Middleweight Forces and the Army's Deployability Dilemma

PETER F. HERRLY

The US Army stands at an important crossroads as it looks to the 21st century. On one hand beckons an inviting path of continuing its achievements since the trauma of Vietnam. In 15 years the Army has rebuilt its leadership, reasserted its discipline, and restored its morale, while fielding a new generation of potent, sophisticated weapons, embracing a classic warfighting doctrine, and organizing heavy and light forces with superb combat potential. Yet the Army's accomplishments have not produced the full range of deployable, flexible, and capable forces demanded by a changing security environment. This article will show how emerging strategic and military trends point to another path, one which adds the potential of middleweight forces to the light and heavy units already in our arsenal, thus providing truly versatile land power readier to face tomorrow's complex and difficult global challenges.

America's future strategic challenges are clear. More independent allies, skillful Soviet public diplomacy, and emerging regional powers will complicate American security choices and erode US ability to maintain bases, port access, and overflight rights. Worse still, the lingering US debt will exert significant pressure to reduce military expenditures, security assistance, and foreign aid. Declining relative American economic power also reinforces domestic arguments against US overseas presence, deployed and afloat. The net effect will diminish (though not eliminate) American ability to rely upon forward deployments as a keystone of its national military strategy.

Underlying this increasingly complex set of problems for the United States in the international arena are the nation's enduring strategic imperatives: safeguarding its security and ocean approaches in the Western Hemisphere;

maintaining its ability to link with free-market economies and natural resources throughout the world; and preventing the domination of the Eurasian landmass by any hostile power or coalition of powers. These fundamental national security requirements are not likely to diminish over the next 20 years. The Army's challenge is to insure that its forces will provide the most leverage possible in support of evolving American strategy.

Some crucial military trends affect the Army's choices for the future. Most important are the sophisticated combat capabilities presently spreading through the developing world. As Army Chief of Staff General Carl Vuono recently noted, more than a dozen developing nations now own over 1000 main battle tanks each.[1] Such arsenals make outside intervention riskier and tougher. To wage quick, decisive campaigns against such threats (imperative for a nation intolerant of long conflicts) requires superior tactical mobility and devastating lethality. Though Third World heavy threats will not equal the sophisticated armored formations of the world's major powers, they cannot be overcome with inadequate weapons and mobility. The French-led Chadians, for instance, defeated large Libyan tank arrays not with foot mobility or rifles but with light motorized and mechanized transport and modern antitank technology.[2] Thus American armed involvement in contingency areas—lacking forward-deployed forces and mature war plans—may not only be likely in tomorrow's less predictable security environment but will place more sophisticated demands upon our forces.

What about strategic lift? Are dramatic improvements in the offing that could enhance US ability to project military power and offset likely future decline in forward-based forces? Unfortunately, despite recent gains the prospects for achieving current DOD lift requirements are poor.[3] The US Air Force is struggling to meet the DOD airlift goal of 66 million ton-miles per day.[4] If full funding is obtained for the C17 air transport, this target may be reached by the end of the century (though it continues to slip, and the long knives of budget cutters are already poised to whittle away at the $40 billion programmed for 210 aircraft).[5] Moreover, the 66 MTM figure understates by nearly half the requirements identified in the many studies which preceded its adoption. According to the Air Force Airlift Master Plan, 66 MTM "represented a minimum goal constrained by fiscal pressures."[6]

Lieutenant Colonel (P) Peter F. Herrly, Infantry, a recent graduate of the National War College, is assigned to the Joint Staff in the Pentagon. He commanded a middleweight battalion—the 2d Battalion, 60th Infantry Regiment—at Fort Lewis, Washington, and has served in heavy and light infantry units in Germany, Korea, the United States, and Vietnam. A graduate of the University of Notre Dame, he earned an M.A. in American history from the University of Wisconsin, and taught in the Department of History at the United States Military Academy.

The picture is worse in sealift. The precipitous decline of the US Merchant Marine, now barely ten percent of its post-World War II size and eroding daily, is matched by the disappearance of the US commercial shipbuilding industry, the recent sharp decline in NATO merchant shipping, and a shrinking pool of trained seamen. Nor is the Navy, anxious to salvage its dream of 600 line vessels, ready to devote more resources to sealift (for Marines or Army).[7] Proposed ultra-fast surface effect ships (for instance, large 55-knot freighters based on current technology) would cut reinforcement times dramatically to any global troublespot. Yet the Navy has avoided pursuing this program.[8]

None of the foregoing is new. There have been massive shortfalls in required US strategic lift since the 1950s. But in a future where trends demonstrate the increasing importance of lift to mitigate the effects of declining forward deployments, the chances of correcting this situation seem nil. The strategic deployability shortfall will continue.

