The Army's "Twofer":
The Dual Role of the Interim Force

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by James M. Dubik

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Foreword

As part of its Transformation initiative, the Army is fielding a new kind of ground force it calls the "Interim Force." Two brigades at Fort Lewis, Washington, form the foundation of the Interim Force. Others, involving both active and reserve components, will be fielded in Alaska, Hawaii, Louisiana and Pennsylvania.

The Interim Force has two roles to play. The first is to satisfy a near-term strategic requirement—to provide the National Command Authorities a rapidly deployable, highly lethal and highly mobile ground force capable of full-spectrum operations in a joint and coalition environment. The second is to serve as a bridge from the heavier Legacy Force of today to the more mobile—and more lethal—Objective Force of tomorrow.

The Interim Force is the catalyst for the nonmateriel aspects of change—doctrine, training methodologies, leader and soldier development, and organizational adaptation. Addressing these human dimensions of change is setting the conditions for a faster transition to the Objective Force.

The author has served as a key player in Army Chief of Staff General Eric K. Shinseki's three-pronged approach to Army Transformation. Here, he clearly and thoughtfully explains the two roles of the Interim Force, how they fit together, and how they're bringing the Army closer to its Objective Force.

GORDON R. SULLIVAN
General, U.S. Army Retired
President

October 2001

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Introduction

The strategic and operational landscape for political leaders as well as military forces has changed since the end of the Cold War. Political leaders need new options for today's and tomorrow's realities, not yesterday's. The military force that served the country well must be transformed.

The information age has been and is changing social, economic and political organizations. It has the same effect on military organizations. While the reality of information technologies has been emerging for some time, the full force of those technologies has been apparent only in the last decade—the same decade in which the realities of the post-Cold War have emerged. The computer, local and wide-area networks, the global Internet, e-commerce, wireless communications, virtual organizational behaviors and the many other aspects of globalization, plus Panama, the Gulf War, Somalia, Haiti, Rwanda, Bosnia and Kosovo—all are our teachers.

Our Army has learned and is learning. Our Army has been adapting, and the current Transformation effort accelerates that learning and adaptation. The transformed Army will provide political leaders the new options they need. Key to providing these options is the Interim Force currently being fielded. This essay describes the functions that the Interim Force plays in Army Transformation.

The Realities of Post-Cold War/Information Age Force Design Implications

In times of great change, practice often leads theory. As in the past decade, for the foreseeable future the utility of military forces will be defined by their ability to handle a variety of crises that are linked to vital or important national interests.[1] Practice has defined the meaning of "handle"—that is, to prevent crises associated with our vital or important U.S. interests from occurring, to keep those that have occurred from expanding or escalating, or to end them on terms favorable to the United States and its allies or coalition partners.

From a military standpoint, three major categories describe "crises":

- **Major conventional wars or regional conflicts**—crises in which conventional combat is the essential characteristic; the Gulf War, for example, wars that could emerge in current hot spots, or wars that could emerge in so many other areas where conditions of instability abound.
- **Small-scale contingencies**—crises in which conventional combat plays a key but nonpervasive role, as demonstrated in the Panama invasion.

- **Stability and support operations**—crises in which conventional combat is an ever-present possibility but is the secondary dominant role of military forces; prime examples include operations in Rwanda, Somalia, Haiti, Bosnia and Kosovo.[2]

These three categories, while instructive and useful, are not absolute; gradients exist between these categories. Full-spectrum operations define the military requirements for success in any of these three categories or the gradients between them. Success in conventional combat is necessary but insufficient for post-Cold War military forces.

The notion of combat is also expanding, from one understood in the conventional sense of "military forces of one nation-state or group of nation-states fighting those of another" to one that must include what is now labeled "asymmetric" warfare. The category of "asymmetric," while new, captures the age-old idea of an overall weak force that develops strength in an area where its opponent is thought to be weak. The availability of technology, and its relatively low cost, makes developing this kind of niche strength easier and more dangerous than it has been in our recent past.[3] Furthermore, asymmetric threats are additive to conventional ones, not substitutional.

The amorphic nature and the variety of asymmetry, when added to the demands of full-spectrum operations, describe the complexity of the current and future post-Cold War strategic and operational environment—the environment in which U.S. military forces must succeed. Four conclusions follow from this environment, and all affect the design of military forces.

1. **Variety**. Crises in which American or allied interests are at risk can arise anywhere, for nations with global economies have global interests. Thus, variety reveals itself in a number of ways: in geographic features, climates, and sociopolitical and cultural environments. Variety also marks the makeup of the intervening force: a military element—air, ground, sea and space; a political element—some kind of national or multinational controlling body; a nongovernmental element—usually multiple humanitarian assistance agencies; and a coalition element—sometimes of long-time allies, friends or partners, sometimes of newer partners.

   Another important form of variety is that of infrastructure. Rare is the case where a crisis will arise in a region with prepositioned stocks of military supplies; multiple and modern sea- and airports; and a developed road, rail, bridge and information infrastructure. How many class-70 bridges (bridges capable of holding a 70-ton vehicle like the M1 tank) exist, for example, between Germany and Bosnia? In Bosnia? How many between Albania and Kosovo? Perhaps more to the point: How many are there in any of the potential deployment areas around the world? The answer: few, if any. We created the infrastructure we needed in Germany, in Korea and in Southwest Asia. We placed prepositioned stocks at each of these locations to offset deployment challenges. We cannot do this around the world.

   Finally, threats also come in many varieties. Potential adversaries have multiple options. Moreover, they can outfit themselves with advanced technologies that are easily available—surface-to-surface rockets, artillery,

unmanned aerial vehicles, man-portable air defense, advanced communications systems, and others. These technologies and the willingness to use them make a potential opponent's options more lethal and effective. Niche advantage is readily achievable. Potential adversaries can begin aggression in a conventional way, achieving their political aims before intervening forces arrive, by using their missiles and unconventional forces to deny sea- and airports of entry currently needed by intervening forces. They can also use their terrorist units to attack directly the intervening force's homeland. Once their political objectives are achieved and the intervening force slowed, if not blocked altogether, the potential adversaries can transition into asymmetry. They can withdraw conventional forces, leave behind unconventional or "police" forces, even employ criminals. They can use sanctuary operations and protect their conventional assets by "hugging" tactics, which place military units and equipment in or near "noncombatant" locations. Throughout, they can use disinformation via diplomacy, media and the Internet that complicates both the political and military responses of the intervening force. These are options that our potential adversaries already possess, and the future will find them increasingly better equipped.

