joint command, control, communications, computers and intelligence, surveillance, and reconnaissance (C4ISR) architecture.[23]

As Michael O'Hanlon notes in his chapter on the United States, the necessity of mastering these operational challenges underscores both the enduring and the novel challenges confronting U.S. defense policy. The relatively unchanging dimensions of U.S. defense policy writ large consist of the need to protect allies, prepare to fight and win major wars, deter adversaries, and reassure neutrals. If the United States is to successfully implement its grand strategy, Washington must successfully attain these goals within the

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[21] The White House, "The National Security Strategy of the United States of America," September 2002, 30.

[22] Department of Defense, "Quadrennial Defense Review Report," September 30, 2001, 30.

[23] Department of Defense, "Quadrennial Defense Review Report."

context of a rapidly changing technological environment, the prospect of new geopolitical threats in Asia, and the diffusion of leading-edge weapon systems used either symmetrically or asymmetrically to strike at the heart of U.S. vulnerabilities.

Against this backdrop, the U.S. effort to protect the military foundations of its primacy in tandem with the autonomous spread of technology itself have combined to create incentives for various Asian states to acquire RMA technologies. How much any particular Asian state is willing to invest in incorporating such resources, however, depends greatly on its specific threat environment and resource base. Because defense transformation is an expensive proposition, only countries with high-performing economies and in the midst of serious security dilemmas can afford to embark on such investments. Even if these two variables are present, the likelihood of new defense transformation being disruptive (as all military revolutions inevitably are) implies that even those Asian candidates best positioned to exploit the RMA are likely to tread warily. In every instance, the challenges of managing the organizational disruption caused by the introduction of new technology, the burdens of marrying new systems with the legacy components already in place, and the difficulties of retraining operators familiar only with older systems all combine to make even the most appropriate candidate recipients particularly cautious regarding investments in defense transformation.[24] This volume will examine whether various Asian states are attempting to incorporate transformational capabilities in their military forces, and if so, how concertedly and to what operational-tactical ends.

No other issue illustrates the tremendous diversity of the Asian continent as much as the question of how various Asian states are pursuing defense transformation. Such transformation is understood here as encompassing the pervasive presence of seamlessly networked C4ISR, precision weapons, and suitable delivery platforms, all of which allow the exploitation of shared situational awareness enabling the prosecution of more accurate engagements at standoff ranges with speed and agility that utilize jointness and interoperability.[25] When read synoptically, the chapters in this volume offer evidence that suggests the following broad generalizations. Russia probably remains the only Asian state capable of developing the technical accoutrements necessary to sustain defense transformation on a major scale and in all warfighting arms through internal means alone. Nevertheless, failures in Russia's national economy, disrepair in the Russian military, and the

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[24] Richard A. Bitzinger, "Challenges to Transforming Asian-Pacific Militaries," *Asia-Pacific Security Studies* 3, no. 8 (October 2004): 1–4.

[25] The definition is based on Richard A. Bitzinger, "Defense Transformation and the Asia Pacific: Implications for Regional Militaries," *Asia-Pacific Security Studies* 3, no. 7 (October 2004): 2.

lack of urgent demand from the armed forces for RMA technologies (due mostly to resource management and leadership deficits) effectively ensure that Russia—from whence the concept of the military-technical revolution initially originated—will be unable to field a transformed military force any time in the near future.[26]

The major Asian powers—China, Japan, and India—lie in the next tier. Of the three, Japan possesses the most technologically sophisticated armed forces and enjoys the best access to transformation instruments produced by the United States. The Japanese force structure is still relatively unbalanced, however, and, while RMA elements are likely to increasingly appear in Japanese naval and air warfare capabilities, their effectiveness will not be fully realized so long as these war-fighting arms are not intended to service the complete panoply of offensive missions. China and India undoubtedly remain deeply interested in acquiring transformative military capabilities, yet confront problems different from those facing Japan. Although both China and India possess large and competent militaries, they continue to face significant resource constraints. These budgetary limitations ensure that any transformative technologies that these two states acquire—most probably through import—will likely be niche capabilities slated for integration into pre-existing military organizations and oriented toward accomplishing traditional operational tasks more effectively. Of the two states, however, India is the farthest along in implementing organizational restructuring to exploit the advent of new military technologies. As a result of the lessons learned from recent subcontinental crises, the Indian Army—which is the country's dominant combat arm—is currently in the midst of implementing its most significant organizational restructuring in modern history. Particularly where China is concerned, many transformative capabilities that are likely to be acquired by Beijing in the years ahead will probably be employed to service various kinds of asymmetric strategies that collectively have been labeled "the assassin's mace,"[27] because among the three major Asian powers China alone is faced with task of parrying various regional competitors while also directly competing with powers greater than itself such as the United States.

Australia, Singapore, South Korea, and Taiwan appear to be at varying stages of incorporating defense transformation into their military modernization programs. Australia and Singapore have seemingly made the most progress in this regard. Despite great disparity in size, they are similar in

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[26] For a superb review, see Stephen Blank, "Preconditions for a Russian RMA: Can Russia Make the Transition?" *National Security Studies Quarterly* 6, no. 2 (Spring 2000): 1–27.

