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China's Military Modernization and the Cross-Strait Balance

ROGER CLIFF

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Testimony presented before the U.S.-China Economic and Security Review
Commission on September 15, 2005

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**Statement of Roger Cliff¹
The RAND Corporation**

Before the U.S.-China Economic and Security Review Commission

September 15, 2005

Mr. Chairman: Thank you for inviting me to participate in today's hearing on this important topic. China's military is focused on finding ways to defeat the United States in the event of a conflict between the two countries, the most likely such contingency being a conflict over Taiwan. In considering ways to enhance U.S. force posture in the Pacific, we should consider not just the capabilities that China is developing but also the specific ways in which it might use those capabilities against the United States. Doing this analysis suggests a number of specific enhancements that can increase the ability of U.S. force posture in the Pacific to deter Chinese aggression against Taiwan and to defeat such aggression if it were to occur.

Implications of Chinese Military Strategy for U.S. Force Posture in the Pacific

In a RAND study that I led which is currently under review, my colleagues Mark Burles, Michael Chase, and Kevin Pollpeter analyzed Chinese military doctrinal writings that discuss how to defeat a militarily superior adversary such as the United States, and found in them at least eight strategic principles that have implications for U.S. force posture in the Pacific theater. The first such principle is seizing the initiative early in a conflict. For example, Chinese military analysts note that, by not seizing the initiative in the 1991 Gulf War, Iraq allowed the United States to build up its forces until it had overwhelming superiority. If China is to be victorious in a conflict with a militarily superior power, therefore, China must go on the offensive from the very beginning. In the context of a conflict between the United States and China, this means that U.S. force posture in the

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Pacific theater will be critical, as China is likely to go on the offensive before additional forces can be brought into the theater.

A second and related strategic principle for defeating a militarily superior adversary is the importance of surprise. Surprise is valuable not only for the immediate tactical advantage it conveys, but also because surprise is an important way of seizing the initiative in a conflict. Achieving surprise against an adversary will put the adversary in the position of reacting to China's moves, making it relatively easy to maintain the initiative thereafter. In the context of a conflict between the United States and China, this means that the ability of U.S. forces in the Pacific theater to avoid and survive surprise attacks will be critical.

Related to the first two strategic principles is a third principle: the value of preemption. If China waits for a militarily superior adversary to commence hostilities, it will be difficult for China to seize the initiative and the adversary will likely have the preponderance of forces as well. If, by contrast, China initiates a conflict before an adversary attacks, China can seize the initiative and may also enjoy an initial advantage in the local balance of forces. Finally, preemption greatly increases the chances of successfully achieving surprise. In the context of a conflict between the United States and China, the value accorded to preemption in Chinese military doctrinal writings suggests that, on the presumption that the United States will inevitably intervene in a conflict with Taiwan, China might initiate hostilities by first attacking U.S. forces in the region, even before it has attacked Taiwan.

A fourth strategic principle is particularly significant in the context of the second and third principles. This is the idea of raising the costs of conflict. At least some Chinese military analysts believe that the United States is sensitive to casualties and economic costs and that the sudden destruction of a significant portion of our forces would result in a severe psychological shock and a loss of will to continue the conflict. When this principle is combined with the preceding two, it suggests a belief that a preemptive surprise attack on U.S. forces in the Pacific theater could cause the United States to avoid further combat with China. It does not need to be pointed out to this panel that the last time such a strategy was attempted in the Pacific the ultimate results were not altogether favorable for the country that tried it, but the Chinese military doctrinal writings we examined in this study did not acknowledge the existence of such historical counterexamples.

Related to the idea of raising the costs of conflict is a fifth strategic principle, the principle of limited strategic aims. A militarily inferior country cannot expect to achieve total victory over a militarily superior adversary, but if its strategic aims are limited, it can hope to achieve a situation where the costs to its adversary of reversing the results of the militarily inferior country's initial offensive exceed the benefits of effecting such a reversal, and therefore the adversary will instead choose to live with the results of the initial offensive. In the context of a conflict between the United States and China, this principle suggests that if China's leadership believes that if it can quickly accomplish its military aims and present the United States with a *fait accompli* (e.g., the invasion and occupation of Taiwan) without threatening any truly vital U.S. interests, then China might embark on such a conflict even if its leadership recognizes that the United States could ultimately prevail if it desired.