A final important military trend with exciting potential lies in high-tech weapons and associated military systems. Here the prospects are good that the United States can develop significantly more lethal and discriminate land weapons. The projected improvements to current antiarmor weaponry, for instance, are likely to be matched in the future by even more lethal systems. Trends are also favorable for lightly armored or unarmored vehicular mobility.[9] The possibilities inherent in America's traditional technological strength have important implications for the design of future ground forces.

Given these strategic and military trends, what are the ideal general purpose US military forces for the next 20 years? The following desirable features flow from the foregoing analysis:

- Strategic Deployability (light enough to get there quickly);
- High Lethality (able to kill a wide range of threats);
- Tactical (and Operational) Mobility (able to move quickly and decisively around the battlefield);
- Survivability (whether by protection, mobility, command and control, or a combination);
- Versatility (capable across a broad threat spectrum);
- Sustainability (logistically supportable within lift and theater infrastructure constraints).

How are the US armed services postured to meet these criteria? The answers are illuminating. The Air Force's tactical air power satisfies most of them, though its survivability and sustainability and the lack of capable airfields in various contingency areas present continuing challenges. Nevertheless, tactical air wings are widely and correctly perceived as an indispensable supporting component of the national warfighting potential. The Navy for its part has specifically postured itself to meet these requirements (though primarily in the context of maritime operations).[10] Indeed, as the Soviet threat

recedes, the Navy will argue that its carrier-based fleets are even more valuable for contingency operations and power projection than for its sea control mission in the NATO/Warsaw Pact war scenario. Navy strategists are already touting the value of sea power for the future:

> As the West further . . . reduces the capability of its land power to guard distant frontiers in peacetime, President George Bush must be sure our naval forces can act in their stead . . . . Congressionally mandated economies can be accommodated in the reduction of American land power.[11]

Finally, the Marine Corps shares some of the Navy's advantages in strategic mobility, and in addition has been wrestling with the contingency area problem for many years. A service whose force development motto is "Light Enough to Deploy, Heavy Enough to Fight," whose divisions each include a battalion of tanks, substantial heavy artillery, and a wing of excellent close air support, and which can put every Marine infantryman at once on some transport (truck, amphibious tracked vehicle, or helo), must be recognized for its forcible-entry capability within the range of maritime forces.[12] Indeed, to emphasize its flexible means of arriving at the scene of battle, the Marine Corps has recently renamed its units "expeditionary" (in lieu of "amphibious").[13]

For a nation which is both an aerospace and maritime power, these substantial capabilities of the Army's sister services are reassuring. Yet the United States is also a land power—its major conflicts in this century have all been decided on foreign soil. Is the Army well-postured to field ideal 21st-century land forces to "prosecute prompt and sustained combat on land to defeat enemy land forces and to seize, occupy, and defend land areas"?[14] Certainly the Army's modernized heavy forces (i.e. armored and mechanized infantry) are superb. The Abrams and the Bradley are marvelous tools of war. AirLand Battle perfectly fits the aggressive, confident psyche of the American soldier, and heavy battlefield tactics and techniques are constantly tempered in the cauldron of the National Training Center. Despite such advantages, however, heavy divisions and regiments cannot bear the full burden of strategic deployability. A powerful central reserve is worthless if it cannot get to the vital point in time. The Army is right to insist that forward deployments will remain a bulwark of American security, and that heavy forces will continue to be an indispensable component of land power. Nevertheless, divisions weighing 100,000 tons and equipped with 70-ton main battle tanks are simply too ponderous to comprise the total Army strategic force. Movement of just one of these divisions requires 2500 C5 and C141 sorties! Thus the Army faces an ever more acute deployability dilemma.

The strategic and military trends just described have been long developing, and the Army has grappled with the deployability dilemma for nearly a decade. Even while successfully ministering to the Army's post-Vietnam

malaise, the two previous Chiefs of Staff launched major initiatives in this area. Examining the history of these efforts yields important insights into the Army's current situation. In the first months of his tenure as Army Chief of Staff in 1979, General Edward C. Meyer confronted a determined DOD move to make the Army even heavier by mechanizing its infantry divisions. Although the Soviet invasion of Afghanistan had not yet occurred and Southwest Asia had not yet been accorded public recognition as a US vital interest, General Meyer saw a clear need for lighter forces.[15] The strategic lift situation was grim (the struggle with the Navy for fast sealift was just underway), contingency area requirements were growing, and the long-term prospect for retaining the current level of ground forces in NATO was doubtful. The new Chief favored converting infantry divisions to airmobile, but the expense of so many rotary-winged aircraft ruled out that option.