[27] U.S.-China Security Review Commission, "The National Security Implications of the Economic Relationship Between the United States and China," report to Congress, July 2002, 8.

one key respect: as both states have relatively small armed forces, their task of revolutionary modernization is far more tractable in comparison to the challenges facing the larger Asian states. Both Australia and Singapore have invested heavily in intelligence, surveillance, and reconnaissance capabilities, with Australia having benefited additionally from its connectivity with the U.S. global intelligence collection system. Both have also sought to increase the effectiveness of their relatively small forces by acquiring various precision weapons delivered by multiple means. Though South Korea and Taiwan have ambitious plans for incorporating similar capabilities, this task will likely require at least another decade to be completed.[28]

Further down the chain of military modernization are a large number of countries—Indonesia, Malaysia, Thailand, the Philippines, Vietnam, Pakistan, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan, and Afghanistan—that are confronted by various sorts of security demands yet lack the resources to contemplate defense transformation in any meaningful way. Of the countries in this category, Pakistan has come closest to introducing modern—though hardly transformative—military technologies in its armed forces. Islamabad faces a strategic environment that it believes justifies the acquisition of the best weapons money can buy. Pakistan's armed forces are professional and competent, and its national economic performance has improved in recent years. Pakistan still faces serious resource constraints, however, and must contend with unresolved issues of limited access to the best sources of military technology. Consequently, implementation of leading-edge military technologies in Pakistan's armed forces is likely to be marginal in the foreseeable future. North Korea, a country in parlous economic circumstances, is certain to continue its current strategy of trading the newest information-based RMA for the fruits of an older RMA, namely nuclear weapons. While conventional military modernization will probably endure in focused areas, Pyongyang is—so long as North Korea's relationship with the United States does not improve—likely to seek regime security through nuclear arms.

By contrast, many of the Southeast Asian nations will make modest forays into the RMA through the acquisition of several discrete components, including precision-guided munitions, small numbers of advanced combat aircraft, and improved command, control, and communications systems. One scholar has described this effort as "modernization-plus," a term that implies a process of general, evolutionary, and incremental improvement rather than true disruptive innovation.[29] In the Central Asian states and in

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[28] Bitzinger, "Defense Transformation and the Asia Pacific," 1–4.

[29] Bitzinger, "Transforming Asian-Pacific Militaries," 1–4.

Afghanistan, however, defense acquisition—to say nothing of defense transformation—is today virtually stagnant. All of these states remain focused on either rebuilding the personnel cadre of their armed forces or struggling to maintain military professionalism. These two modest goals are attempted mostly through increased linkages with the military forces of the major powers that are either present in or abutting their national borders.

The diverse nature of military modernization in Asia reflects the complexity of the region as well as the multitude of security dilemmas visible in its sub-regions. In light of these two undercurrents, each of the country and regional chapters in this book broadly follows the following methodology.

Each chapter first establishes the strategic context by examining how certain strategic realities—such as the ongoing rise of China; the continuing war on terrorism; anticipated changes in U.S. regional presence, force posture, and political-military capabilities; RMA and defense transformation issues; local security dilemmas; and the threat perceptions arising from the nuclear capabilities of neighboring states—are affecting military modernization programs. The grand strategic dimension examined in each chapter seeks to provide the geopolitical framework for understanding a particular country's strategic choices and how the leadership views the employment of various political strategies—such as alliances, internal balancing, and WMD—along with the military instruments to support those strategies as solutions to that state's security problems.

Each chapter then focuses on the military modernization occurring within the country or region itself. The discussions here center on analyzing, where appropriate, defense budget statistics; the size, configuration, and intended capabilities of the armed forces; and the character of civil-military relations. The nature of the military modernization that is occurring within the country or region is then examined, and the author provides an overview of the technologies (especially transformational and asymmetric capabilities) currently being acquired, and assesses whether changes in military strategy, organizations, and doctrine are occurring in tandem. To the extent possible, the chapters also describe any debates that may be occurring within the country/region, with the ultimate intent of assessing what changes in military capacity are sought—or are likely to obtain—as a result of the modernization activities described.

Finally, each chapter assesses the political and strategic implications of the ongoing military modernization in each sub-region as well as on the region as a whole. Particular attention is paid to assessing whether the military modernization in question has the potential to change the local balance of power; whether it changes the country's capacity to achieve certain political goals that previously lay beyond its reach; whether it alters the country's mil-

itary capacity with respect to the United States either locally, regionally, or globally; or if the changes in military capacity hold the potential of assisting the United States with respect to achieving certain local, regional, or global goals. Finally, each chapter evaluates the general implications for stability in the region or the continent writ large.

The special studies in this volume differ from this general template in that each uses a methodology appropriate to the subject. Viewed in its totality, however, the volume seeks to become a summary reference that places the ongoing military modernization in Asia in a larger strategic context.

