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Asian Security Challenges—Planning in the Face of Strategic Uncertainties
Volume 1—Main Report

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This two-volume report describes an improved approach to DoD strategic planning and net assessments in the post-cold-war security environment in Asia. Drawing in part on business-planning concepts, the approach is built around the concepts of strategic intent, shaping the security environment, adaptive strategies, and military core competencies. This volume describes and explains the approach.

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SUMMARY

The fundamental problem confronting DoD strategic planners and net assessment analysts is the high degree of uncertainty in the security environment. Who will align with whom over the next two to three decades, what challenges various countries will mount to U.S. security interests, what kind of wars American military forces will have to fight, and—consequently—what mission capabilities these forces will need over the long term is hard to forecast. The new security environment in Asia is complex, affected by many variables, and changing rapidly in ways that the Cold War never prepared the Defense Department to deal with. As a result, current DoD approaches to planning and analysis, such as requirements-oriented hierarchical planning, which assumes a straight-line extrapolation from today's conditions into the future, and military balance assessments, which focus on trends and asymmetries that affect the near future, are not adequate for this new security environment.

We recommend an approach to DoD strategic planning based on the assumption that the Asian security environment will remain highly complex and uncertain for the foreseeable future. This approach is built around a framework consisting of the following components:

- Consideration of the full range of plausible challenges to U.S. security interests that could occur in Asia over the next twenty to thirty years, as a means to define the scope of DoD long-range planning and analysis for the region.

- The recognition that U.S objectives and the associated security strategies will remain vague until specific challenges begin to appear, leading to planning based on adaptive strategies and the associated concepts of strategic intent and shaping the security environment.

- The definition of *strategic planning* as the development, organization, and application of America's military forces and other national security assets to serve two purposes: to shape future Asian security conditions in ways that promote U.S.

security interests and to adapt in a timely and effective manner to challenges as they emerge.

- Use of the concept of military core competencies to aid in the planning of adaptive military forces by cultivating those essential DoD skills needed to achieve new, relevant mission capabilities faster and better than can plausible future opponents.

- The definition of *net assessment* as the evaluation of trends in U.S. strategic intent, capabilities to shape the security environment, adaptive strategies, and military core competencies in terms of their adequacy for avoiding, preventing, mitigating, or meeting the full range of plausible challenges to American security interests in Asia that might arise in the future.

Challenges to U.S. security interests can arise in a number of ways that are not revealed by net assessments of current military balances between traditional rivals in Asia. Accordingly, in seeking to understand what security challenges may come about over the long term, DoD planners and analysts need to consider not only current military forces, but also economic conditions, trends that can affect future security alignments, and trends in national competencies and infrastructures that affect future military capabilities, including the ways in which the military-technical revolution may develop in key Asian states.

The many possible challenges to U.S. security interests that could arise in Asia over the next twenty to thirty years can be organized into a contingency test bed, providing a systematic tool for evaluating candidate U.S. objectives, strategies, and forces. We use the word *contingency* in its broadest sense to refer to not-implausible future situations that could affect U.S. security in some significant way, including military competitions, changes in power balances, internal instabilities in key countries, and harmful economic activities, as well as military crises and wars. A contingency test bed, which is described in detail in this report, consists of descriptions of each class of contingency that plausibly could occur in Asia. Candidate security objectives, strategies, and forces would be evaluated by determining which of these contingencies the candidates would be adequate to handle, asking whether the shortfalls are acceptable, and—if not—modifying the candidates accordingly.

Review of the contingency test bed described in this report leads to several problems that should be given priority attention by DoD planners and analysts:

- Facilitating change in the U.S.-Japanese security relationship to one of full and equal partnership between the two countries.
- Seeking to influence China's security policies and to provide options to contend with two distinctly different kinds of possible future problems with China: a China that grows both more powerful and more assertive, and one that is wracked by prolonged domestic instabilities.
- Influencing the course of rapprochement and, eventually, unification on the Korean peninsula in ways that avoid new problems and contribute to peace and stability in Northeast Asia.
- Maintaining high inhibitions against the use of nuclear, biological, and chemical (NBC) weapons.
- Influencing the way the military-technical revolution unfolds in Asia in ways conducive to American security interests.
- Determining U.S. interests, objectives, strategy, and military posture for Asia at a time when the old national security construct is no longer valid.

The United States is moving in the direction of more flexible strategies and military forces in the new security environment, but DoD planners and analysts need to make greater and more explicit use of three related planning concepts in order to ensure that America can handle future security challenges in Asia: strategic intent, shaping the security environment, and adaptive strategies.

Strategic intent is a concise statement of America's long-term vision for the Asian security environment, within which more situation-specific objectives should be set or revised as necessary. The concept of strategic intent deals with the problem that, in the American political process, security objectives tend either to be too general to be of value to planners or to be so tailored to specific problems that they are of little use for long-range planning.

Shaping the security environment involves the use of political, economic, diplomatic, and military means to avoid or prevent challenges to U.S. security interests over the long term, to dissuade states from challenging American interests, or to mitigate or eliminate those challenges that do appear. Systematic efforts along these lines deal with the problem of uncertainty in the Asian security environment by trying to influence how the future actually unfolds in ways that are consistent with America's strategic intent in Asia.

Adaptive strategies is an approach to long-range planning in which U.S. security strategy is designed explicitly to change over time in light of new conditions, while remaining generally directed at realizing America's strategic intent. This approach deals with the uncertainties in the security environment that remain despite U.S. efforts to shape the environment. It does so by providing options that position America to seize opportunities as they emerge and that hedge against security problems that may arise in the future.

Recent White House and DoD policy documents indicate that U.S. security strategy for Asia and elsewhere is moving in the directions of adaptivity and greater emphasis on shaping the security environment. However, these elements of U.S. strategy need to be made more concrete and operational, and organizational changes should be made in order to improve the government's ability to monitor the Asian security environment and to alter the detailed implementation of its security strategy as conditions begin to change (see Section 4.3 for further details).

The concept of military core competencies is an important part of a strategic planning approach based on adapting to new security conditions. Military core competencies collectively form the infrastructure of deep-seated organizational skills that link basic national resources like the science and technology base, production capabilities, and manpower to the ability of the Defense Department to execute specific missions in particular times and places. More specifically, *military core competencies* are complex combinations of defense technologies, defense industrial skills, and operational military skills that enable the Department of Defense to stay ahead of other military establishments in strategically important missions. As such, military core competencies are key

for determining the outcomes of military competitions, crises, and wars, and play important roles in both shaping the security environment and adapting U.S. military forces to changing mission demands in the future. Examples of current DoD core competencies include high-capacity global mobility, the ability to sustain naval operations in distant areas, and a global surveillance, communications, and data fusion capability that can be focused swiftly on a specific theater of operations. Section 5.4 describes current U.S. military core competencies, those that are emerging, some that may be in jeopardy, and new competencies that the Defense Department should promote.

The concept of military core competencies should be part of the intellectual tools used by DoD planners and analysts. It adds perspectives about what is needed in order to facilitate changes in mission capabilities, and it sensitizes planners to the danger of losing important competencies when budgets, forces, and the defense industrial base are shrinking. More generally, we recommend that DoD strategic planning and net assessments be built around the concepts described in this report. To begin to do this, we recommend further that the director of net assessment carry out a future-oriented net assessment of Asia that evaluates the current U.S. strategic intent, strategy, capabilities for shaping the security environment, and military core competencies for the region. Section 6.2 outlines such an assessment.

PREFACE

Two historical lines of inquiry come together in this report. The first is what was called the "future security environment" by Andrew Marshall and Charles Wolf, Jr., in research supporting the Commission on Integrated Long-Term Strategy in 1987–88. Of course, we now are deeply into this new security environment. The second stems from Andrew Marshall's long-standing interest in applying business concepts to Department of Defense strategic planning.

Marshall asked Science Applications International Corporation (SAIC) to develop better ways to carry out net assessments pertaining to Asia over the next several decades, with special attention to transferring business planning methods to the Defense Department. Asia is an excellent regional focus for this effort because of its intrinsic importance in the new security environment and because, unlike Europe, there is no established body of cold-war analytic and planning techniques to be unseated; methodologically, the region is *tabula rasa.*

We found that net assessments have their greatest significance in the new security environment if linked to long-range, or strategic, planning. Further, certain business concepts, notably core competencies, can be useful in this connection. Accordingly, this report draws on business-planning concepts to redefine DoD strategic planning and net assessments in a way that takes fully into account the strategic uncertainties that are the central characteristic of the new security environment.

The main volume of the report delineates our approach, develops arguments to support this method for planning and assessments, and illustrates it in terms of avoiding or dealing with plausible future challenges to U.S. security interests in Asia. A companion volume of appendices includes a glossary and several papers describing supporting research: the concept of a contingency test bed that we advance here, a broad survey of business-planning concepts and their potential utility for the Department of Defense; a review of ways that the concept of military core competencies might be used in national security planning; a description of military balance mini-assessment techniques; and an analysis of the decline of Russian military core competencies in Asia.

The report is based on the work of SAIC's project team: David Andre, William Cockell, Wendy Frieman, Judith Grange Mooers, George Kraus, J. J. Martin (principal investigator), Ronald St. Martin, and Gregory Weaver. Both the research and this report have benefited from discussions with Andrew W. Marshall, members of the OSD (Net Assessment) staff, James Roche, Stephen Peter Rosen, George Pickett, and Wayne Hughes. Richard P. Rumelt, Steven R. Postrel, and William H. Davidson helped us access the business-planning literature efficiently and comprehensively. Susan Londos patiently put several revisions of the report on her word processor. J. J. Martin is the principal author of the main volume.

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DOD STRATEGIC PLANNING UNDER UNCERTAINTY

By now it is obvious that the security environment has changed so drastically that even the most cautious Pentagon planner no longer thinks about the Cold War, except perhaps for nostalgic recollections about the relative ease of dealing with a single, known adversary. For it is not obvious how to plan for this new environment, especially beyond the immediate future. There is an unusually high degree of uncertainty about who will be friends and adversaries over the next several decades, what challenges to U.S. security will arise, where American forces may have to fight, and what these wars could be like. Further, the environment continues to change, so that policies and forces which deal effectively with conditions unfolding in the first part of the 1990s may not be suitable in the early twenty-first century. Yet DoD and congressional decisions about how to allocate declining budgets, which forces to cut, and where to reduce overseas deployments already are affecting U.S. military capabilities for the next century, because of the long lead times to field new weapons and to make major changes in forces and basing. Unfortunately, we cannot predict the security conditions of the next century with even rough accuracy, and the DoD planning and analysis framework that evolved during the Cold War no longer is adequate to support decision making under this kind of uncertainty. Indeed, many of the specific planning concepts and analysis tools developed during the U.S.-Soviet military competition are of questionable value in this new, more fluid security environment.

1.1 DIFFICULTY OF SEPARATING SUBSTANCE AND METHOD.

The research described in this report was initiated for the purpose of developing DoD strategic planning approaches for this new security environment, using Asia as the regional focus. While the goal is improved methods of planning and analysis, we take fully into account the substance of planning issues facing the Defense Department. In fact, we should not do otherwise, since the problems of method arise from the complexities and uncertainties of the future. The

substance of security issues in this new environment is closely intermingled with the difficulties of improving DoD planning approaches.

This intertwining of substance and method is characteristic of Asia, which is an ideal region for considering ways to improve DoD strategic planning and net assessments. Asia is intrinsically important for U.S. security, is a likely site for major security challenges in the future, is prototypical of the new environment in terms of strategic uncertainties and rapid change, and—since it is not overly encumbered with cold-war planning concepts or multilateral planning bureaucracies—it poses fewer barriers to new thinking about security issues than do other regions like Europe. Further, the region is not only an area of potential security problems; Asia, perhaps more than elsewhere, also offers opportunities for the United States to shape the future security environment, which is a key part of the approach we discuss in this report. Finally, change in the former Soviet Union could have a major influence on Asian security matters; no attempt to develop improved DoD planning methods can ignore Russia and its relations with the other former Soviet republics and with other states on its periphery.

Business enterprises face planning problems similar to those of the Defense Department in today's conditions of worldwide markets, rapid technological change, pervasive uncertainty about the future business environment, and intense competition that sometimes comes from unexpected quarters. The essence of creativity is the transport of ideas from one field to quite different applications in another, and some of the concepts used by successful commercial firms offer models for DoD use. In particular, we use two business concepts in subsequent chapters to help solve methodological problems. These concepts are strategic intent and core competencies.

To see how these business concepts can improve DoD strategic planning and how strategic planning and net assessment techniques should change in order to be more useful in the Asian security environment, we need to describe in more detail the problems of substance and method that DoD planners face as they contemplate Asia. This is done in the next two sections.

1.2 PROBLEMS OF SUBSTANCE.

The primary reason Asia is important for DoD strategic planning is that America has major and enduring interests in the region; these interests probably will be challenged over the next several decades, and the Defense Department can help avoid, prevent, mitigate, or deal with these challenges. While many challenges could lie well into the future, today's actions and policies will affect the Defense Department's ability to avoid, prevent, or handle them.

America has important strategic, political, economic, military, and human-rights interests in Asia that are discussed in more detail in Chapter 4. These long-term interests imply that the United States should promote democracy and market economies in Asia, seek free-trade arrangements with Asian states, encourage peaceful relations with and among Asian countries, and prevent any state or consortium of states from dominating the power balance in regions like East Asia that are key to U.S. interests.

A wide range of challenges to U.S. interests in Asia plausibly could take place over the next three decades. Some of these challenges might be purely political or economic in nature, but many could cause security problems for America. Potential security challenges in Asia are the subject of Chapter 3. They encompass a number of diverse possibilities, including peacetime challenges as well as crises or wars that jeopardize U.S. interests. Potential peacetime challenges include major changes in military balances; proliferation of advanced weaponry and the spread of NBC weapons;[1] military competitions; prolonged and violent instabilities within major states; constraints on freedom of trade; disputes over natural resources; and threats to freedom of passage. The more interesting and important questions are not whether American interests will be challenged in Asia, but by whom, in what ways, at what times over the next three decades, and with what security consequences.

Three decades should be used as a strategic planning horizon both because the consequences of today's DoD budget reductions will last far into the future and because Asia is going through strategic changes that will take considerable time to unfold. Force reductions, troop withdrawals, base closures, shifts in R&D priorities, and weapon or surveillance system cancellations could

affect U.S. military capabilities in Asia for fifteen to twenty years or more and could also affect conditions in Asia during that period, so decisions on these matters should take the changing security environment into account. It would be a serious mistake to base force posture decisions only on conditions in Asia of the next few years, since the region now is in a period of rapid change that could last for a long time. The consequences of recent events or of changes that are now beginning will take several decades to play out. Important examples are the collapse of the Soviet Union, which removed a major unifying force between the United States and its allies in Asia; the passing of power to younger generations in China, Japan, and North Korea; the uncertain future of the U.S.-Japanese security relationship in a period when its original rationale is no longer valid; and the leadership crisis that already exists in India.

The time it will take for the effects of such changes to unfold and the difficulty of projecting these effects based only on what is known today argue for extending the DoD planning horizon as far into the future as practical. But these same uncertainties also impose limits on the ability to take future conditions into account. Two decades may be an outer limit on the ability of analysts to take future conditions generally into account, and even that is difficult. Accordingly, we recommend a strategic planning horizon that considers possible conditions fifteen to twenty years or more into the future. The planning horizon should, however, project certain conditions even further where possible, particularly the future consequences of U.S. decisions or of changes in the external security environment. This suggests a planning horizon with an outer limit of three decades.

The necessity to take into account possible conditions of the distant future highlights the fundamental strategic planning problem for Asia: the complexity and uncertainty of the security environment that makes DoD planning for the region both different from and more difficult than that of the Cold War. The narrower planning issues related to Asia are relatively well defined and are no different in kind from those of the Cold War. What number and mix of forces should the United States maintain for Asia? Where should they be based? How should the forces be organized and commanded? What investments in forces, weapons, surveillance systems, facilities, and technologies should be

made? What arms control or arms transfer policies should be promoted or avoided in Asia?

The problem for strategic planners arises because decisions about these narrower issues should be based on an understanding of larger questions that are much different from those of the cold-war period: What security challenges related to Asia should the United States be prepared to deal with over the next several decades? What security objectives related to Asia should America pursue? What are the consequences likely to be of pursuing certain objectives, but not others? What will be the character of the future security environment in Asia? What kinds of military competitions, crises, and wars are likely to occur? To what extent can America rely on allies to share the security burden? How can the United States shape the future security environment in Asia? What essential military capabilities should U.S. forces for Asia maintain over the next two decades? What strategies and concepts of military operations should guide U.S. force planning? The answers to these larger questions are quite unclear, and indeed it is not even obvious how best to carry out analyses leading to reliable answers.

These larger questions are unclear because they are dominated by the complexities and uncertainties of the new security environment in Asia. Many different answers to the foregoing questions are possible at various times during the next three decades, depending on a number of interacting and uncertain characteristics of the security environment. The following are currently the most prominent of these influences on the future security environment, all of which are changing or are likely to change in the 1990s:

- The strategic objectives, security policies, military capabilities, and actions of the larger powers in the region (Japan, China, Russia, and India).

- The possibilities for and consequences of prolonged instabilities in some of these states (the former Soviet Union, China, and India).

- The objectives, policies, military capabilities, and actions of a number of well-armed smaller states in Asia (e.g., North Korea,

South Korea, Pakistan, Taiwan, possibly Indonesia in the future).

- The strategic objectives, policies, military capabilities, and actions of America, including its willingness to devote substantial security resources to Asia in the future.

- The nature and extent of interaction between economic considerations and security affairs related to Asia, including the degree to which economic rivalries and tensions affect the security environment.

- The actions of major powers elsewhere in the world as they affect the economic and security environments in Asia.

- The specific crises and wars that could emerge in Asia during the next several decades, how each would affect U.S. interests, and what actions America takes in each of these cases.

The number of possible combinations of these variables over the next three decades is enormous. Moreover, the influence of earlier security conditions on later ones, the changing likelihood of various conditions over time, and the possibilities for major discontinuities in key trends add complex dimensions to the problem of U.S. security planning. The impact of conditions outside Asia further complicates planning and assessments. For example, the breakup of the Soviet Union already has affected Asia, including a sharp reduction in military sales and other support to North Korea and India. Additional effects are possible in the future, including fighting among ethnic groups in the Central Asian republics that could spill over into China or India, separatist movements in the Russian Far East, Chinese attempts to exploit Russian weakness, stronger political and economic ties between Japan and Russia that could change power balances, and in the longer term increased aggressiveness by an economically and militarily stronger Russia.

U.S. policies and actions profoundly affect both the likelihood and the consequences of many changes in Asia. For instance, the large-scale presence of U.S. military forces in the region has contributed to stability and the self-confidence of friendly states. U.S. economic policies affect Japanese public opinion and thus have a positive or negative impact on the strength of the

Japanese-American security relationship, depending on the specific policies. Another example is the military prowess exhibited by U.S. forces in the Persian Gulf war. The overwhelming success of American forces probably will inhibit overt security challenges to the United States in Asia, at least in the near future, but other nations are learning from the way America achieved its victory how better to adapt old or new technologies and operational concepts to their own military needs, possibly resulting in stronger adversaries over the longer term.

What can DoD planners do to secure U.S. interests in the context of these complexities and strategic uncertainties? Clearly, it is not feasible to have forces that are sized, deployed, equipped, trained, and ready to respond immediately to each of the large number of possible future contingencies. This kind of strawman option never made economic sense, even at the height of the Cold War. Nor is it feasible to pursue the major-and-minor-war approach that was used in the decades of intense U.S.-Soviet competition, in which U.S. forces were designed to deal with a large war against the Soviet Union and a "lesser contingency" in Korea or Southeast Asia. No single contingency dominates the future security environment in Asia, and the dubious concept of lesser-included military planning cases loses all meaning in this environment. The administration is considering a "win-hold-win" approach to determining the future size and mix of forces; this approach would provide the ability to fight in region A while holding in region B until U.S. forces can prevail in the first and be redirected to the second. But this approach does not deal with the problem of what kinds of combat capabilities U.S. forces will need over the next two to three decades. The large number of possible future Asian crises or wars and uncertainties about which ones would be important in terms of future U.S. interests make it impractical as well as imprudent to plan for only a small number of types of wars.

This reasoning seems to be leading to a defense strategy for Asia and elsewhere that depends on *adaptivity*: the organizing, equipping, basing, and training of U.S. active and reserve forces to provide the flexibility to tailor their composition to specific crises or wars that occur in the future, move them as rapidly as needed to crisis or conflict areas, and support them with global surveillance, communications, and logistics networks that can be focused on any part of the world dictated by U.S. interests. But this emerging concept of force

adaptivity merely points the way for DoD strategic planners, it does not solve their problem in Asia or elsewhere. A major challenge for DoD long-range planners is to turn the vague concept of adaptivity into specific force structures, deployments, C^3I capabilities, training regimes, investment plans, and organizational changes. More broadly, the concept of adaptivity needs to be incorporated into U.S. national security strategy for Asia as a fundamental approach to dealing with uncertainties in the security environment. Adaptivity can have important strategic, as well as military, benefits by—for example—providing the political flexibility that comes from being able to select from a range of military options to deal with security problems.

A related approach for dealing with the complexity and uncertainties of the Asian security environment is to attempt to shape or influence that environment in ways that enhance American security. This approach has been a major part of U.S. postwar strategy in the forms of deterrence, arms control, and alliance diplomacy, and it can complement the strategy of force adaptivity in the new security conditions. As with the notion of force adaptivity, however, this observation merely gives added definition to the problems facing DoD planners, rather than resolving them. In what regions of Asia will America have opportunities to shape the security environment? Through what specific means? How can these opportunities best be turned to U.S. advantage? How effective are U.S. efforts to shape the future security environment likely to be, and what does this imply for U.S. military planning?

To understand how DoD strategic planners should deal with these problems of substance in Asia, we now consider planning and analysis methods.

1.3 PROBLEMS OF METHOD.

The new security environment in Asia poses methodological problems as well as substantive ones. Four problems of method must be addressed in order to improve DoD strategic planning: the complexities and uncertainties of the environment, the difficulties of departing from straight-line extrapolations into the future, the need to consider interactions between military

and nonmilitary dimensions of the security environment, and the problem of accounting for the impact of U.S. policies on the Asian security environment.

The primary methodological issue associated with the complexities and uncertainties of the Asian security environment is how to organize the potentially large number of variables for analytic purposes. What trend variables should be taken into account by DoD planners? How might the importance of these variables change over time? What constants are there in the Asian security environment to which planning can be anchored? How can the analysis of this complex and uncertain situation be simplified without losing sight of important considerations?

Closely related to the complexity of the Asian security environment is the difficulty of projecting plausible paths into the future that differ significantly from a straight-line extrapolation. It is hard for analysts and planners to be imaginative about alternative futures and at the same time be credible if they call for resources to be committed as hedges against radical changes from today's situation, because by definition imaginative projections have a certain amount of incredibility about them. A straight-line extrapolation of the future in Asia could imply reduced need for U.S. military forces, and that, in fact, may be the future that actually appears. But it is only prudent for DoD planners to examine the darker possibilities, in order to avoid them, prepare for them, or mitigate them. Unhappily, the analytic framework and planning experiences of the Cold War have not prepared the Defense Department as an institution for wide-ranging examinations of alternative futures.

Another methodological problem that was not posed in earlier days is the need to take into account the ways that the nonmilitary and military dimensions of the security environment affect each other in Asia. DoD planners have some experience with considering the effects of domestic politics and security affairs on one another, but other interactions also need to be considered. In particular, the interactions between economics and national security probably will be increasingly important in ways that go well beyond the enduring question of how much defense America can afford. For example, Japan and many other Asian nations view economic matters as a larger dimension of national security than does the United States, with the potential for misunderstandings about both

economic and military issues. In the extreme, economic disputes or disparities can result in crises or wars (access to resources already has provoked military incidents in the South China Sea). Conversely, economic policies can be a means for shaping the future security environment by, for instance, easing tensions or reducing the incentives of some countries to build up their armaments industries. Further, the economic conditions of various nations will be one set of determinants of the size and technological sophistication of their armed forces, the kinds of forces they build, and their self sufficiency in weapon system programs. For example, the globalization of the U.S. technology and industrial base already is beginning to affect U.S. weapon acquisition strategy.

A final methodological problem is a long-standing one: how to take the impact of U.S. policies and actions into account in trying to understand the nature of the future security environment and the goals and behavior of Asian states. While not a new analytic problem, it takes on added difficulties in the complex of variables affecting U.S. security matters in Asia. For instance, how should one go about estimating the effects of a candidate U.S. policy such as withdrawal of forces from Korea on the security goals, policies, and actions of North Korea, Japan, China, and other countries? The United States is the biggest single influence on the Asian security environment, and a major reduction of U.S. forces in Asia would very likely have important effects on the goals and behavior of states in the region. But it is not easy to estimate specific effects of candidate policies, even in the short term. Determining the likely effects over several decades in Asia is a major challenge.

Although the new security environment in Asia raises new problems, are new planning and analysis approaches needed? Even during the Cold War, the security environment was becoming more complex and uncertain, and the Defense Department introduced new methods to deal with these complications which we review briefly in the next several pages. While some of these approaches can contribute to improved DoD strategic planning methods for Asia, none is itself adequate to handle the planning problems of the new security environment.

Requirements-Oriented Hierarchical Planning. This traditional method of military planning starts with U.S. national interests in the

current or emerging security environment and systematically works its way through a hierarchy of steps, using each planning element as an input to the next: threats to U.S. national interests, national objectives in the context of these threats, a strategy for achieving these objectives in the face of the threats, and more specific policies, forces, and operational plans required to implement the strategy. Often the method includes assessment of the risks of not providing the forces needed to carry out the strategy. While this requirements-oriented hierarchical approach is most prominent in JCS and service planning documents, it also can be found in White House policy papers on national security and in the annual reports of the Secretary of Defense to Congress.[2]

The essence of this method is the unambiguous articulation of each planning element—interests, threats, objectives, strategy—as an input to lower elements, providing a way to link specific force requirements to U.S. interests and objectives. This well-defined sequence of steps is valuable for coordinating the planning efforts of large, geographically dispersed military staffs. Another strength of this approach is the consideration of interests, threats, objectives, strategies, force requirements, and operational plans in an integrated way, as is the assessment of the risks of not having all the military capability implied by the strategy.

But this planning structure, which depends on the clear definition of threats, objectives, and strategy, is much better suited for the relatively stable environment of the Cold War than for the new conditions in Asia. In today's security environment, U.S. national security objectives and strategies are themselves issues, not well-defined points of departure for determining force requirements. The hierarchical planning approach, as it evolved during the Cold War, is essentially a method for addressing the uncertainties associated with a straight-line extrapolation into the future. It does not encourage planners to consider strategic uncertainties or to make wide-ranging surveys of alternative ways the future could unfold. Further, it is not compatible with the concept of adaptive strategies, in which the ability of U.S. military forces to change as appropriate to meet emerging challenges is as important as the force levels and characteristics required to meet specific threats.

As will be seen below, however, the logic of proceeding in some form through interests, threats, objectives, and strategy to forces is inescapable, even when considerable uncertainty surrounds most of these elements. Accordingly, we will use this general framework in our planning and analysis approach to Asian security challenges, but with quite different concepts for threats, objectives, and strategy than found in requirements-oriented hierarchical planning.

Systems Analysis. Even during the Cold War the requirements approach to planning proved inadequate in certain ways, particularly for setting weapon system and force structure goals. In 1961, systems analysis was introduced in an effort to improve this dimension of DoD planning.

Systems analysis is a planning approach that seeks to maximize military effectiveness in pursuing a set of objectives, assuming a specific level of resources. Equivalently, systems analysis seeks to minimize the resources required to achieve a specified level of military effectiveness.[3] This method takes a systems perspective, attempting to consider the total costs associated with carrying out various DoD missions, including the costs of personnel, logistics, maintenance, and training, as well as weapon system costs. It emphasizes the comparison of alternative systems to accomplish missions, the use of quantitative analyses and measures of effectiveness, and the examination of often unstated assumptions about the costs and benefits attributed to proposed or ongoing programs. It is focused strongly on supporting decisions in the DoD Planning, Programming, and Budgeting System (PPBS).[4]

Systems analysis brought a greater degree of rationality to defense programs in the 1960s, eliminated redundancy, and resulted in more efficient use of Defense Department resources. When applied outside the realm of military programs, however, systems analysis was less productive and in some cases arguably was harmful because it ignored broader strategic considerations.[5] Therein also lie the inadequacies of systems analysis as a planning approach for the new security environment in Asia. A necessary condition for effective systems analysis is a well-defined set of national security objectives and a strategy for achieving those objectives, precisely the matters currently at issue. Systems analysis has little utility for examining the larger issues that defense strategy must

now address: understanding the character of future crises and wars, coping with strategic uncertainties in Asia, estimating the consequences of alternative U.S. policies, and shaping the future security environment in Asia.

Net Assessment. Dissatisfaction with the lack of strategic thinking in a Defense Department whose planning became dominated by the systems analysis approach resulted in the introduction of net assessment in the early 1970s. Net assessment is, in its most general formulation, the analysis of the interactions of opposed national security establishments in peacetime and in war, with the "net" in net assessment focusing on the outcomes of these interactions.[6] Traditionally, net assessments have sought to determine the essential character and states of military competitions, to describe long-term trends in military developments, to understand deep-rooted national and cultural values that influence competitions among specific countries, to appraise the strengths and weaknesses of U.S. forces in the context of these competitions, and to determine the competitive advantages and distinctive competencies of each side's military posture. Based on such analyses, net assessments have highlighted trends that may change the long-term military balance between the United States and its adversaries and identified opportunities and risks in ongoing military competitions.[7]

Since its inception, net assessment has focused largely on the U.S.-Soviet competition, seeking answers to such questions as: What is the basic nature of this competition? How is it changing over time? What are the strategic objectives of each side? What advantages and disadvantages does each side have? What technologies drive the competition more than others?[8] The net assessment approach is diagnostic, challenging underlying assumptions in defense planning, taking a long-term perspective, and seeking to help top-level officials in the Department of Defense develop strategic perspectives on national security.

The net assessment approach basically is a point of view that uses whatever analytic techniques are appropriate. During the Cold War, military-balance studies were a prominent means for carrying out net assessments, focused primarily on key aspects of U.S.-Soviet military competition like the strategic nuclear balance and the NATO-Warsaw Pact force balance in Europe. Other techniques supplemented military balance assessments, such as comparative

studies of the weapons, operational practices, and effectiveness of opposing forces; historical evaluations of recent wars such as Arab-Israeli conflicts, which provided the opportunities to compare Soviet and American weapons; and work on the perceptions of Soviet decision makers and military institutions.[9]

Not only have past net assessments been directed largely at the bipolar competition, they have examined primarily past and current trends, with extrapolations only into the near future. The utility of traditional net assessment techniques for problems of the new security environment in Asia is, therefore, limited. For instance, two-sided military balance assessments have been made of the North Korean–South Korean balance and can be used to compare the military capabilities of other Asian states, but how valuable would this be? A large amount of work is needed to perform traditional military balance assessments, and the results would be of doubtful value in an environment where the number of potential future antagonists is large, who will align with whom in future crises or wars is uncertain, and what the U.S. involvement should or will be is problematic. Further, traditional military balance techniques, which focus on past and current trends, are not useful as tools for future-oriented assessments that look fifteen or twenty years ahead; the issues and uncertainties associated with future-oriented assessments are quite different from those of assessments of today's military balances. Similarly, historical evaluations of recent conflicts such as the Persian Gulf war help the Department of Defense to understand the changing character of wars, but it is not clear for how long into the future these lessons will be valid.

Net assessment, in the most general sense of the term, is the proper approach for gaining strategic perspectives on the new security environment in Asia. DoD planners and analyst must be concerned with the interaction of national security establishments that may oppose one another in the future and with the outcomes of these interactions in terms of U.S. interests. But the types of questions to be examined by Asian net assessments need to be reformulated, a different conceptual framework for assessments must be developed, and new assessment techniques must be devised in order to take net assessment out of the old, bipolar security environment and apply it in the changing conditions of Asia. The net assessment office in the Defense Department is already beginning to move in this direction.

Net Technical Assessment. Net technical assessment is a form of net assessment that has been carried out since the mid-1960s as a means for understanding U.S. and Soviet technological strengths and weaknesses and how the use of new technology in military systems is affected by operational concepts, training, and the logistics infrastructure.[10] Comparisons were made of trends in U.S. and Soviet weapon systems and of broader technological trends in the two countries. The result was substantially enhanced comprehension of the roles played by the U.S. and Soviet research, development, and acquisition processes in the bipolar military competition. More recently, trends in U.S. and Japanese technologies have been compared using net technical assessment methods.

Net technical assessments are most useful when applied to past and current data, with extrapolations a short time into the future. This assessment approach will contribute in only limited ways to understanding the challenges of the future in Asia or to framing U.S. objectives and strategies to address these challenges. Technology will no doubt have an important role in the military power of many Asian nations, although not necessarily in traditional Western ways. But the character of future threats in Asia is too uncertain for side-by-side or head-to-head comparisons of specific weapon systems to be useful. The technological forecasting element of net technical assessments will, however, be applicable.

Military Competition Planning. In the 1980s the Department of Defense began to give more explicit planning attention to the military competition with the Soviet Union. The essential approach was to safeguard or restore U.S. military advantages over the USSR by building on American strengths and exploiting Soviet weaknesses in more sophisticated and institutionalized ways than in the past. Planning and analysis along these lines involved looking forward several moves in the competition, seeking to make past Soviet military investments obsolete, and influencing future Soviet investments and behavior in ways that could improve the balance of power.[11] This approach was institutionalized in the DoD Competitive Strategies Initiative, which was directed at the USSR.

Military competition planning is the most prominent example to date of the transfer of a business planning concept to national security affairs: ways to compete effectively against a strong rival firm. It is also a purposeful attempt to shape a security environment in which other countries are vying with the United States for power and influence. Accordingly, the point of view of military competition planning is important in the new security environment in Asia.

Since, however, no Asian nation currently poses large and immediate military challenges to the United States, it might seem that specific planning techniques used in the U.S.-Soviet competition are not directly applicable in this new environment. Nevertheless, some Asian military competitions now affect U.S. security interests (North and South Korea, India and Pakistan), others could do so in the future, and it is possible that Asian powers such as China or Russia could become major military rivals of the United States over the next several decades. Therefore, military competition techniques should be among the means considered by strategic planners for shaping the future security environment, as discussed in more detail in Chapter 4.

Analyses of the Future Security Environment. Even before the collapse of the Soviet Union it was becoming clear that the security environment was changing dramatically, and the Office of the Secretary of Defense began to carry out analyses of the nature of the future security environment and its implications for DoD planning. The initial effort examined economic, demographic, technological, and military trends relevant both to the U.S-Soviet competition and to potential new challenges that could confront the United States in the 1990s and beyond.[12] More recent efforts to understand what the future security environment will be like include forecasting seminars and summer studies involving experts from various disciplines like history, business, finance, anthropology, and technology; path games that use teams representing key countries and regions to examine possible long-term consequences of events like the breakup of the Soviet Union; and analyses of the implications of the military-technical revolution. The last is a current inquiry into how the information-technology revolution will affect the character of warfare. Of particular interest are the ways that information technology should affect U.S. military doctrine and organization, how America's adversaries may adapt

information technology for their military purposes, and the means whereby adversaries might try to counter DoD use of information technology.

Analyses of the future security environment clearly are relevant to the problems of strategic planning in Asia. Such analyses will provide better understanding of the kinds of challenges that could confront the United States in future decades and thus should be part of a larger structure of planning and analysis for Asia. Analyses of the future security environment can be particularly useful for adaptive strategies. But future-security-environment analysis is not itself a comprehensive approach to strategic planning.

This brief survey of DoD planning and analysis approaches indicates that none of the current approaches is adequate for strategic planning in the Asian security environment, but it highlights some concepts upon which we can build. The hierarchical planning approach provides a logical framework of interests, threats, objectives, strategy, and forces. But some of the elements of this approach—threats, objectives, strategy—need to be cast quite differently in the new environment. An important key to reshaping these planning constructs is provided by net assessment in its broadest sense of bringing a strategic perspective to the interaction of opposing national security establishments. Other planning approaches aid in understanding how to deal with the substantial uncertainties that strategic planners now face in Asia and elsewhere: the concept of shaping the security environment that underlies military competition planning and the broadening of the concept of threat that is at the heart of future-security-environment analyses. Still other ingredients of the approach we recommend are new to DoD strategic planning: the concepts of adaptive strategy, of strategic intent, and of military core competencies. The next section outlines how these pieces can be assembled into a coherent strategic planning approach that deals with the problems of substance and method in the Asian security environment, and the remainder of the volume discusses this approach in more detail.

