East Asia's Awakening from Strategic Hibernation and the Role of Air Power*

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Abstract

In sharp contrast to land-dominant forces with only limited technological capabilities, key armed forces such as the PRC's People's Liberation Army (PLA), Japan's Self Defense Forces (SDF), and the South and North Korean militaries have built up significant power projection capabilities since the 1980s. North Korea's weapons of mass destruction (WMD) programs and assets (including a potential nuclear weapons capability) have surfaced as key security concerns since the early 1990s and for its part, China has begun to implement its own revolution in military affairs (RMA) strategies that may enable the PRC to have very robust power projection capabilities by 2020 or 2030. If one includes Indian and Pakistani nuclear weapons programs into the broader strategic equation, Asia may well face an increasingly volatile arms race over the next 20-30 years.

Seen within this context, the role of air power is likely to assume growing importance in East Asia's projected force modernization programs, given the commensurate decline in the relative utility of ground forces. Thus, this paper emphasizes the continuing relevance of air power-combat aircraft, ballistic and cruise missiles, air-delivered precision munitions, and strategic intelligence—even in the midst of the global war against terrorism. If this trend continues, it is likely to have a significant impact not only on the regional security tem-plate, but also with respect to determining future roles and missions between US forces and key allies.

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The Strategic Awakening of East Asia

The ongoing war against global terrorism, the Iraqi crisis, and the escalation of a second North Korean nuclear crisis, have assumed center stage in the contemporary security discourse. Despite the unexpectedly rapid collapse of the Taliban regime and the initial routing of Al Qaeda terrorists from Afghanistan, the war against terrorism in many respects has just begun. Notwithstanding the continuing importance of the war against terrorism and the very real possibility of more cataclysmic terrorist attacks, the events of September 11 have not resulted in a fundamental reorientation of other ongoing strategic trends. Notable in this respect is the acquisition of increasingly sophisticated military capabilities and matching technologies by selective East Asian states, including aerospace capabilities. Even though Europe continues to grapple with post-communist fallout such as Russia’s ongoing struggle over Chechnya, instability in the Balkans, and continuing concern over Russia’s weakened control over its weapons of mass destruction (WMD) arsenals, the fact remains that the specter of a major war on the European continent has ebbed significantly since the early 1990s. In short, European security is no longer dominated by the proclivities of a powerful, overbearing, and threatening great power such as the former Soviet Union.¹

In sharp contrast, however, the Asian security picture differs substantially from post-communist Europe’s security makeup. To be sure, a more pragmatic China (especially since its admission to the World Trade Organization), the proliferation of democracies, recovery from the 1997–1998 Asian financial crisis, and the incremental institutionalization of multilateral regimes, portend the possibilities of a more open, integrated, and peaceful Asia. But despite these positive trends, security trends in East Asia are being shaped by the convergence of three forces: the rise of nationalism as a potent political driving force; the continuing relevance of state-centric security norms; and

the selective acquisition of more independent power projection capabilities. South Asia and Northeast Asia stand out as the two principal sub-regions where a growing number of nation states have acquired and are likely to acquire increasingly sophisticated military platforms—some with WMD assets—with a major focus on aerospace capabilities. For the first time since the fall of the Sinocentric world order in the late 19th century, a condominium of Asian states have the ability to implement national security strategies based on indigenous military capabilities. Despite greater attention that has been paid to nonproliferation regimes and arrangements, burgeoning confidence-building measures (CBMs), and growing economic cooperation schemes, these forces may curtail or even delay, but not prevent, the acquisition and use of increasingly robust power projection capabilities. Such a turn of events cannot but have significant repercussions for global security and stability, in addition to the revamping of US security policy toward East Asia, including a bottom-up review of key bilateral alliances.

For more than two centuries, a succession of Western powers—Europe’s great powers until the Second World War, Russia until the collapse of the Soviet Union, and the United States since the end of the Second World War—have dominated the global strategic landscape, owing principally to their economic prowess and/or corresponding military power. This strategic dominance was contested periodically by a limited number of East Asian states, most noticeably by Japan in the early 1900s (and more forcefully during the Second World War); by North Korea and China during the Korean conflict; and by North Vietnam from the 1950s until victory in 1975. But despite the stalemate in Korea and the subsequent US withdrawal from Vietnam, no East Asian power has been able to displace, much less match, the cumulative power projection capability of the United States. Such a state of events is unlikely to change for the foreseeable future, but the catch is that within the next two to three decades, the “foreseeable future” could be transformed into “strategic reality.”

While the emergence of an East Asian theater peer that could conceivably contest the strategic supremacy of the United States (or that of its key allies) seems highly unlikely, at least until the 2020 or so timeframe, the potential emergence of a near theater peer within
the foreseeable future no longer lies in the realm of war games. In essence, East Asia on the whole, and selective actors in particular, such as China, India, and Japan (and to a lesser degree, Korea) is awakening from "strategic hibernation"—or the acquisition of new and more extensive power projection capabilities and the political willingness to use them. These newly acquired capabilities could have far-reaching consequences not only for the region, but also for global security and economic prosperity. The cumulative rise of East Asia—involving unparalleled economic and technological capacity, coupled with progressively advancing power projection potential—as no parallel in East Asian history. Ever since East Asia was forced into the modern international system following the Opium War in the mid-19th century, only one regional power, Japan, acquired and then subsequently lost regional strategic dominance. Assuming that current economic, military, and political trends continue, however, East Asia by the year 2020 is likely to harbor at least three states with significant strategic capabilities—China, Japan, and possibly a unified Korea. If one factors in India, major power rivalries—latent, muted, or real—may well come to characterize East Asia's strategic landscape in the second half of the 21st century.

Great powers seldom, if ever, emerge by accident. The confluence of focused national strategies, economic and technological capabilities, accelerated maturation of soft power attributes, and sustained political will among other forces culminates in the creation of strategic capabilities. The East Asian story since 1945 differs substantially from the rise of previous great powers, e.g., the concert of European powers from the late 18th until the late 19th century, in that hard and soft power attributes have been compressed at an accelerated rate to create a commanding synergy. If a select number of East Asian states have spent the last 50 years accumulating and expanding national capabilities, including more modernized military potential, they are likely to spend the next 50 years honing, refining, and ultimately using their newly-gained national capabilities.

This is not to suggest that Western and in particular American dominance of advanced military technologies will ebb anytime in the near future. Indeed, in areas such as direct-energy weapons, high-power microwaves, unmanned combat air vehicles, and bio-computers,
US dominance can be fully expected to expand.\textsuperscript{2} Indeed, while defense budgets alone do not readily translate into corresponding influence, the fact remains that the United States’ $322 billion defense budget in 2002 accounted for 38 percent of the world total of $835 billion.\textsuperscript{3} The US defense budget is seven times larger than China’s, five times greater than Russia’s, 28 times larger than the six major so-called rogue states (North Korea, Iran, Iraq, Libya, Syria, and Cuba), and nearly six times greater than the defense budgets of its core allies in East Asia, namely, Japan, South Korea, and Australia. That said, selective progress in asymmetrical technologies coupled with immense dual-use opportunities offered by the ongoing information revolution would be exploited fully by China, Japan, Korea, India, and even selective Southeast Asian states.

It is in this context that more and more East Asian states are turning their attention to acquiring more expansive power projection capabilities in general and airspace capabilities in particular. As a case in point, despite the propensity to downgrade the strategic utility of North Korea’s missile forces, one should really look into the speed in which Pyongyang has acquired over 500 surface-to-surface missiles including the longer-range Taepo Dong-1. To be sure, the debate continues on the net military utility of North Korean missiles, given limited accuracy and payload constraints. Nonetheless, the fact remains that North Korea has chosen to expand its strategic envelope with significant implications for South Korean, Japanese, and US forces based on the Peninsula and in Japan.

Air power in and of itself has never translated into decisive strategic presence. But in combination with a broader array of power projection capabilities such as ballistic and cruise missiles, precision targeting capabilities, and precision guided munitions, they can provide virtually any state with potent projection capabilities. For reasons that are illustrated below, a select number of East Asian states today have already acquired, or are in the process of acquiring, more


\textsuperscript{3} Figure compiled from The Military Balance 2002-2003 (London: International Institute for Strategic Studies, Oct. 2002).
### Table 1. Top 15 Defense Spenders from 1998 to 2001

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
<th>Share (%) of World Military Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (1)</td>
<td>USA</td>
<td>274.3</td>
<td>275.1</td>
<td>285.7</td>
<td>281.4</td>
<td>36</td>
</tr>
<tr>
<td>2 (2)</td>
<td>Russia (PPP)</td>
<td>[30.6]</td>
<td>[35.9]</td>
<td>[40.3]</td>
<td>[43.9]</td>
<td>[6]</td>
</tr>
<tr>
<td>3 (3)</td>
<td>France</td>
<td>40.0</td>
<td>40.4</td>
<td>39.9</td>
<td>40.0</td>
<td>5</td>
</tr>
<tr>
<td>4 (4)</td>
<td>Japan</td>
<td>37.7</td>
<td>37.8</td>
<td>38.1</td>
<td>38.5</td>
<td>5</td>
</tr>
<tr>
<td>5 (5)</td>
<td>UK</td>
<td>37.2</td>
<td>36.8</td>
<td>37.3</td>
<td>37.0</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td><strong>Sub-total top 5</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>440.8</strong></td>
</tr>
<tr>
<td>6 (6)</td>
<td>Germany</td>
<td>33.1</td>
<td>33.8</td>
<td>33.1</td>
<td>32.4</td>
<td>4</td>
</tr>
<tr>
<td>7 (8)</td>
<td>China</td>
<td>[19.0]</td>
<td>[21.1]</td>
<td>[23.1]</td>
<td>[27.0]</td>
<td>[3]</td>
</tr>
<tr>
<td>8 (9)</td>
<td>Saudi Arabia</td>
<td>20.8</td>
<td>17.9</td>
<td>20.5</td>
<td>[26.6]</td>
<td>[3]</td>
</tr>
<tr>
<td>9 (7)</td>
<td>Italy</td>
<td>23.5</td>
<td>24.4</td>
<td>26.0</td>
<td>24.7</td>
<td>3</td>
</tr>
<tr>
<td>10 (10)</td>
<td>Brazil</td>
<td>11.0</td>
<td>10.1</td>
<td>10.7</td>
<td>14.1</td>
<td>2</td>
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<tr>
<td></td>
<td><strong>Sub-total top 10</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>565.6</strong></td>
</tr>
<tr>
<td>11 (11)</td>
<td>India</td>
<td>9.4</td>
<td>10.7</td>
<td>11.8</td>
<td>12.9</td>
<td>2</td>
</tr>
<tr>
<td>12 (13)</td>
<td>South Korea</td>
<td>9.7</td>
<td>9.4</td>
<td>10.0</td>
<td>10.2</td>
<td>1</td>
</tr>
<tr>
<td>13 (14)</td>
<td>Israel</td>
<td>8.5</td>
<td>8.5</td>
<td>9.0</td>
<td>9.1</td>
<td>1</td>
</tr>
<tr>
<td>14 (12)</td>
<td>Turkey</td>
<td>8.8</td>
<td>9.7</td>
<td>9.4</td>
<td>8.9</td>
<td>1</td>
</tr>
<tr>
<td>15 (15)</td>
<td>Spain</td>
<td>7.5</td>
<td>7.7</td>
<td>8.0</td>
<td>8.0</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td><strong>Sub-total top 15</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td><strong>614.7</strong></td>
</tr>
<tr>
<td></td>
<td><strong>World total</strong></td>
<td>719</td>
<td>728</td>
<td>757</td>
<td>772</td>
<td>100.0</td>
</tr>
</tbody>
</table>

- **a.** The rank order of countries differs with the base year and the method of conversion to dollars. The base year should ideally be the same as the year of comparison, while this table is based on military expenditure figures in constant (1998) prices and exchange rates because of the lack of PPP data for Russia for 2001.
- **b.** Conversion to dollars is made by use of the market exchange rate for most countries. The main exception in this table is Russian military expenditure, which is converted by use of the PPP conversion factor (see appendix 6C). If the market exchange rate is used for Russia, its military expenditure in 2001 amounts to $12.7 billion at constant (1998) prices and exchange rates. Figures are in US$ at constant 1998 prices and exchange rates. Figures in italics are percentages. Figures do not always add up to totals because of the conventions of rounding. Source: SIPRI Yearbook 2002 Appendix 6A (tables 6A.1 and 6A.3) and the SIPRI database on military expenditure.
lethal weapons platforms than at any time since the end of the Korean War:

