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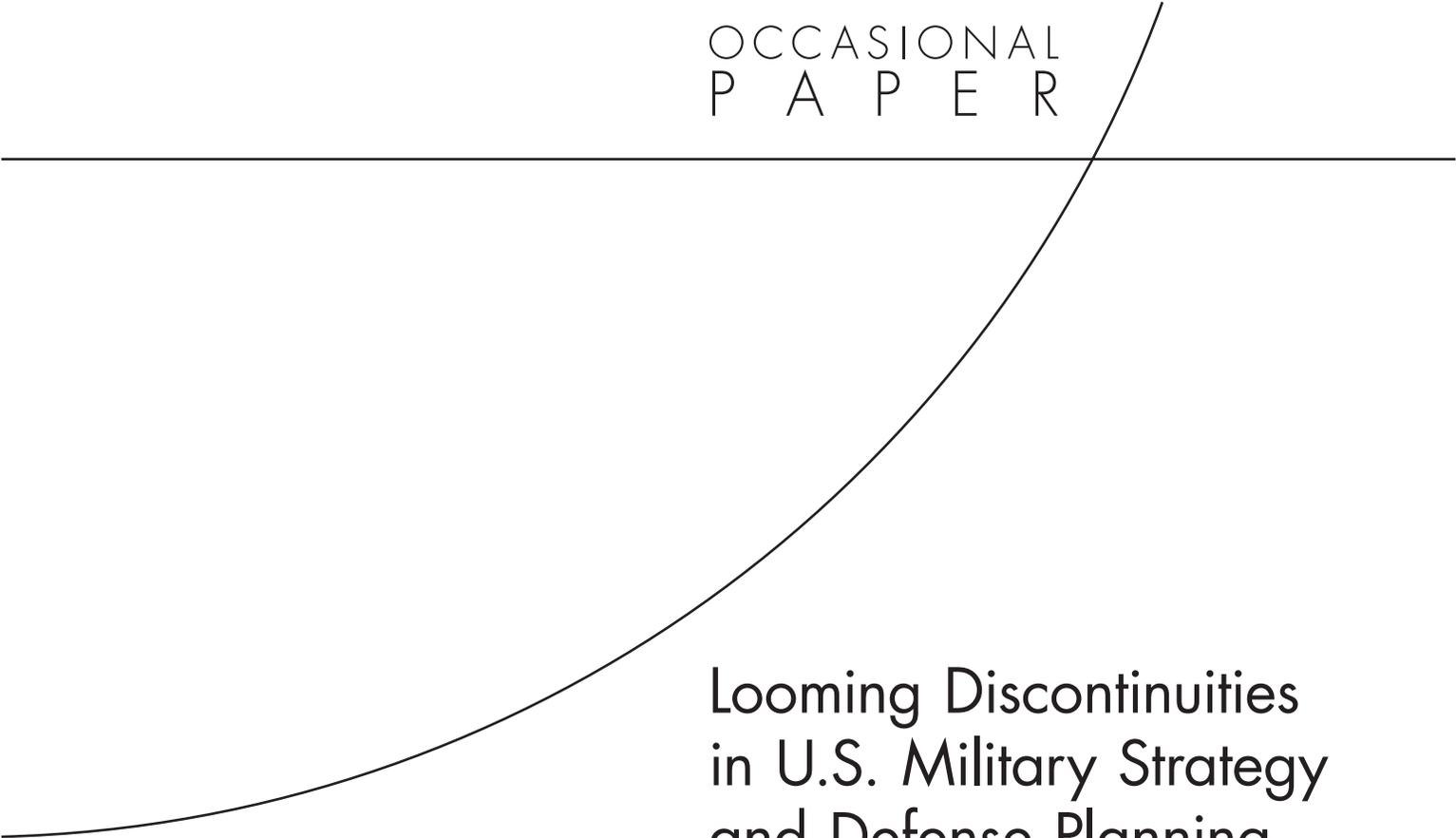
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P A P E R