1.4 PLANNING IN THE FACE OF STRATEGIC UNCERTAINTIES.

DoD planning and analysis during the Cold War were focused on a clear set of adversaries and a military threat that was well defined in its essential character, even though many details were uncertain. U.S. objectives and strategies concerning the Soviet Union and its allies were developed through a series of analyses carried out largely in the 1950s, and there was sufficient national consensus about the challenges posed by the Soviet threat to keep defense budgets generally at the level of 5 to 6 percent of the gross national product (GNP). In this situation, the planning and analysis tools described in Section 1.3 were directed at efficient use of a number of instruments—primarily nuclear weapons, advanced technology conventional weapons, alliances, forward basing of U.S. forces, and arms control—to deter Soviet attacks and shape the bipolar competition.

Today's security environment in Asia and elsewhere is quite different. What challenges to U.S. security will arise over the next fifteen to twenty years and from whom are far from clear. In fact, there are many possibilities, including situations that do not directly or immediately threaten U.S. interests which nevertheless could erode U.S. security over time. Further, U.S. defense budgets are declining to 3 percent of the gross national product or less, and the technology and industrial bases are undergoing major changes that pose new issues for defense planners.

In this environment U.S. security objectives and strategies need to be reconsidered in a fundamental way, much as in the 1950s. Before deciding what kinds of military forces the nation should have for Asia in the twenty-first century, the Department of Defense must understand how to shape the Asian security environment in ways consistent with U.S. interests, how best to anticipate and be prepared for whatever challenges actually emerge, and what it should be good at in the future. More specifically, DoD strategic planning and its supporting analyses should be able to carry out two basic tasks: show what the future security environment will be like and develop the best approaches for securing American interests in this environment.

Regarding the first task, analysis should enable top DoD managers and their planning staffs to understand Asian security conditions of the next several decades. In particular, analysis should show what will be important in this environment, from the perspective of U.S. security, and should indicate what kinds of challenges could emerge in Asia and how they could affect U.S. interests. The substantial uncertainty about what will be important and what challenges will appear over several decades is, however, a barrier to forecasting specific security problems. Nevertheless, it is possible to understand what influences will be most powerful for determining how the Asian security environment actually unfolds, and analysis of these influences will facilitate DoD planning under the strategic uncertainties that exist in the Asian security environment.

The second essential task for DoD planning and analysis is to help senior decision makers and their staffs to secure U.S. interests in this complex and uncertain environment. Strategic planning should, therefore, contribute to the development of U.S. objectives, strategies, forces, and operational concepts in the new security environment, with particular emphasis on ways to shape security conditions in Asia and on turning the vague idea of adaptive strategies into a practical planning concept.

To accomplish these tasks, we recommend an approach to DoD strategic planning and net assessments that takes the uncertainties of the Asian security environment into account in a fundamental way. This approach uses many traditional DoD planning and assessment tools, but applies them within a much different framework than was used during the Cold War, a framework for planning in the face of strategic uncertainties that consists of five key parts:

- Identification of the full range of plausible challenges to U.S. interests that could occur in Asia over the next several decades, as a means to define the scope of DoD long-range planning and analysis for the region. Chapter 2 discusses trends in the Asian security environment and Chapter 3 describes the potential challenges related to these trends.

- The recognition that U.S. objectives and the associated security strategies will remain vague until specific challenges actually begin to appear. This should be a major premise of DoD strategic planning and analysis, leading to the concepts of strategic intent,

shaping the security environment, and adaptive strategies as an affordable approach to planning in conditions fraught with complexity and uncertainty. Chapter 4 develops these concepts in more detail.

- The definition of *strategic planning* in the new Asian security environment as the structuring and application of U.S. national security capabilities to serve two purposes: to shape Asian security conditions in ways that promote U.S. security interests and to adapt in a timely and effective way to challenges as they emerge. This kind of strategic planning involves both the marshaling of existing American national security capabilities and the preservation of options for appropriate future capabilities. Chapter 4 elaborates this planning construct.

- Use of the concept of military core competencies to define the essence of the military capabilities needed to deal with future challenges and to describe trends in essential U.S. military capabilities to support an adaptive strategy. Chapter 5 treats military core competencies.

- The definition of *net assessment* in the new Asian security environment as the evaluation of trends in U.S. strategic intent, capabilities to shape the environment, adaptive strategies, and military core competencies in terms of their adequacy for avoiding, preventing, mitigating, or meeting the full range of plausible challenges to American security interests in Asia that might arise in the future. Chapter 6 outlines this new net assessment construct.

This approach to strategic planning is intended to address the problems of both substance and method described in Sections 1.2 and 1.3. All five elements of the approach are directed at solving the substantive problem of uncertainty about future challenges to American interests in Asia. We try to ensure nothing important is overlooked by working in the context of the full range of plausible future challenges; our approach uses planning concepts (strategic intent, shaping the environment, adaptive strategies) designed to deal with complexity and uncertainty in practical ways; our definition of strategic planning is focused strongly on the problems of uncertainty; the concept of military core competencies is adapted from business concepts that make a crucial difference in the abilities of firms to succeed in uncertain and rapidly changing

business environments; and our reformulation of the concept of net assessments is intended to evaluate U.S. capabilities against those of potential adversaries in the uncertain future security conditions of Asia. The concepts of strategic intent and adaptive strategies also provide ways to deal with the problem that current American objectives and strategy for Asia necessarily are vague.

Our approach also resolves the methodological problems associated with the complex and uncertain Asian security environment. By working with the full range of plausible future challenges, by using planning concepts that try to shape or adapt to emerging conditions rather than trying to predict them, and by recasting net assessments in terms of the U.S. ability to shape or adapt to the environment rather than the ability to counter particular challenges, our approach is tractable and relevant without oversimplifying the problems of strategic planning. These same techniques—particularly the use of the contingency test bed described in Chapter 3—allow our approach to avoid the difficulties of departing from straight-line extrapolations into the future. We take the interaction of military and nonmilitary aspects of national security into account by defining challenges, strategic intent, and adaptive strategies to include both aspects and by examining both military and nonmilitary ways to shape the future security environment. Similarly, the concepts of adaptive strategies and shaping the environment, plus the associated planning and assessment methods, provide a straightforward way to take the impact of U.S. policies and actions into account.

At the heart of this approach is net assessment, in its most basic sense of bringing strategic perspectives to the problem of how U.S. security interests could be challenged in the future. The concepts of military balances and military competitions that were the principal manifestations of net assessment during the Cold War are not highly visible in this approach, but our method is built around the more fundamental ideas of analyzing the interactions of opposed national security establishments and of dealing with sustained challenges to U.S. interests from political-economic-military competitors. This will become apparent as we discuss trends in the Asian security environment in the next chapter.

Endnotes

1. No single term or acronym is adequate to capture succinctly the possible political and military consequences of the proliferation of nuclear, biological, and chemical weapons. *Weapons of mass destruction* is not accurate, because nuclear weapons, and possibly biological and chemical weapons, can be developed and employed for discriminate use, with low unwanted damage. Moreover, lumping all three kinds of weapons into the single category of *NBC weapons* is misleading if not inaccurate, since chemical weapons do not appear to have the same destructive power and strategic consequences as nuclear and biological weapons. For want of a better concise term, however, we have opted to use the relatively descriptive and value-free term *NBC weapons* throughout this report (UNCLASSIFIED).

2. For examples of White House policy papers using this approach, see *United States Foreign Policy for the 1970s: A New Strategy for Peace*, a report by President Richard Nixon to the Congress (Washington: The White House, February 18, 1970), esp. pp. 89–98. For a more recent example, see *National Security Strategy of the United States* (Washington: The White House, March 1990) (UNCLASSIFIED).

3. Charles J. Hitch and Roland N. McKean, *The Economics of Defense in the Nuclear Age*, a RAND research study originally published by Harvard University Press in 1960 (New York: Atheneum, 1974), pp. 1–2 (UNCLASSIFIED).

4. Alain C. Enthoven and K. Wayne Smith, *How Much Is Enough? Shaping the Defense Program, 1961–1969* (New York: Harper and Row, 1971), pp. 60–70 (UNCLASSIFIED).

5. George E. Pickett, James G. Roche, and Barry D. Watts, "Net Assessment: A Historical Review," in *On Not Confusing Ourselves: Essays on National Security Strategy in Honor of Albert and Roberta Wohlstetter*, ed. Andrew W. Marshall, J. J. Martin, and Henry S. Rowen (Boulder, Colo.: Westview, 1991), pp. 162–63 (UNCLASSIFIED).

6. Stephen Peter Rosen, "Net Assessment As an Analytical Concept," in Marshall et al., *On Not Confusing Ourselves*, p. 285 (UNCLASSIFIED).

7. Pickett, Roche, and Watts, "Net Assessment: A Historical Review," pp. 177–78 (UNCLASSIFIED).

8. Ibid., p. 179 (UNCLASSIFIED).

9. See ibid., pp. 169–75, for more detailed descriptions (UNCLASSIFIED).

10. Ibid., pp. 170–71 (UNCLASSIFIED).

11. J. J. Martin, "The U.S.-Soviet Competition and Western Security," in Marshall et al., *On Not Confusing Ourselves*, pp.189–208. For a more extended treatment of military competition planning and analysis, see J. J. Martin et al., *The U.S.-Soviet Long-Term Military Competition*, Technical Report, 3 vols. (San Diego: Science Applications International Corporation, June 5, 1990) (UNCLASSIFIED).

12. Andrew W. Marshall and Charles Wolf, Jr., *The Future Security Environment*, Report of the Future Security Environment Working Group of the Commission on Integrated Long-Term Strategy (Washington: U.S. Department of Defense, October 1988) (UNCLASSIFIED).

SECTION 2

ASIAN SECURITY ENVIRONMENT

The fundamental problem for DoD planning and assessments related to Asia is the security environment: quiet now, but complex, changing, difficult to predict, and filled with possible security challenges to America over the longer term. Wars, insurgencies, and tensions in Asia are at their lowest ebb since the end of the Second World War. With the conclusion of the Cold War, Asian countries are looking inward, devoting increasing resources to solving domestic problems and building their economies. Even the three remaining areas of trouble are quiet at this time: the Korean peninsula (though North Korea's nuclear program could cause serious instabilities in Northeast Asia), China and Taiwan, India and Pakistan.

As many Asian states grow more prosperous, the region may be on the brink of a new era in which economic pursuits and political cooperation replace conflict and military competition. New trends are, however, emerging in Asia that may result in a security environment as dangerous as that of the Cold War. The increased importance of economic interests in Asia could, for example, contribute to security problems, rather than dampen them. Similarly, the democratization of many Asian states may produce new instabilities and challenges to American security interests. The end of the Cold War has eliminated one major source of tensions, but it has also released long-suppressed, but unresolved, national, ethnic, and cultural rivalries that could pose new security challenges. Some of these rivalries exist among groups in current or former large states; the Soviet Union has disintegrated, India is seriously troubled by factionalism, and domestic economic disparities could lead to internal stress in China. Alliances formed during the Cold War are eroding, and alignments in the future probably will be much less permanent than what Americans have become accustomed to.

This chapter describes the key characteristics of the Asian security environment as a foundation for subsequent chapters that treat challenges to U.S. security in more detail, strategies for dealing with these potential challenges, and

U.S. military core competencies that are relevant to the Asian security environment. We first survey the military establishments of the major Asian countries and the most salient military balances between these countries in order to establish current capabilities. Since security relations are generally peaceful in Asia at this time, of greater interest than current capabilities are the trends proceeding from this baseline that could result in security challenges in the future. Accordingly, we next address economic trends, which are an important dimension of the Asian security environment. Economic disputes have the potential to affect security alignments between states, as do political, religious, and cultural differences. Therefore, we next consider trends affecting security alignments. Finally, we round out this overview by examining military trends, particularly the ways that the military-technical revolution may develop in key Asian states.

2.1 MILITARY BALANCES IN ASIA.

Military balance assessments have limited utility in the new security environment, where the primary planning and assessment need is to understand what security challenges may arise over the long term and how best to avoid, prevent, mitigate, or deal with these challenges. Nevertheless, a brief review of current Asian military balances helps to characterize the security environment. This review—quick sketches, really—is not a detailed assessment, but outlines how such balance assessments could be carried out in detail. This outline is sufficient to describe the current forces of major Asian states, to lay a baseline for examining key military technology trends later in the chapter, and to show the limits of traditional military balance assessments in the new security environment.

China is central to any consideration of Asian military balances. Its location and size enable it to affect U.S. interests almost everywhere in Asia. Its growing power puts it into a position to cause problems for America and other countries. And its foreign policy—independent of and sometimes opposed to U.S. policies—creates the potential for China directly to challenge U.S. security interests.

China has the largest military force in Asia, with about three million troops, mostly in the ground forces. The army consists primarily of infantry units (about 85 divisions), but its armor, artillery, and helicopter forces are increasing. China's navy includes over 800 patrol craft and more than 40 submarines for coastal defense, augmented by about 50 destroyers and frigates. The navy's open-ocean capabilities are slowly growing. The air force consists of about 4600 fighters and about 100 surface-to-air missile (SAM) units, plus about 150 medium bombers. China's main means of projecting power today is its nuclear forces—approximately 70 ballistic missiles (including eight ICBMs), a ballistic missile submarine, and some medium bombers that may be nuclear-capable.[1]

The balance of military forces between China and several of its neighbors—Russia, Japan, Taiwan, India, and Vietnam—are of interest to the United States. The considerable reduction in both the size and the readiness of Russia's armed forces has relieved PRC concerns about what the Chinese once saw as their main threat. Nevertheless, the potential for conflict remains, primarily for limited attacks rather than large-scale invasions, at least in the near future.

Russia still has a large force of approximately 50 tank, artillery, and motorized rifle divisions in the Far East (i.e., in the Siberian, Transbaykal, and Far East military districts). The Pacific Ocean Fleet includes about 65 attack submarines, over 50 surface combatants, and about 100 naval aviation bombers. The air force in the Far East contains almost 500 air-defense fighters and over 600 fighter-attack aircraft. Russia's strategic forces are smaller as a result of the breakup of the Soviet Union, but still formidable: over 1,000 ICBMs on Russian territory, 21 SSBNs in the Far East, almost 500 strategic bombers, and 100 antiballistic missile interceptors around Moscow.

The number of active ships in the navy is declining, and Russia's political and economic problems are causing serious manpower shortages in most military units, particularly the ground forces. Russia has withdrawn its forces from Mongolia, and the operating tempo of forces in the Far East, especially naval forces, has been severely degraded. Nevertheless, Russia continues to be an important military power in Northeast Asia, and its forces will regain their

readiness, probably at smaller force levels, when the economic situation improves and the perturbations of the current military reorganization settle out. As discussed in Chapter 5, however, this turmoil may result in the loss of naval core competencies and perhaps other military competencies that will put Russia at a disadvantage in future military competitions.[2]

The general staff has declared its intention of reshaping Russia's forces and military doctrine to implement a strategy based on rapid response and strategic mobility, taking advantage of military technologies that America used with such decisive results in the war with Iraq. But progress to date has all been theoretical. Manpower losses and readiness degradations have seriously reduced the capability of Russia's ground forces for combined-arms operations into China. Russia's ability to achieve air superiority over China's obsolete air force remains intact, but would take longer than in the past. The navy is technically superior to China's, but Russia's naval readiness problems and the growing capabilities of PLA naval forces have reduced, if not eliminated, Russia's ability to maneuver freely along China's maritime flank. Despite reductions in its nuclear forces, Russia still dominates the nuclear balance with China.

China is trying to change the People's Liberation Army from a force intended to inflict unacceptable attrition on an invader to a more flexible means of projecting Chinese power around the nation's periphery. Much of the military will remain focused on defending Chinese territory: the infantry, air-defense forces, and coastal-defense units. Parts of the force, however, are being modernized to reinforce local defenses and to project power into Northeast Asia, the South China Sea, Southeast Asia, and possibly South Asia and Central Asia: mechanized infantry, airborne, and naval infantry units; air forces with some strike and interdiction capabilities; and naval units able to operate well away from coastal waters. Arching over these forces are China's nuclear weapons, whose primary purpose is to help deter nuclear powers from attacking China and which add to China's ability to deter or intimidate other states.

Discussion of the Sino-Japanese military balance necessarily includes U.S. forces, because of the Mutual Security Treaty between America and Japan. The possibility of a free-standing Sino-Japanese balance is, however, worth

considering, if only to appreciate the importance of the U.S.-Japanese security relationship.

Japan's armed forces are small compared to its neighbors, but highly capable. The Self-Defense Force has about 250,000 active duty personnel, over half in the ground forces. Largely composed of infantry units, the 13 divisions of the ground forces are equipped, trained, and deployed to defend Japan from invasion. Similarly, the Air Self-Defense Force consists of air-defense units, including some 230 F-4 and F-15 fighters, and about 70 ground-attack fighters to support the infantry. The navy includes about a dozen attack submarines, over 60 surface combatants, and almost 80 ASW patrol aircraft, all equipped with modern sensors and weapons. Japan's force modernization plans will further strengthen the country's ability to defend its territory and sea lanes. These plans include Aegis guided-missile cruisers, additional submarines, the Japanese-made F/X fighter-attack aircraft, MLRS fire-support weapons, new main battle tanks, and possibly the purchase of some AWACS surveillance and control aircraft.

When Japan's military capabilities are combined with those of the United States, their naval and air superiority over China's current power-projection forces or those of the near future would make any Chinese conventional-force military actions against Japan patently unsuccessful. While China could threaten Japan with nuclear attacks, U.S. nuclear forces serve to counter this threat.

If, however, the U.S.-Japanese security relationship were to be severed for some reason, Japan's military balance with China would become more even, and China's nuclear and conventional forces could become more of a threat to Japan. China's expansion of its power-projection capabilities is unlikely to pose an invasion threat to Japan, but it will increase the potential for military crises. Further, Japan is vulnerable to strikes from China's long-range missiles; current Japanese plans for missile defenses are unlikely to reduce this vulnerability for at least a decade. Without the support of American forces, Japan probably would feel compelled to add an offensive force component to its Self-Defense Force and perhaps would even give consideration to a nuclear force.

The military balance between China and Taiwan is similar to the Sino-Japanese balance without the United States, except that Taiwan's forces are not as modern as Japan's. Taiwan has about 360,000 active-duty military personnel, with about 70 percent in the ground forces. Although Taiwan has some amphibious forces, its military is organized and equipped primarily for defense. The 22 army divisions largely are infantry units; the navy has over 90 coastal patrol boats, about 30 surface combatants, and 4 submarines; the air force consists of almost 500 air-defense fighters and ground-support aircraft.

This force and Taiwan's location over 100 miles off China's coast would make it difficult for China to invade Taiwan or to achieve air superiority over the island. China could, of course, attack Taiwan with nuclear missiles, but America's alignment with Taiwan counters this threat, which in any event seems inconsistent with China's long-term goal of making Taiwan one with the mainland. For its part, Taiwan does not have sufficient offensive force capabilties to invade China successfully unless internal turmoil very seriously reduced China's ability to defend itself.

India has over 1.2 million men under arms, including 1.1 million ground-force personnel, organized into 35 divisions. Largely consisting of infantry and mountain units, India's army is sufficient to prevent a major Chinese invasion through the forbidding terrain of the Himalayas. Similarly, India's naval forces—15 submarines, 2 aircraft carriers, about 25 destroyers and frigates, and about 40 coastal-defense combatants—seem adequate to counter Chinese naval forces seeking to project power into the Indian Ocean. India's air force consists of about 300 fighters and about 350 ground-attack aircraft.

This force is adequate for defense but, in part because of the impossible logistics of invading through the Himalayas, it would not be able to make substantial headway against opposition if India tried to invade China. In other potential conflict scenarios, however, outcomes are more difficult to predict. China could threaten nuclear attacks, but India, with a growing nuclear arsenal and a ballistic missile under development, will in the future be able to make credible nuclear counterthreats. A combined Sino-Pakistani invasion of India might succeed in gaining some territorial control or political concessions. Additionally, the prospects for successful military attacks by either side would

change if a serious breakdown of authority in China or India made it difficult for one of these countries to use its military forces effectively in defense.

Vietnam's armed forces consist of over 850,000 troops, mostly ground forces. The navy (a few frigates and some 50 coastal patrol craft) would be no match for China's navy, but the fighters and SAMs of Vietnam's air force could inflict serious attrition on Chinese aircraft attempting to gain air superiority. The People's Liberation Army learned many lessons from its attack on Vietnam in 1979, and a Chinese invasion now would have greater chances of success, but still would be costly in terms of casualties.

Other significant military balances in Asia include the balance of forces between America and Japan on the one hand and Russia on the other; the balance on the Korean peninsula; and the Indo-Pakistani military balance.

The cold-war military balance with the Soviet Union favored the U.S-Japanese side, and this tilt has become more pronounced with the current low state of readiness of Russian forces. Russia could not seriously threaten an invasion or blockade of Japan in the near future, and America's nuclear forces would counter any Russian nuclear threat directed against Japan. Should the U.S.-Japanese security alignment be broken, Japan would be vulnerable to Russian nuclear threats, but could make Russian invasion attempts or efforts to cut Japanese sea lanes very costly. In a war with Russia, Japan probably could seize the lower Kuril Islands and perhaps even Sakhalin, but it could not pose a major threat to the Russian mainland with its current forces.

The military balance in Korea is about even, although American air power and intelligence assets are still needed to offset the North Korean advantage in motorized and mechanized infantry, tanks, artillery, and ranger-commando forces. Should North Korea acquire nuclear weapons, U.S. nuclear forces would be an essential counter.

Pakistan's army is about half the size of India's, but similarly equipped in terms of armor, artillery, and air defense. Its air force, with more than 200 fighters and about 125 ground-attack aircraft, is also about half the size of India's. The navy, while smaller than India's, probably could deny India free

access to Pakistan's coastal waters. Pakistan would find it difficult to invade India without substantial assistance from other countries, but could inflict heavy casualties on Indian forces seeking to penetrate Pakistani territory. Pakistan probably now has nuclear weapons, providing it with a counter to India's nuclear arsenal.

The military forces of the ASEAN states are structured primarily to defend their national territories and to put down insurgencies. Vietnam has the capacity to threaten Thailand, but Thailand's ties with China and the United States help balance this potential threat. The ASEAN states would be no match for China, but the geography—largely jungles—favors the defenders in a land war.

This brief review of Asian military balances indicates what should be analyzed in order to carry out these assessments in greater depth: the strategic objectives of each side, the effects of possible changes in alignments, the probable sources of conflict, the resulting war scenarios, and the likely outcomes. War scenarios should include the aims of each side, the location of the fighting, the forces involved, their sustainability in prolonged wars, the strategies of each side, and the major types of campaigns, leading to an understanding of what factors would most strongly affect the outcomes of these wars and how the United States can most effectively influence these factors in peacetime to maintain stability, avoid conflicts, or otherwise protect its interests.

More detailed assessments of the traditional kind would, however, not be useful, since they would arrive at the same conclusions as the foregoing survey, assuming no major changes in the status quo, or be of little value if today's conditions are likely to change significantly. If one makes the dubious assumption that the status quo continues into the future, Asian military balances will remain stable, with no decisive advantages on any side. Where military balances favor one side, as is the case today when the combined U.S. and Japanese force is compared with Russia's Far Eastern military force, the favored side has no reason to attack. Where reasons to attack can be imagined—for example, a Chinese desire to recover territory lost to Russia in the past—the force balance holds no promise of quick, easy victory. In most cases, even a costly victory would not be assured.

These conclusions are not particularly helpful to DoD strategic planners, because about the only certainty in the Asian security environment is that the status quo will change, perhaps dramatically. Planners do not need to plumb today's threats in greater detail. Rather they need to understand how the environment could change and what the associated uncertainties are, in order to determine what future challenges to U.S. interests could arise in Asia and what strategies and military capabilities are needed in light of these potential challenges. In other words, planners need to lay the foundation for adaptive strategies by identifying the range of plausible changes in the security environment and developing the implications for U.S. planning.

Assessments of current Asian military balances provide little useful information relative to the prospects for significant changes in the environment, because they do not address important sources of potential challenges to U.S. interests. For example, a breakdown of authority and order in Russia, China, or India would lead to very different security problems and result in quite different balance assessments than we have today. Political and economic trends over the next twenty to thirty years probably will change security alignments from those assumed in today's military balance assessments. Economic trends will affect the ability of many countries to improve their military capabilities and will in some cases shape the nature of those improvements. The ready availability of powerful military technologies will also shape the future military capabilities of many countries in ways that are not reflected in current military balances. Examples of these technologies include NBC weapons; long-range ballistic and cruise missiles; space-based surveillance and navigation, which an increasing number of countries will be able to access; precision-guided weapons; low-observables technologies; and information technologies. The character of these economic, political, and military trends and the implications for DoD planning and assessments in the new Asian security environment are described in the next three sections.

2.2 ECONOMICS AND NATIONAL SECURITY.

Throughout the Cold War, most Asian states, whatever their form of government, saw close relationships between economic development and national security. With a few notable exceptions like North Korea and Vietnam, Asian

countries have tended to put economic development ahead of military spending, and this trend has picked up since cold-war tensions began to ease in the 1970s. Indeed, many Asian countries now see their security defined largely in economic terms.

Three kinds of interactions between economic conditions and national security affairs set the context for evaluating economic trends in the new Asian security environment: the contributions of economic strength to military power, the links between economic conditions and security problems, and the possibility that economic power can replace military power in today's highly interdependent world.

Economics and Military Power. Consider first the relation between a country's economy and its military power. Obviously, the economy sets bounds on what a country can do militarily, but these bounds are so broad that they are not of much help for planning and assessments. In order to acquire and sustain a major military force, a country must have economic resources in excess of those needed to meet basic subsistence needs and fulfill essential economic goals. A large and growing gross national product is one way to have enough resources for military forces, but this is not a necessary condition. Relatively poor countries like North Korea can build formidable armed forces by starving the nonmilitary sectors of the economy. Authoritarian countries with command economies have greater flexibility to devote resources to the military sector than do democracies with market economies, but—even in command economies—there are limits on the ability to sustain high military spending over a long period.

Thus, not only can economic conditions provide opportunities for military growth, economic realities also will set limits on that growth, even for large, wealthy nations. Russia is the most dramatic recent example of the way that economic realities limit military capabilities, to the point where important Russian military core competencies are now being eroded because of economic chaos there, as discussed in Chapter 5. But, even in flourishing market economies like those of the United States and Japan, when economic and military priorities conflict the resolution will not generally be in favor of military needs, unlike American practice during the Cold War.

Rather than focus primarily on the size and rate of growth of a country's gross national product it is more useful for assessment purposes to examine how the character of a state's economy affects the distribution of military spending and the kind of armed forces that result. For example, the low cost of manpower in China is one reason the PRC has been able to sustain a large army, but China's strategy, doctrine, and operational plans have had to be tailored to the constraints of the low skill levels of this cheap manpower. Similarly, economies of scale in heavy industries allowed the Soviet Union to produce large numbers of tanks, artillery, armored fighting vehicles, warships, tactical aircraft, and missiles during the Cold War. By the 1980s, however, microelectronics, computers, and sensors could contribute more to fighting ability than could the sheer size of a country's armed forces, and states like China and the Soviet Union, where information technologies were not a significant part of the economy, increasingly were at a military disadvantage compared to nations in the vanguard of the information age.

Thus, infrastructure and national competencies are as important as the amount of a country's military spending for determining how capable its military forces will be: technology, a scientifiic and engineering establishment adequate to support military developments, a manufacturing base capable of producing relevant military equipment, modern transportation and communications networks, and a manpower pool with sufficient skills to operate and maintain modern military equipment and to provide the labor for defense industries. Wealth can substitute for infrastructure for a time by enabling a country to purchase arms, training services, and mercenary troops from others; Saudi Arabia is a prime example. But eventually, if a country aspires to be a major military power, it will not want its security to depend critically on external sources of arms and it will have to develop the appropriate infrastructure or limit its military aspirations.

Economics and the Sources of Conflict. Turning now to the second kind of interaction between economics and security affairs in Asia, security problems can cause economic problems and vice versa. Clearly, prolonged strife can devastate local economies, as in Cambodia. From a global perspective, disruption of oil supplies from the Persian Gulf could cause

recessions in economies that were soft and, if the cutoff were prolonged, might even cause a worldwide recession.

Oil appears to be unique in its capacity to cause widespread economic harm if supplies are disrupted, because so much of it is concentrated in the Persian Gulf region. Other natural resources or commodities are more widely distributed or substitutes are more readily available; even oil shortages can be offset if there is enough time. Consequently, the economic impact of local crises or wars depends on how quickly the situation develops and on how much time countries have to adjust to changes in trade patterns.

Not only can security problems lead to economic problems, but economic phenomena can also result in security problems. For instance, disparity in wealth between neighboring countries occasionally is still a source of conflict, as may have been one of the reasons for Iraq's invasion of Kuwait. Invasion for pure plunder is, however, relatively rare today, when power struggles or political, ethnic, or ideological differences more often cause wars. But other kinds of economic activity, notably arms sales and trade relations, continue to contribute to tensions between nations.

In the early postwar period, political and ideological motives dominated an arms market in which the United States and the Soviet Union were the main suppliers. The two superpowers used arms transfers to strengthen their respective blocs and to sustain or extend their influence among developing countries.

Over time, however, economic motivations grew stronger, and other suppliers entered the market. For many countries, international arms sales became a way to expand trade or to sustain production in defense industries that had excess capacity. Arms sales also have become an important source of hard currency for countries that are not fully integrated into the world economy, like China and North Korea. As weapon system technology and production means spread to more countries, the arms trade became a source of economic advancement for developing nations like India, Egypt, and Brazil.

The worldwide demand for armaments is, however, declining, while the end of the Cold War has brought about an increase in suppliers. To compete in this shrinking market, many suppliers are offering greater sophistication in weaponry or are cutting their prices. The result is likely to be accelerated spread of advanced technology weapons among small and medium powers, affecting military balances in Asia and elsewhere.

While differences about arms transfer policies can produce tensions between countries, as has already happened with China and the United States, tensions that could result from prolonged trade imbalances are potentially of much greater consequence. In the extreme, protectionism or the formation of trade blocs could contribute to crises, especially in conditions where political relations between countries were already deteriorating. Of more immediate concern to the United States is the way that differences over trade could contribute to the breakdown of mutual security arrangements that have already been weakened by the end of the Cold War. U.S.-Japanese trade relations are the most prominent concern, but the trade imbalance between America and South Korea has the potential to affect security arrangements on the Korean peninsula. Taiwan also has a large trade imbalance with the United States, but has been taking steps to reduce it. In the 1990s and beyond, economic considerations are likely to be a stronger factor affecting mutual security arrangements.

For many developing countries, internal economic problems can also be a factor undermining national security, especially when they are combined with internal social problems. Economic modernization in developing countries often is uneven, intensifying rural-urban divisions, income disparities, regional differences, and ethnic jealousies. The perception or fact that not all parts of a country are benefiting equally from economic investments can reinforce social conflicts and contribute to domestic instability. Modernization can lag seriously behind popular expectations, leading to internal upheaval. In some cases, rapid economic growth can result in demands for more widespread participation in the political system.

Economic problems can contribute to security tensions through the intermediate step of domestic instability in a number of ways. The economic complaints of the populace can be expressed through violence that undermines the

internal security of a state and makes it more vulnerable to external threats. In some cases, migration results from economic problems, leading to tensions or strife among neighbors. In other cases, authoritarian regimes come to power in developing countries on the promise of solving economic problems, and these regimes may themselves contribute to security problems in a region.

Economic assistance to developing countries can, therefore, be a means for avoiding or reducing those regional security tensions that result from economic problems and domestic instabilities. This observation leads to the larger question of the extent to which economic strength can be converted to regional or even global power and influence.

Economic Strength As a Source of Power. Some Asian nations with strong economies have chosen not to seek the political-military influence and the capability to employ military forces far from home that traditionally have been the hallmarks of global or regional powers. Japan is the most prominent example, with the world's second largest economy, the security benefits of an alliance with America, and armed forces that in practice are confined to the defense of Japanese territory, even though legal and political constraints on overseas operations gradually are loosening. Other countries are in this same category, including South Korea and some members of ASEAN. How might such countries turn their economic strength into regional or global power and influence?

One possibility, of course, is that the wealthier countries will increase their military capabilities, as discussed earlier. But our interest here is to explore the limits of economic power as a direct means for achieving security, through beneficial influence or through economic threats.

Foreign aid and economic assistance will continue to be important channels through which economically powerful nations can influence regional or global affairs. This could be beneficial, especially if the aid were directed at reducing such causes of instabilities and tensions as poverty, economic disparities, and environmentally destructive activities. Aid can also be a means for wealthy nations to try to impose their political, economic, and ideological agendas on others. While the superpowers had only limited success in this regard during the

Cold War, Japan has been able to promote its economic agenda by imposing conditions on aid recipients.

The greater concern is that, in the highly interdependent world of the 1990s and beyond, states will be able to gain advantages by threatening the economic well being of others. But the global interdependence that gives rise to this concern also makes it difficult for one country to injure another's economy without itself suffering serious economic consequences. The multitude of alternative sources and substitution possibilities for raw materials, manufactured goods, international transport, and capital add substantially to the difficulties of using economic advantages to harm other economies. Yet, where the motivation is sufficiently strong, as in the U.N. sanctions against Iraq, large groups of states can impose restrictions that damage the economies of misbehaving nations.

If economic security is to be a useful concept, it should be viewed narrowly and specifically. There are only a few economic threats that the United States and other nations need to guard against. One is conditions that could endanger economies worldwide, such as widespread protectionist policies or a breakdown in the world's financial markets. Another is the catastrophic disruption of the world's oil supply that is noted above. Yet another is uncontrolled economic activities that could seriously damage the global environment, such as actions that increase global warming or deplete the ozone layer. A fourth threat is a worldwide recession that becomes a depression, in part because of the unprecedented degree of interdependence in the global economy. This situation, in turn, could lead to predatory actions by states seeking to protect their economic interests at the expense of others.

A final type of economic harm to be considered is excessive dependence on other countries for products that are essential for a nation's military posture. To the extent they have a choice, states will not depend critically on foreign sources of weapon systems or spare parts; policies of self reliance are evident in a number of Asian countries, including China, Japan, the Koreas, and Taiwan. Of concern to the United States, however, are the increased dependence of the Department of Defense on foreign technologies, components, and sources of finished defense goods, and the possibilities of foreign control over U.S. defense companies. Analysis of European postwar experience indicates

that U.S. concern about these issues has some merit.[3] But this analysis also shows that the extent to which this situation actually is a security problem depends on the concentration of the industries in question, not on the nationality of the firms. Diversification and multiplication of sources and locations of supply seem to be the solution to this problem.

We conclude that, while economic strength is a key means to underwrite military power and while economic instruments will be increasingly important for shaping the security environment in Asia, military power will continue to be the major means for protecting a country's security interests or for threatening harm to other nations.

Relevant Economic Trends. The foregoing analysis shows that economic conditions constitute an important dimension of the Asian security environment and indicates that the following economic trends are particularly important for DoD long-range planning and assessments: the size and rate of change of the gross national products of Asian countries, the character of the national competencies and infrastructures of current or potential military powers in the region, arms sales trends, trade relations, and the globalization of the defense industrial base in America. Our analysis also shows that the links between economics and national security are sufficiently loose that consideration of these economic trends does not materially reduce the complexities and uncertainties in the Asian security environment that DoD strategic planners must deal with. Nevertheless, examination of economic trends helps to determine the range of potential security challenges that America could face over the next several decades and helps DoD planners to understand both the value and the limitations of economic instruments for shaping the security environment in Asia.

Several Asian states have large and growing economies that could provide the wealth to finance increased military capabilities should they choose to do so. Japan has the resources to become the dominant military power in Asia and even to become a global military power, but it shows no such inclination at this time. South Korea's continued GNP growth contrasts sharply with the poverty of North Korea and has allowed South Korea to reduce its reliance on American military forces for its security. The prospect of tapping into South Korea's economic success may become an incentive for North Korea to end the

division of the Korean peninsula, but concern about the high costs of unification is causing South Korea to move cautiously, and North Korea has not yet shown any interest in reaping the benefits of capitalism. India has been able to build a large military force through a combination of economic growth and low prices for Soviet military equipment. But Russia and the other former Soviet republics no longer are offering bargain prices, and India's economic growth has slowed. Taiwan's strong and prolonged economic growth has enabled it to maintain a stable balance of military force with the People's Republic of China and has contributed to a substantial increase in trade with the mainland. Taiwan's defense capabilities have dampened PRC ambitions for reunification by force, and the benefits of close economic ties have eased political tensions between Taiwan and China, although relations could become strained in the future.