Ironically, such a development stems, in part, from the very success of the postwar economic recovery of East Asia since regional states have the financial ability to modernize their armed forces. More importantly, with the exception of the Korean Peninsula where large-scale ground forces continue to confront each other across the DMZ, the specter of all-out attrition warfare has declined significantly with the global end of the Cold War. Thus, the need for large, ground-based mechanized forces with fixed artillery has declined substantially with corresponding emphases on air and naval power projection capabilities. Indeed, notwithstanding the current limitations of China's space program, "increased space capability is the only way for the Chinese armed forces to catch up with the current revolution in military affairs and information technology. China's increased focus on its space program is coupled with plans to redesign the People's Liberation Army into a modern, efficient, high-tech fighting force."4

At the same time, although it is highly unlikely that China will overtake the United States in space warfare capability, even over the next 20-30 years, "it has the potential to develop within this timeframe a military space warfare capability that the US military would have to reckon with."5

Insofar as Japan's military capabilities are concerned, a report published in May 2001 characterized Japan as being at a strategic turning point, and further that "creating a credible Japanese military deterrent in East Asia—after more than half a century of isolationism—will place Tokyo at the center of competition for influence in the region. More than those by the United States or China, Japan's moves will intensify an already heated competition for regional influence."6 (Emphasis added). Last but not least, South Korea's own space program, coupled with the agreement reached in January 2001 enabling Seoul to deploy SSMs up to a range of 300 km with conventional payloads up to 500

5 Ibid.
kg (in return for South Korea’s entry into the MTCR) “will spur commercial competition and may trigger increased regional missile proliferation” and further, that “South Korea seeks technological and economic benefits from a purely indigenous space program, one that could eventually defend the entire Peninsula while decreasing economic and security dependency on the United States.” (Emphasis added).

In the final analysis, these assessments may or may not accurately depict the future direction of Chinese, Japanese, or Korean strategic priorities. But the more relevant point is that insofar as capabilities are concerned—quite apart from intent—all three states possess fairly robust offensive military arsenals that could be enhanced significantly in the years and decades ahead. To be sure, despite unresolved political and historical constraints, the possibility of any direct military clash between South Korea and Japan remains virtually nil—in large part owing to Tokyo’s and Seoul’s half century alliances with the United States. Indeed, Japan remains concerned about the potential shift in South Korea’s strategic calculus, e.g., weakened strategic ties with the United States, with correspondingly closer ties with China in the post-unified era. However, a Korea under a Chinese security umbrella would face enormous constraints, with potentially debilitating consequences, as evinced by Korea’s loss of strategic independence owing to its forced status as a tributary state. For different historical, political, and strategic reasons, however, all three key Northeast Asian states are pursuing force modernization programs that will ultimately drive and shape the regional strategic template: China, in order to regain and reassert its historical geopolitical role; Japan, in an effort to overcome the limitations posed by the Yoshida Doctrine; and Korea, in order to offset any major spill-over from great power rivalries or clashes. It is perhaps for these reasons that airspace and naval assets are fast becoming the platforms of choice for China, Japan, and Korea.

Air Power, Strategic Jointness and Hybrid Conflicts

Prior to US and allied air offensives against Iraq during the Gulf War, many argued that air power, the use of which dates back to the Second World War, would also ultimately fail. Indeed, the never-ending debate on whether air power is a decisive factor in modern warfare largely rests on the fact that “70 years of over-promising by air power advocates had left a deep residue of distrust in Washington’s military culture,” and “because air power was thought to have failed in Indochina in some very general sense and because it was not deemed to have been ‘decisive’ in either the Korean War or the Second World War.”

Before assessing in greater detail key developments in air power since the Gulf War, it is perhaps necessary to briefly articulate what one means by air power, as noted by a leading air power analyst:

First, air power does not refer merely to combat aircraft or to the combined hardware assets of an air arm, even though these may seem at times to be the predominant images of it held by both laymen and professionals alike. Rather, in its totality, air power is a complex amalgam of hardware equities and less tangible but equally important ingredients bearing on its effectiveness, such as employment doctrine, concepts of operations, training, tactics, proficiency, leadership, adaptability, and practical experience.

Second, air power is functionally inseparable from battlespace information and intelligence... Air power and intelligence are thus opposite sides of the same coin. If the latter fails, the former is likely to fail also. For that reason, accurate, timely, and comprehensive information about an enemy and his military assets is not only a crucial enabler for allowing air power to produce pivotal results in joint warfare; it is an indispensable precondition for ensuring such results.

Third, air power, properly understood, knows no color or uniform. It embraces not only Air Force aircraft, munitions, sensors, and

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other capabilities, but also naval aviation and the attack helicopters and battlefield missiles of land forces... Recognition and acceptance of the fact that air warfare is an activity in which all services have important roles to play is a necessary first step toward a proper understanding and assimilation of air power's changing role in joint warfare. (Italics added).

If one understands air power in these terms, a critical dimension of air power is its inherent flexibility—in strategic, operational, and tactical terms. As defined in current US joint doctrine, the strategic level of warfare is “that level at which a nation or coalition determines security objectives and guidance... Operational art governs the organization, deployment, integration, and conduct of major campaigns and operations. Proper leadership at this level guides the direction and coordination of tactical forces within the theater. Tactical doctrine (tactics) provides detailed guidance to combat units for winning individual engagements.” In the context of air power, Glenn A. Kent and David A. Ochmanek at RAND emphasize the concept of core competency, “that is, the core competency of air and space forces—their ability to traverse air and space—gives them inherent characteristics of speed, range, mobility, and perspective. These inherent characteristics, in turn, make it possible for air and space forces to possess the fundamental capabilities of projection, responsiveness, maneuver, mass, and situation awareness.” Or as Joint Vision 2020 highlights with respect to achieving full spectrum dominance:

For the joint force of the future, this goal will be achieved through full spectrum dominance—the ability of US forces, operating unilaterally or in combination with multinational and interagency partners, to defeat any adversary and control any situation across the full range of military operations.

The full range of operations includes maintaining a posture of

9 Ibid., pp. 117–118.
strategic deterrence. It includes theater engagement and presence activities. It includes conflict involving employment of strategic forces and weapons of mass destruction, major theater wars, regional conflicts, and smaller-scale contingencies. It also includes those ambiguous situations residing between peace and war, such as peacekeeping and peace enforcement operations, as well as noncombat humanitarian relief operations and support to domestic authorities.

The label full spectrum dominance implies that US forces are able to conduct prompt, sustained, and synchronized operations with combinations of forces tailored to specific situations and with access to and freedom to operate in all domains—space, sea, land, air, and information.

Achieving full spectrum dominance means the joint force will fulfill its primary purpose - victory in war, as well as achieving success across the full range of operations, but it does not mean that we will win without cost or difficulty. Conflict results in casualties despite our best efforts to minimize them, and will continue to do so when the force has achieved full spectrum dominance.¹²

To the extent that jointness is a crucial component of maximizing the advantages inherent in air power, it must also be mentioned that outside of the US military, only a very limited number of militaries actually practice jointness. (As is well known, however, consensus remains relatively thin, even within the US armed forces, as to what precisely defines jointness, and more importantly, which service should be in the lead vis-à-vis the forging of greater jointness). Nevertheless, the key point here is to illustrate the critical importance of thinking about air power in a holistic framework and not in a service-parochial manner. Thus, insofar as air power is concerned, it must be conceptualized within the broader context of the use of force, or more precisely, to understand that “although air power gives us new avenues of approach and ways to avoid most of the enemy surface forces en route to a target, the question of what we are trying to get the enemy to do (or stop doing) remains the same.”¹³

¹³ Walker, “A Unified Theory of Coercive Airpower.”
More recently, the debate on the role and efficacy of air power has once again been ignited on the heels of the unparalleled usage of and success in precision bombing against the Taliban and Al Qaeda militias in Afghanistan. According to Army Gen. Tommy Franks, the Commander-in-Chief of US Central Command, “the Taliban . . . no longer controls Afghanistan, Al Qaeda cells inside Afghanistan have in some cases been destroyed, in other cases disrupted, and in fact, Al Qaeda is on the run.” The overall degree to which air power contributed to the military demise of the Taliban and Al Qaeda will be studied intensively once the Afghanistan campaign draws to a close, but initial evidence suggests strongly that air superiority, precision bombing, real-time intelligence, and close air support were decisive factors in defeating the 45,000 strong Taliban forces and thousands of Al Qaeda militia forces 90 days after the beginning of military operations in early October.

While the matching of highly tailored forces with multiple mission requirements is not new (as shown by the Gulf War and the Kosovo campaign), one of the most significant military aspects of the Afghanistan campaign is the ability of the US armed forces to effectively operationalize a “system of systems” that ties together emerging technologies and RMA assets, unparalleled C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) capabilities, and unmatched precision fire power. As one commentator has noted, Operation Enduring Freedom is likely to be remembered as a key benchmark campaign or as the first campaign where air power reached “critical mass.” In more ways than one,

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14 An increasing number of analysts prefer to use the term “airspace power” or “aerospace power” rather than “air power” but “air power” is used in this paper in the context of air and space power including, but not limited to combat and non-combat aircraft, ballistic and cruise missiles, UAVs and UCAVs, and space-based platforms. The terms “airspace power” and “air power” are used together in this paper.


unparalleled jointness led by air assets in the Afghanistan campaign can be seen as the decisive factor in destroying the Taliban and Al Qaeda forces.

Notwithstanding the initial success of the combined air/special forces/marines campaign in Afghanistan and the critical role of precision bombing, the more significant issue is how the ongoing war in Afghanistan is likely to influence the conduct of future conflicts—both from the warriors and policymakers perspectives. Proponents of air power have argued ever since the Gulf War, and more recently, in the aftermath of the 1999 Kosovo campaign, that air power demonstrated its ability to decimate enemy forces with minimum casualties to US and allied forces. There is little doubt that the modus operandi of warfare has changed significantly, perhaps even fundamentally, with the advent of long-range strikes utilizing precision munitions combined with new information technologies that enables commanders and front line troops with “24/7” situational awareness. As one enthusiastic analyst commented on the “Operation Allied Force demonstrated that the true precision air attack—once a far-off goal but now taken for granted—has become an indispensable capability. It proved to be vital not just for the prosecution of the Balkan military effort but also as a means of holding together the Western coalition my minimizing civilian casualties and damage.”

That said it should be borne in mind that in assessing the future role of air power, one major caveat is in order. Despite the ability of

17 Thomas E. Ricks, “A War That's Commanded at a Distance,” Washington Post, Dec. 27, 2001, p. A1, available at www.washingtonpost.com/wp-dyn/articles/A28078-2001Dec26.html. The numbers 24/7 refers to 24-hours/7 days situational awareness or what the Pentagon also calls “full spectrum information dominance.” In the context of the Afghanistan campaign, a minor debate has surfaced with respect to the physical location of the CINC. Some have argued that like Gen. Norman Schwarzkopf during the Gulf War, the current Central Command CINC should be directing the Afghanistan campaign not from Tampa but closer to the theater, e.g., Saudi Arabia. Gen. Franks and others, however, have asserted that current communications networks fully enables his command to conduct the war in Afghanistan in real-time something that wasn't available during the Gulf War.

the US and allied air forces to achieve unmatched air superiority from the onset of military operations in the Gulf War, the Kosovo campaign, and more recently in Afghanistan, it remains that the Iraqi, Serbian, and Taliban forces did not have a viable air force to counter aggressive US air campaigns. During the initial stages of the air campaign in the Gulf War and in Kosovo, US and coalition forces confronted Iraqi and Serbian air defenses with some collateral damage but enemy air defenses were quickly suppressed.