When designing forces during the Cold War or against a "two major theater war" (MTW) requirement, the primary focus centered upon relative "knowns" in terms of enemy forces and doctrine, political structure, military allies, geography and infrastructure, together comprising a relatively "clean," conventional battlefield. Current and future realities find that relative "unknowns" in each of these areas and a relatively "dirty" battlefield are the factors that must drive post-Cold War force design.

2. **Speed.** Intervention normally occurs only after a crisis comes to a boil—sometimes quickly, other times after a long simmer. The principle of nonintervention remains dominant, but only to a point. Prior to that point the United States and its allies, rightly, will debate the proper use of force. However, once a crisis reaches the boiling point and the decision is made to intervene, the military requirement becomes speed of response.

During the Cold War and for the two-MTW scenario, crisis response procedures and times were stylized forms of political-military dances. We built warehouses and supply facilities, prepositioned military supplies and equipment, reinforced road and rail networks, and built airports—all to help increase time of response in locations where we expected to fight. We routinely rehearsed responses during military exercises, and continue to do so. Speed achieved in this way is becoming an anachronism; this kind of fixed, predictable world is gone. Given the nature of the post-Cold War strategic and operational environments, and the variety of potential crisis locations, our former strategy diminishes in utility.

A complicating aspect of "speed" is that of sea- and airports of entry. Potential adversaries have studied current American deployment requirements and identified our need for a major, developed air- or seaport. Absent these, they have concluded, we cannot deploy a force with significant combat punch and tactical mobility. Nor can we sustain that force. Consequently, deployment into

multiple, less modern sea- and airports with a reduced logistic footprint becomes a post-Cold War force design criterion.

Potential adversaries' access to at least regional intelligence, reconnaissance and surveillance information, along with possession of long-range rocket artillery and surface-to-surface missiles, further complicates matters for an intervening force. Intervening forces will have to deploy quickly, then disperse immediately from their entry points and begin conducting and sustaining their operations. As a result, intervening forces will, at the same time, be deploying, operating and sustaining—this coordination, like the requirement to use multiple sea- and airports and to operate in underdeveloped infrastructures, becomes a post-Cold War force design criterion.

3. **Precision.** Regardless of where any specific crisis falls on the spectrum of conflict, two expectations will always apply: first, that injury to noncombatants and collateral damage to civilian property be held to absolute minimum levels; second, that friendly casualties be kept to absolute minimum.[4] These expectations will remain even when our adversaries hide their warmaking assets in and among civilian structures or "hug" noncombatants and their facilities. Whatever forces we design must have sufficient precision to meet these two expectations.

4. **Force.** By the time military intervention is directed, the nature of the crisis is such that some faction or other must be compelled to do the will of the intervening force. The operant capability in any military intervention is the ability to compel. Interventions are successful when the combination of forces—air, land, sea and space; military, political and nongovernmental—are sufficient in size and in demonstrated ability to use deadly force, and are backed by the will to use it to compel whomever to end the crisis on the terms mandated. Force—sometimes wielded, sometimes not—is the ever-present *sine qua non* in military interventions. Absent the availability of compelling force and the demonstrated skill and will—military and political—to use it properly at any point along the full spectrum of conflict and against any expected opponent, a military force is not credible and the intervention risks failure. The ability to apply force at every point along the spectrum of conflict remains a post-Cold War design criterion.

The current and foreseeable future strategic and operational environments demand that whatever forces we build, they must be useful and able to succeed in a variety–speed–precision–force, full-spectrum environment. These demands pose a serious challenge to current Army forces—a challenge that requires an immediate solution.

Currently, our Army maintains light and mechanized forces that each meet the demands of variety, speed, precision and force—but only under a limited set of conditions. Light forces, while possessing superior strategic and operational mobility in rugged terrain, lack tactical mobility in the open; thus, their high lethality is limited to the narrow "threat band" and geographic conditions for which they were designed. On the other hand, mechanized forces, while possessing superior tactical mobility in open terrain, are deficient in the strategic and operational mobility of the light forces. Their high lethality is useless if they cannot maneuver to the crisis. A mechanized force's tactical mobility depends upon a large logistics "tail" that is

hampered by poor infrastructure; its lethality diminishes if it has to fight in cities or complex terrain. Today, the Army uses time to solve this problem—mixing light and mechanized forces and taking the time necessary to (a) train them as a team, then deploy them, and (b) improve infrastructure. In some few cases this may be satisfactory; in most cases, it is not. Time, in today's world, is not a commodity to squander.

Army Transformation:
Addressing Both Near-Term and Far-Term Requirements

The near-term requirement—the Interim Force. The Army is fielding a new kind of ground force, labeled the "Interim Force." Two brigades at Fort Lewis, Washington, are the first; several more are to be fielded in Alaska, Hawaii, Louisiana and Pennsylvania. These brigades will create the kind of ground force that can succeed in today's and tomorrow's strategic and operational environments as part of a precision, internetted, combined-arms, rapid-reaction, joint and coalition force. The operational concept, already being translated into fighting and training doctrine, embodies the operational environment's demands of variety, speed, precision and force. The chart below summarizes the extensive and detailed Interim Force operational concept.[5]

INTERIM FORCE OPERATIONAL CONCEPTS

- Rapidly deployable
- Joint and coalition interoperability
- Full spectrum
- Combat capable on arrival
- Precision, internetted, combined-arms fighting
- Decisive action from deliberate maneuver and dismounted infantry assault
- Maintains freedom of maneuver from:
  - High tactical mobility
  - Situational understanding
- Force effectiveness in complex and urban terrain
- Increased deployability and decreased sustainment footprint from common platform
- Reach operations for strategic, joint, combined intelligence, analysis, logistics as well as fires and effects
- Operates under a division, corps or army force headquarters
- Operational mobility via C-130

Several items on the chart above deserve explanation:

- **Rapidly deployable.** Be able to "get there" using multiple air- and seaports, regardless of condition; to create irreversible momentum—arrive without pause to build up forces or logistics; to follow Army or Marine forced-entry units; to complete the deployment within 96 hours of the first aircraft lift-off; to conduct operations immediately upon arrival; to blend light and mechanized deployment and operational characteristics; to strike and operate, throughout the area of operations, at multiple locations.
- **Joint and full-spectrum capable.** Be able to fight as part of a joint task force, contribute to the joint common operating picture, and participate in joint planning and execution; to succeed against any opponent and in any geographic and climactic area, political-military arrangement, or joint task force

composition; to contribute to success in conventional combat as well as any other variety of war or contingency operations.

