Strategic Forum

No. 175
October 2000

Institute for National Strategic Studies
National Defense University

China Rising: New Challenges to the U.S. Security Posture

by Jason D. Ellis *and* Todd M. Koca

Key Points

The future strategic capabilities of the People's Republic of China (PRC) will substantially differ from the past; both numerical increases and significant qualitative improvements are likely.

Key information gaps, aggravated by a lack of transparency, hamper our understanding of China's expanding nuclear and missile capabilities, doctrinal innovations, and evolving strategic intentions.

While U.S. and PRC interests intersect in a number of areas, there are also important differences. The status and future disposition of Taiwan is perhaps the single greatest flashpoint for conflict, a case in which U.S. deterrence of a range of PRC military steps may fail and escalation ensue.

A rising power, China is striving to become a heavyweight in Asia. The long-term complementarity of U.S. and PRC interests is predicated in large part on Beijing's strategic choices.

In a context of uncertainty, prudent planning requires that the United States develop and deploy deterrent and defense capabilities that appropriately safeguard national interests.

Some claims by opponents of ballistic missile defense that prospective deployments will trigger a reactive Chinese arms buildup of long-range and/or short-range missile systems tend to confuse cause and effect. China is modernizing and numerically increasing its deployed missile forces; ballistic missile defense is a countermeasure against that buildup, not its cause.

The nature, scope, and viability of the strategic relationship between the People's Republic of China (PRC) and the United States have emerged as leading security policy issues. Among the many reasons for this are: China's evidently growing defense budget and its military modernization campaign; its often threatening rhetoric over Taiwan; its reputed espionage activities; and disputes over collateral security issues, such as China's continuing proliferation of weapons of mass destruction. Furthermore, Beijing's lack of transparency concerning its strategic capabilities and modernization programs, and the intentions that undergird each, make it difficult to confidently forecast China's future direction; yet significant strategic decisions undertaken today will have far-reaching and long-term implications. There is a growing sense among defense analysts and specialists that the future disposition of Chinese strategic forces may only modestly resemble that of the past. Looking ahead, U.S. policymakers must address three central questions: (1) the likely extent of China's strategic modernization; (2) the degree of complementarity of U.S. and PRC regional and strategic interests over time; and (3) the implications of each for U.S. foreign and defense policy.

Evolving Capabilities

There is remarkably little verifiable information on China's military programs and strategic capabilities. The relative absence of accountability and transparency in China's defense establishment, together with the importance of deception in Chinese strategic tradition, underscore the difficulties inherent in credibly assessing PRC strategic capabilities. Unreliable or incomplete open source information and the circular effect of repeated cross-referencing help explain discrepancies in unclassified estimates of China's force posture and attributes.

As the accompanying table illustrates, the approximately 20 *Dong Feng* (DF)–5/5A intercontinental ballistic missiles constitute the backbone of China's strategic nuclear forces. An aging, liquid-fueled, silo-based, single-warhead system, the DF–5/5A is assessed to be capable of reaching anywhere in the United States. China also maintains a small number of intermediate-range DF–4 missiles and a much larger stock of medium-range and short-range ballistic missiles. The two-stage, solid-fueled DF–21/21A, which is replacing the DF–3/3A, has an estimated 600-kilogram payload and an 1,800-kilometer range; its sea-launched counterpart is the *Ju Long* (JL)–1. With respect to short-range systems, China has deployed a substantial number of DF–15 and a lesser quantity of DF–11 missiles. Both are generally thought to be nuclear-capable, although the majority of DF–15s probably carry conventional warheads. Unclassified estimates forecast that 500–650 short-range ballistic missiles, together with a growing number of land-attack cruise missiles, may be deployed opposite Taiwan by 2005.