Throughout the Gulf War and the Kosovo campaign, air superiority was never relinquished by US and coalition forces. In the Afghanistan campaign, neither the Taliban nor Al Qaeda forces had viable air power with the notable exception of the possibility of portable SAMs such as Stingers left over from the earlier Afghanistan war. Since the inception of Operation Enduring Freedom, however, the Taliban did not use Stingers or similar portable SAMs. Thus, the more relevant strategic question in analyzing the efficacy of air power today and into the foreseeable future is how air power is likely to fare under conditions where opposing forces are able to wield significant air assets including combat aircraft, bombers, smart bombs, and air defense capabilities. In essence, the key question is whether advanced air power capabilities will result in the effective dislocation or destruction of strategic and operational centers of gravity (COGs) of opposing military forces under fairly evenly matched quantitative conditions.\footnote{For example, in a future conflict scenario on the Korean Peninsula, one of the most critical strategic equations is whether US and South Korean air forces will be able to attain air superiority in the early phases of conflict. Despite the hollowing out of North Korea’s combat aircraft capabilities over the past decade and the US-ROK Combined Forces Command’s ability to ultimately retain air superiority, North Korea’s air defense assets, SAM batteries, underground air bases, and long-range artillery means that allied forces will suffer significant collateral damage in the earlier phases of conflict.}

For a combination of reasons that are noted below, the growing strategic importance of air power has to be understood in the context of four interlocking forces: shifting geopolitical priorities; the proliferation of asymmetrical capabilities; increasing emphasis on the need for capabilities-based defense planning; and the rapidly declining like-
lihood of full-scale conventional conflicts or as one observer commented after the Gulf War, “of all the wars that might develop, the least likely is a global conventional war centered around a mature, prepared theater like the one that grew for 40 years over the inter-German border. The notion that no conflict is likely to center around a mature theater has some very significant implications.”

Air power has proven to be critical in so-called cutting-out operations like Panama and Grenada including airlift, electronic detection, and extremely accurate precision attacks to support ground operations. Specifically, air power offers comprehensive quick-response capabilities that no other force can easily match:

When we think about real power projection, about protecting our interests against small to midsize power threats, air power becomes dominant, and our primary defense problem becomes one of responding with sharp, decisive actions. Air power becomes important because it has a unique ability to get to the combat area with massive power and to affect enemy operational and strategic centers of gravity. All components can attack centers of gravity, but only air power can frequently circumvent enemy forces and attack strategic centers of gravity directly. (Italics added).

While air power alone cannot possibly meet all of the emerging strategic and military challenges, it is important to note that air power in its broader configuration that includes ballistic and cruise missiles, space-based C^4ISR, and stand-off/precision targeting capabilities is emerging as the next phase of the revolution in warfare. At the center of the airpower debate is whether the current and emerging inventory of air-delivered standoff attack weapons can effectively achieve key battlefield objectives “in lieu of ground forces” and the Gulf War.

21 Ibid.
22 Ibid.
stands out as one of the principal examples for air power enthusiasts who contend that were it not for the sustained air campaign, land-based war of attrition was unavoidable.

What air power achieved during the Gulf War is still open to question, particularly in assessing the strategic objectives of Desert Storm. As Benjamin Lambeth has written, “the Persian Gulf War has now come to be seen by most observers as having been considerably less than a towering strategy success. Many of the loftier goals articulated by its leaders before the war . . . did not come to pass.” At the same time, however, he argues that in a more narrow definition of the operational application of air power, Desert Storm was “anything but inconclusive.” Specifically, the operational objectives of the air campaign during the Gulf War were as follows: (1) isolate and incapacitate the Iraqi regime by attacks on leadership facilities, electric power production, and telecommunications; (2) gain and maintain air supremacy by attacks on the air defense system and the air force; (3) destroy nuclear, biological, and chemical warfare (NBC) capabilities; (4) eliminate offensive military capabilities by attacks on logistical sites, Scud missiles and launchers, oil refining and distribution facilities, and naval forces and bases; and (5) render the Iraqi army ineffective and isolate it in the Kuwait theater by attacks on railroads and bridges and on the units themselves, particularly the Republican Guard.

Although it is beyond the scope of this paper to offer an in-depth assessment of the Gulf War, some statistics reveal the sheer magnitude of the air campaign. Whatever one may say about the coalition’s inability to achieve key strategic objectives through air power, it should be noted that political decisions prompted the end of the hostilities after the “100-hour ground war.” Overall, the coalition air campaign conducted a total of 109,876 sorties over the 43-day war, or an average of 2,555 sorties per day. Of these, over 27,000 targeted Scuds, airfields, air defenses, biological and chemical weapons sites, military headquarters, intelligence assets, communications, the Iraqi

24 Ibid., p. 119.
army, and oil refineries. In Air Force tonnage terms compared with other conflicts, however, the Gulf War was not an exercise in massive bombing as shown in Table II below. The Air Force’s tonnage expenditure in the Gulf War was only 11 percent compared to the Japan campaign during World War II (537,000 tons) and less than 4 percent of the Nazi Germany campaign (1,613,000 tons). Nevertheless, the Gulf War air campaign was critical in crushing the Iraqi army barely 100 hours after the coalition’s ground war began. By the end of the war, it was estimated that 32 percent of all Iraqi APCs, 47 percent of all artillery pieces, and 39 percent of all tanks were destroyed from the air. The destruction of the Iraqi air force was a let down for the coalition forces since remnants of the Iraqi air force fled to Iran after the beginning of coalition counterattacks. For the record, however, Iraq had 724 fixed-wing aircraft as of Jan. 10, 1991 and by February 28, 408 were out of commission: 33 shot down, 113 destroyed in the open, 141 destroyed in bunkers and shelters, and 121 fled to Iran. By war’s end, Iraq had 316 fixed-wing aircraft left in its inventory.

One of the key areas where the US Air Force came under criticism was in the relatively low rate in taking out Iraqi Scuds. So-called Scud-hunting did not eliminate the problem, but air attacks reduced, suppressed, and defused the threat of Iraqi Scuds so that launches declined from the end of January. (Scud launches picked up somewhat in early February but tapered off towards end of February). To be sure, other mistakes were made throughout Desert Storm such as the decision to end the ground war after 100 hours without achieving a key strategic objective, namely dislodging Saddam Hussein, intelligence and targeting problems that at certain points impeded strategic effect. That said, it is virtually impossible to imagine that Iraq’s military machine could have been effectively destroyed without air power that ultimately resulted in relatively low US and allied casualties. While the debate continues to this day on the efficacy of the air campaign, the air war “paralyzed, incapacitated, and demoralized the enemy

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Table 2. Bomb Tonnage Comparisons

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<tr>
<th>War</th>
<th>Tonnage</th>
<th>Length</th>
<th>Tonnage/ Month</th>
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<tbody>
<tr>
<td>World War II</td>
<td>2,150,000</td>
<td>45 months</td>
<td>47,777.78</td>
</tr>
<tr>
<td>Korea</td>
<td>454,000</td>
<td>37 months</td>
<td>12,270.27</td>
</tr>
<tr>
<td>Vietnam/ SEA</td>
<td>6,162,000</td>
<td>140 months</td>
<td>44,014.29</td>
</tr>
<tr>
<td>Gulf War</td>
<td>60,624</td>
<td>1.5 months</td>
<td>40,416.00</td>
</tr>
</tbody>
</table>


from the first sorties to the last on day 38—leaving only 100 hours of ‘mop-up’ duty for the ground forces.”

A related component of the air power debate is whether air power can really be effectively utilized across the spectrum of conflict, particularly in low intensity conflicts such as Bosnia or more poignantly, Chechnya. In brief, it should be noted that the initial failure of Russia’s operations against rebel forces in Chechnya owed as much to a combination of poorly-trained and equipped troops, low morale, poor intelligence, and deflating Chechnya’s war fighting potential. One major flaw of the initial air campaign was the focus on destroying Chechnya’s limited air force rather than destroying high value targets such as Chechnya’s administrative and military command and control centers, communications hubs, and other key infrastructures although close air support for Russian ground forces proved to be a critical force multiplier in the overall campaign. Generally speaking, however, the Chechnya campaign demonstrated that “air power cannot invariably work its reputed magic in circumstances where the target set is elusive, problems predominate in target location and identification, and there is an ever-present danger of unintended harm to noncombatants.”

Some of the key lessons from the Russian air campaign

28 Martin Wojtysiak, “Another View of the Myths of the Gulf War,” Airpower Journal, Vol. XV, No. 3 (Fall 2001), available at www.airpower.maxwell.af.mil/airchronicles/aj/aj01/fal01/wojt...

can be cited as follows: (1) air superiority provides no guarantee of victory even against an enemy with no effective air force; (2) militias and guerillas can effectively use high-information assets as easily as modern armies allowing them to establish quick contacts, mobilize assets, and access other information; (3) operating in LIC environments will mean finding and defending against mobile targets spread throughout the country and the civilian population; and (4) realistic training is essential to overcome LIC threats.30

If Chechnya was a real eye-opening experience on the rapid decline of Russia’s armed forces after the collapse of the Soviet Union and a textbook case of how not to wage war, NATO’s Kosovo air campaign, while successful, was enmeshed, from the very beginning by a combination of political constraints, deeply imbedded policy disputes within NATO, and significant military obstacles. Although NATO’s 78-day air campaign over Kosovo in 1999 ended with Yugoslav President Slobodan Milosevic’s capitulation, a fierce debate continues to rage even today on the overall effectiveness of the air campaign.31 When NATO forces began operations on March 24, 1999, it was tasked with five key objectives: (1) ensure a verifiable end to all military action and the immediate ending of violence and repression by Serbian forces in Kosovo; (2) withdrawal from Kosovo of Serbian military, police, and para-military forces; (3) agreement to the stationing in Kosovo of an international military presence; (4) agreement to the unconditional and safe return of all refugees and displaced persons; and (5) provide credible assurance of Serbian willingness to work on the basis of the Rambouillet Accords in the establishment of a political framework agreement for Kosovo in conformity with international law and relevant U.N. provisions.32 Poor weather conditions, a 15,000 feet ceiling for air sorties in order to avoid Yugoslav air defense systems, and the decision to forego a ground

30 Ibid., p. 58.
31 For a succinct overview of the conditions under which Milosevic settled after the 78 day air campaign, see “Why Milosevic Decided to Settle the Conflict Over Kosovo When He Did,” RAND Research Brief, available at www.rand.org/publications/RR/RR71/.
invasion, affected the overall effectiveness of the campaign such as the ability to rapidly halt Serbian aggression against the Kosovars. In the final analysis, Operation Allied Force was successful owing to NATO solidarity and the persistence and precision of the air campaign that damaged Milosevic’s forces to wage an effective military campaign against NATO.

In hindsight, the problems associated with Operation Allied Force were as much political as military, given the unusually tight constraints within which NATO had to conduct the air campaign. As is well known, the United States and NATO ultimately had to resort to the use of force after repeated warnings to Milosevic to desist from military operations in Kosovo. Convinced that these threats were a deception, Milosevic intensified his repressive actions in Kosovo that left NATO with only one credible option—to restore political credibility by undertaking military operations. When the option for a ground war was rejected, NATO had to undertake an air campaign that ultimately resulted in victory. However, post-war analysis also showed that despite 38,000 sorties NATO had failed to weaken the Yugoslav army in Kosovo substantially and to decisively define the situation on the ground.33

Perhaps the most important lesson from the Kosovo air campaign was NATO’s decision to use “maximum achievable force” in phased operations given that it could not resort to large-scale ground operations, massive bombing, or other brute-force in order to minimize civilian casualties.34 Thus, this basic constraint resulted in the implementation of strict protocols relating to target selection and identification and to the weapons chosen to attack each target. Seen from such a perspective, precision guided munitions (PGMs) in Operation Allied Force were highly effective, or in the words of then Chairman of the Joint Chiefs of Staff Gen. Henry H. Shelton, Operation Allied Force represented “the most precise bombing campaign in history.”35

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34 Tripak, “The State of Precision Engagement.”
35 Ibid. The US lead in the Kosovo air campaign was possible to a number of efforts that took effect after the Gulf War notably the equipping of all fighters
During Desert Storm 9 percent of the total munitions used were PGMs compared to 35 percent in Allied Forces.

Such an optimistic assessment of NATO’s air campaign is probably understandable, given that the US military and NATO had to conduct military operations under extremely limiting circumstances. Even so, detractors continue to point out that “the air campaign, conducted in isolation, is not a fair test of air power, nor should its apparent success lead to asymmetric bases for future strategy and force structure. In fact, air power alone failed to meet its prewar promise.”

