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Eric A. McVadon, Rear Admiral, U.S. Navy (Retired)

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As requested, I will (1) examine the implications of Chinese military modernization primarily for the U.S. and Taiwan, while not ignoring Japan, with respect to cross-Strait conflict issues, offering the prospect of reduced tension and cooperative relations; and (2) look beyond the Taiwan problem to try to discern Chinese goals and possible early force structure planning.

The focus on Taiwan. China's ongoing modernization of its military has been extensive and largely focused on a Taiwan contingency. The enhancements of the capabilities of the People's Liberation Army (PLA) accomplished over the last decade have significantly increased the threat to Taiwan; i.e., made it more dangerous for Taiwan to take steps that could provoke or be intolerable to a wary Beijing. Notwithstanding the major military modernization program, Chinese leaders do not want to attack Taiwan and certainly do not want a war with the U.S., and possibly Japan, but feel they must strive to be ready to do so if they deem it necessary. They show to Taiwan both a "soft hand" and a "hard hand," the latter being this more capable PLA that, they believe, provides an inherently greater deterrent effect that decreases the prospects of having to use force.

Accurate ballistic missiles to start. If, however, intimidation and deterrence fail, Chinese leaders could now be more confident with the modernized PLA of prompt success—before U.S. forces could react effectively. Beijing almost certainly would start its campaign by employing a very large and greatly improved arsenal of ballistic missiles to disrupt and degrade Taiwan's communications, command and control, and defenses—and terrorize the population. The missile attack would logically be accompanied by special forces actions, fifth column sabotage, and information operations encompassing such things as anti-satellite and computer network attacks.

Taiwan vs. China: out-gunned, out-numbered, and out-sized. The PLA's impressive array of accurate short- and medium-range ballistic missiles (SRBMs and MRBMs) with conventional warheads is expected soon to be complemented by long-range land-attack cruise missiles. Taiwan's already meager missile defenses would then face the doubly daunting prospect of large numbers of overwhelming simultaneous attacks from various types of ballistic missiles reentering from space and cruise missiles skimming the earth—a challenge well beyond the capabilities of any existing missile defenses with respect to both sheer numbers of defending missiles as well as intercept capabilities. Taiwan's missile defenses may be made further ineffective through initial attacks on missile defenses by offensive missiles less likely to be subject to intercept. The "new PLA Navy" with more than adequate numbers of very impressive new submarines, destroyers, frigates, and aircraft armed with modern, lethal, long-range anti-ship cruise missiles could readily overwhelm the ROC Navy, were that force to be a factor.

This disruption of defensive capabilities, if successful, would allow effective employment of numerous modern PLA tactical aircraft to attack Taiwan, seeking to produce chaos and capitulation. Beijing may envision that amphibious and airborne assaults to secure lodgments on Taiwan could then be prudently undertaken. These limited amphibious and airborne assaults (within existing lift constraints) could then be followed by the introduction, essentially unopposed, of large numbers of occupation forces. PLA Air Force modern fighter aircraft supported by very effective surface-to-air missiles could readily maintain air superiority once Taiwan's air defenses, including airfields, had been disrupted or disabled by the missile attacks.

Taiwan does not have missile defenses to cope with the described missile attacks, and prompt procurement of all the missile defenses discussed over recent years would still leave Taiwan quite inadequately defended against the described extensive PLA arsenal of ballistic and cruise missiles. These missiles have been tailored or designed specifically toward the goal of giving Beijing a set of weapons that Taiwan, even with the full support of the U.S. and whatever aid Japanese ballistic missile defense may provide, cannot defend against. The full spectrum of missile defense of Taiwan, broadly defined, including extensive hardening of facilities, hiding of high value targets, dispersal of assets, use of decoys, etc., if undertaken by Taipei would complicate things for China but would almost certainly fall short of adequate protection. These measures might serve well if Beijing somehow chose to conduct only a limited attack. Some critical facilities might be spared. China, if holding most of its missiles in reserve for some reason, might be less confident of the assured effectiveness of an attack. Nevertheless, the Chinese missile forces must be viewed as a very successful undertaking to intimidate and deter Taiwan and to be able to bring Taipei to its knees if intimidation fails.