Most analysts believe that China has long had the capability to develop multiple-warhead missiles. Yet, the apparent lack of any MRVed or MIRVed missiles in the Chinese inventory suggests to some that China has adopted "minimum deterrence" as its strategic doctrine. Others argue that the low number of long-range missiles relative to short- and

PRC Ballistic Missiles

Deployed Missiles

Systems	Range (kilometers)	Payload (kilograms)	Fuel/Basing	Warhead	Number Deployed	Initial Deployment
Short-Range Ballistic Missiles (SRBM)						
DF–15/M–9 (CSS–6)	600	500	Solid/TEL	50–350 kt*	200+	1995
DF–11/M–11 (CSS–7)	280	800	Solid/TEL	350 kt*	40+	1995
Medium-Range Ballistic Missiles (MRBM)						
DF–3/3A (CSS–2)	2,800	2,150	Liquid/ transportable	3.3 mt	40+	1971
JL–1 (CSS–N–3)	1,700	600	Solid/SLBM	200–300 kt	12–24	1986
DF–21/21A (CSS–5)	1,800	800	Solid/TEL	200–300 kt	10–50	1986
Intermediate-Range Ballistic Missiles (IRBM)						
DF–4 (CSS–3)	4,750	2,200	Liquid/cave	3.3 mt	10+	1980
Intercontinental Ballistic Missiles (ICBM)						
DF–5/5A (CSS–4)	13,000	3,200	Liquid/silo	4–5 mt**	~20	1981

ICBM/SLBM Modernization

Systems	Range (kilometers)	Payload (kilograms)	Fuel/Basing	Warhead (kilotons)	Possible Deployment Date
Intercontinental Ballistic Missiles (ICBM)					
DF–31	8,000	700	Solid/TEL	200–300***	2002
DF–41	12,000	800	Solid/TEL	200–300***	~2010
Sea-Launched Ballistic Missiles (SLBM)					
JL–2	8–10,000	700	Solid/SLBM	200–300***	2005

Source: Composite table of available open-source estimates compiled by the Center for Counterproliferation Research.
* Probably dual-capable.
** Possibly multiple reentry vehicle (MRV) or multiple independently-targetable reentry vehicle (MIRV) capable.
*** Possibly MRV- or MIRV-capable

medium-range weapon systems (missiles and bombers) is indicative of China's greater concern over Soviet, more than American, strategic intentions during the 1970s and 1980s. The Chinese strategic force mixture appears to be changing as PRC security perspectives evolve. The significant buildup of shorter-range missiles opposite Taiwan arguably represents a perceptual shift among PRC military officials and policymakers toward greater warfighting or coercive utility for the missile force. As for long-range systems, an unclassified September 1999 National Intelligence Estimate forecasts that PRC missiles will likely number in the "tens" by 2015. China today has a largely discretionary capability to build a larger force; much of the appropriate technological infrastructure is already in place. Moreover, the resources required for significant increases appear, in principle, to be available, although the extent to which this would require expenditure tradeoffs with other priorities is predicated in part on continued economic growth. The congressional Select Committee on U.S. National Security and Military/Commercial Concerns with the People's Republic of China (Cox Committee) concluded in 1999 that, with "aggressive development of a MIRV system," China could deploy "upwards of 1,000 thermonuclear warheads on ICBMs by 2015."

China is currently pursuing a substantial military modernization campaign, central to which are evident qualitative improvements to, and likely quantitative increases in, its strategic forces. While the parameters of many specific activities are widely disputed, it is reported that Beijing is exploring a number of technological improvements. These include mobile systems, solid fuel propellants, advanced guidance systems, warhead miniaturization, space-based capabilities (e.g., radar, imaging, and navigation satellites), and "specialty" devices (e.g., enhanced radiation and directed energy weapons, antisatellite munitions, and ballistic missile defense countermeasures). In addition to enhancements designed to increase the accuracy, survivability, and flexibility of its missile forces, China is developing long-range missiles capable of replacing the DF–5/5A, notably the DF–31 and DF–41 (see table). The DF–31 is a mobile, solid-fueled ICBM with a 700-kilogram payload and an approximately 8,000-kilometer range; its submarine-launched corollary is the JL–2. The former was flight-tested in 1998 and might be deployed by 2002, while the latter may not come on line until 2005. Considerably less is known about the DF–41, although some open source estimates project an initial operational capability of approximately 2010; others postulate that this enterprise has been abandoned.