Or, as one perceptive analyst has noted:

Airpower is a precious asset. Merely because it can be used does not necessarily mean that it should be used. When it is used, it should be used appropriately to maximize its inherent capabilities. A near flawless operational application of airpower cannot substitute for a flawed strategy... In a curious sort of way, the myths of air war over Serbia are part of the problem, not part of the solution in sustaining our investment in airpower... As the joint force air component commander himself—Lt. Gen. Mike Short, USAF, Retired—has commented about the air war over Serbia, ‘This was little more than random bombing of military targets that achieved victory by happenstance’.

Indeed, the argument on whether or not air power is able to conduct LIC-related missions predates NATO’s Kosovo campaigns, not to mention Russia’s initial setbacks in Chechnya. For example, when Britain faced an increasing number of new colonial obligations, in the form of League of Nations mandates to govern Palestine, Trans Jordan, and Iraq, the Royal Air Force argued persuasively—based on its initial success in quelling uprisings in Somaliland in 1919-20—that it should be given full responsibility to undertake military operations with the ability to use Laser-Guided Bombs (LGBs), greater dissemination of night vision gear, and introduction of a new class of low-cost satellite-guided weapons.

36 Alain Pellerin, “Fallout from the Air and Missile Offensive Against Yugoslavia.”

in Britain's most troubling new mandate in the former Ottoman provinces of Mesopotamia. By the late 1920s, the RAF registered a number of successes but these were due not only to the relatively new use of air power to police colonies, but owing to relatively smooth joint operations between the RAF, British Army and Iraqi Army units. Until such time that the RAF secured its position as an independent service, the RAF hierarchy took special care not to offend its army partners or to overplay the role of air supremacy. As one RAF officer wrote in 1992, "it is not for one moment to suggest that aircraft alone can garrison any country without military assistance, but rather to show that economy in military strength and in money may be affected by a more extensive employment of aircraft." 38

While the RAF was involved constantly in a series of combat operations such as bombing campaigns or ground-support operations, "the air-control experience did not translate into tactics useful in conducting a major conventional war" 39 so that when World War II broke out, the RAF basically had to learn from scratch how to carry out conventional air campaigns. As one commentator notes, however, the key lesson from the British experience during the interwar years is that while air control may appear to be cheap, effective, and with the added benefit of low casualties, it does not follow that air power is a doctrinal solution to some of the current peacekeeping operations that burden the US defense establishment. While air control may look like the ideal answer, it is—in the words of one analyst—actually quite deceptive in that "one could barely justify air control as a doctrine 80 years ago, and people who advocate an updated version of such doctrine for current US Air Force operations have misread history." 40


40 Ibid.
The contours of the emerging air power debate, or more precisely, the role of air power in the conduct of future warfare or conflicts, is therefore likely to be shaped by the following key factors:

First, the emergence of “hybrid conflicts” or amalgamated or layered conflicts that are characterized by the compression of conventional, unconventional, asymmetrical, information warfare, terrorism, and guerilla warfare. Variations of hybrid conflict can be found throughout the history of warfare but they have gained increasing currency owing to the acceleration of asymmetrical capabilities such as weapons of mass destruction (WMD), ballistic and cruise missiles, information warfare, and of late, unmanned combat air vehicles (UCAVs). The ability to defeat opposing forces successfully is likely to become increasingly dependent upon the ability to rapidly deploy an array of forces and weapons systems with superior and real-time strategic and tactical intelligence. More than ever, military forces both on the ground and in command centers have to demonstrate the ability to perform increasingly complex multifaceted missions under severe operational tempo requirements. With the notable exception of the United States, and perhaps a very small circle of near-capable forces such as the British and French, and in increments the Chinese and Japanese forces, the ability to effectively fight and win future hybrid conflicts will be limited. Thus, notwithstanding the success of post-Gulf War air campaigns in maintaining and retaining air superiority, as well as interdicting and destroying ground forces (notably Iraqi and Serbian but also Chechnya in the second Chechnya campaign), success in Operation Enduring Freedom is unlikely to be easily transferable or duplicated unless one is able to field battle management and combat assets that will enable militaries to fight “smart” wars across the conflict spectrum.

Second, the changing dimensions of nuclear and conventional deterrence in the face of accelerating asymmetrical technologies and the very real probability of cataclysmic terrorism. As the September 11 terrorist attacks demonstrated, it is virtually impossible to prevent cataclysmic terrorism. To be sure, the war against terrorism has resulted in some gains that could serve to deter certain acts of terrorism. For example, between 800 and 1,000 terrorism suspects have been arrested or detained in more than 50 countries, excluding the nearly 700 held
in the United States. More than 140 countries have frozen assets in 270 accounts with assets of $65 million.\textsuperscript{41} But more to the point, enhancing strategic deterrence vis-à-vis transnational terrorism or the proliferation of WMD and asymmetrical weapons systems (such as ballistic and cruise missiles as well as UCAVs) is likely to remain highly situation-specific. Thus, fielding more RMA-intensive forces and weapons systems should not be construed as necessarily enhancing one’s deterrent capabilities against a spectrum of focused asymmetrical challenges.

Third, long-term force restructuring efforts are likely to be driven by the need to field a truly joint force or a force that is “organized, trained, and equipped as a joint force that has a standing joint command and control capability, exercises frequently, and participates in tests of new ways of working together.”\textsuperscript{42} In situations that are likely to be characterized by hybrid conflicts, the effectiveness of joint operations will become a key prerequisite for operational success. That said, deeply imbedded bureaucratic and service specific resistance to jointness could stifle any significant move to create a truly joint force, especially under situations when jointness inevitably leads to addressing force imbalances, as is the case in the ROK’s Armed Forces or the People’s Liberation Army (PLA). The allocation of force modernization budgets, already under severe constraints in most of the mature armed forces, will mean even more intensified funding battles between the services. Therefore, a major gap is likely to persist in those states and their armed forces in understanding the inherent advantages provided by the on-going Revolution in Strategic Affairs (RSA) (or the “system of systems” revolution that includes the RMA and information dominance), and realistic attempts to implement concrete policy, doctrinal, strategic, and procurement decisions in an era of shrinking defense budgets and service specific bureaucratic


Figure 1. Hybrid Conflict and Defense Planning

Major Characteristics

1. Multinational and coalition operations
2. Out-of-area operations
3. Blurring of internal and external conflicts
4. Limited early warning and less effective strategic intelligence
5. Enhanced operational tempo constraints
6. Grey area jurisdictions (legal, etc.)
7. Fluctuating war termination conditions
8. Holistic crisis management dynamics
9. New alliance management requirements

Enhanced Jointness

RMA Driven Forces

Real-Time CAISR

Airspace Power/ Rapid Reaction Forces

Multi-Mission Capable Forces and Information Dominance
East Asia’s Awakening from Strategic Hibernation and the Role of Air Power

inertia.

Fourth, integrated C4ISR with holistic intelligence capabilities is already emerging as a decisive force multiplier in the modern battlefield but with even greater implications for the emerging electronic battlefield of the 21st century. No armed force today, and well into the future, will be able to perform an increasingly complex array of missions without comprehensive intelligence capabilities. For the time being, the ability to attain near-total or total situational awareness is likely to be exercised primarily by the US military, given its dominance of space-based intelligence platforms.

As former US Air Force Chief of Staff Ronald Fogleman remarked in the mid-1990s, but still highly relevant today:

From space we provide global situational awareness. Our space forces are central to giving this capability to the nation. These assets provide a unique kind of global presence from the high ground. We help monitor events and provide timely information—24 hours a day, anywhere in the world... Now you ask, ‘Can space forces influence events?’ You bet. Not only do they do it in a very real sense, as we look at intelligence, reconnaissance, and surveillance data, but they are constantly present... Because of what we can do in the space medium, I would suggest that space is the fourth dimension of warfare. And, we've entered this dimension by building on our experiences in the air.  

In essence, these four driving forces, as well as others, are likely to have a significant impact on conceptualizing, planning, and executing future military operations. Although these dynamics are going to impact force modernization and restructuring efforts globally, they will significantly affect the East Asian strategic landscape well into the 2020 plus time-frame for a combination of reasons. To begin with, the shift in global geopolitics from Europe to Asia means that the primary sources of competition between the major powers and newly emerging powers will be focused in East Asia, particularly in North-

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east Asia. As one former US Air Force chief of staff has written, the 21st century will be remembered as the "aerospace century" and in combination with the geostrategic rise of Asia, “offer unparalleled opportunities for Asia and for Northeast Asia in particular.” Although historical comparisons should always be treated with caution, the key cause for concern for 21st century Northeast Asia lies in the growing possibility of strategic rivalry. Unlike the early 20th century when Japan was the only Asian nation-state that harbored modern military capabilities, East Asia today has the highest concentration of conventional as well as unconventional forces in the world. Even as East Asian states cooperate on economic matters, they may view each other as strategic rivals and while “wars between them may not be likely, but neither will it be unthinkable.”

(For illustrative purposes, see Table I below which shows the region’s share of world GDP compared with Europe and North America. Asia’s share of global GDP in 1950 was 19 percent, behind Europe’s 30 percent and North America’s 31 percent. In four decades, Asia’s share of world GDP rose to 37 percent topping Europe’s 23 percent and North America’s 25 percent in 1998 with projections of 43 percent of world GDP by 2015).

More relevant, however, is the very high concentration of conventional forces that are adopting in their own ways new power projection capabilities with an emphasis on acquiring asymmetrical capabilities. While the circumstances vary quite markedly from state to state, the PLA’s focus on acquiring superior information warfare fighting capabilities, together with a long overdue replacement of its aging combat aircraft; the SDF’s comprehensive force modernization programs (including a strategic shift vis-à-vis China); South Korea’s own mid- to long-term defense modernization programs including next generation combat aircraft (FX), early warning aircraft (EX), and Aegis-class cruisers (KDX III); and North Korea’s continuing efforts to upgrade its ballistic missile forces coupled with on-going concerns on a potential nuclear weapons program suggests that almost all of the major armed forces in East Asia are in the process of implementing

their own versions of “defense transformations.” As a RAND study noted recently, “if or when they enter the geopolitical arena as confident ‘actors,’ they may find themselves engaged in heightened political-military competition or even conflict with their neighbors.”

The acquisition of more lethal, accurate, and mobile weapons systems connected by an increasingly modernized C^4ISR system (partially driven by Northeast Asia’s on-going Information and Communication Technologies revolution) means that for the first time in history, almost all of the mature armed forces in the region now have growing power projection capabilities. Such developments have also been spurred by latent strategic rivalries based on the specter of a rising China and India, a more security conscious and militarily capable Japan, the possibility of volatile if not violent transitions on the Korean Peninsula, and potential military clashes in the Taiwan Straits or in the South China Seas. Or as one noted US observer has written:

The information revolution spreading around the world brings much more diverse sources of intelligence to the Asian military decision-making system. Satellites, fiber-optic communication lines, computer networks, and cellular telephone technologies disgorge information that will transform civil-military relations in Asia. The new information technologies allow a quantum jump in perform-

Table 3. Shares of World GDP by Regions

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<tbody>
<tr>
<td>Asia</td>
<td>59%</td>
<td>38%</td>
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<td>10%</td>
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<td>31%</td>
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<td>25%</td>
<td>&gt;17%</td>
</tr>
<tr>
<td>Russia</td>
<td>5%</td>
<td>8%</td>
<td>9%</td>
<td>10%</td>
<td>9%</td>
<td>3%</td>
<td>3%</td>
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ance for key parts of the military... In some areas, like jet aircraft or
mechanized ground warfare, the Asian military is extremely backward,
compared to America or Europe. However, this assessment overlooks the
role of new information technologies in making missile strikes and other
tactics highly effective.46

As East Asia enters the 21st century, modernized power projection
capabilities have finally enabled most regional powers with the
ability to incrementally overcome the "tyranny of geography." To what
extent emerging strategic rivalries may escalate into actual conflicts
remains unknown, since one cannot assume that more robust power
projection capabilities will necessarily lead to strategic instability and
conflict. Given the very real prospects for enhanced friction in East
Asia over the next 10-15 years, owing to accelerated Chinese military
capabilities, more robust Japanese and South Korean air and naval
assets, and North Korea's on-going search to strengthen its correlation
of forces, preventive politico-military measures (including sub-regional
confidence-building measures) could be implemented. "But it is also
easy enough to imagine events—a mismanaged crisis on the Korean
Peninsula or a confrontation across the Taiwan Strait or over Kashmir—
that could shake strategic Asia to its core and bring powerful competi-
tive forces, now latent, to the surface."47

The First Revolution in Strategic Affairs (1850-1900)
and Western Primacy

Pundits and scholars alike hotly debated the cumulative effects
of "globalization" just as the industrial revolution was reaching a peak
in the 1890s. Coming on the heels of unparalleled economic growth,
a technological explosion, and relative political stability, the globaliza-
tion discourse of the 1890s and the early 1900s grappled with four
main issues. First, whether science and technology, and in particular,
the emergence of a truly global communications network, could spur

47 Ellings and Friedberg, Strategic Asia 2001-02, p. 23.
conceptual as well as policy changes including greater emphasis on diplomacy and eventually, the realization of the futility of war. Second, if global commerce (to the extent that new markets were being exploited with more speed than ever before) and corresponding wealth (albeit primarily within the Great Powers) could result in marked improvements in the human condition. Third, the prospects for participatory politics and "good governance," based on a growing awareness of human rights, social justice, political empowerment, and the virtues of civic society. And fourth, on the possibility of forging more genuine and lasting international peace, driven by the spread of liberal democracy, international institutions, universal norms and values, and global disarmament.