- **Decisive.** Understand the opponent and identify the weaknesses that will cause his destruction or collapse; focus friendly combat power, lethal and nonlethal, on those weaknesses. Practice asymmetric warfare: use friendly strength against the opponent's weaknesses. Use the tactical network to create overmatch in whatever way is necessary at a time and place of your choosing and to make decisions and take decisive actions in a near-real time, parallel and collaborative way; act faster than your opponent can. Use initiative and aggressiveness to find or create advantage and exploit it. Pose dilemmas to the opponent, force a decision on him, then assure his destruction or disintegration.

- **Precision, internetted, combined-arms fighting.** Add levels of precision—day and night, in cities and in complex terrain—from the individual soldier and squad through the brigade combat team; take away an opponent's ability to "hug" or "hide."

  Employ a tactical internet to provide access to Army and joint combat multipliers at the point of battle—information, friendly and enemy; indirect fires like artillery, mortars or missiles; air support; and logistics. Make faster and better decisions and take action more quickly and precisely by using parallel and collaborative—rather than hierarchical and sequential—information-sharing and decisionmaking doctrine. Use a network to reduce the emphasis on "ownership" and place it on "access"; use it also to converge the strategic, operational and tactical levels of war and to alter the functions and organization of each echelon of command; create the ability to gain access to the services of organizations that are not in theater—whether those organizations provide analytic or logistical services, produce lethal or nonlethal effects, or offer protection.

  Create organic, combined arms organizations at the company level as well as battalion and brigade levels. Change fighting doctrine from one that is based upon a "make contact with the enemy, develop the situation, then maneuver the force" model to one that is based upon "understanding the situation, maneuvering the force, then making contact at your time and place and method of choosing."

- **Dispersed and decentralized operations.** Routinely succeed in a brigade battle space of 50x50 kilometers—larger or smaller as the situation allows. Fight this battlespace as part of a joint, combined task force; be able to employ assets of other services or coalition partners—and be employed by them. Empower subordinate organizations to take advantage of opportunities as they arise and train them to do so; use initiative and creativity at every level.

- **Anticipatory logistics.** Change logistics doctrine so as to merge strategic, operational and tactical logistics; create a transportation- and information-based logistics structure to replace a depot- and supply-based one. Sustain combat power and momentum by getting supplies and services to where they have to be before they are needed—without building "iron mountains." Connect logistic organizations on the same network as maneuver organizations.

- **Leader-centric.** Expand the experience base of leaders; broaden their understanding and capabilities; then empower them to act. Make leaders experts in

how to fight, how to think, how to lead and how to train the Interim Force according to its operational concept. Create soldiers who are not just followers but also potential leaders.

We know that a force with these capabilities is exactly what is required . . . now. The Commander in Chief, U.S. Central Command (CINCCENT) certainly would have preferred to deploy this force in support of the 82^{d} Airborne Division, instead of using only a light infantry division as the ground element facing over 40 Iraqi divisions in the initial phase of Desert Shield. The Commander in Chief, U.S. Atlantic Command (CINCACOM) would certainly have found this kind of force useful in northern Haiti, where one of the 10th Mountain Division's light infantry brigade's sector was over 100x100 kilometers. Given the nature of both the terrain and the infrastructure, the Supreme Allied Commander Europe (SACEUR) certainly would have found this kind of force useful in augmenting the mechanized initial movement into Bosnia, as well as for the follow-on Stabilization Force (SFOR) missions. For similar reasons concerning terrain and infrastructure, the SACEUR certainly would have found this kind of force useful in Albania and Kosovo. The Commander in Chief, U.S. Pacific Command (CINCPAC) would also find that kind of force most useful for the kinds of combat and contingency missions existing in the Pacific. Finally, given the nature of the threat and the terrain in Korea, the CINC there would also find this kind of force useful.

A force with these capabilities is not simply an improved version of what the Army has currently. The organization described above and how it operates are substantively different from anything that is in today's Army inventory. Providing the option for political decisionmakers of a rapidly available ground force that (1) combines the light force's strategic and operational mobility, as well as the tactical utility in city and complex terrain, with the mechanized force's tactical mobility, combat power, and ability to conduct dispersed operations in a large battle space; (2) is trained to fight full spectrum against the variety of conditions described above; and (3) can fit into joint command and control architecture—this is what we owe the nation. Creating this kind of ground force, in sufficient numbers to possess an adequate rotation base for the prosecution of sustained land combat across the full spectrum of conflict, with the best equipment we can afford, supported by good training, doctrine and leadership—this is what we owe our soldiers. Creating this kind of ground force is our near-term strategic requirement, is exactly what we are doing, and describes the first role of the Interim Force.

The long-term requirement—the Objective Force. Success in the Cold War, victory in the Gulf War, and continued prevention of major theater wars—all derive from the decisive qualities of our air, land and sea forces. We must sustain these qualities to preserve the peace and stability necessary for continued global economic growth. Army Transformation addresses these requirements in two ways.

First, we must sustain and recapitalize our Legacy Force. Recapitalization represents a fundamental change in the Army's approach to systems management. To maintain our decisive edge during the Transformation process, the Army has identified its oldest systems for recapitalization. The top four of these systems are the M1 Abrams tank and the Apache, Black Hawk and Chinook helicopters. These systems and the others identified will be restored to "like new" condition; selected

new technologies will be inserted or improvements added to fix current shortcomings. For the remainder of the legacy fleet, we will continue only routine repair and replacement maintenance operations.

