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The Revolution in Military Affairs: Allied Perspectives

Robbin F. Laird
and Holger H. Mey

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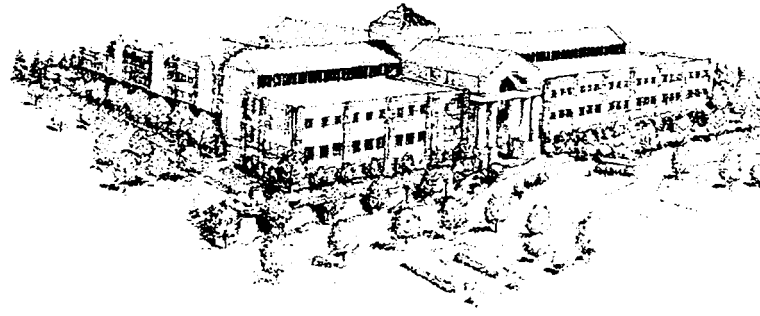

George C. Marshall Hall

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The Revolution in Military Affairs: Allied Perspectives

Prologue

The revolution in military affairs (RMA) is an American concept that frames a debate about the restructuring of American military forces in the period of globalization of the American economy. A core task for U.S. allies is to seek to understand the American debate and to identify opportunities for and the risks to themselves in variant patterns of development of the American military in the years ahead.

An RMA rests upon a dramatic restructuring of the American economy. New technologies are correlated with significant changes in organizational structures. The restructuring of the American military is occurring in the context of restructuring American society and expanded global reach for the United States. It is part of a much broader process of change within the United States and in the relationship of the United States to the world.

As such, for core allies the United States poses a number of challenges simultaneously. European and Asian allies are struggling to redefine their economic models. The Europeans will enter a new phase of development with the emergence of the Euro zone. Associated with this change are dramatic efforts to restructure European culture and economies as well. The enlargement of the European Union comes on top of this and is part of the dynamic process of change. In Asia, the currency crisis is part of a broader stimulus for change in the Japanese and less-developed Asian

economies. The American economic restructuring is both stimulus and challenge to change in Asia.

The new information society emerging in the United States is reshaping the global reach of American society. The interaction between American cultures (various immigrant and indigenous subcultures) and relevant ethnic "parent" cultures outside of the United States is a dramatic force for change as well.

As part of this broader American assault upon established structures of industrial states, the RMA drives change. Coping with the American challenge; globalization; emergent technologies; framing Asian and European variants of information societies; and trying to redefine security structures to reflect the epochal challenges at home and abroad are formidable pressures upon European and Asian allies.

The United States is the only global power, and its military instruments are global in character. The United States is redesigning its relationships with key industrial allies. In effect, the United States is, de facto, trying to set in place a new regional networking strategy. Broad global military reach is inextricably intertwined with the global forces of economic and cultural change.

For regional partners of the United States, the RMA challenge is part of a much broader challenge of organizational redesign and innovation within their domestic societies and regional frameworks. For a regional partner operating in a regional network with the United States, the challenge is to design an approach that can cope with American power but at the same time is part of the strategic redesign of its own national and regional agendas.

In other words, an American RMA will not be replicated as such by any particular regional ally of the United States but will be part of the new face toward the future of organizational innovation in broader social, economic, and military structures. No regional partner of the United States is capable of reproducing the American approach to the RMA or will slavishly follow the strategic redesign of the American military. At best, regional allies will pursue RMAs that can enhance their capacity to deal with regional goals and networking requirements.

For the United States to develop an effective interallied RMA strategy, it will be necessary to examine carefully the confluence of global with regional power instruments. For regional allies, it will be necessary to consider the nexus between regional military instruments and the pool of available technologies and military approaches generated by the global orientation of U.S. military forces. Above all, there is the challenge of connecting a blended technology and force restructuring project with a shifting balance of power between the United States and its regional allies in the years ahead. Balancing the demands of a technology with a political project is a difficult challenge indeed for both the United States and its allies.

That is why it is necessary to reflect briefly on the American strategic redesign prior to turning to the American approach to the RMA and allied perceptions of challenges in dealing with the United States.

1.
The American Strategic Challenge

The United States is a global power in a regionally diversified world. Its key allies include all the most significant economic powers in the world. American economic and cultural influence is a significant global force promoting American power, perhaps more as an empire than as a nation-state. But the challenge of working with allies in shaping a new global policy is perhaps more difficult than running an American counter to Soviet power. As the United States seeks to define its global policy for particular regional settings, it is frequently in conflict with its core allies in those regions over both regional policy and its implications for the management of global affairs.

Associated with regional differentiation within the global economy is the growing significance of regional powers within the non-Western world. Iran and the Gulf States in the Middle East, Taiwan and China in the Far East, South Africa on the Horn, and Brazil, Chile, and Argentina in South America are all part of a diversified global economy within which regional powers seek to protect their security and enhance their global significance.

The proliferation of the technological base for the global economy carries with it the diversification of global production of modern arms as well. Although the United States has the only global projection military, proliferation of military technologies will make it harder for land-based forces to operate within specific regional settings in the years ahead. With no peer global competitor, Americans could confuse global capacity with military supremacy within regional settings.

The United States is in a unique historical position within an unprecedented historical epoch: the growth of global

interdependence depends in part upon the need to protect the infrastructure of developed economies, yet only the United States as a global power can shape regional coalitions to provide for the defense of the European-Asian-American zone of economic development and security.

A key complication for the new strategic environment comes from the changing nature of power itself. The enhanced interdependence of the developed economies has seen the emergence of a zone of security in need of protection from outside turbulence. Only the United States possesses the global reach to protect this zone, and the need to build effective coalitions among the developed states for operations to meet specific regional challenges is a key requirement for U.S. policy in the years ahead. Global reach and regional coalition building are twin requirements of U.S. policy.

On the one hand, the United States might like to build a global system of security, fitting key allies within an overall division of labor to defend that system. On the other hand, such an effort generates resentment of the United States as a global hegemon and the only global superpower and as such undercuts U.S. power and works to benefit those who might seek to play on the hegemonic theme to knit together an anti-American coalition in the years ahead. This resentment can crystallize into hostile actions against "occupying" U.S. land-based forces, e.g., the attack on Khobar Towers.

In effect, the United States is custodian of a transition from a bipolar superpower world to a new globally interdependent world of shared responsibilities and co-authority with key regional allies in shaping a new world order. The difficulty rests with the United States playing the custodial role in the transition with key regional allies without generating anti-Americanism. Equally important is for key U.S. allies to meet their obligations to build greater capacity to defend the common good and not engage in the luxury of petty criticism of U.S. performance while themselves not fielding capabilities necessary for the common defense tasks.

The challenge is to expand upon or to build effective regional networks by shaping a common defense system against key threats to interallied and American interests. U.S. ability to defend its interests is largely defined by tools of intervention and participation with key

allies or with key powers in regions. Its role is shaped by its regional networking capacity. What makes the United States a global power is its ability to leverage relations in one region with another—i.e., its ability to reach beyond itself in one region to engage the participation of other states in other regions. It is not a superpower in the sense of bringing overwhelming force to bear in a hegemonic or unilateral fashion without regard to the ability to work with other states in a given region; it is a networking regional role needed by the United States to defend its interests. In this effort, the United States needs to balance two key dynamics:

- The need to have unilateral capabilities to protect national interests
- The need to be able to participate in, lead, or contribute to allied coalitions.

If the United States emphasizes only national capabilities and reforms it may not be able to share the challenges of extended defense. If the United States plans only for allied operations it may not have the requisite tools to protect national interests. Balancing the two is critical for effective leadership in the new global situation.

The dynamics of change in allied and U.S. Armed Forces intersect in either the enhancement or reduction of coalition capabilities through their combined forces. From a U.S. standpoint, changes in U.S. forces can:

- Enhance national capabilities but reduce multilateral capabilities (e.g., via technological innovations that create powerful military options but that are not easily compatible with allied or potential coalition partners)
- Enhance coalition capabilities by providing means not available to other partners on a national basis (e.g., space-based intelligence means)
- Create forces that are powerful triggers to coalition formation
- Provide tools for participation in coalitions led by others.

Balancing these choices is critical for effective leadership in the new regional networking environment. Regional defense networks are developing around specific common interests. The term network is used rather than alliance, because the developing networks may not have the same obligations as alliances, and they include bilateral arrangements plus other nonmilitary organizations. The implication for the United States is that networks may develop wherein the United States has little or no input; consequently, multinational actions by other nations, including traditional allies with minimal consideration for U.S. interests, could become more frequent. U.S. options in a crisis could be reduced accordingly.

For the United States to play an effective military role in the new global setting of regional networking, several capabilities need to be combined effectively.

- Global reach. The United States, as a continent bordered by two oceans, can reach theaters of operations only by having long-distance intervention forces coupled with pre-positioned capabilities. The intervention forces need to be able to marry up with regional partners and with forces operating in the region. U.S. forces pre-positioned in a region can be permanently based, work with pre-positioned equipment during periodic exercises and for actual operations, or intermesh with partners in exercises and through interoperable means to operate effectively in a crisis.
- Sustainability with global reach. Because the logistical center for U.S. forces is in the United States, Sustain ability across long distances is a key challenge. As region-specific requirements become enhanced for future operations, joint and coalition operations require greater standardization and interoperability.
- Rapid intervention capacities to shape coalition choices. Getting forces to a crisis after it is far along will not be adequate to shape coalitions that the United States might perceive necessary to protect its interests in a crisis. Military tools and forces need to be available to support actions in a precrisis setting, which also help forge coalitions sensitive to U.S. interests and are effective in deterring further negative actions by adversaries in an emerging crisis situation.

- Global command, control, communication, computers, and intelligence (C^4I). The requirement for global reach brings with it an emphasis upon global transparency instruments, which will be indispensable contributions for U.S. engagements in crises. These instruments make a difference largely by their ability to mesh with the capability of allies and partners in a relatively cohesive and effective manner.

If these challenges were not enough to deal with, the shift in defense technology and its relationship to commercial firms is shaping the new environment as well. The RMA is reshaping the type of defense technology to be deployed in new systems in the years ahead. The role of information technology, sensors, unmanned aerial vehicles (UAV), satellites, and long-range strike technologies is so profound in reshaping the new military environment that a revolution in technology is unfolding.

In addition to the dramatic changes in the defense industrial base and the RMA, there is a shift in the manufacturing model underlying defense production. Sometimes this change is referred to as the commercialization of defense technology. Governments will rely upon commercially available technologies to reduce defense costs or to require the bundling of commercial components with military platforms to enhance the viability of defense resources.

Governments are the buyers of military systems and as such are monopolistic or oligarchic clients for firms. The firms themselves seek to become global players and not simply to act as suppliers to single national governments. The shift to global competition and to the greater reliance on high technology produced in the commercial sector means that defense firms will become mixed firms providing a range of products with increasing commercial content.

The research and development (R&D) model underlying defense is changing as well. The British provide a particularly clear example of a government focusing upon changing to a new R&D model. The new "smart procurement model," as the British call it, underscores the need to move from the reliance upon sequential to concurrent development. Instead of a long process of moving from product development to deployment through a sequential process, the new

concurrent development model puts products into the field earlier and seeks to upgrade them in the process of deployment. The new model focuses upon modular platform design with life-cycle upgrading in the force enabling packages operating on the platform, notably those for electronics and weapon systems.

A new manufacturing model underlies the new defense industrial system of the 21st century. Rather than firms competing to provide alternative end units, firms are now competing to provide for the entire process of development and deployment. A new manufacturing redesign process is becoming intertwined with the reliance upon global firms seeking to use commercial technology wherever possible to meet military means. The challenge for governments in dealing with the twin processes of the emergence of a new manufacturing model and globalization of technology is guiding this process in directions that give them both cost- and militarily effective weapon systems in the years ahead. For the United States, the challenge of the convergence of the developments identified is a difficult one.

First, dealing with region-specific challenges—both in terms of threats and cooperation with allies—requires an enhanced capacity to work with coalition partners and greater, not lesser, interoperability. But the emphasis upon an RMA may increase the gap dramatically between the United States and its core allies.

Second, the economic difficulties that core U.S. allies are facing in Europe and Japan mean that for the next few years the disparity between U.S. defense dollars and allied financial resources will grow. This in turn exacerbates the tension between coalition requirements and RMA efforts by the United States.

Third, emphasis upon a more commercial and global look to defense firms as they seek to become global high-technology enterprises will dramatically increase the problems of codevelopment with allies and export controls on the resulting military products. The "new" defense firms in the United States and elsewhere will seek to codevelop weapons; the old U.S. system of export controls that sought to control the process case by case for third-party sales will be severely challenged.

In other words, the United States is the core architect of the Euro-Atlantic-Asian zone of security, not as a hegemonic power but as a networking power. The strategic challenge is to shift from extended deterrence of the Soviet Union to extended defense of U.S. and allied interests. At the heart of this challenge is the reshaping of allied capabilities to provide for a division of labor that reflects economic strengths and global responsibilities.

The fundamentals of U.S. strategy in this unique historical situation require combining global reach with regional networking and deftness in putting together coalitions of the willing to meet specific threats to regional allies. The blending of military and diplomatic skill in shaping a new world order is a key U.S. burden in the sense that no other extant state can do so. At the same time, the United States must avoid a heavy-handed approach, because doing so will make it difficult to operate in the specific regional settings of the increasingly diversified yet interdependent world of the 21st century.

2.
The American Approach to the RMA: A Baseline

From the standpoint of both allies and competitors of the United States, there are three very different types of responses to the RMA. Three variant strategies might well emerge—power denial, power assertion and affirmation, and power sharing.

For Third World states seeking to undercut American and allied power, selective use of the RMA to draw upon new technologies to disrupt power projection is a core strategy. We might call this strategy the power denial strategy.

For regional powers not allied with the United States and that aspire to a significant role in global politics, there is the possibility of a comprehensive incorporation of technologies in building robust regional power projection forces. This may be used for power denial or a more ambitious agenda may be attempted—power assertion and affirmation but within a regional plus setting. The clearest case of this is China.

The third response is that of regional powers allied with the United States. Here the relationship with the United States ensures the need to deal directly with American adaptations but to seek to define some autonomy of action vis-a-vis the United States. This strategy might be identified as power sharing with the United States in shaping the new global order.

This assessment examines two key European allied approaches—those of France and Germany—to the RMA. It is the third strategy that therefore predominates in the analysis. Coming to terms with the United States by Germany and France is a key part of the dynamics of change associated with the RMA.

In this section, we provide a baseline from which to assess the attempt by regional allies to deal with the United States and its

approach to the RMA. To do so, we will use the analysis produced by the Institute for National Strategic Studies (INSS) in the 1997 *Strategic Assessment* of the force structure options for the United States in the next 10 years.[1]

The INSS report argues that defense budget constraints will lead inevitably to downsizing of forces. The question is how restructured forces will be shaped in relationship to new technological options. How radical will the process of restructuring be in relationship to new technologies? Should the United States pursue a cautious strategy of change, a robust strategy of change, or a something in between? The first strategy is called "a recapitalized force," the second is referred to as "an accelerated RMA force," and the third is a "full spectrum force."

Budget constraints and the changing nature of U.S. global presence provide the broad context within which redesign of the U.S. military will unfold. But it is to the technological factor the report turns to make basic judgments about force structure changes. According to the report, new technology has already presaged new operations and force-structure changes:

> Technological improvements in the late 1980s and early 1990s suggest the United States could dramatically improve the efficiency and effectiveness with which it can use military force. Three areas of military capability are of particular note:
>
> - Intelligence collection, surveillance, and reconnaissance (ISR)
> - Advanced command, control, communications, computers, and intelligence processing (C^4I)
> - Precision force, or weapons that increase the capacity to apply destructive power with greater range, speed, accuracy, and precision.
>
> Everyone agrees that systems embodying these capabilities will enable U.S. troops to be more efficient in using military force.
>
> There is, however, a contending view. Those who see the emerging technologies as offering more profound changes tend to argue that for the United States to take full advantage of the technological improvements, it will be necessary to alter the existing

> structure and organization of the force. This group favors accelerating both the introduction of the technologies and making the structural, organizational, operational, and doctrinal changes that would take advantage of the technology as rapidly as possible.[2]

For regional allies, the debate about transformation of the U.S. military echoes within their own countries. What is the proper mix between tradition and innovation? Which technologies should be invested in and deployed? What is the best approach to pursuing organizational innovation in the years ahead, in light of budgetary stringencies?

The "system of systems" approach contains at its core a global integrator—the United States. This means that no regional ally will be in the position to control the overall integration of the Euro-Atlantic-Asian military system. If you cannot control the center of integration, what is the proper role for a regional ally? Is it possible to balance independence and interdependence effectively in dealing with an American sponsored RMA? What approaches would be most effective in protecting national and regional interests within your region? How significant will the RMA be as a factor shaping the strategic environment within your region?

Notably, the export controls of the United States and the competition among services, as the jointness process proceeds in the restructuring of the U.S. military, will make it difficult for regional allies to get inside the core of the U.S. RMA process.

In addition, there is the question of cost. A recent report of the National Defense Panel argued for a significant investment by the U.S. in a *military transformation strategy*.[3] This would certainly be a wise and prudent move for the United States as it pursues organizational innovation. The estimated budget "wedge" for this strategy was calculated at $5 to $10 billion dollars. Such a wedge would hardly be a wedge for any regional partner of the United States, notably so in a period of economic restructuring, social unrest, and political reform.