Evaluating Asian Military Modernization

The presently robust defense expenditure programs in many important regional states in Asia will, over time, result in significant qualitative improvements in national capabilities. The technological components of many military inventories in the region will be upgraded with sophisticated systems that were beyond the reach of many countries as recently as a decade ago. Such systems include:

- new mobile ballistic and cruise missiles (both anti-ship and land-attack)
- imaging satellites
- advanced satellite launch vehicles
- access to GPS/GLONASS, differential GPS, and other terminal guidance systems as well as access to new sophisticated civilian imagery systems like SPOT and IKONOS
- advanced sensor technologies capable of long-range, all-weather, battlefield target detection and acquisition, including UAVs
- advanced battlefield fire-management systems and advanced fire systems such as artillery and rockets capable of delivering a variety of highly lethal, long-range, guided munitions
- long-range transportation in the form of air and sealift capabilities
- air-to-air refueling platforms
- advanced combat aircraft equipped with active air-to-air missiles, advanced air-to-ground munitions, and secure tactical communications

- special mission platforms that include electronic counter measures (ECM), suppression of enemy air defenses (SEAD), reconnaissance, and airborne warning and control systems (AWACS)
- aircraft carriers; nuclear and advanced diesel-electric submarines equipped with air independent propulsion
- modern mine warfare systems
- more generally, the progressive (if piecemeal) introduction of C4ISR, automated planning, and battle management systems that will increase the effectiveness and capabilities of any discrete component beyond its individual capacity

Evaluating the impact and likely consequences of this military modernization is a complex and difficult task. In many cases, it is difficult to discern the precise capabilities of the technologies now entering service in many Asian states. Though various specialized means of intelligence collection are likely over time to uncover the technical parameters of these systems, the contribution such capabilities will make to the military effectiveness of these countries promises to remain a subject of perpetual debate. Finally, the crucial policy question of whether the United States ought to be concerned with the changing character of military technology in particular—and of military modernization more generally—on the Asian continent will remain an issue that not only animates ongoing planning exercises such as the forthcoming Quadrennial Defense Review but also U.S. grand strategy more broadly. No single volume can pretend to answer these complex questions definitively. This overview will conclude, then, not with a comprehensive prescription for how Washington should approach emerging patterns of military modernization in Asia, but rather with a conceptual framework useful for the debate of this issue.

Ongoing military modernization in Asia poses challenges for regional stability that cannot be understood without reference to specific U.S. geopolitical objectives in the continent. Jonathan Pollack best summarized these objectives in an early post-Cold War essay, "The United States in East Asia," in which he described the goals of U.S. strategy in Asia as "holding the ring."[30] This phrase is best understood as a metaphor describing the condition of strategic stability that results when no regional state has either the military capabilities or the political intentions to seriously harm one another, yet an external power that does possess such capabilities, such as the

[30] Jonathan D. Pollack, "The United States in East Asia," in *Asia's International Role in the Post-Cold War Era*, International Institute for Strategic Studies, Adelphi Paper, no. 275, 1993, 69–82.

United States, lacks incentives to abuse them because it superintends the continent and safeguards the peace in order to protect a larger political and economic good. This holding-the-ring strategy thus capitalizes on America's geographical distance—but not its absence—from Asia. While assuming the role of a non-threatening, engaged external protector, the United States simultaneously seeks to prevent any regional competitors from pursuing blatantly revisionist goals or acquiring military capabilities that would make the U.S. task to protect the stability of the region more difficult.

The fact that the United States formally offers security guarantees to many Asian states, engages in strategic partnerships with non-allied but friendly regional states, and maintains forward-deployed and forward-operating military forces in Asia are all critical to the strategy of holding the ring for both reasons of "insurance" and "investment."[31] The insurance aspect of the strategy aims at preventing any single power or consortium of powers achieving dominance over the Asian continent.[32] Toward this end, the superior war-fighting capability of the U.S. military serves as a reminder to would-be challengers that attempts at hegemonic dominance would be extremely costly and ultimately unfruitful. In case a prospective challenger should fail to accurately interpret this message, U.S. forward-deployed and forward-operating forces also serve a second function by ensuring the safety of local allies and bolstering the resilience of regional states.

The investment aspect of the strategy aims to bear the costs of maintaining region-wide order so that local states do not fritter away resources in competitive attempts at maintaining security.[33] In the absence of such tangible U.S. protection, every regional state would have to rely exclusively on its own capabilities in order to ensure its safety. Because each state would be forced to engage in security competition (where the benefits accruing from an international division of labor do not exist) rather than economic competition (where specialization according to comparative advantage serves to continually expand the international production-possibility frontier), this in turn would inevitably lead to the destruction or appreciable weakening of the Asian "economic miracle." Allocating resources to security maintenance would not only retard the processes of wealth production that have been underway in Asia since the end of World War II, but would also result in a diminution of the growth and prosperity of the United States. U.S. forward-

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[31] Ibid., 79 ff.

[32] Jonathan D. Pollack and James A. Winnefeld, *U.S. Strategic Alternatives in a Changing Pacific* (Santa Monica: RAND, 1990), 6–9.

[33] This argument relies on some minimal version of the "hegemonic stability" theory associated with political realism. For an elaboration, see Robert Gilpin, *The Political Economy of International Relations* (Princeton: Princeton University Press, 1987), 85–92.

deployed and forward-operating forces serve, therefore, to obviate destructive local security competition and create the preconditions for continued prosperity in the region. This, by extension, ensures the continued economic well-being of the United States.

