

# The evolution of American army doctrine

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American Army doctrine in the 20th century is not of a piece. In it are clear continuities, yet it has been marked by major, even radical shifts. What is the history of American Army doctrine? What gave it the cast that it has? Are its critics right who say it is a firepower doctrine? Are there other significant strands?

The focus of this paper about the evolution of American Army doctrine will be the operational-tactical levels of war, within the context of changing national policy and strategy. For the purposes of this paper, I want to hold to the definition of doctrine as „the central idea of an army”, in J.F.C. Fuller’s cogent phrase. But before presenting an account of the United States Army’s 20th-century doctrinal eras and significant episodes, I want to say a word about the forgotten and rediscovered middle level of war.

It is a commonplace view that the American Army, whose armament is based on the advantages of industrial wealth and technological preeminence, has preferred and has usually prosecuted a predominantly firepower-attrition mode of war since Ulysses S. Grant set the mold 130 years ago. It is the contention of this paper that that tradition also owes to the American Army’s habit of ambiguous regard for the operational level of war. This paper holds to the well-supported premise that the operation-

al level, which guides tactical battles to strategic purpose, is the key concept of modern land-war and joint doctrine.

The operational level has, however, long been shrouded in mists. Part of the problem is semantic. Until late into the 18th century, land warfare generally featured strategic maneuver by an army to a tactical fight. It was the advent of the mass and divisible armies of Napoleon’s time that introduced an understood intermediate level, delineated as grand tactics. Although the grand-tactical level of campaign or large-unit maneuver distinguished larger wars after that, so too did a confused terminology. Commonly, „strategy” was the umbrella spanned to cover this intermediate level.

The German and Russian Armies’ naming and adoption of the notion in the 20th century – the „operativ” and „operational art”, respectively, was not imitated by the western armies. The U.S. Army Command and Staff School at Fort Leavenworth, Kansas and the Army War College did teach a three-level approach to large-unit operations in the years between the world wars. World War II would see differing styles of American combat, but the Army’s experience in the global conflict was rich enough in incidence of large-unit operational maneuver and campaign.

However, the operational level would virtually vanish from the American Army mind for the 35 years following V-E and V-J Days. The probable cause was the creation of joint-service

regional commands throughout the globe following the U.S. 1947 defense reorganization that subordinated the uniformed services to the Department of Defense. Thereafter, the regional unified commanders, under the Joint Chiefs of Staff, assumed campaign planning responsibility. The effect was to limit Army doctrine to the realm of tactics. The Korean and Vietnam Wars, with notable exceptions, were fought almost entirely at the tactical level, and NATO’s forward-defense strategic line-up perpetuated the void in large-unit-maneuver operational thinking.<sup>1</sup> Tactics were indeed the sole focus of every Operations manual – the Army’s basic doctrine, FM 100-5 – from the first Field Service Regulations of 1905 right up to the American Army’s AirLand Battle doctrine of 1982.

## The American Expeditionary Forces

A starting point for a survey of American Army doctrine is the short but consequential experience of the American Expeditionary Forces in the final period of World War I, the seedbed of modern mechanized warfare. U.S. Army doctrinal unreadiness for that war is well known. The AEF in France borrowed British tactical

<sup>1</sup> Clayton R. Newell, „On Operational Art”, in *On Operational Art*, eds. Newell and Michael D. Krause (Washington, D.C.: Center of Military History, United States Army (1994), pp. 9-15.

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manuals, adopted French tactics, and fired French artillery. The experience of commanding large forces was non-existent in the 1917 Army. Coordination of arms and services was at a basic level. After declaration of war in April 1917, it required one and a half years to create a field army. American soldiers fought with spirit and valor, but American amateurism was still evident in the Meuse-Argonne offensive in September 1918, as recounted by George Marshall, an officer on the AEF staff, who described the initial phase of that campaign as „stumbling, blundering . . . appeals for help, and hopeless confusion.”<sup>2</sup> Americans fought in manpower-heavy, four-regiment „square” divisions of 28,000 men by the end of the war. Regimental units were deployed in depth for attack and defense, and battalions and companies advanced in sector direct-on, the components of front warfare’s attrition machine. James W. Rainey makes a case for an ambivalence of American doctrine in 1917-1918 – the rhetoric of the vigorous infantry offensive against a recognition of the reality of position warfare, and a failure to regard the machine gun and tank as other than infantry-supporting weapons.<sup>3</sup> In any case, the strategic decisions that brought the armistice cut short any occasion to apply doctrine beyond the tactical sphere.