China vs. the U.S.: layered options to complicate and delay intervention. As a consequence of the realization of these astutely conceived concepts for PLA modernization and the inescapable factors of the proximity, size and strategic depth of China, Taiwan cannot expect successfully to defend itself alone. Taipei, I argue, is necessarily dependent on avoiding conflict, convincing Beijing that its interests are not served by an attack on Taiwan, or having prompt and effective U.S. intervention. Beijing has not, in its modernization program, ignored the importance of this potential intervention, including the role of U.S. forces and bases in Japan. (Less attention has been seen with respect to U.S. forces and bases in South Korea.) Prominent in the anti-access strategy is the PLA Navy submarine force. The effort to complicate U.S. Navy intervention would, it appears, be spearheaded by eight new Kilo-class submarines from Russia that would pose a dilemma for U.S. decision makers. Would it be prudent to sail several U.S. Navy carrier strike groups (CSGs) into waters with many undetected PLAN submarines capable of submerged launch of very potent anti-ship cruise missiles (ASCMs)-notably the Kilos with SS-N-27B Sizzlers with ranges over 100 miles? China, it is noted, does not yet have consistently reliable means to detect and target approaching CSGs, but it has various means that could, with a little luck, provide targeting information. Consequently, even before China achieves reliable targeting, there is ample reason for concern.

Beyond this ASCM threat, there is the looming prospect of conventional warhead ballistic missiles that, with maneuvering reentry vehicles (MaRVs), could both avoid intercept and home on major ships. Such missiles are also likely, even sooner, to be highly effective against U.S. bases in the region—although Guam, for the present, seems to be out of range. Tokyo and Beijing would both face interesting political dilemmas concerning the degree of involvement of Japanese bases and forces and the Chinese reaction thereto. These missiles, it appears, would incorporate advanced penetration aids and decoys, in addition to maneuvering—making them serious threats, not simply weapons of terror.

The described ASCM and ballistic missile attacks, if successful, would be expected to degrade U.S. defenses. For example, air defense radars and the carrier flight deck would be vulnerable. The degradation of defenses, including at land bases in Japan, could allow follow-on air attacks with modern long-range missile-carrying bombers and inflight-refuelable maritime interdiction aircraft armed with very capable and lethal ASCMs. Further options employing submarines and very potent surface combatant ships would be available, depending on the circumstances and the residual ability of the U.S. to defend.

Too complex for the PLA to pull off? Should we count on that? This complex dual campaign defeating Taiwan and confronting the U.S. (and possibly Japan)—is arguably beyond the capability of a PLA leadership inexperienced in such complex and extensive joint operations. Moreover, the PLA has not rehearsed and trained for meeting major U.S. and other enemy forces hundreds of miles distant from China. Nevertheless, the PLA clearly has acquired or is acquiring the wherewithal to conduct such operations. It is also clear that the PLA aspires to such capabilities, including the ability for an inferior force to defeat a superior force by achieving surprise, employing asymmetric means (such as the ballistic missiles that circumvent U.S. air defense advantages), and exploiting what are perceived as U.S. niche vulnerabilities (e.g., extreme reliance on advanced technologies that China hopes to disrupt long enough to gain a tactical advantage).

Consequently, this strategy, the accompanying weapon systems, and other elements of the PLA modernization (e.g., striving for "jointness," more realistic training, distant operations) introduce at least the specter that the U.S., along with Japan, could be deterred from prompt and effective intervention or that delay, confusion, and uncertainty may be introduced—leading Taipei to doubt Washington's commitment and feel it has no choice but to accede to Beijing's demands, or so the thinking in Beijing may go. (Tokyo would almost certainly not move faster than Washington.) Whether or not this reflects reality as it is likely to unfold, Beijing may be emboldened by having achieved this remarkable enhancement of its forces. It may either believe the prevalent rhetoric about preparation of its forces for real combat or receive assurances from PLA leaders unwilling to admit to continued unreadiness to attack Taiwan and repel the U.S. (and Japanese forces, if that decision were made) after so much money and effort have been expended toward that goal. Moreover, given the emotional aspect of Beijing's Taiwan obsession, we cannot be confident that China will weigh capabilities, risks, and consequences rationally.

Striving to make the military balance irrelevant. None of this is to suggest that the U.S. military could not defeat the PLA in a conventional force-on-force extended conflict, and, of course, the U.S. also has an overwhelming advantage in a *nuclear* conflict. To take a flight of fantasy, the sudden miraculous acquisition of P-3 maritime aircraft, submarines, PAC-3 improved missile defenses, and more would not turn the tables or restore a military balance—even if some of these systems would serve to raise somewhat the costs of a PLA victory and make it more difficult for Beijing to decide that success would likely come quickly and easily. Nonetheless, huge and prosperous China has won the arms race with Taiwan—irreversibly in my view. The point is that, although Taiwan cannot adequately defend against huge China, there are means to avoid conflict. Consequently, the effort now should be to continue all the more diligently to make the military balance irrelevant, to make resort to military force an anachronism or an absurdity.