The question of how military modernization affects political stability in Asia should be considered against the backdrop of the above strategic objectives. The relationship between these two variables can be stated thus: continental stability would be enhanced if no Asian state possessed the kind of military technology that could seriously (1) threaten the territorial integrity of another local state, (2) threaten the ability of the United States to defend a local state, or (3) impede the ability of the United States to either operate within the region or to reinforce its already existing capabilities along the Asian rimland. Obviously, any military technology acquired by any regional state will have an impact on these three criteria to some degree or another. It would be presumptuous, however, to imagine that Washington could prevent various Asian states from acquiring military technology on the grounds that all technologies affect the above calculus. In an environment where multiple weapons producers exist, where indigenous production capabilities are not inconsequential, and where the search for national autonomy is strong, a strategy of "broad spectrum" technology denial would be both impossible to sustain and would ultimately be self-defeating.[34]

Consequently, there is need for a more sensitive approach, relative to the three criteria defined above, to the issue of military modernization and stability. This approach ought to be grounded in a triangular judgment based on three separate, though related, clusters of questions. The first set of questions centers on the issue of political aims and is based on the presumption that revisionist states, irrespective of their military capacity, pose especially problematic challenges to stability. Accordingly, the following queries should guide any assessment of military modernization in Asia. Which Asian countries, if any, have oriented their national military modernization toward the pursuit of revisionist goals with regard to a neighboring state? Does this reorientation involve attempts to impede the ability of the United States to either defend the threatened state or operate within the relevant geographic areas necessary to defend that state? Finally, what are the political goals, ambitions, and nature of the regime in the revisionist state, and what are the relevant circumstances that account for its dissatisfaction with the prevailing status quo? Several countries, *prima facie*, would meet the criterion laid out in the opening query: China vis-à-vis Taiwan, North Korea vis-à-vis South Korea, Iran vis-à-vis the Gulf States and perhaps Saudi Arabia, and Pakistan

[34] See the discussion in Michael Moodie, "Beyond Proliferation: The Challenge of Technology Diffusion," *Washington Quarterly* 18, no. 2, (Spring 1995): 183–202.

vis-à-vis India. When the two other derivative issues are considered, however, only China, North Korea, and Iran possibly both aim to impede the United States from assisting various protectees and also maintain ongoing military modernization programs oriented toward constraining U.S. freedom of action in this regard.

The second set of questions that must be answered in regard to judging the effects of Asian military modernization on regional stability refers to the nature of the technology itself—specifically how the quality, number, and technical characteristics of various coercive instruments possessed by different states directly affect regional threat perceptions. In the late 1980s, the U.S. Department of Defense made a concerted effort to identify the types of military technology acquisitions that should be considered problematic. In 1990, Henry D. Sokolski, then Deputy Assistant Secretary for Nonproliferation Policy, disclosed a broad U.S. policy framework initially devised by Henry S. Rowen, who was then Assistant Secretary of Defense for International Security Affairs.[35] The Rowen framework argued that any particular regional military technology acquisition should be considered destabilizing if (1) it enabled the possessor to inflict high-leverage strategic harm against the United States or its allies, (2) the United States lacked effective defenses against this capability or if prevailing U.S. defenses were too difficult or cumbersome to employ, or (3) the very acquisition of such capabilities changed the perceived balance of power in the region.

These three provisos were intended to provide a more sensitive definition of which military technology acquisitions are likely to prove problematic (i.e., have the potential to impede U.S. strategic objectives). As Sokolski aptly summarized, each of these litmus tests were intended to identify the kinds of technologies that "could enable [other] states to threaten war-winning or victory-denying results against the United States or its friends …"[36] Given the compact nature of these formulations, it is important to elaborate further on these three provisos and examine how they approach the problem of identifying destabilizing military technology acquisitions.

The first proviso argues that military technologies capable of inflicting "high-leverage strategic harm" are of particular concern. High-leverage harm as used here should not be understood merely as a proxy for high-technology weaponry. Rather, the phrase is meant to capture the kind of prohibitively costly or simply unacceptable damage that the acquisition of

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[35] Henry D. Sokolski, "Proliferation and Regional Security in the 1990s," testimony and prepared statement, U.S. Senate, Committee on Governmental Affairs, 101st Congress, 2nd Session, October 9, 1990, 28–41, 65–88.

[36] Henry Sokolski, "Fighting Proliferation with Intelligence," *Orbis* 38, no. 2 (Spring 1994): 249.

any specific technology could inflict on the United States.[37] Shifting the focus from the level of technology *per se* to the type of warfighting outputs that the technology could potentially obtain is critical to this concept. This shift in emphasis implies that a large variety of military instruments—ranging from relatively sophisticated technologies (WMD combined with advanced delivery systems) to more primitive capabilities (mine-warfare systems and cheap, accurate, and plentiful sea-based cruise missiles)—could be equally problematic, depending on their potential to frustrate U.S. military capabilities (or those of U.S. allies) in specific operational contexts.