Despite the limitations and inefficiencies of an economy that is still largely of the command type, China's gross national product grew at an average of 9 percent during most of the 1980s, one of the largest growth rates in Asia. During this period, China subordinated its defense spending to the needs of other sectors. Recently, however, China has been allocating more resources to defense; since 1988, the defense budget has risen by more than 20 percent.[4] While China probably will be able to continue to devote substantial resources to the military sector, its poor infrastructure will limit the rate of improvement of its military capabilities.

Infrastructure trends deserve close attention by DoD strategic planners, particularly improvements related to the military-technical revolution. Japan's technology, manufacturing capabilities, manpower skills, communications, and transportation nets would enable it to make a major increase in its military capabilities, if it decided to do so and was able to overcome the domestic political barriers to becoming a military power. Other Asian countries also have infrastructures that, although not in Japan's class, can support substantial military improvements, notably South Korea, Taiwan, and Singapore. While Singapore's size will keep it from becoming a major military power, it could be an important supplier of advanced military technology and systems. In other countries like China, North Korea, and—to some extent—India, the lack of appropriate infrastructures is a serious barrier to acquiring modern fighting capabilities. These countries could nevertheless pose security challenges to

American interests, and the character of these challenges will be affected in part by how they improve their infrastructures over the next several decades.

Similarly, infrastructure deficiencies do not make countries noncompetitive in the arms trade, but they do affect the nature of that trade. China, for example, has found it necessary to compete primarily at the low-technology end of arms sales and in special niches like nuclear weapons technology and ballistic missiles.[5] North Korea also has been constrained by its infrastructure to trade at the low end of the arms market. On the other hand, the infrastructures of South Korea and Taiwan will allow them to sell an increasingly wide assortment of military products in the future.

Trade balances and attendant frictions are another important trend for DoD strategic planners, in terms of potential future security challenges. Trade disputes that could undercut America's security relations with friends or allies like Japan, South Korea, or Taiwan are of most immediate concern, but trade imbalances that could contribute to tensions among other countries in Asia should also be kept in view.

Finally, the globalization of America's defense technology and manufacturing base should be watched by DoD planners. While probably not as strong an influence on the Asian security environment as the other trends discussed here, the interdependence of the U.S. defense industrial base with Asian economies could be a positive or a negative factor affecting America's ability to influence the future security environment. Further, excessive U.S. dependence on specific Asian countries for defense technology or goods could be a source of security problems.

Conclusions. Economic power will not supplant military power as the determinant of security in Asia over the next two to three decades. Military power or membership in a military alliance will still be needed to ensure security and the peaceful relations that are necessary for economic well being.

While economic power will not replace military power, economic factors are becoming more important in national security planning in several ways. Most Asian states understand that military commitments and forces must

be kept in balance with the economic resources they choose to make available to the defense sector. Economic issues and defense issues can no longer be treated as separate matters in alliance relations. And economic strength clearly can contribute to building and sustaining a strong, modern military force.

GNP trends are, however, only a crude and incomplete indicator of military potential for two reasons. First, states do not need to be wealthy in order to pose military threats. Many small and medium powers can and are acquiring forces and weapons that contribute to tensions and upset regional military balances. They may do so by draconian measures that commit a substantial portion of their economic resources to the military, although this course may be harder to sustain politically in the new security environment than during the Cold War. Or they may pose threats and upset military balances without excessive military spending by obtaining the capability to deliver NBC weapons.

The second reason for not basing security assessments and planning solely on estimates of a country's gross national product is that national competencies and infrastructure are equally important for determining what kind of military capability a state can sustain and what kind of challenges it may pose. A nation like China, that has a growing gross national product but a limited infrastructure, will pose different kinds of challenges than one like South Korea, that is smaller but has a more modern infrastructure.

Finally, this review reveals a number of economic sources of tensions and other problems that will be considered in the next chapter on potential challenges to U.S. security. These include arms sales, trading blocs, environmental damage through economic activities, and economic impacts on alliance relations.

2.3 FUTURE SECURITY RELATIONSHIPS IN ASIA.

Asian security relationships are becoming more fluid in the new security environment: more complex and more subject to change than during the Cold War. Which countries will cooperate or compete with the United States or

with one another over the next several decades, who will ally with whom, which states will oppose one another in crises or wars, and who will remain neutral—all this is much more difficult to predict than in the decades of superpower competition.

The end of the Cold War and the collapse of the Soviet Union removed an enormous security problem that channeled many traditional rivalries and friendships in directions that were strongly influenced by the U.S.-Soviet competition, suppressing other enmities. Now, many unresolved political, ethnic, religious, and territorial disputes are reemerging, and there is no large new international threat to impose a measure of predictability on these rivalries.

Further, trends that already could be seen during the late cold-war period are creating additional sources of change in security relationships: economic trends that bring more possibilities for serious frictions between countries, as discussed in Section 2.2; political, economic, and social changes within many Asian states that could affect their security alignments and, in cases such as Russia, bring about internal turmoil that may have security repercussions; and the spread of Islamic fundamentalism. While Western experts doubt that Islamic fundamentalists will take power in Central Asia, Pakistan, or Indonesia, the hostility of powerful Muslim factions toward America and other modern states will influence security relationships in Asia.

Finally there is that important holdover from the Cold War—American military forces and security guarantees in Asia. How the United States manages the transition of its security policy and military force posture in Asia to the new security environment will have strong effects on future alignments in the region, depending—for example—on whether countries like Japan or Taiwan, that have built their security policies around U.S. protection, see a need in the future to rely more on their own military capabilities.

These new uncertainties about long-term security relationships in Asia make it hard even to describe succinctly and systematically the possibilities that DoD planning and assessments should take into account. There are, however, several states whose geostrategic positions, political-economic power, or military capabilities make their security alignments of paramount interest to the United

States: Japan, North and South Korea, China, Russia, and India. The possible effects of trends in the new security environment on their security relationships are discussed in the next few pages.

Japan. The likelihood now seems low that over the next thirty years Japan will become a major military power which is opposed to the United States or which acts independently of America. But Japan will seek to become a full and equal security partner with America and increasingly could take foreign policy directions different from those of the United States, depending on many factors that are not fully under U.S. control. These factors include trade and other economic relations between America and Japan, the passing of political power to younger generations in Japan,[6] and the way that the policies and actions of other countries influence Japan's threat perceptions.

Japan would not have to become an independent military power in order to become a problem. For example, it might grow more reluctant to endorse U.S. diplomatic or military initiatives in Asia, it could become overbearing about what it expects from Asian states in return for foreign aid or economic assistance, it might join with other Asian countries in forming trade blocs, or it could follow political-economic policies that make it the target of military threats from other Asian states. Any of these potential trends could set in motion events that eventually caused security problems for America. In the extreme, and over a long period of time, such events could lead to Japan aligning itself with other Asian states against America. This would be a major shift in the Asian balance of power that would seriously jeopardize U.S. interests, and U.S. policy should be directed at ensuring it does not come to pass.

Korea. Despite the end of the Cold War, the Korean peninsula is still a dangerous place because of the large size and high readiness of North Korea's armed forces, the country's nuclear weapons program, and its unpredictability under the aging Kim il Sung or whatever regime comes to power when he dies. It is difficult to imagine this state of affairs lasting much longer. Heavy military spending and political-economic isolation have impoverished North Korea, and the situation on the Korean peninsula is totally at odds with the current political, economic, and security environment in Asia.

Many paths could lead to the end of the current enmity in Korea, not all of them consistent with U.S. security interests; how the situation is resolved could affect security relations in Northeast Asia for some time to come. There could be a smooth merging of North and South Korea, producing a country that combines the strengths of both states. Or the process of ending the division could be rocky and perhaps violent; the South might eventually dominate the new state, the North might, or there could be prolonged internal turmoil. It is even possible that the two states would not become one, but that the tensions between the two would die out.

The process by which hostility between the two Koreas is resolved may be as important as the eventual outcome, since the process could itself leave a trail of bitterness among Korean factions or between other states and the Korea that eventually results. One possibility that should be of concern to the United States is a strong unified Korea that grows increasingly assertive or even bellicose, causing tensions and crises in Northeast Asia. Another possibility is a weak Korea fraught with internal contradictions, a state that the process of unification had removed from the sphere of American protection and that once again became an arena for struggles between China, Russia, and Japan.

China. What happens in China and what foreign policies China pursues will have major effects on security relationships around its periphery and perhaps beyond. At least two trends are particularly important for China's future behavior: the leadership transition and economic developments in the country. Despite Deng Xiaoping's recent success in laying the foundation for a smooth transition of power, the transfer of political authority in China has been violent for most of the twentieth century, and generational change there probably will not be as smooth as in Japan. Prolonged leadership problems in Beijing combined with uneven economic growth between the coastal and interior provinces could bring internal stress, political and social upheaval, and perhaps prolonged turmoil in China. In this scenario, the People's Liberation Army might well be a victim of regionalism and not be able to function as a coherent organization to defend the county. While a China that is plagued by internal instability might not be a problem for its neighbors, it also could result in weakness or even revolutions that some of China's neighbors (e.g., Taiwan) try to exploit.

A second scenario for change in China is one in which the country manages its rapid growth and its leadership transition successfully, with coherent direction of the country's political, economic, military, and foreign affairs. This situation could result in the emergence of China as a prosperous, responsible power that eventually became fully integrated into the world economy and that pursued security policies that did not conflict with those of its neighbors or the United States.

A third scenario is possible, however, in which a powerful, coherent China seeks to extend its political, economic, and military influence over nearby states. This situation could bring China into opposition with any number of countries, leading to tensions or crises with Russia, Japan, Taiwan, Southeast Asian countries, or India. These tensions could also produce new cooperative security relationships among China's neighbors, such as Japanese-Russian collaboration, Taiwanese and Korean security cooperation, or alignments between India and countries in Southeast Asia. Alternatively, China might align with one of its powerful neighbors, causing a major shift in the regional balance of power.

Weak or strong, China could have problems with its neighbors during the next two or three decades. For example, despite the changed ideological relationship between China and Russia and a reduced Russian military threat to China, the potential for crises or wars between the two countries remains. Sino-Russian competition has a far longer history than Communist rule in either China or Russia, and the current border between the two resulted from centuries of Sino-Russian conflict. Russia is the only power in Asia that has sufficient military force and the geographic position to pose a major threat of overland invasion to China, and both countries have sizable nuclear forces capable of attacking one another.

To cite one other example of historical reasons for renewed tensions between China and its neighbors, Sino-Japanese relations have been marked by ill will, resentment, and antagonism for centuries, most recently during Japan's occupation of parts of China in the 1930s and 1940s. Unlike Russia, Japan has no common border with China and there are no significant Sino-Japanese territorial disputes. China and Japan are, however, major long-term competitors for power,

influence, and economic benefits in East Asia, and if China becomes an economic giant this competition could become more serious. Further, as China develops a power-projection capability and Japan takes on greater responsibility for its own extended defense, the political-military interests of the two nations could clash.

Russia. The Soviet empire no longer exists, but the aftershocks from its breakup continue, and what will become of Russia—or the other former Soviet republics—is far from clear. The immediate result is positive for U.S. security, but—like the case of Korean unification discussed above—Russia's eventual end state and the process of getting there will affect security relations in Asia and elsewhere in ways that may not accord with America's long-term interests.

As with China, there are three broad possibilities for Russia: to become a strong economic power and a responsible member of the world community, with no hegemonic ambitions; to become even weaker than now, with a long period of internal political, economic, and social chaos; and to become a powerful, coherent political entity that seeks to extend its influence through military power. And, as with China, the last two scenarios could have troubling impacts on security relationships in Asia. For example, the combination of a more powerful, increasingly antagonistic Russia and greater Japanese independence in foreign policy might over time lead to a Sino-Japanese alignment against Russia that both added to tensions in Asia and reduced America's influence in the region.

In a variation of the scenario of a weak Russia, Siberia might separate from Russia, creating possibilities for either greater tensions or increased stability in Asia, depending on Russia's response, on which countries aligned with the new state, and on whether China or Japan sought to exploit the secession of Siberia.

India. With a large and growing population, a modern military force, and a dominant geographic position, India is pivotal for security relations between South Asia and other parts of the world. Currently India is preoccupied with modernization, internal economic problems, political instability, factionalism, and insurgencies, and these problems could become worse, resulting

in domestic turmoil for some time into the future. But, weak or strong, India's relations with its neighbors will affect Asian security and impinge on U.S. interests.

Several broad possibilities should be taken into account. Political, religious, and territorial issues no doubt will perpetuate Indo-Pakistani differences, and tensions between India and other countries in Southwest Asia—the traditional source of problems for India—could arise in the future. Although there is no historical legacy of conflict between China and India (the 1962 border war was atypical), China's continued military assistance to Pakistan could lead to renewed problems with India. Similarly, should countries like China, Japan, or Indonesia in the future seek to extend their political-military influence in Southeast Asia, opposition from India could result.

Conclusions. This brief survey of possible future courses for security relations and alignments of Asian states is not intended to be a prediction; it does not even exhaust the possibilities. It is intended to demonstrate that, over the next several decades, security relationships among key Asian countries plausibly could move in directions that were contrary to U.S. interests, despite American efforts to influence alignments in the region.

Powerful trends over which America has little control are exerting pressure for change in Asia, and the new security environment is sufficiently complex and uncertain that DoD planners and analysts should neither assume continuation of the present set of security relationships over the next several decades nor try to predict what new alignments may emerge. To do either would run serious risks of basing DoD strategies and plans on the wrong assumptions or of ignoring important potential security problems.

Planners and analysts can, however, organize possible future Asian security relationships into four broad alternatives. Asia today is hovering between two of these alternatives, and it is not clear which will characterize the near future. One alternative is that the region will be free of major crises and wars, with the main security problems posed by nonstate threats like international terrorism, drug trafficking, and piracy. The other is that the principal security challenges in Asia will be the instabilities caused by well-armed small or medium

powers threatening their neighbors; North Korea is the primary example now, but Taiwan, Pakistan, a unified Korea, or Indonesia could fall into this category in the future. Either of these alternatives could give way to a third broad possibility over the next several decades in which the major challenge to U.S. security interests came from the regional hegemonic ambitions of one or more large Asian states: China, Russia, Japan, or India. The fourth alternative lies in the more distant future and involves challenges to U.S. interests on a global basis from Russia, Japan, or possibly China. Cutting across these alternative futures, and complicating them, are the possibilities for prolonged political, economic, social, and military turmoil in Russia, China, or India.[7]

These prospects are not a formula for despair, and they do not imply that America has no choice but to react to new Asian security alignments when they occur. They do, however, suggest a different U.S. approach to security strategies and plans from that of the Cold War, one centered on efforts to influence future security relationships in Asia and on adaptive strategies designed to seize new opportunities and hedge against new problems. Before discussing this approach in detail, we must consider one other dimension of the security environment in Asia, trends in military capabilities, since the consequences of changes in security relationships depend in part on the military strength of potential future antagonists. Unhappily, this only adds to the complexities and uncertainties confronting the Defense Department.

2.4 MILITARY TECHNOLOGY TRENDS IN ASIA.

Technology is the military trend that will most strongly affect the nature of the future security environment in Asia and U.S. interests in the context of that environment. Technological improvements, not increases in force size, will yield the greatest gain in military capabilities for Asian states. While the size of a country's armed forces will continue to be important, technology increasingly will allow smaller countries to compete militarily with larger ones. Put another way, an aspiring regional power will need technological superiority as well as large forces in order to dominate its neighbors militarily.

The Commission on Integrated Long-Term Strategy was on the mark five years ago when it concluded that technologies of precision, control, intelligence, defenses, and outer space were central to military affairs.[8] The importance of these technologies was amply demonstrated by the performance of U.S. forces in Operation Desert Storm. More and more states have access to these technologies, as well as to other technologies that strengthen the ability of small powers to oppose large ones: submarines, long-range missiles, and NBC weapons. All but the most closely guarded military technologies are becoming available to any country that is able to employ them. The limits on a nation's ability to convert technology to usable military capabilities are not its access to the technology or, in most cases, its ability to finance technology applications. Rather, these limits are set by the choices that individual states make, driven by their threat perceptions or regional ambitions, and by the competencies these states have for transforming technology into operational capabilities.

The ready availability of technology for military applications is revolutionizing warfare in ways that have not yet been fully worked out. Some countries, such as America, routinely make extensive use of advanced information, materials, microelectronics, sensor, and propulsion technologies; others will follow suit; still others will not be as competent in the use of advanced technologies, but will find ways to use older technologies to good effect in their military forces. Countries that change their force employment doctrine and the way they organize their military forces so as to take maximum advantage of the technologies they decide to use will be the ones that profit most from the ongoing revolution in military affairs.

Over the next two or three decades, different Asian countries will make different choices about applying technology to their military forces. Some will make more progress than others in upgrading their infrastructures and other competencies to facilitate the conversion of technology to usable military capabilities. And some countries will be more adroit than others in the way they adapt their doctrines and organizations to take advantage of technological opportunities. These possibilities pose several issues that DoD planners and analysts should address: How will the military-technical revolution unfold in Asia? More generally, how will old and new technologies affect military capabilities and military balances in Asia over the next twenty to thirty years?

And how will lower-technology military establishments in Asia try to counter the military advances of high-technology countries?

Answering these questions on a country-by-country basis is difficult, since so many variables will affect the choices nations make over the coming decades, and the choices of some countries will influence the decisions of others. It is, however, possible to characterize the broad trends in military technology that are likely to occur in Asia. The following pages illustrate how this can be done in terms of four categories: technology trends that will result in evolutionary improvements in military capabilities; trends that will allow many countries to upgrade their military capabilities sharply, in a short period of time; military technologies than can be accessed by only a few countries; and military technologies whose future role is uncertain.

Evolutionary Improvements. Future arms sales, the widespread availability of related commercial technologies, and indigenous military developments will result in continued, evolutionary improvements in many military capabilities of all Asian countries. These trends include improvements in weapon system accuracy, range, munitions, and reliability that will affect air, naval, and ground combat capabilities: air-to-ground strikes, air defense, electronic combat, surface naval warfare, armored ground-combat operations, artillery, and attack helicopters. Similarly, there will be evolutionary improvements in the ability of countries to maintain surveillance of their borders, air space, and littorals in areas where they have ample opportunities to install and maintain sensor and communications networks. These same general trends in technology also will result in improvements in the firepower, communications, and mobility of infantry combat units, special operations forces, and insurgent groups. Another important evolutionary development will allow countries to make important military or civilian capabilities more difficult for adversaries to destroy. Technology increasingly permits such diverse assets as nuclear weapons production facilities and missile launchers to be camouflaged, deployed in mobile configurations, or kept underground or in caves without materially hindering their operations.

Evolution does not, however, make all species the same. Even though the technologies may be available to all countries, the resulting armed

forces will differ in military effectiveness for many reasons. Some countries will invest more than others in weapon systems, the size of a nation's military force will make a difference, some countries will be more innovative than others in applying technology, and military effectiveness will be determined by manpower skills, command and control capabilities, training, doctrine, organization, and logistics support, as well as by the performance of sensors and weapons. Further, some countries will try to go beyond evolutionary improvements by using technology that promises large jumps in military capabilities.

Quantum Increases. Certain kinds of older, proven military technologies can add significantly to the military power of both large and small Asian nations. Nuclear or biological weapons are the most dramatic examples of this kind of technology, but ballistic missiles, cruise missiles, submarines, and access to space for intelligence, geopositioning, communications, and antisatellite operations also fall into this category.

This trend already is quite evident. China is a declared nuclear power, India and Pakistan are undeclared nuclear powers, and North Korea is developing nuclear weapons; a number of countries are believed to have biological warfare programs. China, Russia, and Kazakhstan have long-range ballistic missiles; India has a development program; North Korea has a 600-km missile and is developing one with a range of 1,000 km; Pakistan reportedly is developing a 650-km ballistic missile. Most Asian countries have antiship cruise missiles, and nine have submarines. Land-attack cruise missile technologies are becoming more widely available. Any country can buy satellite imagery from France or Russia and can use global-positioning satellite information to achieve high accuracy with ballistic or cruise missiles. Nations that have rockets of sufficient size, including China, Russia, Japan, and India, can develop an antisatellite capability. These technologies are becoming more widely available through arms sales, national development programs, or both.

Technologies that permit countries to make quantum leaps in military capabilities affect the Asian security environment in a number of ways. First, states that have some or all of the foregoing military technologies are in a superior position to deter attacks by countries that do not have them or to threaten these countries, adding to incentives for others to acquire these quantum-

leap capabilities. Second, countries with some or all of these military capabilities can impose significant costs on powerful states that may be considering intervention or invasion, raising the level of forces needed for military operations, increasing the number of casualties, probably prolonging intervention or invasion operations, and reducing the likelihood of successful intervention or invasion. In particular, these capabilities provide smaller states with greater freedom of action relative to larger ones like China, Russia, India, or the United States.

Capabilities Accessible By Only a Select Few. While all Asian states will improve their weapon systems, communications, and surveillance, and many will be able to use older technologies to make quantum improvements in their military capabilities, only a few countries will be able to utilize the most modern military technologies. Two important examples are stealth aircraft and the ability to conduct complex system-of-systems military operations.

The United States now has a monopoly on deployed stealth combat aircraft and is likely to retain a substantial lead in this technology for a considerable period of time. Other countries will find it difficult to develop and produce truly stealthy aircraft because of the distinctive R&D and industrial competencies involved, the large investment required, and the controls that America has imposed on its own sale of stealth aircraft and technologies. Many countries will choose the easier path to stealthy attack capabilities by developing or buying cruise missiles that have low radar cross-sections. Those that do undertake the development of stealth fighters or bombers will take decades to catch up with America, although they may not need to progress that far in order to gain important military advantages.

Most countries have similar problems in organizing their weapon systems and surveillance capabilities into complex, coherent system-of-systems military operations such as establishing air supremacy, controlling air, surface, and underwater areas in a contested ocean region, conducting carrier air operations against enemy naval opposition, employing reconnaissance-strike complexes as in Operation Desert Storm, and defending against ballistic missiles. To acquire, maintain, and employ such system-of-systems capabilities requires a

manpower pool that excels in information competencies, an advanced technological and production infrastructure, military operational competencies that take a long time to develop, and sustained high investment.

Few countries are able to overcome these barriers, and most do not try. The United States excels at these system-of-systems capabilities. Russia has the R&D base, some of the manpower skills, and the military organizational experience, although the last is in some danger of being lost as a result of the current turmoil in Russia. Japan has the technological base and many of the industrial competencies; it has demonstrated system-of-systems capabilities in antisubmarine warfare and could gain additional military competencies in time, should it choose to. China might acquire one or two system-of-systems capabilities if it mounted a sustained, focused national effort.

Thus, it seems clear that some military technologies will be available only to the United States and at most a few Asian nations over the next several decades. The issues are how important these technologies and the associated military capabilities will be over this period and whether other countries can counter them or outflank them with more widely available military capabilities. This is a subject to which we return in later chapters.

Problematic Technologies. The final category to be considered concerns technologies whose future roles in the Asian security environment are uncertain for one or more reasons. Some technologies may not yield much advantage in future Asian contingencies; some may not be accessible by many countries; or some may spread to so many countries that no state can gain advantage from these technologies. We illustrate the uncertainties with three examples: information warfare technologies, counterstealth, and nonlethal weaponry.

Information warfare—gaining accurate, timely combat information, and denying information to the enemy or confusing him—is an ancient military art that today comes in many forms: attacks on the enemy's command and control, jamming radars and communications systems, collecting intelligence to develop a clear picture of the military situation, camouflaging one's own forces, and mounting operations intended to deceive the enemy, to cite a few examples.

Most Asian countries will maintain an information warfare capability of some sort for the indefinite future, although it may not be a high-technology capability. The uncertainty is an operational one: the extent to which various information warfare capabilities will be decisive in the many contingencies that could arise in Asia over the next several decades. If information warfare does turn out to be a critical mission capability, a further uncertainty is whether the U.S. approach to information warfare, which depends heavily on advanced technology, will be the best approach. We argue in Chapter 5 that the Defense Department should develop a core competency in information warfare, but that conclusion is based on a cursory, incomplete analysis which needs to be expanded and deepened.

Counterstealth technologies involve a different kind of uncertainty. Clearly, any country that can nullify America's force of stealth aircraft and cruise missiles will gain significant advantages. The uncertainties are technical and economic in character: whether counterstealth technologies will become widely available, whether countries that have access to counterstealth technologies will choose to invest what probably would be a considerable amount to incorporate these technologies into deployed military forces, and whether America's stealth systems will be able to stay ahead of counterstealth developments.

Nonlethal weaponry is a new field of military R&D in which America and a few other countries are trying to develop practical military methods for incapacitating personnel or equipment in order to achieve combat objectives with very few friendly or enemy casualties. Current research is examining a wide range of technologies for this purpose, including lasers, chemical and biological mechanisms, microwave radiation, and electromagnetic pulses. It seems clear that interesting nonlethal effects can be achieved under laboratory conditions. The uncertainty concerns the ease with which nonlethal weapons can be countered or nullified in combat conditions, particularly by relatively cheap, low-technology means.

2.5 KEY CHARACTERISTICS OF THE ASIAN SECURITY ENVIRONMENT.

To summarize the major conclusions from our review of the new security environment in Asia, net assessments of current military balances are helpful primarily to highlight important near-term trends and uncertainties that affect how the future will unfold. Military balance assessments fail to encompass many significant potential challenges to U.S. security interests, since they do not address the economic dimension of security, since alignments of states can shift in the future, and since there is substantial uncertainty about the military choices individual Asian nations will make over the next two or three decades. Further, new kinds of challenges to U.S. security interests can arise from prolonged instabilities in large Asian states, a phenomenon that is not addressed by traditional military balance assessments.

Examination of economic, political, and military trends in the Asian security environment yields more insights than balance assessments, but does not solve the problem faced by DoD strategic planners and analysts, which is the large number of possible challenges that could appear over the next thirty years and the difficulty of forecasting well in advance which actually will occur.

Economic trends are an important dimension of the Asian security environment, since many countries in the region view economic strength as an important facet of national security. Indeed, the economies of Asian countries will constrain, channel, or facilitate their future military capabilities. But, equally, important, trade, arms sales, and other economic activities can be a source of future security problems that affect U.S. interests in Asia.

Economics will affect trends in security relationships in Asia, as will political and military conditions. Our survey reveals many possibilities and uncertainties concerning who may oppose whom in the future, who will be allies and for how long, what variables will affect these alignments in Asia, and what problems for America could result.

The military capabilities of Asian states will change less rapidly than will security alignments, but there are many different kinds of technological

opportunities for countries to improve their military capabilities. Because both alignments and military capabilities can change in ways that are difficult to predict, DoD strategic planning needs to consider a broad range of plausible Asian crises or wars in which U.S. military forces may be involved over the next two or three decades. In particular, DoD planning and analysis needs to ask what mission capabilities will be important in these possible crises or wars and how the United States can stay ahead of others in these critical mission capabilities.

This is not an easy task, because of the many possibilities over the extended period we are addressing, the numerous variables that will determine which possibilities will occur, and the consequent difficulty of making long-range forecasts that are useful to DoD planners. The succeeding chapters consider how to carry out this task, developing three complementary approaches: efforts to shape the future security environment; the development of adaptive strategies and forces to enable the United States to seize those opportunities and to deal effectively with those security challenges that actually appear; and the nurturing of relevant military core competencies to underwrite adaptive strategies and forces. One important planning and analysis tool for carrying out this program is the ability readily to evaluate candidate strategies and force postures in a wide range of potential Asian contingencies. This is the subject of the next chapter.

Endnotes

1. Military force data in this section are taken from The International Institute for Strategic Studies, *The Military Balance: 1992–1993* (London: Brassey's, 1992). While perhaps not as accurate in details as classified U.S. intelligence data, *The Military Balance* is the best open-source compilation of military force information and is adequate for the purposes of this section (UNCLASSIFIED).

2. See section 5.5, pp. 158ff (UNCLASSIFIED).

3. Theodore H. Moran, "The Globalization of America's Defense Industries," *International Security*, vol. 15, no. 1 (Summer 1990), pp. 57–99 (UNCLASSIFIED).

4. Barber B. Conable, Jr., and David M. Lampton, "China: The Coming Power," *Foreign Affairs*, vol. 71, no. 5 (Winter 1992/93), pp. 135–36 (UNCLASSIFIED).

5. Richard A. Bitzinger, "Arms to Go: Chinese Arms Sales to the Third World," *International Security*, vol. 17, no. 2 (Fall 1992), pp. 84–111 (UNCLASSIFIED).

6. The current crisis of the Liberal Democratic Party is one sign that generational change in Japanese politics already is under way (UNCLASSIFIED).

7. During the last few years, the Department of Defense has begun to explore some of these alternative security futures in the form of crisis or war scenarios. See, for example, Science Applications International Corporation, *A Catalog of Asian Scenarios, Volume One: Foundations of the Catalog,* Technical Report (San Diego: SAIC, 1 October 1990). The second volume of that report contains six conflict scenarios set in the early twenty-first century: *Asian Conflict Scenarios,* Technical Report (San Diego: SAIC, 23 October 1990) (UNCLASSIFIED).

8. *Discriminate Deterrence*, Report of the Commission on Integrated Long-Term Strategy (Washington: U.S. Department of Defense, January 1988), p. 2 (UNCLASSIFIED).

SECTION 3

CHALLENGES TO U.S. SECURITY

Good strategic planning requires a clear understanding of the challenges the enterprise could face, be it a firm pursuing its business or the Department of Defense seeking to ensure U.S. security. The analysis of the security environment in the last chapter allows us to develop a systematic picture of the full range of plausible challenges to American security interests in Asia that could occur over the next three decades.

Our intent is to establish a tool for assessments and strategic planning, not to forecast actual problems. Accordingly, we first develop the theory of what we call the contingency test bed: a method for evaluating candidate U.S. objectives, strategies, and military capabilities in terms of their adequacy to deal with potential future challenges. We then summarize the kinds of challenges that could appear, discuss the time periods in which they could emerge, and show why they are important enough to be taken into account by DoD planning. In order to begin to move from a catalog of contingencies to the subject of the next chapter, U.S. objectives and strategies, we then discuss the major factors that probably will determine which challenges actually appear and describe the associated uncertainties. This analysis highlights major security problems in Asia that should be of concern to America now; we summarize these problems in the concluding section.

3.1 CONTINGENCY TEST BED.

During the Cold War, strategic planning and assessments were carried out in the framework of a relatively well-defined Soviet threat. But threat-based planning—determining the size and characteristics of U.S. military forces based primarily on countering specific threats—is not practical in today's security environment, where threats are less immediate than in the Cold War, more fluid, and more uncertain. Further, threat-based planning focuses on countering adversaries and ignores opportunities to avoid or mitigate threats by

shaping the security environment. Yet DoD planning cannot be divorced from consideration of the specific situations in which the American military may have to fight in the future. To do so would run serious risks that U.S. forces would not be prepared for the crises or wars that actually occur. Further, the ability of future U.S. forces to deter hostile actions and to shape the security environment will depend in part on how well these forces could fight in various situations were it necessary to do so. This requires that specific crises or wars, or challenges that could result in war, be considered by DoD strategic planners.

A contingency-based approach to strategic planning and assessments is much better suited to the new security environment than is a threat-based approach. In contingency-based planning, candidate U.S. strategies, forces, weapons, and basing—even candidate security objectives or military core competencies—are tested for adequacy against a wide range of plausible future contingencies, or challenges to U.S. security interests, in an effort to find strategies and force postures which satisfy political and resource constraints and which are sufficiently robust or adaptive to provide confidence that they will meet those challenges that actually appear. Low-probability challenges that have large consequences for U.S. interests if they occur should be considered, as well as more likely challenges. This is why we refer to a *range of plausible challenges* rather than to the more restrictive set of *likely challenges*.

To illustrate the difference between threat-based and contingency-based planning, consider future U.S. strategic forces. Threat-based planning would design a force adequate to deal with the dominant threat of Russian nuclear forces and probably would overestimate future Russian nuclear capabilities as a prudent way to deal with uncertainties about how these forces actually will evolve. In contrast, contingency-based planning would postulate a future U.S. strategic force posture that is feasible, politically and economically; would test this candidate force against a range of plausible future Russian forces and associated contingencies; would further test the candidate U.S. force in terms of countering China and other possible future nuclear powers in various contingencies; and would revise the strategic force design, depending on the results of these contingency tests and on judgments about the likelihood of the various contingencies. The intent of the contingency-based approach would be to

produce more robust or flexible strategic forces than are likely to result from a threat-based approach.

Of course, this simple nuclear-force example does not get into the complexities of the total U.S. force posture, as we must in this chapter, and does not even raise, let alone resolve, practical questions about using the contingency test bed, which we address below. But the example serves to introduce the concept of the contingency test bed and to illustrate the point that, without attention to the full range of potential security challenges, U.S. strategies and forces run the risk of being more appropriate to the recent past than to the distant future.

Consistent with this wide-ranging approach to the test bed, we define *contingencies* quite generally: not-implausible future situations that could affect U.S. security in some significant way. In this sense, *contingencies* include peacetime military competitions, shifts in regional power balances, internal instabilities in strategically important nations, and certain kinds of destructive economic activities, as well as crises and wars. Examples of contingencies for an Asian test bed are North Korean acquisition of nuclear weapons; military competition and force buildups in the South China Sea; prolonged instability in China, with loss of central control over Chinese military forces; formation of trade blocs that seriously affect U.S. economic interests; a Chinese attack on Taiwan; and an Indo-Pakistani war in which nuclear weapons are used.

U.S. military forces will be more relevant to some of these situations than to others. On the other hand, political or economic conditions (e.g., formation of trade blocs) may constrain U.S. basing options or otherwise affect U.S. military force effectiveness. Accordingly, we define the contingency test bed broadly, to include a wide range of political, military, and economic challenges to U.S. security interests in order to ensure that DoD strategic planning and assessments consider a sufficiently wide range of possible situations. Section 3.2 describes the test bed in more detail.

The general method for using the contingency test bed consists of five steps applied iteratively. This method can be used for specific force

planning issues as well as for broader questions of regional security objectives and strategies, as discussed further in Chapter 4.

- The initial step is to formulate a candidate to be evaluated with the test bed. This candidate may, for example, be a set of security objectives, a strategy, a set of forces, a change of basing, an operational concept, or a new organizational development. U.S. economic and political constraints should be taken into account when formulating the candidate in this step.

- The next step is to test the candidate for adequacy in each of the relevant contingencies in the test bed. Measures of adequacy and the specific analytic tests will, of course, vary with the issues under consideration. We provide examples of such tests below.

- The third step entails identifying those contingencies in which the candidate forces, objectives, strategy, etc. are not adequate.

- The fourth step recognizes that American objectives, strategies, and forces need not be able to deal with every possible future contingency. At this step the analyst asks whether it is satisfactory that the candidate is not able to meet the adequacy tests in the contingencies identified in step three, considering the likelihood of those contingencies, their importance for U.S. interests, the political or military consequences of not being able to handle them effectively, and other potential ways to deal with the contingencies (e.g., through U.S. allies).

- If the answer in step four is, "Yes, it is satisfactory not to be able to handle these contingencies," the application of the test bed stops. If the answer is, "No, this is not satisfactory," the candidate forces, objectives, strategy, etc. are revised to cover more contingencies, and the application iterates back to step two, where the revised candidate is tested in all of the relevant contingencies.

This five-step application of the contingency test bed is a very general method, capable of use for a wide variety of DoD strategic planning problems. Similarly, many tests of adequacy can be used in applying the method,

ranging from a simple mental review of each contingency—a *gedanken* experiment—to detailed and extensive political, economic, or military analyses of the most important contingencies for a given problem.[1]

For many DoD strategic planning problems, military balance assessments will be the appropriate test of adequacy in the contingency test bed. Traditional balance assessment methods are, however, not suitable for use with the test bed. The traditional methods focus on past, current, and near-future trends and examine near-term war scenarios in some detail. In our case, however, the uncertainties and complexities of the Asian security environment make it impossible reliably to project military force posture trends very far into the future in any kind of detail. Further, traditional balance methods take too much time and too many resources to be a practical tool for examining a large number of contingencies.

To work around this difficulty, we have developed a method we term *mini-assessments* that can be used to examine the military strengths and weaknesses of potential adversaries in a contingency test bed that focuses a decade or more in the future. The mini-assessment method is designed to work with the limited information that reliably can be projected about future military balances by concentrating on the likely nature of future wars between various adversaries and on the military operations or capabilities that probably would be critical for determining the outcome of the war.

