



1<sup>st</sup> Combat Camera Squadron (Patricia Bunting)

# Europe's

# Military Revolution

By FRANÇOIS L.J. HEISBOURG

**T**he revolution in military affairs (RMA) is not a European concept but American, generated shortly after the Cold War. Moreover, it was the Soviets and not the Europeans who introduced the term *military-technical revolution* in the early 1980s. This semantical absence of Europe is not fortuitous. European political, military, and analytical communities have been loath to recognize the *R* in RMA—the *revolution*. For good or ill, there has

been resistance to the idea that a quantum leap is occurring which can be compared to the impact of technological breakthroughs such as gunpowder or, a few centuries earlier, the stirrup. There are reasons for such skepticism, if only because these developments didn't revolutionize warfare in a day. Gunpowder appeared in Europe no later than 1249. The first canon (bombards) were used in siege warfare on the continent no earlier than 1314, and the first muskets entered battle around 1550. Lances, pikes, and swords were still the weapons of choice at the beginning of the Thirty Years War (1618–1648). This sense of gradual change rather than instant transformation tends

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AP/Wide World Photo (Remy de la Mauvinière)

Eurofighter Typhoon at Paris air show.

to color European attitudes towards RMA. In a less conspicuous category of inertia, we have the corporatist and bureaucratic interests of those who feel threatened by the revolution, but that is not a European monopoly.

There is also a widespread tendency in Europe to put the emphasis less on strictly *military* change—the *M* in RMA—than on the strategic transformation of truly revolutionary proportions evident from the end of the Cold War. This has led one analyst to coin the expression *revolution*

### **national strategic surveillance and reconnaissance assets are a tiny fraction of U.S. capabilities**

*in strategic affairs:* Lawrence Freedman's well-argued analysis is particularly revealing of European diffidence vis à vis RMA.<sup>1</sup> Indeed, from a European standpoint, the disappearance of the Iron Curtain and the Soviet armies from the center of Europe is indisputable physical evidence of a revolution accomplished whereas RMA is a work in progress. Furthermore, the strategic revolution continues to have a massive impact on pre-existing European force structures and doctrines, ahead of and along with the consequences of the revolution per se.

However, these reasons for European aloofness should not be misinterpreted. First, the effects of the strategic revolution and of RMA are generally mutually reinforcing; therefore the same steps tend to address both. Second, European forces must often go through substantially greater change than has the U.S. military. By

virtue of its geography, the American Cold War force posture relied heavily on offshore assets, notably in Europe, and on force projection (reinforcement) capabilities from the continental United States, whereas continental European force structures emphasized territorial defense based on conscription since the enemy was next door. Hence the Europeans, in coping with the strategic revolution, have sometimes taken the lead in certain aspects of RMA notwithstanding their comparatively narrow resource base. Third, there has been a widespread acknowledgement in the European strategic and military community of the need to gear up to the consequences of RMA, notably in light of the Kosovo and Afghanistan air campaigns. This recognition runs against the twin obstacles of time and cost, but it is there nonetheless.

For analytical purposes, our appraisal of European performance will be divided into three categories: battlespace management, essentially through command, control, communications, computers, intelligence, surveillance, and reconnaissance (C<sup>4</sup>ISR); battlespace action, focusing on precision strike assets; and RMA-capable force structures.

### **The Transatlantic Gap**

Battlespace management is the most significant European weakness in terms of RMA and the hardest to remedy. No individual country can command and control joint theater-wide force projections of greater than divisional scope; furthermore no such ability exists in the collective framework of the emerging security and defense policy (ESDP) of the European Union (EU). National strategic surveillance and reconnaissance assets are a tiny fraction of U.S. capabilities. The reasons for Europe's lag are manifold, and not all result from its own failures. Foremost, there is the weight of the Cold War legacy, during which the only major contingency was the possibility of war in Europe itself, with an integrated NATO handling the conduct of operations and U.S. assets playing an essential role. The newness of ESDP—which essentially began in 1999—and the lack of critical mass of European nation-states individually come next. Finally, the United States has discouraged European acquisition of independent strategic intelligence gathering, force planning, and collective theater-command capabilities in no uncertain terms. Washington's fight against "needless duplication" by EU may be justified insofar as NATO or the United States may provide timely and unstinting access to the corresponding C<sup>4</sup>ISR assets, although such a proposition would assume that an abundance of such assets already exists: but it would be unwise to pillory the Europeans for their lack of C<sup>4</sup>ISR in the same



Italian Bright Star participants.

