

The Pentagon Plays Its China Card

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The "war on terrorism" has raised America's concerns about defense, but not necessarily in ways that are most useful for Pentagon planners. Many of the high-tech weapons and forces designed to fight modern militaries are of limited utility against suicide terrorists and roadside bombs. So when the Bush administration and Pentagon planners wish to make a case for funding the most advanced (and expensive) weapons systems, especially for the navy and the air force, they focus on China as a potential adversary.

The Pentagon, after much delay for rewriting, finally released its annual report to Congress on China's military power in mid-July. However, in failing to compare systematically China's capabilities with those of the United States and Taiwan, the document makes an exaggerated case for a Chinese military threat. It is true that China has been modernizing its military, and China's rapid economic growth has fed a concomitant increase in its defense spending. Yet the constituent parts of the Pentagon document dissolve on closer analysis.

China's military, especially its navy and air force, remain so feeble compared to those of the United States and its allies that the Pentagon's case can only be made by eschewing any comparisons with U.S. forces. Such was not the case with the Pentagon's reports on Soviet military power, issued annually for some years during the latter part of the Cold War, which were full of useful graphs and tables comparing U.S. and Soviet forces. Even though those assessments typically exaggerated Soviet capabilities,

defense analysts at least recognized the need for comparison. The Pentagon's China report, in contrast, offers little more than simple numerical comparisons of Chinese and Taiwanese forces and is largely devoid of analysis.²

Lacking comparative perspective, the report nonetheless tries to imagine ways in which Chinese military power might be used against Taiwan or the United States, but with little regard for possible counteraction. Like the sound of one hand clapping, the scenarios presented in the report seem to presume that China could attack with impunity against passive targets. Deterrence is neglected.

There are many deterrents to war beyond mere balance of forces. Most countries are deterred from waging war most of the time because of the human and economic costs. In the case of the three countries being discussed here, two-fifths of China's exports go to the United States, Taiwan is the largest source of foreign investment in China, and China has replaced the United States as Taiwan's leading trading partner. Quite apart from the strategies of any particular government, armed conflict in East Asia would have a huge negative effect on investor confidence. Capital flees danger. Naval and air battles could severely disrupt regional trade, and military action, once initiated, might be difficult to contain. The economic consequences, regardless of the military result, could be severe for all of East Asia.

The Pentagon report is somewhat contradictory or inconsistent in its assessment

of Chinese intent. This may in part reflect the editing process, during which its conclusions were substantially moderated. According to the report's executive summary, China is "facing a strategic crossroads," hesitating between becoming "integrated as a constructive member of the international community" and using force to resolve disputes, especially with Taiwan. The report does not predict which road China will choose.³

China does from time to time make threats against Taiwan. Although Taiwan has been de facto independent of the Chinese mainland since 1949, Beijing continues to claim Taiwan as an integral part of the Chinese nation. China claims the right to use any means, including force, to prevent Taiwan from declaring full independence. During 1995-96, China tested a few ballistic missiles by firing them into the sea in the vicinity of Taiwan, which many foreign observers interpreted as an effort to dissuade Taiwan's people from voting for pro-independence presidential candidate Lee Tenghui. If that was the intent, it failed. Lee won election in 1996 and served until 2000. He was succeeded by another pro-independence president, Chen Shui-bian, despite China's vociferous protests and intimations that Taiwanese moves toward independence might be resisted by any means, including force. In March, China's claim of sovereignty over Taiwan was formalized in its "Anti-Succession Law." For its part, the United States has pledged to defend Taiwan according to the Taiwan Relations Act of 1979 and various presidential declarations. The Pentagon report agrees with most analysts (American and Chinese) that the U.S. commitment to Taiwan's defense is the principal potential trigger for U.S.-China military confrontation.