Looming Discontinuities in U.S. Military Strategy and Defense Planning

Colliding RMAs Necessitate a New Strategy

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Prepared for the Office of the Secretary of Defense

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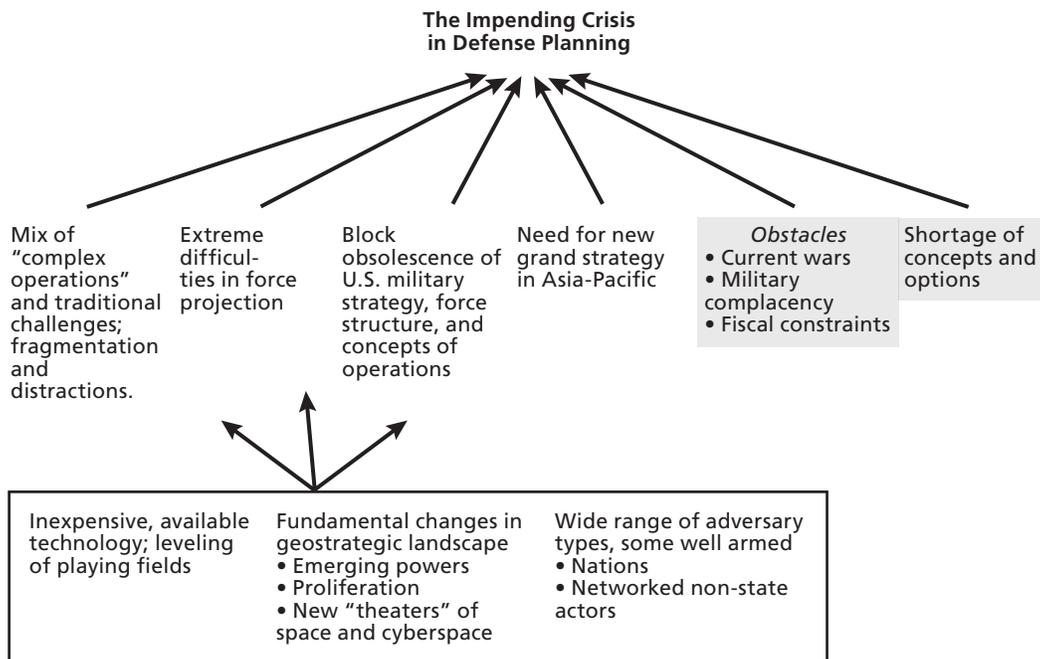
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Summary

A Sobering Diagnosis

The United States is entering a period of discontinuity in its defense planning, something that may be seen by future historians as a planning crisis. As indicated schematically in Figure S.1, the discontinuity stems from technology diffusion that is leveling aspects of the playing field militarily, geostrategic changes, and the range of potential adversaries. These are leading to (1) the United States having to deal with a demanding mix of “complex operations” (e.g., counterinsurgency and stabilization) and traditional challenges; (2) the increasing difficulty of force projection in some important circumstances; (3) a related block obsolescence of U.S. forces and concepts of operations; and (4) the need for a new grand strategy in the Asia-Pacific region. Obstacles exist to taking on these challenges—notably, the demands of current wars, military complacency due to decades of military overmatch, and severe national fiscal constraints. Making things worse is the fact that incremental changes will not suffice, but no

Figure S.1
Diagnosis: An Impending Crisis in Defense Planning



RAND OP326-S.1

consensus is yet emerging about options for the way ahead. Taken together, the problems pose a once-in-a-century challenge.

Military-Technical Developments

The technological dimensions of the problem can be seen in Table S.1. The changes taking place can be seen as the collision of four revolutions in military affairs (RMAs) associated with industrialization, insurgency, weapons of mass destruction and strategic bombardment, and information technology. It is common to imagine that the RMAs occurred at a given time in history, but, in fact, they all continue to this day. Combinations are occurring with troublesome results, such as insurgents and international terrorists being able to use widely available elements of modern information technology in inexpensive weapons, such as precision mortars, while rising regional powers are deploying longer-range precision weapons, advanced air defenses, and other moderately advanced systems that undercut many traditional U.S. military strengths and concepts of operations.