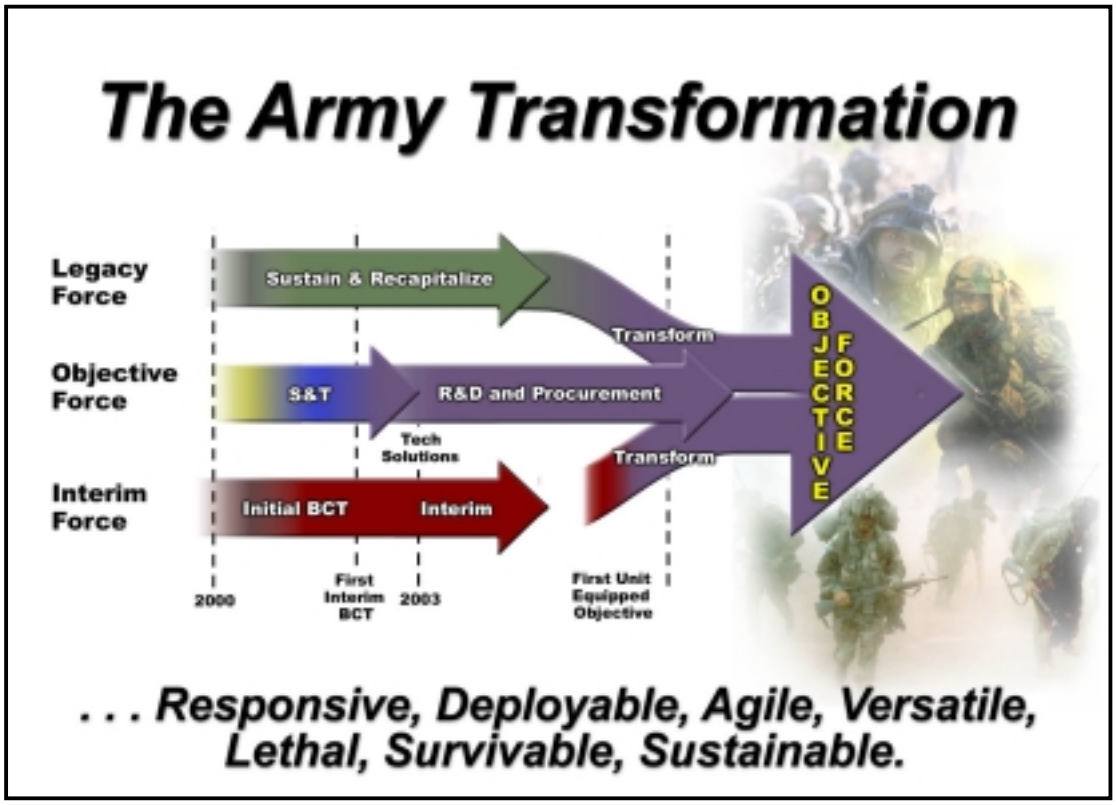
Second, we are investing, in partnership with the Defense Advanced Research Projects Agency (DARPA), in significant science and technological research, anticipating the "wear-out" dates of our current fleets. The primary aim of our initial research is to answer questions like these: Is there a way to reduce or eliminate our reliance on heavy steels and current metals as the primary materials we use for protection for our mechanized forces? Is it possible to change the current reliance on fossil fuels used across our forces; can we develop new power trains? Can we move from armaments that are primarily driven by explosive power? Can we increase commonality of platform, increase fuel efficiency, and increase mechanical reliability in such a way as to achieve significant logistic reductions? In simple, summary terms: Can we replace our aging fleet of M1s and M2s with a family of vehicles and equipment that have equal or greater lethality, mobility and survivability—while reducing our logistic footprint and improving sustainability, thus increasing deployability?

Our investment with DARPA will yield initial answers to the questions above by around 2003. Depending upon the answers, we will map out the proper pace of research and development, prototyping and fielding of the Future Combat System (FCS). We know the kind of strategic and operational environment in which the FCS must succeed; we know it must facilitate creating the sustained land combat component of a decisive joint force; and we know it must be available in time to replace the current aging fleet of vehicles. We also know that developing and fielding FCS has preventive and deterrent value in and of itself. Certainly this is a tall order, but we draw confidence from recent technological innovation in the civilian sector and in the pace of scientific discovery.

By retaining our decisive edge in conventional combat—sustaining and recapitalizing the Legacy Force—we reduce today's probability of such combat. Retaining our edge in conventional combat also maintains our nonnegotiable contract with the American people: to fight and win the nation's wars decisively. Further, by moving forward in the development of the Future Combat System—investing in science and technology with the intent to begin replacing the Legacy Force as early as practicable—we reduce the probability of conventional combat for the next generation of Americans.

The chart on page 9 depicts the three components of Army Transformation.

Merely replacing one type of vehicle with another, however, will not result in the Objective Force that our Transformation vision describes.[6] Merely *having* new vehicles, arms or equipment does not result in a new operational capability or in an increase in combat power. Rather, *using* the new vehicles, arms or equipment more effectively than any potential conventional or asymmetric adversary—this is what results in new operational capabilities and increases combat power.



Creating effective use entails that we must develop new doctrine and training methodologies; we must create leaders and soldiers who can use this new doctrine and succeed in the environments of today and the future. It also means that we must form organizations that are optimized to execute this new doctrine. These are the nonmateriel aspects of Transformation, and each involves the human, organizational and cultural elements of change. The materiel aspect of Transformation—the production of a Future Combat System, as difficult as it may be—is easy compared to the nonmateriel aspects. The importance of pursuing these nonmateriel aspects of change forms the second role of the Interim Force: that of a catalyst of change, a bridge to the Objective Force.

As we created the Interim Force, we wrote an operational concept and devised an organization that can actualize that concept. In doing so, we ensured that the operational concept and the organization can *both* fill the near-term strategic requirement described previously *and* have embedded in it as many aspects of the Objective Force as possible. Our choice of the Interim Armored Vehicle (IAV), a family of vehicles, also served two purposes: as a set, the IAVs (a) facilitate the Interim Force's operational concept and enable its organization; and (b) approximate as many of the design qualities of the Future Combat System as possible.

By designing the Interim Force as we have, we can use it not just to satisfy the near-term strategic requirement of providing full-spectrum options that currently do not exist but also to inform us and prepare us for the Objective Force—the dual role of the Interim Force. We can start the Army on the road of cultural change, of

growing the kinds of leaders and soldiers who will be able to fight the Objective Force, of getting at the all-important human dimensions of Transformation.