This essay seeks to restore the essential comparative and strategic analysis missing from the Pentagon report. Even without American armed intervention, Taiwan is not vulnerable to a Chinese invasion. My

discussions with high-level Taiwanese defense officials last November confirm that they feel secure from invasion and worry more about possible conflicts of lesser intensity. Yet because of the relative backwardness of the Chinese air force, it would be difficult for China to coerce Taiwan with naval or air attacks short of an invasion. China has several hundred ballistic missiles aimed at Taiwan, but unless Beijing intends to initiate nuclear war (a possibility fraught with danger to China itself, which the Pentagon report ignores), these ballistic weapons are nearly useless against enemy armed forces, though they do pose a terror threat against civilians. The report ignores the likelihood that any such missile attacks would invite retaliation that could inflict significant damage on China, especially if the United States were involved.

China's Relative Military Decline China is not a military superpower. It is not likely to be able to challenge the military preeminence of the United States and its allies within the coming decades. The United States will remain the only military superpower unless Beijing diverts vast sums from economic development to defense. Even if China were to greatly accelerate the growth of its military spending, it would take decades for its navy, air force, and nuclear forces to rival those of the United States. Even assuming China were to make such a Herculean effort, the United States could opt to maintain its lead by increasing its own defense effort. The demise of the Soviet Union has removed America's only superpower rival and thus made it possible for the United States to focus most of its massive naval and air power against China if necessary. This alone has drastically altered the global balance of power against China. If current trends continue, China will remain a significant regional power well able to defend its own territory, but it will be incapable of projecting power in

any way that could challenge U.S. hegemony in the coming decades.

It has become almost a mantra in articles on the Chinese military to speak of China as a rising power. Economically, this is certainly true. By the second half of the twenty-first century, economic power may allow China to attempt a military challenge to the United States. But in recent decades China's relative military power has actually declined. The Cold War ended early for China. It built up its military during the 1950s and 1960s to counter the United States and then also the Soviet Union. Its military effort peaked in 1971. After Mao Zedong and his allies defeated an attempted coup by the defense minister, Lin Biao, in that year, China began a round of deep military cuts that continue to this day. Since then, China's active military forces, known as the People's Liberation Army (PLA), have been cut from over 5 million to about 2.2 million. Barring a massive increase in military spending well beyond the current steady increase, China's forces will continue to decline until they reach a level at which China can afford to replace obsolete weapons for the entire force. We often read about "China's military modernization." China's military is modernizing. But it procures new major weapons at a rate far slower than its old ones wear out and become obsolete. It remains technologically more backward than most other major militaries.

China's Weakness in Air Power

The recent relative decline of the PLA is especially obvious in its air arms, the PLAAF and PLANAF (naval air force). In modern warfare, air power is often crucial. For decades, China's air force was the world's largest. In 1980, for example, China had 6,000 combat aircraft to Taiwan's 388. Today, that ratio has dropped to 2,600 to 450, and China's air forces are now smaller than U.S forces, which have over 4,000 aircraft. However, the Pentagon report fails to break down these numbers. Whereas Taiwan's military

acquired 340 new fourth-generation fighters over the past decade, greatly increasing its qualitative edge, China's procurement remained a mix of more backward third-generation J-7 and J-8 models and higher-performance fourth-generation Russian Su-27 and Su-30 fighters. More than a thousand of China's combat aircraft are types long considered obsolete by other major air forces. Most numerous of these are the I-6 (copied from the Russian MiG-19, which first flew over a half century ago), its Q-5 attack derivative, and the H-5 (Il-28). The Il-28 was designed as Russia's first jet bomber almost 60 years ago! As the rest of these obsolete aircraft are scrapped over the next few years, the PLAAF and PLANAF will continue to decline rapidly until they reach a strength that can be maintained: probably around 1,500 combat aircraft. Considering only third- and fourth-generation fighter aircraft (the means of attaining air superiority), China's numerical advantage over Taiwan dwindles to about 1,100 to 420, but Taiwan outnumbers China two-to-one in fourth-generation fighters. Furthermore, China's fighters are scattered at bases throughout that vast country. The fighter forces it maintains within range of Taiwan are numerically about equal to Taiwan's, but quite inferior in quality. As China procures more modern fighters in the coming years, Taiwan will need to replace its oldest fighters, U.S.made F-5E/Fs, to avoid falling behind. Currently, however, China would have difficulty attaining air superiority over Taiwan alone, and were the United States to intervene with only a few hundred of the three thousand fourth-generation fighters it possesses, it would tip the balance decisively against China.