## Doctrine Development in the Interwar

Like the armies of its Western allies and unlike von Seeckt’s *Reichswehr*, the American Army of the interwar understood too slowly the potential for the open, mechanized warfare that the armament and tactics of the Great War’s final period had pointed toward.<sup>4</sup> Isolationist and pacifist political tides curtailed military expenditures sharply. Internally, movement down branch lines was not integrated. The American Army would come very late to the idea of infantry-tank-artillery combined arms.

The U.S. Army embraced Maj. Gen. Fuller’s *Principles of War* in training regulations in 1921 and after. The 28,000-man division was pared back postwar, but it was not until 1939 that a more mobile triangular structure was approved. Adapting doctrinal ideas from the Germans, Chief of Infantry Maj. Gen. George A. Lynch discarded obsolete square-division tactics and gave each company and battalion mortars and machine guns. The division had at nearly every echelon three maneuver elements plus a base of fire support using direct and indirect fire. Commanders fixed the enemy with one maneuver element, found his flank with a second, and

maintained a reserve with the third. In the triangular division, infantry and a more mobile doctrine meshed.<sup>5</sup> No military figure had more influence on infantry training and doctrine in the interwar than George Marshall, Chief of Staff after 1939. The assistant commandant at the Infantry School between 1927-1932, Marshall transformed instruction from rote learning to quick-thinking, practical exercises, and prompted the writing of the influential volume *Infantry in Battle*. Marshall taught application rather than theory. He wanted to show the uniqueness of every battle, the need to eschew rules, the requirement for commonsense estimate and action.<sup>6</sup> Not a student of military theory, Marshall was an American pragmatist and a tinkerer, who stimulated both students, and as Chief of Staff, leaders, to think and experiment.<sup>7</sup> Artillery doctrine evolved markedly. Supplanting sheer firepower volume was a new system of division artillery which could decentralize batteries but mass fires through a battalion fire direction center – a primary American advantage in the coming war.<sup>8</sup>

Armor development proceeded along two lines in the interwar years, one under the aegis of the Infantry Branch, the other, the Cavalry. The National Defense Act of 1920 assigned all tanks to the Infantry, affirming the period view that the tank supported the infantry’s advance behind a rolling barrage. Tactical tests of experimental tanks took place at several posts in the late 1920s. But it was the Cavalry Branch that pushed the armor concept, as prompted by Colonel Adna R. Chaffee on the War Department General Staff and later brigade commander. The Cavalry called its tanks „combat cars.” At Fort Knox, Kentucky in the 1930s, a potential combined-arms mechanized force of cavalry, artillery, observation aircraft, and later an attached infantry regiment, took form.

Procrastination by both Infantry and Cavalry Branches, however, led Chaffee, George S. Patton, and others to propose a separate branch to General Marshall. Marshall activated

<sup>2</sup> As cited in Christopher R. Gabel, *The U.S. Army GHQ Maneuvers of 1941* (Washington, D.C.: Center of Military History, United States Army, 1991), pp. 4-5.

<sup>3</sup> James W. Rainey, „Ambivalent Warfare: The Tactical Doctrine of the AEF in World War I,” *20th Century War: The American Experience*, U.S. Army CGSC Combat Studies Institute Readings, Pub 613, 1985, pp. 88-99.

<sup>4</sup> See James S. Corum, *The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform* (Lawrence, Kan.: University Press of Kansas, 1992) for a superlative study of von Seeckt’s systematic study and translation of war lessons into mechanized combined-arms concepts and doctrine upon which the Blitzkrieg would be based.

<sup>5</sup> Gabel, *GHQ Maneuvers*, pp. 9-11.

<sup>6</sup> (1) Paul F. Gorman, General, USA Ret, *The Secret of Future Victories*, Institute for Defense Analyses, February 1992 (Ft. Leavenworth, Kan.: A Military Classic Reprint, U.S. Army Command and General Staff College Press, 1994), pp. I-21 to I-29.