Evolving Perceptions

Accurately interpreting the black box of China's strategic intentions is difficult. Analysts generally argue that Beijing was initially motivated to develop nuclear weapons for two reasons: to counter potential blackmail from the nuclear weapon states and to join their ranks, a status befitting a great power. A July 1998 white paper issued by the PRC Information Office argues that China possesses "a small number of nuclear weapons, entirely for meeting the needs of self-defense." At the same time, some senior Chinese military leaders appear to see coercive utility in the longer-range strategic systems, as evidenced by repeated statements that U.S. officials would be unwilling to "trade" Los Angeles, New York, or San Francisco for Taipei. Similarly, and despite Beijing's long-standing no-first-use declarations, ominous reminders of Beijing's ability to employ enhanced radiation devices against Taiwan or the U.S. Seventh Fleet underscore a perceived utility of nuclear weapons that goes well beyond a retaliatory role for China's nuclear forces. Indeed, the continuing deployment of shorter-range missiles across

Jason D. Ellis is a research professor, and Todd M. Koca a research assistant, with the Center for Counterproliferation Research at the National Defense University. Dr. Ellis can be reached at (202) 685–4207, by fax at (202) 685–2264, or via email at ellisj@ndu.edu. Opinions, conclusions, and recommendations expressed or implied in this paper are solely those of the authors and do not necessarily represent the views of the National Defense University, the Department of Defense, or any other agency of the U.S. Government.

the Strait of Taiwan strongly suggests a burgeoning offensive, warfighting utility for such instruments.

Moreover, recent research suggests that views in Beijing of a shifting security environment, the perceived vulnerability of currently deployed nuclear forces, and fears of an uncertain future are coalescing, calling the previously "limited" nuclear aims into question. China's acquisition through commercial transactions and espionage of militarily-relevant capabilities from abroad, together with indigenous scientific and technological advances, have facilitated the development of mobile, solid-fueled, multiple-warhead weapon systems with improved accuracy, reliability, and survivability. Together with these technological advances, as Bates Gill and James Mulvenon have argued, PRC doctrine may be moving toward a three-tier structure: a credible minimal deterrent vis-à-vis the United States; a limited, nuclear-capable counterforce capability at the theater level; and an offensive, conventional theater warfighting posture. While there is an evident gap between apparent doctrinal evolution and current deployed capabilities, significant force improvements are probable.

U.S.–PRC Divergence

The mid- to long-term complementarity of U.S.–PRC strategic interests is uncertain. As a growing power with a vested stake in significantly altering the regional status quo, Beijing's strategic choices will weigh heavily on the ultimate outcome. In the near- to mid-term, both states will make a number of strategic decisions that have far-reaching implications. As recent work by Michael Pillsbury and others indicates, some changes are already evident in China's evolving security calculus. For instance, Chinese military leaders are reportedly disturbed by the displays of American power in the Gulf War and, more recently, in Kosovo. Moreover, they are concerned about the prospective deployment of ballistic missile defenses (theater and national). Similarly, Chinese officials harbor concerns relating to Indian strategic capabilities, Japan's future security course, Russian political and military developments, and other issues that bear on the PRC security orientation. Finally, Chinese political and military leaders have publicly articulated concerns relating to what they label U.S. "hegemony," and perceive a concerted American attempt to encircle and constrain growing Chinese power.

Many analysts have concluded that Beijing is seeking to enhance its position as a political and military "heavyweight" in Asia. To reach this goal, PRC leaders believe that China must increase its military capabilities relative to the United States over the next several years. At present, China requires U.S. assistance to facilitate its complete integration into the global economy and to more fully realize its economic potential. Economic development remains a primary concern of the current Chinese leadership, both as a source of domestic legitimacy and because it enables a long-term strategy of military modernization. Most analysts agree that, while the Chinese military is currently weak, it intends to be relatively stronger 10 to 20 years from now, with the capacity to stand up to the United States in a conflict situation. The eventual extent of China's rise, and the degree to which a rising, revisionist China ultimately intends to or can displace the United States as a leading regional power, are key strategic questions.