The Pentagon report and many press stories emphasize the threat to Taiwan from China's growing arsenal of short-range ballistic missiles. The report estimates that China now has about 750, but it has far fewer launchers, so it could launch only about a hundred or so at one time. These

missiles are similar to, though more advanced than, the Scud missiles fired by Iraq at coalition forces in 1991 during the first Gulf war. Armed with conventional warheads, the threat from such missiles is limited. Their payload is much smaller (around half a ton) and their accuracy quite a bit less than a manned fighter-bomber, of which Taiwan has over 400. Whereas a missile can be used only once, a fighter-bomber can rearm and attack day after day with precision weapons. Nor, contrary to some reports, could China's ballistic missiles devastate Taiwan's air force in a surprise attack. First, they are vulnerable to interception by Taiwan's Patriot missile batteries. Second, they are too inaccurate to reliably hit a target as small as an airstrip. Third, as this author has observed, Taiwan protects its valuable jet aircraft in hidden underground reinforcedconcrete shelters that would be immune to most missile and bomb attacks. Ballistic missiles can be a significant threat if armed with nuclear warheads (as discussed below), but otherwise they are a poor substitute for air power.

Since the Second World War, it has been obvious that air power (including that based on aircraft carriers) trumps sea power. Any Chinese blockade or invasion of Taiwan would be extremely costly, if not impossible, without control of the air.

Impossibility of an Invasion of Taiwan
The Pentagon report describes in vague terms a few of the difficulties of a Chinese invasion of Taiwan but leaves the impression that it is a viable option. It is not. According to the report, "This particular amphibious operation would tax the lift capacities of China's armed forces needed to provide sustainment [sic] for this campaign." This Pentagon jargon only hints at a huge limitation: China's amphibious lift capability is a small fraction of what it would need to mount a successful invasion of Taiwan. China's 50 amphibious ships could transport roughly 10,000 troops and 300 tanks across

the Taiwan Strait. With hundreds of smaller landing craft shuttling troops and equipment from converted civilian transports anchored offshore, China could land an initial infantry force of several tens of thousands after highly visible preparations requiring weeks or months. Taiwan would have plenty of time to mobilize its trained reserves to expand its standing army and marines from 230,000 to well over a million. On a small island like Taiwan, where the defender can quickly concentrate forces, a Chinese landing force in the tens of thousands would be quickly overwhelmed by vastly superior Taiwanese ground forces (except perhaps if China were to confine its attacks to Taiwan's small island possessions near the Chinese mainland).

Some have argued that an amphibious invasion of Taiwan will become viable in the future as China increases its amphibious lift capability. So far, however, that capability today is about the same as it was 25 years ago. The main difference is that China has replaced the U.S. craft built during the Second World War and acquired before 1949. If current shipbuilding rates are maintained, China's capability will increase slowly. However, China's amphibious fleet must be an order of magnitude larger than it is today to stage a large-scale invasion comparable to the Allied D-Day invasion of France in 1944. Anything less is unlikely to overcome Taiwan's formidable defenses.

Others claim that China's large civilian commercial fleet could be commandeered and concentrated to make a successful invasion possible. Such added vessels would be essential to transport an initial invasion force of even 30,000 or so. But there are limits to how many ships could be used. Unlike purpose-built amphibious craft, commercial vessels are not equipped to land directly on a beach. If a major port could be captured intact, commercial ships would be very useful for unloading supplies and reinforcements, but otherwise their utility would be limited by the capacity of China's

amphibious craft to unload the bigger civilian ships anchored offshore.