The mini-assessment method for examining future military balances is described in Appendix E. It consists of four steps. First, the analyst characterizes the potential for wars between the competing states, because the sources of conflict in part determine what each side has at stake, how they will carry out military operations, and what level of interest other potential antagonists have in the war. Second, the analyst determines the likely nature of wars between the adversaries in terms of the kinds of military operations that would be conducted, their scale, duration, and intensity, their geographic scope, the types of forces and weapons likely to be used, and the factors that would most powerfully affect the outcome of the war. In the third step, the analyst carries out sensitivity analyses by varying key assumptions in the assessment. The final

step is to develop implications for U.S. planning—for example, the adequacy of candidate U.S. forces, objectives, or strategy.

To implement the test-bed concept described here, we developed a contingency test bed for the Asian security environment of the next two to three decades, proceeding as follows. Based on the characteristics of the Asian security environment described in Chapter 2, we summarized the major political, military, and economic challenges to U.S. interests that might arise in Asia over the next several decades. We then created sets of political, military, and economic contingencies that span these potential future challenges. Our aim was to be representative, not to list exhaustively all potential problems, crises, and wars in Asia; but we tried to include every important class of contingency that could affect U.S. security interests. To ensure the test bed was fully relevant to DoD strategic planning, we then reviewed the contingency sets to ensure that they also spanned the full array of potential future uses of military forces that the United States might need to make, and revised the contingencies accordingly. The resulting test bed is described in Appendix B and summarized in the next section.

3.2 PLAUSIBLE FUTURE CHALLENGES TO U.S. SECURITY.

A challenge implies change, which may have positive or negative effects on U.S. security. In either case, a challenge also poses difficulties to overcome, and therein lies the utility of using potential political, military, and economic challenges to test DoD strategic plans for Asia. It is clear that the Defense Department's planning should consider future military challenges. Political challenges such as changes in international alignments, prolonged internal instabilities in key countries, or the rise of regimes hostile to the United States also are important for DoD planning. Such political challenges may impose particular kinds of demands on U.S. military forces, they may constrain future U.S. military operations, and it may be possible to use security instruments of various sorts (e.g., security guarantees or security assistance) in order to avoid these challenges or turn them into opportunities. Similarly, certain kinds of economic challenges (e.g., trade blocs, excessive U.S. dependence on Asian resources) are of interest to the Defense Department because U.S. security

strategy might contribute to avoiding or mitigating these challenges, some Asian economic actions could affect U.S. military capabilities, or—in the extreme—some economic challenges could become military disputes.

Table 3-1 lists the types of contingencies in the three categories of our test bed: political, military, and economic. Appendix B expands each type in the form of specific representative contingencies, with notes about conditions that necessarily would accompany these contingencies, assessments of their feasibility, and indications of their importance for U.S. security interests. Although the literature on potential future challenges in Asia is not extensive, these types of contingencies are beginning to receive more attention by strategic analysts.[2]

Some of the contingencies shown in Appendix B could occur in the decade of the 1990s and for that reason are important for DoD strategic planners to consider now; an example is North Korean acquisition of nuclear weapons. Other contingencies are, however, likely to occur only after the turn of the century, if they occur at all—a Chinese drive for regional economic hegemony is an example. And some contingencies appear feasible only in the distant future, perhaps in the second decade of the twenty-first century; sustained military competition between a unified Korea and a Japan that no longer has a security relationship with America might be an example. Strategic planners should consider these more distant contingencies because the strategy of the Department of Defense should be designed to avoid or mitigate such long-term challenges and the Defense Department should maintain the core competencies needed to deal effectively with contingencies that may emerge in the longer term.

3.2.1 Political Challenges.

Five types of political challenges appear important to consider in Asia: new geopolitical powers, prolonged domestic instabilities, the rise of hostile regimes, revanchist actions, and changed alignments.

Creation of New Geopolitical Powers. The most important example of this type is the unification of Korea, which could happen before the turn of the century. Siberia separating from Russia is another important

Table 3-1. Asian challenges: categories & types.

Political Category	Military Category	Economic Category
• Creation of New Geopolitical Powers	• Military Competition Involving America	• Creation of East Asian Trading Blocs
• Prolonged Instability in Major Regional Powers	• Other Military Competitions That Affect U.S. Interests	• Imposition of Economic Hegemony in Asian Regions
• Rise of Hostile Regimes in Regional Powers	• Proliferation of Advanced Weapons	• Disputes Over Access to Natural Resources
• Revanchist Actions	• Armed Conflict Involving Regional Powers With NBC Weapons	• U.S. Dependence on Asian Sources of Critical Technologies or Materiel
• Changes in International Alignments	• Fundamental Shifts in Military Policies or Capabilities of Regional Powers	• Destructive Ecological Impacts of Regional Economic Activities
	• Threats to Freedom of Passage	

possibility, as is a federation of China and Taiwan in the more distant future. Contingencies involving the creation of new powers are important for U.S. security interests because they can upset regional power balances and result in changes of alignments with America and other states.

Prolonged Instability in Major Regional Powers. Leadership succession problems, a breakdown in political, economic, or social structures, ethnic or religious factionalism, or growing social and economic disparities between different regions in a large country can lead to prolonged domestic instabilities and strife. Russia, China, and India are the most important locations for this type of contingency. This is a serious possibility for the next decade and perhaps longer. Prolonged instability can spill over international borders and cause a variety of problems for American interests, including crises in which other countries try to take advantage of a weak Russia, China, or India; disputes arising out of large-scale migration out of unstable areas; shifts in power balances that free countries like Pakistan or Taiwan for more assertive security roles; and jingoistic or repressive policies by national leaders trying to restore stability in their countries.

Rise of Hostile Regimes. Even assuming continued stability in all major Asian states, internal political conditions, domestic reactions to international economic disputes, or succession crises, to name a few causes, can result in new regimes coming to power in major Asian states, regimes that may be hostile to America or to their neighbors. Among the possibile locations are Russia, China, India, the Central Asian republics, and in the more distant future Japan or a unified Korea. This kind of contingency could shift alignments and power balances; result in frictions, arms competitions, crises, or even wars; close out some areas for basing U.S. forces; or create new demands on U.S. security guarantees and American military forces.

Revanchist Actions. Conditions in parts of Asia could move in directions that made more likely the seizure of disputed or lost territory. A North Korean attack on South Korea is the most obvious example; Chinese military operations against Russia, Taiwan, the Spratlys, or the Senkakus is another set of examples that should be considered. Not to be ruled out are Russian moves against Kazakhstan or Japanese actions in the Kurils or in the

Senkakus. This type of contingency would create a number of security problems for America and in some cases might even lead to U.S. military intervention.

Changes in International Alignments. Major shifts in the security alignments of Asian states now seem unlikely, but could become more probable in the future, depending on numerous complex factors. These potential shifts could undercut U.S. strategy in the region, create new strategic problems for America and new demands on U.S. forces, shift power balances, result in arms competitions, disputes, crises, or wars, or preclude basing U.S. forces in some countries while opening basing opportunities in others. There are many possible contingencies of this type. Among the more important are the severing of the U.S.-Japanese security relationship; close security ties between Japan and China, Taiwan, or Russia that excluded America; alignment of China with a unified Korea, Russia, or perhaps even India; and security alignments between Russia and India, Taiwan, or a unified Korea.

3.2.2 Military Challenges.

The category of military challenges offers a rich set of contingencies, which we have organized into the following types: arms competitions between America and Asian states, military competitions internal to Asia, proliferation of advanced weapons, regional NBC wars, changes in military power balances, and threats to freedom of passage.

Except for NBC warfare, there are no contingencies focused directly on armed conflict in this category. The reason is that all contingencies in the test bed—political, economic, and military—have the potential to result in crises or wars, and most of these contingencies define the conditions of warfare sufficiently well to test the combat adequacy of candidate U.S. force capabilities. Thus, it is not necessary to develop contingencies that postulate armed conflict as their principal scenario, with the exception of NBC wars. The transition from conventional to NBC conflict poses unique problems for the United States, whether American forces are directly involved or not, and for this reason we have set up a contingency type to encompass these problems.

Military Competition Involving America. Direct military competition between the United States and major Asian powers like China, Russia, Japan, or India in a manner similar to the Cold War is likely only in the more distant future, if even then. Since, however, the security consequences of this kind of competition would be serious and far-reaching, this type of contingency needs to be considered in current planning for such purposes as testing U.S. strategies designed to avoid the possibility of renewed arms competitions and ensuring that the necessary core competencies exist which make it difficult for others to compete with America on a military basis.

Other Military Competitions That Affect U.S. Interests. Military competition between Asian states is a more immediate concern. The North Korean–South Korean competition has kept U.S. forces in Korea for over four decades, and Indian-Pakistani military competition has a disturbing nuclear dimension. Other past military competitions are now dormant, but could become active again: India and China, Taiwan and China, Russia and China, Vietnam and China, for example. And new competitions might emerge in the next decade or two, including ones between Japan and Russia, Japan and China, and Japan and a unified Korea. Even though these military competitions would not involve America directly, they would affect U.S. interests. In many cases, U.S. allies would be involved; in some cases regional power balances might be destabilized; and in all cases there would be the potential for disputes, crises, and wars that were not in U.S. interests.

Proliferation of Advanced Weapons. This type of contingency is of immediate concern and probably will continue to be important in the foreseeable future. The possibilities are numerous, including the spread of nuclear weapons, growth in the size of biological and chemical weapon stockpiles and in the number of countries that have them, and increased ballistic missile capabilities: more missiles, higher performance, and more countries that have them. The spread of high-performance conventional weapons is also a growing concern: advanced antiship missiles, modern diesel submarines, land-attack cruise missiles, advanced air defenses, and—for some countries in the next decade or two—advanced military information systems, electronic combat capabilities, antisubmarine warfare forces, high-performance fighters and bombers, and ballistic missile defenses. Proliferation of advanced weapons affects the Asian

security environment by changing the character of power balances, military competitions, crises, and wars. It can also affect U.S. interests, positively or negatively, by contributing to arms competitions and disputes, influencing security alignments, and increasing the ability of adversaries to fight effectively against U.S. forces or of allies to fight against U.S. opponents. Further, proliferation of advanced weapons poses significant challenges to U.S. security strategies for Asia and, over time, may change the core competencies that U.S. military forces should have.

Armed Conflict Involving Regional Powers With NBC Weapons. As NBC weapons spread the number and variety of potential Asian contingencies in which these weapons are used will increase. All of these contingencies would affect U.S. interests, but in different ways, depending on the circumstances. Cases in which an Asian country uses NBC weapons against U.S. territory or U.S. forces would have the most obvious impact on U.S. political, military, and economic interests. Contingencies in which American allies are attacked with NBC weapons also would have serious consequences, raising issues about U.S. security guaranties, postwar alignments, and the subsequent propensity of nations to employ these weapons, in addition to more immediate issues about the outcomes of wars in which NBC weapons are used. Potential NBC conflicts in which neither U.S. allies nor immediate U.S. interests were involved also are important, because it would appear to be in the long-term interest of America to maintain high barriers against any third-party use of these weapons. For example, potential wars in which America would want to oppose the use of NBC weapons include fighting between China and various countries, an India-Pakistan conflict, and wars in the more distant future involving a unified Korea or a Japan that are no longer allied with America and that have such weapons.

Fundamental Shifts in Military Policies or Capabilities of Regional States. Some of the most serious potential challenges to American security interests, strategy, and forces are associated with contingencies in which a major Asian state both increases its military power significantly and follows a more assertive, if not aggressive, foreign policy. This kind of change would seriously alter regional military balances, destabilize security relationships, jeopardize American political, economic, and military interests in Asia, and probably bring the United States into opposition to powerful new military

adversaries. Such contingencies are likely only in the more distant future, beyond the year 2000, and perhaps not even then. But they are directly relevant to current DoD strategic planning as tests of U.S. strategies, force capabilities, and core competencies directed in part at avoiding such fundamental shifts in power. This type of contingency is more serious and perhaps more enduring than other contingencies discussed in this chapter, such as shifts in security alignments, new military competitions, and proliferation of advanced weapons to small or medium powers, because it involves a substantial and enduring increase in the military capabilities of a major Asian state, perhaps in combination with new alignments and new military competitions.

The countries that have the resources, political power, infrastructure, and strategic position needed for this kind of fundamental shift are few: Japan, China, and Russia in the next decade or two; a unified Korea, India, and perhaps Indonesia in the more distant future.

Similarly, there is a limited number of military and strategic directions that a fundamental shift of this sort can take. Important possibilities in the military dimension include major increases in power-projection capabilities with general-purpose air, ground, or naval forces; in capabilities for extended naval operations far from home waters; in long-range strike forces; and in strategic defense capabilities. Such changes in military power might be combined with one of several different strategic policies: a drive for regional hegemony; cooperation with another major power to establish regional condominium; territorial expansion; or the less-threatening but probably still destabilizing policy of isolationism combined with a strong homeland defense. This last might be a twenty-first century analog to the medieval fortress on a national scale or to the closed-door policy of Japan's shoguns in the seventeenth and eighteenth centuries. The representative contingencies of this type in Appendix B encompass the full range of these possibilities.

Threats to Freedom of Passage. Blocking passage through critical straits or other waterways is plausible now and for the foreseeable future. This type of contingency poses different challenges for U.S. strategy and military forces than the others discussed here and would have sufficiently serious consequences for American political, economic, and military interests that it

warrants inclusion in the test bed. A variety of countries are located in areas where they can readily threaten shipping and have the military capability to do so, or might acquire that capability in the future: China, Russia, Japan, Korea, Taiwan, India, Indonesia, and Pakistan.

3.2.3 Economic Challenges.

We have grouped Asian economic challenges that have security consequences into five types of contingencies, including trade blocs, attempts to impose regional economic hegemony, disputed access to natural resources, excessive American dependence on Asia for critical elements of the defense industrial base, and economic activities that cause serious environmental harm to other countries.

Creation of East Asian Trading Blocs. Regional economic partnerships that pose high barriers to trade outside these blocs can affect U.S. security interests in Asia by changing security alignments and provoking disputes. Further, U.S. strategies or security relationships may be able to help prevent or mitigate protectionist tendencies if Asian nations continue to value a strong U.S. military role in the region. Contingencies of this type also can test the adequacy of U.S. institutional arrangements for coordinating security and trade policies. For all these reasons, this type of contingency has a valid place in the contingency test bed.

Imposition of Economic Hegemony in Asian Regions. A few countries in Asia are in a position to try to impose economic hegemony over their neighbors, or could be in this position in the future. Japan has the potential now, China might have this potential by the early twenty-first century; Russia and India are more distant possibilities. These contingencies would have security consequences if they caused shifts in alignments or power balances, or resulted in crises or wars. Combined political-economic-military strategies may be important for avoiding or mitigating such situations, and this type of contingency is useful to test the adequacy of both candidate strategies and institutional arrangements for developing and implementing combined strategies.

Disputes Over Access to Natural Resources. Among the more likely economic contingencies are disputed rights to natural resources such as offshore oil and fishing areas. China and several Southeast Asian countries already have overlapping claims in the South China Sea that could grow into serious disputes should oil recovery in the area become an important enterprise. Other possibilities include quarrels between Japan, China, Korea, or Russia over oil rights or fishing rights. While such problems may not in themselves impact U.S. security interests seriously, they could be part of a larger pattern of security problems and in this sense could pose sufficiently distinctive challenges for U.S. strategies and force capabilities that such contingencies warrant inclusion in the test bed.

U.S. Dependence on Asian Sources of Critical Technologies or Materiel. Proper management of the defense industrial and technology bases should ensure sufficient diversity of sources that the Department of Defense does not rely on any one country or region for important materiel or know-how. DoD strategic planners should, however, take the possibility of future critical dependencies into account, in order to avoid them. Accordingly, the test bed includes this type of economic contingency.

Destructive Ecological Impacts of Regional Economic Activities. Certain economic enterprises can have destructive effects on the environment of other countries; notable examples are the widespread burning of coal, large-scale cutting of forested areas, industrial pollution, and nuclear power plant accidents. Some of these activities contribute to global warming, ozone depletion, and—in the case of nuclear power plant accidents—the spread of radioactive products. Most countries are beginning to cooperate in limiting these harmful activities, but some are moving faster than others to control pollution, and some states may even choose not to do so. The result could be disputes over the export of pollution which, if part of a larger pattern of security problems, could contribute to crises and pose distinctive problems for U.S. security strategies and military forces.

3.3 MAJOR DETERMINANTS OF THE FUTURE IN ASIA.

The test bed consists of political, military, and economic contingencies that collectively represent a wide range of possible challenges to U.S. security interests in Asia over the next three decades. It is designed for use in evaluating candidate U.S. regional objectives, strategies, force mixes, capabilities, and basing, military core competencies, and other plans, policies, or programs for Asia in terms of their adequacy in the face of a wide range of potential future challenges.

Testing current or proposed approaches to security problems for their robustness or their flexibility to adapt to changing conditions is important for DoD strategic planning in the new security environment, but planners should not assume that all contingencies in the test bed are equally likely to occur. Planners need to understand what factors will have the strongest influence on how the future actually unfolds in Asia: alignments and power balances, crises and wars, and what actually is strategically important in the area. They need to understand specific influences in order to estimate the likelihood of various contingencies as a function of time, but most importantly in order to determine how U.S. policies and actions can best shape the future in Asia.

Examination of the trends discussed in Chapter 2 and consideration of the contingencies in the test bed lead us to several factors that at this time appear to be the strongest determinants of the future security environment in Asia. These factors and the associated uncertainties are discussed in the following pages.

These major determinants of the future security environment primarily relate to conditions or national policies in Northeast Asia. With the important exception of nuclear weapons in India and Pakistan, the countries of South Asia and Southeast Asia do not appear to be in the first rank of influences on how the future security environment will unfold, even though contingencies involving these countries could pose important challenges to U.S. interests. Put another way, the actions of these states are not likely to be major drivers of important conditions in Asia from the perspective of U.S. interests for at least the next decade, although these countries may be the victims or beneficiaries of

policies and events in Northeast Asia or China and thus could become more important for U.S. interests in the more distant future.

The United States. One of the most important determinants of the future in Asia is the policies and actions of the United States. American security commitments, the presence of American forces in Korea, and the ready availability of U.S. forces for crises in other parts of Asia clearly are critical for regional stability and order, at least in the next decade. Whether they remain critical for the more distant future depends on what influences for peace, order, and stability might replace them. For example, if global cooperation and economic interdependence reduce seriously the potential for military competitions or crises in Asia, then the importance of bilateral U.S. security guarantees and forward-deployed military forces probably will decline over time. On the other hand, if some Asian powers seek to impose peace, order, and stability through regional hegemony, then continued U.S. military commitments in the region may become even more important than they are today. Former prime minister Lee Kuan Yew of Singapore represented the current views of most Asian countries when he said at a recent conference: "The United States should, despite troop reductions, be capable of projecting their forces into any part of the Pacific, and . . . the U.S. should be a balancer and a stabilizer. If they are capable of being the balancer, then there will be no crisis."[3]

While important for Asia, what America does is not totally under the control of the Pentagon, and DoD strategic planners and assessors need to take into account a number of uncertainties about future American policies and actions. One uncertainty is the size of the DoD budget and the resulting military forces, and how these resources will be allocated among the regions of the world. The White House and Congress play major roles in these decisions, and security conditions in areas outside Asia such as the Persian Gulf will affect future U.S. resource decisions; these are sources of uncertainty for DoD planners, especially for the more distant future. Another uncertainty is the effect in Asia of whatever drawdown of U.S. forces occurs. The sources of this uncertainty include the perceptions of various Asian nations and the policies of countries like China that might try to take advantage of reduced U.S. forces in Asia.

Yet another uncertainty for DoD planners concerns U.S. objectives in Asia and the priorities among objectives that may not be totally consistent with one another. Political, economic, or security objectives concerning such matters as free trade, human rights, or promotion of democracy can change as administrations change. U.S. objectives also can change as a result of varying American political trends or shifts in international political or economic conditions. DoD strategic planners cannot assume a fixed set of U.S. regional objectives for devising or assessing strategies, plans, or programs over the next several decades. We discuss this problem in more detail in Chapter 4.

Thus, while U.S. policies and actions are a powerful tool for influencing future security conditions in Asia, the Defense Department is not in total control of this tool. Neither, for that matter, is the U.S. government, in the sense that American policies and actions must respond to and are constrained by domestic politics and international events. Recommending appropriate security policies and actions is a key function of the Department of Defense, and this report discusses ways to take long-term perspectives into account in DoD policy making, planning, and assessments. But DoD strategic planners should not operate with a rational-actor model in which U.S. policies and actions are assumed to be optimal in terms of American security interests in Asia and should not suppose that America is the only strong influence on the future security conditions in Asia.

Japan and China also influence the future in Asia, and their power in this regard may increase over time relative to that of the United States. The nature of the influence of each country is, however, quite different. We take Japan first.

Japan. The political and economic power of Japan is sufficient to guarantee that its objectives, policies, and actions will have strong effects on alignments and power balances in East Asia, especially in Northeast Asia; as Japan's military power grows—or becomes more apparent—the nation's influence on Asian security conditions can only increase. Currently, Japan's security policies are closely aligned with those of the United States, masking the influence of Japan on security conditions. But Japan's security influence is there, and will reinforce U.S. influence or become more prominent as an independent

force, depending on Japanese policies. Further, Japan's objectives, policies, and actions are likely to have important effects on the security objectives and policies of America, China, Korea, and—perhaps to a lesser extent—Russia, conditioning the policies of others, limiting them, or reinforcing them.

It seems clear that Japan will be an increasingly important determinant of future security conditions in Asia, but DoD planners face uncertainties in understanding how Japan's influence will affect U.S. security interests over the longer term. A major uncertainty is whether some combination of domestic Japanese trends and events external to the country will cause Japan to pursue foreign policies and security policies independently of America, or even in opposition to American interests. Japan has followed trade policies independently of the United States for some time, and it is only natural that it become more independent in the international political and security realms as the country becomes a global power. New generations of voters and of government officials are not as likely as past generations to view the U.S.-Japanese security arrangement as the linch-pin of all relations between the two countries. There is still deep suspicion about Russia, but this *raison d'etre* for the U.S.-Japanese mutual security treaty will recede, if not entirely disappear.[4] Whether Japanese interest in America as the balancer and stabilizer in Asia will provide a new foundation for the security relationship remains to be seen, but there are many reasons why Japan will be inclined to act more independently of America in future security matters.

Thus, the key uncertainty for Defense Department planners is whether Japan will continue to cooperate with America on security matters over the next several decades. Shrewd management by both governments probably can ensure there is no sharp break between the two countries in the near term, primarily because it is in neither side's interest to do so. The real danger is that conditions will change slowly, with Japan gradually becoming less dependent on America to protect Japan's security interests, while the forms of the mutual security arrangement are maintained. In these circumstances, the risk will increase that a crisis inside or outside Japan suddenly exposes the security relationship as an empty shell, resulting in a serious rupture between the two countries.

China. In contrast with Japan, China's influence on security conditions in Asia could easily be disruptive and destabilizing in this decade, as well as in the longer term. In Japan's case it would take major shocks which are not on the horizon to jar the country from its current globally interdependent and generally cooperative course. China is just the reverse: it operates on the fringes of the global economy, has not been noted for its cooperation with others on political, economic, or security matters, and probably faces major shocks in the forms of a difficult leadership succession, growing regional factionalism, and internal economic tensions that could bring down the Communist regime in the next decade or so.

While China currently has benign effects on Asian security conditions, its influence could grow in two ways, both of which would be disruptive and challenge U.S. interests. One form would be increased Chinese hostility and military aggressiveness toward its neighbors or toward America, backed by a military force with growing power-projection capabilities. A number of differences between China and the United States could contribute to increased tensions, including attitudes toward human rights, policies on arms sales, and the growing trade deficit. The other way in which China could affect security conditions would be through prolonged internal instability or even the breakdown of order, possibly accompanied by serious side effects such as loss of central control over military forces, civil war, military attempts by some of China's neighbors to impose order, seal borders, or take advantage, or other kinds of security crises. These two possibilities are not, of course, mutually exclusive, and complex combinations or sequences of the two could emerge.

Because of these potential problems, Chinese military trends bear close watching, but how China's military forces are used will depend largely on political conditions in the country, which in turn will be affected, perhaps strongly, by domestic economic conditions. Thus, the key uncertainties for DoD planning and assessments are political-economic in nature. The leadership succession is one of these uncertainties. Who will come to power, how long will the process take, what policies will the new leaders pursue, and will some degree of central control be maintained during or after the transition? Another major uncertainty is the future ability of China to act as a major power. Will the nation be a coherent political entity and grow stronger? Will there be a considerable

period of internal preoccupation that manages to avoid disintegration? Or will the political-economic gulf between different parts of China increase, resulting in dangerous instabilities? The third key uncertainty for DoD planners concerns the foreign and security policies of whatever regime or regimes hold power in China in the future.

Korea. Korea is not as pivotal as Japan or China in a geostrategic sense, but the North Korean nuclear weapons program, if not halted or countered, could result in major changes in political-military policy throughout Northeast Asia. Perhaps of even greater consequence in the longer term, the process of resolving the split between North and South and the outcome of this process is another determinant of how the future will unfold in Asia. Tensions are likely to remain high on the Korean peninsula, at least until the death of Kim il Sung, but current U.S. and South Korean strategy and forces probably are adequate to keep these tensions from exploding into major crises or another war.

Over the longer term, however, the process by which the two countries reunite or otherwise resolve their differences and the end result of this process will influence importantly the stability and political-economic health of Korea, the political, economic, and military relations between Korea and its neighbors, and the future relation between America and Korea. The broad possibilities are similar to those of China, but on a smaller scale and with less profound, but still important, consequences for security conditions in Northeast Asia. Assuming that improved economic conditions have high priority in North Korea after Kim il Sung's death, the prospects seem good for a long period of internal mending on the peninsula within a framework of global interdependence and support. But the course of reunification could be rocky, with prolonged turmoil, instabilities, or even civil war, and the potential to spill over into China, Russia, or Japan. On the other hand, successful reunification could combine the worst of the economic aggressiveness of the South with the military aggressiveness of the North, resulting in a Korea that perhaps by the turn of the century is a growing political, economic, and military problem in Northeast Asia. Any of these outcomes, but especially the last, could affect security objectives, policies, power balances, and alignments in Northeast Asia and create new possibilities for crises with Japan, China, Russia, and perhaps Taiwan.

The uncertainties that DoD planning and assessments must deal with concerning Korea are relatively narrow and focused, but are nevertheless difficult: How soon will serious efforts take place to resolve the differences between the two Koreas, and how long will this process take? How peaceful will the process be? What will be the political, economic, and military strengths and weaknesses of the Korea that emerges from this process? What will be the character of the new government and its economic, foreign, and security policies? How will North Korea's nuclear weapons program affect all of this?

Russia. The course of events in Russia will have their most profound effects on Europe and on America's global interests, but will influence Asian security conditions as well. A Russia that continues to be preoccupied with resolving its political, economic, and social problems and that does not disintegrate in the process is the most benign course, but one that probably will not last for long. The near-term dangers are disintegration or other less drastic forms of chaos that adversely affect Moscow's foreign policy and that undermine political coherence, creating problems for U.S. interests in the Far East. Examples might be civil war in Siberia, Japanese attempts to take advantage of Russian weakness by reclaiming disputed islands, or Chinese efforts to retake disputed territory along its border with Russia.

In the more distant future, if Russia succeeds in getting through its current period of troubles as a coherent political entity, it could become a stronger influence on security conditions in Asia by once again becoming a key political-military power there. This influence might support American security interests in Asia or it might not, depending on a number of factors. Among the uncertainties that will affect Russia's influence in Asia, both in the next decade and in the longer term, are the degree of political, economic, social, and territorial cohesion that Russia is able to maintain in trying to deal with its economic problems; what happens in the eastern part of Russia as Moscow is preoccupied with problems in the west; what policies Japan, China, and other countries in Asia pursue toward Russia during its current period of weakness; and—in the longer term—the political and economic health of Russia and what foreign and security policies it follows.

The final determinants of the future security environment in Asia that we judge to be important cut across the country-specific influences described above: the proliferation of powerful weapons, in particular the spread of NBC weapons and the participation of Asian countries in the military-technical revolution.

NBC Weapons. It is not clear that NBC weapons will prove to be a major influence on Asian security conditions over the span of the next three decades, but they have the potential to affect how the future unfolds in Asia, if only because of North Korea's current nuclear weapons program and the continued possibility of nuclear wars in South Asia. In theory, NBC weapons can affect security alignments, regional power balances, military capabilities, crisis behavior, and the propensity of countries like America to intervene in regional crises or wars. In practice, however, most Asian countries seem to perceive that they can solve their security problems in less provocative ways than by acquiring NBC weapons.

Even if additional Asian states had NBC weapons, it is not clear there would be much impact on security conditions. What kind of influence the further spread of these weapons in Asia would have and to what degree would depend on several factors, perhaps most importantly on the extent of global opposition to their use. NBC weapons acquisition could have sharp and immediate impacts on security conditions, as may be the case with North Korea; could have gradual, evolutionary, perhaps even stabilizing influence, as arguably has been the case with India and Pakistan; or may even prove to have little influence on security conditions, as seems to be the case with China and the United States since their rapprochement in the 1970s.

The uncertainties associated with the future influence of NBC-weapons proliferation on Asian security conditions include who may get these weapons in the future, how fast they may spread, how the possession of these weapons may be used by various countries to achieve security objectives, whether NBC weapons actually are employed anywhere in the world, and subsequent global reactions if they are so employed. Perhaps these weapons will prove to be a catalyst or precipitator of policies or actions determined by other, more

powerful, security influences in Asia, rather than a major determinant themselves of how the future actually unfolds in Asia.

Military-Technical Revolution. There seems little doubt that the military-technical revolution will have substantial influence on the military dimension of the future security environment in Asia, if not on the political-strategic dimension. Technology will change the nature of many forms of warfare in revolutionary ways over the next three decades. Of particular interest for DoD planning and assessments are opportunities the military-technical revolution may open for dealing with security problems in Asia and problems that may be posed by the participation of Asian countries in the military-technical revolution. For the purpose of anticipating such problems, it appears useful to group countries into three categories: those like America and Japan that are well into the information age and other advanced technologies; those like China, South Korea, Taiwan, and India that are at the early stage of advanced technologies; and those like North Korea that will find it difficult to acquire and use advanced technologies, but who can still pose a significant military threat. Russia, which has a substantial military capability and pockets of world-class military technologies, but has serious problems with converting advanced technology to usable military capabilities, falls somewhere between the first two categories.

As Asian countries in these categories participate in or react to the military-technical revolution, there will be direct effects on military capabilities and regional military balances over the next three decades. The more consequential effects of the military-technical revolution may, however, be indirect ones such as changes in the nature of warfare (e.g., the kinds of operations that are important, the intensity of wars, and their duration), the influence of the military-technical revolution on security relationships (e.g., the changing nature of alliances), and the impact on which military core competencies the United States should have.

The most obvious uncertainty here concerns how fully and how rapidly Asian countries that are in the early stages of advanced technologies will choose to or be able to participate in the military-technical revolution. Other less obvious uncertainties also are important for DoD planning and assessments, such as the future participation of Russia in the military-technical revolution and the

ways in which technologically backward countries like Vietnam or North Korea might seek to counter the more technologically advanced military capabilities of their adversaries.

3.4 MAJOR SECURITY ISSUES FOR DOD PLANNERS.

The foregoing analysis of the determinants of the future security environment in Asia contributes to applications of the contingency test bed by indicating the likelihood of various contingencies over time. It also suggests areas on which U.S. strategies for shaping future security conditions in Asia should focus. When we examine the determinants of future security conditions from the perspective of shaping these conditions, we see a direct translation of the determinants and their associated uncertainties into issues that should be of concern to DoD planners and assessors. Most of these issues do not represent immediate and pressing problems for America, but focusing U.S. strategy, planning, and assessments on them now may avoid major problems later.

Perhaps the most important issue concerns the U.S.-Japanese security relationship, because handling this matter correctly may avoid long-term security problems with Japan. The issue is how America should seek to change the security relationship from the current one in which Japan is a junior partner to one of equal partnership between the two countries. This change probably would not involve alterations to the Mutual Security Treaty, but it should adjust objectives, roles, and institutional arrangements in ways that accord with the post-cold-war security environment in Asia and that are robust in the face of future political-economic frictions that will arise periodically as Japan pursues a more independent course from America, but one that is still cooperative.[5]

Security issues related to China rank a close second to the one concerning Japan. One question that warrants consideration now is how to contain a China that grows both more powerful and more assertive in the 1990s, because there already are signs of this problem. A related issue is how to avoid or deal with major disputes over trade and export markets between China and Japan. The tensions and regional power instabilities that could result from high-stakes economic competition would not be in U.S. interests.

American strategy must also consider that China may go through a long period of political, economic, and social instabilities rather than acting as a powerful, coherent political entity. Instabilities in a large, centrally placed country like China can be dangerous for U.S. security interests, and DoD planners should address several issues in this regard. One is what the United States can do to influence the course and outcome of the leadership transition in China and other phenomena that could result in prolonged domestic instability. Recognizing that there may be little that America can do to prevent large-scale instabilities in China, DoD planners should also examine ways to keep such instabilities from resulting in security problems on China's periphery and elsewhere. A special concern in this case would be who controls China's nuclear weapons and how responsible these authorities were.

It is difficult to predict when serious, sustained movement toward Korean unification will begin, but the odds are that, when it does, events will move rapidly. Accordingly, it is not too early for DoD planners to be considering how America can influence both the process and the outcome of Korean unification, so that it does not become destabilizing in Northeast Asia.

Current U.S. strategy for Korea is focused primarily on avoiding North Korean attacks on South Korea by a desperate Kim il Sung in his last days or by a transition regime after his death. More attention should, however, be given to other possibilities as well. One is the political and economic collapse of North Korea, with dangerous local instabilities and perhaps efforts by South Korea to take control of the North. A more distant possibility with serious consequences for U.S. interests is unification that results in an economically and militarily powerful Korea which becomes a military competitor with its neighbors or which destabilizes the power balance in Northeast Asia by entering into alliances with some regional states against others.

An issue that preoccupied DoD planners during the Cold War and that once again is important is how best to maintain high inhibitions in Asian countries against using NBC weapons. At least three cases are of interest over the next several decades. One concerns crises or wars in which America confronts an NBC power like China or, possibly in the future, North Korea. A second case

involves crises or wars between NBC powers in which America is not directly engaged. Examples include fighting between India and China, Russia and China, or India and Pakistan. In addition to the immediate dangers associated with an NBC war, America should reinforce the principle that NBC states do not resolve disputes by using NBC weapons. The third important case is crises or wars between an NBC state and a non-NBC state in which America is not involved, but nevertheless wants to uphold the principle that NBC powers should not use such weapons to coerce other states.

As discussed in Section 3.3, the military-technical revolution will have both direct and indirect effects on U.S. security interests in Asia. DoD planners should be looking not only at how to take advantage of revolutionary technical opportunities, but also at how to influence the way Asian countries participate in the military-technical revolution. For example, the Defense Department needs to determine how it would like to see other countries utilize or not utilize advanced technologies in order to set specific regional objectives in this regard; it should examine how best to use means like arms transfer policies, joint technology programs, or technology transfer controls to achieve these goals; and it should determine the implications of military technology trends in Asia for U.S. force planning and force employment concepts.

China is an interesting case in this connection China's economic growth, the powerful bureaucratic position of the People's Liberation Army and its evident interest in new military technology after Operation Desert Storm, and China's growing assertiveness all suggest that the United States might have to contend with a future China that is a major participant in the military-technical revolution. On the other hand, China's rudimentary industrial, transportation, and communications infrastructure, the weak control of central authorities over PLA forces in the outlying regions, and the lack of PLA experience with large-scale combined-arms operations or system-of-systems concepts pose serious barriers to China in the military-technical revolution.

Faced with these problems, China—as it has done with its nuclear weapons and ballistic missile programs—may conduct its military-technical revolution in a distinctively Chinese way. China's leaders may choose to pursue a carefully targeted revolution in military capabilities, using its limited resources

and its best technological talent in highly selective ways to achieve major leaps forward in a few areas that increase its military competitiveness relative to America in important respects.

Even though conditions in Russia are one of the determinants of the future security environment in Asia, there is no distinctively Russian issue in Asia that should concern DoD planners now. More general U.S. government policies are directed at encouraging a Russian transition to democratic government and a market economy and at accelerating the disengagement and destruction of nuclear and chemical weapons. These policies include the Far Eastern part of Russia. Further, the challenges to American security interests that plausibly could arise from the Russian Far East in the next decade all concern countries like China or Japan trying to take advantage of Russia's weakness. These possibilities are covered by the issues related to Japan and China discussed above.