Pressed hard by DOD to mechanize his infantry divisions, General Meyer announced his intention to make the 9th Infantry Division at Fort Lewis, Washington, a "test bed" for a High Technology Light Division (which we'll hereinafter refer to as the "HTLD"). This effort would examine the potential of advanced technology and tactics to make a division having both strategic and tactical mobility; able to deliver substantial antiarmor firepower (protected by light armor or mobility or both); and possessing superb command, control, communications, and intelligence.[16] It should be able to defeat a range of heavy threats, including those in contingency areas or those which might be met by a strategic reserve in mature theaters. Thus, though "light" was part of its title, the HTLD was clearly meant to be—and was—a "middleweight" force within the terms of this article. This division would be able to deploy by air in less than 1000 C-141 equivalent sorties (an initial planning goal General Meyer picked to discipline the development process). To design and test this division he created the Army Development and Evaluation Agency (ADEA), an off-line organization conceived to shortcut the Army materiel and doctrine development process. General Meyer hand-picked key leaders for this effort, and devoted substantial personal effort to insure his vision would be carried out.[17]

Although given the Army's highest priority, the HTLD developed more slowly than desired. The sortie constraint proved especially troublesome, and Army force developers concluded that the design could not be achieved under those limitations (1200 to 1400 C-141 sorties later became the optimum planning figure for a division of this type).[18] Moreover, the existence of ADEA was an institutional irritant, requiring constant personal attention by the Chief of Staff (it survived his retirement by less than five years).[19] Nevertheless, by the end of General Meyer's term, much had been done. A test-bed brigade had been formed with surrogate systems for the proposed slimmed down armored and motorized forces, and a host of combat multipliers were devised to enable the HTLD to defeat a heavy threat: light armored vehicles, wheeled troop carriers,

precision navigation aids, night vision devices, self-propelled but unarmored heavy artillery, ground-launched HELLFIRE long-range antiarmor missiles, computerized command and control, and advanced intelligence gathering and processing. It would rest with General Meyer's successor to see if this innovation would flower or not.

When General John A. Wickham, Jr., became Chief of Staff in 1983, the strategic trends driving a lighter Army were clearer still. General Wickham was even more pessimistic than his predecessor about the prospects for airlift, an increase of which he felt was vital. He had several other key personal convictions:[20]

- He was disenchanted with Division 86, the Army's redesign for its heavy divisions, which by 1983, he recalled, "had become everybody's grab bag. . . . When all the good ideas were thrown in you had a 20,000-man division, and the Corps commander had very little with which to influence the battle."
- The Army's infantry needed a shot in the arm. Although he had commanded a mechanized brigade, General Wickham's principal troop assignments had been with lighter infantry forces, and he felt that the Army needed more infantry with a renewed sense of purpose and training.
- Although unwilling to eliminate the HTLD (both from a felt obligation to sustain and continue the initiative and from his conviction that experimentation was healthy for the Army per se), General Wickham was not enamored with ADEA's proposed design, which he felt was too heavy, too expensive, and infantry-poor. Moreover, he disliked the combined arms battalion idea—battalions with light armor and light infantry companies permanently cross-attached—presented as a vital part of the HTLD.

These convictions led General Wickham to adopt two important measures to reshape the Army: lightening the Army overall, and establishing Light Infantry Divisions. Both of these initiatives were to prove controversial (not least for the thorough and determined methods employed by the Army's senior leadership to embed them deep into the service), but both served the Army's growing need to shed weight.