The combination of budgetary dollars and military service competition within the United States creates another dimension of the regional ally problem. Which variant of the RMA sponsored by which service will become predominant? The National Defense

Panel put the tension between jointness and service competition in particularly useful terms for our analyses:

> Effecting a military transformation will require a much greater role for jointness. It may also encompass greater competition among the military services, not less. Congress and many military reformers have decried—in many cases, quite rightly—the amount of overlap and redundancy that exists among the four military services. However, competition among the services can assist in determining how best to exploit new capabilities or how to solve emerging challenges. This kind of competition should be encouraged. . . . What emerges from earlier periods of transformation, whether it be the development of naval aviation, or the exploitation of ballistic missiles, is that they take a considerable amount of time, at least a decade, and often closer to two, to play out. . . . Additional time is required to determine how best to employ the new military system, and to make the appropriate adjustments in the force structure. If that is the case, then senior Defense Department leaders must begin now to develop and execute a transformation strategy to prepare for the very different kinds of challenges they see confronting the armed forces over the long-term future.[4]

The INSS study also underscored that the accelerated RMA force would involve a number of changes in the integration of forces and in the roles of ground, naval and air components of the new and more integrated force structure:

> The system-of-systems integrates systems that collect, process, and communicate information with those that apply military force. Advocates believe that doing this can produce an enormous disparity in military capability between the United States and any opponent, a disparity that will enable U.S. military forces to operate within an opponent's reaction cycles and apply military force with dramatically greater efficiency and little risk to U.S. forces. The system-of-systems refers primarily to the technical basis of this argument and describes the capabilities that result from the interaction of new ISR, C^4I, and precision force technologies.
>
> There is an important corollary to the technical promises of the system-of-systems; namely, that to achieve the promise of the system-of systems technologies, the United States must develop new

> operational concepts and military organizations that can take advantage of them. In this view, the United States has to move away from a force structure that is too ponderous to operate within the decision-reaction cycle of an opponent, and it must adopt operational concepts that are consistent with the capabilities the technologies offer.[5]

The vision of an accelerated RMA sketched out in the report identifies implicitly the challenge for regional allies in dealing with its dynamic and disruptive partner:

> The Accelerated RMA Force's more radical deviation from the 1996 military has a different rationale. The Accelerated RMA Force assumes that maintaining alliances would revolve around developing a symbiosis different from that which existed during the Cold War era. With regard to NATO, for example, Accelerated RMA Force advocates would argue that a U.S. military able to provide allies with dominant battlespace knowledge, and thus enable them to use their own forces more effectively, is more assuring in the new age of ambiguous threats than maintaining a force similar to the one built to defend Europe against aggression by a military superpower. In this view, continuity of form and function is less conducive to alliance maintenance than implementing new military capabilities that meet emerging interests, even if these new capabilities increase the disparity between U.S. forces and those of its allies. Advocates of the Accelerated RMA Force might take their cues from the earlier way in which the United States was able to forge its technical lead in nuclear weapons technology into an alliance-enhancing multiplier.
>
> They would argue that, while the nuclear umbrella makes less sense in the absence of a superpower confrontation, technologies that help cut through international ambiguities and assist the application of force by allies are increasingly valuable as the bedrock of alliances and coalitions. And, just as the U.S. willingness to share the international utility of nuclear prowess reduced the perceived need by allies to develop their own nuclear weaponry or to try to match the arsenals of the super powers, so too could similar sharing arrangements with an advanced U.S. system-of-systems capability serve as a basis for maintaining existing alliances, build new coalitions, and shape the international environment of the

future (without necessitating the costs of trying to match U.S. capabilities).

With regard to dissuading an attempt by a large power to match or surpass the military capability of the United States, advocates of the Accelerated RMA Force would argue it is best to increase the lead the U.S. has in RMA technologies and incorporate those technologies in a compatible force structure and operational doctrine rapidly. Doing so, they would argue, would make any effort to technically match the U.S. more difficult (at least until early into the twenty-first century), thus deterring efforts to match or counter U.S. capabilities because of the costs of trying to do so. Meanwhile, any growing suspicions could be alleviated by the concomitant reductions in force size and with new sharing mechanisms and stabilizing agreements.[6]

What conclusions would a policy planner for a regional ally of the United States draw from the long lead time for implementation, the competition among the services to foster variant RMAs, and the disruption within military relations which the United States engendered by the organizational innovation of the RMA? Where would emphasis be put? How would a strategy for adaptation to the RMA be designed? How could one participate in an RMA with the United States without losing the capability to act outside of the American decisionmaking system, when necessary for one's own national interests?

Notes

1. Institute for National Strategic Studies, *Strategic Assessment 1997: Flashpoints and Force Structure* (Washington, DC: The National Defense University, 1997), chapter 21.
2. Ibid.
3. *Transforming Defense: National Security in the 21st Century* (Washington: National Defense Panel, 1997).
4. Ibid., 58.
5. *Strategic Assessment 1997.*
6. Ibid.

3.
The RMA and Regional Allies: The Asian Case

We are not seeking here to provide a comprehensive overview for Asian approaches to the RMA. Rather, we are establishing a baseline from which to understand the challenge for regional partners of the United States to pursue the RMA. It is clear that the Asian industrial allies of the United States, notably Japan, Australia, and South Korea, find themselves in a situation different from those in Europe in confronting the RMA and the American transition. All these factors provide for a push for a regional RMA within Asia.

- Asian States are not in a formalized alliance akin to NATO, which binds them to one another.
- Asian States do not have large legacy military industries and systems blocking innovation.
- Asian States have to confront an ascendant power in the region, China, whereas the Europeans are dealing with a descendant or collapsed power in their region—Russia.
- The growth of the threat from the ascendant power is roughly calibrated with the timeline of an unfolding RMA.
- The maritime interests of key U.S. allies provide a natural military partner for the Asians, namely the U.S. Navy.
- Broad infrastructure changes are underway in the civilian enablers of the RMA, namely satellite, space, information and telecommunications sectors.
- The Asian currency crisis has set back efforts to bring forth local primes to compete with the United States and thus underscore the need to network with industry outside of the region.

- The Asian allies have the opportunity to partner with U.S. firms, to play off the competition among U.S. firms, and to partner with European firms seeking to build global alliances in high-technology industries.

There have been three variants of a regional RMA within Asia evident in the past few years.

- The Australian model focuses upon building wide area surveillance, information, and command links to become a regional military integrator within the region able to work with the United States and with Australia's adjacent allies.[1]
- The Japanese model draws upon its technological relationship with the United States and its military relationship with the U.S. Navy to put in place a naval RMA and to build from this to adjacent military technology areas.[2]
- The South Korean model has been based on the effort of the large industrial combines to work within the United States and Europe to forge global partnerships that would allow Korean firms to become primes in the development of their own military platforms. The currency crisis has derailed this model.

Paul Dibb recently provided an overview of the RMA and Asian security. We will draw upon his analysis in this section to provide some baseline judgments about the regional specific dynamics of the RMA.

Dibb underscores a key point for the RMA considerations of regional powers.

> It is important to accept that regional countries will adapt the RMA concept to their own assessments of how to deal with credible military threats. Those regional states which worry about higher levels of potential military threat from well-armed neighbors may be more attracted to the concept. Conversely, countries which perceive a non-threatening or benign strategic environment may (correctly or incorrectly) see little utility in the RMA. There may be a third category of countries which—whilst perceiving no immediate threat—seek to assert a margin of military excellence through the

judicious use of the RMA adapted to their particular geographical and technological circumstances. This latter point raises another related issue. The RMA as developed by the United States is generally perceived in the region as too expensive and being on a scale of offensive fire power that has limited relevance to most (but not all) countries in the region.[3]

In characterizing the probable adoption of RMA approaches in the region, Dibb argues that there are three key discriminators: the relationship to the United States, the capacity to absorb RMA technologies, and threat perception.[4]

Table 1. ***RMA approaches***

Tier 1	Close ally of the United States with high capacity to absorb the RMA	Australia, Japan, South Korea
Tier 2	High perceptions of threat with moderate capacity to absorb the RMA	China, Singapore, Taiwan
Tier 3	Moderate to low perceptions of threat with generally low capacity to absorb the RMA	India, Pakistan, other ASEAN countries, New Zealand
Tier 4	Extremely low capacity to absorb the RMA	Mongolia, Myanmar, Bangladesh, Sri Lanka, Cambodia, Laos, Papua New Guinea

In his analysis of the RMA in Asia, Dibb identified a number of core requirements for success:

- "Systems integration skills are the most demanding aspect of the RMA. Nurturing those skills and the qualities of creativity, innovation and independence of thinking they require will be one of the great challenges for the region. Japan and Singapore have recognized this to be a key area in their education requirements for the 21st century."[5]

- The development of joint force doctrine is required for the organizational changes associated with the RMA. "By and large, most countries in the region have given insufficient attention to the changes in military culture and organization that are required to maximize the use of the RMA."[6]
- Separate single-service cultures are the norm in the region. "No appropriate set of joint-service operational concepts exists or is practiced in most countries. Deficiencies in command and control reflect poor levels of training and inadequate (or totally absent) doctrinal guidance for combined arms warfare."[7]
- Integrated logistic support and maintenance is part of the overall infrastructure required for joint force operations and the RMA. Here Asian States are even in worse shape than with regard to joint doctrine.
- The systems integration challenge is a formidable one in the region both within commercial and military technology. "Systems integration is also crucial to the effective operation in combat of the advanced conventional weapons systems being increasingly purchased in the Asia-Pacific region. Not only is implementation or planning for systems integration almost totally deficient in the region, there is also a very limited capacity to modify and adapt current combat systems that are vital to operational effectiveness. If the region is to make real advances in self-sufficiency (which is almost everywhere loudly proclaimed), then this aspect of the RMA will require much closer attention."[8]

Dibb concludes that an ability to work closely with the United States is a key factor shaping the Asian allied approach to the RMA.

> America's closest allies (Australia and Japan) will share in this process of information dominance. U.S. naval combat systems—characterized by high-powered phased-array radars with long range and volume search and which have a comprehensive cruise-missile defense capability—are already in service in the Japanese Navy and may be introduced elsewhere in the region (e.g., South Korea). The transfer of such advanced technologies will make the U.S. task of combined operations with its allies in regional contingencies more effective.[9]

Notes

1. For example, see David A. Fulghum, "Surveillance, Comm Links Dominate Upgrade Plans, " *Aviation Week and Space Technology,* August 25, 1997, 50-52.

2. "The advances made in military science and technology are remarkable. As witnessed in the Gulf War, it is not an exaggeration to say that military technology is a factor that decides victory or defeat in battle. This year's white paper on defense devotes a page to current military science and technology and explains the importance of Japan's efforts to support and extend military science and technology." Editorial, *Nikkan Kogyo Shimbun,* Tokyo, July 16, 1997, 2. Translated from the Japanese.

3. Paul Dibb, "The Revolution in Military Affairs and Asian Security," International Institute for Strategic Studies (London) Annual Conference on Security Challenges in the Rising Asia-Pacific, Singapore, September 11-14, 1997), 4.

4. Ibid., 10.

5. Ibid., 11.

6. Ibid., 13.

7. Ibid., 15.

8. Ibid., 18.

9. Ibid., 23.

4.
Europe and the RMA

General Considerations

The RMA has emerged at a time when Western Europe is going through multiple transformations at once. Military strategy and associated technological change will occur within the context of the "new" Western Europe emerging out of these bundled changes. Military issues simply do not have a priority to be considered by themselves and are not at a high enough level in Western Europe to be considered an independent variable. Using the language of social science, the transformation of Western European militaries today and the influence of the RMA are dependent variables.

The Western European model of development is undergoing profound historical change. The place of the Western European economy, culture, and polity within the process of globalization is at the core of this historic debate. How can Europe ensure a competitive place in the new global economy? Which changes are necessary to enhance competitiveness? Which legacies need to be overcome, transformed, or jettisoned?

The impact of America and Asia upon Europe is a core part of the debate about the transformation of the European model. Meeting the challenge of the American economy, culture, and polity is a key driver for change in Europe today. The growing impact of Asia upon Europe is evident in the currency crisis; French and German banks and firms have been deeply affected.

The decision to adopt a single currency zone for a number of key Western European States represents an historical watershed to be crossed. The emergence of a common currency, the "Euro," in 1999 will create the second largest economic grouping in the global economy. The Euro zone will overwhelmingly be the largest

economic interlocutor with the United States. The requirements of a common currency will clearly drive economic restructuring and define political debates for many years to come.

The twin processes of the emergence of the Euro zone and globalization of the economy will drive the transformation of high-technology industries within Western Europe. Partnerships within Europe and outside will significantly redesign the landscape within which technology policy is made and the operation of European firms and governments. The impact of organizational redesign in the United States and the restructuring in Asia in response to the currency crisis will accelerate change in Europe.

The collapse of the Soviet Union left in place a Western European military posed to defend itself against a threat that increasingly had disappeared. Western European military forces, doctrines, and technology quickly appeared to be "legacy" systems, rather than core requirements for national defense.

In response, the key states in Western Europe have all, in one form or the other, adopted force mobility and power projection as the new motif for the transformation of their militaries. There is little consensus upon what this means and what this requires, but the project to transform militaries to provide for power projection is clearly a driver for change.

The RMA for Western European militaries is confluence of several challenges. First, there is the need for individual European states to come to terms with the United States and other European allies in reshaping the military instrument. No Western European State has the economic capacity and will to shape a national response to the RMA. The inter-allied dynamic—European and trans-Atlantic—is a core aspect of a Western European RMA.

Second, the challenge of combining the transformation of European high-technology industry with new technologies for the military is central as well. As Europe shifts from "legacy" systems to new ones, how will European governments redesign their procurement systems, force structure choices, R&D processes, and working relationship with industry (in Europe, the United States, and Asia)? How does globalization of technology industries affect strategic choices in the domain of military technology?

Third, there is the question of the purpose for deployment of new technologies? Which threats and what requirements are preeminent in shaping defense-planning options? How can one transform extant military structures most effectively to meet longer term threats and requirements?

Fourth, there is the challenge of semisovereignty for the defense policy of Western European states. Membership in the European Union (EU) and the North Atlantic Treaty Organization (NATO) for individual Western European states carries with it shared sovereignty to meet national interests. How can one shape a "national" defense policy within key Western European states in a semi-sovereign environment? How can key states effectively combine the requirements for fiscal support for economic and military transformation in a semi-sovereign environment?

In short, the RMA for Western Europe is part of a broader transformation challenge for the Western European model of development. If Europe simply combines its strengths to become a mercantile power, then the RMA will not receive much support. If Europe seeks to combine economic strength with diplomatic clout, then the RMA is part of a broader transformation of the military instruments available to Europe.

The Europeanization Challenge

The decision by the Atlantic Alliance to expand its membership is an important one, but equally important has been the decision to seek its military transformation and to seek to provide greater European capacity to operate jointly military forces in crisis settings. The decision taken in the Berlin conference of NATO in June 1996 to "Europeanize" the Alliance has been the catch-phrase to encompass the twin efforts to alter the military structure among Western European members of the Alliance and set in motion a process of power sharing with the United States in setting the missions and political-military tasks of the Alliance in specific operations.

After years of conflict over the question of the legitimacy of a European security concept coexisting *with* NATO, the ministers adopted a position embracing a European concept *within* NATO. In

the Final Communique for the June Ministerial it was argued that:

> Today [June 3], we have taken decisions to carry further the ongoing adaptation of Alliance structures so that the Alliance can more effectively carry out the full range of its missions, based on a strong transatlantic partnership; build a European Security and Defense Identity (ESDI) within the Alliance; continue the process of opening the Alliance to new members; and develop further strong ties of cooperation with all Partner countries, including the further enhancement of our strong relationship with Ukraine, and the development of a strong, stable and enduring partnership with Russia.[1]

It was then added that "this new NATO has become an integral part of the emerging, broadly based, cooperative European security structure."[2]

In the communique, the ministers went on to identify a number of key steps to implement the new concept, but most significantly they underscored the challenge of adapting Alliance structures.

> An essential part of this adaptation is to build a European Security and Defense Identity within NATO, which will enable all European Allies to make a more coherent and effective contribution to the missions and activities of the Alliance as an expression of our shared responsibilities; to act themselves as required; and to reinforce the transatlantic partnership.[3]

In the rush of publicity in dealing with the twin challenges to expand the Alliance and to build a partnership with the Russians, it is easy to look past the older challenge—now embraced by the June communique—of Europeanizing NATO. In a book published by one of the co-authors in 1991 the importance of Europeanizing the Alliance emphasized:

> To deal with the European security challenges of the 1990s and the superpower goals in the period ahead, Europeanization will become critical to the viability of the Atlantic Alliance and to the future of collective security within Europe. Rather than being a sideshow to the dynamics of the evolution of the Atlantic Alliance,

> Europeanization will become central to the viability of the Alliance in the decade ahead.[4]

But Europeanization is more difficult than a turn of phrase or a quick sweep of the institutional broom. It requires meeting some fundamental challenges (even before taking on the even more difficult challenge of including new members and bargaining the Russians into a new European security framework). As one NATO official confided, the danger for the Alliance is that the task of change within may be too difficult, so the way out may be to expand. If the Alliance is to remain useful militarily to its members, it is critical to ensure its viability in the years ahead, or we simply make the Alliance into the Organization on Security and Cooperation in Europe (OSCE) or so ineffectual that member states will work bilaterally or multilaterally outside of the Alliance framework when serious threats occur.

The first challenge for Europeanization is to come to terms with the security framework for European military operations. Western Europeans are going through a profound historical debate about the development of the European Union. Deliberations about a common currency, the national efforts to restructure budgets, reworking national budgets, and trying to make Western Europe more competitive within the global economy are a core dynamic in today's politics. The role of the EU is seen to be central in this debate by both elites and publics. The European Union is also recognized by the United States to be a key player in the expansion of Europe and the bargaining with Russia to create a more stable and secure European continent.