Some in Taiwan recognize this disappointing situation concerning the military balance and advocate Taiwan's development of counter-strike missiles intended to threaten China if it initiated an attack. I view this as foolishly developing the capability to inflict pin pricks to a dragon—far more likely to ensure disaster for Taiwan than to deter an attack. I have suggested in speeches, conferences, and meetings with influential people in Taiwan (and the U.S.) that there are far more prudent alternatives to be explored. To begin, the extensive economic interdependence between Taiwan and the PRC does matter. Depending on one's view of China, the economic ties either hold out the prospect of eventual peaceful resolution, making military action an irrational choice, or place Taiwan in a disadvantageous position in several ways: (1) vulnerable to pressure by Beijing, (2) threatened by a modern PLA funded by PRC economic

growth based on Taiwan investments, and (3) confronted by advanced technologies obtained via Taiwan companies in China. Regardless of one's conclusion on the effects of the economic bonds, the interwoven economies of the mainland and Taiwan might be viewed as a facilitator or even a catalyst for potential opportunities to deal with the new cross-Strait situation I have described. Using the familiar explanation, no one wants to shoot a goose laying golden eggs. Taking a stab at another illustrative explanation, despite all the sparks that fly as Beijing's obnoxious behavior clashes with Taiwan's testing the limits of tolerance, leaders on both sides of the strait see the economic and cultural ties as yet another good reason to avoid armed conflict.

Making the case to the ROC military. In October 2006 I made two comprehensive presentations at the ROC National Defense University south of Taipei. The large audiences included flag and general officers, faculty, and the students (typically up-and-coming officers at the rank of colonel or lieutenant colonel). My idea was to encourage new thinking about how to cope with the new situation stemming from PLA modernization. The audience was, to my surprise, overwhelmingly receptive to the message. The general officer who is the president of the ROC NDU attended both of my extended lectures and participated in the question-and-answer periods. He said he agreed and supported the concepts and the type of new thinking I offered. In the following extracts from those presentations, I have preserved the words used there [but have added in brackets direct mention of Japan in place of the allusions to Japan that I had elected to employ in Taiwan]. I think the impact is greater if one knows these words—some hard for those ROC officers to listen to—were delivered orally and written to a prestigious and important audience of key senior and very promising ROC military officers:

Beijing and the PLA have devoted innovative, imaginative, single-minded, and focused-yet comprehensive-efforts toward achieving this new posture [the "new," modernized PLA]. The same sort of innovative and comprehensive effort in Washington and Taipei [as well as Tokyo] is, it would seem, appropriate to determine how best to cope with or manage the new situation. The effort must encompass thinking on how to cope with the new threat militarily, of course; however, there is another at least equally important dimension. The thinking must also be geared to achieve a successful outcome in other non-military, non-hardware ways. This other dimension should...not only focus on means to avoid conflict but also on ways to influence Beijing's thinking. It could succeed where military efforts could produce mostly frustration for Taipei.

On this matter of shaping Beijing's thinking, the thrust of the effort by Taipei and Washington [in careful concert with Tokyo, I should have added] might be to reinforce feelings that appear to have taken root among Chinese leaders. There seems to be an inclination now in Beijing toward thinking that the use of military force against Taiwan would be imprudent, risky, dangerous, and not in the best interests of the PRC. The idea of having China appear as less threatening to Taiwan and more cooperative in cross-Strait relations seems to have currency in Beijing—if not necessarily in the PLA. That kernel might be nurtured.

There are other factors that can be gently exploited in making Beijing less inclined to think that military force is a reasonable recourse. As has been illustrated, the PRC's military vulnerabilities are now far fewer than a few years ago, but other vulnerabilities and concerns persist. These center on the need for the Chinese Communist Party to sustain China's unprecedented economic growth and the regional stability upon which it depends, the desire of a more worldly Chinese nation to preserve its international stature and reputation as a constructive member of the community of nations, and the need for the Party and the government to devote full attention to the social inequities, corruption, structural flaws and other matters that create unrest, dissent, and other domestic problems. It is not that lectures to Beijing on these matters will prevent a decision to use military force. It is rather that opportunities such as the exchanges between senior U.S. and

Chinese officials should serve as a venue to subtly remind those in Beijing that all [especially Americans and Japanese] wish for China continuing economic success, a stable internal and external environment, and a continuing important role in the region and the world. The demise of all those favorable elements for Beijing could be the result of a decision to attack Taiwan....