The move to lighten the total Army evolved from the Army of Excellence study and met less resistance. Redirection of materiel development programs to ensure higher priority for lightness and deployability was long overdue and well executed.[21] However, the Army of Excellence force design changes for the heavy divisions provoked considerable resistance. Although there was widespread agreement that Division 86 had grown too fat, the paring-down process bled off some important combat capability.[22]

The Light Infantry Division—called the LID for short—caused the most debate, however. Designed to meet a rigid deployability constraint, a light division was to deploy on no more than 500 C-141-equivalent air transport sorties (based more on a desire to control the design process than on a formally

generated requirement).[23] By design, the LID featured footmobile infantry, and its primary mission focus (at least initially) was low-intensity conflict.[24] Outside the low-intensity arena, the new light division sacrificed four advantages of modern military technology: 100-percent organic tactical mobility,[25] concentrated heavy antiarmor firepower, full logistical sustainability, and sophisticated C^3I. Thus the world's most developed country created what appeared to some a throwback—a manpower-intensive division that walked, not rode, carried rifles, not heavy antitank weapons, and often got its wounded out by improvised litter. (In fact, the LID looked much like the Army's World War II light divisions, which were formed for combat in rough, mountainous terrain, but beefed up before actual combat employment or converted to standard designs because of concerns over firepower and support.[26])

The institutional tensions caused by the LID were worsened by the development of its strategic rationale. Thoughtful military professionals could agree that a couple of these divisions represented a useful addition to the Army's sparse light forces, which at that time consisted solely of an airborne and an air assault division. But the rationale for a greater number was hotly debated. Owing to lingering domestic fears of "another Vietnam," it seemed unlikely that the United States in the foreseeable future would be willing to commit sizable combat forces to a low-intensity conflict. This supposition undercut the rationale for converting a substantial proportion of our forces to light units, which were the principal instruments of low-intensity conflict.[27] Nevertheless, owing partly to basing and other considerations, the Army's senior leaders decided to field five LIDs, with important consequences:

- This increased number reinforced an emphasis on finding mid-intensity combat rationales for the light divisions, which substantially increased the training tasks for the new formations and thus eroded their training focus.[28]
- Joint war planners at this early stage tended to feel that while smaller units of light infantry could be useful for urban, forested, and other restricted terrain, there was little perceived requirement for light divisions in their entirety (especially for Europe and Southwest Asia).[29]
- Perhaps most critical for the Army's less-than-heavy force structure, the HTLD suffered a serious loss of momentum. Instead of providing a model for conversion of other units, the 9th Infantry Division became "one of a kind." With only a single-division requirement for the HTLD's weapon systems, Congress could no longer be convinced that light armored vehicle procurement made sense.[30] Efforts to demonstrate the HTLD's utility to warfighting theater commanders effectively ceased.

Moreover, the HTLD had no institutional sponsor. Fort Benning, home of the infantry, had its hands full trying to master the tactical implications of the Bradley Armored Fighting Vehicle and the new light divisions themselves. The Armor School at Fort Knox, in view of the increasing unlikelihood of developing actual light armored vehicles, found it easier to

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Mounting the TOW antiarmor missile system on the HUMMWV—as shown here—adds middleweight punch to motorized infantry.

concentrate on heavy force issues. Likewise, owing partly to the independent status of ADEA, neither the Army's Training and Doctrine Command nor the Army Materiel Command had much effort to spare for the HTLD. This institutional orphan soon deteriorated. Various proposals for a light armored vehicle quick fix, including the Marine LAV 25 and the Army's old Sheridan light tank, were discarded one after the other.[31]

Finally, in an attempt to field at least an interim HTLD, the 9th Infantry Division was converted to the 9th Infantry Division (Motorized). Specifically, this version of the HTLD middleweight division mounted large masses of the TOW antiarmor missile system on the Army's new high-mobility, multipurpose wheeled vehicle—the HMMWV—and put its rifle companies on a troop-carrying version of the same vehicle. As a legacy from the early HTLD design era, the motorized battalions had only three maneuver companies, not four as in Division 86 units, and had relatively little infantry (only nine motorized rifle companies in the entire division). The new division lacked many of the combat multipliers thought indispensable by its original designers. Lacking an urgent Army-wide priority, ADEA could not persuade the Army to field such systems as the ground-launched HELLFIRE long-range antiarmor missile, a self-propelled unarmored howitzer, precision navigation

equipment, an improved squad carrier, a light engineer vehicle, towed heavy mortars, and others. It should be stressed, however, that the term "motorized" in the interim middleweight context implied far more than simply wheeled transportation: the new motorized middleweight was based upon an operational concept codified in doctrine (specifically included in FM 100-5) and possessed a complete set of tactical procedures. Equipped principally with an innovative but often user-hostile computerized C^3I system and a mass of slow-firing antitank missile carriers, armored with faith in the maneuver potential inherent in AirLand Battle and the American soldier, the middleweight division began operations in 1986.