China is a growing power with a vested stake in significantly altering the regional status quo

While some U.S. and PRC strategic goals converge, some of China's evident regional aims—e.g., reunification with Taiwan (on terms with which Taipei and Washington may disagree), a diminished American military presence in the Asia-Pacific region, and a drive toward enhanced Chinese regional influence—clearly conflict with those of the United States. With greater military power, China might become more willing to use or threaten to use force to realize these contested objectives. In the near- to mid-term, the single greatest flashpoint for conflict between China and the United States is Taiwan. In no other case are the apparent strategic objectives of each state so evidently in direct conflict with one another. According to recent work by Keith Payne and Thomas Christensen, Taiwan's future disposition is perceived by the PRC leadership to be a regime survival issue. The political imperative of such a perception clearly increases the prospects for crisis instability, deterrence failure, and military conflict. Chinese leaders declare that the decision to use armed force to resolve the Taiwanese question would, according to a February 2000 PRC white paper, "only be the last choice made under compelling circumstances." Should this determination ultimately be made, however, China's increased military capabilities may well be employed not only against Taiwan but also against forward-deployed American forces and other regional allies.

Strategic Implications

China's military modernization campaign, its growing regional ambitions, and manifest U.S.–PRC strategic divergence in important areas raise a number of fundamental questions for the United States. First, how far, and how fast, will China's military modernize? While considerable differences exist among China-watchers as to the ultimate scope and extent of Beijing's modernization activities, almost all conclude that Chinese capabilities will be more substantial than those currently deployed and will have considerable impact on the security environment. Opponents of U.S. theater missile defense (TMD) and national missile defense (NMD) systems often argue that such efforts will: (1) trigger a reactive Chinese arms buildup of long-range systems, since deployed defensive capabilities might obviate or diminish the prospects for successful strategic deterrence; and (2) encourage the further buildup of short-range systems in order to compensate for improved defenses. However, reducing to a single issue the root cause of China's modernization activities oversimplifies the sources of Chinese behavior, omits the implications of such, and simply assumes the all-or-nothing deterministic character of a single factor. Moreover, it sidesteps two important points. First, absent the growing threat of deployed offensive missile capabilities, there would be little reason for the defensive response. Second, even without the contentious issues surrounding missile defense, China would certainly continue to modernize and increase the quantity of its deployed forces.

Second, on the premise that China both continues to build arms and intends to flex its regional muscles, how does this affect the deterrent relationship between the United States and China? According to press accounts, one senior State Department official suggested that "there is a reasonable prospect that deterrence

would be effective" with respect to China, and that "we are comfortable with [our] deterrent relationship" with that state. This unsubstantiated assessment is not a consensus position throughout the U.S. security community. Indeed, there are sound reasons to postulate that U.S. deterrence of China, which operates at multiple levels—e.g., conventional military attack on Taiwan, use of theater nuclear weapons, recourse to strategic nuclear weapons—may fail under plausible circumstances. Foremost among these is the future status of Taiwan. The probability that deterrence may fail in this case is enhanced to the extent that Chinese officials: (1) view Taiwan as an inalienable part of the mainland; (2) interpret China's territorial integrity (and particularly the disposition of Taiwan) as a regime survival issue; (3) perceive a great asymmetry in relative stakes for the United States and China; and (4) are willing to sacrifice dearly in order to prevent successful *de jure* Taiwanese secession.