EU is a key partner in the transatlantic relationship, yet shows up in the NATO relationship only through another treaty organization, the Western European Union. The June communiqué is both a breakthrough and a step backward on the important issue of eliminating structure duplication. It has been recognized that it is no longer useful to maintain an ESDI outside of NATO and to duplicate organizational efforts. Logically this should end the Western European Union (WEU) as an organization but keep it as a treaty. The EU relationship to NATO should now become direct and replace the WEU as an organization interfacing with NATO. The EU has the

financial resources and organizational experience to bring to bear on the decisions and the resources for the political and financial tasks required by Europe. It lacks the military instruments, but NATO will supply these, particularly as Europeanization proceeds and develops.

Task one is to eliminate the WEU as a confusing intermediary between the EU and to create a direct institutional link between the EU and NATO. One NATO official pointed out the incongruities in the current arrangement. In a crisis, the European ministers would meet as the EU, then as the WEU, and then move across town to participate in the NATO council. Why the intermediate step, given the recognition of the ESDI in the new NATO?

The second challenge for Europeanization is to connect the RMA effectively to the transformation of European and American military structures. As we have argued earlier, the United States is in the throes of a revolution in military affairs whereby new technologies are fostering organizational changes. More joint operations, new command structures, new uses of intelligence data, an emphasis upon the use of technology to provide for battlefield awareness, the use of offshore platforms for deep strike, and the building of a "system of systems" to tie all of this together are driving the formation of a new military structure in the United States.

But what is the relationship between the new dynamics seen in national U.S. structures and those of the Alliance? Are the new technologies to drive the creation of a new military structure in NATO? Or is the innate conservatism of the organization coupled with expansion of the Alliance going to exclude such innovation?

If Western Europe cannot shape some sort of RMA to work with the United States, the threat is that there will be a multiple-tiered Alliance. The United States will be working in its own world, Western Europeans in their own, and the new member states trying to connect to their "partners." It is difficult to have a real military alliance in such conditions, and the threat of this happening is real. This challenge requires forging a European RMA center of innovation as well. If there is explicit emphasis upon Europeanization as a means to foster a Western European RMA, then the United States might see the benefits of changing the Alliance beyond the diplomatic shift of an expanded role for WEU and/or for new links between EU and

NATO. For example, the creation of new functional commands in NATO whereby the Europeans would work together to do power projection or combined operations together might form a useful learning test bed for the development of a European RMA.

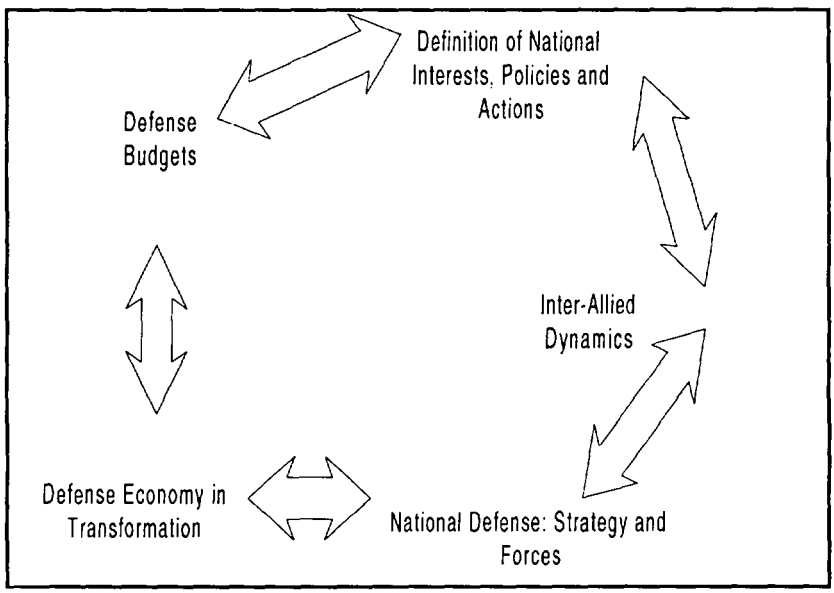
The most useful technology for the RMA is a new command and sensor system, which is most effective when knitted with joint operations. Such operations are beyond the scope of most European national forces and budget levels. Having interallied requirements would allow some of the new enabling technologies to become most desirable. In a time of budgetary stringency, it is difficult if not impossible to get national commitments to such new technologies without a European (not merely a transatlantic) purpose to these technologies. Western European governments are prioritizing the liberalization of telecommunication markets and the adoption of new telecommunication technologies. These civilian efforts provide important bedrock for the possible commitment to new military uses of these telecommunication technologies. But as the effort is European in the civilian domain, without a European focus in the military domain it will be difficult to encourage this aspect of an RMA.

The third broad challenge associated with Europeanization and the RMA is to accelerate defense industrial restructuring in Europe. The United States has undergone a radical restructuring of its defense industries in the past 5 years, and this restructuring will continue. The reduction in budgets and the growing salience of commercial technologies and global markets will all continue to encourage defense industrial restructuring.

But defense industries on both sides of the Atlantic are more one another's competitors than partners, at least so far. Indeed, unless there are effective efforts to forge joint technology projects, it will be difficult to sustain budgets in Western Europe that local defense industries believe beneficial to them. The difficulty of cooperative defense procurement is legendary but in today's effort to Europeanize the Alliance it has now become a strategic requirement to encourage joint development and purchases by Euro-American defense industrial partnerships.

In today's Alliance, the building of effective military forces requires connecting factors into a force development cycle (figure 1). The Europeanization of defense industry might lead simply to a European preference option for the procurement choices of European ministers of defense (MODs) and might in turn reinforce the innate conservatism of Western European militaries. Europeanization needs to be blended with a transatlantic RMA forged around specific interallied joint technology force-enabling projects.

FIGURE 1. ***The European military transformation dynamic***



The effort to alter the military structures of Western Europeans will be shaped as well by the impact of Asian developments. As argued above, the United States is in the throes of innovation in security policy with its Asian allies dealing with new threats and challenges. Unburdened by slowly moving Alliance machinery, the United States can seek to innovate on a bilateral or multilateral basis with key allies. Challenges from North Korea in the near term and China in the long

term are driving concerns of key allies of the United States in Asia. These allies do not have old defense industries and in today's competitive marketplaces can seek defense industrial alliances that provide cost-effective new technologies. Without doubt, the experience the United States has in working with Asian allies will shape attitudes and approaches toward NATO allies. There can be a reinforcing learning cycle or a cycle of innovation in Asia and a retrograde one in Europe.

A final broad challenge for Western European States associated with change in the Alliance is the question of relevance. In the politically correct world of European diplomacy, the two key threats that make a transatlantic Alliance necessary are not often discussed openly—the military threat from Russia and the cultural, economic, and eventually military threat from fundamentalist Islam.

The military threat from a Russian autocratic state is a key reason Poles would wish to be in the Alliance. The Russians have for a long time worried that some sort of Europeanization would emerge that could indeed counter their military power and leave the United States free of excessive need to focus upon European defense.[5] But will the key states in the Alliance allow the Russians to leverage the Europeanization and expansion debates and to significantly weaken military capability for an expanded or Europeanized Alliance?

The threat from fundamentalist Islam is the underlying concern of several southern European governments.[6] The competition between secular Islam and fundamentalist Islam is one in which Europe is a principal participant. There is a growing and significant Islamic minority in Western Europe, which interacts with relatives and friends in North Africa, Turkey, and the Middle East. Fundamentalist Islam is both an internal and external problem for Western European States and a key legitimizer of keeping an Alliance with the United States and for building a Europeanized Alliance.

NATO started to develop a more explicit Mediterranean policy orientation, but this has been put on the back burner for the moment in part because many players in the Alliance are uncertain about the wisdom of having an explicit policy orientation toward the Mediterranean. But if the Alliance does not, or cannot because of political correctness, deal with the twin threats it faces—the Russian

military and Islamic fundamentalism—its value and relevance to publics will not be evident. Europeanization will simply be a step in the growing irrelevance of the Alliance, rather than a necessary passage for its revitalization.

And finally, Europeanization should not be seen as the means to better enhance Europe's ability to deal with "future Bosnias," a point often made by European statesmen. This has the aura of preparing for the last war about it. It is not clear that the next threat is another Bosnia or Kosovo. Europeanization should mesh the ability of European militaries to operate in a variety of threat settings and to enhance interallied operations using new technologies as well. Preparing for future Bosnias may be a chimera and look very much like preparing a military arm for the new NATO cum CSCE. This is important but not enough to deal either with the threats Europe faces or to shape the strategic partner, which the United States needs and requires in the decade ahead.

Notes

1. Ministerial Meeting of the North Atlantic Council in Berlin, *Final Communique*, June 3, 1996, paragraph 2.
2. Ibid., paragraph 3.
3. Ibid., paragraph 5.
4. Robbin F. Laird, *The Europeanization of the Alliance* (Boulder, CO: Westview Press, 1991), 132.
5. See the various essays in *The USSR and the Western Alliance,* eds. Robbin Laird and Susan Clark (Boston, MA: Unwin and Hyman, 1990).
6. See Robbin F. Laird, "France, Islam and the Chirac Presidency: Strategic Choices and the Decision-Making Framework," in *European Security* 5, no. 2 (Summer 1996): 219-239.

5.
France and the RMA

France has the most sophisticated defense industry in Europe. High-technology development and shaping systems integration are key priorities for French industry and the public sector. There is wide-scale social acceptance of the legitimacy for the use of military power and of the ability to use that power in a variety of diplomatic settings.

It would seem that France should be at the forefront of European thinking about the RMA; it has not. There has been resistance to confront the policy implications of an RMA for France akin to the broader reluctance to examine the changes necessary for France and Europe to become more competitive in the global economy. In addition, the American origin of the RMA rethink has led to reluctance to engage in a broad rethink of how to deal with France's "hegemonic" ally.

But the RMA as part of a broader process of change in the reorientation of France can be identified, and the dynamics of change associated with framing a French approach to the RMA analyzed. The purpose of this chapter is to do both—identify the framework variables affecting the emergence of a French approach to the RMA and then analyze the resultant dynamics of change in French strategic and military policy.

The relationship of technology to strategy and of the role of France to the rest of the world have been core leitmotifs in recent French thinking and analysis about the future. As France enters the 21st century, fundamental debates about the French identity as Europe faces globalization and about the American and Asian challenges are shaping policy reorientations for the French strategic and military communities. The fundamental restructuring of the French military associated with the professionalization process is a key factor, shaping the adoption of new technologies and approaches in the next

decade. The emphasis upon interallied missions for the restructured French forces pushes the French in a new direction as well. Defense industrial restructuring under the twin pressures of American industrial consolidation and the globalization of high technology industries is a key part of the mosaic of a French approach to the RMA. And driving this change above all is the consolidation of the French economy within a broader Euro zone.

Procurement choices and technology alliances are significantly affected by the emergence of the Euro zone. The effort to frame public policy in defense will increasingly be shaped by the interactions among key industrial and military players in the Euro zone. The inclusion of Britain within this zone in the next parliament would only accelerate this process.

France faces three broad choices in meeting the RMA challenge:

- France can become a key framer of a European RMA. This would require coming to terms with the requirements of inter-allied military operations on both the European and transatlantic levels.
- France could selectively adopt certain RMA technologies and cooperate wherever possible with allies in promoting common projects and actions.
- France could continue to promote the export of legacy systems, to keep its military industrial policy in place, and to emphasize the role of the French military in low-intensity operations.

The General Political Dynamic

European politics are undergoing key changes that have important implications for evolving European security policy at the turn of the decade. Conservatives have been replaced by social democrats in Britain and then France, and now Germany. The commitment to a European Union that might become a European superstate is undercut, and serious domestic debates are underway over the way ahead for the European Union. The step-grade evolution of Cold War to post-Cold War security policy among the core European states is

being replaced with a genuine "relook" at the role of defense and security policy within a new social democratic Europe.

Throughout much of the last decade, conservative parties governed France, and the Thatcher revolution dominated British politics. Chancellor Kohl was a fixture of the conservative landscape in continental Europe. The agenda that dominated foreign and security policy within Western Europe was shaped by French President Mitterrand and his conservative Prime Ministers, by Prime Ministers Thatcher and Major (with British Foreign Secretaries Hurd and Rifkind playing a prominent role), and by Chancellor Kohl, Foreign Minister Kinkel, and Defense Minister Ruehe.

But these key legacy players have disappeared or are weakened in the process of political and economic transition within Western Europe. Mitterrand is dead; President Chirac is in political limbo; Thatcher is an elder statesman; Major has become a commentator upon cricket; and Kohl has been rejected by German voters.

Inevitably the agenda put together by the conservative parties and elites is in the process of change as a new social democratic Europe emerges as well. The conservative governments put together a post-Cold War transition package—the reform of NATO, the EU, and the state, to preserve key elements of the historical legacy from the past 40 years and seek adaptation for the future. Conservative governments are subject to pressures for change as adaptations are perceived to fail or the dynamics of transition seem to put key obstacles in the paths of governments which can be eliminated only by the formation of new governments more committed to change with a promise of a fresh approach.

Nagging doubts throughout Europe about the appropriate model of development are resounding to the advantage of social democrats rather than to conservatives. Indeed, a growing European consensus upon a new European model may well become a new fault line with the United States, with its emphasis upon a liberal globalization model.

There are significant differences among the various social democratic alternatives emergent within Europe, but at the same time there are some core convergencies that shape an historic transition. Among the most salient factors might be:

- A reform of the postwar welfare state but with a continued commitment to a strong buffer from the market
- A priority upon economic and social development over an emphasis upon defense requirements
- A shift in budgetary investments to high-technological industries and the development of Western Europe investments in Central Europe to enhance competitiveness with the United States
- A reform of the European Union to emphasize enlargement and reduced control of the European Commission with less ambitious goals for deepening
- Deepening objectives pursued largely around the Economic and Monetary Union (EMU) restructuring (a relatively soft EMU) that allows the core of Western Europe to institute common structural reforms
- A greater reliance upon European political and security instruments forged in common through EU and the reform of NATO.

Domestic Preoccupation and the Shift from Neo-Gaullism

The fall of French Prime Minister Alain Juppé and the marginalization of Chirac may have taken with it the neo-Gaullist approach to foreign and security policy. Chirac is committed to an image of France leading a Europe capable of defining its independence in foreign and defense policy via EU and WEU structures. The way the United States has been able to operate within the NATO of the past is how Chirac hoped to see EU core states operating through common mechanisms in the future. A common currency, a common economy, a common defense industry, a common force structure, and a common decisionmaking system would allow an EU system to emerge leading Europe. This vision is undercut by the continuing economic crisis within Europe and the expansion of EU and NATO. The expansion of the EU and NATO is not likely to enhance the coherence of the EU as a mechanism leading European States toward common defense and security policies.

Table 2. ***Western Europe in transition***

Key Dimension of Legacy	New Priority
The welfare state	Creation of more competitive system; new European model; a competitive but mixed system
National defense as a necessity to deal with threats from the east	Defense as a residual requirement for national and European development
EU development via Maastricht Compromise	EMU as focus of deepening; shift from the EU as a Western European system to becoming a multinational European system via gradual enlargement
Priority upon transatlantic relations balanced with intra-European requirements	Investments in economic development and use of new geopolitical situation within Europe to meet the American (and Asian) economic and cultural challenge
National defense industry and forces as core requirements	Greater emphasis upon European contributions via reformed NATO and/or via ESDI

Prime Minister Lionel Jospin has more modest objectives and has in mind a social democratic alternative for France in foreign and security policy. Working closely with the Labour government in London and with the new German Social Democratic government, Jospin seeks to define a more modest French policy, short on grandeur but strong on pragmatic European cooperation. The French would promote interdependence in policies with key European states in the service of European development, not the building of an independent defense entity led by France.

Unlike his British counterpart, Prime Minister Jospin has no broadly accepted plan of action for the development of his society and the leadership of his nation. Jospin was not expected to become Prime Minister. He leads a coalition government with no consensus upon the agenda for action. He splits constitutional power with a deeply wounded political opponent, President Jacques Chirac.

At the same time, Jospin has used his difficult situation to his advantage. Because he was not expected to win, Jospin carved out

a central role for himself in forming the campaign team and then forming a government. Jospin put his own people into place and has a strong hold over the administration. The French economy is in the process of recovery. Jospin and his team committed themselves from the outset to seek fiscal prudence and participation in the projected common European currency. The political opponents to the right of Jospin are in deep disarray. The leader of the National Front, Jean Marie Le Pen, is a powerful force, making it difficult for the conservatives to rally together; Chirac is perhaps mortally wounded as the leader of the Gaullists; and there are no popular mainstream conservative political leaders in sight. Thus, the variables troubling the government are duration and viability. Will the government fall because of coalition differences? Will trade unions and other associations challenge the government effectively from the streets?

The governing crisis in France and deep disputes about the proper direction for economic recovery and social reform hang over any French foreign and security policy. The current government has little taste for Gaullist grandeur; foreign and security policy is deeply embedded within the effort to reform France and its relationships with Europe.

Prime Minister Jospin sought from the beginning to shape a credible European and foreign policy linked with the economic reconstruction of France. He rejected pressures to implement his election promises for an extensive jobs program in favor of a credible macroeconomic package shaped by his powerful Finance Minister Dominique Strauss-Kahn.

Jospin made it clear from the beginning of his administration that he was moving in a different direction and pursuing a social democratic policy on defense and foreign policy. France's influence and power would be linked to those of its European partners as a "normal" state, not as the architect of a Europe fitting into the aspirations of the neo-Gaullists.

The change in African policy came first, when Jospin announced a change in the disposition of French forces on the continent. He also sought to form a common policy with Britain and is pursuing a European effort on the continent.

Jospin announced at the Paris Air Show in June 1997 an end to the Chirac policy on defense industries. The Prime Minister would limit working with French defense industry to seeking multinational solutions to the rationalization of French defense industry. This was a reversal from the Chirac perspective, which sought to reform national industries to Europeanize defense.