The vast concentration of shipping (much of it stationary while unloading) required by an amphibious invasion would present excellent targets for Taiwanese naval and air power. Large numbers of ships would be sunk unless China could gain complete control of the air and sea. Even then, Taiwan could use its hundreds of shore-based anti-ship guided missiles, easily hidden in caves and bunkers until needed, to destroy Chinese vessels. Most Chinese warships and all Chinese amphibious and commercial vessels are defenseless against such missiles, which have sufficient range to cover the entire Taiwan Strait. Taiwan manufactures its own anti-ship missiles and also buys Harpoon missiles from the United States. It would be economical for Taiwan to counter any large buildup of Chinese amphibious forces by building and buying more anti-ship missiles.

Because a credible invasion scenario is difficult to imagine, many analysts of China's military options versus Taiwan, including the Pentagon report, emphasize more limited scenarios. However, only a successful invasion would guarantee China's ability to enforce its sovereignty over Taiwan. Other scenarios assume that the costs of war would induce Taiwan's leaders to give in to Beijing's demands, even with their army undefeated. Yet it is equally possible that an indecisive use of force would merely harden Taiwan's resolve to remain independent. A stalemated war would be de facto confirmation of Taiwan's effective independence. That would be worse for China than the more ambiguous status quo.

Reciprocal Dangers of a Naval Blockade
The Pentagon report speculates that China
might cripple Taiwan's valuable international trade as a more limited way of applying pressure. The least risky measure would
be for China to shut down its own trade
with Taiwan, perhaps coupled with the

expropriation of Taiwan's extensive investments on the mainland. The problem with even such "non-war" (as the Pentagon terms it) economic pressure is that it has reciprocal effects. Interruption of trade or confiscation of investments with Taiwan would shake the confidence of all other foreign investors in China as well. Foreign investment and trade with China might plummet even without any formal embargos. Losing their investments in China might induce Taiwanese business leaders to lobby for surrender to Beijing, but it might just as easily push them into the pro-independence camp. And Taiwan might actually benefit if its manufacturers gained exports in the U.S. market at the expense of China.

The effects of a naval/air blockade of Taiwan would be at least as unpredictable, but much more dangerous. Here the Pentagon report is more realistic, if understated: "More traditional methods of blockade would increase the impact on Taiwan, but also would tax the PLA Navy capabilities and raise the potential for direct military confrontation, particularly with U.S. naval assets." The United States maintains by far the world's largest navy. Among its purposes is to secure freedom of trade for itself and its allies. Any attempt to interfere with such trade, particularly by attacking U.S. ships, would almost certainly bring a naval and air response. China could be discouraged from selectively attacking only Taiwanese ships by re-flagging them as U.S. vessels, just as in the late 1980s Kuwaiti tankers were re-flagged to protect them from Iranian attack.

The most significant element of the Chinese navy is its submarine force. This too has declined. At its peak from the 1970s to the 1990s, the Chinese undersea force numbered about a hundred increasingly obsolete vessels. Since then, Beijing has purchased four Russian *Kilo*-class submarines and built several *Song*-class vessels, which it is now constructing at a rate of about two per year. Add to those 20 of the less

advanced *Ming*-class vessels, and China maintains an effective undersea force of about 30 submarines. It is also building a few new nuclear submarines to replace four outdated noisy ones. Dozens of obsolete *R*-class submarines also remain in service, but since they seldom put to sea and are in the process of being scrapped, they should not be considered very effective. China's submarine force poses a threat to shipping, but one that is difficult to employ without provoking U.S. intervention.