Yet, little systematic research has explored the range of potential U.S. options to enhance deterrence at the strategic level, to bolster crisis stability, or to operationalize deterrence in a possible warfighting context. Rather, analysts have variously extrapolated what they view as successful deterrence of the Soviet Union and transferred such an understanding to the Chinese context, downplayed the prospects for a military confrontation between the United States and China (over Taiwan or other possible issues), or inferred that deterrence will obviously work for the United States vis-à-vis China due to the large asymmetries in deployed capabilities. But a simple count of approximately 20 long-range nuclear weapons for China (or even the approximately 400 currently available strategic and tactical nuclear warheads) misses a critical point: that the U.S. ability to achieve its regional security objectives, predicated in part on power projection requirements, may be adversely affected by increased Chinese nuclear and missile capabilities. Maintaining stable nuclear deterrence at the strategic level while at the same time developing the military capabilities required to defend and promote U.S. regional interests is a clear challenge to U.S. defense planners. Looking forward, a larger Chinese nuclear force, together with a likely smaller number of future U.S. nuclear weapons, may suggest the need for a far-reaching review of U.S. deterrence policy and plans. More generally, determining the pressure points to which Chinese leadership will respond may become critical to charting a course through a crisis situation while preserving core U.S. interests. Finally, encouraging Chinese officials to learn from the Pearl Harbor rather than the Somalia analogy of American willingness to respond to aggression might enhance deterrence, diminish prospects for miscalculation, and help achieve key regional objectives.

little systematic research has explored the range of potential U.S. options to enhance deterrence

Third, how should the U.S. security community treat China's growing regional prominence? Given the extent of China's rise, the U.S. Government would be remiss if it did not devote considerably greater attention to understanding the implications of China's rise and charting an appropriate policy course. In particular, increased U.S. intelligence efforts should emphasize China's evolving strategic capabilities, plans, and intentions, as well as changes in doctrine and training. Significant information gaps have intensified the effects of Chinese deception, internal debate, and lack of transparency, which have further hampered the U.S. ability to discern the nature, purpose, and likely extent of Chinese plans in this area and to craft an appropriate policy response. The diplomatic and defense communities also need to devote more time and attention to a China whose operational capabilities and strategic intent may be changing. The relationship between China and the United States may become more confrontational as Beijing's objectives conflict in some cases with Washington's. The United States must move beyond the current level of uncertainty and improve its ability to interpret these objectives. Indeed, the extent to which U.S. policymakers can identify and defuse occasions for armed conflict will correspondingly diminish or heighten regional stability. This will also help realize a central foreign policy objective: integrating China into the appropriate institutional architecture without jeopardizing core regional and global security interests.

Recommendations

■ The United States must improve its understanding of China's increasing capabilities, security posture, and strategic intentions. This suggests a redoubled effort not only by the intelligence community, but also the broader national security policy community.

■ Strategic planners must systematically explore the underlying concept and application of deterrence in the context of China. It is not clear that deterrence either can or will function identically in the Chinese and Soviet cases; targeting strategy, operational plans, and regional capabilities may vary.

■ In response to China's missile buildup, the United States should continue to develop appropriate ballistic missile defense systems in conjunction with its allies. The acquisition community should seek to identify priority resource investment areas relating to China's military modernization and develop appropriate countermeasures.

■ The fractious domestic debate over the nature and extent of the U.S. defense commitment to Taiwan may contribute to dangerous misperceptions by China, thereby heightening instability. Accordingly, the President and Congress should work together, perhaps in the form of a senior level policy review group, to develop an effective compact in this area.

The Institute for National Strategic Studies publishes books, monographs, and reports on national security strategy, defense policy, and national military strategy. For information on NDU Press visit the Web site at: http://www.ndu.edu/inss/press/ndup2.html. INSS also produces *Joint Force Quarterly* for the Chairman of the Joint Chiefs of Staff; the journal can be accessed at: http://www.dtic.mil/doctrine/jel/jfq_pubs/index.htm.

INSTITUTE FOR NATIONAL STRATEGIC STUDIES

Stephen J. Flanagan Director
Robert A. Silano Director of Publications

NDU

The Strategic Forum series presents original research by members of the National Defense University as well as other scholars and specialists in national security affairs from this country and abroad. The opinions expressed or implied in this publication are solely those of the authors and do not necessarily represent the views of the National Defense University, the Department of Defense, or any other governmental agency.

NDU PRESS

William R. Bode General Editor
George C. Maerz Supervisory Editor