One of the key themes that permeated the first globalization debate was how progress in science and technology could be used not only in the sense of social engineering, but also in addressing the outstanding international issues of the day, including the primordial question of war and peace. In short, as the diffusion and proliferation of technology began to have truly national and global consequences, technology was being perceived not merely as a means to enhance productivity, but as a holistic change agent. Breakthroughs in key technologies meant that technology was being perceived for the first time as an indispensable "force multiplier", not only in the narrow military sense but also as a catalyst for potentially unlimited social, national, regional, and international progress. At the very same time, the darker side of technology was also being recognized, particularly in the arena of military capabilities. The Prussian Army was one of the first European armies to understand the symbiotic relationship between centralized command and control, transnational power projection capabilities, and modernized logistics. Technologies such as the steamship, railway, telegraph and cable, advanced munitions, chemical weapons, and the machine gun provided the professional armed forces with their first comprehensive revolution in military affairs (RMA) since the advent of gunpowder. 48 Thus, as the

48 Michael Howard, Wars in European History (Oxford: Oxford University Press), p. 34. Howard did not use the term "revolution in military affairs" in analyzing the advent of new technologies and strategies in the European
world’s first RMA accelerated from the Crimean War of 1854 until the First World War, governments began to grapple with the duality of technology: as an agent of progress as well as mass destruction, although the latter half did not fully register until the advent of the First World War.

The world’s first revolution in strategic affairs would not have occurred without a shift from the “old economy” to the “new economy” of the latter half of the 19th century. In a span of 50 years, beginning from the unsuccessful revolutions of 1848 until the outbreak of the Spanish-American War in 1898, more global wealth was created in this period than the previous 1,000 years. Measured in 1960 US dollars (billions), Great Britain’s GNP rose from $8.3 billion in 1840 to $29.4 billion in 1890 while Germany’s GNP increased from $10.3 billion to $26.4 billion in 1890. The rise of the United States as the emerging global power spurred the global economic expansion of the late 19th and early 20th centuries and by the dawn of the outbreak of World War I in 1914, the United States became the undisputed global economic power. With a national income of $37 billion, a population of 98 million and a per capita income of $377, the United States outclassed every single European power. Britain was eclipsed by Germany as the world’s second largest economic power on the eve of the Great War and Japan had emerged as the most powerful Asian power.

This global economic expansion was by no means universal, since it was limited principally to the “G-8” of the late 19th century. Nevertheless, the “first globalization” which can be said to have lasted from the 1850s to the early 1900s resulted in a debate uncannily familiar to the on-going discourse on the virtues or lack thereof of globalization. While the context of the globalization debate in the late 19th

50 Ibid., p. 242.
51 The “G-8” of the late 19th and early 20th centuries included the United States, Germany, Britain, France, Russia, Italy, Austria-Hungary, and Japan. With the exception of Austria and Hungary, the only new addition to the current G-8 is Canada.
century was assuredly different from the debate that would occur a hundred years hence, governments, corporations, the military, the scientific community, and the media were all trying to understand the cumulative effects of globalization. In particular, the advent of the telegraph—the 'internet' of the 19th century—and global commerce led many to believe that the central problem of endemic wars could be finally resolved through growing awareness of the futility and lethality of wars. As one British telegraph expert wrote in 1898:

An entirely new and much-improved method of conducting diplomatic relations between one country and another has come into use with the telegraph wire and cable. The facility and rapidity with which one government is now enabled to know the 'mind'—or, at any rate, the professed mind—of another, has been the means of averting diplomatic ruptures and consequent wars of the last few decades... On the whole, experience distinctly pronounces in favor of the pacific effects of telegraphy. (Italics added).52

Such hyperbole extended even into such respected journals as the Scientific American, which noted that the global communication revolution was going to result in greater understanding among nations and governments and the spreading of universal values. Most important, it noted that the “welding of human sympathy” was a “spectacle unparalleled in history... and indicative of a day when science shall have so blended, interwoven and unified human thoughts and interests.”53 While ordaining the future was as imprecise a century ago as it is today, it bears mentioning that just two decades after these and similar pronouncements were made, almost all of the world’s major powers would be engulfed in history’s most destructive war—until the outbreak of an even more catastrophic conflict two decades after the end of the “war to end all wars.” Contrary to popular expectations, the global economic expansion that preceded the First World War did not result in a peace dividend but were channeled increasingly into building more mobile and lethal armed

53 Ibid., p. 162.
forces.

The tremendous acceleration in global manufacturing output based on more efficient energy supplies and quantum leaps in manufacturing technologies enabled the United States, Great Britain, and France to hold a 51.7 percent share in world manufacturing production compared to 19.2 percent in Germany and the Austro-Hungarian Empire.\(^{54}\) Based on these developments, the military and naval personnel of the Great Powers registered a sharp increase from 1880 until 1914. Russia’s total force grew from 791,000 to 1,352,000 in the period, whereas Germany’s military increased from 426,000 to 910,000. Japan and the United States registered the sharpest growth.

In 1880, the United States had a total force of 34,000 troops and Japan had 71,000 in the Imperial Army and Navy. In 1914, the US military grew to 164,000 while Japan’s grew to 306,000.\(^{55}\) Warship tonnage in the period from 1880 to 1914 (the most coveted power projection means of the time) shows a similar trend although Britain remained as the undisputed naval power in 1914 with 2,714,000 tons compared to 1,305,000 tons for Germany, 985,000 tons for the United States, 900,000 tons for France, and 700,000 tons for Japan.\(^{56}\) (Most significantly perhaps, Japan’s warship tonnage was a mere 15,000 tons in 1880 which was the smallest of the major powers. By 1914, however, she would displace Russia, Italy, and Austria-Hungary in terms of total tonnage).

The modernization of these military establishments began to have global consequences even prior to the outbreak of World War I. The Spanish-American War of 1898 symbolized the preponderance of American power in the Western Hemisphere and the beginning of the United States’ strategic presence in the Asia-Pacific region based on its possession of the Philippines. Within Asia, the industrialization and military modernization of Japan in the decades following the Meiji Restoration of 1868 enabled it to displace China as the regional hegemon and Russia as a potential hegemon through the Sino-Japanese War of 1894-1895 and the Russo-Japanese War of 1905-1906.

\(^{55}\) Ibid., p. 203.
\(^{56}\) Ibid.
From a historical spectrum, the emergence of Japan as a de facto “Western” military power in less than five decades broke the Western powers’ monopoly on power projection from at least the early 17th century. Without the harnessing of modern technologies—particularly in the military arena—Japan would not have been able to contest Chinese, Russian, and eventually, American supremacy in the Asia-Pacific region.

War broke out in 1914, owing to a confluence of forces such as the breakdown in Europe’s classical balance of power and attendant alliances, entrenched jingoism or hyper-nationalism, and the absence of more viable peacekeeping institutions and regimes. The sheer carnage that was unleashed during the war, resulted in two key developments: the push for disarmament and growing pacifism in selected Western states and the growing realization of the need for government-sponsored scientific research and development. While the application of technology to enhance political and military objectives was not new, the sheer magnitude of opportunities rendered by technological advances following the First World War was without parallel. The harnessing of new technologies for a new political order, backed up by the most advanced military force, was most adroitly exploited by Nazi Germany after Adolf Hitler became Fuehrer of the Third Reich and commander-in-chief of the Wehrmacht in August 1934.\(^{57}\)

The power of mass agitation and propaganda (or agitprop) based on modern communications was first demonstrated following the Bolshevik Revolution but ultimately masterminded by Nazi Germany and subsequently in Fascist Italy and Imperial Japan.

By way of summary, perhaps one of the most important consequences of the first globalization was the undeniable marriage between politics and technology. More precisely, as scientific knowledge and R&D witnessed phenomenal leaps during the interwar years, technological advancement became synonymous with progress and power, but especially as a manifestation of the latter. In the

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\(^{57}\) For a lucid treatment of the rise of the Wehrmacht, see Albert Seaton, German Army 1933-1945 (New York: St. Martin’s Press, Inc., 1982). In a foreboding development, all members of the Wehrmacht whom had hitherto pledged allegiance to the Weimar constitution were ordered to pledge their personal and absolute loyalty to Hitler.
military domain, the advent of avionics in the First World War expanded the theater of operations to the air. By the closing days of the Second World War, the Wehrmacht's V-2 demonstrated the devastating impact of a ballistic missile attack. Had Germany developed and deployed the V-2 just a year or two earlier, the outcome of the European campaign—and by inference, the final settlement of the Second World War—could have been very different. But the development of the atomic bomb and the destruction of Hiroshima and Nagasaki in 1945, symbolized most poignantly the unparalleled dichotomy of modern technology, as a purveyor of progress and destruction. As the world ventured uncertainly into the nuclear age, grappling with this central dichotomy would become, in many respects, the sine qua non of postwar international relations.

The Second Revolution in Strategic Affairs (Post-1945) and East Asia's Future

The tipping point of the first revolution in strategic affairs coincided with the outbreak of the First World War, and in many respects, the symbiosis between technology and power also took a new turn. Hard power still mattered (as it still does today) but the advent of modern technologies during and after the First World War nevertheless revealed the coming of age of soft power. To be sure, the full spectrum of the initial telecommunications revolution would not be felt until the late 1950s with the invention of the transistor (if not still later with the coming of the internet), but the conceptual melding of hard and power has its origins in the first globalization era.

Contrary to conventional wisdom, it was not the Gulf War, but the Second World War, which was the testing ground for the world's first comprehensive technology-intensive war. Granted that, while smart weapons and real-time communications were not available during the Second World War, this conflict—more than any other—shaped the backbone of the post-war armed forces. More importantly, the Second World War was the first conflict that enabled nations to project their power globally, thus overcoming the tyranny of distance.
Nevertheless, resolving the problem of distance only answered one part of the strategic equation, since modern technologies still cannot solve the question of maintaining a strategic presence solely, or primarily, on the basis of technologies.\footnote{Emerging technologies such as space-based weapons systems, other aerospace platforms, as well as unmanned combat aircraft and submarines could one day diminish the need for forward presence. Nevertheless, crises and conflicts, which necessitate rapidly deployed forces, operations other than war (OOTW), and variations of low intensity conflicts (LICs) and humanitarian intervention operations, will still require a minimum level of armed personnel.}

The Western mastery of technology that continued for some 200 years enabled Western Europe and the United States to emerge as key global powers. This preponderance of military power combined with modern economic and technological infrastructures was the essential ingredient that prevented other powers from contesting Western supremacy. As Paul Bracken points out in Fire in the East, the West was able to shape the international community largely on account of its military supremacy but he notes that this hegemony is coming to an end:

> The industrialization and economic growth in Asia in the 1990s started in the 1960s, when Japan proved that it could be done, that industrialization was not a Western monopoly. This had nothing to do with the start or the end of the cold war. Rather, it proved that what Japan could do, so could China and India. If it could be done in industry, it could also be done in the military. The world now is going through this more basic transition: full bore into what is not a post-Cold War era but a post-Vasco da Gama one. It is a world where Asian economies and Asian military power are much more important factors in world politics, and where the automatic presumption of Western control over each no longer holds.\footnote{Bracken, Fire in the East, p. xvii.} (Italics added).