The Pentagon report and other sources have given much attention to minor additions to Chinese capabilities, including the recent acquisition of four Russian Sovremenny-class destroyers, with their SS-N-22 "Sunburn" supersonic cruise missiles. There are even suggestions in the Pentagon report and elsewhere that these missiles could pose a threat to U.S. aircraft carrier task forces, the core of U.S. naval air power. This is theoretically possible, but it is much more likely that these ships, if they put to sea during war, would be destroyed by Harpoon missiles fired by the carrier's air group or from lurking submarines long before the destroyers approached within the 160-kilometer range of their own missiles. If they stayed in port, they would be vulnerable to U.S. or even Taiwanese cruise missiles. They do represent a significant addition to the Chinese navy in relation to any minor power but are inconsequential vis-à-vis the U.S. Navy and not very potent versus Taiwan, which could disable these ships with either air- or land-launched anti-ship missiles, including its own supersonic model. Furthermore, Taiwan's navy is countering by adding four newly modernized ex-U.S. Kidd-class destroyers by 2006. During the 1980s, the Soviet Union deployed scores of destroyers and missile cruisers at least as capable as these few Sovremenny destroyers. Even against such a vastly larger surface force, the U.S. Navy was justifiably confident of its superiority. Moreover, China's fleet today is a small fraction of the number of superior Russian submarines and warships that have been scrapped since the demise of the Soviet Union. Thus, the global margin of U.S. naval superiority has greatly increased.

A Nuclear Option?

The Pentagon report argues that the outcome of any China-Taiwan conflict might depend on U.S. intervention, which China aims to deter or delay. Its vague scenarios fail to describe any robust means of deterring the United States or of inflicting serious harm on U.S. forces. For example, it mentions the possibility of Chinese ballistic missiles targeting U.S. military bases in Japan. Missiles used with high-explosive warheads would be little more than a nuisance. Only nuclear attacks on those bases could have any significant military effect. Yet the report does not consider the implications of China initiating or threatening nuclear war against the United States.

Could China expect to gain leverage over the United States through the threat or use of nuclear weapons? There can be no definitive answer, but certainly doing so would risk China's annihilation. During the Cold War, the United States and the Soviet Union each maintained many thousands of nuclear warheads deployed on thousands of missiles and bombers. Each side's nuclear forces were so large and diversely deployed that neither superpower could hope to launch a successful preemptive attack, i.e., one that could destroy enough of the enemy's nuclear forces to prevent a devastating counterstrike. Deterrence rested on this condition, popularly known as "mutual assured destruction," or MAD.

However, MAD does not apply to the U.S.-China nuclear balance because the U.S. advantage in numbers and accuracy is so great that a preemptive attack by the United States could feasibly (if not reliably) eliminate the entire Chinese nuclear force. Nuclear missiles, especially those in fixed silos like the 20 Chinese ICBMs, are generally easier to destroy on the ground before they

are used rather than after they have been launched toward their targets. If China were to make nuclear threats against the United States in a crisis, Washington might back down. But the president might well judge that preempting the threatened attack would be safer. A preemptive U.S. ballistic and cruise missile attack on Chinese nuclear forces would stand a good chance of destroying at least all 20 of the ICBMs that can reach the United States. Since U.S. strategic nuclear forces are over a hundred times larger, the United States could potentially disable China's nuclear forces in a preemptive first strike and still maintain most of its nuclear arsenal in reserve. Conversely, China's few ICBMs would have no chance of significantly degrading U.S. nuclear forces in a first strike. China is developing mobile ICBMs and submarine-launched ballistic missiles, which are more difficult to detect and target. Even so, given U.S. advantages, China might be vulnerable to a first strike if Washington believed its intelligence could locate and destroy nearly all of China's strategic nuclear assets. If the United States deploys, as planned, a missile defense shield, the risk to China of a preemptive U.S. strike in a crisis grows, since the few Chinese missiles missed by a preemptive U.S. strike might be intercepted by the missile defense shield.7

Even if the United States were somehow deterred by Chinese threats from more active military intervention, there are important ways in which the United States could aid Taiwan covertly. Among these would be sharing real-time intelligence on Chinese military operations from its numerous spy satellites, sea-bed sensors, and other intelligence sources. The United States might also covertly (or overtly) resupply Taiwan with the most useful expendable munitions, such as guided missiles of all kinds.