(2) *Combined Arms in Battle Since 1939*, ed. Roger J. Spiller (Ft. Leavenworth, Kan.: U.S. Army Command and General Staff College Press, 1992), pp. x-xi, xiii-xiv.

<sup>7</sup> Gorman, *The Secret of Future Victories*, pp. I-21 to I-29, II-I, II-3.

<sup>8</sup> (1) Boyd L. Dastrup, *King of Battle: A Branch History of the U.S. Army’s Field Artillery* (Ft. Monroe, Va.: Office of the Command Historian, 1992), pp. 196-99.

(2) Gabel, *GHQ, Maneuvers*, pp. 11,12.

the Armored Force in July 1940, bringing all tank units under it. The Chaffee-instigated armored division of 1940 had armored, artillery, and infantry regiments; was fully motorized, but did not yet attain the idea of intermediate battle groups. The characteristic U.S. armored division of the war would evolve only later.<sup>9</sup>

### The 1941 GHQ Maneuvers

In 1941, General Marshall ordered large-scale maneuvers, under General Headquarters aegis, in the southern United States to test new doctrine and equipment. Personally directed by GHQ Chief of Staff Lt. Gen. Lesley McNair, the Louisiana Maneuvers of September and the Carolina Maneuvers of November 1941 featured opposed field armies, with full corps and division complements. Tested among many other things were the new Armored Force along with anti-tank concepts pushed by McNair.

The 1941 GHQ Maneuvers had fundamental influence on American Army doctrine and force structure. The separation of tanks, infantry, and artillery was revealed clearly as mistaken. The armored corps proved good at envelopment, but its shortage of infantry precluded effective combined arms operations. The exercises

taught World War II leaders how to maneuver a field army, and validated or improved infantry, artillery, and armor doctrine. The chief benefit was the leg up the maneuvers gave to combined arms development. The Maneuvers also brought to general-officer rank many World War II leaders, including Eisenhower, Simpson, and Bradley.<sup>10</sup>

### Doctrine in World War II

With the German defeat of France in June 1940, most American military observers understood that mechanization had introduced a new era in land warfare. Yet, the American doctrinal response was mixed. The mobilization, equipping, and training of a war-winning mass Army from an almost fatally late start, an Army that would fight in global theaters, was a stupendous accomplishment.<sup>11</sup> In 1944-1945, the American Army was the most mobile army in the world. That being said, such vaunted mobility, as Army historian Russell Weigley has argued, was achieved at the expense of fighting power and high-casualty cost.<sup>12</sup> Following the GHQ Maneuvers, the Armored Force reduced the interwar emphasis on mobility in favor of heavier tanks and increased combined arms capability. As evolved by 1943, it fielded 3-each tank, armored infant-

ry, and self-propelled artillery battalions, with combat commands intermediate between division and battalion to act, like the German Kampfgruppen, as temporary task forces.

The forceful advocate of using armor in large groups was George Patton. A tank commander during the Meuse-Argonne, Patton later read Guderian's writings attentively. A pragmatist, he experimented with tank concepts at the California-Arizona Maneuver Area and produced his own desert war manual, emphasizing the combined arms, the leader's initiative, and the criticality of dominant fire and decisive movement.<sup>13</sup> However, General McNair was disinclined to organize armor into larger units. The U.S. armored division, unlike the Panzer division, never became the heart of the army. Its standard use was a combination typically of 1 armored with 2 infantry divisions in a corps. McNair also preferred pooling independent tank battalions to attach one each to infantry divisions, a prejudice which produced more independent tank battalions in pools than organic tank battalions in the sixteen armored divisions.<sup>14</sup> McNair's antitank doctrine did not work. Based on indeterminate GHQ Maneuver results, McNair activated a Tank Destroyer Branch predicated on the doctrine that the high-firepower but thin-skinned vehicles should seek out enemy tanks but avoid slugging matches. Tank destroyers were easily driven to cover; their mobility didn't help. Field commanders rejected the doctrine, fragmenting the tank destroyer battalions into assault guns or self-propelled artillery.<sup>15</sup>