Appearing deceptively obvious at first, the second proviso is actually somewhat more complicated. This proviso asserts that technology acquisitions lacking an effective and useable U.S. countermeasure are to be treated as intrinsically destabilizing. This is due to the fact that such acquisitions could be used to prosecute certain strategic, operational, or tactical objectives with complete immunity from U.S. counteraction. The proliferation of certain kinds of aviation stealth technologies would be the most obvious example of destabilizing technological acquisitions within this category. Other pertinent examples might include advanced diesel-electric submarines and advanced mine warfare systems. These technologies would be problematic not because the United States does not possess adequate defenses against such threats, but rather because combating such threats in certain operational environments would be a cumbersome, time-consuming process without any guarantee of ultimate success. Furthermore, the prosecution of such operations could very likely result in substantial and perhaps unacceptable losses to U.S. forces.

The third proviso is based upon the Hobbesian insight that "Reputation of power is Power; because it draweth with it the adhaerence of those that need protection."[38] This argument holds that, because certain military technologies embody such palpable awe both in the public imagination and in the calculations of policymaking elites, the political significance of such weapons could easily overwhelm their operational merit.[39] As a result, acquisition of such weapons by a regional state could cause dramatic shifts in the perceived balance of power, which would in turn precipitate local political realignments that would make the attainment of U.S. regional stra-

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[37] This argument is elaborated at some length in Henry Sokolski, "Nonapocalyptic Proliferation: A New Strategic Threat?" *Washington Quarterly* 17, no. 2 (Spring 1994): 115–28.

[38] Thomas Hobbes, *Leviathan*, ed. C. B. Macpherson (Harmondsworth: Penguin Books, 1986), 150.

[39] This characteristic captures what Brad Roberts calls "leveraging technologies," which he describes as "technologies creating military capabilities of strategic consequence, which is to say capabilities that operate fundamentally on the perceptions of choice by the leaders of targeted nations." See Brad Roberts, "From Nonproliferation to Antiproliferation," *International Security* 18, no. 1 (Summer 1993): 148–49.

tegic objectives highly problematic. A sudden acquisition of WMD and associated delivery capabilities is one such example. Similarly, the acquisition of aircraft carriers, advanced nuclear submarines, dedicated amphibious forces, or accurate ballistic or land-attack cruise missiles are also unnerving because they signify potential transformations in maritime or continental power projection capabilities. The resulting sense of vulnerability in the region could lead to temptations on the part of the local states to "bandwagon" with a rising power—to the detriment of larger U.S. and allied interests.

When Asian military modernization is judged upon the merits of technology, it is clear that many of the weapons systems meeting Sokolski's provisos will increasingly make appearances in different quadrants of the Asian landmass. All the major Asian powers—China, Russia, Japan, India, South Korea, Australia, and even the more advanced Southeast Asian states—will possess various military systems that are capable of inflicting "high-leverage strategic harm," are effective against different U.S. defenses, and will enhance their strategic reputation within the region and beyond. Fortunately, many of these states are friends and allies of the United States; thus, their growing technological sophistication is unlikely to raise serious political concerns in Washington. The steadily increasing sophistication of these same militaries suggests, however, that at a purely technological level, the operating environment facing U.S. forces in and around Asia is likely to grow increasingly complex over time. Similarly, as certain geopolitically startling technologies (e.g., nuclear weapons) begin to gradually appear, critical portions of the Asian landmass may even become wholly immune to the successful application of U.S. military power.[40] In light of these trends, ongoing transformations in the U.S. armed services, including basing and deployment patterns abroad, may need to be accelerated in order to protect Washington's ability to implement its current holding-the-ring strategy in Asia.

The third cluster of questions concerning defense modernization and stability is related to military effectiveness. Since technology alone remains only one element of combat capacity, judgments regarding the possible adverse regional impact of a state's military modernization must include not only an assessment of what coercive capabilities it is acquiring, but also a considered appraisal of whether these capabilities have been effectively integrated into the state's military forces. The enhancement of military capabilities and warfighting effectiveness require not only new hardware but also the development of integrative dimensions—manpower, organization, doctrine, tactics, training, education, intelligence, logistics, maintenance, and infrastructure—that enable a combat force to utilize its new technology and

[40] Paul Bracken, *Fire in the East: The Rise of Asian Military Power and the Second Nuclear Age* (New York: HarperCollins, 1999).

other supporting resources effectively. Hence, the third cluster of queries focuses on understanding the nature of a country's warfighting competencies in ground, sea, and air environments.

Figures 2–4 depict what a progressive increase in warfighting capabilities in each dimension would look like.[41] **Figure 2** maps an array of ground combat proficiency along a spectrum ranging from irregular infantry operations all the way up to knowledge-based warfare. Naval force competencies are structured in an analogous manner, with coastal defense and mining representing the most primitive naval warfighting competency at one end, and comprehensive sea control at the other. In the spectrum of air warfare capabilities, airspace sovereignty defense is the most primitive form of air capabilities, and suppression of critical mobile targets (CMT) and information dominance—whereby a force relies on information imbalances to paralyze adversaries and dominate the battlespace—are at the high end.