The subsequent histories of these new lighter divisions, the HTLD and the LID, make a fascinating comparison. The LID continued to enjoy a high Army priority, demonstrating its show-the-flag utility with its much-publicized deployment to Honduras in 1988. There, the quick arrival of units from the 82d Airborne Division and the 7th Light Infantry Division defused a potential low-intensity conflict.[32] This was precisely the kind of utility General Wickham had envisaged.

When training for more demanding mid-intensity combat scenarios, however, LIDs faced greater challenges. Particularly difficult was the need to integrate reinforcements from higher echelons, especially antitank and transportation assets, needed for LIDs to attempt combat on a mechanized battlefield. (These reinforcements, known as "corps plugs," make an LID deployment significantly more cumbersome.) The problem here can be characterized as the "Task Force Smith" syndrome. Like that first American combat element to see action in the Korean War (which was thrown together quickly), units that have not habitually trained with reinforcing and supporting elements—particularly when such support provides a quantum jump in combat capability—have a harder time fighting together smoothly and cohesively.[33]

The same challenges face the heavy-light rotations at the NTC, where light infantry battalions occasionally augment heavy brigades. Here concerted effort has yielded some success. Heavy task forces, always anxious to get more infantry, are increasingly willing to work around the penalties associated with transporting and supplying light infantry units. When properly employed by a heavy task force, light fighters can make significant tactical contributions. Nevertheless, current NTC experience demonstrates the continued difficulties in molding smoothly functioning teams from units with such diverse tactical capabilities. Finally, when employed alone, without corps plugs or ad hoc integration with heavy units, light infantry units still have only limited combat potential in open terrain against an armored threat.[34]

As for the middleweight force as currently embodied in the 9th Infantry Division (Motorized), it has demonstrated considerable utility, especially when measured against the future ideal force criteria outlined above. Its major deployments (by air, sea, rail, and road to Korea, the Middle East,

and throughout the western United States) have been models of efficient movement—tributes to the strategic deployability consciousness of its designers. Moreover, these movements have demonstrated the unique mobility of a middleweight force at the operational level of war. In contrast to light forces (which must be augmented for any intra-theater movement) and even heavy forces (which pay a substantial maintenance penalty for lengthy tracked moves), middleweight forces can make rapid, extended movements without augmentation or readiness impact.[35]

The middleweight division has also demonstrated superior sustainability. Supporting a motorized force (which employs heavy force logistical doctrine with substantially less maintenance and service support requirements) has proven surprisingly easy, given the extended distances often associated with motorized operations. These forces not only can sustain themselves with much less difficulty than heavy units but require significantly less tonnage to support their operations. This is an important advantage for any operational planner considering force deployment to a contingency area.[36]

As for tactical mobility, the HMMWV has proven remarkably effective, providing the middleweight force with tactical mobility essentially equal to heavy forces on virtually all terrain.[37] Moreover, the adoption of armor-type crew cohesion techniques, focused on the bonding of soldiers and vehicles, has notably facilitated the exceptional rapidity of motorized tactical movement.

Its own ability to engage and defeat enemy heavy units has presented a major challenge for the middleweight force. Having only towed artillery and medium air defense systems has proven a serious handicap. Also, the ground-launched HELLFIRE and the improved Mark 19 grenade machine gun have been sorely missed. Necessity has driven the division's TOW gunnery to well above the Army's average. Nevertheless, the reliance upon the slow-firing TOW as the sole long-range tank killer means that frontal offensive assaults and prevention of enemy leakage through defense sectors are difficult—though significant successes have been achieved in both missions.[38]

Survivability is the most critical issue for a middleweight unit. The 9th Division's first NTC rotations provide some indications of its potential in this area. Significantly, survivability in the face of enemy artillery, an obvious concern for an unarmored force, has been a workable problem. The middleweight units operated on extremely wide and deep frontages and employed a variety of tactics and techniques to avoid opposing force artillery. Their generally low losses to artillery tended to vindicate General Meyer's belief that rapid mobility, clever tactics, and sophisticated C^3I can compensate in considerable degree for lack of armored protection in many scenarios. Similar observations eventually applied to survivability against enemy air and direct fire systems.[39]

The most pressing needs of the current middleweight force (as shown at the NTC and elsewhere) are for at least some rapid-fire gun capability, and

for more infantry (though the 9th Division's relatively few infantry companies generally perform well in shaping the battlefield). The consensus of seasoned NTC personnel, for example, was that the addition of about a tank company to each infantry brigade, and the addition of more infantry companies, would add substantial lethality and survivability to the present middleweight force—certainly enough to "demolish any Third World bad guys," in the words of one NTC observer, or to defeat the other likely heavy threats for a motorized force discussed above. (It should be noted that a tank battalion has in fact recently been added to the division, and an increase in infantry companies could be accommodated within the division's current equipment and strength.)