In the area of ground support, the *Luftwaffe's* lessons were not well learned or pervasively applied. Army Air Forces philosophy stressed air superiority and strategic bombing. Although a ground support manual was approved,<sup>16</sup> there was no direct air-ground communication. Air support requests were through chain of command. But ad hoc ground support doctrine did evolve. Tactical aircraft in the drive

<sup>9</sup> (1) Gabel, „Evolution of U.S. Armor Mobility”, *20th Century War: The American Experience, U.S. Army CGSC Combat Studies Institute Readings*, Pub 613, 1985, pp. 54-63.

(2) Gabel, *GHQ Maneuvers*, pp. 22-33.

<sup>10</sup> (1) Gabel, *GHQ Maneuvers*, pp. 1-19, 177, 188-94.

(2) Gabel, „Evolution of U.S. Armor Mobility,” pp. 171-80.

<sup>11</sup> The View of Field Marshal Rommel was that the effort that General McNair had supervised surpassed anything the world had seen. Gorman, *Secret of Future Victories*, p. II-4.

<sup>12</sup> (1) Russel F. Weigley, *Eisenhower's Lieutenants: The Campaign of France and Germany 1944-1945* (Bloomington, Ind.: Indiana University Press, 1981), pp. 727-30.

(2) Weigley, „Shaping the American Army of World War II: Mobility versus Power”, *20th Century War: The American Experience, U.S. Army CGSC Combat Studies Institute Readings*, Pub 613, 1985, pp. 162-70.

<sup>13</sup> Gorman, *The Secret of Future Victories*, pp. II-6 to II-7, II-27.

<sup>14</sup> (1) Gabel, „Evolution of the U.S. Armor Mobility,” pp. 171-80.

(2) Gabel, *GHQ Maneuvers*, pp. 177-80, 188-89.

(3) Gorman, *The Secret of Future Victories*, pp. II-6 to II-7.

<sup>15</sup> (1) Gabel, *GHQ Maneuvers*, pp. 177, 191, 192.

(2) Gabel „Evolution of Armor Mobility,” pp. 188-89.

<sup>16</sup> FM 31-35, *Aviation in Support of Ground Forces*.

across France came under one command, Ninth Air Force, which assigned combat wings to tactical air commands, one per field army. IX Tactical Air Command with the U.S. First Army provided continuous direct air support to advancing armored divisions using radio communications. Air-ground doctrine thus emerged late – and in the school of war, not from the desk of doctrine.<sup>17</sup> In the Pacific war, two fighting styles emerged: frontal assault and attrition on the beaches of the Central Pacific, and the bypassing of Japanese strong-points in the Southwest Pacific. The two campaigns joined at Okinawa in costly, attritive frontal assault. The American losses on Okinawa were a factor in the lives-sparing decision to drop the atomic bomb.

McNair's significant infantry achievement was getting the maximum number of streamlined divisions out of the manpower base, and scotching the growth of special division types – specifically motorized and light. It was McNair's maxim that infantry led the war, equipped only with the organic materiel it needed most of the time. Other equipment came from pools. But in all cases, close cooperation with the other arms was required. Infantry could not attack without the aid of tanks, artillery, and air, but neither could those arms gain ground or destroy the enemy's will without the aid of the infantry. The infantry war

also saw wide use of flexible regimental combat teams – usually a regiment of infantry, a battalion of artillery, a combat engineer company, and other units.<sup>18</sup>

Russell Weigley's contention that the World War II American Army's mobility was at the expense of an underpowered Army of undergunned maneuver elements is a strong one. The War Department did not approve a 75-mm. tank gun (for the M4 Sherman) until July 1940, and it was still inadequate. Similarly undergunned was antitank weaponry – a 37-mm. weapon, and later 57-mm., even as the Germans moved to 75-mm. and then the 88-mm. dual-purpose gun. The Germans also soon overtook the puny U.S. 2.36-inch bazooka, adopting the 88-mm. Panzerfaust, a prized weapon when we captured it. U.S. weaponry had been designed for mobility when U.S. strategy was to overwhelm the enemy with superior power. To heavy-up the predominant American fighting unit of the war, the infantry division, the field expedient employed – the attached tank battalion – flouted the organizational logic.