The final issue of major import for Defense Department long-range planning and assessments is how to determine U.S. interests, strategy, military missions, force concepts, force levels and mix, and force deployments for Asia when the foundations of the old national security construct in the region are seriously eroded and have not been replaced with a new base. We address this issue in the next chapter.

Endnotes

1. In a concept similar to the contingency test bed proposed here, Bolt, Beranek, and Newman, Inc., has designed a library of military simulation results and associated indexing and retrieval techniques that are intended to facilitate evaluation of candidate forces in a wide variety of combat contingencies. See Dr. Ben Wise, "A Framework for Evaluating Contingency Forces," *Phalanx* (September 1992), pp. 26–28 (UNCLASSIFIED).

2. See, for example, Jonathan D. Pollack and James A. Winnefeld, *U.S. Strategic Alternatives in a Changing Pacific*, Report R-3933-USCINCPAC (Santa Monica: RAND, June 1990)(UNCLASSIFIED).

3. Yasuhiro Nakasone and Lee Kuan Yew, *A Message from Asia to President Clinton* (Tokyo: International Institute for Global Peace, February 1993), p. 4 (UNCLASSIFIED).

4. On continued Japanese suspicion of Russia, see former prime minister Nakasone's plea for maintaining a substantial U.S. military presence in Asia because of the "potential threat from Russia," ibid., p. 2 (UNCLASSIFIED).

5. The academic literature only now is beginning to give attention to this issue. See Kishore Mahbubani, "Japan Adrift," *Foreign Policy*, no. 88 (Fall 1992), pp. 126–44, which argues that the erosion of the strategic foundation on which the U.S.-Japanese security relation rests has made Japan strategically insecure. See also Thomas U. Berger, "From Sword to Chrysanthemum: Japan's Culture of Anti-militarism," *International Security*, vol. 17, no. 4 (Spring 1993), pp. 119–50, which addresses the changing relationship more directly, calling for Japan, with U.S. assistance, to play a larger role in Asian security affairs and to create a more diverse network of institutional security ties that do not rely exclusively on America (UNCLASSIFIED).

SECTION 4

U.S. STRATEGIC INTENT AND ADAPTIVE STRATEGY FOR ASIA

The development of U.S. security objectives and strategies is a fundamental part of DoD long-range planning for Asia. Further, objectives and strategies are important for net assessment support to planning. First, assessments should evaluate objectives and strategies for their adequacy to secure U.S. interests. And second, objectives and strategies, once selected, determine the baseline of needed military capabilities—the *what* that the U.S. military will be expected to accomplish—against which net assessments should evaluate U.S. military forces, programs, and core competencies.

But DoD planners and assessors face a major difficulty when they try to define U.S. objectives and develop strategies in the context of the wide range of security challenges America could face in Asia over the next several decades. Statements of objectives and strategies tend either to be so general that they are of little value for planning and assessment purposes or to be detailed and precise, but so situation-specific that they do not serve the long-term purposes of strategic planning. In this chapter, we discuss the problems with defining U.S. objectives and developing strategies, then draw on business-planning concepts to introduce an approach for dealing with these problems, one built around the ideas of strategic intent, shaping the security environment, and adaptive strategies. We conclude the chapter with a description of the strategic intent and the strategy of influencing and adapting that seem to be emerging within the U.S. government.

When combined with the concept of a contingency test bed described in Chapter 3, the approach to objectives and strategies introduced here results in a strategic planning construct for Asian security affairs with the following constituents:

- The use of strategic intent rather than more specific objectives to describe America's long-range vision for the Asian security environment.

- Recognition that, in the new security environment, a mismatch between the decision timelines for strategies and those for forces cannot be avoided; U.S. strategies can and will change (i.e., adapt) much more quickly than can the capabilities of U.S. military forces. By definition, an adaptive strategy cannot spell out detailed strategy statements with any assurance that they will be valid for a long period of time. Thus, forces should not be designed to support specific strategies. However, the broad character of future U.S. forces—their size, mix, and general mission capabilities—should be consistent with the kinds of detailed strategies that are likely to emerge over time.

- Use of a contingency test bed to evaluate candidate strategies for achieving the U.S. strategic intent in Asia, as a way to search for a small number of serious alternative strategies that could emerge over time, singly, sequentially, or in other combinations, from an adaptive strategy. The U.S. adaptive strategy would then be defined as the envelope of these more detailed strategy alternatives.

- Design of a U.S. military force posture for Asia that, through a combination of robustness and timely adaptation, will support this collection of possible strategies. The contingency test bed is a valuable tool for this force design component of strategic planning.

4.1 PROBLEMS WITH DEFINING OBJECTIVES AND STRATEGIES.

Clarity of purpose is a prerequisite for developing successful strategies, and articulation of a clear strategy to achieve this purpose is essential for successful planning.

On the first point, not only should the government be clear in defining its foreign policy objectives, it should also ensure these objectives are mutually consistent, it should focus on those few objectives that are truly important in terms of U.S. interests, so that scarce resources and political capital are not wasted on secondary pursuits, and it should ensure that the chosen purposes are consistent with the means available to the country.[1] On the second

point, clearly defined strategies to achieve objectives are needed in order that force planners, operational planners, and those charged with implementing foreign policy can proceed effectively, consistently, and efficiently about their business.

Clarity of objectives and clarity of strategies are, of course, closely linked. A well-defined strategy is meaningless in the absence of well-defined objectives to be achieved with the strategy. Moreover, as observed by Glenn Kent and William Simons, higher-level strategies become lower-level objectives: "Outlining a . . . strategy . . . to attain stated goals at one level of organization simultaneously defines objectives to be achieved at the next level of implementation."[2] Kent and Simons set forth a method for relating future U.S. military mission capabilities and tasks to U.S. security objectives and strategies in a way that is similar in concept to the approach advanced in this report, but they do not address the systemic difficulties associated with defining clear objectives and strategies in the new security environment.

Defining a modest number of truly fundamental security objectives with enough specificity to be of value to planners, and concentrating strategies and resources on the achievement of these objectives, are difficult tasks, intellectually and politically. Hard choices must be made among conflicting demands upon the nation's resources, choices that sometimes may not be popular and that certainly will be challenged by political opponents. The consequences of alternative choices must be projected well into the future in order to understand which objectives are most important, and tradeoffs must be made among desirable goals that often are not totally consistent with one another. Because of these intrinsic difficulties, official statements of security objectives tend to be so general as to border on platitudes (e.g., promote democracy, foster world order). Or objectives are stated in more concrete, but situation-specific, terms that align with current political sentiments (e.g., resist aggression in Kuwait), but that are not reliable guides for long-range planning.

Even if the difficult job of defining a few truly fundamental U.S. security objectives and associated strategies is carried out and, even more remarkably, even if the job is done well, it would not be sound long-range planning to assume that, in today's fluid security environment, objectives and

strategies appropriate for the 1990s will remain valid for subsequent decades. The complexity and uncertainty of the security environment, combined with the rapid change that is now part of the environment, imply that U.S. security objectives and strategies should change over time as conditions change.

DoD strategic planners who concern themselves with Asia face these problems starkly. The cold-war objectives of containing communist expansion and deterring Soviet attacks no longer are relevant to America's security concerns in Asia, and the associated strategy of alliances, forward deployment of U.S. forces, and coalition warfare dominated by U.S. forces and planning may or may not be the correct one for the new security environment. As James Schlesinger recently noted:

> With the end of the Cold War U.S. foreign policy has lost its focus. A collection of well-meaning goals is not a satisfactory substitute. The United States will have to sort out and select its political objectives and the means it employs to achieve them far better than it has.[3]

It is, however, not sufficient to say, "Try harder." The processes of the U.S. government pose substantial barriers to the formulation of the kind of detailed security objectives and strategies the Defense Department needs for long-range planning. The determination of objectives and strategies is a slow political process that involves the White House, the State Department, the Defense Department, the Congress, and--increasingly--elements of the government concerned with both domestic and international economics. This determination is not solely, or even primarily, a DoD function, although the Department of Defense is the part of the government that probably has the greatest need for national objectives and strategy to guide its future planning. Further compounding these difficulties, when the government does arrive at specific security objectives and strategies, the ever-present risk of leaks is likely to inhibit dissemination of these details to planners throughout the Defense Department.[4]

The intellectual and political barriers to the formulation of objectives and strategies for Asia are not likely to be overcome in the near future by the force of events, the way that a series of crises with communist states stimulated America in the late 1940s and early 1950s to coalesce around a set of objectives

and a strategy for the Cold War. How, then, should DoD planners for Asia proceed, in light of this dilemma?

4.2 APPROACH TO THE PROBLEMS OF OBJECTIVES AND STRATEGIES.

The way out of the planning dilemma associated with objectives and strategies is to start from the premise that specific U.S. security objectives and strategies for Asia will change over time because the Asian security environment itself will change during the next several decades in ways that cannot be predicted reliably and in detail. Four concepts collectively provide a practical way for DoD strategic planners and net assessment analysts to work within the bounds of this condition: strategic intent, shaping the security environment, adaptive strategies, and use of the contingency test bed to evaluate candidate objectives and strategies. These concepts, which are discussed below, are drawn in part from business-planning practices for dealing with an uncertain and changing business environment.

Strategic Intent. This construct provides a way to deal with uncertainty about future U.S. security objectives while remaining rooted in enduring American interests in Asia. It is a broad thrust within which more situation-dependent objectives can be set at various times.

The idea of strategic intent was introduced into Western business-planning literature by Hamel and Prahalad in 1989 as part of the promotion of a new model of corporate strategy based on the experience of Japanese firms.[5] In the business context, *strategic intent* is an articulation of the firm's vision of its desired competitive position over the next ten or twenty years. It is stated in a way designed to lengthen the attention span of the organization, focusing it on broad future objectives while allowing for adaptation in the firm's short-term goals and strategies as it moves toward those objectives. In firms that have utilized the concept successfully, the articulation of strategic intent focuses the organization, motivates the employees, guides the allocation of resources, and establishes criteria to chart progress toward long-term goals, while encouraging flexibility and innovation in the more immediate steps taken to get there.

Examples of strategic intent in the business context are Canon's long-term objective of beating Xerox and Honda's intent to become an automotive pioneer, a second Ford Motor Company. Parallels can be found in government, such as John F. Kennedy's strategic intent for NASA of putting a man on the moon before the end of the 1960s and Ronald Reagan's vision of making ballistic missiles obsolete.

Translating this concept from the business world to that of security planning for Asia, we define *strategic intent* as a concise statement of America's dominant, long-range security vision for Asia, based on enduring U.S. interests in the region. By articulating a long-term vision that allows for a series of shorter-term, more detailed statements of U.S. security objectives and strategies for achieving that vision, the concept of strategic intent helps to solve the dilemma described in Section 4.1. The long-term vision indicates a broad direction for DoD planning and does not demand unrealistically detailed statements of national objectives from the American political process. But the concept also encourages the formulation of more specific, situation-dependent objectives and strategies that are consistent with the vision of America's strategic intent for Asia and that are appropriate for the specific challenges that America may face at particular times in the future.

We discuss America's current strategic intent for Asia in Section 4.3, but a brief review of past U.S. strategic intent is instructive both as an introduction to Section 4.3 and as an illustration of the concept. Through most of the nineteenth century America's strategic intent focused on trade and the consequences for U.S. interests of the expansion of European powers in Asia. U.S. strategic intent in this period aimed at an environment conducive to U.S. economic interests in Asia. Specific, situation-dependent objectives consistent with this intent included the goal of no European hegemony in parts of Asia important for U.S. interests, primarily East Asia.

Around the turn of the century a number of factors produced a stronger colonialist strain in American strategic intent for Asia; these factors included Mahanian influence on American strategic thinking, a general upsurge of American nationalism, strong public support for naval expansion, and growing interest on the part of U.S. businesses in assured markets and sources of raw

material in Asia. During the early part of the twentieth century, the situation-specific objective of no European hegemons in Asia became a key part of a broader U.S. strategic intent that encompassed national security, as well as economic, interests. This broader strategic intent was a vision of America as a major strategic influence in Asia, with that influence used to maintain stable power balances in East Asia, to preclude any state—Asian or European—from achieving hegemony in parts of Asia important for U.S. interests, and to sustain free trade. This strategic intent continued to guide U.S. policy in Asia for most of the twentieth century, even after the colonialist thrust of this policy abated.

More situation-specific U.S. objectives and strategies focused increasingly on Japan during the first half of the twentieth century. These included at various times the expansion of U.S. military bases in the Far East, diplomatic efforts to establish a balance of power in Northeast Asia, naval arms control in the 1920s and 1930s, and the use of armed force in World War II.

After the Second World War, America's strategic intent for Asia remained essentially unchanged, but the more specific objectives and strategies within the envelope of this strategic intent focused on the communist states of the Soviet Union, China, North Korea, and Vietnam. Situation-specific objectives included containment of communist expansion and deterrence of attacks on U.S. forces and allies; the strategies underwriting these objectives included alliances, forward-deployment of substantial numbers of U.S. forces, provision of an American nuclear umbrella, and, on occasion, armed intervention.

Summing up, strategic intent in the context of DoD strategic planning for Asia is a vision of the future toward which the United States would like to see Asia move over the next several decades in order to advance and protect U.S. interests. This concept supports DoD strategic planning in situations where there is no threat in the classic, cold-war sense, where challenges to America's security interests are as likely to be political or economic as they are to be military, and where these challenges may take forms that are new by cold-war standards, such as trade wars, prolonged instabilities in regional power balances, or unreliable security alignments between nations. Strategic intent differs from the long list of platitudinal objectives to which Schlesinger objects by being sufficiently focused and actionable to define an envelope of acceptable situation-

specific objectives and strategies, by providing criteria with which to chart progress toward the visionary state, and by supplying guidelines for sizing U.S. forces and allocating defense resources in the new security environment. But strategic intent differs from those more detailed and situation-specific objectives by remaining a valid basis for defense planning over several decades.

Shaping the Security Environment. Strategic planning should not only expand the Defense Department's understanding of future challenges, it should also highlight opportunities to avoid or mitigate these challenges. Traditionally, much of defense planning has approached the future passively, asking how the Department of Defense should be ready to respond to various contingencies that might arise. Some defense planning has, however, taken an activist approach, seeking to influence how future security conditions unfold. U.S. strategy for Asia should incorporate this activist approach as a fundamental way to bring the future security environment into accord with America's strategic intent, to the extent possible. Since there are limits on the degree to which the United States can influence future conditions in Asia, the concept of shaping the environment goes hand-in-hand with the notion of an adaptive strategy to deal with those challenges that do emerge.

The concept of shaping the security environment essentially entails avoiding, preventing, dissuading, mitigating, or eliminating. That is to say, *shaping the security environment* means avoiding potential security problems, primarily through cooperative efforts, or taking steps to prevent security challenges from becoming major problems by heading them off when they are small. If a challenge emerges despite U.S. efforts, then policies to shape the environment would be directed at dissuading adversaries from taking hostile actions, at mitigating the effects of inimical moves, or—in extreme circumstances—at eliminating the problem through such means as sanctions or military operations.

The constellation of avoiding, preventing, dissuading, mitigating, or eliminating incorporates a particular chronology: the time difference between U.S. actions to influence a potential challenge and the emergence of that challenge. Avoidance operates before a challenge actually emerges; prevention, dissuasion, mitigation, and elimination operate at successively longer times after

the appearance of a challenge. We do not, however, mean to imply that these measures to influence the security environment should be applied sequentially; while avoidance probably would be preferable in most cases, which types of measures actually were used would depend on the problem being addressed.

Measures to shape the security environment may follow one of two general approaches, or a combination of the two. One approach focuses on beneficial conditions by taking actions intended to bring about desirable change earlier than it would have happened or to introduce new conditions that would not otherwise have occurred. The other approach addresses potential problems by making unwanted change less likely or the consequences of undesirable change less damaging. Both approaches are reflected in the following examples, which are drawn from the cold-war period, since that is our primary source of historical lessons about how to influence future security conditions.

Avoidance can be illustrated with the example of America's extension of the deterrent effects of its nuclear forces and strategy to Western Europe and Japan, in part as a purposeful attempt to ensure that these countries saw no need to acquire their own nuclear weapons. Examples of preventing an embryonic challenge from becoming a serious problem are U.S. efforts during the 1970s to persuade Taiwan and South Korea to shut down their emerging nuclear weapons development programs. The formation of NATO and other alliances after World War II to counter communist expansion is an example of dissuasion, as is the forward stationing of American forces in Europe and Asia to deter attacks on U.S. allies. The Strategic Defense Initiative was set up in order to develop defenses that would mitigate the threat of foreign ballistic missiles. And, more recently, Operation Desert Storm eliminated the problem of Iraqi nuclear weapons, at least for a time.

Proposals for U.S. security strategy after the Cold War appear to be placing greater emphasis on influencing the security environment. Secretary of Defense Dick Cheney announced a regional strategy in the last days of the Bush administration that included shaping the future security environment as one of four underlying strategic concepts.[6] The idea was essentially the same as that recommended here, but Cheney's document did not discuss systematically the instruments that should be used to influence the environment. At about the same

time, Ashton Carter, William Perry, and John Steinbruner wrote a report advancing a concept of cooperative security whose central element was shaping the security environment.[7] This report did propose a number of instruments, focusing largely on diplomatic and arms control measures, and on international responses to aggression.

A wide variety of political, economic, and military means can be used to underwrite America's strategic intent in Asia. Political-economic instruments include measures aimed at shaping the security environment indirectly, through the reduction of basic causes of conflict by encouraging better forms of government in other countries and by contributing to improved economic, social, and environmental conditions. Political-economic measures also encompass efforts to influence the security environment directly, through alliance relationships; arms control efforts; nonproliferation regimes; arms transfer, technology transfer, and economic assistance actions designed to inhibit or facilitate a country's participation in the military-technical revolution, depending on how that country affects U.S. interests; and a variety of tension-reduction measures in specific situations.

Military instruments for influencing the security environment cover a wide range of possibilities. At one end of this spectrum are the examples America sets for others: unilateral restraint or reductions in weapon systems to encourage others to do the same; the preferences America shows for types of forces and operational concepts, which many other countries will try to emulate; and cautionary examples of swift, decisive military operations like Operation Desert Storm, which warn others to tread carefully where U.S. interests are concerned. Another class of military instruments includes measures intended to maintain regional power balances using means such as alliances, arms transfer policies, regional arms control efforts, security assistance, provision of intelligence information, training of foreign forces, operational planning support to the military staffs of other countries, logistics support, basing arrangements for American forces, and the forward stationing of U.S. military units. Credible U.S. threats to intervene in regional crises also can be a powerful way to influence the security environment, as can actual intervention that is designed not only to solve an immediate problem, but also to change the likelihood or character of future challenges. At the long-term end of this spectrum of military

instruments are the barriers to military competition with America that the size, capabilities, planning agility, and core competencies of the Department of Defense should pose to current or future adversaries.

Application of the foregoing instruments to realize U.S. strategic intent is a complicated process. Their use must be directed by a well-conceived adaptive strategy; observation, feedback, and modification of specific efforts to shape the future are essential; and the policies and efforts of a number of parts of the U.S. government must be coordinated—all this in ways directed at achieving major effects such as changing the ground rules of international security competition to favor the United States or exerting strong leverage on the course of future events in Asia.

While shaping the security environment is an important, indeed necessary, concept for dealing with the uncertainties of the future in Asia, it is a difficult undertaking with which the United States has had little experience. Past practice was focused primarily on alliances and nuclear deterrence to influence the Cold War; while these remain important instruments, their application in today's more fluid environment will be quite different than in the time of U.S.-Soviet competition. Moreover, the use of security assistance and foreign aid as means of influence has had mixed results, and the Defense Department's brief foray into competitive strategies was symptomatic of the problems defense planners and analysts face in trying to turn the concept of shaping the environment into a practical tool.

There are few techniques for determining the probable consequences of applying an instrument of influence or for deciding which are the best instruments to use for given regions and conditions. The framework discussed in this report and the contingency test bed introduced in Chapter 3 have the potential to improve these techniques, but more work is needed. Even with better planning methods, the flow of information among different parts of the government and the effectiveness and agility of multidepartmental government planning and execution processes must be improved. Moreover, problems of mindsets, if not cultures, must be overcome in order to shift planning bureaucracies from their current short-term, reactive view to one that takes a long-term, anticipatory, adaptive perspective.

Nevertheless, the gains will be worth the effort, and indeed—if America is to secure its interests in today's world—it is hard to see any other alternative than to make influencing the security environment a fundamental part of DoD and national strategic planning. The recent signs of interest in this approach among senior U.S. officials and advisors are encouraging.

Adaptive Strategies. An *adaptive strategy* is one that is designed explicitly to achieve U.S. strategic intent by changing the details of the strategy as needed to meet new conditions, problems, or opportunities. America's strategic intent for Asia should guide the overall direction of an adaptive strategy by providing a long-term vision of the future that the strategy should be designed to achieve. The broad thrust of an adaptive strategy should ensure that the objectives sought and the means available for securing U.S. interests in the region are consistent with one another, and that both the means and the ends are politically feasible—in both the long term and the short term. Within this broad thrust, an adaptive strategy would set more detailed objectives appropriate to specific concerns in Asia at specific times and apply political, economic, and military means to achieve these objectives.

An adaptive security strategy not only serves the purposes of the Department of Defense, it also helps focus national attention on political, economic, or military issues that need resolution in light of changing circumstances or on the failure of an existing strategy to produce results that are desirable from a national perspective. It further provides a means for DoD or national authorities to fashion a new strategy, based in part on options produced by the adaptive strategy process, should they judge that the current strategy no longer supports U.S. strategic intent in changing conditions.

An adaptive strategy should include the concept of shaping the future security environment as one of its components. This approach to strategy sets specific objectives for shaping the future, applies appropriate instruments to this end, and adapts as appropriate by changing these goals and instruments when new problems begin to emerge or when better ways to influence the future become practical. An adaptive strategy also hedges against the possible failure to shape the future by providing a variety of political, economic, and military options to

deal with challenges that may appear in the future, and by updating these options as appropriate over time.

The concept of shaping the environment helps solve the problem of devising a strategy for uncertain, complex, and changing security conditions by striving to reduce uncertainty about the future. The concept of adaptive strategies helps solve this problem by committing to specific objectives, policies, and actions only when enough is known about the future to make informed choices and by maintaining sufficient options that these commitments can be made in time to take effective action. Together, these concepts hold the prospects for an effective and affordable way to secure America's Asian interests in the new security environment.

An adaptive strategy is not the same as a reactive strategy. In an effort to take changing customer preferences more fully into account, some businesses have used a strategy of observing market conditions and attempting to react to changes faster than their competitors. This approach properly has been criticized on a number of counts, most importantly for not trying to influence the market or the actions of competitors. A truly adaptive strategy in business or national security does not cede the initiative to opponents. On the other hand, it is unrealistic to expect that a good strategy for today's security environment will remain good for the indefinite future. American security strategy for Asia should be designed to anticipate new conditions or problems, to observe early signs that they may be developing, and to adapt to these changes faster than can the strategies of adversaries.

More specifically, an adaptive strategy that embodies shaping the future security environment as a key element—as we recommend—would use political, economic, and military instruments in an effort to avoid or prevent security challenges from emerging. It would also maintain political, economic, and military options that could be activated in sufficient time to dissuade adversaries from taking hostile actions should efforts to avoid or prevent problems fail, to mitigate the effects of those hostile actions or challenges that occur despite America's best efforts, to eliminate problems when that is necessary and feasible, and in all cases to provide national authorities with a range of choices. To qualify as *adaptive*, a strategy should have several characteristics.

First, it should anticipate future security challenges in an effort to avoid them, to head them off before they become problems, or to deal effectively with them when they are still small. Second, an adaptive strategy should provide for feedback: observing the effects of U.S. policies and actions, and changing these policies or actions—or even the objectives toward which they are directed—as appropriate, based on observation. Finally, an adaptive strategy should maintain enough flexibility in U.S. forces, basing, command and control, intelligence, and support that America's military posture and mission capabilities can be adapted effectively to new combat conditions, to new challenges as they emerge, or to the changing views of U.S. national leadership.

To illustrate the concept of an adaptive strategy, consider the following hypothetical extension of America's current strategy toward China. U.S. strategic intent for China is part of America's more general vision of no hegemons in Asia, and the current strategy seeks to achieve this vision by promoting cooperative Chinese involvement in international political and economic processes. An adaptive framework can be built upon the base of this current strategy. For example, we could add the use of political and economic instruments and security guarantees to avoid or prevent situations in which Russia, a unified Korea, Japan, or India might form security alignments with China against the United States. At present this would be a muted part of the strategy, but it could be made more prominent in the future, if necessary.

Complementing the prevention of anti-American security alignments with China could be the use of economic and technological means and various forms of arms transfers and security assistance to maintain or increase the barriers to effective Chinese military competition with neighbors like Japan, Russia, Taiwan, or a unified Korea. This, too, would be a background part of the strategy now, but could become a more active component if current barriers to Chinese military competition began to erode or China began to move in the direction of overt military competition.

Even deeper in the background could be the policy of maintaining regional power balances so that China is not able to dominate militarily any neighbors that are important to American security interests. While no action would be taken along these lines now, the United States could study the problem

of maintaining regional power balances with China in order to be able to initiate appropriate actions in the future, should Chinese military developments threaten to destabilize current balances. The final element of this hypothetical adaptive strategy could hedge against the extreme problem of Chinese military attacks on countries that will be important for America's future interests, such as Taiwan, Korea, or Japan, possibly even Russia or India. At present, this part of the strategy would try to ensure that America's military core competencies were adequate to sustain, increase, or create the mission capabilities that could be needed over the next twenty or thirty years for effective U.S. intervention to counter Chinese attacks.

This outline of an adaptive strategy to preclude Chinese hegemony in Asia is focused on avoiding the problem primarily through political and economic policies, with provisions for military, political, and economic measures to prevent effective Chinese hegemonic moves, or to make them difficult to carry out, should Chinese leaders begin to exhibit such ambitions. The strategy also includes elements that could be activated to dissuade China from pursuing the most harmful moves in the event hegemony actually becomes a Chinese policy, or to mitigate the effects of these moves. Elimination of a hegemonic China would not be practical, so the strategy focuses on avoidance, prevention, dissuasion, and mitigation. Some elements of this strategy might never be called into play or might be needed only in the distant future, but they would receive enough attention now to ensure they could be activated in time to be effective, were they needed. Further, each element of the strategy would itself be implemented adaptively in the sense that the detailed objectives and means would be selected to suit the immediate problems and be changed as appropriate over time.

The Defense Department recognizes that planning under uncertainty requires options. To this end, recent DoD planning documents and studies are beginning to use the general idea of adaptive strategies and, in some cases, even the terminology, although not much has yet been done to develop truly adaptive strategies in any detail. The Cheney regional strategy document discussed above notes that "an unavoidable challenge for defense planners is that we must start development today of forces to counter threats still so distant into the future that they cannot be confidently predicted."[8] This DoD document also includes planning under uncertainty as one of its underlying strategic concepts, and

advances a strategy that has adaptive characteristics. Another indication of movement in the direction of adaptive strategies is a recent RAND study of America's national security strategy for the Asia-Pacific region. This study recommends a concept of "proportional engagement" that "assumes a future where the capacity to adapt and respond—including to radical or discontinuous scenarios that are not readily predictable at present—will be crucial."[9] This report recommends ways to make U.S. military forces more flexible in order to deal with a wide range of contingencies in which important American interests could be engaged.

While the concept of adaptive strategies seems a natural way to secure U.S. interests in the complex and uncertain security environment of Asia, much needs to be done to turn the concept into a practical way to marshal U.S. resources. The problems are both organizational and conceptual.

Organizationally, ways must be found to integrate the political, economic, and military instruments of the American state into a workable strategy. Further, the many means of determining what is going on in the world, including—but not limited to—intelligence collection and analysis, must be coupled into strategy execution in order to observe the effects of current U.S. objectives, policies, and actions and modify them based on feedback, an essential characteristic of an adaptive strategy. Finally, U.S. military forces and their weaponry, command and control, basing, and support must be structured and trained in ways that make them fully capable of adapting to new conditions and situations in time to be effective.

Conceptually, ways must be found to formulate and evaluate candidate adaptive strategies. The ideas of a contingency test bed discussed in Chapter 3 and of military core competencies addressed in Chapter 5 help to solve this problem.

Contingency Test Bed. To recap, the idea of strategic intent provides long-term direction for DoD planners and analysts in ways that avoid the traditional problems with strategic planning objectives. The general approach of seeking to shape future conditions in Asia provides a means to reduce the uncertainty associated with the security environment, and the concept of adaptive

strategies is a practical approach for dealing with the uncertainties that remain. The contingency test bed provides a systematic means for evaluating candidate objectives, strategies, and forces. Together, these concepts result in a strategic planning construct that is well matched to the new environment which DoD planners and analysts face.

The contingency test bed described in Chapter 3 is an essential part of this strategic planning construct for Asia. This wide-ranging set of plausible future political, economic, and military challenges to U.S. interests in Asia can be used to validate statements of strategic intent, to evaluate candidate adaptive strategies and proposed instruments for shaping the security environment, to set more detailed objectives and strategies in specific future situations, and to test candidate military forces for Asia. In these ways the contingency test bed is the bridge between theory and practice in the strategic planning approach advanced here.

Recall that the general method for applying the contingency test consists of five steps:[10]

- Formulate the candidate to be evaluated.
- Test the candidate for adequacy in relevant contingencies.
- Identify contingencies in which the candidate fails the adequacy tests.
- Ask whether it is satisfactory for the candidate to be inadequate in these contingencies.
- If the answer is "Yes," accept the candidate; if "No," revise the candidate and iterate the test-bed application.

For example, to use this general method for validating statements of U.S. strategic intent for Asia, we would test the candidate statements for relevancy to each contingency in the test bed, asking whether pursuing a particular strategic intent would adequately secure U.S. interests if that contingency occurred. For evaluating specific adaptive strategies, we would ask several questions when testing a candidate strategy in a given contingency: Is the

strategy material to that contingency? If so, would it provide for timely adaptation to avoid, mitigate, or deal effectively with the contingency? And would the financial and political costs of implementing the strategy be acceptable in light of the relevant contingencies? Similarly, specific candidate instruments for shaping the security environment could be evaluated and ranked in terms of their effectiveness and costs. In this case, we would inquire into the adequacy of candidate instruments for avoidance, prevention, dissuasion, mitigation, and elimination in the context of given contingencies. Use of the test bed to establish more specific objectives and strategies for particular times and places within the overall framework of America's strategic intent and adaptive strategy would follow the same general analytic lines.

Testing candidate force postures is more complicated in detail than the above, but similar in concept. To test candidate forces, a strategic intent and an adaptive strategy must first be specified. Then candidate force alternatives must be designed, each one consistent with the strategic intent and strategy, but differing in such important characteristics as size, cost, the mix of air, land, and sea forces, or the balance between forward deployment and stationing in the rear. Each candidate would be tested for relevance and gross effectiveness in each contingency; for relevant and important contingencies, there would be more detailed analysis of the military effectiveness of the candidate force, perhaps using the mini-assessment technique described in Appendix E.

Returning to the illustration of an adaptive strategy for avoiding, preventing, dissuading, or mitigating Chinese ambitions toward regional hegemony, the current strategy of using incentives and sanctions to involve China more fully in world affairs probably would prove deficient in an unacceptably large number of contingencies in the test bed. This strategy would be of questionable effectiveness in some contingencies and would leave America unprepared for others. The strategy outlined above, consisting of efforts to prevent anti-American security alignments with China, raising barriers to Chinese military competition with its neighbors, maintaining regional power balances, and hedging against the future need for U.S. intervention against China, would no doubt be effective in a larger number of contingencies. Interesting questions to explore with the test bed would be whether there were important

contingencies in which this strategy was not adequate and whether the fiscal and political costs of implementing the strategy would be acceptable.

We now turn from the theory of strategy to a description of the current U.S strategy for Asia, which is becoming increasingly adaptive.

4.3 THE EMERGING U.S. ADAPTIVE STRATEGY.

Policy documents from the last months of the Bush administration provide the most complete statements of America's strategic intent and adaptive strategy for Asia in the new security environment. The Clinton administration has not yet issued comparable documents, but initial White House and Pentagon statements, congressional testimony, and actions indicate that no serious departure from earlier U.S. Asian goals and strategy is contemplated. Similarly, while the Congress continues to press for more explicit links between U.S. strategy and the trends in U.S. forces, it seems not uncomfortable with the overall direction of America's security objectives and strategy for Asia.

U.S. Interests. The U.S. strategic intent and strategy ultimately should derive from U.S. interests in Asia, and indeed statements of interests and objectives often become confused with one another. *Interests* constitute the long-term reasons for U.S. involvement in Asian security affairs; *strategic intent* is the long-term vision for securing American interests in Asia. We should not be surprised if statements of the one bear a close resemblance to statements of the other.

U.S. policy documents describe four interests and relate them to more detailed security objectives:[11]

- Survival of the United States, with its fundamental values intact and its institutions and people secure.
- A healthy and growing U.S. economy.
- Healthy, cooperative relations with allies and friendly nations.

- A stable and secure world where political and economic freedom, human rights, and democratic institutions flourish.

Political, economic, and military conditions in Asia can influence these U.S. interests, and a growing number of Asian countries can affect America's interests, positively or negatively. Accordingly, extensive U.S. involvement in Asian affairs has seemed essential to most Americans since the late nineteenth century and will continue to do so.

U.S. Strategic Intent. White House and DoD policy documents do not set forth an explicit statement of the U.S. strategic intent for Asia, in the sense in which we use the term here. We can, however, derive the strategic intent from other statements, from broad policies, and from actual U.S. actions relative to Asia. For example, George Bush comes close to a statement of strategic intent in *National Security Strategy of the United States:* "The vision of the world to which the United States aspires is one of freedom, respect for human rights, free markets, and the rule of the law."[12] The Bush strategy document goes on to explain this vision in terms of four enduring objectives: global and regional stability; open, democratic, and representative political systems worldwide; an open international trading and economic system; and global faith in America's ability and willingness to lead collective responses to the world's crises.[13] In a chapter on the defense agenda, this document adds the strategic objective of precluding ". . . hostile nondemocratic powers from dominating regions critical to our interests."[14]

This White House national security strategy document does not address America's vision for Asia or other specific regions, but DoD policy documents establish strategic objectives for Asia that are similar to the global goals described above.[15] Drawing on these statements, as well as on historical U.S. policies and actions, we can state America's strategic intent for Asia as *continuing to be a major strategic influence in the region,* with that influence directed at four intertwined, enduring goals:

- Preserve or restore stability.
- Keep any nation or consortium of nations from dominating Asia or significant parts of the region.

- Be a major political force in Asian affairs.
- Promote free trade.

It might be argued that other long-term goals should be included in a statement of the U.S. strategic intent for Asia, such as increased U.S. access to Asian markets, freedom of the seas, or the ability to carry out a forward defense of the United States. To a certain extent, this is a matter of taste. In keeping with the idea that strategic intent is a *succinct* vision of the future, we include these more detailed goals as part of the statement of an adaptive strategy and its objectives. Moreover, some of these more specific goals, such as the ability to defend the United States far forward of its shores, may no longer be appropriate in the future. Accordingly, they should be included in the description of today's strategy, not permanently enshrined as part of the strategic intent.

America's Adaptive Security Strategy. U.S. security strategy for Asia and elsewhere clearly is moving in the direction of adaptivity. This is evident, for example, in the increasing number of references to uncertainty as a fundamental characteristic of the post-cold-war security environment, with the implied need for adaptivity. Policy statements such as the following now are common:

> We simply do not and cannot know all the challenges that will arise in the future.[16]
>
> It is certain that U.S. military forces will be called upon again, but predicting the time, place, and circumstances will be difficult . . . .[17]
>
> As we look 10 or more years into the future, confidence in our ability to predict political alignments and military requirements declines sharply. We simply cannot predict the future. Yet developing skilled military leaders and leading-edge weapon systems and equipment takes more than a decade, and decisions must be made now.[18]

Similarly, recent U.S. national security policy documents introduce the planning principles of adaptivity and influencing the security environment to deal with uncertainty about future conditions, though not always under those

names and not always tied together into a coherent strategic concept. Mr. Bush's national security strategy paper has two sections on influencing the future and talks of maintaining capabilities to surge defense production or to expand forces if needed in the future.[19] General Powell calls for "a more diverse, flexible strategy," and one of his force planning and employment concepts is adaptive planning intended to provide "a range of preplanned options, encompassing all the instruments of national power (diplomatic, political, economic, and military) to clearly demonstrate U.S. resolve, deter potential adversaries, and, if necessary, to deploy and employ force to fight and win, quickly and decisively."[20] Mr. Cheney's most recent DoD statements have sections on planning under uncertainty and shaping the future.[21] Further he argues that "flexibility to reduce the consequences of being wrong [about the future] must be built into . . . our current forces and programs."[22]

The statements and actions of the Clinton administration are consistent with this general trend toward an adaptive strategy, with priority attention to dealing with regional threats and instabilities and countering the continued proliferation of NBC weapons and their means of delivery.