Geostrategic Developments

The geostrategic changes in recent decades are many and varied. China is now a major power with impressive, high-momentum military developments in addition to its economic accom-

Table S.1
Illustrative Dimensions of Change in Military or Dual-Purpose Technology

Technology	Examples
Inexpensive communications for coordinated, distributed operations of small groups	Internet, multimedia, cell phones, commercial encryption, inexpensive GPS sets
Precision weapons	Precision mortars, guided rockets, and both short- and long-range missiles threatening ground forces, ships, air fields, and mobile air defense missiles
Advanced air defenses	Advanced mobile and man-portable surface-to-air missiles
Advanced antiship weapons	Air-independent-propulsion submarines, high-speed homing torpedoes, antiship ballistic and cruise missiles, smart and mobile mines
Cyberwar capabilities	Denial-of-service attacks, trojans and other advanced worms, nuclear and nonnuclear electronic-pulse weapons
Anti-space-system capabilities	Antisatellite systems, jammers of global positioning satellites, radio-frequency weapons
Long-range missiles for delivery of nuclear weapons	North Korea, Iran, Pakistan, and others
Space-launch capability	India, Israel, and perhaps Iran, Pakistan, Brazil, South Korea, North Korea, and others, depending on inclusion criteria
Nuclear proliferation	Pakistan, North Korea, and perhaps Iran and others
Nonnuclear mass-disruption or mass-destruction weapons	Radiological bombs, traditional bioweapons, new innovations from so-called do-it-yourself biology

plishments. In 2010, China was more strategically assertive regarding sovereignty over a number of small islands and waters, especially in the South China Sea. This caused worries among such regional states as Japan, South Korea, the Philippines, Vietnam, and Indonesia. Economic tensions are now considerable as well, and will likely continue, with even the possibility of an expanding trade war emerging as importer states consider tariffs and other measures to protect jobs and improve balances of payments. Although China need not become a threat to the United States, and the future should indeed be one of cooperation and mostly good relations, many potential flash points can be identified that justify caution. China, of course, is not the only rising power. India is emerging as a powerhouse in South Asia, and it is possible and even likely that it and the various regional states of East and South Asia will, along with the United States, provide a kind of balancing of China through a combination of economic, political, and military activities over time. What might emerge is a dynamic cool war of competition, cooperation, containment, and possible conflict. This will be an era of strategic improvisation and not the rigid and nearly monochromatic strategic competition of the early phases of the Cold War.

Other geostrategic realities include, of course, the continuing struggle with violent radical extremists, notably al Qaeda and a network of loosely affiliated jihadist organizations worldwide. No end is in sight for that struggle—even if U.S. withdrawal from Iraq occurs on schedule without civil war in Iraq, and even if progress is made slowly in Afghanistan, which is even more uncertain. Another new geostrategic reality is the advent of new wartime theaters of operation: space and cyberspace. The U.S. military is extremely dependent on both, with many serious vulnerabilities as other nations improve their own capabilities in both, and as some nations, such as China, do so zealously precisely because of U.S. dependences.

Block Obsolescence of Forces and Concepts of Operations

Against this background, we see the obsolescing of U.S. force structure and concepts of operations with respect both to a peer competitor and to lesser adversaries that combine methods of insurgency with modern technology. Problems exist across the board, but Table S.2 illustrates them for force projection. Certainly, our assessments in this think piece are inherently subjective, and some may reasonably disagree with them. The uncertainties have less to do with technology trends, which are observable, than with whether in fact potential adversaries will exploit them as we project.

Perceiving the Way Ahead, Darkly

Against this background of sobering diagnosis, we have attempted to sketch the outlines of a way ahead. That outline involves new military capabilities, concepts of operation, and grand strategy.