Military effectiveness can thus be arrayed along a spectrum of increasing complexity, with each realm of operations (ground, naval, and air) containing internal domains separated by different thresholds of technology and integrative capacity. This notion permits the military competencies of a country to be located on a schematic map. This map in turn allows for the depiction of a state's relative capabilities both at a given point in time and in comparison to a select group of peers. In such a context, technology and integrative capacity are essentially economizing abstractions that include many varieties of strategic resources as well as the conversion capability possessed by the state.[42] Prudent appraisals of military effectiveness in Asia would therefore also require answers to the following queries:

- What is the quality of the doctrine, training, and organization governing the operations of the relevant combat arms in the country concerned?
- Does the state maintain the requisite schools, infrastructure, logistics, and maintenance capabilities necessary to support the newly acquired technologies effectively?
- Are state intelligence organizations sufficiently skilled to assess developments occurring abroad, and are they influential enough at home so as to be able to shape the manpower, organization, tactics, and training of its own armed forces?

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[41] These figures are based on research carried out by Jeffery A. Isaacson and his colleagues at RAND in the 1990s. The framework is detailed in Ashley J. Tellis, Janice Bially, Christopher Layne, and Melissa McPherson, *Measuring National Power in the Postindustrial Age* (Santa Monica: RAND, 2000), 133–76.

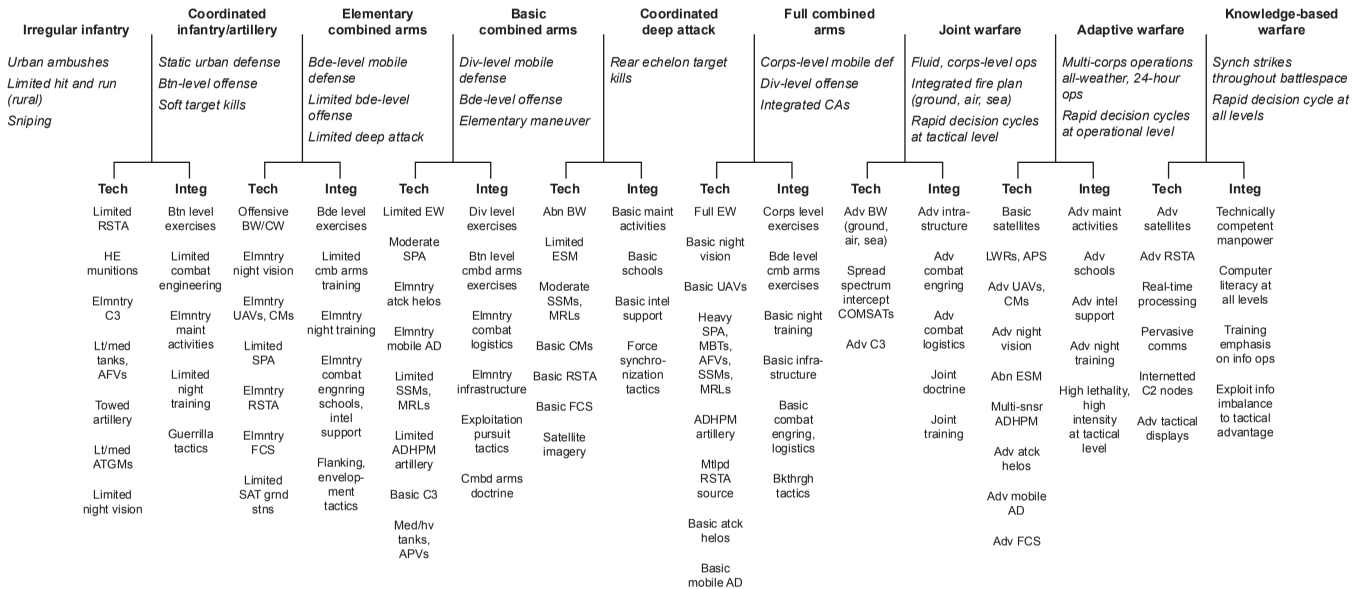
[42] Ibid.

Depending on the answers to these and other queries, it is possible to assess a state's present and potential ability to engage in various kinds of complex military operations. Identifying such capacities, however, does not allow predictions regarding likely victory in a war between two countries because victory is invariably contingent upon a wide variety of factors. Mapping military capabilities, therefore, merely enables a qualitative judgment concerning force competence in a variety of combat operations without in any way implying an ironclad relationship between high competency and certain victory.

The analysis found in this volume and elsewhere permits the following summary of military competencies in some of the key Asian states. Where ground combat is concerned, for example, most observers would agree that, because the old Soviet army possessed both the relevant range of technologies and the integrative capacity identified in **Figure 2**, the USSR was entirely capable of prosecuting full combined arms operations. Though the Russian Army today may possess many of the relevant technologies, its integrative capacity has suffered greatly; Russia will thus be unlikely to emulate its Soviet predecessor. The Chinese People's Liberation Army (PLA), by contrast, is likely capable of basic combined arms operations; Beijing's ultimate military modernization plans are, however, oriented more toward acquiring the capabilities necessary for coordinated deep attack. The North and South Korean armies and the Indian and Pakistani armies—which combined make up the majority of land forces in Asia—are also placed similarly. The ground forces of the Central Asian states today would most likely be capable of little beyond elementary combined arms.