While heading in the right direction, the emerging U.S. adaptive strategy has a long way to go in terms of truly adaptive security objectives, of actually implementing the concept of adaptivity, and of making the concept of influencing the future a practical element of strategy.

An adaptive strategy should set detailed objectives for specific regions and problems, objectives that could change in the future and that are consistent with America's strategic intent. However, detailed objectives for the emerging U.S. adaptive strategy do not, for the most part, fill this bill. Some are rooted in the Cold War (e.g., "Improve stability by pursuing equitable and verifiable arms control agreements [and] modernizing our strategic deterrent . . . .") and are becoming irrelevant to the real challenges now facing America.[23] Some are relevant, but take too narrow an approach to new problems (e.g., "Prevent the transfer of militarily critical technologies and resources to hostile countries or groups, especially the spread of chemical, biological, and nuclear weapons and associated high-technology means of delivery.").[24] And some are too general to be helpful in formulating specific strategies to avoid,

prevent, or mitigate problems (e.g., carry "our long-standing alliances into the new era" and build "common security arrangements to reduce the burden of defense for everyone").[25]

U.S. national security objectives, as currently stated, do not encompass such potential security challenges as a breach in the U.S.-Japanese security relationship, the possible need to intervene against a nuclear-armed North Korea, prolonged and serious instabilities in China, or the peaceful unification of the two Koreas under conditions that create new rivalries in Northeast Asia. The closest that any unclassified statement of objectives comes to addressing such challenges is the discussion of the Bush administration's five-fold agenda for Asia: maintain the U.S. status as a Pacific power, especially through the alliance with Japan; expand U.S. markets in Asia; watch the emergence of China onto the world stage, supporting, containing, or balancing its emergence as appropriate to protect U.S. interests; play a critical role in the peaceful unification of Korea; and encourage the normalization of Indochina.[26] But even this statement does not begin to cover the possible challenges in Asia that DoD strategic planning should address.

Perhaps the right kind of objectives are stated in classified documents to which we have not had access or are on the private agendas of appropriate DoD officials. But our review of DoD policy and planning documents and extensive discussions with Defense Department personnel show little evidence that adaptive strategy objectives are moving long-term planning and analysis in the right directions.

A second deficiency with the emerging adaptive strategy is that, while the rhetoric is coming into line with the new security conditions, specific concepts and procedures for implementing an adaptive strategy are still largely derived from the Cold War and are not adequate for the next several decades. The foundations of the current strategy are strategic deterrence and defense, forward presence, crisis response, and reconstitution, but explanations of these foundations have little adaptive content.[27] For example, no strategic measures of adaptivity are introduced to help evaluate the effectiveness of concepts to implement the emerging strategy. There are no indications of what methods

should be used to evaluate the strategy, its implementing concepts, or the associated U.S. military forces.[28]

Even with more concrete and proven concepts to implement the strategy, organizational changes must be made to improve the responsiveness of the combined political, economic, and military instruments of the U.S. government to new or changing challenges. Further, observation and feedback are essential for successful implementation of an adaptive strategy, and current U.S. government mechanisms for feedback to peacetime strategy execution are rudimentary and sluggish. There is, however, some movement on this front. For example, the intelligence feedback to military forces in Operations Desert Shield and Desert Storm set new standards for crisis and wartime operations. Defense Science Board summer studies in 1991 and 1992 made further recommendations to enhance feedback loops between intelligence and military forces in both contingency operations and peacetime efforts to counter the proliferation of NBC weapons.

The concept of adapting existing military forces to new contingency requirements rapidly and effectively is another essential part of an adaptive strategy. CINCLANT is experimenting with what he calls adaptive joint force packaging—joint force experiments such as deploying marine corps expeditionary forces or army helicopters on attack carriers—but in general much more needs to be done with organization, training, logistics, surveillance, and command and control to have truly adaptive forces.[29] Increased attention to the concept of military core competencies is another necessary step toward adaptive forces and mission capabilities, as discussed in Chapter 5.

The notion of shaping the future security environment is the most fully developed part of the emerging U.S. adaptive strategy, but even here considerably more needs to be done. Current policy documents focus primarily on cold-war means for shaping the future: alliances, arms control, deterrence of attacks, forward deployment of U.S. military forces, and export controls to prevent proliferation of NBC weapons. The government is pursuing some new initiatives appropriate to the post-cold-war environment, most notably assistance to the former Soviet republics to control and dismantle nuclear weapons, and coalition military operations through the United Nations to deal with regional

contingencies. There is, however, insufficient attention to less traditional ways to shape the security environment, such as arms transfer policies designed to maintain stable power balances, and the development or maintenance of military core competencies to pose high barriers to military competition with America.

Moreover, there is very little structure evident for effective use of either traditional or untraditional instruments to shape the environment. For example, there are few measures of effectiveness for evaluating alternative means to achieve desired influence or for charting progress toward goals; there seems to be no analysis of possible unintended, and undesirable, effects from efforts to influence the security environment; the provisions for observation and feedback, especially over a long period, are inadequate; and more needs to be done to direct efforts to shape the future at avoiding, preventing, or mitigating the full range of plausible challenges described in Chapter 3.

The need for adaptive strategies only arose seriously after the collapse of the Soviet Empire and the end of the Cold War, so it is natural that concepts, structures, and procedures for developing and implementing adaptive strategies are not yet in place. It is, however, disturbing that there is so little discussion of these needs and even less experimentation with practical ways to advance adaptive strategies. To cite but one example, the recent work by Carter, Perry, and Steinbruner on cooperative security, which accords a central role to shaping the future security environment is, in our view, wrong in recommending a major reduction in U.S. naval forces and greater U.S. reliance on the navies of allies involved in coalition operations.[30] This recommendation ignores America's need to sustain such military core competencies as antisubmarine warfare, undersea warfare, and carrier flight operations. This oversight illustrates a more fundamental problem with the current approach to adaptive strategies: it fails to take into account the close connection between U.S. military core competencies and the successful implementation of adaptive strategies.

Endnotes

1. For a recent critique of current U.S. foreign policy objectives in terms of these standards, see James Schlesinger, "Quest for a Post-Cold War Foreign Policy," *Foreign Affairs,* vol. 72, no. 1 (1993), pp. 18–28 (UNCLASSIFIED).

2. Glenn A. Kent and William E. Simons, *A Framework for Enhancing Operational Capabilities,* Report R-4043-AF (Santa Monica: RAND, 1991), p. 9 (UNCLASSIFIED).

3. Schlesinger, "Quest for a Post–Cold War Foreign Policy," p. 26 (UNCLASSIFIED).

4. The controversy resulting from the leak of a draft of the *Defense Planning Guidance* in early 1992 is an example of this problem. The draft guidance set as a DoD objective the prevention of any collection of friendly or unfriendly nations from competing with the United States for superpower status. The Defense Department was criticized both by countries who felt the goal was aimed at them and by domestic opponents of the administration who did not agree with objectives that implied America would act as the world's policeman. See "Lone Superpower Plan: Ammunition for Critics," *The New York Times* (March 10, 1992) (UNCLASSIFIED).

5. Gary Hamel and C. K. Prahalad, "Strategic Intent," *Harvard Business Review*, vol. 67, no. 3 (May–June 1989), pp. 63–76 (UNCLASSIFIED).

6. Secretary of Defense Dick Cheney, *Defense Strategy for the 1990s: The Regional Defense Strategy* (Washington: U.S. Department of Defense, January 1993), pp. 6–7 (UNCLASSIFIED).

7. Ashton B. Carter, William J. Perry, and John D. Steinbruner, *A New Concept of Cooperative Security* (Washington: The Brookings Institution, 1992). Perry and Carter are now senior officials in the Office of the Secretary of Defense (UNCLASSIFIED).

8. Cheney, *Defense Strategy for the 1990s,* p. 5 (UNCLASSIFIED).

9. James A. Winnefeld et al., *A New Strategy and Fewer Forces: The Pacific Dimension,* R-4089/2-USDP (Santa Monica: RAND, 1992), p. 32 (UNCLASSIFIED).

10. See section 3.1, pp. 63–64, for more details (UNCLASSIFIED).

11. Chairman of the Joint Chiefs of Staff Colin L. Powell, *National Military Strategy: 1992* (Washington: U.S. Department of Defense, 1992), p. 5. The interests cited in this 1992 JCS document were taken verbatim from President George Bush, *National Security Strategy of the United States* (Washington: The White House, August 1991). p. 3, which discusses twenty-one more detailed security objectives (UNCLASSIFIED).

12. President George Bush, *National Security Strategy of the United States* (Washington: The White House, January 1993), p. 3 (UNCLASSIFIED).

13. Ibid (UNCLASSIFIED).

14. Ibid, p. 13 (UNCLASSIFIED).

15. See, for example, Secretary of Defense Dick Cheney, *Annual Report to the President and the Congress* (Washington: U.S. Department of Defense, January 1993), pp. 8–9 (UNCLASSIFIED).

16. Bush, *National Security Strategy* (January 1993), p. ii (UNCLASSIFIED).

17. Powell, *National Military Strategy*, p. 4 (UNCLASSIFIED).

18. Cheney, *Annual Report*, p. 2 (UNCLASSIFIED).

19. Bush, *National Security Strategy* (January 1993), pp. 7–8, 15, 19–20 (UNCLASSIFIED).

20. Powell, *National Military Strategy*, pp. 1, 12 (UNCLASSIFIED).

21. Cheney, *Annual Report*, pp. 2–3, and *Defense Strategy for the 1990s*, pp. 5–7 (UNCLASSIFIED).

22. Cheney, *Defense Strategy for the 1990s*, p. 6 (UNCLASSIFIED).

23. Powell, *National Military Strategy*, p. 5 (UNCLASSIFIED).

24. Ibid (UNCLASSIFIED).

25. Cheney, *Annual Report* , p. 2 (UNCLASSIFIED).

26. Bush, *National Security Strategy* (January 1993), pp. 7–8 (UNCLASSIFIED).

27. Powell, *National Military Strategy*, pp. 6–8; Cheney, *Annual Report*, pp. 3–6; Cheney, *Defense Strategy for the 1990s*, pp. 11–18 (UNCLASSIFIED).

28. Two recent RAND studies carry out strategy and force evaluations in a small number of plausible future Asian contingencies. See Winnefeld et al., *A New Strategy and Fewer Forces*, and Jonathan D. Pollack and James A. Winnefeld, *U.S. Strategic Alternatives in a Changing Pacific*, Report R-3933-USCINCPAC (Santa Monica: RAND, June 1990) (UNCLASSIFIED).

29. On adaptive joint force packaging, see Barton Gellman, "A New Touch of Brown For the Blue-Water Navy," *The Washington Post National Weekly Edition* (April 12–18, 1993), p. 31 (UNCLASSIFIED).

30. Carter, Perry, and Steinbruner, *Cooperative Security*, pp. 26–27 (UNCLASSIFIED).

SECTION 5

MILITARY CORE COMPETENCIES

Not only are future U.S. objectives and strategy for Asia uncertain and subject to change, so are the military forces America will have for Asian contingencies over the next several decades, posing additional problems for DoD strategic planners and net assessment analysts seeking to evaluate the adequacy of future force capabilities. Moreover, forces and weapon systems are not the best units to use when addressing future U.S. military capabilities for an adaptive strategy, since planners and analysts should focus on the underlying American ability to adapt mission capabilities to new demands more rapidly and more effectively than can future adversaries. The concept of military core competencies, which is derived from business planning, provides a way to handle both problems.

The essence of the concept of core competencies, when applied to the military, is to focus strategies and planning across organizational lines on those strategically important things that the Defense Department does extremely well now and should be able to do extremely well in the future. This is in contrast to planning approaches that focus on organizational units: the military services, their forces, or their weapon systems in the case of the Department of Defense, or strategic business units in the case of firms.

In this chapter we define the concept of military core competencies and explain how it can help with strategic planning and net assessments. We then discuss problems with applying the concept and approaches to solving these problems. Following this theoretical material, we examine specific U.S. military core competencies, both current ones and those that may be needed to meet future challenges in Asia. We then briefly survey the military core competencies of some Asian countries, to illustrate how the concept can contribute to the assessment of the future capabilities of others. We conclude the chapter by evaluating the utility of the idea of military core competencies.

5.1 CONCEPT OF CORE COMPETENCIES.

The idea that the way to be successful in business is to acquire and sustain the right core competencies originated in Japan twenty years ago. It was, however, only in 1990 that C. K. Prahalad and Gary Hamel elevated it to a central, if controversial, position in Western management theory.[1]

The basic idea is that companies should identify what they do best and organize around these core competencies. Corporate strategy should no longer be based on products or markets, but on competencies that give a company access to several markets and that are difficult for competitors to imitate.[2] The fundamental point is that core competencies should permit a company to dominate a business area or areas for a long period by imposing standards or creating customer demands that favor that company over others; by enabling the firm to create tomorrow's competitive advantages faster than competitors can mimic the advantages the firm has today or can create their own; by making it very difficult for other firms to enter the company's markets; or by allowing the company to enter new markets in a commanding way.

Competencies are the collective learning of an organization. To be successful in today's business world, the competencies of a corporation should combine technology, manufacturing capabilities, the skills of the employees, the way in which the company is organized, and the firm's experience in business operations.

More is needed, however, in order to be *core*, in the sense described above. The case studies of Prahalad and Hamel imply that corporate core competencies should have several special characteristics. First, they should provide access to a wide variety of markets. For example, a competence in displays allows a company to operate in such diverse businesses as calculators, miniature TV sets, laptop computers, and automobile dashboards. Second, core competencies should make a significant contribution to the benefits that customers see in the company's end products. They should enable the company to add more value or to reduce costs more than its competitors can. Finally, core competencies should be difficult for competitors to imitate. This means that core competencies are complex, are path dependent (i.e., they are achieved through

unique, hard-to-replicate circumstances, employee contributions, and collective efforts), and take time to acquire.[3] Since rapid adaptivity is crucial in today's business environment, most core competencies involve the effective integration of those skills and capabilities that contribute to corporate agility: technologies, a flexible manufacturing base, an organization that facilitates innovation and adaptivity, and a high degree of employee empowerment.

The most successful firms these days understand and nurture their core competencies, have a long-term vision or strategic intent, build on their core competencies or create new ones as they pursue their strategic intent, and undertake specific business ventures as dictated by the opportunities that arise within this general envelope of vision and competencies. Japanese firms provide the most dramatic examples of success through concentration on core competencies. In the early 1970s, NEC decided to exploit the convergence of communications and computing, identified and acquired the necessary core competencies, and became a world leader in both telecommunications and semiconductors. Canon's core competencies in optics, imaging, and microprocessors have enabled it to dominate markets as diverse as copiers, cameras, and laser printers. Honda's core competencies in engines and power trains have given it powerful advantages in the automobile, motorcycle, lawn mower, and generator businesses.[4]

The case studies of Prahalad and Hamel also teach a negative lesson: core competencies can be lost or made irrelevant. Firms like GE, Motorola, and GTE got rid of their television businesses in the 1970s and 1980s, failing to see that they were closing out a whole stream of future business opportunities that depended on video-based competencies.[5] Or certain core competencies may be made irrelevant to future business conditions by global economic change or the technological innovation of competitors.

Robert Reich gives further insights into the nature of core competencies in his analysis of a new class of worker in the global economy, the symbolic analyst. He discusses the competitive advantages gained by those symbolic analysts who live and work in geographic centers of excellence such as the San Francisco Bay area and Boston (science and engineering), New York (finance), and Los Angeles (film making). Reich describes these "symbolic-

analyst zones" as areas of special competencies that cannot easily be duplicated elsewhere in the world because the cumulative shared learning of highly specialized groups cannot be transported readily, even though specific ideas or inventions of these groups can be. He further notes that each of these zones represents an intricate system of institutions and skills that has evolved over time, and that the informal communications of people working in these places facilitates innovation, giving them shared advantages that similar specialists working separately in other places find hard to overcome.[6]

Transfer of the Concept to Defense. There are evident analogies between core competencies in the business context and certain approaches to solving the problems that DoD planners face in Asia and elsewhere. The concept of institutionalizing advantages in ways that strengthen or sustain an organization's competitive position for a long period of time should be as attractive to the Defense Department as it is to Honda. The Department of Defense faces the question of how best to adapt and prevail in a time of uncertainty and change just as corporations do, and a strategic construct that facilitates adapting to new conditions faster and better than the adversaries or that enables barriers to be erected against new competitors should be valuable to the Department of Defense.

Of course, the analogy is not perfect. While there are parallels between the worlds of business and national security, ultimately even the most cutthroat companies operate under certain rules, and the stakes, though they may be high, are still only commercial; on the other hand, all is fair in war, and national survival may be at stake in the world of military affairs. Fighting power, not market forces, is the final arbiter of combat outcomes. And military core competencies may be peripheral to some of the challenges America could face in Asia over the next several decades, such as moving the U.S.-Japanese security relationship toward full and equal partnership, ensuring that Korean unification improves stability in Northeast Asia, or dealing with prolonged instabilities in China. Also, as discussed in Section 5.2, problems arise in both the business context and military affairs when one tries to use the concept of core competencies as a tool for planning and analysis.

Nevertheless, among the promising ideas that might be transferred from business planning to DoD planning, the most powerful is core competencies. Our research indicates that, when combined with the constructs of strategic intent, adaptive strategies, shaping the securing environment, and the contingency test bed, the idea of military core competencies can have substantial value for DoD long-range planning and the supporting analyses and assessments. This concept can improve DoD strategies and planning for Asia and elsewhere by:

- Helping to ensure that DoD operational capabilities and acquisition processes can adapt as rapidly as needed to changing security conditions and demands.

- Helping to ensure that, as it downsizes, the Department of Defense does not totally lose capabilities that it may need in the future.

- Providing one means to shape the future security environment through such approaches as posing high barriers to those who would compete militarily with America or with countries that are important for U.S. interests.

- Cutting across existing DoD organizational lines to help focus on total DoD competencies, thus promoting jointness, greater efficiency in using scarce resources, and greater military effectiveness at likely future budget levels.

Further, the concept of military core competencies can contribute to assessing long-term trends in the defense establishments of Asian countries, as discussed in Section 5.5. For example, prospective Chinese or Korean changes in military organizations, operational concepts, and capabilities through participation in the military-technical revolution can be assessed better by considering the military core competencies of these countries than by examining only their forces and weapon systems.

Turning, then, to application of the concept to DoD planning and analysis, we define *military core competencies* to be complex combinations of defense technologies, the defense industrial base, skilled manpower, training capabilities, organizational adaptivity, force employment doctrine, and

operational experience that permit the Defense Department to something of strategic importance extremely well. By "something of strategic importance" we mean a capability that is central for determining the outcome of confrontations or competitions with the United States, a capability in which America is number one or has the clear ability to become number one. By "core," we mean competencies that underlie a number of different missions and apply to a wide range of operational commands and military services of the Defense Department.

The core competencies of the Defense Department collectively form an infrastructure that links basic national resources like the science and technology base, industrial capabilities, and the American manpower pool to the ability of the Department of Defense in any particular time and place to carry out military missions that are important in the then-current security environment and to be better than other countries at these missions. In fact, both the essence of the definition of military core competencies and the most important function of these competencies is to permit the Defense Department to adapt its mission capabilities to the changing security environment more rapidly and more effectively than can adversaries of the United States.

Another important function of military core competencies is to serve as barriers that inhibit other countries from trying to mount military challenges to America. To serve as effective long-term barriers, U.S. military core competencies not only should be strategically important, they also should be difficult for other countries to acquire, counter, outflank, or catch up to. One way in which core competencies become entry barriers to competitors is through their path dependency: core competencies tend to result from operational experience and technological know-how accumulated over many years by specific individuals and organizations in specific circumstances. Examples are competencies in carrier air operations and nuclear force operations. In addition to making core competencies hard for other countries to replicate, their path-dependent character also means that, if the Defense Department were to lose some core competencies, they would be difficult, costly, and time consuming to reacquire. Accordingly, determination of those core competencies that should be sustained and those that can be allowed to atrophy is an important matter for DoD strategic planning in a period of budget and force reductions.

To summarize, military core competencies have the following characteristics:

- They are complex combinations of technological, production, and operational skills.
- They should enable the Department of Defense to stay number one in strategically important missions and, therefore, are key for determining the outcomes of military competitions, crises, or wars.
- They should influence the force postures, plans, and actions of current or potential adversaries by discouraging other countries from military competition with America or by imposing major costs on these countries if they do challenge the United States.
- They are fungible, applying to a wide range of military missions, operational commands, geographic environments, and types of warfare. Accordingly, many military core competencies cut across organizational lines.
- They result from path-dependent processes and are difficult to duplicate, counter, outflank, overtake, or reacquire.

Examples of current DoD core competencies include vertically integrated global and local surveillance, communications, and data fusion that can be focused on a specific theater of operations; high-capacity global mobility for air and ground forces; and the ability to sustain naval operations in distant areas. Some emerging DoD core competencies that will be key in the new Asian security environment are long reach with precision nonnuclear strikes and high-fidelity training capabilities. As discussed in more detail in Section 5.4, these and other military core competencies have enabled the Department of Defense to become the world leader in essential missions like air superiority and sea control and, properly managed, should enable America to stay ahead of others in missions that will be strategically important in the future.

Business analogies indicate that the value of the concept of military core competencies lies primarily in the way it can help the Defense Department

plan forces and operational capabilities in a period of declining budgets and uncertainty about future security conditions. Focusing plans, programs, and budgets in part on sustaining or developing core competencies that will be important in the future is far better than focusing only on forces or technologies, which are merely manifestations of the underlying core competencies. A planning approach that addresses core competencies in a fundamental way is more likely than other approaches to provide the essential means for shaping the future security environment, for adapting mission capabilities, and for staying ahead of military competitors, now and in the future.

5.2 RELATIONSHIP WITH OTHER PLANNING CONCEPTS.

It is instructive to contrast the concept of military core competencies with other planning constructs: technologies, forces, and military capabilities; military innovation; and the military-technical revolution.

Perhaps most obviously, military core competencies are related to, but not identical with, such concepts as critical technologies, weapon systems, military forces, military capabilities, military proficiencies, and mission capabilities. Taking each of these more traditional concepts in turn, critical technologies contribute to core competencies, but are not necessarily the dominant component of competencies. Adversaries can buy technology and can turn that technology into usable military capabilities, but they will find it hard to match America's military power unless they also have the integrated combinations of industrial base, skilled manpower, training capabilities, organizational genius, force employment doctrine, and operational experience that make up military core competencies.

Similarly, the technology and production aspects of core competencies are represented in specific weapon or sensor systems, but military core competencies involve not only hardware, but also the people who operate these systems, the ability to train these people to adapt effectively and quickly to new combat environments, and the doctrine and operational experience that turn weapons into a combat capability. By the same token, DoD core competencies are represented in military forces, but the forces embody only parts of the

competencies, such as training, doctrine, and operational experience, and do not include the technology and industrial components of competencies.

The concepts of military capabilities, proficiencies for certain military functions, and capabilities for specific missions come closer to the idea of core competencies, but competencies are different from the capabilities that exist at any given time, a distinction that is vital for understanding why adaptive strategies should pay close attention to core competencies. Military capabilities are the manifestation of military core competencies at a specific time in the form of fighting ability.

To see that capabilities are different from competencies, one need only note that the Defense Department can reduce military capabilities—i.e., the size of its forces or the number of its weapon systems—without necessarily reducing the core competencies that underlie these capabilities. Or, to take another kind of example, nations can have military capabilities without possessing underlying core competencies if they are willing to make sufficient investments in inefficient ways, and sometimes these military capabilities can threaten U.S. security interests. For instance, third-world nuclear weapons are a class of military capabilities that can exist without core competencies, or that may be based on core competencies which are rudimentary by U.S. standards. While nuclear weapons in the hands of such adversaries can pose significant security problems for America, the lack of adequate underlying core competencies means these adversaries will not be able to adapt their military capabilities to future needs as rapidly as the United States. Whether the inability to adapt as fast as America proves to be a serious impediment depends on many situation-specific factors, including America's strategy.

Military core competencies are the complete mosaic of technology, production, and operational skills, developed over many years, that allows America to increase its forces and military capabilities, to reconstitute a military mission capability if needed in the future, or to adapt its military capabilities to perform new missions (or old missions in different ways) as the security environment changes.[7] Uncertainty about future security conditions demands that American military forces be able to respond quickly and flexibly to unforeseen developments. The ability to do so depends on how well the Department of

Defense has created, improved, protected, adapted, and exploited its underlying advantages--its military core competencies.

Mission capabilities link core competencies to the security environment in the form of specific military forces, operational concepts and plans, training, and support in particular times and places. Just as a commercial business area is a combination of products and markets through which a firm's core competencies are sold, the military capabilities to perform certain missions are the means through which military core competencies are made operational.

Figure 5-1 illustrates this relationship between military core competencies and mission capabilities in the context of a U.S. strategic intent and adaptive strategy. America's strategic intent for Asia and the adaptive strategy to realize this intent imply that the Defense Department should be able to carry out certain military missions now, denoted as mission capabilities $a_1, a_2, \ldots, a_p$. Over time, as threats develop, alignments change, and security conditions evolve, U.S. strategy may call for some different missions, or different military capabilities will be needed to perform current missions that remain valid in the future. We denote these future mission capabilities $b_1, b_2, \ldots, b_q$ in Figure 5-1. America's military core competencies (labeled $C_1, C_2, \ldots, C_m$ in the illustration) should enable the Defense Department to adapt its capabilities in relevant missions to changing needs and challenges faster and better than adversaries. This is the real power and importance of core competencies as a DoD strategic-planning concept.

Core competencies are not rigid entities. They evolve or can be changed as a matter of policy, although they cannot change as fast as military capabilities should be able to. America may even find it useful to force change by introducing new military core competencies or by divesting itself of certain competencies in order to redirect resources at only the most important competencies or missions. Thus, as further illustrated in Figure 5-1, the military core competencies needed to underwrite America's strategic intent and adaptive strategy may change over a long period of time. The set of core competencies that turn out to be important in the future is denoted $D_1, D_2, \ldots, D_n$ in the figure. Even future core competencies, however, serve the key functions of

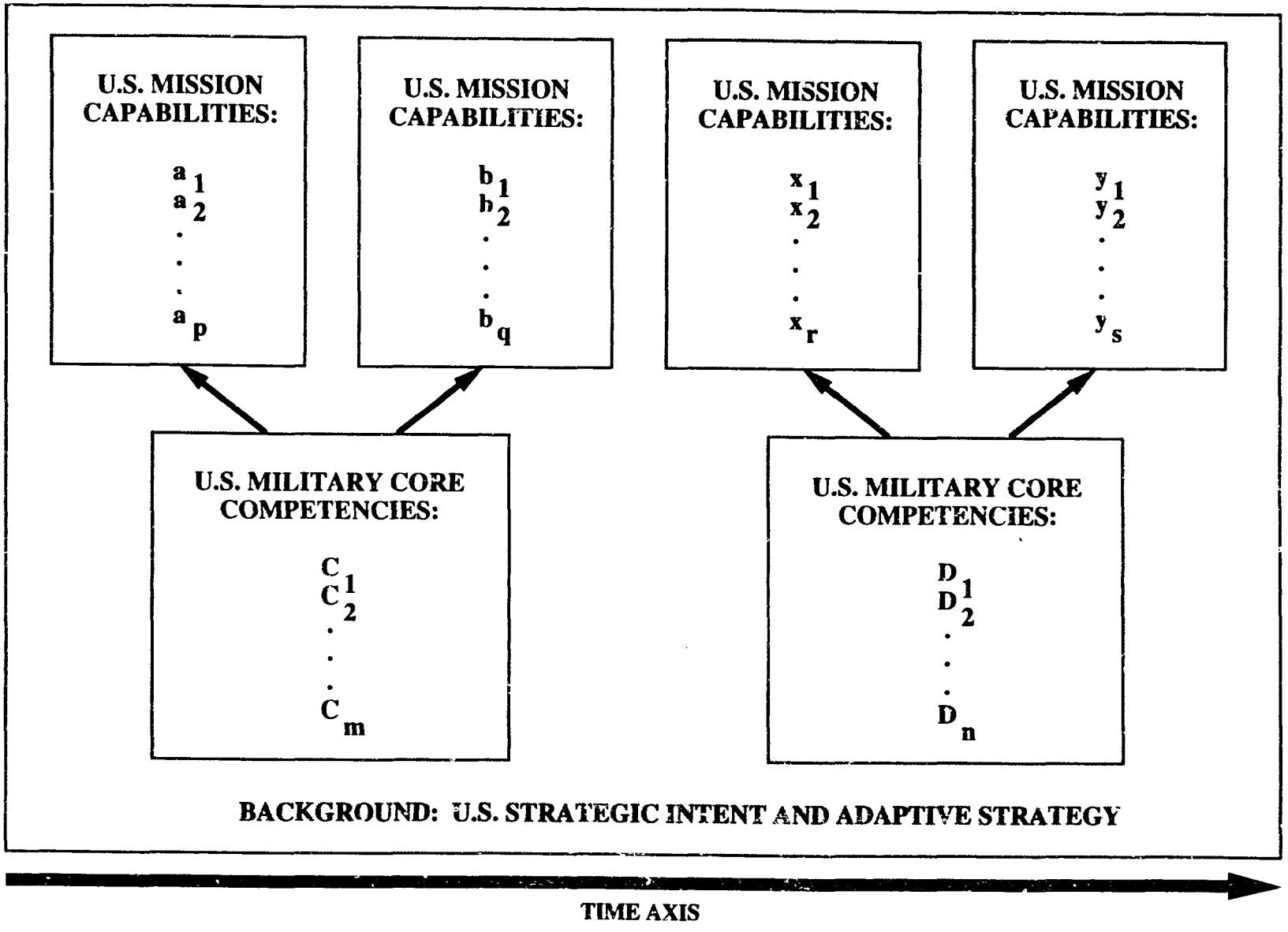

Figure 5-1. Relation between core competencies, mission capabilities, strategic intent, and adaptive strategy.

facilitating adaptation of U.S. mission capabilities and posing entry barriers to countries that may be tempted to challenge the United States.

While the relationship between military core competencies and military capabilities seems clear, that between core competencies and innovation is much less apparent. This relationship has not been studied in either the business literature or the military literature, but Stephen Peter Rosen's analysis of military innovation provides some hints.[8]

Innovation results in new missions and tasks, and if innovation has been successful these new missions and tasks will give the innovating nation important military advantages. Rosen concludes that the key ingredients of innovation are talented military people, adequate time to experiment with new concepts, and information, especially about the changing character of the security environment. Indeed, he notes that U.S. military innovation has been more closely linked to analyses of the anticipated security environment than to specific threats.[9] Talented officers and the ability of organizations to foresee the need for change may be components of core competencies, but military core competencies do not seem to have been necessary to produce the concepts associated with such innovations as amphibious warfare, carrier air operations, or helicopter mobility for ground forces. Having the right core competencies does, however, appear to be important to translate these concepts into missions and tasks—military capabilities—faster and better than other countries.

Thus, an important part of successful military innovation may be to change the existing set of core competencies in a military organization as innovations are implemented, adapting existing competencies to new conditions, creating new competencies, and shedding obsolete competencies, as illustrated in Figure 5-1. In contrast, organizations that cling stubbornly to obsolete core competencies probably will find themselves in trouble in the business world or in the national security arena. Unless organizations are tuned to change in their environments, existing core competencies may even inhibit innovation outside the framework that produced them.

Eliot Cohen and John Gooch shed further light on how existing core competencies may inhibit innovation. Their case studies of wartime failures show

that "institutional proclivities and inclinations" often result in military disasters when "organizational structures and habits" fail to match the challenges these organizations face.[10] Military organizations may do some things extremely well (the essence of core competencies), but clinging to these skills when they are irrelevant or, even worse, dysfunctional discourages innovation. On the other hand, changes in organizational structures can release underlying core competencies to respond more effectively to challenges, as illustrated by case studies of American antisubmarine warfare in 1942–43 and Israel Defense Force operations in 1973. In both instances military organizations learned quickly from initial failures, adapted to previously unanticipated conditions, and ultimately prevailed over their enemies, using the same forces, the same weapon systems, and in some cases the same people as had been involved in the initial failures.[11]

Cohen and Gooch conclude their study by recommending changes to improve the ability of military organizations to learn, to anticipate challenges before they occur, and to adapt to challenges and opportunities.[12] Focusing on which core competencies are needed for a changing security environment may help military organizations to increase their capabilities to learn, to anticipate, and to adapt.

One of the changes that is forcing the pace of military innovation in Asia and that will determine in part which core competencies will be important for the future is the military-technical revolution. Technology is changing the nature of warfare in revolutionary ways, opening possibilities as well for innovative changes in military organizations and operational concepts to enhance the effectiveness of technological applications. Of particular interest are opportunities the military-technical revolution may create for U.S. forces and problems that may be posed for U.S. forces by adversaries participating in the military-technical revolution.

This revolution has some influence on which core competencies will be important in the future, in three ways. First, since the Defense Department may need new military core competencies as a result of the military-technical revolution, or may need to modify existing competencies in significant ways, DoD strategic planning should determine what future U.S. military core competencies are implied by the military-technical revolution. Second, the

Department of Defense should recognize that the military core competencies it chooses to promote will affect the future development of the military-technical revolution in several ways: by setting examples that other countries may try to emulate, by taking certain directions in military capabilities that adversaries may try to counter or outflank, or by posing barriers to potential military competitors or to other challengers. Third, technological advances and the global spread of technology may make some military core competencies obsolete over time. DoD strategic planning should take account of all these possibilities associated with the military-technical revolution.

5.3 GAPS IN THE THEORY.

The modest business literature on core competencies is based entirely on case studies, and it clearly is easier to identify important core competencies in retrospect than to determine which ones are needed for future success. This is as true for the Defense Department as it is for corporations. Our experience on this project, buttressed by discussions with business school faculty members and corporate managers, indicates that several gaps in the concept of core competencies need to be filled before it can become fully useful for DoD strategic planning. But this is not a fatal flaw. In fact, analysis of these problems suggests approaches to resolving them that we took into account in developing the concept of military core competencies in Section 5.1 and in describing specific DoD core competencies in Section 5.4.

Four main problems need to be addressed in order to use the concept of core competencies in either business planning or DoD strategic planning: an inherent generality in the concept that makes it difficult for people to agree on which competencies are core; limited understanding about the proper granularity of core competencies and, therefore, about the number of competencies upon which DoD planners should focus; inadequate grasp of how organizations create or sustain core competencies; and the lack of theory or documented experience concerning how best to take advantage of core competencies.

Generality of the Concept. Important ideas derive their power in part from their applicability to a wide range of phenomena--that is, from their

generality. However, the generality of these ideas, especially when they are new, also can lead to disagreement over their specific applications. This seems to be the case with the concept of core competencies, which is of sufficient generality that it is difficult to achieve consensus when trying to identify specific core competencies.

This difficulty was illustrated by the 1992 summer study on DoD strategic management issues sponsored by OSD (Net Assessment). The study tried to assess the utility of the concept of core competencies for national security planning, but yielded inconclusive results, in part because the participants did not have a common image of what constitutes a military core competency. Some participants viewed the core competencies of the Department of Defense as very general and broad-based skills, such as the ability to manage across diverse and sometimes competing units of the Defense Department and the ability to link separate streams of high technology into an operational capability. Some took the view of this report that core competencies are complex combinations of technology, production capabilities, and operational skills that underlie more specific mission capabilities; examples include global surveillance capabilities and a high-capacity, worldwide logistics support capability. Still other summer-study participants equated core competencies with what we are calling mission capabilities in this report: air-to-air combat skills, defense suppression, battlefield medical care, and the like.

A necessary step in resolving the problem of reaching consensus within the Defense Department about core competencies is to develop rigorous definitions, as we have tried to do here, and apply them consistently. But rigorous terms are not sufficient. On a more fundamental plane, we should recognize there is an art to redefining how one should think about complex enterprises, especially if that redefinition is striving to stay ahead of an environment that is changing rapidly. A certain amount of experimentation with definitions should be tolerated and even encouraged; if the idea of military core competencies proves useful for DoD planning, consensus will emerge about the details.

The idea of military core competencies becomes more concrete when it is embedded in the right planning and analysis context and linked explicitly to

related concepts such as adaptive strategies, shaping the security environment, and strategic intent. It was only after one of the authors participated in the inconclusive summer study described above that we realized these related planning concepts were needed in order to understand and explain what military core competencies are and how they should be used in DoD planning. Reports like this one should, therefore, help to resolve the problem of achieving consensus about specific core competencies.