Inevitably, the question at the core of changes sought in this area is privatization, which is coming in through the back door.[1] Jospin pledged during the campaign to maintain French defense industry as a public sector; in power, Jospin is seeking to reduce French Government involvement to the status of "minority" shares, rather than majority ownership.

Jospin and Strauss-Kahn are seeking to modernize the French economy by mixing lessons throughout Europe, including from Britain, to create a new synthesis that can lead France into the 21st century. Only by linking a new domestic model with a broad approach to modernization within Europe can a viable French system be built. If Jospin succeeds, the new social democratic political movement associated with it could push his conservative political opponents into a corner.

Jospin was trained as a diplomat; Chirac was formed as a minister for domestic affairs. Now each has moved to the other's interest. Jospin is consumed by a passion to reform France as he sees it; Chirac is animated only when he travels abroad and discusses foreign affairs. Jospin and Chirac make a curious couple indeed!

The Chirac-Jospin tandem represents the third time "cohabitation" has occurred in the Fifth Republic. The first two were dramatically different. The 7-year presidential term was almost over when the conservatives won in 1986 and again in 1993; this meant that the 2-year cohabitations of 1986-88 and 1993-95 were prologue to the presidential election. Now there is the possibility of a 5-year cohabitation with a badly compromised president and an uncertain coalition of strange political bedfellows led by the Prime Minister.

The Fifth Republic constitution does not clearly delineate powers between the President and the Prime Minister. The constitution was written to support presidential, not parliamentary, government. Powers are unclearly divided on foreign and security policy between

the President and Prime Minister. Contests of will between the two may decide the interpretation in practice of what each may do.

Indeed, one of the key things to watch is how Jospin and Chirac manage their dance. From the outset, Jospin made it clear that he intended to assert his power. When a French soldier was killed in Africa shortly after he became Prime Minister, Jospin commented and made policy. Such an action was unprecedented; hitherto only the President in the Fifth Republic had acted in this manner.

Chirac is so deeply wounded politically—having entered the elections openly on the side of Juppé and personally attacking the socialists as the "party of yesterday"—that he has compromised his ability to act as President. Yet at the time of the 1997 Bastille Day celebration Chirac made a forceful assertion of his authority and broadly attacked the positions of Jospin. The Prime Minister responded quickly, and in the first cabinet meeting after the 14th of July put Chirac in his place, reminding him who had the real political power.

Nonetheless, the real policy balance between Chirac and Jospin within foreign and defense policy is untested and unknown. Jospin has stated that he will attend European summits and "significant" international meetings with President Chirac; the President by himself will represent France at other international meetings.

Jospin has put in place an inner core of key players affecting foreign and defense policy. The most powerful and significant is his Economics Minister, Dominique Strauss-Kahn. Jospin combined several ministries into a super-ministry for Strauss-Kahn. Given the centrality of a credible fiscal and European monetary policy, Strauss-Kahn has been the Jospin government's key foreign policy maker to date.

The foreign and defense ministers are also important but play specific roles within the Jospin game plan. Foreign Minister Vedrine takes care of day-to-day foreign policy and patiently works the relationship between Chirac and Jospin. Defense Minister Richard was chosen to rein in the defense industrial empire and reduce defense spending while promoting the professionalization of the military. Both men are very professional and competent and have put excellent staffs in place to play their roles.

At the same time, Jospin is following the practice of Prime Minister Balladur of creating strong staffs within the Matignon (the Prime Minister's office). These staffs function as watchdogs for Jospin's interests in the foreign and security arena affecting his core domestic agenda.

President Chirac has reshuffled his Elysée staff.[2] His new diplomatic advisor is the former chief of staff of Prime Minister Juppé. It is not clear though how the Elysée will define its role in relationship to Jospin foreign and defense policy.

There is a considerable disconnect between the foreign and security policy agenda pursued by Chirac under Prime Minister Juppé and that under the Jospin government. Forecasting French actions is made difficult in part because of this disconnect and uncertainty over whether policy will emerge as a compromise between the two perspectives or whether Jospin will dominate where he chooses to do so.

President Chirac has pursued a neo-Gaullist foreign and security policy. Although recognizing that the classic Gaullist vision is no longer relevant to the modern world, he has sought to redefine it for the 21st century. The main components of his approach are:

- Reform of the French economy to be more competitive globally
- Reform of the European Union
- The Europeanization of defense through the reform of NATO and the privatization and restructuring of French defense industries;
- Strengthening Europe's relationships with Asia to enhance European competitiveness
- Effectively meeting the U.S. challenge to European culture, society and economy.

The core tension in the Chirac vision revolved around the ambiguity of economic reform: Was Chirac seeking to liberalize the French economy and to transform Europe in a similar direction, or was he seeking to adapt Gaullist corporatism to the 21st century?[3]

Chirac's policy toward the United States reflects this tension. Was the United States the threat or the ally in the transformation of France and of Europe? Were the reform of NATO and the modernization of European defense and high-technology industries part of a new Atlantic bargain or a European alternative to the old NATO?

Jospin starts with little appetite for the big picture foreign policy so dear to Chirac. Jospin's focus is upon political viability and an attempt to shape the reform agenda in France for the next generation. Jospin senses that the weakness on the right provides him with an opportunity to redefine the center of French politics. If he can do so, the emerging political coalition could well dominate French politics for the rest of his active political life.

Foreign and security policies need to fit within this overall approach to redefining the political center within France. Jospin seeks to do so by defining a social democratic vision for a "modern" Europe. No one is more aware than Jospin that Blair is in a much better position to lead Europe than himself; yet Jospin is seeking to incorporate Blair and the new German government into a broad synthesis of reform. Among the key elements of the evolving Jospin approach are:[4]

- A prudent fiscal policy
- A commitment to the Euro
- Support for a strong European central bank but with some consultation with political authorities responsible for designing and implementing budgets
- A reform of the European Union to permit enlargement, but with a strong EMU core within which there is a common approach to economic modernization and social development
- An emphasis upon strengthening relevant multilateral institutions to ensure that Europe has a voice within a trans-Atlantic relationship increasingly dominated by a "hegemonic" America
- An emphasis upon nurturing high-technology industries and organizational reforms that can make Europe more competitive with the United States within the global economy.

The priority placed on the common European currency and the reduction of public debts meant that there was no money available to sponsor a grandiose French vision of European security. The need to sell off public assets to pay for entrance into the Euro zone meant that partial privatization would continue, and encouragement of European alliances for industry meant that broad French defense projects were not on the agenda, either.

The continued commitment to professionalization of the military and the willingness to keep France engaged in a variety of global military commitments—notably in Bosnia and Africa—meant that the Jospin government had continued the reform process.

By April 1998, the Jospin government had conducted a ministrategic review of the Chirac plan. It made some changes, notably by cutting some procurement programs, which it deemed outside the cost envelope. In spite of the commitment to entering the Euro and to reducing public expenditures, defense expenditures have been maintained. The Prime Minister personally and carefully reviewed the results of the strategic reflection of the government on defense and back the MOD against other government departments wishing to reduce defense spending.

The French State Crisis and Technology Policy

The political crisis that brought Jospin to power revolves in part around the crisis of the French state as it faces the dynamics of economic change in Europe today. The strong state, which leads economic and technological change, is being undercut by globalization and the emergence of a different economic model. The organizational innovations unleashed by the new information systems require less centralized and paternalistic management systems than the French system nurtures. Colbertism is contradicted by the logic of the new economy.[5] The result is a growing tension between the neo-Gaullist system of state leadership and industrial policy and the forces for organizational change and innovation associated with Europeanization and globalization.[6]

Gail Edmondson of *Business Week* characterized the French economy as becoming divided in two as a result of the tension between state and economy:

> Indeed, France's economy has been ripped in two. On one side is a private sector that is mainly lean, profitable, and competitive in world markets. On the other is an inefficient public sector that saps economic growth and wastes vital resources.
>
> France's workforce mirrors its two halves. Many of the country's 14.2 million private-sector employees have adapted to flexible work rules and boosted productivity. . . . Meanwhile, most of the 5.3 million workers in the heavily unionized public sector, from hospitals to utilities, cling to the socialist myth of entitlement. They vociferously support a 10% cut in their workweek with no reduction in pay.
>
> One obstacle to change is France's addiction to a paternalistic government. . . . Government officials hint they will use external pressure stemming from European monetary union to carry out public-sector reforms, including overhauls of the tax and social security systems. But if Jospin waits for European Union pressure to rethink the French public sector, France's core of outcasts is sure to grow.[7]

The forces for change in France are driven by the global economy and the reform of Europe.[8] The portability of capital in the global economy puts enormous pressure upon French macroeconomic policies, as will the shift to the Euro. The twin pressures are significantly reshaping the French society and economy and with it the technology policy within which an RMA would operate.

A notable example of change in the high-technology sector is telecommunications. The liberalization of the European market agreed to by the European Union and in the process of being implemented by the European Commission provides a new framework for competition within Europe. Competition among European firms and their foreign partners and competitors will reshape dramatically the nature of the European telecommunications industry. No longer will this industry be directed by national entities able to limit choices and technologies available to the public.[9]

It has been widely recognized in Europe that for competitiveness to be enhanced it is critical for Europe to enter the new information age more rapidly and effectively. To do so requires the telecommunication system of Europe to be radically overhauled. The liberalization of the market will be the means by which this occurs,

not the guidance of the Colbertist state. Rather, the French State increasingly will be defining its role interactively with market forces driving change in technological infrastructures in Europe, shaped by global industrial alliances.

The state is part of a network of technological transformation. It is not the architect of change. And the emergence of the Euro zone will accelerate this process by which the French state becomes a semisovereign actor shaping its own technology policy.

Nowhere is the shift from Colbertist guidance to market-driven change more evident in the high-technology age than in the French debate about the Internet. The Minitel symbolizes Colbertist policy. The French State and its telecoms arm recognized far before any other Western state the promise of the new information technologies; Minitel was the result. But the creation of a successful system designed 20 years ago has proven to be an important barrier to change. The Net has rapidly overtaken Minitel technology and is a metaphor for the processes of globalization in the economy.

The Chirac government mightily resisted the Internet and focused upon the need for the state to protect the French language and culture from the "Anglo-Saxon" invasion. The Jospin government led by Minister Allegre simply reversed course and in the first few months after taking power embraced the Internet and announced the incorporation of the Minitel within the Net. "Learn English" was the response of Allegre to those who criticized the influence of the Net on French culture.

In early 1998 the Jospin government introduced a new information policy, which fully embraces the Internet as the key engine of change. Rather than the state defining the technological choices, the state is now interacting with global technological forces to define its approach. The Internet experience is an important metaphor for the broader processes of change associated with the state role in relationship to new technologies.

As the report introducing the government program dealing with the new information society noted, "Public authorities should not commit themselves to obsolete administrative policies or massive public orders, which are not tailored to deal with changes in information and communications technology. However, it is up to the

State to create an environment favorable to the development of these new technologies."[10]

The dynamics of change for state policy in high technology are clearly seen in an area closely connected with the new information society and the defense sector: space policy. French and European space institutions and companies are under pressure from the United States and other foreign actors to adapt European space to the new telecommunications age. In turn, the dramatic upsurge in requirements for satellites is leading to changes in the production processes, international alliances, and management approaches to the space industry. And it is driving change in the space launcher business to provide the vehicles to carry satellites to space.

A key challenge for the French approach to space comes from the dynamics of change in U.S. industry and its approach to global partnerships. The redesign and restructuring of the satellite business are part of broader changes sweeping U.S. industry and society and are inextricably intertwined with the globalization of high-technological industries. The changing market for the satellite business is shaped by the emergence of a global information society and of global manufacturing industries.

The older relationship between government and industry and the framework for designing and manufacturing satellites is being replaced by a new emphasis upon commercialization of space and the adoption of production-design approaches seen in other manufacturing industries, notably in the automobile and telecom industries. The radical restructuring of the defense business and of relationships among key global players in aerospace is reshaping the nature of the satellite business as well.[11]

The satellite industry in the United Sates is in a period of radical change. At the core of the redesign of the industry are new organizational approaches for the development, manufacturing, financing, and marketing of satellites, as well as a significant alteration in the relationship between the public and private sectors in the design, development, and deployment of satellites. The satellite business is a core driver for 21st century development, notably for the reinforcement of a global information society with a global production system.

The shift in the space business associated with the telecommunications and information revolution is pushing governments from the role of sole-source buyers to becoming participants in a space industrial process. Table 3 provides a brief schematic of the basic dynamics of change anticipated over the next few years.

The key point here can be put simply: the space business represents a strategic shift in the role of the state and the nature of public policy in a key high technology sector. The French institutions are seeking to adapt themselves to these new conditions, and their adaptation processes are symptomatic of a much broader redesign of the public sector and industry to operate in the high-technology sector within the global economy. In turn, these adaptations will put in place the framework within which the French approach to an RMA will emerge and not the other way around. This is a major shift in the way France has done business. Clearly the state and its functionaries would like to lead or to design the processes of technological change based upon which military force structures would be built. Rather, the state will live off of an interactive process with industry and its core industrial partners in shaping "French" choices.

Strategic Rethinking and Processes of Change

The process of reform of the French military since the Gulf War has gone through three broad phases. The first phase was a re-examination of the French military in light of the experience of the Gulf War. This culminated in the judgments about the need for change in the 1994 White Paper. This paper was produced by Prime Minister Balladur's government and was seen as prologue to the decisions to be taken by the next President.

The second phase was the formulation of the military policy of the newly elected President. Chirac emphasized professionalization of the military and the inclusion of the military within NATO as the twin pillars of change.

The third or current phase has emerged from the defeat of the Juppé government and the inability to negotiate a return to the integrated military structure of NATO. The Jospin government continues basic changes initiated by Chirac with regard to

professionalization but with limited means and no commitment to re-enter the NATO military structure.

Table 3. ***Dynamics of change in the space business and the role of the state***

Key Factors	1996	2005	2010
Dominant industrial force	Aerospace	Mixed aerospace and telecoms alliances building the global information society	Information content providers supply the global information system with continuing development of the infrastructure as key challenge
Role of governments	Hegemonic or dominant as proprietary client	Anchor or dominant client for the development of the industry with mixed public-private system	Governments as key client among several or first among equals seeking alliances with key players to exercise leverage
Role of national requirements	Defense and state requirements dominate	Regional alliances and declining role of purely national requirements and of the role of the state	Civilian and global requirements for global information society dominate
Key business model	Defense industry (strong links with government and control over proprietary national standards)	IBM or MCI (data or transmission infrastructure company with global presence)	Sun Micro-Systems or HP (Global Network Organization)

The White Paper

The military reform sketched out in the White Paper was ambitious. To meet those ambitions, a large defense budget would be maintained, and France would frame a European military policy to be

built upon French ambitions for change. There was a strategic concept for change and an expectation of the prospects of finding the means to implement a new policy.

For the Balladur administration, which wrote the White Paper, there was a clear emphasis upon the new context within which French conventional forces were to operate. The administration made it clear that the enhancement of the mobility of French forces and their ability to operate in multilateral settings were the core objectives for rethinking the role of conventional forces:

> A true conversion must gradually be carried out in the role of conventional weapons. . . . conventional facilities will henceforth be defined first of all by their aptitude as such to contribute, if necessary by force, to the prevention, limitation or settlement of regional crises or conflicts that do not involve the risk of extreme escalation. If this latter case presents itself, these very facilities will resume their traditional function in the deterrence maneuver, by giving concrete expression to our will to defend our vital interests and by enabling us to test the determination and the facilities of the potential aggressor.[12]

The White Paper goes on to underscore the new role for conventional forces within French strategy and the need to modernize those forces in order to play their proper role:

> Apart from their specific operational capabilities, which would have to be examined, the aptitude of the forces to intervene in distant places will depend on their availability, their organization and the nature of the resources to bring into play in the theater of operations. . . . The organization of the forces must be such as to make it possible to split them up into elementary cells which may be reassembled on demand, into coherent groups having all the capabilities of command, action, support and assistance required for the intervention. The principle of modularity will be the condition for the efficiency of the entire organization.[13]

The emphasis upon modularity and flexibility with the reliance upon small maneuver units was a key emphasis within the White

Paper and could form an important motif for a French variant of the RMA.

Also emphasized in the White Paper was jointness, notably with regard to forming General Staff integration for command and control and intelligence functions. In fact, greater integration of service planning within the framework of the General Staff has been a hallmark of military reform from 1994 onward.[14]

The Balladur administration was not ready to confront the NATO question directly. Rather, the role of a new French command element within the new combined joint task forces for NATO was emphasized. The Combined Joint Task Force (CJTF) and the new interarmy command structure were to form key elements of the strategy for change emphasized by the Balladur administration.[15]

A French parliamentary report reviewing the White Paper underscored that the reforms required the "creation of a "projectable" interarmy theater command structure, which could draw together the elements necessary to conduct the operations of French forces while operating within a coalition. Thus, this "etat-major" must be multinational in character.[16]

The Chirac Initiatives

Chirac inherited the changes initiated by the Balladur government and added two further twists. Above all, he ended the draft and pushed France toward the era of the professional army.[17] He also aimed to put this professional army within a reformed military structure of NATO. The two seemed to go naturally with one another—the new professional army would focus upon power projection missions and new approaches to mobility and operations, and the new NATO military structure would provide a framework within which joint operations could develop.[18]

As Defense Minister Millon said in front the National Assembly in March 1996, the core principle of the reform was "the creation of forces capable of rapid organization, able to be projected very quickly, with the elements of command experienced in inter-allied cooperation and based on the principle of reinforcing the European identity of defense within a renovated Atlantic Alliance."[19]

The first proved more doable and durable than the second. The French military was deeply reluctant to see the end of the mixed conscript and professional army, but Chirac envisaged the shift to professionalism as necessary in order to operate in the new military setting of peacekeeping and mobility. The need to develop greater inter-army coordination and cooperation as well as to operate within multilateral settings also seemed to call for a professional force.