Of late, the middleweight force, reportedly on the edge of extinction, has continued to demonstrate its potential. Rapid no-notice self-deployments over many hundreds of miles to meet civic action contingencies and successful 102-mile mounted infiltrations during darkness against opposing Marine regiments typify the operational and tactical capabilities of middleweight forces.[40]

Given the strategic imperatives for the next 20 years discussed earlier, and the history of the Army's recent efforts to fit itself to those strategic imperatives, what is the prescription for its future force? How might the Army best organize itself to match the ideal criteria described in this article?

First, concerning General Wickham's vision of a lightened total force, lighter main battle tanks—and indeed lightening of the Army's entire family of armored vehicles—are essential. They can be fielded only with a real commitment from the entire heavy community—hopefully forthcoming. As for force design, the important combat capability sacrificed in the slimming down represented by the Army of Excellence should be restored. In attempts to do so, however, heavy force designers must not forget the pressing need for deployability now so evident. Every ton and sortie saved will be vital in shoring up the role of heavy forces in years to come.

As for Army light forces, the prescriptions are simple. The XVIII Airborne Corps' 82d and 101st Divisions provide airborne and air assault capabilities that will remain indispensable. For their part, the five light infantry divisions (the 6th, 7th, 10th, 25th, and 29th [NG]) are now firmly established in concept and in practice, with a burgeoning doctrinal base. Their hand-picked leadership has trained a cohesive core of young leaders and helped revitalize our infantry, just as General Wickham envisaged. Their capability for low-intensity conflict is excellent and should continue to form the focus for their training efforts. So disciplined have they been in restraining their size that perhaps it is time to begin judicious enhancement of support capability (especially medical, service support, and C^3I).

However, there are arguably too many light infantry forces for likely future strategic needs. The Army can and should upgrade some light infantry units to middleweight status so as to equip them to engage in mid-intensity conflict. Significantly, Army long-range doctrine writers, cognizant of the

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trends discussed in this article, are proposing a range of options including increased reliance on heavy-light mixes and readily tailorable forces. These are vitally important initiatives, but by themselves cannot fill the gap caused by the lack of a middleweight capability. (The implications of the Task Force Smith syndrome and the continued need to reduce lift requirements should both be weighed carefully in this regard.)

The Army needs middleweight forces to provide the missing part of its future combat potential. Though the current middleweight division lacks many originally planned combat multipliers, it still embodies the wherewithal to execute AirLand Battle doctrine. The tactics and techniques employed by middleweight soldiers to wrest every particle of combat capability from their equipment represents a potentially powerful but as yet fragile grouping of skills and attitudes—too precious to waste for an Army that prizes initiative, depth, agility, and synchronization.

In the short term, the Army should retain its interim middleweight force, which is relatively inexpensive and provides excellent combat capability. For the long haul, Army leaders and doctrine writers should refurbish the vision of an Army of all weights—light, middleweight, and heavy—so as to be capable across the full spectrum of conflict. This suggests increasing the number of middleweight divisions and continuing to develop the equipment unique to their role. In an era of brutally shrinking defense budgets and changing strategic needs, middleweight forces can provide a sorely needed bargain. Some current light infantry units (and some or all of the National Guard line infantry divisions) should be converted to middleweight status.[41] The Army missed the chance to develop the ideal light armored vehicle for such a force—but the current middleweight force has proven that the ideal vehicle isn't required. Weapon technology within our grasp will provide increased antiarmor lethality. Match that to current light mobility technology, mix with American ingenuity and fighting spirit, and the middleweight force of the future can take shape quickly.

The Army has been fortunate in the foresight of its senior leadership during the period when the deployability issue began to assert itself. Generals Meyer and Wickham recognized the trends reinforcing the Army's role as the central mobile strategic reserve of the free world, and each launched major

initiatives in response. As a result, today's proud and ready Army, though facing extraordinary fiscal pressures, is well positioned to refine and adapt those early initiatives so as to produce the ideal force for the 90s and beyond. As part of this endeavor, the Army should add some tough new middleweights to its ever-improving light and heavyweight fighter ranks—and become the flexible, deployable strategic force our nation requires.