The Interim Brigade Combat Team's Design and Its Dual Role

The chart on page 11 depicts the organization of the interim brigade combat teams (IBCTs). This is the organization designed to execute the operational concept, satisfy the near-term strategic requirement, and take the initial steps toward the Objective Force.

This organization is different from any Army organization that now exists. The symbols and names may look familiar: brigade, battalion, squadron, etc. Do not be deceived, however. We use them to stay connected to our history; doing so is important. Look beyond the surface and see the following significant differences:

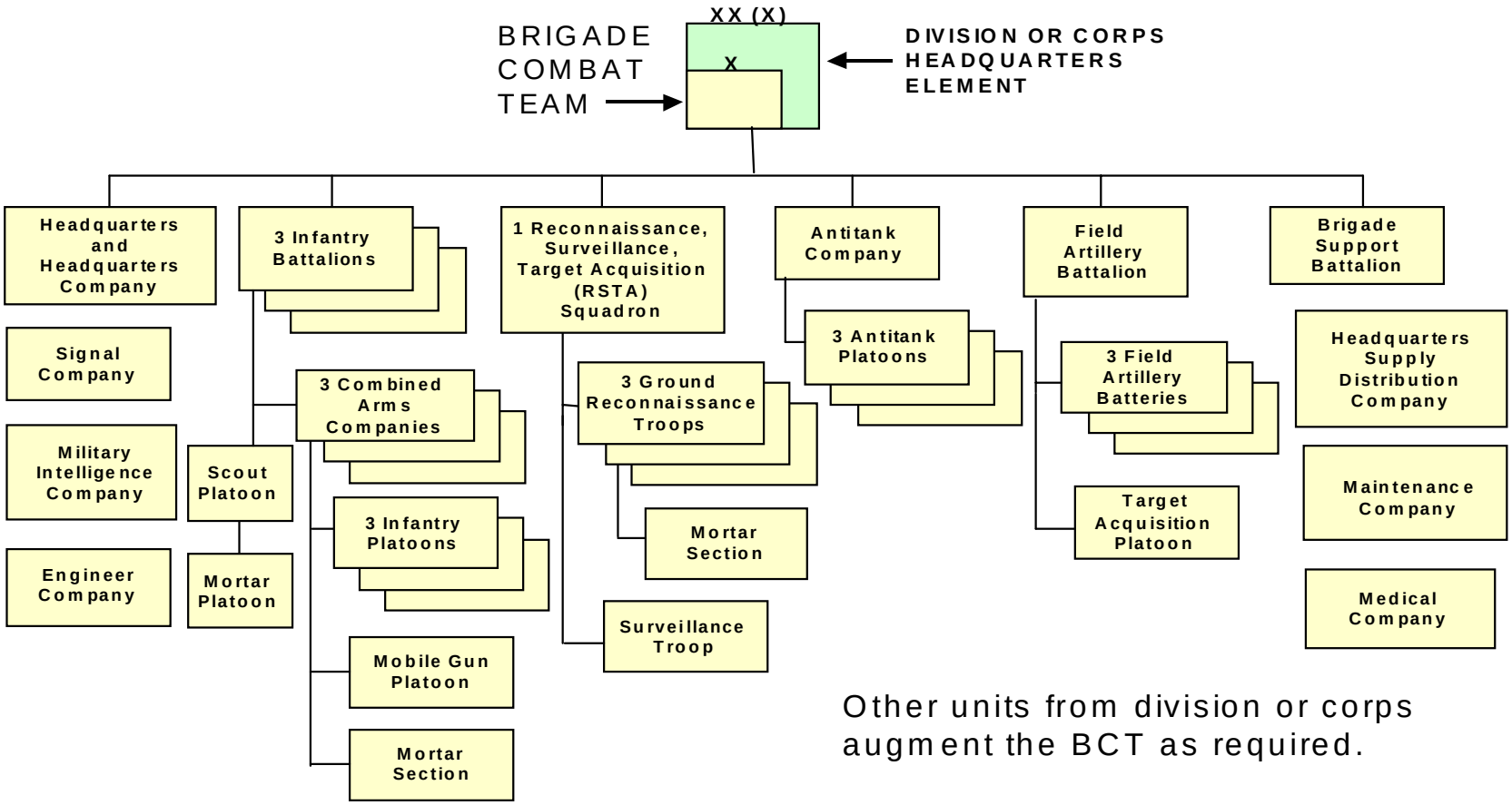
- **The brigade headquarters** is an organic, combined-arms outfit. Completely internetted and able to link directly into the Army force component of a joint task force, it contains a nonlethal effects cell that includes information operations capability.[7] It has an airspace coordination cell that ensures proper use of rotary- and fixed-wing air support. It uses parallel and collaborative information sharing and decisionmaking and action doctrine. The brigade is designed to operate under a division or corps headquarters, which is its link to the joint task force.

- **The Reconnaissance, Surveillance and Target Acquisition (RSTA) Squadron** is an entirely new organization; nothing like it now exists.[8] Ground troops use both sensors mounted on their vehicles and dismounted scouts. Human intelligence scouts are embedded in every squad. The multisensor troop has organic unmanned aerial vehicles, electronic warfare assets, radar and ground sensors. The squadron is completely internetted internally and to each of the other organizations within the brigade combat team. It participates in intelligence planning, coordination, analysis and distribution via the network.

  The "target acquisition" aspects of the squadron provide the brigade combat team a unique, dispersed, precision strike capability. Trained as part of a joint team able to employ both organic and nonorganic fire delivery means—ground, air and sea—the RSTA troops extend the lethality of the force throughout the battlespace.

- **The infantry battalions** are the core of the brigade combat team's capability—dismounted infantry assault enabled by information, the brigade's platforms and joint assets. The infantry battalion consists of organic, combined-arms infantry companies; such companies did not exist prior to their activation at Fort Lewis.[9] Each company has infantry platoons trained and equipped to fight precision operations, day and night, in cities and in complex terrain. Each also has a mobile gun platoon whose purpose is to provide direct support to the dismounted assault, a mortar platoon with mounted and dismounted mortars, and a sniper team. Each infantry squad within the company has a Javelin antitank missile gunner who provides significant antivehicular power, especially in urban and complex terrain and as part of a larger unit containing mobile guns and an antitank missile company organic to the brigade. Each squad also as a specially trained, designated sharpshooter. The infantry battalion, like all other subordinate units, is

INITIAL BRIGADE COMBAT TEAM ORGANIZATION



Other units from division or corps augment the BCT as required.