A sixth and seventh strategic principles are avoiding direct confrontation and conducting "key point strikes" (重点打击). The principle of avoiding direct confrontation stems from the recognition that China cannot win in direct, force-on-force combat with a militarily superior adversary such as the United States. The complementary key point strike concept provides an alternative approach by postulating that all militaries are reliant on the performance of certain critical functions, any one of which, if disrupted, will render that military unable to conduct effective operations. Five types of targets for key point strikes are identified: command systems, information systems, weapon systems, logistics systems, and the linkages between these systems. Disrupting any one of these areas is said to be a way of neutralizing an enemy's fighting strength. In the context of a conflict between the United States and China, this principle means that the United States must be prepared for attacks that are focused not on its military forces, but on its command systems, information systems, logistics systems, and the communications and transportation systems that link them.

Related to key point strikes is an eighth strategic principle that has implications for U.S. force posture in the Pacific theater: concentrated attack. This principle means that, rather than attempting to defeat an adversary across a broad front, Chinese strategists advocate concentrating firepower in a few areas. Coupled with the key point strike concept, this principle suggests that in a conflict with the United States, rather than directly engaging U.S. combat forces, China will probably attempt to focus its forces on overwhelming the

defenses of what Chinese military planners view as a few critical command, information, logistics, communications, and transportation facilities.

In addition to the above strategic principles, my colleague's analysis of Chinese military doctrinal writings identified a number of specific tactics that could affect the ability of the United States to deploy and maintain forces in the Western Pacific in the event of a conflict with China. These tactics include attacks on air bases; aircraft carriers; command, communications, information, surveillance, and reconnaissance systems and facilities; and logistics, transportation, and support facilities.

Recommendations for Mitigating Effects of Potential Chinese Actions

In our study we analyzed the vulnerability of specific U.S. facilities and systems to the types of attacks described in China's military doctrinal writings. Since this is a public hearing I will not describe the results of that analysis but instead proceed directly to those of our recommendations for mitigating the potential effects of such attacks that have implications for U.S. and Taiwanese forces in the Pacific region.

Our first recommendation is to strengthen passive defenses at air bases and aviation fuel storage facilities. China's rapid expansion of its short-range ballistic missile forces is well known. Many of these missiles are capable only of striking targets in Taiwan or other countries close to China's borders, but China is also developing longer-range missiles capable of reaching U.S. bases in the Western Pacific. Possible targets for these systems include runways and aircraft at air bases as well as aviation fuel tanks associated with those bases. Strengthening runways and increasing rapid runway repair capabilities would reduce the ability of China's ballistic missiles to disrupt flight operations at air bases. Hardened aircraft shelters would reduce the ability of China's ballistic missiles to destroy aircraft on the ground, as aircraft are most vulnerable when they are parked in the open. Constructing underground fuel tanks would similarly reduce the vulnerability of fuel supplies to attack.

A second recommendation is to deploy air defense systems, both land-based and sea-based, near critical facilities such as air bases. Air defense systems with an anti-ballistic missile capability can reduce the effectiveness of Chinese ballistic missile attacks. Moreover, by themselves ballistic missiles are only capable of damaging runways and "soft" targets such as unsheltered aircraft and above-ground fuel tanks. In addition to

ballistic missiles, however, China is also developing land-attack cruise missiles and acquiring aircraft with precision-guided munitions, which are capable of destroying “hard” targets such as aircraft shelters and buried fuel tanks. U.S. fighter aircraft have excellent capabilities for countering cruise missiles and manned aircraft, but if land-based flight operations are disrupted because of ballistic missile attacks, air bases and other critical facilities that are not defended by air defense systems will be open to attacks by cruise missiles and manned aircraft.