NOTES

1. Carl E. Vuono, "Today's Army Powerful and Prepared," *The Washington Post*, 7 December 1988, p. A21.

2. Briefing by French Liaison Officer to Army Development and Evaluation Agency, 11 October 1987.

3. *Discriminate Deterrence, Report of the Commission on Integrated Long-Term Strategy* (January 1988), p. 25.

4. A million ton-miles is referred to as an "MTM."

5. Interviews, Major Thomas Waylett, Air Staff, 6, 9 March 1989. Airlift funding faces continual internal as well as external challenges in the Air Force.

6. US Air Force, "Airlift Master Plan," 29 September 1983, p. III-5. See also *Airlifter Magazine*, February 1989, p. 13.

7. Interview, Commander Francis Devro, Navy Staff (OP42, Strategic Sealift Division), 9 March 1989. See also Scott C. Truver, "Sealift Manning: Critical Period, Critical Choices," *Armed Forces Journal International*, July 1987, pp. 30-38.

8. Peter C. Kinney, "A Transatlantic Express for Army Equipment," *Armed Forces Journal International* (October, 1988), pp. 92-96; interviews, Major Kinney, 12 March 1989, and Colonel J. B. Darling, Headquarters USMC, 20 and 24 March 1989. Navy officers propose a variety of arguments to buttress their case against investing more resources in fast sealift. That their arguments appear contrived to other services only attests to the depth of service disagreement about solving the sealift problem.

9. Interview, Colonel (P) Thomas White, Army Staff (Armor-Antiarmor Task Force), 8 September 1988.

10. NWP1 (Rev A), *Strategic Concepts of the US Navy* (May 1978), Chapters 1-4, *passim*.

11. Admirals (Ret.) Elmo Zumwalt and Worth Bagley, "Euphoria in the Defense Minefield," *Washington Times*, 15 February 1989, p. F-4.

12. Briefing on Marine Corps capability, LTC Jerry McAbee, USMC, presented at the National War College, 1 March 1989.

13. Discussion with General Alfred M. Gray, Jr., Commandant, USMC, 17 March 1989, and interview with Mr. Jeffrey Record, 10 March 1989. General Gray denies the charge made by some Army observers that this name change was oriented specifically at staking out a role for the Marine Corps as the nation's principal expeditionary force of the future. And indeed, although some maritime enthusiasts occasionally make that claim, the different and complementary capabilities of the Marines and the Army ensure that both will have indispensable roles to play in projecting US ground combat capability in the future. The issue in the present article is whether the Army is optimally suited to play its part in expeditions of tomorrow. See Jeffrey Record, "The Army's Clouded Future," *The Washington Post*, 15 November 1988, p. A21. Although some Army supporters took Mr. Record's article as an attack on Army capabilities, he insists that his intention was to cause the Army to rethink its positions on the issues.

14. Vuono, p. A21.

15. Interview with General (Ret.) Edward C. Meyer, 13 March 1989.

16. Ibid. Also based on a series of telephone interviews with Mr. Robert Keller, Director, Current Forces Division at the Combined Arms Center, Fort Leavenworth, Kansas. (The original name assigned to the Fort Lewis effort was the High Technology Test Bed [HTTB].)

17. Interview with General Meyer.

18. Stephen L. Bowman, "The 'Old Reliables': One of a Kind," *Army*, February 1988, pp. 26-34.

19. Interview with General Meyer.

20. Interview with General (Ret.) John A. Wickham, 27 February 1989. Division 86 was a major TRADOC-sponsored initiative in the early 1980s to examine the entire structure of the heavy division in light of the Army's evolving AirLand Battle doctrine. The designers of the HTLD presumed that permanent cross-attachment of armor and infantry units would provide significant synergism as part of the combat multipliers whose cumulative impact would enhance HTLD capability. However, such organization is controversial within the Army. It is presently being tested by heavy units at Fort Hood and Fort Carson, with apparently favorable results as of this writing. Despite the hopes of its designers, the combined arms

organization (while an effective way to train and organize) is not in my personal experience an *indispensable* part of the HTLD.

21. Interview with General Wickham. The Army of Excellence studies were another TRADOC-sponsored series of efforts to examine Army force structure for savings in manpower and equipment, oriented in part at saving spaces for use in fielding the new light divisions.

22. Telephone interview with Major Alexander, Doctrine Branch, US Army Armor School, Fort Knox, Kentucky. The combat capability included loss of divisional cavalry squadron tanks.