1<sup>st</sup> Combat Camera Squadron (Patricia Bunting)



Italian pilots during Clean Hunter.

52<sup>nd</sup> Communications Squadron (Michelle S. Roquid)

does not have, the union will have to provide on its own; and even where access may exist, there are few areas where C<sup>4</sup>ISR is so abundant that the Europeans should do nothing. Finally, the Europeans—especially France, Spain, Italy, and Germany—have also found that the quality of access to U.S. C<sup>4</sup>ISR assets can be improved if one has demonstrated the will and ability to acquire one's own capability. The French, in particular, believe that the acquisition of a dedicated reconnaissance satellite system (Helios I from 1995 onwards) has enhanced French-U.S. cooperation in strategic intelligence. Germany is investing in radarsat reconnaissance (SAR Lupe), while France is due to launch its first Helios II satellite in 2004.

Although far behind the United States, the Europeans have also been improving their limited C<sup>4</sup>, with the British followed by the French now able to project joint theaterwide national command capabilities for less than corps-sized operations. They also have a reasonably good record in tactical intelligence-gathering unmanned aerial vehicles (UAVs), which were heavily used in Kosovo, notably by the Germans and French. However, the Europeans are only beginning to work with U.S. and Israeli firms on long-endurance drones.

The gap between the United States and Europe is also substantial in terms of intelligent weapons and brilliant munitions. And unlike the C<sup>4</sup>ISR situation, there are no good reasons. Today not a single country possesses the equivalent of the American joint direct attack munition (JDAM), although France is due to have its functional equivalent in 2004. Air launched cruise missiles (ALCMs) are under development but won't be in service before 2003–04. Stocks of laser-guided bombs (LGBs), where they exist, are insufficient. France had to borrow a supply from the United States during the Kosovo air war. The situation is better with anti-radar missiles and suppression of enemy air defenses generally. As for support aircraft, offensive electronic warfare assets are scarce or nonexistent in most air forces. In-flight refuelling (IFRF) aircraft exist at just a tenth of U.S. numbers (and less in terms of overall fuel load), with only part of the difference with U.S. capabilities being attributable to Europe's greater proximity to potential areas of operations.

No technological barrier is involved in most of these instances. European industry is capable of designing and producing global positioning

breath. The real objective for the Allies is to strike the best possible balance between European investment in C<sup>4</sup>ISR—a particularly costly and demanding area—and the use of NATO and U.S. assets. In terms of access to force planning assets, current negotiations between EU and NATO illustrate this process. What the Alliance denies or



*USS Enterprise and Charles de Gaulle in the Mediterranean.*

U.S. Navy (Doug Pearman)

system-inertial navigation system (GPS-INS) kits, ALCMs, LGBs, and IFRF aircraft. Nor is cost a satisfactory explanation as far as “shooters” are concerned: GPS-INS kits are cheap, and the current British-French air-launched cruise missile development costs only a tiny fraction of platforms such as Eurofighter or Rafale. Neither is American

### **the Europeans have generally faced far more radical force structure reforms than the United States**

pressure an issue. One can only attribute the lack of RMA weapon systems to the inertia of vested interests, both industrial and military. Platforms designed during the 1980s generate real production business today, whereas work on precision guided munitions is largely developmental and unit costs are lower. Platform numbers and promotion prospects tend to come together. In traditional air forces one doesn't always earn one's wings by “flying” stand-off missiles or UAVs.