In World War II, a combined arms doctrine had evolved, but the structure to fulfill it lagged. Underpowered in its maneuver elements and large-unit organization, the American Army in Europe let the artillery fight the war as much as possible. In the end, U.S. infantry divisions lacked the force design needed to pursue the power-drive strategy. They did so well in 1944-1945 because the German units in Western Europe were by that time so weakened.<sup>19</sup>

### **Doctrinal Impact of the Atomic Age**

The onset of the atomic age introduced a fifteen-year period of neglected and troubled doctrine. The impact of the brief U.S. atomic monopoly, residing in Air Force custody, was deadeining. Although the postwar Army did not lose sight of its basic land-hol-

ding mission, the scope of postwar demobilization, the surfeit of World War II military equipment, and the popular conviction that the bomb, in sole American possession, had rendered ground war for the United States obsolete – all these factors combined to limit Army weapon and tactical development in the late 1940s.

Design improvements to the U.S. division, however, followed from the combined arms lessons of the war. In the late 1940s, armored divisions were heavied-up with an additional armored infantry battalion, and infantry divisions were given an organic tank battalion. Artillery batteries grew from 4 guns to 6. The late 1940s were the start of a 40-year heavying-up trend, though for some time the infantry remained the center of the combined arms team. No large-unit armored formations were contemplated. Tactical doctrine emphasized the offensive, the envelopment over the penetration. Defensive tactics were limited to an area-type defense in depth resembling Fuller's archipelago notion. Large reserves, especially armored, were a key principle. Although tactics had changed little since 1945, firepower had increased. The improvements were important, but they disguised understrength and underequipped divisions and a chronic state of general unreadiness in 1950 when the surprise North Korean invasion occurred.<sup>20</sup>

### **Korea: Infantry-Artillery Doctrine**

Forced adaptation characterized American doctrine in the Korean War. The initial North Korean seizure of most of the peninsula was broken by General MacArthur's classic operational maneuver – the Inchon landing. But after the successive advances and retreats up and down the peninsula settled into strategic stalemate, operational campaigning became superfluous. The stalemate fed a tactic of firepower attrition, with U.S. tactics shaped by the enemy's own tactics and by the mountainous terrain. In

<sup>17</sup> Gabel, *GHQ Maneuvers*, pp. 40-41, 179-81, 190.

<sup>18</sup> John K. Mahon and Romana Danysh, *Infantry, Part I: Regular Army*, Army Lineage Series (Washington, D.C.: OCMH, USA, 1972), pp. 67-68.

<sup>19</sup> Weigley argues the point strongly: „Shaping the American Army of World War II: Mobility versus Power,” pp. 162-70.

<sup>20</sup> Major Robert A. Doughty, *The Evolution of US Army Tactical Doctrine 1946-1976*, Leavenworth Papers No. 1 (Ft. Leavenworth, Kan.: USACGSC Combat Studies Institute, August 1979), hereinafter *Tactical Doctrine 1946-1976*, pp. 2-7.

response to the night attacks the Chinese preferred (that were free of U.N. daytime air control), and to the Chinese ground- giving tactical defense, the U.S. commander General Matthew Ridgway promoted increased weapon density and envelopments. In the defense, American soldiers used „fight and roll” tactics followed up by artillery counterattacks. Rapid massed artillery fire, and tanks used as mobile firepower and moved into entrenched positions, were doctrinal staples of a predominantly tactical war dominated by infantry and artillery. The important doctrinal effect of the stalemated war was the growth of American dependence on firepower and a focus on attrition.<sup>21</sup> An important event just after the Korean War that would bear on future American Army doctrine was the establishment of a system for combat developments. Precipitated by Soviet attainment of intercontinental nuclear delivery capability, the concept called for a systematic and comprehensive pre-development of Army doctrine, materiel, and organizations. Carried out by the Army Field Forces and its successor commands – the current being TRADOC – the CD mission employed a range of specialized test,

analysis, and study agencies and tools to distill and test doctrine.<sup>22</sup>

### **Impact of Massive Retaliation Strategy: Pentomic Doctrine**

The post-Korea 1950s, tagged the „Pentomic era” by the predominant operational idea – a mobile five-sided division on a tactical atomic battlefield – presents an errant chapter in doctrine history.