Technological prowess no doubt was a central factor in pushing the United States to superpower status during the Cold War but the Vietnamese conflict demonstrated that technology alone could not guarantee success on the battlefield. More important, the de facto Western monopoly on key dual-use and military technologies would
slowly begin to ebb during the latter phases of the second revolution in strategic affairs, coincident with the ending of the Cold War. The fusion of technology and politics during the first revolution in strategic affairs was an important paradigm shift since it became impossible to divorce the two, but for the most part, the exploitation of technologies was still confined to that elite group of nation-states that formed the nucleus of the world’s first globalization revolution. The second revolution in strategic affairs, however, would lay the foundation for an even more important shift: namely, nation-states other than the G-8 were beginning to acquire an array of modern technologies including asymmetric weapons systems and more ominously, weapons of mass destruction.

The infusion of modern technology into non-Western nations really began in the post-Second World War era, although there were exceptions such as Meiji Japan. As the global economy grew, following the reconstruction of Europe and Japan, other regions also began to develop including East Asia, Latin America and selective states in the Middle East although the latter’s growth was based primarily on oil reserves. By the 1970s when East Asia’s Four Tigers began to emulate Japan with their double-digit GDP growth, they also began to acquire weapons systems that are more modern. Clearly, there were constraints and limitations ranging from alliance politics to limited financial resources to legal roadblocks. However, the accelerated development and marketing of dual-use technologies, growing defense industrial capabilities, post-colonial expressions of nationalism, and defense self-sufficiency among other factors contributed to the gradual upgrading of the region's military forces.

Nevertheless, advanced military systems were not just for the wealthy or the newly-wealthy. Every decade since the 1950s we have seen the emergence of a new nuclear weapon state or a virtual nuclear weapon state and, with the exception of Israel, all of them have been Asian states. China tested its first nuclear device in 1964 between the disastrous Great Leap Forward and the Cultural Revolution. When India tested its first “peaceful nuclear device” in 1974, it elevated the Indo-Pakistani rivalry to the nuclear level since Pakistan was determined to develop its own nuclear arsenal as it eventually did. In the 1980s, North Korea began to work on a clandestine nuclear weapons
program, which to this day remains one of the core nuclear proliferation threats. In June 1998, India conducted its first open nuclear weapons test, followed closely by Pakistan's own nuclear test. During the four decades following the Korean War, other countries tried to acquire nuclear weapons such as Iraq, Brazil, and South Africa—although Pretoria “voluntarily” dismantled its limited nuclear arsenal prior to the coming to power of a black majority government. South Korea and Taiwan, it has been suggested, also tried to develop their own nuclear weapons, based on growing concern beginning in the early 1970s as the United States began to disengage from the war in Vietnam.

The military implications of East Asia's rise are varied, although three principal questions demand close attention. First, what are the chances of a major power transition? Specifically, if China does become the region’s most dominant economic as well as military power over the next two to three decades, how will the United States react? How will a powerful, if not dominating China, affect the security policies and military strategies of the United States, Japan, and Korea? Second, based on the ongoing revolution in military affairs (RMA) and the overall ability of the regional actors to acquire increasingly sophisticated weapons systems, what type of forces will the regional actors be likely to possess in the mid- to longer-term? In particular, what type of power projection capabilities or other “destabilizing” systems will the regional actors possess? Third, the potential sources of conflict in a region that could be increasingly characterized by multipolar dynamics. Or, as one observer noted in the early 1990s, just as East Asia was focusing its efforts on active force modernizations,

60 Although force modernization imperatives are driven by a number of factors such as threat assessments, access to modern weapons systems and technologies, financial resources and political considerations, many of the regional actors have focused their recent acquisition programs in the following areas: (1) command, control and communications systems; (2) national strategic and tactical intelligence systems; (3) multipurpose combat aircraft; (4) maritime surveillance aircraft; (5) modern surface combatants; (6) anti-ship missiles (both ground- and sea-launched); (7) submarines; (8) electronic warfare systems; and (9) rapid deployment forces. For additional details, see Desmond Ball, “Arms and Affluence: Military Acquisitions in the Asia-Pacific Region,” International Security, Vol. 18, No. 3 (Winter 1993/94), p. 81.
“what is unfolding in East Asia is a race between the accelerating dynamics of multipolarity which could increase the chances of conflict, and the growth of mitigating factors that should tend to dampen them and to improve the prospects for a continuing peace. This race is in its early stages and it is still too soon to pick a winner.”

For the foreseeable future, the United States is likely to remain as the most powerful actor in East Asia, since it is the only truly global power. At the end of the day, notwithstanding criticisms on the pros and cons of US strategy toward the region, the fact remains that regional stability would be impaired, perhaps substantially, if the United States were to withdraw its forward presence from the Western Pacific. In the post-Cold War era, however, and despite the fact that the United States intends to remain fully engaged in the region, some have questioned whether the relative decline in US military capabilities signals a longer-term trend towards incremental disengagement from the region.

More significantly, however, as the geo-strategic focus shifts from Europe to East Asia, US security objectives are bound to change from maintaining strategic stability writ large to “preclude in Asia the growth of rivalries, suspicions, and insecurities that could lead to war.” Closely connected with such an overall objective are three subordinate goals: (1) preventing the rise of a regional hegemon, given that “any potential Asian hegemon would seek to undermine the role of the United States in Asia” and further, that “given Asia’s human, technological, and economic resources, the domination of the region by a hostile power would pose a global challenge and threaten the current international order;” (2) maintaining stability since stability has been the bedrock of Asian prosperity and security; and (3) managing Asia’s transformation with a special emphasis on influencing a range of events “so that they do not spiral out of control.” How the United States will be able to solidify such goals into viable policies remains to be seen but “assertive environment shaping” in the context

62 Khalilzad, et. al., The United States and East Asia: Toward a New US Strategy and Force Posture, p. xii.
63 Ibid.
of preserving and strengthening US strategic interests in East Asia within the framework of rising Asian powers is likely to be even more challenging than the US-Soviet rivalry of the Cold War.

**East Asia’s Strategic Choices and Regional Consequences**

Quite apart from the fact that the United States is likely to remain as a viable Asia-Pacific power and unlikely emergence of a comprehensive peer competitor any time in the near future, capability gains have been and continue to be made by most of the regional actors. Just how East Asia’s strategic environment will evolve over the ensuing 15-20 years timeframe remains highly uncertain, but certain glimpses can be gained. The primary concern is focused currently on how the regional strategic equilibrium will be affected by a confluence of forces—including, although not limited to, such factors as Russia’s rapid decline, the continuing rise of China, Japan’s prolonged stagnation, and the beginnings of an Indian take-off.  

In certain respects, 21st century Asia may come to resemble 19th century Europe. Asia, like Europe, will probably contain a group of big powers (including China, India, Russia, and Japan, with the United States playing a role from across the Pacific) as well as several somewhat less powerful, but still potentially quite capable actors (perhaps including a unified Korea, Taiwan, Australia, Vietnam, and possibly Indonesia). . . . If 500 years of European history are any guide, the prospect of a multi-polar system emerging in Asia cannot be an especially comforting one . . . whether or not Asia evolves into a truly multi-polar system, with all of the accompanying pathologies and dangers, it does appear to possess in China a rapidly rising and potentially-dominant state . . . As they grow stronger, emerging powers typically seek to change the status quo, and sometimes to overthrow it, smashing old arrangements and replacing them with new ones that more accurately reflect their own conception of their proper place in the world.  

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64 Ellings and Friedberg, Strategic Asia 2001-02: Power and Purpose, p. 10.
According to a CIA report entitled Global Trends 2015 some of the more salient issues includes the ability to manage new power relationships, the strategic goals that are likely to be espoused by China and other major powers in the region, and the military potential of China, Japan, and Korea (including a unified Korea). Insofar as the PLA is concerned, this report noted that it was not going to be fully modernized until 2015—although by that time, China could close the technological gap with the West in one or more major weapons systems. On the basis of “exploiting advanced weapons and production technologies acquired from abroad” China will be able to “integrate naval and air capabilities against Taiwan and potential adversaries in the South China Sea.” More alarming, both for the United States and other regional actors (notably Japan and South Korea) is the expectation that China by 2015 will have deployed tens to several tens of missiles—including survivable-land and sea-based mobile missiles as well as hundreds of shorter-range ballistic and cruise missiles for use in regional conflicts. As a case in point, a CIA study published in December 2001 noted, in part, that “the ballistic missile remains a central element in the military arsenals of nations around the globe and almost certainly will retain this status over the next 15 years.”

The report further noted that:

Most US Intelligence Community agencies project that during the next 15 years the United States most likely will face ICBM threats from North Korea and Iran, and possibly Iraq—barring significant changes in their political orientations—in addition to the strategic forces of Russia and China. One agency assesses that the United States is unlikely to face an ICBM threat from Iran before 2015.

The threats to the US homeland, nevertheless, will consist of dramatically fewer warheads than today owing to significant reductions in Russian strategic forces. China has been modernizing its long-range strategic missile force since the mid-1980s, shifting from reliance primarily on silo-based liquid-propellant CSS-4s to mobile solid-propellant systems. The Intelligence Community projects that by

67 Ibid.
2015, the total number of Chinese strategic warheads will rise several-fold, though it will remain still well below the number of Russian or US forces.\(^68\) (Italics added).

The debate on whether China is likely to pose a significant strategic challenge to the United States as well as East Asia in general is a hot one with no clear end in sight. According to Ellis Joffe, “the buildup of the Chinese armed forces that feeds the US perception of a military threat from a rising China will continue but the perception should be qualified by recognition of the restraints that limit the buildup.”\(^69\) He argues that three key missions are driving China’s military buildup in the short-term: first, to deter a major conventional or nuclear US attack on China; second, to have the necessary forces to invade Taiwan if warranted; and third, “to prevent intervention by the United States if Beijing decides to impose reunification with Taiwan by force. While China’s armed forces are probably adequate for the first mission, they are woefully inadequate for the second and third.”\(^70\) Insofar as Chinese air power upgrades are concerned, Joffe asserts that while it is true that the Chinese air force is being modernized by purchases from Russia, licensed production of advanced fighter aircraft with Russian and Israeli technology, and more effective air defenses with Russian SAMS, “the Chinese are not implementing these programs on a crash basis, and most of them will not bear for years.”\(^71\) Conversely, others have noted that “what is most striking about this development is that the United States and its allies have accommodated themselves to Chinese power in Northeast Asia. Because of a continued US regional presence, America’s allies have not considered China’s strategic power a threat to the regional balance.”\(^72\)


\(^{70}\) Ibid.

\(^{71}\) Ibid.
The key source of concern is that China is the primary candidate that could, if it so desired, acquire the requisite military capabilities that could prove to be destabilizing. For Beijing, one of the most undesirable outcomes is if Japan ultimately picks up the slack created by an eventual US withdrawal or incremental disengagement. "China is determined that Japan should not replace the United States as Asia-Pacific’s dominant maritime power."73 To this end, some have argued that China is in the process of pursuing a three-stage naval strategy. First, by the early 21st century, China would acquire a navy capable enough to establish sea control out to the "first island chain," or the

Table 4. Armed Forces of Selective Asian States: 2002

<table>
<thead>
<tr>
<th>Country</th>
<th>Defense Budget and Armed Forces Total</th>
<th>Combat Aircraft</th>
<th>Principal Surface Combatants</th>
<th>Submarines</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>$20bn/ 2,270,000</td>
<td>1,900</td>
<td>63</td>
<td>69 (1 strategic)</td>
</tr>
<tr>
<td>India</td>
<td>$15.6bn/ 1,298,000</td>
<td>701</td>
<td>27</td>
<td>16</td>
</tr>
<tr>
<td>Pakistan</td>
<td>$2.6bn/ 620,000</td>
<td>366</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Japan</td>
<td>$42.6bn/ 239,000</td>
<td>280</td>
<td>54</td>
<td>16</td>
</tr>
<tr>
<td>North Korea</td>
<td>$3.2bn/ 1,082,000</td>
<td>621</td>
<td>3</td>
<td>(310 patrol and Coastal Combatants)</td>
</tr>
<tr>
<td>South Korea</td>
<td>$14.1bn/ 686,000</td>
<td>538</td>
<td>39</td>
<td>(84 patrol and coastal combatants)</td>
</tr>
<tr>
<td>Taiwan</td>
<td>$7.0bn/ 370,000</td>
<td>479</td>
<td>32</td>
<td>4</td>
</tr>
</tbody>
</table>


area between Japan and the Chinese mainland and a single line from
Japan though Okinawa, Taiwan, the Philippines, and the Indonesian
archipelago. Second, by 2020, China would acquire the capability to
secure sea control out to the “second island chain” including the
Bonins, the Marianas, and Palau. Third, by 2050, China would have
a fully operational blue-water naval capability including aircraft
carriers. According to this line of thought, while the PLA Navy
(PLAN) is constrained at the present time by technology and financial
limitations, the key point is that China is committed to the longer-
term creation of a blue-water navy with an emphasis on sea control
just as the US Navy is shifting its maritime strategy away from sea
control.