- part of the overall brigade network. Infantry platoons, with their battalion headquarters, increase their combat power by sharing information, participating in collaborative planning, and employing combat multipliers—lethal and nonlethal—at the point of battle.

- **Indirect fires** for the brigade combat team are provided by an extensive network of mortars and field artillery. The mortars, mounted and dismounted, reside at battalion and company levels in both the infantry battalions and RSTA squadron. These mortars—120mm, 81mm and 60mm—form the basis of powerful, readily available close support to infantry and scout elements. While the field artillery battalion can augment these close support fires, its primary function is to increase the organization's survivability by providing proactive counterbattery fires. The battalion does this using organic radars and access to information from external organizations, strategic and operational. The indirect fire systems of the brigade combat team's network also allow access to joint fire-delivery platforms and permit the brigade to participate in joint fire planning.

- **The brigade support battalion** (BSB) is another new type of organization.[10] The battalion is built around a redefined concept of logistics. The brigade support area is no longer defined as the supplies and services available to the unit five to seven kilometers behind the front-line trace of the brigade. Rather, it is defined as those supplies the BSB must bring into theater plus those it has access to in the theater, in the region, or from the continental United States. The BSB is an information- and transportation-based support battalion; it replaces forward and repairs in the rear, and it anticipates the commander's needs by being an integral part of the information network. The concept of support used by the BSB is best described as "maneuver sustainment."

  The brigade's logistic footprint is significantly reduced through a combination of the following: (a) new operational concepts using redefined supply and logistics planning factors; (b) use of common platforms that reduce spare parts and that have increased reliability—thus reducing the numbers of mechanics as well as supply and maintenance organizations; and (c) increased platform fuel efficiency that reduces the size and number of POL (petroleum, oil and lubricants) organizations organic to and associated with the brigade combat team.

- **The military intelligence (MI) company's** capability and organization are based upon parallel and distributive analysis—both using the internal analytic assets organic to the brigade and having access to nonorganic analytic assets within the theater or region, or in the United States. The company also has a significant human intelligence capability, in both planning and coordination as well as in execution. These assets, especially when combined with the human intelligence specialists within the RSTA squadron, give the brigade combat team extensive, multidimensional intelligence capabilities. They also increase the brigade's ability to understand a situation before it maneuvers and makes contact with an opponent.

- **The signal company** provides the lifeblood and nerve center of the brigade combat team—its network. In a very real way, this company has created a whole

new form of maneuver—the maneuver of the brigade's network. The network ensures that combat multipliers—information, decisionmaking ability, maneuver, lethal and nonlethal effect delivery, support and sustainment—are all available wherever the brigade and its subordinates are operating.

Fielding such an Interim Force and training its leaders and soldiers to proficiency in the operational concept described fulfills the near-term strategic requirement. Upon completion of training, the interim brigade combat teams will be available for worldwide deployment. They will provide the kind of sustained land combat portion of a joint task force that is needed urgently, now.

Simultaneously, the process of training will require the Army to address many of the nonmateriel aspects of the Objective Force. Especially important, by training today's platoon leaders and squad leaders, we will begin training and educating tomorrow's battalion commanders and command sergeants major in a mindset of deploying and a style of fighting and sustaining that is similar to that of the Objective Force they will ultimately lead. Thus, the Interim Force begins to fulfill the far-term requirement as well as the near-term.

By fielding an Interim Force, we will have written new fighting and training doctrine. We will have created new live, constructive and virtual training methods and updated our training doctrine as well as a new leader development program, both in training and education. We will have also created a model for training infrastructures necessary to conduct home-station training. These new facilities take advantage of live, virtual and constructive training methodologies. We will have identified new requirements for the personnel community to achieve the kind of organizational stability required for a network-centric operational concept. The institutional training and educational parts of the Army will have begun to alter their programs and methods of instruction. The fielding of new vehicles and equipment will cause those parts of the institutional Army to adjust their priorities and methods of operation. In sum, the institutional Army—the set of organizations and agencies that make up the nondeploying Army—will begin to move toward Objective Force requirements using the Interim Force as its "forcing function." The physical changes of Army Transformation involve changing not only combat organizations but also the processes and systems of the institutional Army that generate and sustain combat organizations.

This is the shift that the Transformation process must attain over the next several years to posture the Army for the fielding of the Objective Force. In this way, we intend to start the most difficult aspects of Transformation—the change of the institutional Army and the cultural change necessary in Army leaders—now, not when the Future Combat System of systems is first fielded. By using an operational concept, an organization and equipment for the Interim Force similar to that which we expect in the Objective Force, we achieve true economy of scale. We provide the nation's political leaders with new options, and we lay the groundwork for the Objective Force, thus reducing the likelihood of conventional combat for the next generation of Americans.

The Seeds of Transformation

In October 1999, the Army announced that it would not only transform but do it quickly. Two factors gave us confidence in this announcement: First, we have studied, experimented and executed incremental change over the past eight years. Second, we invested thousands of man-hours of analysis in the months leading up to and immediately following the announcement.

The Army's initial break from its Cold War mentality began around 1992 with the establishment of the Louisiana Maneuvers (LAM) Task Force.[11] The Army knew that the end of the Cold War and the dawn of the information age would have a profound impact upon it. Further, we knew that our process of Transformation would itself have to transform to accommodate the accelerated pace of change every institution was facing.[12] The LAM task force used computer modeling to investigate alternative force designs against a variety of possible future contingency scenarios. Using these models, LAM was able to run many more tests, in more scenarios, in less time—as the automobile manufactures use computer-assisted design—than would be possible if they had to conduct live maneuvers.