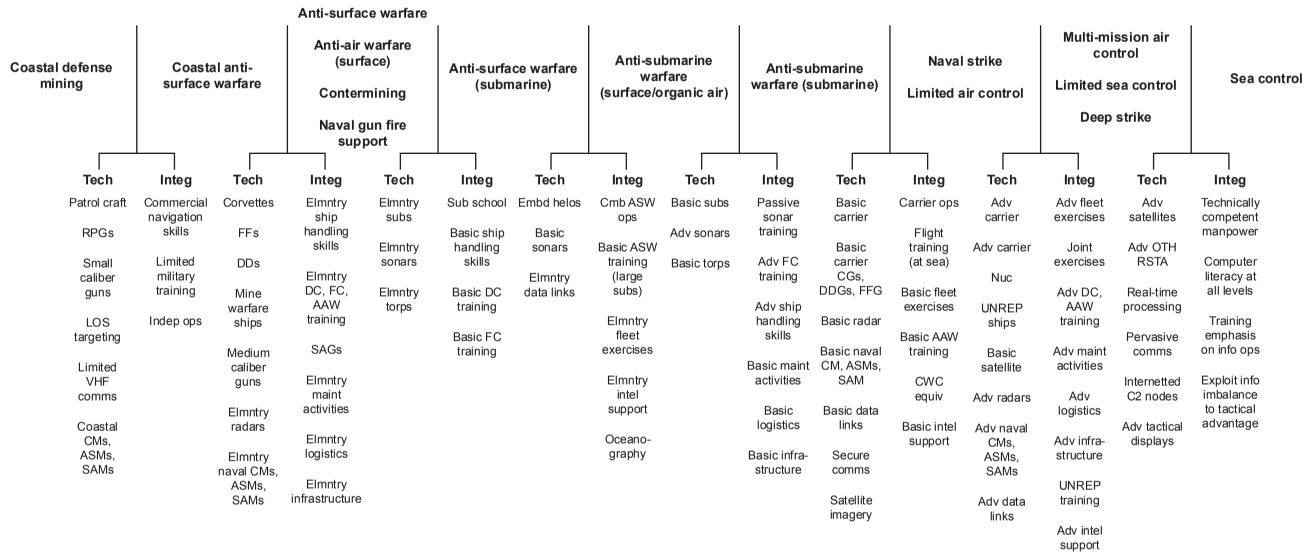
In terms of naval warfare (see **Figure 3**), the Japanese navy specializes in anti-submarine warfare, primarily through surface and organic air assets and, secondarily, through submarines. Its effective surface fleet and land-based strike aircraft, however, enable the navy to competently conduct a range of activities from mine countermeasures warfare to naval strike operations that would produce a modicum of sea control. In the realm of naval strike operations, Australia's navy is comparable to that of Japan. Due to the Indian navy's long experience with aircraft carriers, New Delhi commands both naval strike capabilities as well as limited air control. Its emerging capabilities will likely permit both limited sea control and deep strike capabilities in the near future. The Chinese People's Liberation Army Navy (PLAN) is currently most proficient in anti-surface warfare, but is developing mine and anti-submarine warfare proficiency as well. Likewise, the best navies of the Southeast Asian states (such as Singapore) would be judged to be most proficient in anti-surface warfare and naval strike warfare as conducted either by surface ships or land-based aircraft.

Figure 2. Ground Force Capabilities Spectrum



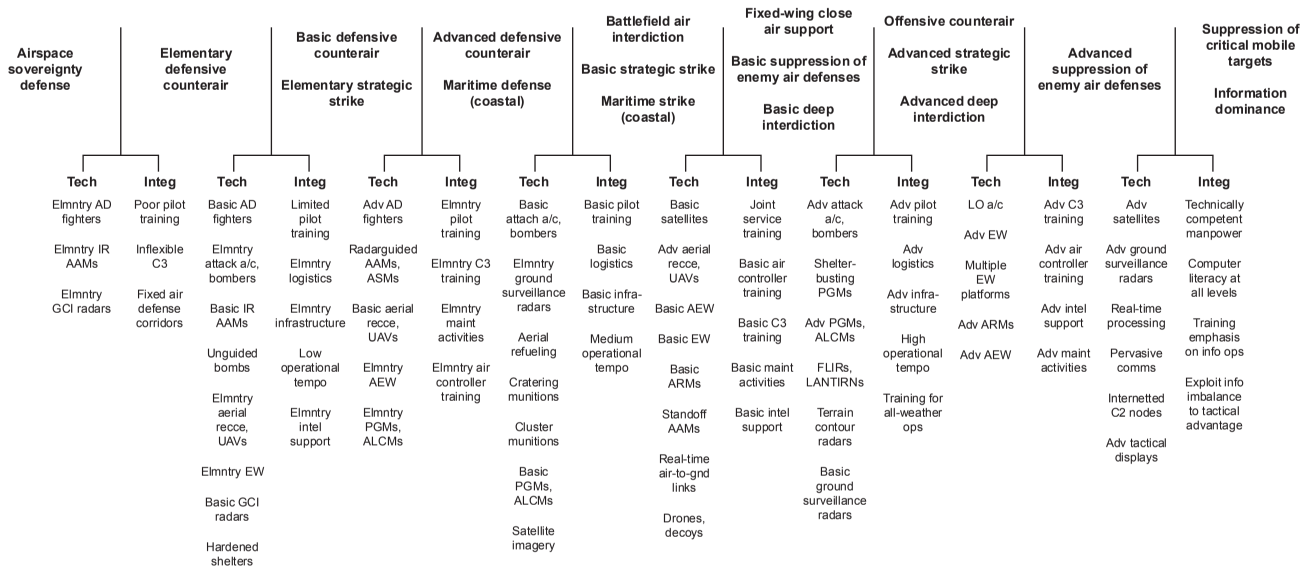
Source: Ashley J. Tellis et al., *Measuring National Power in the Postindustrial Age* (Santa Monica, CA: RAND, 2000).