One of the key areas that have gained increasing attention is the
PLA Air Force’s (PLAAF) concerted modernization efforts since the
early 1990s, particularly significant Russian assistance. China con-
ccluded a deal with Russia to purchase 72 Su-30 MKK fighters with
an agreement for licensed production of 250 more. It has also been
reported that the PLAAF has started to receive delivery of some Su-
30s. According to one Taiwanese analyst, China’s push for aircraft
modernization stems from a confluence of factors including the fol-
lowing points. (1) strategic lessons from the Gulf War that convinced
the Chinese military leadership of the critical role of air power in the
conduct of modern limited warfare; (2) the rise of Russia as a crucial
supplier in the post-Tiananmen environment; (3) China’s continuing
sovereignty claims over Taiwan and the Spratlys that highlights
China’s potential conflict areas on the country’s coastal islands a
 corresponding shift from a military strategy that focused on a large-
scale, nuclear war to local and more limited conflicts; and (4) the
ability of the PLAAF to easily accommodate Russian fighters given
the dominance of Chinese military hardware by Soviet manufacture

74 Ibid., pp 36-37.
75 For an interesting perspective on the potential for discord between the United
States and China, see Ulysses O. Zalamea “Eagles and Dragons at Sea,”
76 Ming-yen Tsai, China’s Acquisition of Russian SU Fighters: A Great Leap
org.tw/peaceforum/papers/2001-02/MM0102001e.htm.
and design. Not surprisingly, the modernization of the PLAAF has also been a rising source of concern to India. A.K. Sachdev has written that a critical assessment of the PLAAF’s ongoing modernization efforts, coupled with enhanced war-fighting capabilities indicates that “there is a definite trend towards a substantial qualitative improvement in the combat capability of the PLAAF starting from 2005 onwards by which time the Su-27 fleet would become effective and at least one more current development program reached fruition stage.”

Despite continuing disagreement on the capabilities, intents, and strategic ramifications of China’s air power modernization program, there seems to be a working consensus that for now, and in the short-term, PLAAF modernization programs may be constrained by strategic and fiscal factors that places an emphasis on “defense of distant territories” as its first priority that includes “some fighters with advanced performance and avionics” but that “the general direction of the PLAAF modernization would, in the long run, lead to an air force able to meet its strategy, an air force ready to be ‘modern rapid response force prepared for regional, limited wars.’” Or, as Jonathan D. Pollack has written, “slowly but inexorably, the Chinese are acquiring the requisite military capabilities that will enable Beijing to assume a more pivotal role in shaping the future security contours of East Asia. These capabilities are not fully realized at present, nor would they automatically translate into a more assertive state intent on intimidating its neighbors. But the emergence of China as a more capable military power is a core component of an ineluctable strategic realignment in East Asia.”

From the perspective of East Asia, the rise of China is a latent

77 Ibid.
rather than a more immediate threat. Throughout the Taiwan Straits crisis of 1995-1996, almost all of the East Asian countries voiced opposition to China’s “missile boat diplomacy” but their criticisms were aired both against China for demonstrating its military capability in such an open fashion as well as Taiwan for creating the grounds for Chinese animosity. Reactions to increasing Chinese capabilities and more aggressive policies (such as in the South China Sea) have varied. Most of the ASEAN states have chosen what one observer has characterized as “preemptive accommodation” whereas other Asian states have chosen to signal their concerns through “quiet diplomacy.” While such policies could well be seen as a de facto acceptance of China’s role in the region, virtually none of the regional actors is comfortable with the notion of a much more powerful China. The specter of an increasingly powerful China contributes to a new security dilemma for the region. None of the regional actors [ADD have] has the capability to unilaterally check Chinese ambitions, although all of them harbor varying degrees of reservations on an increasingly robust Chinese presence in the region. In turn, while East Asian states do not officially allude to the “China threat,” no other strategic factors loom as large as the growing ascent of China.

The rise of China also entails significant challenges for Japan. Given outstanding historical, political, legal and alliance management constraints, Japan faces considerable obstacles in articulating a longer-term threat from China. But Japan is unmistakably concerned about the specter of a very powerful China. So far, Japan has chosen to respond to potential crises in the region by updating and improving its national security-planning infrastructure and by re-emphasizing the centrality of its alliance with the United States. In addition, Japan has quietly but undeniably embarked on a force modernization program over the last decade. As one analyst noted, “Japan’s defense program will keep the Japan Maritime Self Defense force (JMSDF) the most powerful Asian navy, with the potential to expand if the United

81 Over the last one hundred years, Japan has been the only East Asian country that directly contested China militarily and emerged victorious on both occasions. Unlike the late 1890s or the 1930s, China today is the strongest it has ever been in economic and military terms and is the only Asian power that can pose direct challenges to Japan’s longer-term strategic interests.
States eventually does withdraw."\(^{82}\) Within 30 months, Japan could construct an aircraft carrier from the keel up and has some 200 F-15's in service that are carrier-compatible. According to a formal Australian defense attache who was assigned to Tokyo, "if the requirement arose, Japan could produce a fully operational carrier battle force within four years and another in the following year." Overall, while Japan currently has a relatively small force, it is "more able than any other in Asia to integrate large quantities of new weaponry."\(^{83}\) Ironically, North Korea was primarily responsible for fueling Japan's turn to a more robust security posture, and in the process, has also led to greater policy coordination between the United States, Korea, and Japan. As the Economist commented after the August 1998 North Korean Taepo Dong-1 test launch:

> North Korea's provocation [August 1998 missile test] stung Japan into joining America's new Theatre Missile Defence (TMD) program... If it could be made to work (at present a big if), the TMD would be able to reach out across China to the borders of Mongolia and Tibet and over the South China Sea to Thailand, Malaysia, Indonesia and the Philippines.\(^{84}\)

While it is impossible to predict just how the North Korean program will change Japan's long-term security perceptions and priorities, at a minimum, an already close security arrangement between the United States and Japan is likely to get stronger with greater emphasis on acquiring more advanced power projection capabilities.\(^{85}\) As noted above, despite its quantitatively limited size compared to

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82 Cole, "Asia at Sea," p. 36.
83 Ibid.
85 After the signing of the US-Japan Defense Guidelines in April 1996, both sides have moved cautiously on the question of enhancing bilateral coordination mechanisms. In December 1997, it was reported that Washington and Tokyo were looking into setting up a mechanism to coordinate policy and military deployments in the event of a crisis in East Asia. These and other efforts are likely to be expedited, or at the very least, given more serious consideration by the Japanese government in light of the North Korean missile test. For additional details, see “Crisis Planning,” Oriental Economist, Vol. 65, No. 10 (Dec. 1997), p. 16.
neighboring forces such as China and the two Koreas, Japan’s SDF has grown into a very capable military force. “Tokyo already has most of the components of a large, modern military. Japanese naval forces are becoming skilled at fighting simulated battles abroad, as evidenced by a spate of recent exercises.” In September 2000 Japan took delivery of the first of 130 multi-role F-2 fighter-bombers—an advanced version of the US F-16 assembled in Japan and armed with Maverick ASMs. The F-2s will replace the aging F-1 fighters support 200 US-built F-15s currently in service in the ASDF. After the United States, Japan has the largest navy in the Pacific and a concerted defense transformation has been underway since the mid-1990s. It has already in service four Boeing 767 AWACS that has improved the expeditionary capability of the ASDF with plans to procure four more Boeing 767 aerial refueling aircraft that will provide the land-based F-15s with increased ranges of up to 3,000 miles. As the Financial Times noted in 2001:

Japan’s attempts to devise an international role for the SDF have met stubborn resistance from domestic politicians and alarm in capitals around Asia, who fear any expansion of the SDF’s capabilities would be a return to its militaristic past. The result is that for nearly 50 years, Japan has relied for its defense on the nearly 21,000 US troops stationed on its soil, at a cost to the Japanese government of nearly $2 billion a year. Now, however, support is growing in Tokyo for a fundamental review. Junichiro Koizumi, prime minister since April 2001, has spoken out strongly in favour of revising the constitution and exploring new roles for the SDF. In a notable break with his predecessors, Mr. Koizumi has also hinted that the SDF is a ‘military’ instead of a simply a ‘force.’

Even as Japan upgrades and modernizes its power projection and deterrent capabilities, there is little concern, for the moment, that Japan would not continue to maintain its central security arrangement with the United States owing to a combination of security, political, and

military reasons. That said, as a recent RAND study indicated, Japan has moved to implement a more robust security policy on the basis of a “normal nation” status that enables the Japanese to see “both incentives and opportunities to diversify and deepen their political and security relationships across Northeast Asia while simultaneously enhancing technology programs and operational-policy linkages with the United States.”  At the same time, however, the report also notes that these efforts point to over the next decade the emergence of a Japanese leadership “far more willing to chart its own course, with a far clearer concept of Japan’s long-term national interests” and that “even though Japanese actions appear embedded in the prevailing framework of the bilateral alliance with the United States, the evidence of shifting directions is palpable” (Italics added).

Force modernization efforts in South Korea have proceeded robustly since the 1990s. By 2003, the Ministry of National Defense is calling for a fundamental reappraisal of the ROK’s defense needs and to move from that basis to the creation of a more robust but slim-downed force structure. Specifically, the plan calls for the ROK to field a force which will enable it to continue to meet a spectrum of threats from the North while at the same time, adjusting to uncertain strategic trends in the region. It stresses the need for capabilities-based defense planning while forging strategic alliances that will enable the ROK to maximize its defense potential. Thus far, the ROK’s defense modernization and force improvement plans have focused on the need to achieve parity with the KPA. Clearly, so long as the ROK continues to face a quantitatively stronger KPA, the need to narrow the “bean count” is understandable. The August 2001 “Mid-Term Defense Plan: 2001-2006” notes that the ROK Armed Forces currently stands at 79 percent of the KPA while this figure is slated to be increased to 88 percent by 2004 with the ability to target all sectors of North Korea with early warning and monitoring capabilities combined with strategic target acquisition and destruction capabilities through its next-generation fighter aircraft (FX), enhanced air defense

89 Ibid.
East Asia's Awakening from Strategic Hibernation and the Role of Air Power

(SAM-X), early warning aircraft (EX), and the KDX-3 cruisers.

By 2015, the Basic Defense Policy Report (published in February 1999) hopes to achieve seven major goals in order to move away from a North Korea-centric force improvement plan. Analysts note that while the ROK’s efforts to match the KPA’s key force outlays throughout the 1970s and 1980s was understandable, the net result was that the ROK was unable to develop a robust strategic plan to better meet evolving defense needs. This is particularly true in the post-Gulf War era with the accelerated demand for information warfare capabilities, the expansion of battle space, new and more complex battle management demands, and RMA intensive weapons systems. The MND has argued that henceforth it will not only streamline the existing force, but also “drastically” reduce organizational inertia and redundancy. It plans to achieve this goal through the following areas: (1) information-dominant force structure; (2) enhanced maneuverability; (3) sea-based capabilities; (4) the need to field offensive-capable force structures; (5) air defense systems including ABM capabilities; and (6) improvement of artillery forces. The MND has provided five key reasons in order to justify the need for wide-ranging reforms in the South Korean armed forces.