Directions for Capability Development

We focused largely on issues of force projection. Since traditional concepts of operation are losing viability, we sketched three illustrative possibilities for new ones to sharpen discussion

Table S.2
Fading Viability of Traditional Concepts of Operations

Component	Previously	Now, and Increasingly in Near Future
Limited forward presence	Nonproblem	Restrained but not especially risky
Large-scale deployments to regional waters and bases	Nonproblem	Risky due to vulnerable bases and regional waters; risks stem from air-independent-propulsion submarines and precision antiship weapons (including land-based missiles); large standoff ranges will likely be needed.
Broad naval supremacy	Nonproblem	Challenges exist but are much less when not in close-in regional waters.
Achieving air supremacy	Nonproblem	Nonproblem in most domains, but not, e.g., close to Chinese mainland
Suppressing air defenses	Destruction is difficult because of cover and deception but suppression is quite feasible.	Risky for above reasons and because of advanced mobile and man-portable surface-to-air missiles
Offensive air operations	Strategic strikes are possible early with stealthy aircraft; large-scale operations are a nonproblem after suppression of air defenses against fixed and known high-value targets.	Risky and difficult because of modern air defenses, the need for long-range operations, and the difficulty of finding mobile and hidden high-value targets
Entry of traditional ground forces and infrastructure	Nonproblem after gaining air supremacy	Risky because of vulnerabilities of forces during entry and of bases and other logistics. Area weapons pose special concerns.
Later ground-manuever operations with close air support and battlefield shaping	Supreme skill of U.S. forces	Moderately risky, with air support constrained due to residual surface-to-air missiles, and with vulnerabilities to residual precision weapons
Large follow-up operations (e.g., stabilization in large countries)	Feasible on a small scale, or on the Iraq scale with mobilization; forces at risk due to improvised explosive devices and other asymmetric tactics; large manpower requirements	Feasible on a small scale, or on the Iraq scale with mobilization; operations are risky for adversaries having precision or area weapons and some defenses against drones. Special needs for mine-resistant vehicles, persistent surveillance and substantial manpower.

NOTE: Red = feasibility is in question. Orange = feasible but with high risk. Yellow = risky or difficult. Green = feasible with acceptable risk.

of capability needs. They stem from asking, “How could force projection proceed given a very lethal environment (sometimes discussed as an antiaccess environment)?”

1. *Deliberate, phased entry with tactical and operational defenses.* This concept is akin to a modernized version of classic concepts but with both active and passive defenses at all levels (e.g., to counter precision mortars as well as longer-range missiles). It would probably also include mobile sea bases.
2. *Strike from afar with optional insertion of small ground forces.* This concept would avoid insertion of traditional ground forces and would instead emphasize long-range strike with the option of later inserting large numbers of small, networked ground-force units subsequently, which would use special forces–like tactics.

3. *Rapid and possibly preemptive entry.* This concept would depend on surprise and speed. It would attempt to destroy adversary defenses early so that follow-on operations could proceed.

At this stage, it is not clear which, if any, of these concepts will be viable or whether the United States will want to pursue combinations. This suggests priorities on certain types of capabilities, if they can in fact be achieved at tolerable cost. The following list is perhaps less remarkable than recognizing how challenging the related technical requirements are (and by noting differences from current de facto priorities, such as modernization of current platform types):

- high-confidence defenses at tactical and operational levels ranging from countering precision mortars to countering long-range missiles
- survivable and persistent surveillance and reconnaissance strike
- comprehensive defense suppression
- long-range sustainable strike
- effective munitions, including munitions for deeply buried targets
- survivable at-sea basing
- means of accomplishing complex operations with fewer U.S. forces, even when adversaries are embedded in populations.

We see likely cross-cutting stratagems as involving dispersion, networking, and swarm tactics; major efforts to ensure network security while hedging against network failures or penetration; and massive use of robotics and remote-control systems.