Figure 3. Naval Warfare Capabilities Spectrum



Source: Ashley J. Tellis et al., *Measuring National Power in the Postindustrial Age* (Santa Monica, CA: RAND, 2000).

Figure 4. Air Warfare Capabilities Spectrum



Source: Ashley J. Tellis et al., *Measuring National Power in the Postindustrial Age* (Santa Monica, CA: RAND, 2000).

In terms of air power (see **Figure 4**), the current capabilities of the Japanese air force allow the implementation of advanced defensive counterair operations, maritime strike, basic strategic strike, basic SEAD, and basic deep interdiction. The Australian air force possesses similar competencies. In comparison, the Chinese People's Liberation Army Air Force (PLAAF) possesses lower-order competencies that are mostly in basic defensive counterair, though increasingly in advanced defensive counterair, maritime strike, and battlefield air interdiction operations. Compared to the PLAAF, the Indian air force has exhibited greater competency in a wider range of air operations, including advanced defensive counterair, maritime strike, battlefield air interdiction operations, basic SEAD, and basic deep interdiction. Pakistan's air force, by contrast, commands the integrative capacity for more extensive warfighting competencies than its technology permits, which by all accounts is optimized primarily for basic defensive counterair and elementary strategic strike. Russia's air force possesses the technology to support a wide range of combat activities, including offensive counterair, advanced strategic strike, and advanced deep interdiction operations; whether Russia's current integrative capacity today has kept pace with its technology base is, however, unknown.

Any useful appraisal of Asian military modernization, and especially the resulting consequences for strategic stability, moves beyond the realm of brute facts and into the arena of nuanced judgment. In this regard, policymakers have to triangulate the nature of a state's political aims (including history, the character of the regime, and the underlying reason for various political pursuits), the nature of the military technology acquired or likely to be acquired (including the ability to inflict "high-leverage strategic harm"), and the likely combat effectiveness of a state's military forces in different warfighting dimensions. Systematic analysis of these three broad realms invariably leads to a focus on the large and consequential powers of Asia—namely China, Russia, Japan, India, and to a lesser extent South Korea and Australia. While other states will acquire different types of sophisticated military capabilities over time, only the large and consequential powers are likely to incorporate such capacities in both breadth and depth within their armed services. Consequently, military modernization in these countries is likely to receive the lion's share of attention both within Asia and in the United States.

From Washington's perspective, however, Beijing will continue to dominate the agenda. Of all the Asian states discussed above, only China remains a rapidly growing power in pursuit of both strategic goals that are potentially incompatible with those of the United States and various "war-winning" or "victory-denying" military technologies that could make an appearance in

any serious confrontation with the United States. China's deliberate emphasis on asymmetric strategies aimed against the United States is only likely to deepen U.S. anxieties. The emerging Sino-U.S. strategic relationship thus bears some uncanny resemblances to the years between the first and second world wars. Then, as now, the principal actors in the political drama were struggling to resolve certain pressing strategic problems of vital interest to their national security. Germany, for instance, sought recognition of its rising power in the face of English predominance, while China today seeks both legitimation of its growing strength and the prevention of potential secessionism in the face of a U.S. dominance capable of undermining both goals. Then, as now, the rising power sought to use familiar weapons in unfamiliar ways in order to resolve operational dilemmas that were critical to the successful exercise of force. By combining an extant technology (the tank) in a novel way with infantry and airpower, Germany was able to successfully implement blitzkrieg and thereby obviate the attrition warfare that stymied its ambitions during World War I. Similarly, China today has sought to utilize an old weapon (the conventionally armed ballistic missile) in novel ways so as to develop not only a mass raid capability with the potential to overwhelm or paralyze regional adversaries and achieve precision kill effects when used against either static land targets, but, even more ambitiously, highly mobile platforms such as U.S. aircraft carriers. Chinese success in this last endeavor would mark the first time a country anywhere in the world has developed ballistic missiles capable of interdicting a mobile sea-based platform. Such an innovation would have grave consequences for the survivability of U.S. forward-operating forces in Asia.

One might hope that the presence of nuclear weapons, the reality of economic interdependence, and the gradual global efflorescence of democratic ideals would all help to prevent a catastrophic meltdown of the sort witnessed in World War II. There are, however, continuing suspicions both in Washington (concerning China's eventual political aims and the objectives of its military modernization) and in Beijing (the same with respect to the United States) that are likely to fuel anticipatory responses on both sides that have the potential to disturb the geopolitical environment further. Consequently, although the growth of Chinese military power may be inexorable and even natural given Beijing's ascendant economic trajectory, the security dilemmas exacerbated by this expansion both within Asia and with respect to the United States are certain to shape the dynamics of military modernization throughout the Asian continent for many years to come.