As for North Korea, it has emphasized the development (and limited exports) of ballistic missiles for the past two to three decades as a critical component of its force improvement plan and in that period, North Korea has managed to successfully develop, test and partially deploy medium- and long-range missiles. North Korea’s pilot missile program began when it became involved in a Chinese effort to develop the Dongfeng 61, a 600 km range ballistic missile in the mid-1970s. However, while this program was ultimately aborted, North Korea continued to actively pursue Scud B technology to create a basis for its own in-house ballistic missile program. In 1981 North Korea received a small number of Scud Bs from Egypt and eventually succeeded in reverse engineered the system and first flight tested the Scud Mod A (a copy of the Scud B) in 1984. As the August 1998 Taepo

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90 Proliferation: Threat and Response, p. 8.
Dong-1 test launch illustrated, North Korea has attained significant know-how. “That launch demonstrated some important aspects of ICBM development, most notably multiple-stage separation. While the [US] intelligence community expected a TD-1 launch for some time, it did not anticipate that the missile would have a third stage or that it would be used to attempt to place a satellite in orbit.” (Emphasis added).93 To be sure, the North still faces problems with the third stage so that it will take time before it is able to develop ICBM capability (over 5,500 km) but the test amply showed North Korea’s inherent long-range ballistic missile capability.

In essence, one of the most interesting elements of North Korea’s missile program is the fact that it continues to expand its missile forces (such as the long-range Taepo Dong-1) in the aftermath of the historic South-North summit and interim agreement with the United States to suspend long-range missile tests in September 1999 and June 2000. From North Korea’s vantage point, its missile forces provide a strategic buffer against progressively worsening correlation of forces and also as a shield against external pressures such as globalization and the information revolution. North Korean missiles also provide the regime with political leverage since it thrives on pushing the strategic envelope through the perpetuation of crises that in turn enables the regime to maintain iron-clad rule at home. South Korea, the United States, and Japan (the three major countries affected most directly by North Korean missiles) agree that North Korea’s missile threat is an extremely serious one given North Korea’s ability to use chemical or biological warheads. The possibility cannot be discounted that North Korea could ultimately opt to negotiate away its missiles in return for significant economic assistance from South Korea, the United States, and Japan. If a comprehensive arms control agreement can be reached between the two Koreas with stringent verification and on-site inspection regimes, the possibility exists that North Korea’s as well as South Korea’s limited ballistic missile forces could be dismantled. Nevertheless, such options are bound to face tremendous

92 Ibid.
Table 5. Missile Inventory in Key Asian States

<table>
<thead>
<tr>
<th>Country</th>
<th>Missile</th>
<th>Type</th>
<th>Range</th>
<th>Weight</th>
<th>Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>M-7 (CSS-8)</td>
<td>Operational</td>
<td>150 km / 190 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-11 (CSS-X-7)</td>
<td>Operational</td>
<td>300 km / 800 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-15 (CSS-6)</td>
<td>Operational</td>
<td>600 km / 500 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-21A (CSS-5, Mod 2)</td>
<td>Operational</td>
<td>1,800 km / 2,000 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-21 (CSS-5, Mod 1)</td>
<td>Operational</td>
<td>2,500 km / 600 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-3A (CSS-2)</td>
<td>Operational</td>
<td>2,800 km / 2,150 kg</td>
<td>Domestic / Russia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-4 (CSS-3)</td>
<td>Operational</td>
<td>5,500 km / 2,200 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-31</td>
<td>Tested/ Development</td>
<td>8,000 km / 700 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-41</td>
<td>Program Cancelled?</td>
<td>12,000 km / 800 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DF-5A (CSS-4)</td>
<td>Operational</td>
<td>13,000 km / 3,200 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Julang 1 (SLBM)</td>
<td>Operational</td>
<td>1,000 km / 600 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Julang 2 (SLBM)</td>
<td>Tested/ Development</td>
<td>8,000 km / 700 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td>India</td>
<td>Prithvi-1</td>
<td>Operational</td>
<td>150 km / 1,000 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prithvi-2</td>
<td>Operational</td>
<td>250 km / 500 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dhanush/ Prithvi-3</td>
<td>Tested/ Development</td>
<td>350 km / 1,000 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agni-1 variant</td>
<td>Tested/ Development</td>
<td>725 km / -1,000 kg</td>
<td>Domestic Production</td>
<td></td>
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<td></td>
<td>Agni-1</td>
<td>Tested/ Prototype Only</td>
<td>1,500 km / 1,000 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agni-2</td>
<td>Serial Production</td>
<td>2,000 km / 1,000 kg</td>
<td>Domestic Production</td>
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<td></td>
<td>Agni-3</td>
<td>Development</td>
<td>3,000-5,500 km / ? kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surya</td>
<td>Development</td>
<td>5,500+ km / 2,000 kg</td>
<td>Domestic / Russia</td>
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<tr>
<td></td>
<td>Sagarika (SLBM)</td>
<td>Development</td>
<td>350 km / 500 kg</td>
<td>Domestic / Russia</td>
<td></td>
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<tr>
<td>Pakistan</td>
<td>Haifa-1</td>
<td>Operational</td>
<td>80-100 km / 500 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Haifa-2</td>
<td>Tested/ Development</td>
<td>190 km / 500 kg</td>
<td>Domestic / China</td>
<td></td>
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<tr>
<td></td>
<td>Haifa-3 (Ghaznavi)</td>
<td>Tested/ Development</td>
<td>280 km / 500 kg</td>
<td>Domestic / China</td>
<td></td>
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<tr>
<td></td>
<td>Tarmuk</td>
<td>Development</td>
<td>300 km / 800 kg</td>
<td>Domestic / China</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Haider-1</td>
<td>Development</td>
<td>350 km / ? kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shaheen-1</td>
<td>Tested/ Development</td>
<td>750 km / 500 kg</td>
<td>Domestic / China</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ghauri-1 (Nodong-1)</td>
<td>Tested/ Development</td>
<td>1,300+ km / 700 kg</td>
<td>Domestic / N. Korea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ghauri-2</td>
<td>Tested/ Development</td>
<td>2,300 km / 700 kg</td>
<td>Domestic / N. Korea</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shaheen-2</td>
<td>Development</td>
<td>2,500 km / 1,000 kg</td>
<td>Domestic / China</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ghauri-3</td>
<td>Engine Tested/ Development</td>
<td>3,000 km / ? kg</td>
<td>Domestic / N. Korea</td>
<td></td>
</tr>
<tr>
<td>Iran</td>
<td>Mushak-120</td>
<td>Operational</td>
<td>130 km / 150 kg</td>
<td>Domestic Production</td>
<td></td>
</tr>
<tr>
<td></td>
<td>M-7 (CSS-8)</td>
<td>Operational</td>
<td>150 km / 190 kg</td>
<td>China</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mushak-160</td>
<td>Operational</td>
<td>160 km / -500 kg</td>
<td>Domestic Production</td>
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</tr>
<tr>
<td></td>
<td>Scud-B</td>
<td>Operational</td>
<td>300 km / 1,000 kg</td>
<td>Libya / N. Korea</td>
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<td></td>
<td>Scud-C</td>
<td>Operational</td>
<td>550 km / 600 kg</td>
<td>N. Korea</td>
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</tr>
<tr>
<td></td>
<td>Shahab-3</td>
<td>Tested/ Development</td>
<td>1,300 km / 700 kg</td>
<td>Domestic / N. Korea / Russia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shahab-4</td>
<td>Development</td>
<td>2,000 km / 1,000 kg</td>
<td>Domestic / N. Korea / Russia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shahab-5</td>
<td>Concept Stage</td>
<td>&lt;5,500 km / 1,000 kg</td>
<td>Domestic / Russia</td>
<td></td>
</tr>
</tbody>
</table>
obstacles, not least from the North Korean armed forces since they place significant leverage on ballistic missiles. The North Korean missile issue has brought to the fore new security dilemmas for South Korea, the United States, as well as Japan.

Conclusion

Although the interplay of diverse forces complicates an accurate assessment of East Asia’s longer-term strategic environment and the types of military conflicts that could erupt, ongoing trends suggest that force modernization based on selective RMA technologies will continue. In this regard, Bracken’s prognosis of a so-called “second nuclear age” is perhaps too pessimistic since he implicitly assumes that East Asia’s absorption of strategic weapons systems could be inherently destabilizing compared to the “stabilizing” role of Western military power although his insights, if they indeed materialize, could have profound implications for regional stability.
A sweeping change is occurring in the structure of international security, distinct from the particular ambitions of individual countries. The structural features are the capacities of the countries in Asia to strike at a distance beyond their borders; to quickly escalate the potential for violence in a crisis; to manipulate the threat of nuclear attack for political benefit; and to undermine or actually destroy the key foundations of military power in Asia. These are ineluctable, long-term trends. (Italics added).

Nevertheless, the strategic contours of Northeast Asia are changing—with an emphasis on three key areas: enhanced power projection capabilities; incrementally increasing asymmetric capabilities; and more robust indigenous national security strategies. This is not to suggest that major power rivalries will necessarily lead to greater regional instability, and in the worst-case scenario, to military conflicts. As Paul Dibb cautions, “we should learn from previous failures of assessment and refrain from overconfident, straight-line extrapolations.” Despite such concerns, however, it is important to note that the East Asian security template has been transformed significantly since the end of the Cold War such as the relative decline in the need for strategic cooperation between the United States and China absent

94 Bracken, Fire in the East, p. 149.
95 Paul Dibb, “Strategic Trends: Asia at a Crossroads,” Naval War College Review (Winter 2001), available at www.nwcnavy.mil/press/Review/2001/Winter/art2-w01.htm. Dibb also points out some of the more salient features of East Asia’s strategic rise including the following points. First, the spreading of the RMA phenomenon to Asia including the introduction of longer-range and more accurate weapons supported by enhanced surveillance information so that “the geography of Asia will be compressed.” Second, the proliferation of ballistic missiles may enhance security invulnerabilities, particularly in the smaller Asian states and correspondingly, either ballistic proliferation will escalate or “the acquisition from the United States of a missile defense system” that may well mean the rise of the most acute proliferation challenge for the United States. Third, while long lead-times are necessary for any major weapons system to become fully operational, “capabilities in many instances can change quickly through the acquisition of quite limited numbers of relatively cheap, long-range, and accurate tactical missiles.” And fourth, while fielding modern air forces and navies are becoming increasingly expensive “newer platforms are in many instances able to deliver more lethality and firepower.”
a common security threat in the form of the former Soviet Union. As Robbyn Lim has stated, “now China, freed from threatening Russian forces to the north and in Soviet client Vietnam to the South, is expanding its strategic reach east and south by claiming rights over the whole South China Sea and increasing its influence in Southeast Asia.”

As East Asia inevitably rises from half a century of strategic hibernation, managing security transitions are likely to be more volatile, more complex, and potentially more dangerous given that intent, rather than capabilities will be the driving force behind much of the regional powers political and strategic ambitions. If the United States has been able to sustain its role as the preponderant Pacific military power on the basis of its cumulative power projection capabilities, it may come under increasing competition from China and the desirability, however limited at the present time, of more independent security postures on the part of Japan and South Korea. The acquisition of comprehensive power projection capabilities on the part of key East Asian states suggests that at a minimum, greater constraints will confront the United States in maintaining strategic presence but more importantly, in help shaping a security environment more conducive to its and its allies’ interests. There is little doubt that no East Asian power, including China, will displace the indispensable role of the United States any time in the near future. That said, there is also little doubt that over the next 20 to 30 years, the cumulative rise of China cannot but shift geostrategic preferences not only of China, but that of the United States and its key allies in the region. Perhaps most importantly, historical parallels fail to serve as adequate guidelines in that China, Japan, and Korea have never acquired modern military capabilities at the same time. As noted in a previous section, Europe’s debilitating experience with a multipolar balance of power up to the outbreak of the First World War could serve as a guide but here one must caution the applicability of 19th century European angst with 21st century East Asian equivalents.

By way of summary, mention should be made of a silver lining

in the on-going march towards enhanced strategic capabilities, namely, the growing incentives for economic and political cooperation based on the increasingly interdependent nature of the East Asian economies and greater prospects for multilateral security cooperation. A strengthened and more politically relevant ASEAN Regional Forum (ARF), incremental improvement in South-North relations (including more progressive arms control and CBM agreements), extensive Indo-Pakistani CBMs and cross-strait relations could result in fairly significant threat reductions over the next two to three decades. However, future East Asian governments and leaders choose to refine their respective national security strategies, coping responsibly with more viable and destructive military capabilities is something that cannot be transferred from other regions (notably postwar Europe). In other words, it has to be self-taught to become enduring and institutional. Thus, the real challenge for East Asia over the next two to three decades does not lie in accumulating more advanced military capabilities since this is already self-evident. Rather, the more relevant task lies in taming, to the extent possible, new power capabilities with potentially disruptive national strategies, foremost on the part of China as it seeks to regain its “rightful” strategic presence in East Asia.