We should also recognize that which core competencies are most important for the Department of Defense changes over time, adding to the confusion about which DoD skills are core competencies. For example, some capabilities such as air defense once were the core competencies of a few military establishments. With time, however, air-defense technologies, production capabilities, and operational know-how spread to the point where they no longer constitute a core competency. Air defense is now a mission capability required by any military establishment that aspires to be a regional power, let alone a global power; air-defense mission capabilities are part of the entry price for playing in the modern military arena. Other skills such as electronic combat and aerospace systems integration constitute core competencies that now underlie the air-defense mission capabilities of the best military forces.

Granularity and the Number of Core Competencies. Another problem is achieving consensus on the proper level of detail—the granularity—with which military core competencies should be defined. For example, is *global surveillance* the right level of detail at which to define a core competency or should the competencies be defined in terms of more narrow capabilities that contribute to global surveillance, such as military satellite competencies, airborne surveillance competencies, data fusion competencies, and competencies in the high-speed transmission of large amounts of data? Since the finer the granularity, the larger the number of core competencies that must be considered, this question of the level of detail is directly related to the question of the appropriate number of military core competencies planners should use. This in turn relates to tractability, since the larger the number of core competencies, the more difficult it is for planners and analysts to use the concept.

Limited experience in the business world suggests that organizations can manage at most about a half-dozen core competencies. But the Department of Defense is not a single organization. It is a set of enterprises that spends several hundred billion dollars a year, conducts worldwide operations, and has great diversity in forces, activities, and technologies. Thus, while each enterprise may only be able to mange half-a-dozen core competencies, we should not be surprised to find several times that number in the Defense Department as a whole.

Further, the large size and diversity of the Department of Defense may dictate a substantial revision to commercial practice for the management of military core competencies. A nesting concept appears appropriate, in which at the top levels of the department core competencies are aggregated into a small number and at lower levels, where detailed decisions are made, a more richly populated framework of military core competencies embedded in the aggregated competencies is used.

Creating and Sustaining Core Competencies. There is little understanding of how to create or sustain core competencies. The limited business literature on core competencies addresses this problem only by example, and there is no military analysis of the question. Yet, the Defense Department needs, at the minimum, concepts and rules of thumb for the practical matters of creating new military core competencies in the future or preserving existing ones as budgets fall, operational tempos slow, the number of new weapon starts decreases, and the defense industrial base shrinks.

One approach to overcoming this lack of theory and data is to carry out historical case studies of how military establishments created new competencies like blitzkrieg panzer operations or carrier-based air capabilities. Similarly, case studies should determine how military competencies were sustained in periods of downsizing (e.g., U.S. Navy capabilities for distant operations between World Wars I and II). Case studies of how business core competencies have been created or sustained may also be of value to the Defense Department. More generally, historical analysis of the relation between core competencies and military or business innovation may also be helpful for understanding how to create or sustain competencies. The ability to innovate is

closely linked to the ability to stay ahead of competitors in either business or national security, and properly focused case studies of how organizations foster innovation may yield insights into how they create or preserve core competencies.

Exploiting Core Competencies. One of the important uses of military core competencies is to pose entry barriers that discourage other countries from military competition with America. But there is no theory or documented experience to help DoD planners know how best to use core competencies for this purpose. At the extreme, one might ask why other countries should be expected to recognize and be deterred by American military core competencies if we ourselves have trouble defining specific competencies for DoD planning purposes.

To some extent this issue may be a red herring, since U.S military core competencies are apparent to all countries at the most aggregated level, such as the awesome power of U.S. nuclear forces, or become manifest to all as a result of successful military operations like Desert Storm. Nevertheless, there still is a need for military and business case studies to understand better how to use military core competencies for posing entry barriers and otherwise shaping the security environment.

5.4 U.S. MILITARY CORE COMPETENCIES.

In order to support an adaptive strategy for Asia, DoD strategic planners and analysts need to do several things in applying the concept of core competencies:

- Have a practical appreciation of America's strategic intent and strategy for the region: the national interests, broad security objectives, and the kinds of operations the U.S. military could be asked to carry out.

- Understand what the Defense Department's current core competencies are that are relevant to the Asian security environment.

- Plan for protecting, improving, adapting, and exploiting America's current and future military core competencies.

- Seek to develop appropriate new competencies and to drop those that are obsolete.

Thus, over time, the Department of Defense should maintain and manage a portfolio of core competencies, investing and divesting as necessary when the security environment changes. In this section, we describe in first-order fashion what this portfolio should be for securing U.S. interests in Asia in the near future. We discuss existing DoD core competencies that are important in the Asian security environment, those that are emerging or are changing in important ways, core competencies that may be in danger of declining, and new core competencies that should be considered for development.[13]

We followed three steps to arrive at this portfolio of military core competencies for Asia. First, we reviewed the potential challenges to U.S. interests described in the contingency test bed of Chapter 3. Second, we determined what mission capabilities are likely to be most powerful for avoiding or dealing with these challenges for as far into the future as one can project. And third, using the distinguishing characteristics of military core competencies described in Section 5.1, we identified those competencies that would allow the United States to adapt these mission capabilities to changing conditions faster and better than can potential future adversaries in Asia.

We were only able to carry out these steps in a preliminary, indeed cursory, way, but even this work—more a *gedanken* experiment than a structured analysis—resulted in a rich portfolio that describes key DoD core competencies for the Asian security environment. But the portfolio may be incomplete, there may be core competencies that are marginal in terms of U.S. security interests in Asia, and the descriptions of the competencies in the portfolio surely can be expanded. DoD planners and analysts should carry out more detailed examinations to validate, refine, and extend our conclusions about U.S. military core competencies for Asia.

Table 5-1 summarizes this preliminary portfolio of U.S. military core competencies, which are discussed in more detail in the following pages.

Existing Core Competencies. Examination of a wide range of plausible Asian crises or wars in the context of America's strategic intent and emerging adaptive strategy indicates that any military operations the United States carried out in Asia over the next decade and perhaps longer probably would have several common characteristics. These operations would be conducted in places far from the United States, using forces based largely in the United States. They would be carried out in support of allies who provide the bulk of the ground forces. Except for Korea in the near term, large-scale U.S. ground-force operations in Asia seem unlikely. American authorities would place a high premium on achieving U.S. objectives quickly and decisively in these crises and wars. And some U.S. adversaries may have NBC weapons. The ability of American forces to prevail in crises or wars with these characteristics will not only secure U.S. interests in future Asian conflicts, it will also contribute to avoiding, preventing, dissuading, or mitigating security challenges in Asia.

Many of the existing core competencies of the Department of Defense are important for the mission capabilities likely to be needed in future Asian crises or wars. We describe these existing competencies in terms of the probable character of future U.S. military operations: conducted in distant places, in support of allies who provide most of the ground forces, seeking to achieve quick, decisive victory, and perhaps opposed by NBC weapons.

Several existing core competencies contribute to U.S. military capabilities to influence or respond to crises or wars in Asia using forces that for the most part are deployed in the United States in peacetime. These competencies include air and ground force mobility, naval operations, long-haul logistics, and the skills involved in forcible entry.

America has a competency in high-capacity, global mobility for air and ground forces that is unmatched by other countries. This core competency, together with the competence in distant naval operations, is the key to projection of U.S. military power into distant regions. Global mobility contributes to military force adaptivity and can in many cases allow American forces to stay

Table 5-1. U.S. military core competencies for Asia.

Existing Core Competencies

- High-capacity, global mobility for air and ground forces
- Sustained naval operations in distant areas
- Long-haul logistics support for military operations
- Capability for forcible entry
- Air warfare
- Undersea warfare
- Special operations
- Vertically integrated global and local surveillance, communications, and data fusion
- Military space systems and operations
- Operational military planning
- Nuclear forces and operations

Emerging or Changing Core Competencies

- Long-range precision strike
- High-fidelity training
- Defense against ballistic and cruise missiles
- Low-observables weapon systems
- Electronic combat

Core Competencies That May Be At Risk

- Some aerospace industrial competencies
- Nuclear weapons design, test, and production

New Core Competencies That Should Be Considered

- Major changes in intelligence competencies
- Information warfare
- U.S. government competency in shaping the security environment
- Force reconstitution

ahead of an opponent's timelines for hostile action. U.S. airlift and sealift capabilities and skills form the heart of this competency, but the organization, equipping, and training of U.S. air and ground forces to deploy rapidly and arrive as effective fighting units also are important components of the competency.

Global air and ground force mobility is a complex, path-dependent combination of technology, production, and operational skills that contributes importantly to determining the outcomes of military competitions, crises, and wars involving distant operations. It supports a number of air and ground missions in areas remote from the United States, involves all the services, and contributes to the effectiveness of most operational commands. Global mobility is critical for U.S. projection of military power and, as such, it poses entry barriers, discourages challenges to U.S. interests, and imposes costs on adversaries who are determined to challenge America in remote regions. Clearly, global mobility fits our definition of a military core competency, as do the other skills described in this section.

A second existing DoD core competency contributing to the capability to operate effectively in distant areas is the capacity for sustained naval operations in remote regions. This competency involves American carrier-based air, surface ships, submarines, and maritime patrol aircraft that provide an extensive range of warfighting capabilities; self-contained logistics support; and organic air, surface, and underwater surveillance. This capability for sustained, distant naval operations contributes to several missions, including sea control, antisubmarine warfare, strike warfare, air superiority, and amphibious warfare.

The DoD core competency in long-haul logistics also is critical for air and ground operations in distant areas and is unmatched by other countries. The sustainability provided by logistics support contributes in vital ways to the commander's freedom of action and the scope and pace of his operations. Several path-dependent technological, production, and operational skills involving all services contribute to America's military logistics competency: airlift, sealift, global communications and information support, the organization of logistics systems in the United States and in the field, and the design of U.S. military systems to facilitate field maintenance and support.

The capability for forcible entry—the ability to introduce U.S. military forces into enemy-controlled areas, over active enemy opposition—is another DoD core competency that is important for many kinds of distant crises and wars. This competency is distinct from the capacity for global air and ground force mobility. The latter involves the relatively rapid movement of large fighting units to distant areas, while forcible entry calls upon different skills to gain entry to enemy-held territory. Forcible entry can involve combat forces from all services, including amphibious, airborne, airmobile, and special operations forces. The competency includes technological developments in transport, fighting systems, and command, control, and surveillance; some specialized production skills; and experience in planning, training for, and conducting forcible entry.

Turning now to the second major characteristic of future crises or wars in Asia that involve U.S. forces, American military operations almost certainly will be conducted as part of a multinational coalition or in support of allies. In either case, it seems likely that the special U.S. excellence in air, naval, and special operations forces will be vital. Accordingly, existing DoD competencies in air warfare, undersea warfare, and special operations will be important in the future Asian security environment, in addition to those discussed above.

Air warfare is a good example of a core competency, since it involves much more than having first-line combat aircraft. It is a complex combination of aerospace technology, aerospace industrial base, technically skilled designers and program managers inside and outside the government, highly skilled pilots, operations planners, and support personnel, training capabilities for demanding operations, and the operational experience and know-how to carry out several thousand combat sorties a day on a sustained basis. The Defense Department's competency in air warfare involves all services, supports all unified and specified commands, and contributes to a wide variety of missions, including air defense, air superiority, close air support to ground forces, battlefield interdiction, and strike warfare. Air warfare systems include manned and unmanned aerial vehicles and cruise missiles, utilize a variety of offensive

and defensive munitions, and operate from bases ashore or from ships and submarines.

Undersea warfare is another good example of a core competency, one that involves distinctive skills and whose contributions to U.S. military capabilities in Asia is sufficiently different from those of other naval forces that it warrants its own category in this catalog of current DoD core competencies. We subsumed surface combatants and maritime patrol aircraft into the competency for sustained naval operations described above, to emphasize the ability of these forces to operate in remote areas, although these capabilities also contribute to undersea warfare. Carrier-based air forces share in the competencies for sustained, distant naval operations and for air warfare. In contrast, undersea warfare consists of those skills that allow the United States to dominate the undersea portion of the maritime environment; submarine operations and mine warfare are important parts of this competency. The capability for sustained naval operations in distant areas both contributes to and benefits from the undersea warfare core competency.

A number of distinctive technologies, industrial capabilities, and operational skills make up the undersea warfare competency, including the design and production of submarines, other underwater vehicles, active and passive sensors, torpedoes and other weapons, and nuclear propulsion plants; the integration of surveillance systems, undersea platforms, weapons, and other systems such as maritime patrol aircraft into an operational capability; and the operational experience and skills associated with submerged submarine operations that can last for months. The missions supported by the core competency in undersea warfare are shifting from those associated with countering the Soviet submarine force in open oceans and under the Arctic ice to shallow-water operations against the submarine forces of small and medium powers that are defending coastal regions. The ability to operate in a survivable mode for prolonged periods in enemy waters to collect intelligence or to launch ballistic or cruise missiles will continue to be important missions supported by the undersea warfare competency. Mine warfare, including countermine operations, is likely to be a more important mission than in the past.

As the navy cuts its submarine force in half, preservation of the core competency in undersea warfare may need more explicit attention that it has had in the past. For example, there is concern that America will lose distinctive submarine construction skills as new production drops to a rate of one per year or less.

We mentioned special operations capabilities earlier in this section in connection with forcible entry. But special operations is important for a much greater range of tasks than getting military forces onto enemy-held territory. The DoD core competency in rapidly deployable, worldwide special operations capabilities provides unique resources for low-intensity conflict and other unconventional threat situations, while also providing commanders with assets that can make major contributions to battlefield surveillance, intelligence collection, and strikes against key tactical and strategic targets.

An issue that needs more analysis is the relevance of the DoD core competency in large-scale, combined-arms ground warfare for future crises and wars in Asia. U.S. ground forces will continue to have key roles in Asia, and a number of core competencies associated with ground forces will remain important. We have mentioned global mobility, long-haul logistics, the capability for forcible entry, and the special operations capabilities of ground forces, and will discuss other core competencies associated with ground forces below, including electronic combat and high-fidelity training. However, as the need for U.S. troops in Korea declines over time, it seems unlikely that American ground forces would engage in large-scale, combined-arms operations in Asia. Accordingly, the DoD core competency in large-scale, combined-arms ground operations may increasingly become irrelevant in Asia, as may embedded competencies such as firepower domination of the land battle and high-speed ground combat maneuver.

U.S. ground forces fought three major wars in Asia, but only the Korean War involved extensive U.S. combined-arms ground operations. Land combat in Asia during World War II was primarily amphibious warfare; the Vietnam War chiefly involved infantry and jungle warfare, and special operations. In suggesting that the core competency for combined-arms land combat may become irrelevant for Asia, we assume that the policy established in

the mid-1970s that allies would be expected to provide the ground forces in future Asian wars will continue. On the other hand, this assumption may prove to be incorrect, or the American competency in combined-arms operations may remain important for such purposes as training allied ground forces. Further, other U.S. ground force competencies such as fire support or close combat may prove to be important for future challenges in Asia. The issue needs further analysis.

Considering the third likely characteristic of future crises or wars in Asia that involve American forces—an emphasis on quick, decisive victory—information, command and control, and operational planning aimed at achieving U.S. objectives as quickly and as decisively as possible will be of the utmost importance. Several existing DoD core competencies underlie U.S. command and control, information, and planning capabilities.

Operations Desert Shield and Desert Storm dramatically highlighted the importance of near-real-time information collection and dissemination systems for effective crisis management and combat operations, and helped to define the unique American core competency in combat information—a distinctive capability for vertically integrated global and local surveillance, communications, and data fusion that can be focused rapidly on a theater of operations virtually anywhere in the world. We characterize this combination of surveillance, communications, and data fusion capabilities as "vertically integrated" because it includes space-based, airborne, naval, and land systems at all levels of military organization, from national assets to those of tactical combat units, and includes the ability to use commercial telecommunications systems as well.

This information collection and management competency is critical for determining the outcome of crises or wars, and for the ability of the Department of Defense to deter challenges or otherwise shape the security environment. It contributes importantly to many air, naval, and land combat mission capabilities, including air superiority, sea control, air defense, special operations missions, and strike warfare. This competency depends heavily on the U.S. technological lead in such areas as microelectronics, sensors, telecommunications, and information systems, but is equally dependent on the

systems engineering talents and operational experience of a large number of military and civilian personnel who can integrate diverse systems into an impressive operational capability for combat information management and adapt this capability quickly to new military needs as crises develop throughout the globe.

Military space systems and operations form a key part of the core competency in information management, but U.S. capabilities in space go beyond information management and are of growing importance for many military missions. Therefore, we believe space should be highlighted as a distinct DoD core competency, one that is important for efforts to achieve U.S. objectives in crises or wars rapidly and decisively. The U.S. competency in the design, production, launch, and operation of space systems provides many kinds of support to the Department of Defense, its civilian and military leaders, and its combat commands: intelligence, surveillance, early warning, target acquisition, navigation, weather information, and geolocation. While a single unified command is responsible for military space operations, the DoD competency in space cuts across all the uniformed services, supports all operational commands, and underlies most military missions.

Operational military planning is another distinctive core competency that provides important advantages to the Defense Department, especially when there is a premium on achieving American crisis or combat objectives quickly and decisively. Any country that has military forces necessarily has some proficiency in military planning, but not all military establishments have the operational skills, training, experience, and know-how that permits American military staffs to plan large, complex campaigns that are effective against powerful and experienced opponents. This core competency deals with the U.S. military capability to plan at the national, theater, and component-commander levels, with appropriate provisions for effective command, control, communications, and information to support planning and its execution. The Defense Department's planning competency includes adaptive planning (the ability to provide a range of warfighting options for specific situations and to revise these options rapidly in a crisis), close integration of operations and intelligence at all organizational levels, increasing capabilities for automated

planning support (particularly for force deployment, logistics, and nuclear forces), and the use of computer simulations to aid operational planners.

The final characteristic of future Asian challenges that warrants attention in connection with military core competencies is the possibility that some U.S. opponents may have NBC weapons. China is an established nuclear power, India and Pakistan are believed to have nuclear weapons, and North Korea may have them in the next few years. Other Asian countries may acquire nuclear weapons in the future, and any number could be in a position to employ biological weapons during the next decade or two.

Supporting allies in crises or wars with adversaries who have NBC weapons would pose serious problems for America—a key reason why countering proliferation currently has high priority for the U.S. government. The spread of NBC weapons already is affecting the mission needs of U.S. military forces and will continue to do so. Since Iraq's Scud attacks during Operation Desert Storm, the Defense Department has been seeking improved capabilities for locating and destroying a regional enemy's NBC weapons and forces and for reducing the vulnerability of U.S. and allied forces to NBC attacks. Not only will the current emphasis on counterproliferation affect future DoD mission needs, it will also influence DoD needs for core competencies, as discussed below in connection with theater missile defense.

For the near future, however, U.S. nuclear weapons will remain an important means to deter and, if necessary, respond to nuclear—and perhaps biological—attacks by both established NBC powers and new ones. Consequently, America's core competency in nuclear forces and operations is relevant to Asian challenges, at least in the near term. It remains to be seen whether nonnuclear core competencies will supplant the nuclear core competency in dealing with NBC challenges over the long term, and herein lies a concern. As discussed below, U.S. competencies for nuclear weapons design, testing, and production are beginning to erode. Whether this will be a problem for America depends on how important U.S. nuclear weapons are for securing U.S. interests in the security environment of the next several decades, a question whose answer is not known at this time.

It is clear, however, that the nuclear operations competency centered in U.S. Strategic Command is important for Asian challenges in the 1990s. This core competency includes the safe, secure, responsive command and control of nuclear weapons and forces; the capability to operate nuclear forces effectively, particularly the difficult task of nuclear operations with manned bombers; and the targeting and mission-planning expertise of U.S. Strategic Command and its component forces. U.S. Strategic Command currently is examining how best to adapt its cold-war nuclear mission capabilities to the demands associated with regional crises or wars, drawing upon the DoD core competency in nuclear operations.

Emerging Core Competencies. Some core competencies that only began to emerge in the last five to ten years, or some existing ones that are changing in important ways, will be vital for securing U.S. interests against future challenges in Asia and elsewhere. These include competencies in long-range precision strike, high-fidelity training, defense against ballistic and cruise missiles, stealth weapon systems, and electronic combat. The first four are emerging core competencies; electronic combat is an established competency that is in the early stage of becoming part of a broader competency in information warfare. As with the established core competencies discussed in the foregoing section, each of the emerging or changing competencies is a complex combination of technology, production, and operational skills achieved through hard-to-replicate processes; most apply to several missions and they all have the potential to support most operational commands; they already are proving to be important for determining the outcomes of military competitions, crises, and wars, and thus pose entry barriers to potential Asian challengers and otherwise help America shape the future security environment in Asia.

The emerging DoD core competency in long-range precision strikes consists of the ability to attack targets at great distances, including intercontinental ranges, to achieve necessary damage objectives using nonnuclear weapons with high accuracy, and to do so with little or no unwanted damage to nearby facilities or people. The air campaign in Operation Desert Storm demonstrated the Defense Department's emerging competency to deliver laser-guided bombs with high accuracy, lethal effects, and low collateral damage. The trend is moving in the directions of carrying out such operations at much greater

ranges from operating bases and of using a wider variety of nonnuclear ordnance with great precision. Currently, this distinctive American competency resides in manned aircraft and cruise missiles, but in the future it will be extended to other unmanned vehicles and perhaps to ballistic missiles.

A number of impressive technologies allow America to be competent in long-range precision strike, but U.S. production capabilities and operational skills also are essential. Among the necessary operational skills are target intelligence, enroute and terminal navigation, surveillance, situation awareness, and mission planning.

The DoD core competency in long-range precision strikes increasingly will allow the United States to deliver highly accurate attacks at appropriate times on a sustained basis, over long distances, from secure bases, within exacting political constraints on collateral damage. This will provide America with additional advantages in Asian crises or wars, such as the ability to deliver strikes at a very early stage, before U.S. tactical forces are in place and before the enemy operation has developed to its fullest extent. This competency obviously will facilitate military operations in distant places, will enable early support to threatened allies, will contribute to achieving U.S. objectives quickly and decisively, and could contribute to countering the NBC weapons of future adversaries in Asia.

Training is an important component of all the DoD core competencies, but a unique American skill in high-fidelity training is beginning to emerge as a core competency that stands on its own. The Defense Department already conducts live training of air, naval, and ground forces on instrumented ranges that have a good degree of fidelity to combat operations. Notable are the facilities for ground forces at the National Training Center and for tactical air forces at Nellis Air Force Base and Fallon Naval Air Station. Both have dedicated, specially trained and equipped opposing forces and computerized evaluation systems that enhance learning through feedback.

What makes high-fidelity, interactive training a distinct core competency, one that currently is unique to America, is the growing use of simulation technology to replicate relevant combat conditions in training.

Simulation technology can extend high-fidelity training to many more operational forces, including joint forces, in a shorter time period and at lower cost than is possible with existing training ranges. This in turn will enhance the ability of U.S. forces to adapt quickly and effectively to new combat conditions, even to the point of rehearsing missions as crises develop. The distinctive contribution of the emerging core competency in high-fidelity training is the important, perhaps decisive, advantages it will provide to American combat units in their first encounters with the enemy.

The design, production, and operation of defenses against ballistic and cruise missiles is another emerging DoD core competency that will become increasingly important as more Asian countries acquire missiles. This competency currently consists primarily of technologies for defense against ballistic missiles threatening U.S. and allied military forces or allied civilian targets in regional conflicts. U.S. forces also have some operational skills developed through using Patriot for ballistic missile defense during the Iraq war. In the future, we expect to see stronger production and operational components against cruise missiles, since that threat will grow.

The DoD competency in stealth—the design, production, and employment of low-observables delivery systems and weapons—is still emerging, but it already has reached a mature plateau in manned aircraft with the deployment of the F-117 fighter-bomber and with the B-2 bomber now entering production. The commanding U.S. lead in stealth technologies, the associated production base, and the operational experience with low-observables aircraft provides America with important and growing advantages in wartime operations. Stealthy aircraft can operate virtually unimpeded by most air defense systems deployed today, and that advantage is likely to persist well into the future. The military implications of this revolutionary capability are only just beginning to be understood.

Electronic combat is an established DoD core competency that is vital for effective operation of nonstealthy aircraft in the face of enemy defenses. It clearly is relevant to a wide range of future challenges in Asia and facilitates not only air superiority, but naval and ground operations in defended areas, target location and acquisition, tactical intelligence, and strike warfare. The

reason that the competency in electronic combat is discussed here rather than in the previous section on existing core competencies is that it is changing in ways that contribute to deception operations and to operations against enemy command and control, elements of a larger competency in information warfare that does not exist now, but that will be important in the future. We treat information warfare in more detail below.

Core Competencies That May Be At Risk. Core competencies can be weakened or lost entirely, especially in periods of budget and force reductions. We use the term *weaker* to mean that adaptation of mission capabilities to new conditions takes longer if the core competencies that provide the primary support to these mission capabilities become weaker, or that the adaptation is less effective relative to the capabilities of adversaries. Competencies can even be lost, although not irrevocably for nations with resources such as those of America.

Two DoD core competencies that continue to be important for Asia may be at risk: certain aspects of the U.S. aerospace military design, production, and systems integration competency and the U.S. competency in nuclear weapons design, test, and production. Downsizing of the defense industrial base and trends in the nuclear weapons establishment such as the underground test moratorium and the lack of new nuclear weapon starts are affecting these areas. Since no one understands how much is enough to sustain core competencies, trends in the aerospace industrial sector and the nuclear weapons establishment and the effects of these trends on core competencies should be followed closely.

As the defense industrial base shrinks or assumes more of a dual-use character, important industrial competencies for the peculiar demands of military systems design, integration, and production may grow weaker or be lost. The number of new weapons starts or major upgrades of existing systems has slowed dramatically and is not likely to increase in the near future. This trend already is resulting in second, third, and fourth tier companies leaving the defense sector. These companies have unique design or production capabilities in such fields as rocket motors, ceramic chip carriers, optical coatings, and specialty materials.[14] Some prime contractors may leave the defense business; we already noted the concern about preserving America's industrial capability to build nuclear-

powered submarines. More generally, the performance required of military systems is more demanding in many ways than that of most commercial systems, and the generally commendable trend toward greater use of commercial components for military systems may unduly erode important defense industrial core competencies if care is not taken.

In the case of the U.S. core competency in nuclear weaponry, some erosion already is evident, and if present trends continue the competency to modernize the nuclear weapons stockpile could be seriously degraded by the end of the century. The nuclear weapons laboratories are seeking new technical challenges outside the field of nuclear weaponry, Congress has imposed a moratorium on nuclear-weapons testing, and nuclear-weapons production expertise will wither if no new programs are initiated. The issues are how important nuclear weapons modernization will be for securing U.S. interests in the future security environment and how quickly nuclear-weapons modernization capabilities could be reactivated after a period of inactivity.

New Core Competencies. Several new core competencies appear to be important for dealing adequately with the full range of Asian security challenges that plausibly could emerge over the next two or three decades. These new competencies pertain to intelligence, information warfare, shaping the future security environment, and force reconstitution. With one exception—force reconstitution—these new competencies would respond to broad trends in the security environment rather than hedge against a particular type of challenge that may or may not appear.

A major change in U.S. intelligence competencies is needed if America is to deal effectively with the new security environment in Asia and elsewhere. A new style of intelligence tasking, collection, and analysis is needed, one that is focused much more on a total assessment of political, economic, technological, and military conditions and evolving situations than on weapon systems. There are signs that the intelligence community is beginning to move in this direction, but the trend must be accelerated, must meet the strategic needs of the U.S. government, and must fit the budget constraints of the 1990s.

Among the characteristics of this new approach to intelligence should be an ability to track developments worldwide, to focus on a few countries in considerable depth when needed, and to shift this focus as rapidly as necessary to stay abreast of changing situations. Achieving these characteristics poses problems that demand new organizational competencies in the intelligence community. Tracking worldwide political, economic, technological, and military developments cannot be done in the same way the Soviet Union was watched. There are too many countries that can challenge U.S. interests in Asia to maintain the kind of data base on each that was kept on the USSR. New approaches are needed, such as the extensive use of open sources, perhaps enlisting organizations outside the intelligence community to help collect, monitor, and analyze open-source information. When events demand an in-depth focus on particular countries, the intelligence community will have to create relevant, detailed data bases on the key people, programs, military forces, and operational capabilities of those countries, quickly and on an all-source basis. Consequently, the intelligence community will have to become much more agile in order to shift its collection assets, processing capabilities (including translators), and analytic talents rapidly and effectively. Establishing static intelligence requirements of the cold-war type to guide intelligence community efforts will not work in the new security environment. The intelligence community must be able to adapt quickly to new tasking by the users of intelligence.

To help provide this needed agility, intelligence competencies should also move in the direction of close, continuous integration of intelligence tasking, collection, analysis, and dissemination with political-military efforts to avoid or deal with challenges in Asia and elsewhere. This probably will involve an interdisciplinary team approach in which intelligence experts work side by side with country specialists, technical experts, and military operations personnel in peace, crises, and wartime to address specific regional challenges. It also probably involves much more extensive sharing of intelligence information with other countries, international organizations, coalition forces, and the public than has been past practice.

Related to the need for major change in intelligence competencies is the need, increasingly recognized in the Defense Department, for a core competency in information warfare. The military-technical revolution is making

command and control the centerpiece of effective military campaigns and is creating the potential for countries with the right competencies to gain enormous military advantages by establishing information superiority at the outset of a war. *Information superiority* means denying information about one's own forces to the enemy or even deceiving the enemy about one's forces, plans, and strategy. It also means disrupting the enemy's C^3I so that no coherent enemy air defense, naval operations, or ground campaigns can be carried out, effectively canceling the enemy's ability to gain the initiative and control the war. Equally important, information superiority means determining where the enemy's forces are, understanding the implications of their patterns of operation, and developing all the information needed for success in one's own military campaign.

The United States should create a higher-order competency for information warfare by combining—or nesting—a number of existing, emerging, or new core competencies, including global surveillance, electronic combat, low-observables competencies, high-fidelity training skills, campaign-level military planning, and the new approach to intelligence discussed above.

The need for U.S. core competencies in a new, post-cold-war approach to intelligence and in information warfare seems clear. The Department of Defense and the intelligence community have recognized these needs and are beginning to move in these directions, although neither the intelligence community nor the Defense Department yet possesses the core competencies outlined above. The question of the need for the other two core competencies discussed here—shaping the future security environment and force reconstitution—is more problematic.

As we concluded in Chapter 4, efforts to shape the security environment in ways conducive to U.S. interests are a vital part of U.S. security strategy in the 1990s and beyond. Since political and economic instruments are at least as important as military means for this purpose, efforts to influence the security environment ideally should involve several government agencies, although the Defense Department can do much along these lines on its own. Orchestrating various government instruments to influence the security environment, monitoring the environment for the effects of these U.S. efforts, and redirecting ongoing efforts based on feedback is not, however, something

either the Defense Department or the U.S. government as a whole does very well. It certainly is not an existing or emerging American core competency.

Having a core competency in shaping the future security environment would serve U.S. strategic purposes, but it may not be feasible and assuredly would not be easy to attain. The issue is whether a concerted effort should be made to improve the institutional skills of the U.S. government for shaping the security environment or even whether such an effort should be launched within the Defense Department. The alternative is simply to make efforts to influence the environment a visible emphasis in U.S. security strategy and let the competencies emerge over time as an outgrowth. Given the primitive state of understanding about how states can influence the security environment and about how to create core competencies, the latter may be the best course.

Unlike the matter of competencies for shaping the environment, what to do in order to become competent in force reconstitution is generally understood, but it is not clear that reconstitution is sufficiently important at this time to warrant the effort. The ability to reconstitute a larger, more capable U.S. military force in time to match the emergence of a new global threat hedges against only a single type of contingency, one that seems unlikely now and that probably would take a decade or more to reach the status of a major threat if it did occur. This kind of force reconstitution capability essentially is a 1990s version of mobilization, which was an important U.S. core competency in World War II that now is dormant. On the other hand, selective reconstitution of military forces and parts of the defense industrial base may be needed in the next decade or two to deal with large regional conflicts. Preserving the ability to reconstitute a larger military capability should continue to receive attention as the Defense Department restructures the defense industrial base and the reserve forces, but special efforts to resurrect a general mobilization core competency in the government do not seem warranted.

5.5 MILITARY CORE COMPETENCIES OF ASIAN STATES.

Insight into the core competencies of one's business competitors can aid in understanding what their goals are and how easy or difficult it is for them

to achieve these goals. Similarly, studying the military core competencies of other countries can contribute to assessments of long-term military trends in Asia and to understanding the potential of various nations to challenge U.S. interests. We have not been able to examine foreign military core competencies in detail, but even brief review of a few countries—Japan, China, and Russia—illustrates the potential of the core competencies concept as an assessment or intelligence analysis tool.

The United States probably has the most insights into the core competencies of Japan as a result of the extensive Western literature on Japanese business competencies and the close political, military, and economic relations between the two countries. Japan already has an impressive track record of converting technology into modern military capabilities, although it has chosen to follow America's lead rather than make military innovations of its own. Its national competencies and infrastructure provide the enabling conditions for Japan to go as far and as fast in military applications of technology as is politically feasible. There are, however, structural barriers to integrating technologies into higher-level system-of-systems or campaign-level military capabilities, which Japan could overcome should the country decide it was important to do so.

Some of the Japanese core competencies relevant to military capabilities are the government's institutional ability to focus the country on strategic goals for a long period of time, a superb production base that could be applied to military systems far more than it currently is, and world-class competencies in electronics, computers, information technologies, materials, and manufacturing technology. Japan's wealth and its well-developed system of tapping into the latest American and other foreign technologies would facilitate application of these core competencies for national security purposes if the country decided to increase significantly its military capabilities.

If Japan made a concerted, independent effort to apply technology to military forces at a level well beyond its current activities, certain structural problems would for a time inhibit rapid progress, notably the weak domestic position of the Japan Defense Agency, the lack of experience since World War II with large-scale, combined-arms operations and the planning and execution of

complex military campaigns, the shortfalls in military logistics, and the limited systems integration capabilities in Japanese industry. But these barriers are historical legacies, not inherent defects. Japanese firms will become more proficient in systems integration over time; the other barriers to Japan becoming a major regional or global military power are fixed in place by domestic political opposition to greater military activity and could disappear with political change.

China has ambitions to be a major regional military power, but is seriously deficient in the relevant core competencies, contrasting sharply with Japan. Research is needed to improve U.S. understanding of China's military core competencies, but it seems clear that these include nuclear weaponry, ballistic missiles, and infantry operations. China may still retain the core competencies in small-unit tactical operations and in strategic deception that distinguished its performance in the Korean War, but we would guess that its competency in guerrilla warfare that was so important in the 1930s and 1940s has faded with disuse. On the national level, however, the government appears still to have a core competency for focusing talent and resources to make major improvements in a few select areas of military capabilities. It was this competency for focused programs that allowed China to become a nuclear power against all odds within a decade of starting a nuclear weapons development program in the late 1950s.

While it should concern the United States, the ability to focus talents and resources on a few major programs is not sufficient to give China a world-class fighting force. The country does not have military core competencies in many areas that are essential for modern combat, including air warfare, open-ocean naval operations, antisubmarine warfare, combined-arms ground combat at the campaign level, and the command and control, intelligence, and information competencies that are important for theater-level campaigns. China is devoting substantial effort to improving its capabilities in these areas, but the lack of appropriate core competencies is an impediment that will slow the country's progress.

Part of the problem lies in China's infrastructure. Its economy is growing strongly, and the People's Liberation Army appears to be benefiting from this growth, as well as from the hard currency it gains through overseas

arms sales. However, the country's communications and transportation infrastructure is antiquated; its electric-power network has not been able to keep pace with development, either in capacity or quality; the caliber of its manpower skills is uneven, with pockets of excellence in science, technology, manufacturing skills, and military abilities, but a long way to go in the overall quality of education and training of its 1.2 billion people; and China's manufacturing base, while encompassing most of the capabilities needed to support a modern military establishment, is not up to Western standards in quality or in large-scale production capabilities. These deficiencies in the infrastructure limit the technological and production components of China's military core competencies, and to some extent the operational component as well. Even China's long-established policy of favoring the defense sector with the best manpower, equipment, and technology has resulted in only a few weapon systems that meet current world standards of military capabilities; much of China's defense industry is unimpressive.[15]

To realize its ambition to become a major military power in Asia, China needs to modernize its military forces at three levels—individual weapon systems like fighter aircraft, system-of-systems capabilities like air superiority, and theater-level operations like power projection—and to develop the associated core competencies needed to achieve and sustain this modernization. Not only do China's infrastructure deficiencies impede development of needed core competencies, but political and organizational barriers also inhibit progress in this direction: China's policy of self-reliance in technology and production, rather than drawing extensively on foreign assistance; the dominance of the ground forces in the PLA, which impedes air and naval developments; the limited experience of today's PLA with large-scale, combined-arms operations and theater-level military campaigns; and the more general inertia inherent in China's extensive government bureaucracies.