Unfortunately, the NATO inclusion effort fell short. If the French military was included in the reform of NATO's military structures then there would be clearly legitimized access points for an interallied learning curve for the reformed French forces. Without this framework, adaptations would have to be made in a more ad hoc fashion characteristic of past French relations with its Anglo-Saxon allies.

But the evolving British relationship with France formed an important counterpoint for the French military reform process. Indeed, the British military was identified as the model against which the French would measure themselves. The joint experience in Bosnia was an important stimulus to a deepened relationship as well. And the establishment of a French-British airmobile brigade was to form a touchstone for Chirac's efforts to link military reform with a new approach toward allies.

In spite of the decision to professionalize the Army and to reconsider the French relationship with the NATO military system, neither President Chirac nor the Juppé government could break free of the entangling web of Gaullism. Notably, the government was unable to shift from legacy military systems to new ones.

In his reformulation of French defense policy, one critic of the Chirac approach, François Heisbourg, had underscored the need to shift funding from high-cost legacy systems to those that would lead to a breakthrough toward the future.[20] Heisbourg also identified the core problem of choice in trying to move toward a new military system. His core principle for French reform is simply put: "To play the maximum role within a coalition for the best cost."[21] He then went on to identify a core set of "advantages" the French should build upon in nurturing reform.

- The ability to organize intervention forces quickly and effectively
- The long historical knowledge and experience of French forces in a number of regions critical to peace and security in the future
- The ability to work with limited resources in local settings with local populations
- The technological capacity to develop new observation and information systems with other Europeans
- The close working relationship between the navy and the air force in joint power projection and the ability to project organic forces.

Neither Chirac nor Juppé made a decisive breakthrough against legacy systems nor promoted key choices in shaping the direction for the development of the new professional military system. Additionally, the approach toward reconciliation with NATO was not well defined. The opportunity to work with the proposal to turn Deputy SACEUR into a real planning and training cell for European operations could have provided an opportunity to blend new technologies with new military structures and, in turn, with new relationships with allies. Other conservatives have underscored the opportunity posed for France in using a deepened role for Deputy SACEUR and the creation of new planning tools to move European operations forward into the new century.[22]

The Military in Transition

The defeat of Juppé's government meant an end to the Chirac experimentation. The new Jospin government has continued the professionalization effort but put on hold any new relationship with NATO.

The priority placed on the common European currency and the reduction of public debts left no money available to sponsor a grandiose French vision of European security. The need to sell off public assets to pay for entrance into the Euro zone meant that partial privatization would continue, and encouragement of European

alliances for industry knocked broad French defense projects off the agenda.

The continued commitment to professionalization of the military and the willingness to keep France engaged in a variety of global military commitments—notably in Bosnia and Africa—indicates that the Jospin government will continue the reform process. Even though no strategic breakthrough on NATO or European security policy is in the offing, the processes of change are moving forward.

A small example of how continued reform mixes new technologies for the military with global commercial standards and reliance upon NATO military standards in generating that technology is the French Air Force's acquisition of new logistics software. In an article published in *Air and Cosmos* in February 1998, the continuing process of reform is revealed:

> The air force has just put into service a new management system called "Sigma" (Information System for Air Materiel Management), which was inaugurated on 30 January by Major General Gerard Resnier.
>
> In fact, the management of air force parts has been computerized for more than 30 years. During that time, new software modules that execute increasingly complex functions have been superimposed on the original system, to the point that the functionality of the overall system was heavily encumbered; for example, the central system was only updated twice a week. That made it difficult to assure coherent management of diverse stockpiles, considering that 95 percent of orders received are filled the same day.
>
> The Sigma project was designed, therefore, to harmonize and speed up performance of the functions previously performed by these various software modules. . . . It was necessary to write some 5.4 million lines of code and create an Oracle database, which, with a capacity of 42 gigabytes, is the largest in France, perhaps, the largest in all of Europe. General Jacques Deroche, director of materiel, whose Sigma project is finally seeing the light of day, is justly proud of his "child."[23]

Reforming the Military: Impact on the RMA

In spite of the difficulties of transition, a number of core changes are evident in the process of reforming the military, which have an important impact upon a French variant of the RMA.

- The professionalization of the military will allow it to experiment more effectively with new technologies than could a conscript army.
- The end of a number of traditional missions and much greater emphasis upon interdependence with allies will accelerate cross-national learning cycles.
- The use of new communication technologies in the Army is leading to change. Already, the French have the most digitized Army in Europe, and they have used the new technologies effectively in Bosnia.[24]
- Budgetary reductions will lead to greater reliance upon common resources in a number of areas for the services—logistics, command and control, and civilian technologies, in a shift away from the use of proprietary military systems. Such changes provide a scope for further acceleration of reform.
- The French military, in common with most other European militaries, is suspicious of centralizing impulses coming from new technologies and seeks to use technologies to reinforce the power of decentralized military leadership in line with their historical practices.
- The introduction of some new technologies—UAVs, longer range strike missiles, and greater reliance upon precision strike—will intensify the competition between traditional platforms and new approaches.
- The ongoing commitment of French leaders to use military forces in peacekeeping and operations other than war—indeed, the significant French experience with such—provides an interest in new technologies such as nonlethal weapons.[25]

In short, the professionalization project in front of the military and the emphasis upon greater interdependence with allies provide the benchmark from which greater focus upon an RMA can proceed. The

much greater attention being provided to social change and the construction of the Euro zone overshadows military issues. For now it simply crowds out the ability to pay attention to a significant and comprehensive reform of the military and its associated industries. Nonetheless, macroeconomic and social change within France and Europe do provide the framework within which the changes in the military sector associated with professionalization and interdependence will unfold.

Critical Issues for a French RMA

Several key issues could drive a French RMA. Put in other terms, which questions need to be dealt with in order to have or to accelerate a French RMA or French participation within an interallied RMA?

Above all, there is the need to fit the military reform project within the overall restructuring of French society and within the French approach to the European project. If the military reform effort seems simply to be an echo of past efforts for glory or "adaptation" to a post-Cold War environment, there will not be adequate political or economic support for a significant redesign of the military. Rather, the need for Europe to have a modern military instrument and—a key role for France—in shaping such an instrument can become key leitmotifs for change.

But for this to happen the French have to give up the pretension of a Colbertist French state replicating itself on the European level. No European military industrial policy will be put in place that will protect French industry. No European command structure will be put in place that does not come to terms with the Americans.

If the French recognize the need to modernize the military instrument on a European level, they must also accept three things—the centrality of the marketplace in shaping the infrastructure for military technology; the primacy of an influence strategy whereby France crafts a European power projection strategy with due regard for the priority which the British and Germans place upon the Americans; and the shaping of a new approach to European procurement, whereby governments set priorities based on power projection and let the marketplace generate the technological choices.

Organizational redesign is a key issue for the modernization of the French military system. Here the hermetically sealed military and military-industrial system would have to become open to the processes of innovation seen in other sectors of the new economy. The task is to bring the military systems of France and of Europe more in line with the organizational dynamics of change associated with the new information society. This is especially necessary because the European approach to the RMA will be based, first of all, upon the restructuring of the European economies and societies in dealing with globalization. The European project for reconstruction and development will then form the basis from which a military RMA would proceed.

The new organizational environment is rooted in part in the changing nature of the networks in the work environment. The globalization of work has meant the development of increasingly interactive and interdependent work styles. Ford is designing its world car with a global design team located throughout the world and working interactively 24 hours a day. The location of talent throughout the world means that intellectual labor is not simply the property of a company occupying national space in a "developed" society. Rather, the ability to work effectively in time is challenging the limitations of space in the new information society.

These new organizational dynamics have four implications for the French military system:

- The French military needs to have a modern infrastructure of information, planning, and force structure planning. The experience in reshaping modern business would be the basis for this effort.
- Jointness would have to be dramatically augmented in order for the new management style appropriate to technological innovation and redirection to occur.
- The French military system would need to be wired, with core allies, through information and simulation technology as well as the use of exercises and ongoing redesign efforts. The interaction between the French and core military allies would be continual. A process approach to redesign would be put in place whereby

the ability to work with others would be a key hallmark of the performance of any national military assets. In turn, French national forces could be more effective in operating as triggers to the actions of allies by having a greater capacity to operate in a modular fashion.

- Procurement would be based on the concurrent engineering and integrated program development model. Here the British have taken the lead in their smart procurement model to shape a new approach to procurement. Rather than setting missions, going through sequential R&D, and then procuring weapons, the approach is to field new prototype technologies and to redesign based upon field experience. This requires a much closer relationship between military forces and the builders of weapon systems and, in turn, a much closer relationship between French and allied processes of continual redesign and development.

Another broad change entailed with a French RMA commitment would be to end public ownership of defense industry. Only private companies can form the alliances and partnerships to operate flexibly in meeting the military needs of the RMA.

Associated with this change would be a shift in how procurement occurs. The British approach to value for money—which rests upon letting industry compete to meet the needs of the military mission requirements—would form the basis for such a shift. It should be noted that in fact the British are at the cutting edge of European redesign of the military systems for procurement, force structure, and operations. The French military is explicitly looking to Britain to lead in this effort to shape a model for the future.

European procurement agencies could well play a central role in selecting weapons to meet military requirements. This can happen only if joint and interallied mission requirements shape goals. The procurement agency then has real competition among industry to meet these goals, and there is the formation of a real European procurement agency.[26]

A core requirement for moving ahead on a French RMA will be an ability to frame the strategic goals for power projection. Simply building tools for power projection will not lead to the level of

economic and political support within a France in the throes of economic transition sufficient to support the French military. Rather, a much clearer focus for French efforts is necessary. Building power projection tools for operating in the Mediterranean with the British, Italians, and Spanish is such a clear focus, but here the main technology is naval and would require accepting the central role of the United States. This is why the misguided effort by Chirac to have a debate about the Allied Forces Southern Europe (AFSOUTH) has been so counterproductive for French strategy.

In addition to France's Mediterranean vocation, working with Germany to shape abilities to protect the Baltics might form a solid basis for the French ground and air forces to merge their plans and operations with a reformed German military. Indeed, a French effort to do so could be extremely useful in shaping an ability to reform its military with modest power projection capacity.

Three broad technological projects could form a basis for RMA efforts: information technology and information warfare, precision-strike integration, and enhanced capability to use space-based systems and expand battlefield awareness.

Information Technology and Information Warfare

Here the broad reconstruction of European infrastructures to enter the new information society would form the basis for the redesign of military communication and information systems and spur managerial reforms. Legitimacy for the redesign of military information systems and the new approach to battlefield awareness would be gained from acting within the mainstream of information innovation. European Union efforts to build macrostructures could form a key input to the strategic redesign of communication and information systems for the military. The challenge of dealing with information or a cyberwar Europewide would become a new mission for European militaries.[27] Such a mission could be used in the effort to carry out strategic redesign.

Precision Strike

French industry has been innovative and international in scope in framing its unmanned aerial vehicle (UAV) and missiles capabilities.

The BAE-Matra-DASA relationship in missiles has been a key success in shaping a global competitor to Hughes-Raytheon. But precision strike, the use of UAVs, and space-based technology to guide UAVs have been developed without a strategic concept. Also, the legacy systems take the lion's share of resources and starve out the ability to focus more effectively on precision-strike and battlefield-management systems. This could end. Indeed, the presence of European capability in two key domains of the RMA—precision-strike and battlefield-awareness technology—forms a basis from which new concepts and approaches could be formed.

But to do so requires organizational change whereby European militaries work more effectively with one another and with the United States to create a variety of force projection capabilities. The United States is capable of simultaneous power projection at high levels of lethality; Europeans will be capable of sequential power projection at mid-levels of lethality. If the French wish to participate in an RMA, they can seek to focus upon the European project solely or seek to do this in conjunction with a broader interaction with the Americans. Isolated programs can provide for enhanced technological capabilities for French forces, but they require organizational innovation and strategic direction to mesh new capabilities with the renovation of forces and the emergence of new power projection capabilities.

Space-Based Systems and Battlefield Awareness

The use of space-based systems to provide capabilities for the military—communications, reconnaissance, and battlefield management—could form a test of the dynamics of change in a French approach to the RMA. The French have insisted upon independent systems (both national and European). Unfortunately, neither the money nor the will to do so has been evident within either France or Europe. Further, the dynamics of change in the space business discussed earlier argues against a purely French or European solution to French and European military requirements.

The revolution in the space business is having dramatic effects upon European industry and the public policy supporting space. The challenge to pursue strategic partnering globally requires European firms to shape alliances with American and Asian firms. The shift in

space activity from a larger government-sponsored domain to one shaped decisively by commercial requirements has placed major question marks over European public policy in support of space. All key institutions involved in shaping public policy in Europe—the French Space Agency (CNES), Arianespace, European Space Agency (ESA), and German and Italian Space Agencies—are rethinking their approaches.[28]

U.S. developments have always been critical to the shaping of European approaches. Indeed, the relationship between NASA and the European space public policy organizations is vital in shaping European space policy. There has never been a significant military relationship between European and American space to rival the role of NASA within European civilian space. CNES was even set up along the NASA model.

The U.S. market has provided the key for the success of one key player in European space, Arianespace. The majority of Arianespace's revenue has come from U.S. clients. The special relationship between Arianespace and Hughes has been essential for the development of Arianespace's dominant position in the launcher market today, a position sure to be challenged by new developments and entrants.

Most significantly, the changing nature of the space business is creating a key challenge for the organizational adaptation of European space. The emergence of new space conglomerates around Boeing and Lockheed Martin means that the fragmentation of the European space business is increasingly anachronistic. Indeed, it is an open question whether a purely European consolidation of aerospace and defense will emerge to meet the American challenge. Rather, the strategic partnering being driven by the telecommunications and satellite business may alter dramatically the relationship between Europe and the United States in the space business.

There are two key industrial constellations within Europe in the satellite business. The first is built around Matra-Marconi Space, and the other is built around ALCATEL. The Germans, Italians and the Spanish have clustered relationships around these two cores.

Matra-Marconi space was formed as an Anglo-French joint venture of Matra and GEC-Marconi. But recently, the German firm

DASA has joined this effort. And in fall 1997 Matra-Marconi joined with Motorola in the development of the Celestri satellite system, thereby shifting its balance of interests from a largely European to a broader transatlantic partnership. Later this shifted to the broad Alliance around Teledesic.

The partial privatization of Thomson CSF has involved the formation of a new satellite company in conjunction with Aerospatiale and Alcatel. The ground station segment of Thomson CSF, the satellite bus manufacturing and systems integration capacity of Aerospatiale, and the satellite communications capacity of Alcatel has been merged into a new satellite company, a company that instantly becomes the major competitor to Matra-Marconi space.

It is clear that the anticipated competition with the new satellite company was a major reason Matra-Marconi sought the Motorola deal. To ensure that the new satellite company will be viable, the French Government will almost certainly need to reward it with scarce government contracts. Reading the tea leaves, Matra-Marconi saw the need to get a jump on the ability of the new company to work commercially within the new global market.

At the same time, Aerospatiale, recognizing the challenge of the new market place and its enhanced working relationship with Alcatel, has broadened its participation in SkyBridge, the "European" response to Teledesic and Celestri but with strong participation with Loral. So even within this Franco-French company, a major relationship with a U.S. firm is an important component of its emergent space strategy.

European space programs are almost completely civilian in character. The shifting basis of industrial alliances and the dynamic changes in the global space business will therefore have a dramatic impact upon European space programs. It is extremely costly to build low-volume specialized military satellite programs within a largely commercial space effort. In addition, the overall thrust of European militaries have been focused upon continental land, air, and sea defense against the Soviet threat for more than 40 years, within which specialized military satellite capabilities were provided by the United States.

The economic crisis within Western Europe and the challenge of building a new Europe with the former Warsaw Pact states are

proving to be far more significant priorities than is the restructuring of national security policy. Also, the inability to build common European procurement policies means that European space policy is a patchwork of national interests cobbled into a common effort. This common effort is increasingly more market driven than strategically designed. The budgetary crisis affecting European states has further crippled any effort to create a macro-European policy that provides European satellites for European militaries.

Nonetheless, the strategic redesign of the militaries in key Western European states emphasizes the need for force mobility and regional power projection. The mid- to long-term interest in building satellite capacity to support a regional European power projection policy is certainly there, but it is competing against more pressing short-term interests.

The French have been the only state with a clear strategic vision with regard to space and with a clear desire to have an independent military capacity. The deepening economic crisis within France has called into question the ability of the French to meet even their own objectives. And the election of the social democratic government of Jospin and its powerful Minister of Research Allegre, who deals with space, has lead to much less interest in a great power policy in space. Allegre has emphasized the need to restructure French space agencies and to push the commercial side of space at the expense of manned and military space. As the head of military space in France said, "There is no money in the budget for new military satellites."

The French are caught in a procurement bind. They decided in 1986 under Prime Minister Chirac to augment their ability to fight in the central front, and new tanks, new combat aircraft, and assorted equipment were ordered. The end of the Cold War did not lead to a quick restructuring of priorities. Now when the need to redirect procurement policy is evident, the economic crisis makes it difficult to eliminate the jobs associated with legacy systems. Also, the Jospin government is not terribly interested in national security policy and will not invest its energy in the strategic redirection of military policy.

French military space ambitions have had to be reduced dramatically. Helios 2 has been dropped from the German budget, and the French are lengthening the budgetary timeline for their

national version. Their military satellite (Horus) has been eliminated from the French budget as well.

The competition between Matra-Marconi and the new satellite consortia organized around Aerospatiale-Alcatel-Thomson will also shape French choices. There is no way that Europe can support these two companies on their own; they will survive only by operating globally with American and Asian partners. This requirement will reshape the industrial base serving French and European space policy.

The space policy business is being dramatically restructured to meet the demands of the telecommunications market. In meeting these needs, new design and production techniques are being introduced into the satellite business; the dramatic upsurge in launch demand is leading to changes in launch enterprises as well. The acquisition of military systems within space will increasingly draw off of the opportunities generated by commercial space concerns.