The Pentagon mentions other ways, gleaned from Chinese defense publications, that China might gain the advantage over either Taiwan or the United States by asym-

metrical means, that is, by developing capabilities that the opponent lacks and cannot counter. The problem is that just because you might have an advantage in one particular area, this does not necessarily negate the opponent's advantages in others. And China has no obvious asymmetrical advantages in any area.

Information warfare is one much-discussed concern of those who argue that China might disrupt U.S. operations using an asymmetrical strategy. Yet China's intense interest in information strategy is rooted in weakness, not strength. Chinese observers of the Iraq wars have noted the effectiveness of U.S. campaigns against Iraqi communications and thus have recognized their own vulnerabilities. For example, many of China's newer missiles rely on the Global Positioning System (GPS) to improve accuracy, but the Pentagon report fails to note that the Pentagon controls this expensive satellite-based system. Its signals were encrypted before it was made more widely accessible for civilian uses, and the Pentagon no doubt has contingency plans to restore encryption or selectively shut off parts of the system to prevent China from using it during a war. China is investing in a rival system, called Galileo, in cooperation with the European Union. But it will be many years before it is fully operational. Our NATO allies, who will share control of Galileo, may find ways to interfere with Chinese military use of the system in the event of war.

Another scenario mentioned in the Pentagon report is a surprise attack with ballistic missiles aimed at the "decapitation" of Taiwan's leadership. While this is a possibility, one must wonder whether this could achieve China's political objectives. Killing its leaders would not significantly reduce Taiwan's ability to repel an invasion, which in any case would take some time to mount following such a surprise attack. Nor would killing Taiwan's leaders necessarily put their successors in a better mood to negotiate. Their first instinct would be to seek secure

shelters. Once they had secured their persons, would they be more likely to capitulate, or to rally resistance as U.S. leaders did after 9/11? As with other limited options, I suspect this one would more likely stiffen resistance rather than promote negotiations or lead to capitulation.

Robust Deterrence

While this essay has emphasized deterrence based on the military balance of power, the incentives against war in East Asia are much broader than mere military analysis suggests. China's historic shift since 1978 from an isolated, autarkic military power to a market-oriented export-dependent trading state is its strongest incentive for maintaining peace. China's trajectory today is toward being a commercial superpower more like Japan rather than a military superpower like the former Soviet Union (whose demise may well demonstrate the futility of that path).

Conceivably, some future national crisis could lead China to change direction and reemphasize its military capability. If that were to happen, there would be ample warning. For China to acquire viable military options against Taiwan, it would need to deter U.S. intervention and build an amphibious fleet sufficient for a huge invasion force. Otherwise, any use of military force against Taiwan would risk counterproductive stalemate, if not humiliating defeat. Indecisive use of military force is almost always worse than peaceful accommodation. Yet even initiating a massive military buildup is no guarantee of ultimate success; it might provoke an alarmed Taiwan into matching measures and thus initiate an expensive arms race, subsidized by the United States if necessary. Therefore, Taiwan should for the foreseeable future have the means to deter any decisive use of force against it.

War in East Asia is unlikely, but it could occur through miscalculation. If a costly and indecisive stalemate is anticipated, war is likely to be deterred, but we know from history that wars are sometimes

initiated by leaders expecting a quick victory who end up instead with a costly stalemate or even defeat. Witness the two World Wars, the Korean War, the Iran-Iraq War, and the Iraqi invasion of Kuwait. Deterrence is strengthened when antagonists are aware that military action is most likely to be counterproductive. This is why the Pentagon's China report is a disservice to the cause of peace. By pretending that China could use force with impunity even now, with little regard to possible responses by Taiwan or the United States, the report actually encourages reckless action by China, to the extent it has any credibility there. It is irresponsible for a government publication to encourage China to believe that it does have viable options for using force in East Asia. Fortunately, there is evidence from their own military publications and from their prudent behavior that China's leaders have a more sober sense of the dangers of military action.