Currently there are U.S. Patriot batteries in Korea but none in Japan. The Japanese Self-Defense Forces have Patriot units stationed near some U.S. air bases in Japan, but these are PAC-2 units with a limited anti-ballistic missile capability, not the more advanced PAC-3 system. Once a conflict begins it will be too late to deploy additional land-based air defense systems near critical U.S. facilities in the Western Pacific and, given the emphasis on preemption and surprise in Chinese military doctrinal writings, a conflict could begin with little warning. In my opinion, therefore, the United States should station PAC-3 units near all air bases and other critical facilities in the Western Pacific that it would use in the event of a conflict with China. (U.S. Navy ships with the Aegis air defense system are also highly capable air defense platforms. The United States has Aegis ships stationed in Japan and in the event of a conflict with China the U.S. commander might wish to position some of those ships to defend critical U.S. air bases, but these will be high-demand assets and he may need them in other locations.) In addition, the United States should augment the long-range Patriot system with short-range, gun-based or missile-based “point defense” systems that can provide a last-ditch defensive capability against cruise missiles and other munitions that manage to get past the Patriots.

The Terminal High-Altitude Air Defense System (THAAD) will have a greater capability against ballistic missiles than the Patriot and the United States should deploy this system near critical U.S. facilities in the Western Pacific when it becomes available. The Medium Extended Air Defense System (MEADS) will have improved capabilities against low-altitude cruise missiles and aircraft and therefore should also be deployed near U.S. facilities in the Western Pacific when it becomes available.

Aside from using missiles and aircraft, Chinese military doctrinal writings also recommend using special forces and covert operatives to attack air bases and other critical facilities. Since these capabilities depend more on “software” than on hardware,

it is difficult to measure developments in this area, but potential targets include aircraft; command and control facilities; communications links; fuel storage, distribution, and dispensing facilities; and repair and maintenance facilities. Since such attacks would generally originate from areas outside of U.S. military bases, the capabilities of local security forces will be critical to defending against such attacks, as will be the existence of mechanisms to ensure effective coordination between U.S. base security forces and local security forces. Because of the North Korean special forces threat these capabilities and mechanisms have long been in place at U.S. facilities in Korea, but a third recommendation is that we ensure that they exist at U.S. facilities in Japan and Guam as well. In addition, there are steps that the bases themselves can take to reduce their vulnerability to attack from covert operatives including installing anti-sniper systems, strengthening perimeter security, and screening critical areas from view from outside the base.

Beyond strengthening the defensive capabilities of existing U.S. bases in the Western Pacific, a fourth recommendation is that the United States seek to diversify its options for operating land-based aircraft in the region. This does not necessarily mean establishing new bases, but could involve simply planning on operating out of a broader range of existing locations in the event of a conflict with China (and assuring that the additional locations have the capability to support combat operations by U.S. aircraft). By increasing the number of facilities that China would have to neutralize in order to successfully implement a strategy of “key point strikes” and reducing the amount of forces that could be devoted to each target, operating out of a broader range of locations would reduce the possibility that one or two Chinese attacks could significantly disrupt U.S. military operations in the region.

Related to this, a fifth recommendation is that the United States also increase the number of platforms from which it can operate naval aircraft in the region in the early stages of a conflict. Currently the United States maintains one aircraft carrier full-time in the Western Pacific. In the event of a conflict with China over Taiwan, however, particularly given the various threats to land-based air outlined above, having more aircraft carriers on the scene will be extremely valuable. Other than any carriers that might be transiting through the region, however, currently the closest additional carriers would be those based on the west coast of the United States. Given that a conflict with China could begin with little warning, this means that as much as two weeks could elapse before additional aircraft carriers reached the area of combat operations. The Department of

Defense has already recommended forward-deploying an additional aircraft carrier in the Pacific, but it is important to note that precisely where this carrier is forward-deployed is significant. In particular, an aircraft carrier based in Hawaii would still take at least a week to reach waters near Taiwan. An aircraft carrier based in Guam, Singapore, or elsewhere in the Western Pacific, by contrast, could arrive on the scene in about three days.

Conclusion

These suggestions are not intended to represent an exhaustive list of enhancements that should be made to U.S. force posture in the Pacific region, and I am sure that there are numerous other enhancements that would be valuable as well. Moreover, we have not performed an economic cost-benefit analysis of these options so I cannot definitively say that the military benefits of the specific recommendations I make here exceed the financial costs of implementing them. I can say, however, that in light of what we know about China's current and future military capabilities and its military doctrine, that China's potential threat to U.S. facilities in the Western Pacific is growing and there are a number of concrete actions the United States can take to reduce that threat. The subject of today's hearing, therefore, is both important and timely and I appreciate the opportunity to present my views.