The above notwithstanding, Europe's positioning in RMA capable force structures is less disadvantageous, and in some instances arguably

better than America's. First, as already indicated, the Europeans have generally faced far more radical force structure reforms than the United States. With the exception of the United Kingdom since 1961 and tiny Luxembourg since 1967, at the end of the 1980s all European forces were not only conscript-based but essentially focused on in-place defense. Moving to force projection thus involved dramatic doctrinal, organizational, and structural reform. Such obstacles can naturally deter progress, and countries such as Germany and Italy have yet to really bite the bullet; but once the process has been decided on, the result is akin to a true zero-based transformation. There is little in common between France's lumbering 293,000-strong ground forces of 1989, with 60 percent conscripts, and today's lean and mean army of 136,000 professionals. Beyond the figures, the radical nature of the transformation lends itself to innovative approaches. The French Army Doctrine Center, established in 1999, offers a good example of how the winds of reform and creativity have been blowing in the West's oldest military establishment.



9822 Signal Company (Matthew P. Stiemion)

Spanish soldier on Kosovo-Macedonia border.

### The Purple Culture

Secondly, jointness has been pursued energetically in some instances. The British lead the effort with a Chief of Defence Staff possessing vast powers, commanding an organization with a relatively strong purple culture that extends to war college training, doctrine (with the joint doctrine center up and running), and procurement. France, although not as systematically, has moved to fully joint war college training and has had an integrated procurement executive, an area where the United States remains extraordinarily unjoint, since the early 1960s. Naturally, these reforms are not entirely attributable to RMA requirements as such. A narrower resource base directs efforts towards jointness, whereas the post-Cold War strategic environment leads to setting up theater-scale joint task forces. But the net result is in line with RMA.

Future prospects for the revolution in Europe will revolve around three interconnected issues: money, interoperability, and Europeanization.

*Money.* Even without any increase in defense expenditure, the Europeans could introduce substantially more RMA-relevant systems by changing the terms of the traditional trade-offs between shooters and force multipliers on the one hand and guided munitions and platforms on the other. With structural reforms now being completed in some countries, more attention can be paid to reviewing those trade-offs. This is particularly true of France, which in the 1990s was saddled both with the costs of platforms ordered during the 1980s and with the traumatic transformation from conscription to professionalization.

However, if the major countries will have ALCMs and JDAM-type bombs as well as new long-range air transport assets (with the A-400 M)

within a few years, the fact remains that Europe will need to spend more on defense to be part of RMA. In particular, the gap in military research and development is unacceptable and growing, with Europe spending \$10 billion versus \$50 billion for the United States in FY03.

*Interoperability.* Across the board budget increases will be necessary if Europe is to remain able to interoperate with U.S. forces. Since the latter are benefiting from massive spending increases (from a DOD low of \$276 billion in 1998 to \$380 billion in 2003), the growing technological and capabilities gap between transatlantic partners will make systems interoperability ever more problematic. Such a trend will be damaging for all concerned. Politically, it will be difficult to sustain an alliance in which the United States does the sharp end while Europe does the low end. The Europeans will therefore need to follow Washington in closing the peace-dividend era. Symmetrically, the United States should encourage, not discourage, the Europeans in acquiring high-end capabilities (notably in C<sup>4</sup>ISR) and also support pooling individual efforts into the collective framework of European Community security and defense policy. Furthermore, the United States can boost interoperability by improving access to its technology.

*Europeanization.* This is the new frontier of defense policy in Europe. Although it is sensible to use existing NATO assets wherever possible, notably in terms of force planning, the Europeans need to generate savings and efficiencies by pooling their assets. A European transport command building on the procurement of the A-400 M by many air forces is one area of potential, as is development of a quasi-identical ALCM for the British and French air forces.

The United States can play a positive political role in helping its allies be greater partakers of RMA by giving its blessing to initiatives which add value to Western capabilities. Ultimately, however, Europe's ability to play a major world role will depend on its own efforts. **JFQ**

NOTE

<sup>1</sup> Lawrence Freedman, *The Revolution in Strategic Affairs*, Adelphi Paper no. 318 (Oxford: Oxford University Press for the International Institute for Strategic Studies, April 1998).