Once we had amassed sufficient insights through the LAM process, we began a series of physical experiments called Advanced Warfighting Experiments (AWEs). These began in 1994 at the National Training Center at Fort Irwin, California, using an armored brigade combat team. In late 1995, we used a light brigade combat team at the Joint Readiness Training Center at Fort Polk, Louisiana. Since then we have conducted several more involving the 4th Infantry Division at Fort Hood, Texas, as well as a joint contingency AWE using the 10th Mountain and 82d Airborne Divisions and units from other services.

Each of these experiments produced three categories of lessons. First, we identified new equipment and tactics that might work if we made some additional investments. This information was put back into the LAM or AWE process for continued study and analysis. Second, we identified what did work. For these items we accelerated acquisition and fielding. Last, we found what did not work and had no foreseeable promise to work. Here, we ended spending and development. We had learned enough by 1998 to change the organizations of our mechanized forces. This process, called Force XXI, began at Fort Hood. The 4th Infantry Division has converted to its new organization; the 1st Cavalry is next, then the rest of III Corps will follow. Other changes have occurred or will occur throughout the mechanized force. Once the process is completed, we will have reduced the size of each heavy (Legacy) division by about 25 percent while increasing its combat power. The digitization process, which is part of Force XXI, has taught us much about tactical internets.

We also learned much about the power of an internetted, combined-arms organization through a prototype organization developed and used for a number of years during an extensive computer wargame at the Command and General Staff College at Fort Leavenworth, Kansas. The wargame was set such that most of the staff college students fought current Army organizations; simultaneously, however, a separate cell of students fought a prototype force. We compared the capabilities and limitations of each organization—actual Army units and the prototype force—for

several years. Each year, we altered the composition of the prototype force based on the previous year's game. Lessons were routed into the LAM process, the AWE program, and a program that replaced LAM called "Army After Next" (AAN).

AAN was established around 1996, for once the Force XXI conversion process was institutionalized, LAM's utility as the conceptual driver of Army Transformation ended. The AAN process continued for several years. Having gained sufficient insights, we ended it as a formal office. We are continuing our investigation of the future, however, by sponsoring seminars, conferences, workshops and wargames focused on Objective Force design requirements. This process involves active and retired members of each service, as well as representatives from industry, academia and governmental and nongovernmental agencies.

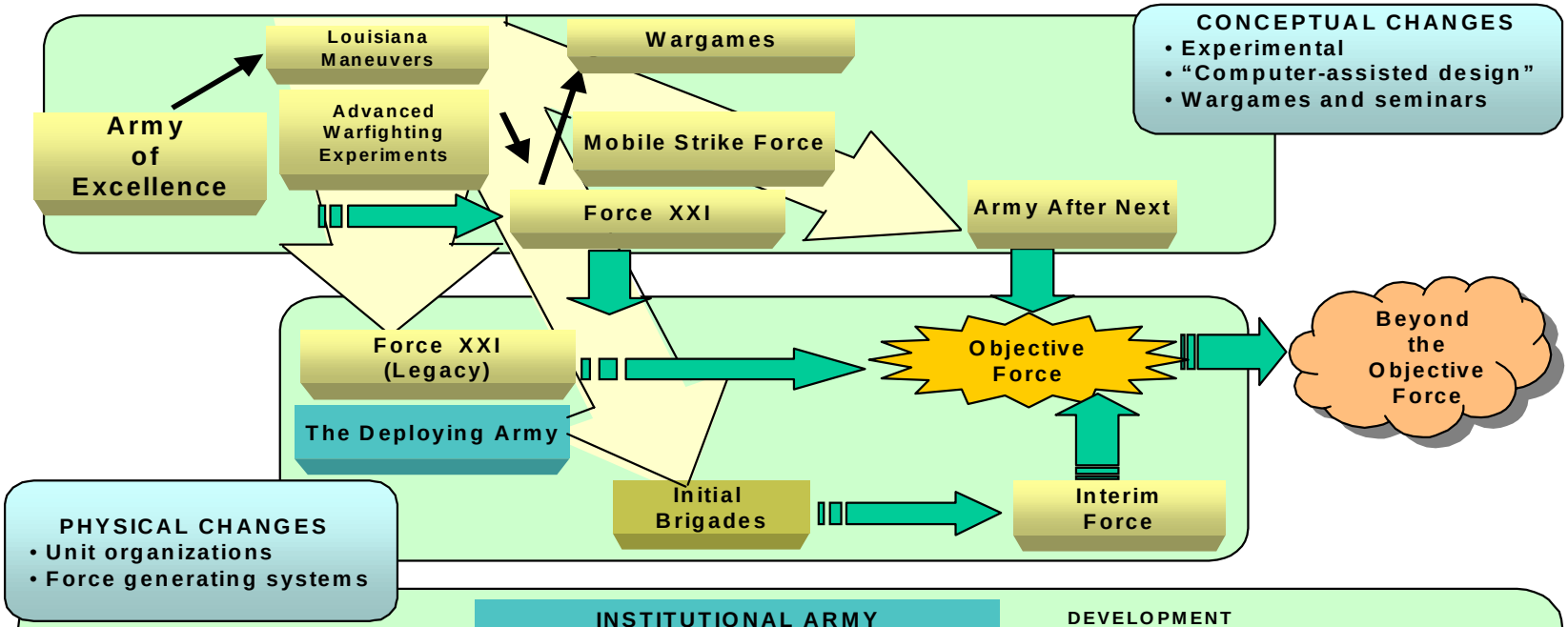
This process is depicted in the chart on page 16.

The Army's conceptual, computer-assisted design and experimental activity over the past decade has been extensive in both breadth and depth. This body of information forms part of the reason we are confident in accelerating Transformation now.

The other reason concerns the amount of analytic work done to produce the operational concept and organizational design of the initial brigade combat teams. The Army's Training and Doctrine Command (TRADOC) led this effort. It drew upon much of the previous eight years of experience. Some of the same officers involved in previous transformational efforts were also involved in the intense efforts of the past year. The work spanned each of the major schools and centers—intelligence at Fort Huachuca, Arizona; signal at Fort Gordon, Georgia; infantry at Fort Benning, Georgia; reconnaissance at Fort Knox, Kentucky; artillery at Fort Sill, Oklahoma; logistics at Fort Lee, Virginia, and other combat service support centers; engineers and chemical at Fort Leonard Wood, Missouri; and combined arms as well as command and control at Fort Leavenworth. TRADOC's research and analysis center (TRAC) maintained the analytic rigor of the project. Use of a variety of officers and noncommissioned officers from company-grade through four-star levels leavened the results of computer wargames with military judgment and recent operational experience.