The Europeans are deeply affected by the changes in the space business. The need to interact with American firms shaping new policy choices is leading to change in Europe. The current economic crisis and the preparation for the common currency have made it difficult to provide state budgetary support for a dramatic shift in military or space policy. But the impact of an inability to forge a direct challenge to U.S. leadership in military space, coupled with the decisive impact of American firms upon European industry, will leave in its wake a restructured infrastructure for European space policy. As money becomes available to fund new forces in the decade ahead and to design a role for space systems to play a role within new force structures, there will be a significant opportunity to use the new industrial restructuring to weave a new military space policy between Europe and the United States.

Alternative Outcomes

Three broad outcomes are possible for the French as they face the RMA. These outcomes vary in terms of how far the RMA becomes the organizing principle and how salient joint and interallied operations become as organizing principles for the restructuring of French forces.

- The first outcome is that the challenge is too hard and the French are able only to upgrade legacy systems and to develop specific high-technology weapons for export. No comprehensive change in the approach to warfighting would occur, and French forces would be most active in low-intensity operations. The French would be able to deploy effective organic forces against low- to mid-intensity adversaries and would work with allies selectively. CJTFs would be used as organizing frameworks for selective interventions but with only limited commitments by the French to organic operations at the interallied level. A new variant of Gaullism would be framed.
- The second outcome would be a mixed RMA. The French would commit to the building of effective joint forces on a national level and significantly enhanced integration with core allies, notably on the European level. They would build systems able to perform precision strike, space reconnaissance, and enhanced command and control. Their forces would be capable of sequential power projection within the Western Mediterranean or at similar range. Their efforts would fall short of participating in a system of systems, and their cooperation with the United States would be ad hoc. The integration of their industry with other Europeans would be highly developed, and European procurement would be emphasized wherever possible. Military procurement would draw upon the renovation of the European technology base associated with the new information society. Neo-Gaullism would be replaced by Euro-Med defense interdependence. The European project would form the benchmark for the new defense policy. A region-specific power-projection policy would form an organizing principle for the French in their European-oriented military technology policy.
- The third outcome would be a fundamental commitment to the RMA. Fiscal shortfalls in defense, a robust economic recovery and acceleration of technological development within Europe as a whole, and the globalization of high-technology industries with significant partnering with U.S. firms would lead to a much greater comfort level for France to work with allies. The French would seek to follow a policy of seeking influence with their

military instrument, rather than independence or European preference. A close working relationship with the British on building joint maneuver forces and working with the United States closely on a wide range of military and military-technical issues would be accepted as necessary and desirable for a French policy of influence, rather than an agenda calling for pitting Europeans against Americans. The French and British emphasis upon maneuver forces within the Mediterranean could be joined with a French and German emphasis on working together on air mobile forces to deal with contingencies in central Europe and the Baltics. The French would participate closely with the British, the Germans, and other Europeans in forming a system of systems with the United States capable of operating in high-intensity conflict settings in the Mediterranean. Working with the United States on naval operations in the Mediterranean, notably with cooperative engagement capacity (CEC) and sea-based theater missile defense (TMD), would be especially significant for French involvement in a U.S.-led system of systems approach to the RMA.

Notes

1. Douglas Lavin, "France's Socialist Ideology Bends to Economic Reality," *The Wall Street Journal,* September 3, 1997.

2. "L'elysée se met en ordre," *Les Echos,* September 4, 1997.

3. For a look at the Presidential style and at the debate over the core priorities for French economic development see the following books: Anne Fulda, *Un président très entouré* (Paris: Grasset, 1997); Jean-Pierre Renaud, *La méthode Chirac: De la mairie de Paris à l'Elysée* (Paris: La longue vue, 1997); Jean-Claude Barreau, *La France va-t-elle disparaître?* (Paris: Grasset, 1997); and Christian Saint-Etienne, *L'automate et la liberté* (Paris: Editions Eska, 1997).

4. See, for example, Anne-Sophie Mercier and Béatrice Jérôme, *Les 700 jours de Jospin: Histoire d'une prise de pouvoir* (Paris: Plon, 1997).

5. Jean-Baptiste de Colbert, 1619-1683, French statesman and financier, was an economic reconstructionist who espoused government support of commerce.

6. See, for example, Élie Cohen, *La tentation hexagonale: La souveraineté à l'épreuve de la mondialisation* (Paris: Fayard, 1996).

7. Gail Edmondson, "In France, An Economy Ripped in Two," *Business Week*, January 26, 1998.

8. See, for example, Christian Saint-Etienne, *L'État mensonger* (Paris: Éditions Jean-Claude Lattès, 1996).

9. See, for example, *Development of the Information Society: An International Analysis* (London: Department of Trade and Industry: Her Majesty's Stationary Office, 1996).

10. On January 16, 1998, an interministerial committee released its report on the government's approach to the new information society or as the public announcement put it, "Le 16 janvier 1998, à l'issue du Comité interministériel pour la société de l'information, qui a réuni l'ensemble des membres du gouvernement, le Premier ministre a rendu public le programme d'action gouvernemental pour la société de l'information intitulé 'préparer l'entrée de la France dans la société de l'information'" ("On January 16, 1998 the Interministerial Committe for the Informaiton Society which brought together the members of the government, the Prime Minister made public the governments's program of action for the information society entitled 'Preparing France for entering the Information Society'."

11. See, for example, R. Handberg, *The Future of the Space Industry: Private Enterprise and Public Policy* (Westport, CT: Quorum Books, 1995.

12. *The French White Paper* (Paris: Ministry of Defense, 1994), 52.

13. Ibid.

14. See the treatment of this issue throughout the École Nationale d'Administration volume on defense, *La défense: De la Nation à l'Europe* (Paris: La Documentation Française, 1996), two volumes.

15. For a comprehensive treatment of the CJTF for European security, see Edward Foster and Gordon Wilson, eds. *CJTF—A Lifeline for a European Defence Policy?* (London: Royal United Services Institute, Whitehall Paper Series, 1997).

16. Jacques Genton, *Rapport* no. 489 (Paris: Sénat 1994), 63.

17. For a useful treatment of the Chirac reforms see Edwina Campbell, *France's Defence Reforms: The "Challenge of Empiricism"* (London: Centre for Defence Studies, 1996).

18. For an official presentation of the reform see the Ministry of Defense report, *Une défense nouvelle, 1997-2015* (Paris: The Ministry of Defense, 1997).

19. *The National Assembly,* report issued by the French Government, March 26, 1996.

20. See François Heisbourg, *Les volontaires de l'an 2000* (Paris: Balland, 1995). Heisbourg's thoughtful agenda for French defense reform remains the most useful beginning to discuss the framework from which a French RMA

could be generated.

21. Ibid., 108.

22. Nicolas Baverez, *Les trente piteuses* (Paris: Flammarion, 1997), 285.

23. Jean Dupont, "Air Force Modernizes its Logistics," *Air and Cosmos,* February 6, 1998, trans. Foreign Broadcast Information Service, March 1, 1998.

24. France's Système d'Information du Commandement des Forces (SICF) has been tested in Bosnia since 1995. See Nigel Vinson, "Welcome to the Future—Digitisation of the Battlefield," *The New International Security Review 1998* (London: Royal United Services Institute, 1998), 77-88.

25. See, for example, Bernard Lavarini, *Vaincre sans tuer du silex aux armes non léathales* (Paris: Stock, 1997).

26. For an argument that links a European projection force with European procurement choices see Pierre Lellouche, *Légitime défense: Vers une Europe en sécurité au XXI^{éme} siécle* (Paris: Éditions Patrick Banon, 1996), 247-256.

27. See, for example, Jean Guisnel, *Guerres dans le cyberspace* (Paris: Éditions la Découverte, 1995).

28. For example, see "France Mulls NASA-Like Aerospace Research Agency," *Aviation Week and Space Technology,* November 24, 1997, 70-71.

6.
Germany and the RMA

Germany presents a different case than France. Germany has had no bold strategic military project defining its existence as a postwar state. The new Federal Republic of Germany has sought to find itself within a new Europe and in close alliance with the United States. The struggle for reunification has been its strategic objective.

With the end of the Cold War and the process of reunification, a new Germany at the heart of a new Europe is emerging. What kind of strategic concept makes sense for the new Germany? What kind of European policy? What kind of policy toward the United States is required for German leadership within the new Europe? And what role does military power play for the new Germany within the new Europe and the new Alliance?

A revolution in military affairs can take root in Germany only in the context of a strategic project for Germany and Europe. It also requires rethinking the military instrument within German and allied policy.

The Context of Change

Upheaval characterizes the new Europe. This upheaval brings with it the need to create a new order (such as existed after the Vienna Congress). Interests must be balanced. Security, in the sense of the absence of violence, remains a central issue. At the same time, transnational trends in economics and technology must be recognized. A unifying imperative has arisen in Europe that drives states to transfer sovereignty and core competencies to Europeanwide organizations. Integration in the West is very advanced, with NATO and the EU providing the cornerstone, yet a core of national sovereignty will remain.

The idea of a "United States of Europe," once vociferously propagated by Chancellor Kohl, no longer finds his support. He maintains that he underestimated the loyalties held by the peoples of Europe for their respective nation-states. A "Europe of the Fatherlands," integrated where possible and appropriate, is the best way to describe the currently predominant perspective.

The decisive measure of integration's continued success will be whether the Euro functions or not. If monetary union works, European integration, including a European Security and Defense Identity (ESDI), however construed, will receive a significant boost. If not, European integration will experience a major setback.

Germany was prepared to transfer national sovereignty rights to a supranational institution, to a Political Union, to a greater degree than practically any other member of the EU, but Germany's partners, particularly France and Great Britain, were not ready for this. Consequently, Germany was compelled to take a new approach, seeking pragmatic advances in the direction of further cooperation, coordination, and harmonization, with the long-term hope of arriving at the desired level of integration. Maintaining close ties with the United States has a key role in this approach.[1]

It is important to underline that for Germany, strengthening a European armaments and technology basis and a European defense identity does not have the goal of excluding the United States. Rather, it is directed at creating the conditions for an enduring—and perhaps more balanced—partnership with the United States. Germany's thinking is that the United States will remain interested in Europe over the long run only if Europe presents itself as an attractive partner.

Germany insists that the cooperation or merger of companies occurs only among private, nonstate-owned operations. British companies, aside from a few exceptions, are better prospects than French state-owned ones.

Perceptions of Risks and Challenges

Developments in Russia need to be closely watched, as do developments in the Baltic Republics and the Baltic Sea, the maintenance of an independent Ukraine and the implications of a

Russia without the historical Rus or Kiev, and the situation in the Caucasus. Can a revisionist policy be excluded over the long run? What role will Russia play in Europe, that of partner or opponent? Moreover, even in the case of a partnership between Russia and Europe, it is better for Europe to be a strong partner of Russia than a weak one. Finally, will there be tensions with NATO? And what kind of rivalries will develop between Russia and the United States?

Other challenges include tense relations in the southeast (Balkans, Turkey, Greece, Cyprus), the tensions around the Mediterranean and in the Mideast, and global risks (economics, trade, finance, over-population, and environment). There is also the question of reordering global strategic relationships and defining Europe's role in the new global system. In this context, one must examine whether the stability of West-West relations is permanent. Can the transatlantic community be strengthened? Does symbiosis or rivalry predominate in relations between the United States and the EU? It is important for Germany to secure ties to the West (*Westbindung*), particularly the German-American relationship.[2]

Perceptions of NATO's Further Development

The question of NATO's further development raises the issue of the Alliance's purpose and competency—in other words, should Article 5 remain the foundation of Alliance military activity for Germany? By the same token, can "non-Article 5" action remain a flexible instrument for overcoming crises, or does it portend paralysis through conflict over competencies? This also raises the issue of NATO military integration and the relationship among NATO, EU, and WEU—even if it is clear that the cohesion of the EU/WEU will not be strong enough to replace NATO in the future.

Setting clear priorities is important; without a militarily integrated NATO, there would be no security for Europe. Europe needs to be wary of wasting time and effort on unrealizable goals. There can be an independent role for the Europeans, but the definition of independence should not be needless political rivalry with the United States but enhanced strategic capability. Equal rights and equal influence depend on comparable capability; those who want to be Indian chiefs need to provide the braves. The same applies to France

and AFSOUTH—i.e., for the time being there is no alternative to the United States remaining in control.

The Tasks of the Armed Forces

Armed forces are only *one* of security policy's means, but an essential one with influence underlying almost all aspects of security policy. For Germany, the basic strategic idea revolves around the following concepts:

- Security is defined by the absence of violence between or against states
- Strategy should prevent such violence from arising
- Where this is not possible, violence must be contained and prevented from being directed against one's own community.

From this follow two main tasks, both connected with one another:

- The creation and the maintenance of military stability in Europe (this prevents the development of realistic options for the use of military power to change the status quo)
- The pursuit of military-crisis management. Political authorities must determine the optimal time for this. At the same time, in determining priorities there should be no a priori exclusion of particular types of crises or geographical areas.

Finally, a central condition for most European states is international cooperation. A nation-state can avoid cooperation, but it can no longer carry out military-crisis management on its own. Five tasks for the German Armed Forces need to be addressed:

- Securing military stability through the maintenance of a balance of military power
- The classic tasks of territorial and alliance defense
- Military-crisis management
- International humanitarian assistance
- Military cooperation.

Military Stability through Balance

Maintaining a defense capability of the proper magnitude is important, and this is the responsibility of the individual states. On the basis of the nonconfrontational order in Europe, states must see their armed forces as contributing to the maintenance of European stability, whereby individual countries should refrain from having forces either too large or too small. An excessively large force implies, from the perspective of the other states, a danger to security. Excessively small forces would also be undesirable for a country, as its neighbors would see this as "free riding" and shunning common responsibilities for maintaining stability. Finally, the presence of the United States on the continent is essential to the military stabilization of the commonly agreed peace order in Europe—and this is what maintaining a balance is all about.

The Classic Task: Territorial and Alliance Defense

Territory is the most important physical precondition of both a state's existence and its ability to pursue its political values and goals. Territorial integrity is thus synonymous with political and structural integrity. Defense of the state territory against all forms of outside violence remains the most important task of national strategy and the basic requirement of the armed forces. The probability of having to defend territory can affect the manner of implementation, but not the principle.

The operational conditions have changed and will in all probability continue to change: space is shrinking, and defense along the territorial boundaries is no longer sufficient (think of today's air defense and the new threats that aim directly at targets within one's territory). This creates problems particularly for small states whose territory no longer gives the defender enough space and time.

Defense within an alliance compels armed forces to prepare for and, when necessary, carry out operations of all sizes, including those outside one's own territory (for most NATO members, this has been the case for 50 years). For political and strategic-operational reasons, alliance defense for Germany is synonymous with territorial defense.

Vital interests must also be protected outside one's national territory at the point where the threat arises (one thinks of Italy's

action in the last Albanian crisis). It is necessary to oppose negative changes in the strategic environment in a timely manner (here, it is important to keep the optimal point of time in mind). Consequently, it is a strategic anachronism to limit armed forces (or elements thereof) jurisdictionally or politically to one's own territory. What is necessary is a new definition of defense.

Military-Crisis Management

Military-crisis management is a broad, perhaps intentionally fuzzy term. Nevertheless, it can be said that it involves actions below the threshold of defending against direct aggression against national territory.

- There are different levels of activity involved in crisis management for the military: observer missions, peacekeeping, peace making, etc. The common characteristic of all of them is the need for forces to be prepared to fight, but that is not the main purpose of the operation.
- There are also different geographical situations: in principle, the farther away the action, the less direct the consequences. From this follows the need to provide a political justification for such actions, which in turn creates the bounding conditions for the operation.

Military-crisis management contains a double uncertainty, which needs to be continually considered during military planning and implementation:

- In terms of the area of operation, the crisis can reach a point where the element of combat dominates or where the operation has to be ended.
- Seen strategically, the crisis can escalate to normal war, or further crisis areas can arise. The latter is facilitated by modern transportation and communications technologies.

Regarding crises in Europe or on the European periphery, above all when the interests of the larger European powers are involved, a

constant guard must be maintained against possible escalation to a larger, more serious crisis. For example, an external power could involve NATO in the Baltics if it wanted to distract it from the Black Sea. Thus, forces earmarked for crisis reaction must have the appropriate dimension (numerous crises could occur simultaneously, therefore sustainability and the ability to escalate are necessary).

Military-crisis management means, in essence, being able to overcome crises at a distance. In technical terms, this involves a military intervention. Even if the force of arms is not in the foreground, it is nevertheless a determining element (otherwise one could send the Red Cross). Thus, the same rule that applies to every use of armed force applies to military-crisis management: those who deploy forces must have a clear goal and must want to prevail; otherwise, political defeat threatens.

The difference between military-crisis management, at least at higher levels of conflict, and defense becomes fluid. Structure, armament, training, and method of employment of the armed forces cannot and must not be sharply divided between crisis management and defense capability (a key word is versatility, to include universality of concept and flexibility of instrument).

Limited resources require the setting of priorities. For Germany, these lie in Europe, including central and eastern Europe. Additionally, the following must be considered: no abstinence (above all no ideological abstinence), but also no a priori prioritization. Alliance solidarity is the justifying interest!

A balanced relationship is required between role specialization and general force versatility; the efficiency of the whole is more important than the optimization of partial areas. This also corresponds to preventing an inappropriate expenditure of resources for peripheral tasks. Drilling wells in Patagonia or clearing mines in Angola is not a pressing task for German military policy; such tasks are to be carried out, if at all, within existing resources.

Military Cooperation

Permanent cooperation of the armed forces with a set agenda is a normal part of security policy in Europe. This is unique, both in terms of European history and in terms of other continents. Further

elements include confidence building and arms control. Moreover, there is project-related cooperation, e.g., in the context of the Partnership for Peace (PfP), to strengthen interoperability.