23. Interview with General Wickham.

24. Interview with Colonel Ron Corson (during the LID formation process, Chief of Systems Division, Directorate of Training and Doctrine, US Army Infantry School, Fort Benning, Georgia), 29 March 1989.

*25. Both Generals Meyer and Wickham were deeply impressed with the airmobile division's ability to move its infantry units rapidly about the battlefield even though its numerous organic helicopters could lift only about one-third of these units at one time. Thus neither felt that 100-percent tactical mobility was particularly essential. However, neither apparently considered that the peculiar friction associated with moving scarce ground vehicular mobility assets around the battlefield (e.g. getting truck assets from the trains to link up with combat units) strongly argues for 100-percent tactical mobility. See NTC after-action reports describing the difficulties associated with truck augmentation to light infantry units, dated 7 June 1988, 28 November 1988, and 20 February 1989.

26. Telephone interview with Brigadier General William Stofft, Commander of the Army Center of Military History, 22 March 1989. The official Army history of World War II light divisions is now in draft.

27. Interviews with Jeffrey Record and Colonel Michael Stupka, former planner for the Deputy Chief of Staff for Operations and Plans on the Army Staff.

28. Interview with Colonel Corson.

29. Based on discussions with joint and Army war planners during the period 1985-1986. Colonel (P) Huba Wass de Czege, in his unpublished paper "Employment Concepts for Light Infantry in Europe," 26 August 1988, makes the strongest recent case for the utility of LIDs and their brigades in Europe.

30. Interview with General Wickham.

31. Ibid. The Light Armored Vehicle 25, a wheeled armored multi-purpose vehicle, was an outgrowth of a joint Army-Marine development effort; unfortunately the two services were unable to agree on a joint requirement and the Army pulled out of the program (interview with General Meyer).

32. Vuono, p. A21. See also his "The United States Army is a Strategic Force," *Armed Forces Journal International*, February 1989, pp. 60-64.

33. Based on numerous personal observations and discussions with fellow soldiers, including NTC observer-controllers and opposing force officers. I am indebted to Jeffrey Record for the Task Force Smith paradigm, though it should be noted that some of Task Force Smith's problems stemmed from its internal training failures.

34. Interviews with NTC opposing force commanders and observer-controllers; unpublished "heavy-light" NTC after-action reports dated 7 June 1988, 28 November 1988, 26 January 1989, 20 February 1989.

35. Steven D. Vermillion, "Forest Ablaze: Fort Lewis Troops Answer the Call," *Army*, February 1989, p. 49. Some specific examples of such deployments include the 1988 sea and air Team Spirit deployment to Korea of 1st Brigade, 9th Infantry Division and its attachments; 9th Division deployments by air, rail, and ground to Fort Irwin, California in 1986-1988, including the 3d Brigade combat team's movement in 1988 and the 1st Brigade's in 1989; deployment by air of 9th Division Task Force 3-47 to the Sinai Peninsula in 1988; deployment by air of the 9th Division's 3d Brigade task force to Twenty-Nine Palms, California in 1988; and deployment by air and ground to Montana and Wyoming in the summer of 1988 of two brigade-sized units of the 9th Division. In each of these (and all other less lengthy movements during the same period), deployment proceeded without significant problems.

36. Ibid. See also Steven D. Vermillion, "Motorized at the NTC," *Infantry*, 79 (March-April 1989), 11-13.

37. Personal observations of the author. See also NTC After-Action Report for Rotation 88-9, dated 26 May 1988. The HMMWV is a major success story of Army/industry materiel design and development. Its rugged suspension, efficient drive train, wide wheel base, and simple yet sophisticated engineering have produced a vehicle optimally designed for rapid cross-country movement. 9th Division users, among the first in the Army to field the HMMWV, have been remarkably efficient at employing it at the limits of its design potential and exploiting its many configurations and variants.

38. Trip Report, Subject: Motorized NTC Rotation 88-9, US Army Infantry School, 1 June 1988, p. 5. Telephone interviews with Lieutenant Colonel P. T. Mikolashek concerning his NTC rotation, 10 April 1989.

39. Ibid. The NTC scenarios attempted to mirror the contingency area environments for which the motorized force was principally designed.

40. Discussions with former Marine operations officer at Twenty-Nine Palms and with various members of the 9th Infantry Division's 3d Brigade combat team.

41. The Army National Guard standard line infantry divisions include the 26th, 28th, 38th, 42d, and 47th.