Despite these problems, China's military capabilities would make a big difference in many situations. The large size of China's forces combined with the country's strategic depth make it difficult for outside powers to invade the country. Even though its weapon systems may not incorporate the latest Western technologies, China's arms sales have the potential to destabilize regional military balances. Its nuclear forces can reach Moscow, India, Japan, and the United

States. And its power projection capability, while rudimentary, is increasing and could cause problems for its neighbors in the future.

China no doubt will overcome at least some of the barriers to expanding its military core competencies and upgrading its force capabilities in the future. China is seeking Western technology, and the wealth and technical competence of the overseas Chinese—who are increasingly active in PRC affairs—will allow China to acquire technology more quickly than would be possible only through mainland China's resources. The skills and training of China's manpower probably will improve rapidly in coming years; improvements in the manufacturing base are likely to come more slowly. With the current PLA emphasis on combined arms, this proficiency will grow, at least for units below the division level, but—unless substantial changes are made in infrastructure, information systems, and the emphasis of PLA improvement programs—China is likely to face continued problems in developing competencies in complex system-of-systems operations (e.g., antisubmarine warfare) or theater-level campaigns that demand widespread skills in operational art. Similarly, although China's capability for open-ocean naval operations is likely to continue to grow, its navy is a long way from being able to sustain distant naval operations against serious opposition. Since core competencies affect the way that infrastructure, technology, and manpower are transformed into mission proficiencies, observation and analysis of China's military core competencies will help the Defense Department to forecast China's future military capabilities.

The military situation in Russia's Far East illustrates a different kind of situation: the way in which reductions in military capabilities can affect core competencies. Russian naval and air competencies in the Far East are declining to the point where it will take a major investment and a substantial period of time to rebuild.

A number of trends in Russia ultimately will affect the shape of the Russian military in the Far East and elsewhere, not only by diminishing current fighting capabilities, but also by depleting core competencies. These trends include the breakup of the Soviet Union, which has taken key bases, facilities, and other military infrastructure away from Russia; the disruption of the production of military supplies by privatization and inflation; and a sharp drop in the

manpower available to the Russian military. The Far Eastern part of Russia always was accorded lower resource priority than the Western districts and has been hit particularly hard by these changes.

Important naval industries have been lost to Russia: turbine construction, which was concentrated in the Ukraine; ASW weapons production, largely located in Kazakhstan and Kyrgyzstan; and navigation equipment, which mostly was built in Azerbaijan. Reduced budgets and shortages in personnel have so seriously cut the tempo of ship operations that combat training and even basic shipboard skills are deteriorating. Further, skilled shipyard workers are moving to other sectors of the economy, threatening Russian core competencies in the construction of submarines and surface combatants.

The whole complex of activities that support and maintain the competence of Russia's navy in the Far East is under stress. Competence depends upon experienced cadres, orderly accession of new, qualified personnel, training to bring new recruits up to standards, maintenance of a core of ships and combat equipment able to fight, operational tempos that permit training at sea, and the coherent management of all these elements in pursuit of combat readiness. The navy in the Far East is, however, less and less able to carry out these essential tasks. It is losing many of its most qualified midgrade officers. The pressures of a fragmented state, changed conscription tour lengths, and declining military requirements have led to an acute reduction in fleet personnel. With declining budgets, the navy has serious problems in providing food and housing, let alone spare parts, shipyard supplies, and training.

The result is a marked drop in the competencies of the Russian Pacific Ocean Fleet. In several areas, such as tactical air operations from aircraft carriers, multiple-ship task force operations, and the like, core competencies already are threatened, and these difficulties probably will multiply in the near future.

Although the difficulties of the Russian Far East Air Force and Air Defense Force are different in detail from those of the navy, these organizations also face serious erosion of core competencies. Aircraft availability is low, fuel and spare parts are in short supply, and pilot training—never high by American

standards—has dropped to almost zero. Air defense in depth is questionable because of gaps in early warning radar coverage that resulted from the breakup of the Soviet Union, the loss of seaward air-defense layers, reduced training of air-defense personnel, and the limited ability to provide mobile SAM and radar gap fillers in the difficult terrain and weather of the Far East. The current sale of combat aircraft for hard currency only makes these problems worse.

In summary, infrastructure support—including the defense industrial base and manpower available for military service—has deteriorated so radically that important military core competencies in Asiatic Russia (and to some extent elsewhere) are beginning to erode and may eventually be lost. Many shortfalls in pre-1989 Soviet Far Eastern military capabilities will be exacerbated by this trend. The Russian navy and air force in the Far East may have to be rebuilt virtually from scratch when the turmoil finally is over.[16]

5.6 EVALUATION OF THE CONCEPT OF MILITARY CORE COMPETENCIES.

Now that we have defined the concept of military core competencies, explained how it works, and illustrated its applications, we conclude the chapter with an evaluation of its utility for DoD planners and analysts. To recapitulate, military core competencies are complex combinations of technology, production capabilities, and operational know-how that underlie the more apparent combat capabilities of the United States and many other countries; they are a military-industrial-scientific infrastructure that links more basic national resources to the mission capabilities of military organizations. Military core competencies that are appropriate to the security environment allow the nations having them to adapt their mission capabilities to changing conditions faster and better than countries that do not have the right competencies.

The concept is an elusive one, consisting as it does of hard-to-measure entities like the knowledge and experience of organizations involved in defense research, development, production, planning, and operations. It is, however, no more elusive than other, more familiar, DoD planning concepts like national security objectives, adaptive planning, and competitive strategies. These

concepts have proved to be valuable for looking at old problems from new perspectives, and the insights from these new perspectives eventually were incorporated into DoD planning and analysis concepts, even though in some cases—competitive strategies is a notable example—attempts to institutionalize new approaches to planning came to nought.

The idea of military core competencies probably is too indistinct to become central to formal DoD planning processes, but it captures a reality that is part of American national security capabilities, a reality that is particularly important in today's uncertain and changing security environment. There are two reasons the concept of military core competencies should be among the intellectual tools used by DoD planners and analysts. The first is the added perspective the concept gives to planners and analysts by encouraging them to focus on the infrastructure that facilitates mission change, on the need to stay ahead of other countries in relevant mission capabilities, and on the need to understand what most effectively facilitates changes in mission capabilities. As new security challenges arise and U.S. adversaries become more powerful, the ability of the Defense Department to change mission capabilities faster and better than other military establishments will be essential to an effective adaptive strategy. The idea of military core competencies gives planners and analysts a vocabulary for exploring and debating such issues.

Already one can see military core competencies facilitating changes in U.S. mission capabilities for antisubmarine warfare and air warfare. In the first case, the U.S. Navy's core competencies are helping it to transition from an open-ocean mission against Soviet submarines to coastal operations against submarines defending the littorals of small and medium powers. Similarly, in the case of air warfare, the core competencies of the air force and the navy are underwriting a shift to longer-range strike mission capabilities that involve more stealth and that are beginning to integrate unmanned RPVs and cruise missiles into operations with manned aircraft.

The second major value of the concept of military core competencies is that it can make DoD planners and analysts sensitive to the possibilities of eroding or losing important competencies. As budgets continue to decline, the force structure gets smaller, and the defense industrial base shrinks, the concept

encourages planners and analysts to consider which competencies are most important for the future and how best to preserve them.

While core competencies have an important role in DoD processes, they are not the solution to every problem the Defense Department faces. Having the right core competencies does not guarantee victory, either in business or in national security affairs, but it does confer important advantages. Similarly, having the right strategic intent or adaptive strategy does not guarantee that America will prevail in the Asian security environment. Opponents may have greater advantages than America in specific situations or may simply be lucky; external conditions may make some challenges too hard to deal with. Nevertheless, focusing U.S. resources on the right goals and pursuing the best strategy is more likely to secure U.S. interests than is being unfocused or using the wrong strategy.

Similarly, having military core competencies that are central for the challenges likely to emerge in the future security environment will provide key advantages to America as it implements an adaptive strategy in pursuit of its strategic intent. North Vietnam had a core competency in jungle warfare that was unmatched. U.S. military competencies in jungle warfare were inferior to those of North Vietnam, and as a consequence the North Vietnamese were able to adapt their mission capabilities faster and better than America to the changing conditions the United States sought to impose on the Vietnam War. For success in carrying out America's strategy in the future Asian security environment, DoD planners and analysts should determine which military core competencies are likely to be most important and cultivate them.

Endnotes

1. C. K. Prahalad and Gary Hamel, "The Core Competence of the Corporation," *Harvard Business Review*, vol. 68, no. 3 (May–June 1990), pp. 79–91. *Business Week* recently stated that Prahalad "may well be the most influential thinker on corporate strategy today." See "Management's New Gurus," *Business Week* (August 31, 1992), p. 52 (UNCLASSIED).

2. "Management's New Gurus," p. 45 (UNCLASSIFIED).

3. Prahalad and Hamel, "Core Competence of the Corporation," pp. 83–84 (UNCLASSIFIED).

4. Ibid., pp. 79–80, 83 (UNCLASSIFIED).

5. Ibid., pp. 84–85 (UNCLASSIFIED).

6. Robert B. Reich, *The Work of Nations: Preparing Ourselves for 21st-Century Capitalism* (New York: Knopf, 1991), chap. 19, pp. 234–40; see especially pp. 234–36. Page numbers refer to the Vintage Books paperback edition (UNCLASSIFIED).

7. Reconstitution of a global warfighting capability on the cold-war scale is one of the foundations of the military strategy of the Joint Chiefs of Staff. See Chairman of the Joint Chiefs of Staff Colin L. Powell, *The National Military Strategy: 1992* (Washington: U.S. Department of Defense, 1992), pp. 7–8 (UNCLASSIFIED).

8. Stephen Peter Rosen, *Winning the Next War: Innovation and the Modern Military* (Ithaca, N.Y.: Cornell University Press, 1991) (UNCLASSIFIED).

9. Ibid., pp. 252–54 (UNCLASSIFIED).

10. Eliot A. Cohen and John Gooch, *Military Misfortunes: The Anatomy of Failure in War* (New York: Vintage Books, 1991), p. 232 (UNCLASSIFIED).

11. Ibid., pp. 59–94 and 95–131 (UNCLASSIFIED).

12. Ibid., pp. 233–43 (UNCLASSIFIED).

13. The recent DoD regional defense strategy statement discusses military core competencies needed for the new security environment, but in more general terms than the portfolio described here. See Secretary of Defense Dick Cheney, *Defense Strategy for the 1990s: The Regional Defense Strategy* (Washington: U.S. Department of Defense, January 1993), pp. 10–18. Our portfolio is consistent with the core competencies described in Cheney's strategy document (UNCLASSIFIED).

14. Norman R. Augustine, "Regarding the Equipping of Our Military Forces" (testimony before the Committee on the Armed Services, U.S. House of Representatives, April 30, 1992), pp. 13–14 (UNCLASSIFIED).

15. Wendy Frieman, "China's Defence Industries," *The Pacific Review*, vol. 6, no. 1 (1993) pp. 51–62 (UNCLASSIFIED).

16. For a more detailed discussion of the deterioration of military core competencies in the Russian Far East, see appendix F (UNCLASSIFIED).

SECTION 6

A SUMMING UP

The research described in this report sought to develop better DoD strategic planning and net assessment approaches for the complex and uncertain security environment of the next three decades, using Asia as a regional focus. The result is an approach to planning that takes strategic uncertainties into account in a fundamental way, a description of the range of security challenges that plausibly could arise in Asia, an adaptive approach to U.S. security strategies for dealing with these potential challenges, and an understanding of military core competencies that will be important to underwrite adaptive U.S. strategies in future years. This chapter summarizes these research results and recommends actions implied by the research.

6.1 RECAPITULATION.

Planning in the the Face of Strategic Uncertainties. The substance of Asian security issues is closely intertwined with the difficulties of improving the planning and analysis approaches of the Defense Department, since the problems of method arise from the complexities and uncertainties of the Asian security environment. Decisions about the size, mix, and basing of future American military forces for Asia should be rooted in an understanding of larger questions whose answers are quite unclear, such as what security challenges related to Asia the United States should be prepared to handle. These larger questions are unclear because different answers are possible at various times over the next several decades, depending on a number of interacting variables affecting the future security environment. The most prominent variables include the objectives and policies of powerful Asian states, the possibilities for prolonged instability in some of these states, and the extent to which resulting military competitions, crises, or wars affect U.S. interests. Many combinations of these variables are possible over three decades. Further, the Asian security environment is also affected by what happens outside the region, most profoundly by the policies and actions of the United States.

The complexities and uncertainties of the Asian security environment—and of the global security environment, for that matter—appear to be leading to an American security strategy that depends upon adaptivity: the design of an overarching U.S. strategy explicitly to facilitate appropriate changes in objectives and military forces, and to provide appropriate options as new conditions emerge, opportunities to advance U.S. interests appear, or challenges to these interests arise. But this does not solve the problems faced by Asian strategic planners in the Defense Department. Indeed, a major issue for DoD planners is how to turn the vague concept of adaptivity into specific force structures, deployments, C^3I capabilities, training regimes, investment plans, and organizational changes. Similarly, at the national level, the idea of an adaptive strategy needs to be converted into a practical means to provide political, economic, and military options that are adequate in the uncertain security environment of Asia and elsewhere.

To deal with these problems, DoD strategic planning for Asia should be recast to take the uncertainties of the security environment into account in a fundamental way. This means using a planning framework that consists of the following elements:

- Identification of the full range of plausible challenges to U.S. security interests in Asia that could occur over the next three decades, as a means to define the scope of planning and assessments.

- Recognition that U.S. objectives and the associated security strategies necessarily will be vague until specific challenges begin to emerge. Use of the concepts of strategic intent, shaping the security environment, and adaptive strategies as an affordable approach to planning in an environment fraught with uncertainties and as a way of focusing net assessments.

- The definition of *strategic planning* in the new Asian security environment as the use of existing national security capabilities and the preservation of options for future capabilities for two basic purposes: to shape the Asian security environment in ways that promote U.S. interests and to adapt in a timely and effective

way to those security opportunities and challenges that actually emerge.

- Use of the concept of military core competencies to define the essence of the military capabilities needed to deal with future challenges in an environment of uncertainty and to describe trends in U.S. military capabilities to support an adaptive strategy.

- The definition of *net assessment* in the new Asian security environment as the evaluation of trends in U.S. strategic intent, capabilities to shape the environment, adaptive strategies, and military core competencies, in terms of their adequacy for avoiding, mitigating, or meeting the full range of plausible challenges to U.S. security interests that might arise in the future.

Challenges to U.S. Security. The first step in an Asian net assessment is to develop a systematic picture of the full range of plausible challenges to American security interests that could occur over the next three decades. The intent is to establish a tool for assessments and strategic planning, not to forecast actual problems. These potential challenges fall into three broad categories: political, military, and economic (see table 3.1 *supra*). For instance, one kind of challenge in the political category is the creation of new geopolitical powers that destabilize regional power balances or lead to crises or wars. The unification of Korea in ways that created new problems is an example. Another kind of political challenge would be a change in regional alignments, such as the breakdown of the U.S.-Japanese security relationship. This is an unlikely event, but one whose consequences could be extremely serious. Accordingly, U.S. strategic planning must be mindful of this possible future challenge, if only to ensure that its likelihood remains small.

The category of economic challenges to American security interests in Asia is one that never required consideration during the Cold War, but is a major potential problem in the new security environment. This category includes such diverse contingencies as China or Japan seeking regional economic hegemony in ways that resulted in crises or wars, disputes over access to natural resources in the South China Sea or in the Kurils, and the eruption of regional

crises because Chinese or Russian pollution was causing serious ecological damage on the territories or in the seas of their neighbors.

The category of potential military challenges in Asia includes current problems like the proliferation of advanced weaponry, problems with which America has recent experience like military competitions, and new kinds of problems such as fundamental shifts in regional power balances.

Some of these potential challenges are with us now, like the spread of NBC weapons in Asia or a serious increase in political, economic, and social instabilities in Russia. Other challenges are not so immediate, but could arise as early as the mid-to-late 1990s, such as a nuclear war between India and Pakistan or prolonged instability in China as a result of the leadership transition. Still other potential challenges probably are even more remote in time, such as a breakdown in the U.S.-Japanese security relationship or a major military competition between a unified Korea and China or Japan. The likelihood of some challenges, like war between North and South Korea, probably will decrease over time, reducing the need for U.S. forces to be stationed there.

A number of factors will determine which challenges to U.S. security interests, if any, actually emerge in Asia. These factors include the objectives, policies, and actions of the major regional powers, particularly Japan, China, and—in the longer term—Russia; U.S. policies and actions; the course of political, economic, and social conditions in countries that could become unstable, especially Russia and China; future relations between the Koreas, particularly the way in which the decades-long crisis between these two states is resolved; whether and, if so, how NBC weapons spread in Asia; and how the military-technical revolution unfolds in Asia. At this stage, whether the military-technical revolution will be a powerful determinant of security challenges in Asia or will simply be a part of the environment within which challenges occur remains to be seen. There is, however, no doubt that one of the more important factors influencing security challenges in Asia will be what America does.

A review of potential security challenges in Asia and of the factors that are likely to be strong determinants of which challenges actually emerge allows us to identify a number of Asian security issues that should be of concern

to America in the immediate future. Some of these issues are not prominent at this time, but focusing U.S. strategy, planning, and assessments on them now may allow America to influence the extent to which they eventually become serious problems. These issues are summarized below.

- How should America seek to change the U.S.-Japanese security relationship from the current one of senior partner/junior partner to one of equal partnership, in ways that accord with the new security environment and that are robust in the face of likely continued economic frictions between the two countries? This may be the most important Asian security issue for America in the 1990s, because handling it correctly can avoid long-term security problems with Japan.

- How to contain a China that grows more powerful and more assertive, perhaps even aggressive, in the 1990s? There already are signs that this problem may be emerging. A related question is how to avoid or deal with major trade wars between a Chinese "tiger" and a Japan that continues to be highly dependent on exports.

- An alternative to a powerful, aggressive China that acts as a coherent political entity is a China that goes through a prolonged period of political, economic, and social instabilities, perhaps associated with a leadership transition crisis. How can America influence the course and outcome of change in China in an effort to avoid major instabilities or to keep them from resulting in security problems on China's periphery? A special problem in this case would be who controls China's nuclear weapons and how responsible these people were.

- How can America influence Korean unification, so that it does not become destabilizing in Northeast Asia? Several possibilities need to be taken into account, including:

  - The political and economic collapse of North Korea, with perhaps dangerous local instabilities, including the possibility of South Korea trying to occupy the North.

  - North Korean attacks on South Korea by a desperate Kim il Sung in his last days or by a transition regime after his death.

- In the longer term, a peaceful unification that results in an economically and militarily powerful Korea that becomes a military competitor with its neighbors or that destabilizes the power balance in Northeast Asia by entering into alliances with some regional powers against others.

- How to maintain high inhibitions in Asian countries against using NBC weapons? At least three cases are of interest:

  - Confrontations between America and an NBC power such as China or, in the future, North Korea.

  - Crises or wars between NBC states in which America is not directly involved, but still has interests. Examples are wars between India and China, China and Russia, or India and Pakistan.

  - Crises or wars between an NBC state and a non-NBC state, where America is not directly involved, but has interests. Such cases might include China vs. Taiwan or China vs. Vietnam.

- How can America influence the military-technical revolution in Asia, and what should U.S. objectives be? What are the implications of the military-technical revolution in Asia for U.S. policies (e.g., arms transfer policies), for U.S. force planning, and for U.S. force employment concepts?

- How should America determine its interests, objectives, strategy, and military posture for Asia over the next several decades, when the foundations of the old national security construct are crumbling? We offer suggestions on this issue in this report.

Consideration of a wide range of security challenges or contingencies provides a powerful tool for both net assessment and strategic planning in the new security environment. By *contingency* we mean a not-implausible future situation that could affect U.S. security in some significant way. In this sense, *contingencies* include peacetime military competitions, shifts in regional power balances, internal instabilites in key countries, and economic situations, as well as crises and wars.

Tying DoD strategic planning to specific threats in Asia clearly is not appropriate in the new security environment, but planning cannot be entirely separated from consideration of specific situations in which America may compete, seek to exercise influence, or fight. For this reason, we have developed a *contingency test bed*: a systematic and comprehensive description of political, military, and economic challenges to U.S. security interests that plausibly could arise in Asia over the next three decades, which is summarized in Chapter 3 and described in more detail in Appendix B. This catalog of possible future security challenges can be used to evaluate American security objectives, strategies, military forces, basing, and operational concepts by testing their adequacy for avoiding, mitigating, or dealing with these contingencies. Obviously, objectives or strategies that are adequate for all possible contingencies are infeasible or prohibitively expensive to carry out. But this test bed can be used to search for affordable objectives, strategies, or forces that are adequate for most of the likely contingencies and for those with grave consequences, even if their likelihood is low.

U.S. Strategic Intent and Security Strategy. The development of U.S. security objectives and a strategy for achieving these objectives is a fundamental part of DoD strategic planning for Asia. Moreover, American objectives and strategy are important for net assessment support to strategic planning in two ways. First, assessments should evaluate candidate objectives and strategies for their adequacy to secure U.S. interests. Second, once objectives and a strategy have been selected, they determine the baseline of needed military capabilities against which net assessements should evaluate current and programmed U.S. forces. There is, however, a major difficulty with defining U.S. objectives and strategy relative to the wide range of possible security challenges that America could face in Asia over the next several decades. Statements of objectives and strategy tend either to be too general and vague for planning and assessment purposes or to be precise, but so situation-specific that they do not serve the long-term purposes of strategic planning.

There are several reasons for this problem. Current U.S. statements of objectives and strategy are either overly specific or vague because they are in transition from the well-defined problems of the Cold War to a new, relatively

undefined set of problems. Once America is past this transition, however, the problem will still remain. Specific objectives and strategies that are appropriate at a particular time may change significantly in the future, depending on what new challenges emerge and what priorities future U.S. administrations and Congresses may have. Finally, the problem of leaks to the media makes high-level officials reluctant to be too specific about long-term objectives and strategies that may be controversial.

The Department of Defense needs to recognize that uncertainty and change in U.S. objectives and strategy for Asia are rooted in the realities of the Asian security environment. Three concepts collectively can provide a practical way for strategic planners and net assessment analysts to work within the bounds of this condition. These concepts, drawn in part from business-planning methods, are (1) strategic intent, (2) shaping the security environment, and (3) adaptive strategies.

Strategic intent is a concise statement of America's dominant, long-range security vision for Asia, based on enduring U.S. interests in the region. This concept satisfies the need for statements of U.S. security objectives without being unrealistically specific in an environment of uncertainty and change. U.S. strategic intent for Asia is a broad thrust within which more specific and situation-dependent objectives can be set at various times that are consistent with the strategic intent and are approriate to the specific challenges Am[illegible] faces at those particular times. Some or all of the following might be candidate components of the U.S. strategic intent: keep the United States engaged as a major influence on Asian political, economic, and security affairs; prevent hegemony in parts of Asia that are important for American interests; keep others from using NBC weapons; and promote minimal rules of world order, such as peaceful settlement of disputes, regard for human rights, and free access to international waters and air space.

Shaping the security environment is an important approach for achieving the U.S. strategic intent in the uncertain and changing conditions of the new security environment. It is an approach that the United States has used in limited ways in the past, primarily through alliances and arms control efforts. This concept means avoiding potential security problems through cooperative

efforts or taking steps to prevent security problems from occurring; if a challenge emerges despite U.S. efforts, then policies to shape the environment would be directed at dissuading adversaries from taking hostile actions, at mitigating the effects of inimical actions, or—in extreme circumstances—at the elimination of the challenge through such means as sanctions or military operations. A wide variety of political, economic, and military means can be used to try to shape the security environment, including arms transfers and controls, economic and military assistance, intelligence sharing, tension-reduction measures, alliances, forward deployment of U.S. forces, cost-imposing actions or other techniques associated with competitive strategies, and military intervention.

The concept of adaptive strategies is closely allied with the idea of shaping the security environment. An *adaptive strategy* is one that is explicitly designed to achieve the U.S. strategic intent by changing or adapting to new conditions as they appear. It solves the problem of devising a strategy for a highly uncertain and changing security environment through a combination of trying to influence the future as it unfolds (reducing uncertainty) and commiting to specific policies and actions only when enough is known about the future to make informed choices (adapting to change that emerges out of the uncertainty that remains). More precisely, an adaptive strategy would seek to avoid or prevent future security challenges, and would maintain options to mitigate or deal with those security challenges that do occur in the future. Key elements of an adaptive strategy are the anticipation of future security challenges in an effort to head them off or deal with them when they are small; observation of the effects of U.S. policies and actions, and changing them as appropriate, based on these observations; and maintaining enough flexibility in the U.S. military force posture to be able to adapt these forces effectively to new conditions or challenges as they emerge.

Military Core Competencies. Not only are U.S. objectives and strategy for Asia uncertain and subject to change, so are the military forces America will have for Asian contingencies over the next several decades, posing yet another problem for net assessments that seek to evaluate the adequacy of future force capabilities. Moreover, forces and weapon systems are not the best units for strategic planners to use in addressing future U.S. military capabilities for an adaptive strategy, since planners should focus on the Defense Department's

ability to adapt its mission capabilities to new conditions and demands more rapidly and more effectively than can future adversaries. The concept of military core competencies, which is derived from the business-planning context, provides a way to handle both problems.

A *military core competency* is a complex combination of defense technology, defense industrial base, skilled manpower, training capabilities, organizational adaptivity, force employment doctrine, and operational experience that permits the Defense Department to do something of strategic importance extremely well. The core competencies of the Department of Defense collectively form an infrastructure that links basic national resources like the science and technology base, industrial capabilities, and the American manpower pool to the ability of U.S. military forces to carry out missions that are important in the security environment of the time and to do better than other country's forces at these missions.

Military core competencies have the following distinguishing characteristics:

- They are complex combinations of technological, production, and operational skills.
- They result from operational experience and technological know-how developed over many years by specific individuals and organizations in specific circumstances (path dependency). Accordingly, they are hard to renew if allowed to atrophy. Further, they are hard for opponents to duplicate, counter, outflank, or overtake.
- They are key for determining the outcomes of military competitions, crises, or wars. In particular, they should enable the Defense Department to stay number one in strategically important missions.
- Being *core*, they apply to many missions and to most, if not all, military services and operational commands.
- They influence the force postures, plans, and actions of potential adversaries by discouraging other countries from military

competition with America or by imposing major costs on them if they do compete.

The value of the core competency concept lies primarily in the way it can help DoD strategic planners formulate and implement an adaptive strategy, particularly when America is reducing the size of its military forces and the future demands on these forces are both uncertain and changing. A planning approach using core competencies is more likely than other approaches to provide the essential means for shaping the future security environment, for adapting mission capabilities to changing needs, and for staying ahead of future military competitors.

The related concept of *mission capabilities* links core competencies to military forces, operational plans, training, and support in specific times and places. Just as a business firm sells its core competencies through the medium of products intended to meet important market demands, capabilities for performing key combat missions are the means through which military core competencies are made operational. The needs of the United States and it adversaries for various military mission capabilities will change over time. Guided by the U.S. strategic intent, the core competencies of the Defense Department should enable the American military to adapt its capabilities in relevant mission areas to changing needs and challenges faster and better that can adversaries. Which core competencies are most important for achieving the U.S. strategic intent can itself change over a long period of time.

Consideration of the contingencies contained in the test bed allows us to draw first-order conclusions about the military core competencies that are important for Asia. Many of the existing core competencies of the Department of Defense are directly relevant to Asian security challenges and are likely to remain relevant for some time to come. America will need to be able to influence or respond to crises or wars in various parts of Asia, largely with forces that are deployed in the United States in peacetime. Therefore, the following existing military core competencies will remain important:

- High-capacity, global mobility for air and ground forces.
- The capability for sustained naval operations in distant areas.
- Long-haul logistics support to sustain distant military operations.
- Forcible entry: the ability to introduce military forces into enemy-controlled areas, over enemy opposition. This competency includes amphibious, airborne, airmobile, and special-operations forces.

U.S. military operations in Asia almost certainly will be conducted with allies or in support of allies. Accordingly, the American contribution will be primarily air, naval, and special operations forces, intelligence, command and control, and logistics. The relevant existing DoD core competencies include those in the previous paragraph plus air warfare, undersea warfare, and rapidly deployable, worldwide special-operations capabilities. Except in Korea, it seems unlikely that America would commit large numbers of troops for extensive ground-force operations in Asia, and the need for U.S. ground forces in Korea probably will recede over time. Therefore, the DoD competency in large-scale, combined-arms ground warfare may become unimportant for Asia.

For just about any crisis or war that can be imagined in Asia involving American forces, the use of information, command and control, and operational planning to achieve American objectives as quickly and as decisively as possible will be of utmost importance. Consequently, the following existing DoD core competencies will be crucial:

- Vertically integrated global and local surveillance, communications, and data fusion that can be focused on a theater of operations.
- The design, production, launch, and operation of space systems in support of terrestial military operations.
- Operational-level or campaign-level military planning.

Finally, since America may confront Asian adversaries who have NBC weapons, the existing DoD core competency for nuclear forces and operations will continue to be relevant to the Asian security environment.

Some core competencies that are only beginning to emerge will be vital for sustaining the U.S. military capability to adapt quickly to new security conditions or challenges in Asia:

- Long reach with precision strike capabilities.
- High-fidelity training capabilities.
- Design, production, and operation of defenses against ballistic missiles and cruise missiles.
- Design, production, and employment of low-observables weapons and delivery systems.

Electronic combat is in a similar category of change. It is an established core competency, is relevant to Asian security challenges, and is in the early stages of becoming part of a broader competency for information warfare.

Perhaps the most instructive results of our analysis of military core competencies are the final two categories: relevant core competencies that may be at risk and new core competencies that should be considered. Certain DoD core competencies are in the early stages of decline and could over time be seriously diminished or lost if the downsizing of the military establishment is not carried out in ways that preserve them. The most important of these competencies is aerospace systems integration, which could be in some jeopardy as a result of the ongoing reduction of the defense industrial base. The question is whether vital competencies for timely adaptation of aerospace design and production to new requirements will be lost as the defense industrial base becomes smaller and more dependent on commercial technology and sources.

The second competency of concern is nuclear weapons design, testing, and production. It seems clear that, if current trends continue, the competency to modernize the nuclear weapons stockpile will be seriously

degraded by the end of the century. The issue is how important nuclear weapons modernization will be for shaping the security environment over the next several decades and for meeting challenges in Asia and elsewhere.

Several core competencies probably will be important for America's ability to deal adequately with the full range of Asian security challenges over the next three decades. Special efforts will need to be made to create and sustain these competencies.

- A major change is needed in intelligence competencies in the directions of (1) world-class strategic intelligence on various countries and regions in Asia, focused much more on a total assessment of political, economic, technological, and military conditions than on weapon systems, and (2) a close, continuing integration or partnership between intelligence and political-military operations in peacetime, crises, and wars.

- The capacity for information superiority will be needed in the full range of military operations that U.S. forces might undertake in Asia. Information superiority means ensuring that one's own forces have all the information needed for successful operations, ensuring that the enemy does not have essential information, and deceiving the enemy in strategically important ways. A core competency for information superiority should create a higher-order capability by integrating other core competencies, including global and local surveillance, electronic combat, low-observables competencies, strategic intelligence, high-fidelity training, and campaign-level military planning.

- A U.S. government core competency in the ability to shape the future security environment will be important, but will be difficult to create. America currently does not have this competency, which involves the orchestration of various government instruments to influence the security environment, observation of the environment for the effects of these U.S. efforts, and the ability to change the efforts based on feedback in sufficient time to be effective.

- Of lesser importance at this time, but perhaps needed over the long term, is a competency in the reconstitution of larger, more capable American military forces in a timely way, as a hedge

against a prolonged regional conflict or a major miltary competition with one or more great powers in Asia. This competency is associated with the industrial base and U.S. mobilization planning.

The concept of military core competencies need not become a central focus of DoD strategic planning and net assessments in order to be useful. It should be incorporated into the vocabulary and intellectual processes of defense planning, particularly in the adaptive-planning approach that now is coming to the fore. This concept helps planners focus on how best to facilitate changes in mission capabilities that relate to future security challenges and on preserving essential DoD competencies in a time of declining budgets, smaller forces, and a shrinking defense industrial base.

6.2 RECOMMENDATIONS.

Several DoD actions are suggested by the research recounted in this report. Most importantly, we recommend that DoD strategic planning and net assessments for Asia and elsewhere be built around the concepts described here: strategic intent, shaping the security environment, adaptive strategies, and military core competencies. The Defense Department already is moving in this direction, but will benefit from incorporating these constructs more explicitly into its planning and assessments. To aid in doing this, we further recommend that OSD (Net Assessment) carry out a future-oriented net assessment of Asia that evaluates the current U.S. strategic intent, strategy, capabilities for shaping the environment, and military core competencies for the region.

The purpose of this Asian net assessment would be to evaluate for the secretary of defense the adequacy of the current U.S. approach to security problems in Asia, in terms of the U.S. ability to avoid, prevent, dissuade, mitigate, or eliminate the major challenges to American security interests that could occur over the next several decades. This is a much different approach to net assessments than has been used in the past, so a certain amount of experimentation with detailed methods will be in order, within the framework

described in this report. We recommend that this assessment include the following components, at a minimum:

- A thoughtful exploration of the future security environment in Asia over the next two to three decades, in order to describe better the types of security challenges America could face. This exploration should include, for example, economic trends and conditions, the military-technical revolution, and future security alignments.

- A careful description of the current U.S. strategic intent for Asia, the current security strategy, and DoD military core competencies, building on the descriptions developed in this report.

- Description of the likely strategic intents, strategies, and military core competencies of current or potential future political-military competitors in Asia.

- Evaluation of the strategies, competencies, and capabilities of America and the other major powers in Asia in terms of long-term U.S. security interests. This evaluation should use, inter alia, the concepts developed in this report, the contingency test bed, and related analytic methods. Particular attention should be given to the role of core competencies and infrastructures in various countries for facilitating or impeding achievement of their strategic intents.

The results of this Asian net assessment would be of substantial value to DoD strategic planners. To ensure that it adds major value to planning, the assessment should indicate gaps, ambiguities, or shortfalls in U.S. strategic intent and strategies for Asia; evaluate U.S. capabilities to shape the security environment and adapt strategies and mission capabilities to new conditions; show how adversaries could counter, outflank, or render obsolete U.S. strategies and forces; assess trends in DoD military core competencies; and identify strategic issues in Asia for the attention of the secretary of defense and other senior government officials.

Closely related to this net assessment is America's current agenda of Asian security issues, which in our judgment assumes an unrealistic degree of

continuity from the past into the future, rhetoric to the contrary notwithstanding. We recommend that the following problems be given priority attention within the U.S. government now, as part of a broader effort to shape the future security environment and avoid or limit potential challenges:

- Evolution of the U.S.-Japanese security relationship to one of full and equal partnership.
- Containing a potentially more powerful and assertive China.
- Preventing major, prolonged instabilities in China or keeping them from causing security problems on the PRC periphery, should there be domestic instability in China.
- Influencing Korean unification, so that it does not cause major security problems in Northeast Asia.
- Maintaining high inhibitions in Asian countries against the use of NBC weapons.
- Influencing the military-technical revolution in Asia in ways that promote U.S. interests.

The contingency test bed introduced in chapter 3 is an important tool for DoD strategic planning and net assessments. We recommend that the Defense Department expand the test bed in detail and use it to support ongoing planning and analysis. The test bed should, for example, have a role in the future-oriented Asian assessment proposed above. It could also be used to evaluate alternative nonproliferation and counterproliferation strategies in Asia.

We identified several problems that need attention if the U.S. government is to structure its planning and assessments along the lines recommended here. One serious problem is the inadequacy of current institutional arrangements for implementing adaptive security strategies or for pursuing efforts to shape the security environment. The National Security Council should examine ways to improve these arrangements, and the Defense Department should determine the best way to improve its ability to support efforts to influence the security environment and to pursue adaptive strategies.

A second problem concerns core competencies that are under pressure: aerospace design, systems integration, and production and nuclear weapons design, test, and production. Future needs for these core competencies should be examined and appropriate steps taken to preserve competencies that are likely to be important in the future security environment.

Finally, there are the theoretical problems associated with military core competencies described in Section 5.3. We recommend that the Defense Department carry out case studies to reduce or eliminate these problems.

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