A comparably new tendency exists in the increased development of multinational, integrated force elements. This has long been common practice within NATO, but this should be pursued with caution and not to a greater degree than the purpose of the Alliance and common political interest warrant. The commonality of politics must precede the commonality of the instrument, not vice versa. A common instrument without congruent political objectives is, in periods of conflict, more likely to be a reason for division than an incentive for harmony.

Summary of Military Goals

Stability in Europe, Alliance defense, and crisis management (for its own defense as well as for its role in maintaining Alliance solidarity) are Germany's priorities. Expanding and strengthening European capabilities with the aim of greater equality of rights and influence in the transatlantic relationship are also important.

Critical Issues for a German RMA

Germany's "military reform project" needs to be seen in the context of a restructuring of Germany's society and a rebalancing of Germany's European and transatlantic interests. Germany and Europe have seen much in the way of revolution since 1989. The costly challenges of German unity have been compounded by the heavy burden of reintegrating Eastern Europe. The 1990s have seen the Bundeswehr undergo by far the most radical transformation in its 40-year history: incorporating the East German military (NVA), shrinking its military from 495,000 to 340,000 personnel, and moving toward a crisis-reaction footing. It is important to remember that revolution is relative and Germans have seen much in the way of change in recent years. An impending revolution in military affairs is thus placed in a much broader context of change within Europe and Germany.

But there is more to why the RMA debate has not received the prominence it has in other advanced industrial democracies. Germans remain reluctant to delve into heavy strategic debate. The

purpose of German power, the role of military force, and the nature of strategic interests—Germans do not discuss these things easily. The shifts in German strategic focus, the reorientation of German forces—these changes are occurring without a clear and open discussion of the interests behind the transition.

Strategic Interests

Until a clearer idea of Germany's strategic interests has established itself in Germany's political discourse, it will be difficult to say anything definitive about Germany's long-term outlook toward an RMA. Should such a revolution come to Germany, it will be a revolution by default. Germany will go with the new technologies because they make sense in the context of specific needs (i.e., versatility or force-to-space problems), and not because of any overarching concept for achieving revolutionary change in the way force is applied. For a Germany uncertain of its strategic interests, the RMA will be an expedient, not a vision. Indeed, Germany's most immediate preoccupation with the RMA is driven at least as much by Germany's interest in being a good ally as by any clear sense of how and to what purpose Germany forces might be used in the future.

Clearly, being a good ally is one of Germany's vital strategic interests, but the RMA is about the future, and it is unlikely that the future will allow Germany the luxury of defining its national interests solely in terms of its allies. Even being a good ally does not answer the question of whether it is more important to be able to plug in to European or American forces.

Declining Defense Budgets

While strategic uncertainty makes many of the questions raised by the RMA difficult to answer, radically reduced defense budgets make many of the technologies driving the RMA difficult to afford. The enduring costs of unification, the Maastricht criteria, and rising unemployment (now over 10 percent)—these have all reduced Germany's defense budget from DM 59 billion in 1995 to DM 47 billion in 1998, according to the International Institute for Strategic Studies (IISS), London. Tight defense budgets have little left for research and development, for spending on anything beyond

personnel, and for the upkeep of legacy systems (R&D is about 5.4 percent of the German defense budget and 14 percent of the U.S. budget.)

Indeed, the question of affordability dominates the discussion of the RMA in Germany. There is an inherent tension for the Germans between the need to maintain basic military capabilities (and thus have the need to modernize across the board) and investing in new high-technology capabilities. Hence, the Germans will not put all their money into unproven concepts and high-tech weaponry for highly specialized tasks, but rather into those high-tech systems that promise to improve general capabilities.

As a rule, high technology is not expected to bring greater capability at least cost. In cost-conscious Germany, advanced systems are seen as both more capable and more complex and thus more expensive. The EF-2000 and the F-22 aircraft confirm this impression.

Fragmented Defense Industry

Declining procurement budgets (and exports) have forced the German defense industry to lay off 80,000 workers (27 percent) since 1990. The German defense industry shrank 48 percent from 1987 to 1995, whereas France's declined 11 percent and Great Britain's 28 percent. Many firms are on the brink of bankruptcy. If cross-border mergers do not accompany consolidation, many of Germany's defense firms will disappear entirely

Nor is Germany's defense industry poised to exploit the new technologies associated with the RMA. Fragmented and torn between national and European consolidation, Germany's traditional defense industry makes little effort to encourage German military authorities to think about the implications of the RMA. Restrictive arms export policies hinder cooperation in an ever more global market. Specializing in component production, the industry engages in little thinking about the growing role of systems integration. With little industrial system competence, there is little capacity for system leadership.

Many German observers are wary of RMA enthusiasts who overemphasize the importance of aerospace at the expense of

Germany's traditional areas of high-tech expertise. These include submarine building, fuel-cell technology, mine clearing, armor, and NBC defense as exemplified by the superior capability of the Fox Chemical Defense Reconnaissance Vehicle.

At the same time, the German defense industry has certain advantages over its French counterparts in that it is largely in private hands. Germany's approach to its defense industry is more pragmatic than emotional, and there is less political attachment to "national champions." Flexibility to move between the civil and the military sectors is high, and there is a greater inclination to acquire commercial off-the-shelf technologies.

Growing flexibility in equipment design is also apparent. German military authorities recognize the need for giving platforms inherent growth potential in the sense of the British approach, built on concurrent engineering and the integrated program development model. Modular design receives increasing emphasis.

The Military Organization and the Information Revolution

Technological developments alone will not lead to a revolution in German military affairs. If progress is to be revolutionary as opposed to evolutionary, organizational and doctrinal changes must also occur. In thinking about how the information revolution might affect the organization of German forces, it is important to keep several points in mind.

First, much more than the information revolution has driven the reorganization of Germany's Armed Forces over the past decade. Second, the organizational culture of the German military is shaped by the notion of *Auftragstaktik* (mission tactics)—i.e., a strong emphasis on innovation and flexibility in carrying out particular missions. Strong opposition to micro-management from central authorities prevails in the German military. The RMA and the associated technologies will be supported to the extent that they enhance the possibilities of *Auftragstaktik*. The German military can be expected to resist technologies that allow greater meddling from the top.

Third, while the Minister of Defense has commissioned a series of studies on the RMA, most German military authorities do not see

quantum changes coming quickly. Germans have not ignored the RMA debate, but there are few revolutionists in Germany, in part because of significant financial constraints and in part because the German military is also wary of technological fixes, placing relatively greater emphasis on leadership and strategy. While e-mail connections and hyperlinks are foreseen for all forces, new information technologies are by no means the main determinant of the German military's organizational restructuring.

Jointness Among Services

An organizational issue often discussed in terms of the information revolution is the relative degree of jointness that prevails among the various services. Germans very much recognize the need for greater jointness in strategic planning and operational doctrine. They are reluctant, however, to see this as simply a derivative of technological change. The emphasis is on creating effective forces in the classic sense and not on any new management style per se.

The jointness discussion in the German military must also be seen in the context of the Bundeswehr's historical legacy. Germany has not had a general staff since 1945. Germany's top military commander, the General Inspector of the Armed Forces, does not have command authority over the three services. During the Cold War, joint operations were planned and would have been commanded at the NATO level.

While the Bundeswehr is not planning to change the command authority of the General Inspector any time soon, it is seeking to address the jointness deficit. A joint planning and command element has been established in the MOD serving the National Command Authority (NCA) (i.e., the MOD in peacetime or the Chancellor in wartime). It plans and coordinates on behalf of the NCA.

There is also a need to focus on the best command arrangement for Germany's crisis reaction forces. Currently, any crisis reaction package would be under the command of one of the services, with cells from the other services attached. There are those who think this should be changed, such that the commander of any large crisis-reaction force (CRF) package should take off his service hat and put on a joint one. Indeed, some argue that all generals should wear a

joint and not a service hat. A number of military authorities contend that most future employments are going to be joint and combined; hence, most future weapons systems will be used in joint operations. They complain that Germany's past reluctance to address the need for greater jointness reflects a conceptual deficit in understanding of how to use current technological options to their full potential.

Combined Operations

Germany's postwar military culture is very much focused on effective cooperation with allied forces. Germany's leading role in NATO's new multinational corps is one direct consequence. Combined operations and the interoperability they require clearly occupy a central place in German military thinking.

Yet there is concern that the information interfaces between Germany's forces and those of its allies, in particular those of the United States, will not live up to future needs. With Germany's shrunken defense budget, the ability to plug in to U.S. sensor-shooter networks is by no means assured. This explains the repeated warnings about "strategic disconnect" from former German military chief and current NATO military committee chairman, General Klaus Naumann. The NATO Standardization Agency is important in this context—Germans hope this agency will be able to facilitate a plug-and-play capability among allies. It is likely that German modernization programs will place greater emphasis on being able effectively to plug into NATO information systems than on matching weapons capabilities across the board.

The overall importance of interoperability should not conceal the different ways in which Germany's services approach the question. The German Air Force and Navy have significant experience with close cooperation as junior partners to the more advanced U.S. Air Force and Navy, where the United States sets the terms for interoperability. The German Army's experience, however, is somewhat different in terms of equipment, training, doctrine, and leadership. The German Army sees itself as less of a junior partner and more of an equal to the U.S. Army.

German military authorities are not particularly concerned about the United States becoming a sole-source provider of information—

in the sense of a strategic "information umbrella"—and the political leverage this could imply. Concepts and ideas are what count, not raw information, maintain German military authorities—and here, they are not so convinced of a great disparity. While Germans do not see information becoming the primary currency of exchange in the alliance, they do recognize that intelligence assets translate into influence and that specialized capabilities have their value.

Multinational Development and Procurement

German firms recognize that both competition *and* strategic cooperation will take place simultaneously, both in Europe and transatlantically.

In regard to the newly formed European procurement agency, OCCAR, optimism is greater at the political level than at the working level. In Germany, the question is less whether Germany will be able to play a large role in pushing the advanced technologies associated with the RMA than whether OCCAR will be able to function at all. The political obstacles to greater cooperation remain large. Even in Germany, there is little support at the political level for rescinding the Treaty of Rome's Article 223, which permits the protection of national arms industries.[3]

What is clear in regard to multinational cooperation programs is that Germany, faced with tremendous financial constraints, will be much less willing to pursue cooperative programs with the French, or anyone else, merely for the purpose of political symbolism. And Robert Rudney is correct in observing that German officials are "less strident about the potential for a European preference and more accommodating toward cooperation with the United States" than France.[4]

Nevertheless, America's aggressive commercial tactics disturb Europe. AWACS is good but extremely expensive. Europe will seek to play a larger role in the development of a new Air-Ground Surveillance capability for NATO. Many Europeans see an American unwillingness to truly cooperate on such projects. The Medium Extended Air Defense System (MEADS) will be the real test, particularly in regard to equal rights on the definition of the necessary military capabilities.

CRF and Strategic Goals

The biggest change coming to the Bundeswehr is the creation of a 50,000-man CRF. According to IISS,

> The CRF are designed to deploy in one major operation (up to an army division along with corresponding air assets) as well as participating simultaneously in smaller missions, such as peacekeeping and humanitarian assistance. . . . The CRF will constitute, when completed, 70% of the air force, nearly 100% of the navy but only 16% of the army."[5]

Various units will be earmarked for CRF duty, but German authorities want to maintain as much flexibility as possible in putting together CRF packages. No division-sized element will be solely devoted to CRF. For a Bundeswehr that was designed to defend the German-German border, this will be a dramatically new mission.

The priority for Germany's developing 50,000-man CRF is supporting Germany's primary geostrategic interest: contributing to the military stabilization of Europe through preventive action. This means territorial defense of the Alliance—no longer on the German-German border but along more distant frontiers. Germany is tailoring its forces first for NATO's strategy of counterconcentration, giving them offensive capabilities first for NATO's flanks, and only second for out-of-area peace support.

Germany's strategic focus remains the East and the Baltics, not only in terms of defense but also of military cooperation of these formerly Communist countries. Major out-of-area warfighting missions do not have priority unless they are of strategic importance.

Nevertheless, the ability to participate in multinational peace support operations along the alliance periphery, from the Baltics to the Mediterranean, is also defined as an important German interest.

While a strategic division of labor raises certain problems, in operational terms there is value on focusing on the specific contributions Germany can make to CRF. Germany's chemical defense capability, particularly with the Fox detection vehicle, is superior. Its reconnaissance Tornadoes, minesweeping capabilities, and Patriot batteries also provide a significant contribution. For

Germans, the issue of interoperability must also be viewed in terms of these comparative advantages.

Germany's emerging CRF implies not only a shift in geostrategic focus, but also major restructuring of German Armed Forces. For almost 40 years, Germany built forces to defend the German-German border against a massive armored attack; the CRF will leave that behind. Doctrine, command, communications, mobility, equipment, logistics, sustainability—all these things will change. This flux clearly creates an environment conducive to innovation—even in the face of budgetary constraints. In thinking about the RMA in the Bundeswehr, it thus makes sense to closely follow developments in the CRF. In many cases, innovation will come to the CRF first.

Information Technology and Information Warfare

Most German military authorities have come to recognize that information dominance is not just a force multiplier but also a strategic instrument. Yet translating this general proposition into military doctrine and force structure remains a distant prospect. Moreover, skepticism regarding the revolutionary impact of information on warfare is widespread.

Today, Germans still approach information warfare, in the sense of information strikes and information defense, in the traditional way. The focus is on assuring secure communications while being able to destroy, jam, or otherwise disrupt enemy communications. Strategic information warfare across the depth of a battlefield is still very much in the conceptualization stage.

In regard to European and transatlantic strategies for cyberwar and network vulnerability, Germany, the United Kingdom, and France have a great interest in the way in which the NATO Military Communication Committee will address this issue.

Crisis Response Force C^3I

In trying to identify incipient changes in Germany's approach to information warfare, particularly in terms of battlefield awareness and battlefield knowledge, it makes sense to look at the new headquarters elements being put together for CRF. These new mobile headquarters provide the opportunity for redesign in a way that modernizing a

main defense force (MDF) C^3I does not. Here, a number of points can be made:

- Germans planning for crisis reaction emphasize the need for establishing an "information space" when deploying abroad.
- Systems like AGS/JSTARS are not sought as surveillance platforms. Instead, there is greater interest in their role as mobile command posts or for target acquisition roles. Such systems make C^3I more versatile, giving it both CRF and MDF roles.
- Systems that are proving themselves in CRF will likely be introduced to MDF.

Industrial Developments

The increasing information intensity of German Armed Forces will also have an impact on their relationship to German and European telecommunications industry. The Ministry of Defense recognizes that innovation in military communication will be commercially driven.

Nevertheless, relationships with other European, American, and Asian telecommunications companies are growing slowly. The German telecommunications market—in line with EU guidelines—opened up in 1998, generating significant competition for the formerly state-owned Telekom. Many new providers will establish themselves in Germany, providing the Ministry of Defense with a wider range of potential suppliers for military systems as well. The mobile telephone market is flourishing, and German systems are competitive. Many of these companies (for example, Siemens) have had a long-standing relationship with the German Ministry of Defense.

Battlefield Awareness

German military authorities are skeptical of the ability of sensors to find significant threats. Opponents hiding in schools and hospitals will remain a problem, as electromagnetic signatures do not tell all. By the same token, German officials are skeptical that computer-driven "battlefield awareness," let alone "battlefield knowledge," could replace leadership and strategy. New technologies, Germans tend to

believe, will not alter the essence of war: a violent battle of wills for the control of territory. Even perfect battlefield awareness and knowledge would not change this.

To the degree that Germany specifically seeks improved battlefield awareness and battlefield knowledge, this will be less space based than France or the United States. Germany is focusing on high-altitude and endurance systems for reconnaissance and surveillance of both large areas and point targets. UAVs will also have a role in air-space management and as "air stationary" platforms for switches. UAVs are not foreseen in a major strike role—at least not any time soon.

Germany and the Future of Space Policy

Germany recognizes the changes coming to the space business in terms of greater commercialization and greater internationalization. It also recognizes that future military systems will be based to a much greater extent than now on commercial technologies. Germany's Minister of Defense sees a need for German firms to work with both European and American counterparts. Nevertheless, German military authorities do not give space the priority that either the Americans or the French do. Germans see space as a tool, not as a battleground.

Germany has no vision of itself as a space power. Its military priorities are elsewhere. Qualitative change in the importance of space-based capabilities is not likely in the German Armed Forces in the next decade; budgetary constraints are a big part of this.

Long-Range Precision Strike

With declining manpower and larger territories potentially in need of defense, German forces must plan for much lower force-to-space ratios than in the past. This increases the need for long-range precision strike (LRPS). This also increases the need for joint operations, but when it comes to modernization, the German services remain somewhat parochial.

There is clear recognition of the difficulty posed by the rapid obsolescence of even new weapons systems. Germans recognize that platforms and systems must be built with inherent growth potential and that modular systems are the way to go. By the same token,

weapons systems need to be more than flexible, more versatile. The TAURUS, a modular stand-off weapon is an example of this; it will have a range of 350 kilometers and a radar/IR sensor (by 2003).

Summary

Germany does not have a wide variety of options for how it will respond to the prospect of a revolution in military affairs. Procurement and force structures over the next 10 to 15 years will largely proceed on the basis of current planning. This planning and the ongoing budgetary pressure point in the direction of a moderate German RMA capability. Germany will continue to acquire high-technology equipment. Greatest flexibility in future procurement decisions will exist in the area of modern C^3I, particularly to the degree that it draws on commercial, off-the-shelf technology. Less flexibility will exist in the area of platforms, where many planning decisions have already been made.