The process involved fighting several organizational models in similar scenarios. After each fight, TRAC compiled analytic results. These results were reviewed, compared and discussed by a variety of leaders—from senior sergeants and junior officers, through field grade officers, to general officers. Finally, the group made adjustments to either the unit's organization or its tactics and procedures, then refought the organizations in the simulation. From analytic work and professional discussion, which lasted over six months and involved thousands of man-hours of effort, emerged a coherent operational concept and an optimal organizational design. The concept and organization were then brought to the senior Army leadership for approval. Formal documentation followed that approval; then the initial brigade at Fort Lewis was organized and began transformation.

THE SEEDS OF ARMY TRANSFORMATION



INSTITUTIONAL ARMY

FORCE DEVELOPMENT
Develop capable combat force within constrained resources

ACQUISITION
Obtain people, equipment, money and facilities

TRAINING
Impart and instill that discipline, instruction, drill and practice designed to create military efficiency or proficiency

DISTRIBUTION
Allot people and/or equipment to claimant organization according to priorities

RESOURCES
People, things, time, money, information and technology

DEPLOYMENT
Project a combat force rapidly to any place in the world to satisfy a national requirement

SUSTAINMENT
Provide for people, organizations and equipment by furnishing means or funds

DEVELOPMENT
Increase force capabilities; bring people and/or equipment to a more advanced state

SEPARATION
Release or remove people and equipment from military control; dispose of facilities or real property

COMMAND MANAGEMENT AND LEADERSHIP
Structuring, equipping, training, manning, sustaining, deploying, stationing, funding readiness

Nearly a decade of conceptual, computer assisted design and experimental work, combined with an intense level of analytic effort and professional military judgment, produced the operational concept and organizational design of the Army's Interim Force. This combination has given us the confidence to accelerate the pace of Transformation so as to meet the current near-term strategic requirement. It also supplies the confidence that while meeting this near-term requirement, we can also address the nonmateriel aspect of the far-term requirement of fielding the Objective Force.

Conclusion

The Army is adapting to both the international environment of the post-Cold War and the information age. Our Transformation goals are well reasoned. They are derived directly from both near-term and far-term strategic requirements. The specifics of the Interim Force's operational concept and organizational design are supported by lessons we have been learning since 1992 and from the intense analytic work done in the past year. They are also supported by post-Cold War operational experiences.

Michael Hammer and James Champy remind us, "Reengineering . . . can't be carried out in small cautious steps. It is an all-or-nothing proposition that produces dramatically impressive results . . . [for those who] muster the courage to do it."[13] Far more than reengineering, Army Transformation is a radical change from our Cold War self. We began with conceptual inquiry, and then followed that with computer gaming, experimentation and incremental change. The Interim Force and the Objective Force to which it is connected do not represent the small steps of incremental change. Rather, they are bold steps confidently made. Moreover, these bold steps are just what is needed. Army Transformation is right for the nation, and now is the right time.

Endnotes

1. For a short but excellent description, categorization and discussion of national interests and challenges to these interests, see: The Commission on America's National Interests, *America's National Interests* (Cambridge, Mass.: Center for Science and International Affairs, Harvard University, 1996).

2. Special operations, of many kinds, can occur in any of the three major categories of crises.

3. Among the many excellent military, academic and governmental studies associated with the strategic environment, see: United States Commission on National Security, *New World Coming: American Security in the 21st Century* (Washington, D.C., 1999); Rand Corporation, *Sources of Conflict in the 21st Century: Regional Futures and U.S. Strategy*, www.rand.org/publications/MR/MR897; and The 1998 Strategic Assessment from the Strategic Studies Institute of the U.S. Army War College, carlisle-www.army.mil/usassi/ssipubs/pubs98/wrldvu98/wrldvu98.htm.

4. Notice the expectation is not "zero casualties," for that kind of expectation is both unrealistic and dangerous.
5. For a copy of the operational concept, see: www.tradoc.army.mil/transformation/Documentation.htm.
6. For a copy of Army Chief of Staff General Eric K. Shinseki's vision statement and a description of the characteristics "responsive, deployable, agile, versatile, lethal, survivable and sustainable," see: www.army.mil/vision/visioncd.htm.
7. The nonlethal effects cell formed in the initial brigades is similar to that kind of cell proven so useful in multiple operational deployments. Further, the need for such a cell has been borne out in our experimental work as well as in the experience we have gained as we field Force XXI (FXXI) units at Fort Hood, Texas.
8. The RSTA requirement was born from conceptual work during the Louisiana Maneuvers and the Mobile Strike Force and from the experimental work leading to the fielding of brigade reconnaissance troops in the FXXI divisions. It was further corroborated and refined by the analytics that informed our development of the IBCT's operational and organizational concepts.
9. The utility of combined-arms companies became apparent throughout the analytic development of the IBCT's operational and organizational concepts. The senior sergeants and junior officers first identified it as they fought in simulations a variety of organizations in multiple scenarios. Their insights were corroborated both by analytics and senior warfighter review.
10. The concept of logistics support, the brigade support battalion designed to execute that concept, and the equipment the organization needs to execute the concept has been long in development. We started to investigate this kind of logistics possibility during the Louisiana Maneuvers process. It was also part of the mechanized force Advanced Warfighting Experiments. Our first experience steps were taken as part of the FXXI division design; moreover, this kind of logistics concept is very much like what is in use in Bosnia and Kosovo right now. We gave this concept, organization and equipment very close scrutiny in the analytic development of the IBCT's operational and organizational concepts as well as during several "rockdrills" with specific logistics focus.
11. For a full discussion of the LAM, see James L. Yarrison, *The Modern Louisiana Maneuver* (Washington, D.C., U.S. Army Center for Military History, 1999).
12. For a more complete description of the thinking during this period, see Gordon R. Sullivan and Michael V. Harper, *Hope is Not a Method* (New York: Random House, 1996).
13. Michael Hammer and James Champy, *Reengineering the Corporation* (New York: HarperCollins Publishers Inc., 1993), p. 5.