Notes

- 1. Office of the Secretary of Defense, "Annual Report to Congress: The Military Power of the People's Republic of China 2005" (available at www. defenselink.mil), hereinafter cited as MPPRC, published annually since 2000 as mandated by Section 1202 of Public Law 106–65.
- 2. The most misleading figures used in the MPPRC are those for defense spending. The report treats the variability in estimates of China's actual defense expenditures (beyond its official defense budget) as largely caused by Beijing's secrecy. In fact, much is known about Chinese defense procurement. Some items included in the report are not relevant for national security comparisons, such as expenditures on the Peoples Armed Police. The highest estimates of China's defense expenditure, including the \$90 billion suggested by the report, are based on applying purchasing power parity: roughly estimating what Chinese forces would cost at U.S. prices. Since military wages are far higher in the United States, this overemphasizes the large personnel strength of Chinese forces. China's large ground forces are relevant for deterring any invasion or occupation of Chi-

- nese territory, but most would have no role in any war over Taiwan. A more realistic estimate of total annual Chinese defense expenditure would be around \$45–\$60 billion. This is less than a sixth of U.S. expenditure, and puts China behind both Russia and Japan.
- 3. No doubt proponents of a growing China threat will cite as evidence the Russian-Chinese joint exercise held in August, mostly at China's expense, in and around the Chinese province of Shandong. The importance of this small exercise can easily be exaggerated. Even Secretary of Defense Donald Rumsfeld downplayed its significance. Many commentators have noted that Beijing wished to hold the exercise in part to gauge the utility of Russian weapons that China might purchase. Thus it was as much an arms sales convention as a military exercise. Moscow made it clear that the exercise did not portend a military alliance or its endorsement of Chinese policies.
- 4. Figures on military forces throughout this essay derive from various of issues of *The Military Balance*, an annual publication of the International Institute of Strategic Studies, and from the *SIPRI Yearbook: Armaments, Disarmament and International Security*, published annually by the Stockholm International Peace Research Institute and particularly valuable for its information on international arms transfers; and *Jane's Fighting Ships, Jane's All the World's Aircraft, Jane's Strategic Weapon Systems*, and various other *Jane's* annuals on specialized weapon systems. I also relied on *Aviation Week & Space Technology* and *Jane's Defense Weekly*. The strength figures in the MPPRC generally correspond to the more detailed figures in *The Military Balance* 2004–2005.

- 5. Patriot batteries performed poorly against Iraqi Scud missiles during the 1991 Gulf war. Since then, the missiles have been substantially upgraded. Whether these upgrades have improved their kill chance against incoming ballistic missiles is an open question. However, if China were planning a surprise missile strike on Taiwan, it could not be sure that the Patriots would not work. Therefore, in the expectation that some of its missiles might be intercepted, China would need to increase the number fired at each target to ensure that at least some might hit their targets. The Patriots could thus reduce the effectiveness of a Chinese missile attack even if none of the Patriots actually worked.
- 6. The MPPRC puts Taiwan's ground forces at only 200,000, ignoring its marines. The report also ignores Taiwan's very substantial reserve forces.
- 7. A limited missile defense shield such as the United States proposes would be of little use against a coordinated preemptive attack by a major nuclear power. It is too vulnerable to being degraded and overwhelmed by a surprise attack. However, if this costly system can be perfected (most live-fire tests have failed), it might be sufficiently robust to intercept the few desultory and uncoordinated retaliatory missile strikes that could be expected in the event the United States itself mounted a preemptive attack. It assists and encourages preemption more than defense. This view led the United States and the Soviet Union in 1972 to adopt the ABM Treaty limiting such systems, a treaty from which the United States withdrew in 2002.