A move toward an extensive RMA capability would come only if the chancellery made a national commitment to a much more aggressive approach toward both civilian and military high technology. Such a shift remains highly unlikely, primarily for financial reasons. Nor is it likely that Germany will completely ignore the implications of high technology for its military affairs, which would significantly damage Germany's strategic position, particularly by denying it the ability to "plug in" to American forces. In short, Germany will seek to maintain modern and balanced forces that are both affordable and capable of joint and combined operations.

On the European level, the German armaments industry will, in most cases, seek true integration. On the transatlantic level, it will pursue cooperative options, but the motivation will be more economic than political. Moreover, this cooperation will have to be based on true partnership. There is little interest in one-way streets, where Germany buys "black boxes" but has little role in their development and production.

Notes

1. See Holger H. Mey, "View from Germany: A European Security and Defense Identity—What Role for the United States?" *Comparative Strategy* 14, no. 3 (July-September 1995): 311-316.

2. See Holger H. Mey, "A View from Germany: German-American Relations: The Case for a Preference," *Comparative Strategy* 14, no. 2 (April-June 1995): 205-209.

3. As underlined by Gunnar Simon, State Secretary for Armaments, in *Soldat und Technik* no.1 (1997).

4. *Armed Forces Journal International* 134, no. 1 (August 1996): 16.

5. See "Germany's New Look Security Policy," *Strategic Comments* 3, no. 1 (January 1997).

7.
Conclusions

The RMA has emerged as a key concept in the restructuring of U.S. military power within the post-Cold War system. As such, key allies of the United States need to come to terms with American approaches and programs in shaping their own responses to the post-Cold War security system.

For Western Europeans, the end of the Cold War has carried with it a new phase in the building of Europe. At the same time, the Western European model of development is challenged by the American economy and by broader globalization processes. The RMA is part of a much broader American challenge to Europe; a European variant of the RMA will be a subset of a broader process of economic, cultural, and organizational change in the decade ahead.

The consensus within Western Europe upon the need to build more flexible, mobile, power-projection forces has not been carried forward to date into a clear force structure model. Indeed, the RMA process and the American approach, or rather the military services' various responses to the RMA, are key influences upon any European RMA model(s).

For the French, the model of an autonomous European defense identity guiding a future European force structure is undercut by the continuing influence and power of the United States. Indeed, as Europe responds to globalization, a purely European defense identity seems further rather than closer to realization.

A European RMA built around a European defense identity would be the classic French response to the American challenge. Rather than clearly rejecting this aspiration, the French may see a more flexible approach emerge in practice—some European defense consolidation, some transatlantic defense consolidation, new approaches to NATO power projection, new operational approaches

among key member states of NATO toward power projection, and the blending of the new professional French Army with allied approaches to operations and force structure development.

A mixed model of European consolidation and participation in American innovations in the military sector will drive Europe toward a variant of the RMA. A European RMA will emphasize regional power projection in close proximity to EU territory—the Baltic for the Germans, the Western Mediterranean for the French. Innovations in specific technologies—notably information, precision strike, and sensor technologies—can be drawn upon in the process of innovation.

But the need to put together a bargain between Europe and the United States in approaches toward regional security will remain important to shaping the future; here, Germany, like Britain, plays a key role. The Germans wish to work within an interallied setting with the United States. NATO remains pivotal for Germany.

Nonetheless, for Germany to focus more attention upon its military contributions to European security, more consideration for German definitions and approaches toward security interests will be necessary. The dilemma for the French rests on Germans de-emphasizing Atlantic leadership on security policy only to emphasize their own and not the French definitions for European security policy.

The Baltic zone of security could become a priority area of interest for German defense around which forces could be redesigned to provide defensive protection of this core zone for NATO in the years ahead. An emphasis upon defensive weapons rather than deep-strike weapons could form a particular German approach toward this region.

The growing shift of emphasis toward British rather than French industry to cooperate in building modern weapons may presage a shift in German interests toward a European approach led more by German and Anglo-Saxon interests than French. German forces are following closely their bilateral relations with key U.S. forces (notably the Air Force and the Army) in seeking to define a German piece of the RMA puzzle. As such, the European approach to the RMA might follow more a liberal than a corporatist model of European security. Timothy Garton Ash has argued that Europe should be concerned

more with the consolidation of Europe's liberal order than a "vain pursuit" of unification. He noted that "a degree of power projection, including the coordinated use of military power, will be needed to realize the objectives of liberal order even within the continent of Europe and in adjacent areas of vital interest to us, such as North Africa and the Middle East."[1] A European RMA (drawing as it will upon Europe's relationship with the United States and the ability to redefine the scope and nature of interallied operations) can make an important contribution to the consolidation and projection of Europe's liberal order.

Note

1. Timothy Garton Ash, "The Threat to Europe," *Foreign Affairs* 77, no. 2 (March-April 1998): 65.

Epilogue:
Reflections on the U.S.-European Military Technology "Gap"

There is a widely discussed challenge for the Western Alliance—working together in the future as military systems are modernized. It is not encouraging to think about the most successful military alliance in history becoming a collective security system with an increasing inability to mount combined military operations.

This comes at a juncture when Western states recognize a need to work more closely with one another in an effort to enhance European security, including stability in the Mediterranean region. Persistent differences of opinion and of national approaches complicate an ability of Western states to work with one another, but a new specter of technological dissonance threatens their ability to effect joint operations. Further, although much discussed, there is surprisingly little analytical work on the problem and, even less so, with regard to practical solutions for closing the military technology gap in the West.

In part, this is because of the relative "newness" of the problem. With the end of the Cold War, an Alliance postured to defend itself against a large continental military threat had to shift course. Indeed, in the early 1990s, many were debating the continued relevance of the Alliance. Now the Alliance has enlarged with the inclusion of three new states, thus enhancing its relevance to European security.

The question remains, however, of how the Alliance will operate militarily in the future and how the global power in its midst, the United States, will operate with its allies in the years ahead. This question is particularly underscored as the Alliance reconsiders its strategic mission. Which military missions are central to the Alliance? And which tools and approaches are most salient to those missions? NATO is in the process of trying to answer those questions. Coming

to terms with solutions for the military technology gap would seem to be central to the Alliance's future.

But just what is the relationship of the "gap" to greater effectiveness of military coalitions in which Western Europe and the United States would participate? And how might we most effectively deal with this "gap" to enhance our ability to work together?

The U.S. Military in a Time of Change

The driver of change in the Western military system is clearly the United States military and its pursuit of an RMA. To its credit, the United States is not simply sitting on its legacy military systems but is seeking to recast these systems into a new military force capable of operating with new information and communication technologies.

But there are many debates in the United States about a proper approach to the RMA. Should there be a modest incremental adaptation of legacy systems to use new information and communication technologies? Or should there be a much more radical leap forward, in which the old division into air, ground and sea forces is absorbed into an entirely new military system? Not only is there a broad conceptual debate within the United States about the proper direction of the RMA, but the services are paradoxically seeking to dominate the "joint" force of the future:

- The Army is shifting to become a high-intensity ground maneuver force directing precision strikes delivered from sea and land.
- The Navy is shifting from a primary emphasis on its blue-water role to attack from the sea against shore targets and support for operations ashore.
- The Air Force is shifting its attention from classic air power to space dominance and trying to transform itself into the premier C^4I force for the U.S. joint forces.

As the United States debates its approach to the RMA and the services struggle to realign and to redefine themselves, the U.S. military has become absorbed with its strategic redesign. This is occurring precisely at a time when the political leadership of the

United States has focused more and more on the requirements for coalition operations within real world military operations. In other words, a core tension between the strategic redesign of the U.S. military and the requirements of reaching outward to work with allies has become evident. Clearly one part of the problem of a gap is this tension between internal evolution and external links.

The RMA Challenge to U.S. Allies

The RMA is an American concept and frames a debate about the restructuring of American military forces in the period of globalization of the American economy. A core task for regional allies is to seek to understand the scope and character of the American debate and to identify opportunities and risks to themselves in variant patterns of development for the American military in the years ahead.

The RMA rests upon a dramatic restructuring of the American economy. New technologies are correlated with dramatic changes in organizational structures as the United States shapes a new century. The restructuring of the American military is occurring in the context of the restructuring of American society and in the context of an expanded global reach for the United States. It is part of a much broader process of change within the United States and in the relationship of the United States to the world.

For core allies the United States poses a number of challenges simultaneously. European and Asian allies are struggling to redefine their economic models. Europeans are entering a new phase of development with the emergence of the Euro zone. Associated with this change are dramatic efforts to restructure European culture and economies as well. The enlargement of the European Union comes on top of this and is part of the dynamic process of change. In Asia, the currency crisis is part of a broader stimulus for change in Japan and less developed Asian economies. The American economic restructuring is both stimulus and challenge to change in Asia.

The new information society emerging in the United States is reshaping the global reach of American society. The RMA is part of this broader American assault upon established structures of industrial states driving change. Coping with the American challenge, globalization, and emergent technologies, framing Asian and

European variants of information societies, and redefining security structures to reflect the epochal challenges at home and abroad are formidable pressures upon European and Asian allies.

For the United States as the only global power, military instruments are global in character. The United States is redesigning its relationships with key industrial allies. In effect, the United States is trying to set in place a new regional networking strategy. Broad global military reach is inextricably intertwined with the global forces of economic and cultural change. For regional partners of the United States, the RMA is part of a much broader challenge of organizational redesign and innovation within their domestic societies and regional frameworks. For a regional partner operating in a regional network with the United States, the challenge is to design an approach that can cope with American power but at the same time be part of the strategic redesign of its own national and regional agendas.

In other words, an American RMA will not be replicated by any particular regional ally of the United States, but will be part of the new face toward the future of organizational innovation in broader social, economic, and military structures. Hence, the technology gap is an organizational gap and globalization response gap as well.

The Impact of Legacy Systems on the Gap

When the Cold War ended, the Europeans and Americans instantly experienced a power projection gap and a relevance gap. For 40 years, the Europeans had been oriented toward the defense of Germany against a large continental military threat. The United States was not a continental European power and needed air and naval forces to project power to Asia and Europe to support its interests and its allies.

The United States as a naval power had a large global navy. The U.S. Air Force had been built around the need to stop the Soviet Army in its tracks to allow reinforcement of U.S. ground forces by sea in the even of war.

European forces were built around the large and efficient German Army. The European allies of Germany sought in various ways to block Soviet projected lines of attack on Germany and the southern and northern flanks. For this, one did not need power projection

forces or a blue-water navy. Countries that possessed power projection forces, notably France and Britain, did so largely as a legacy of earlier overseas operations in support of empire. But in a constrained resource environment, the competition between central front defense and other missions was always a drain on European military budgets.

Without any RMA, there would be a gap flowing from the different nature of European and American legacy systems. Added to this challenge are the adaptations for each of the key Western European militaries posed by the end of the Cold War:

- The West German Army is becoming a military force for a United Germany.
- France is shifting from a conscript to a professional force with a new focus upon power projection.
- The United Kingdom is undergoing a fundamental strategic defense review in which conclusions reached in early reviews (e.g., the Nott review, which emphasized a significant reduction in the surface navy) are being modified for the new strategic situation.

The strategic redesign of Western European militaries is occurring in the context of profound economic, cultural, and political change. A new Europe is being built, the Euro is being launched, and the redesign of the European economic model to meet the globalization challenge is being pursued. Reform of the military is simply one objective among various contending priorities for a European reconstruction and renewal.

A European Approach to Military Redesign

In the U.S. Joint Chiefs of Staff vision of future warfare (*Joint Vision 2010*), a number of key trends—dominant maneuver, precision engagement, focused logistics, full-dimension protection, and information superiority—would be blended together to give U.S. joint and coalition forces full spectrum dominance in peacetime engagements, in deterrence and conflict prevention, and in situations where it would be necessary to fight and win. The capability to blend

various new technologies into broad-spectrum dominance is the RMA goal of the United States. Such an objective is beyond the reach of any single European state; until there is a real European Union it is impossible to believe military forces and technologies would be guided by a RMA effort to provide full spectrum dominance for European forces.

The alternative would be simply to plug and play within an overall American architecture, when full spectrum dominance is necessary, but to pursue national and coalition efforts to provide for specialized capabilities, where necessary and possible. The United Kingdom and France could develop joint maritime strike forces; the United States, France, and Britain could coordinate cruise missile strikes against targets threatening to their vital national interests; and European army cells could be linked via information and communication systems into a connected joint force for peacekeeping operations.

A European RMA could draw upon the redesign of civilian information and communications systems as part of the rebuilding of the European economy to respond to the globalization challenge. A European RMA would be a subcomponent of a broader redesign of the European technology infrastructure. The key states in Western Europe have, in one form or the other, all adopted force mobility and power projection as the new motif for the transformation of their militaries. There is little consensus upon what this means and requires, but the project to transform militaries to provide for power projection is clearly a driver for change.

The RMA for Western European militaries is a confluence of several challenges:

- The need for individual European states to come to terms with the United States and other European allies in reshaping the military instrument. No Western European state has the economic capacity and will to shape a national response to the RMA. The interallied dynamic—European and transatlantic—is a core aspect of a West European RMA.
- The challenge of combining the transformation of European high-technology industry with new technologies for the military.

As Europe shifts from legacy systems to new ones, how will European governments redesign their procurement systems, force structure choices, research and development processes, and working relationship with industry (in Europe, the United States, and Asia)? How does globalization of technology industries affect strategic choices in the domain of military technology?

- The question of the purpose for deployment of new technologies. Which threats and what requirements are preeminent in shaping defense-planning options? How to transform extant military structures to more effectively meet longer term threats and requirements?
- The challenge of semisovereignty for the defense policy of Western European States. Membership in the European Union and NATO for individual states carries with it shared sovereignty to meet national interests. How can one shape a national defense policy within key Western European states in a semisovereign environment? How can key states effectively combine the requirements for fiscal support for economic and military transformation in a semisovereign environment?

In short, the RMA for Western Europe is part of a broader transformation challenge for the Western European model of development. If Europe simply combines its strengths to become a mercantile power, then the RMA will not receive much support. If Europe seeks to combine economic strength with diplomatic clout, then the RMA is part of a broader transformation of the military instruments available to Europe.

Rethinking the Gap

In other words, the technology gap is more a description of a general challenge than a prescription for change. Europe needs to change its military force structure more dramatically than does the United States, but for the likely missions for which these forces will be deployed, European forces do not need full spectrum dominance.

The rebuilding of the European economies is a more important challenge than the rapid reconstruction of the military instrument. The military instrument can be rebuilt as part of the overall effort to

redesign a high technology society within a new European model of development.

Meeting these challenges requires putting in place a new architecture for military industrial development, procurement, and force structure design. To create such an architecture requires an organizational revolution on both sides of the Atlantic or the bridging of an organizational gap between the military and civilian sectors and between the U.S. and European militaries. Each side of the Atlantic will need to build connectivity among its forces and pay much closer attention to the timing and phasing considerations of the other side in framing joint projects.

The Architectural Gap

The United States could pursue its joint force-driven RMA but end up with few real allies. Alternatively, the United States could seek to put together an architecture in which it might seek overall full-spectrum dominance but within an architecture where plug-and-play allies can develop specialized capabilities and packages of forces to achieve significant dominance in regional situations. An architecture that can take into account both the global needs of the United States and the regional needs of Allies is critical to shaping a force structure plan for coalition operations. Put in other terms, how can a U.S. RMA designed for global forces mesh with a European RMA designed to meet regional requirements?

The Organizational Gap

Each side of the Atlantic has its own organizational gap problem. Nonetheless, developing the connectivity needed for communication and information systems required for joint and coalition forces is a key interactive challenge. It is not simply a requirement that the Europeans adopt American solutions to information and communication connectivity processes after the U.S. joint forces have picked their best option. Crumbs from the table are not how a European RMA would develop. Rather, the European Union is moving east and with it European Union standards for data and telecommunications systems. European and American commercial firms will figure out how to make these different standards work

together, and perhaps the military ought to pay some attention to such solutions. Interoperability for coalition forces is not simply buying American equipment and catching up to the Americans.

The Strategic Partnership Gap

In high-technology industries, global strategic partnerships are key elements driving development and growth. It is not hard to believe that similar partnerships in defense industries need to follow this trend. Forging real strategic partnerships, with systems integrators on both sides of the Atlantic, will be a key part of any interallied RMA. As noted in the December 1997 National Defense Panel Report, there is a real need to "investigate new avenues for interoperability, including closer links between U.S. and overseas defense companies."

The Timing and Phasing Gap

The core allies of the United States capable of participating in an interallied RMA—Europe and Japan—are undergoing fundamental transformations in response to the globalization challenge. U.S. leadership in framing a realistic architecture for the development of an interallied RMA over the next 20 years would be a real contribution to transatlantic relationships. The United States seems too willing to push short-term programs at the expense of developing architecture.

At the same time, a Europe that becomes preoccupied with its domestic development and forgets its military and security responsibilities will not be an ally at all. The RMA could be used as a venue for technological change not only within the military sector, but also as a way to connect the renovation of the military instrument to the redesign of a new high-technology Europe.

Summary

In short, there is clearly a technology gap between the U.S. and European militaries. This is not simply a question of Europe trying to catch up, but rather of the strategic redesign of the U.S. military and of the European economies being out of synch with one another. Framing an interallied RMA, one that would take into account the

need to develop real strategic partnering among allied defense and high technology industries, might close the gap. Enhanced effectiveness for coalition forces could be the result.

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McNair Papers

The McNair Papers are published at Fort Lesley J. McNair, home of the National Defense University. An Army installation since 1794, the post was named in honor of Lieutenant General Lesley James McNair in 1948. McNair, known as the "Educator of the Army" and trainer of some three million troops, was about to take command of Allied Ground Forces in Europe under General Eisenhower, when he was killed in combat in Normandy on July 25, 1944.

The following is a complete list of McNair Papers. For information on availability of specific titles, contact the NDU Press.

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