[I]t is virtually certain that these remarkable improvements in the PLA will not be reversed as the result of pressure from Washington or elsewhere. There is little prospect that Taiwan can surge in overall military capability or find the "silver bullets" to close the gap. Consequently, Washington and Taipei [with Tokyo] must be as clever in responding to these new circumstances as Beijing was in producing them.... Regardless of how much one dislikes or disagrees with Beijing, the response must not be restricted to the realm of military counters to PLA modernization but must be far broader and more positive in scope....

How we might accommodate to the fact of this "new PLA." Beijing must be deterred from using military force—an increasingly less attainable *military* goal for Taiwan and a monumental challenge for the U.S. [and, of course, for Japan]. Consequently, in addition to the military component of deterrence, it is increasingly important that Beijing be positively influenced to realize that its strengthened PLA, used in an attack on Taiwan, would, or at least could, prove not to be a solution for the problem as Beijing sees it but rather to be a profoundly weakening experience for China. The PRC's strength stems from its remarkable economic strides for three decades and from its rapidly expanding role as a constructive, responsible player in the community of nations. An attack on Taiwan, with resultant regional turbulence and the other ramifications of a demonstration of irresponsible and even reckless PRC conduct would torpedo these accomplishments; moreover PRC regime survival could be sorely jeopardized and reunification with Taiwan would likely not be a result. Beijing needs subtly to be guided to assimilate this lesson and to recognition of the likely consequences of military action. This seems a worthy undertaking for Washington, Taipei, and other capitals [implying Tokyo] in high-level exchanges with Beijing. Lectures will not likely work; but dialogue that demonstrates a genuine concern for the future of China as an open and prosperous nation serves as a good foundation....

We are faced with a profound and complex challenge in influencing or shaping Beijing's thinking with respect to Taiwan. Reinforcing positive PRC inclinations concerning its relations with Taiwan are now all the more important because of the "new PLA" that could embolden Beijing to act imprudently and bring about devastation in Taiwan (and China) and conflict with the U.S. [and possibly Japan] that would produce regional instability and have highly unpredictable ramifications.

Beijing seems now to be seeking ways to better balance the military threat it poses with efforts to create a more favorable impression of the PRC among the Taiwan citizenry. However, this newly commenced effort is surely not certain to achieve grand, or even moderate, success. Some PRC specialists on the Taiwan issue seem to be exaggerating the effectiveness of these early initiatives by Beijing to capture Taiwanese hearts and minds.... It is simply not clear whether future larger-scale efforts might, indeed, succeed to the point where there is real de-emphasis of the military threat. But, for the present, there appears to be more in the form of gestures than there is of substance.

A glimmer in the gloom. We, including Japan, should encourage Beijing's effort rather than belittling or ridiculing it—and all, especially Taipei, stop shooting down trial balloons. Some Chinese interlocutors suggest the military threat to Taiwan has become counterproductive. Military deterrence is essential, they emphasize, but the large missile force aimed at Taiwan and other threats are now serving to alienate the people of Taiwan and counteract the efforts there to improve the image of China. One well-informed interlocutor hinted at having knowledge of discussion in Beijing of lessening the missile threat if the Taiwan elections go as Beijing hopes. Looking beyond the cross-Strait problem. A Taiwan scenario is, appropriately, where our attention is focused. However, Chinese leaders and the PLA seem now to be looking beyond Taiwan, and so should we. Stated succinctly, the PLA focuses on a Taiwan contingency for the immediate future and for the longer term is striving for a military to meet the needs of emerging China. Beyond the fundamentals of protecting its sovereignty, Beijing has made it quite clear that energy security and the security of its ocean commerce are among its major concerns. That implies at least two things: (1) security of pipelines bringing oil and natural gas to China over land, and (2) security of the sea lanes that bring oil and natural gas to China from the Middle East and elsewhere and that are the conduits bringing essential imports for rapidly growing China and serving this huge export economy.

There may, of course, be other more sinister intentions harbored now or in the future by Beijing, despite protestations by PRC leaders and strategists that China is a peaceful and non-threatening country. We and the world must be alert to China's possible turn to pursuing regional hegemony and to a possible future effort to expel the U.S. from East Asia. Although many thoughtful and influential Japanese are working to ease Sino-Japanese tensions and seek cooperative bilateral relations, Tokyo is profoundly concerned about China's future intentions. Nevertheless, we should recognize that emerging China will seek a military commensurate with its new status in the world. Many features of today's PLA have utility beyond Taiwan, but we should not be surprised or disturbed when the PLA seeks appropriate means to carry out its new missions.