For each military service, the crucial questions seem to be these:

- What are the appropriate new-era building-block units (e.g., analogues to older units, such as brigades or squadrons but often with a more born-joint character)?
- What are the appropriate joint and component-level concepts of operations? Circumstances of feasibility?
- What is the appropriate portfolio mix of capabilities across missions (e.g., counter-insurgency versus force projection)? Circumstances of adequacy?
- What is necessary to deal with discrete, service-specific challenges? With joint challenges, such as network security and hedges against network failure or penetration?
- What is the appropriate portfolio mix of active, reserve-component, and civilian capabilities?

Again, the generic questions are less remarkable than the specifics. Should ground-force projection deemphasize large, traditional units in favor of small, networked units and, e.g., swarming tactics? What kind of sea basing makes sense, and for what distances? What is the future role of short-range tactical air forces? How will long-distance strike capability be sustained in the event of a large and lengthy conflict? And, in the realm of complex operations, what capabilities are needed to accomplish the missions with much-reduced numbers of U.S. ground forces?

Toward a New Grand Strategy

The other crucial element of the way ahead will be a new grand strategy. The most obvious need is to rethink grand strategy for the Asia-Pacific region. We conclude the following:

- Given the extent of China's developments, it is no longer appropriate to assess the adequacy of U.S. force structure by playing through simulated wars over the Taiwan Strait. The focus must change to broader conceptions of the power balance that include the arc from the Middle East through the Indian Ocean to Northeast Asia.
- Imperatives in the new conception will include deterrence and crisis stability, deterring both limited and larger-scale aggression, and ensuring that, in periods of tension, the combination of the sides' lethality and vulnerability does not create perceived imperatives for preemptive action. Avoiding errors that might cause war will be crucial for the great powers and important regional powers.
- A major issue is how deterrence can be made stronger than it has been in the past. Challenges of deterrence and, especially, extended conventional deterrence will be exacerbated by proliferation of nuclear weapons.
- A core issue is the relative emphasis on regional cooperation and power balancing, and between formal and informal balancing. And, of course, what roles should be played by the United States and the many nations of the Asia-Pacific region?
- The military component of strategy will seek to maintain conventional warfighting and war-winning capabilities where feasible but will include more deterrence-oriented capability, such as the ability to inflict serious pain with conventional strikes, to devastate infrastructure with conventional strikes, and to maintain supremacy at sea—if not in major powers' near waters, then certainly on a larger regional and global scale that includes the sea-lanes of communication to the Middle East and Africa.
- The United States has a major decision to make regarding the degree to which it should prepare for manpower-intensive operations, such as counterinsurgency and stabilization. It is not obvious that such operations should be the primary basis for force planning, despite events of the past decade. If they are, then the economic consequences will be substantial because they would come in addition to the demands of evolving balance-of-power and force-projection issues that are themselves very demanding.*

Although arms control should also be an element of grand strategy (as discussed in the main text), it is unlikely that it will substantially alleviate the major U.S. national-security challenges identified.

Necessity-Driven Experimentation

Because the way ahead militarily is not yet clear, we see the need for vigorous and competitive exploration and competition of ideas. The past decade's experiences have not been encouraging: Visions have sometimes gotten far ahead of technology and reason, criticism and competition have not been sufficiently valued, and joint experimentation has been neither sufficiently ambitious nor rigorous. A priority should be placed on rethinking how the department can do the explorations needed to inform once-in-a-century decisions. We present suggestions on the matter in the last section of the paper.

* See Gates (2011b) for related comments as this paper went to press.

Overall, a National Security Strategy of Comprehensive Balancing

Finally, we observe that, in some respects (the primary difference being the unavoidable long struggle with international violent religious extremism that threatens the United States and its worldwide interests), the United States is in a situation reminiscent of that of the Eisenhower administration as it considers grand strategy. It seems to us likely that, in broad terms, grand strategy will need to evolve with an emphasis on rejuvenating and sustaining the country's economic vitality while relying increasingly on credible forms of deterrence (rather than clear-cut superiority) in certain balance-of-power issues; and on alliances, improvement of allied capabilities, and use of international organizations. What is needed, arguably, is a national-security strategy of comprehensive balancing, rather than just a rebalancing of military capabilities.