Two possible examples of reasonable and understandable developments that might reflect an effort by Beijing and the PLA to look beyond Taiwan (rather than an intensification of the capability to attack Taiwan or become a threat to its neighbors) could be the new class of nuclear-powered attack submarines (SSNs), the Shang class, and the possible prototype aircraft carrier.

- These SSNs have essentially unlimited range and endurance. Their presence (or suspected presence) at the right place in the Indian Ocean, for example, could deter other nations from thinking that disrupting oil flow from the Middle East through the Indian Ocean and on to China would be easy. Japan and China have common interests in the flow of oil to Northeast Asia.
- A similar situation might involve Beijing's sending the PLAN to the vicinity of the Strait of Malacca to protect shipping. It would be imprudent and ineffective to have a PLAN surface action group (SAG) far outside of the range of China-based tactical aircraft. Some sort of "organic air" capability would make imminent sense. A "carrier" of some sort could provide "eyes" or firepower at some distance, and generally round out the capabilities that would be lacking most prominently in a SAG of only destroyers and frigates. The ongoing shipyard work with the old Ukrainian carrier Varyag may be the development of a prototype of such a ship.

This carrier acquisition program, if work on Varyag represents that, is cited by some as another threat to Taiwan, ignoring that there are more than ample numbers of suitable airfields (including aircraft fueling and parking) to stage aircraft and to conduct an unlimited air campaign against Taiwan and still have the capacity to employ strikes against U.S. forces and bases in Japan and Korea if circumstances dictate. Moreover, in my judgment, a PLAN carrier would be more a target than an asset in a Taiwan crisis situation. The argument about non-utility for Taiwan is not so strong with respect to the SSNs as these submarines will certainly be of value in a Taiwan contingency against Taiwan, U.S., and Japanese forces (should they be involved); however, the

SSNs are expensive and the PLAN has many modern submarines (and more building) that serve exceedingly well for missions related to Taiwan. Songs, Yuans, and Kilos are well suited to be the heart of an undersea effort in a Taiwan contingency, with older submarines also useful. Consequently, the Shang-class SSNs may well be part of the PLA's sensible vision of itself as it looks at missions "beyond Taiwan."

The carrier and nuclear submarine programs are among the PLA's most dramatic (and tenuous) modernization efforts, and they might also be seen as challenging, bold, and provocative—or rational and understandable. The point is that there is much to be concerned about and much we should be doing with respect to the modernization of the PLA and a Taiwan contingency. But to keep it all in perspective, it is reasonable for the PRC to have a military to meet the needs of the China that is emerging. Not every twitch by the PLA should cause Taipei reflexively to duck and Washington (and Tokyo) instinctively to criticize and counter.

The U.S. outlook: China, simultaneously a potential adversary and promising partner. As has been described, a new and much more capable Chinese military is being acquired and deployed. It is arguably *the* major military that the U.S. must deter or be able to defeat—and about which Japan must be concerned. However, at the same time, Washington and Beijing potentially can direct Sino-American bilateral relations toward cooperation rather than an adversarial situation—despite the need, as legitimately perceived in Washington and Beijing, to hedge in a very serious way across the spectrum of warfare. The same can be said for Sino-Japanese relations and, more broadly viewed, for trilateral relations—or even adding a fourth (Korean) leg.

One currently prominent potential element of the cooperative relationship(s) is partnership in a regional security framework or community—a concept that is now being intensely discussed, especially in connection with one of the Six-Party Talks working groups. For many, the specter of China as an inevitable or potential adversary fades as Washington (as well as Tokyo, Seoul, and Moscow) and Beijing work in concert on matters of common interest, with the Six-Party Talks and combating terrorism possibly the most prominent current examples. As a retired navy officer, I can envision the PLA Navy's joining the U.S. Navy and other navies, notably the JMSDF, as a partner on the high seas, moving from today's rudimentary search-and-rescue drills (coincident with port visits) to meaningful exercises and coordinated operations to ensure freedom of navigation and provide enhanced maritime security, to curb piracy, smuggling, terrorism, and proliferation of weapons of mass destruction, and to conduct humanitarian assistance—as Beijing wishes it had been able to do for the 2005 tsunami relief operation.

U.S. policies will be a factor in whether this favorable outcome is achieved but could also be a factor in possible future Chinese decisions to act less constructively, for Beijing to ignore its own declarations about its non-expansionist, non-aggressive nature. Understanding today's PLA and how it is changing is important so the U.S., and its allies and friends, can lessen the prospects of an undesirable outcome and enhance the prospects of achieving the right balance of deterrence, encouragement, cooperation, and, we can hope, partnership in the region and on the high seas.