Early attempts to develop tactical concepts for the forseen atomic environment foundered on the Army’s inability to obtain the tightly-controlled nuclear effects data – the specific effects of blast, heat, and radiation. The result initially was to treat tactical atomic weapons yet to be fielded as „bigger” conventional artillery to open paths for ground forces. But after 1953, Eisenhower Administration policy transformed this ambiguous doctrinal position. „Massive Retaliation” was a deterrence strategy that declared, in Ike’s words: „a major war will be an atomic war.” The emphasis was Air Force power, and a reduced Army was to be relegated to post-strike occupation and order-restoration duties.

Against the Eisenhower strategy, Army Chief of Staff General Ridgway argued the logic that once Soviet nuclear parity was achieved, the strategy would deter Soviet nuclear attack only and not Soviet-sponsored conventional wars that the American Army would be too small and ill-equipped to counter. Rejected by Eisenhower, Ridgway’s arguments ultimately prepared the way for the „Flexible Response” strategy of President John Kennedy.

But while opposed steadfastly to the Eisenhower view of major war as atomic war, Ridgway did not accept the corollary of a reduced Army role. That stance led the Army into studies resulting in the testing of hypothetical and undemonstrated dual atomic-non-atomic Army concepts. Those tests, never realistically evaluated, led to

the redesign, during 1956-1957, of the Army’s divisions into dispersed mobile battle groups dually armed – conventional, and tactical nuclear. Despite their reputed mobility, they posited the ultimate in substitution of firepower for maneuver. Within two years, the Pentomic designs fell of their own ill concept. Doctrinal impasse was evident. Combat developments experiments at Hunter Liggett Military Reservation, California indicated that, on the atomic battlefield, the Pentomic division was vulnerable to attack and could not be supplied, nor could it, as constituted, fight conventionally.

During the 1950s, doctrine writers wrestled with and, to some degree, wrote around the assumptions of tactical nuclear warfare. The fifties saw the growth of American armor, with production of new tanks and development of the M113 armored personnel carrier. Doctrine changes expanded the defense to two types – position and mobile, the latter facilitated by increases in armor. On the revolutionary battlefield, there was no mashing. Maneuver purported to furnish the antidote to the effects of atomic fires.

By the early 1960s, the Pentomic divisions were abandoned along with their actuating „central idea.” Stamping itself into an unworkable technological fix, the atomic/Pentomic Army was atomically unusable, and conventionally seriously impaired. No plausible operational concept for two-sided tactical nuclear warfare was ever developed. The Pentomic experience was a failed doctrinal approach to a technology revolution.<sup>23</sup>

### **Flexible Response, ROAD Divisions, and Mechanized Infantry**

Though internal studies and experiments were already turning the Army away from Pentomic doctrine by the early 1960s, it was the advent of the Kennedy Administration that introduced a new strategic outlook. „Flexible

<sup>21</sup> Doughty, *Tactical Doctrine 1946-1976*, pp. 7-12.

<sup>22</sup> TRADOC Historical Office paper, *A Brief Overview of How the U.S. Army Has Conducted Organizational Testing Since World War II*, prepared by John L. Romjue, Historical Office, U.S. Army Training and Doctrine Command, Ft. Monroe, Va., 5 May 1983.

<sup>23</sup> (1) TRADOC Military History Office Staff Paper, John L. Romjue, „Failed Approach to a Technology Revolution: The Army’s Pentomic Experience,” 13 September 1995. This paper draws on the following studies: A.J. Bacevich, *The Pentomic Era: The U.S. Army Between Korea and Vietnam* (Washington, D.C.: National Defense University Press, 1986); John J. Midgley, Jr., *Deadly Illusions: Army Police for the Nuclear Battlefield* (Boulder and London: Westview Press, 1986).

(2) Doughty, *Tactical Doctrine 1946-1976*, pp. 12-19.

Response" security policy supported maintaining a dual-capability doctrine, but it reversed the emphasis, now placed on conventional warfare and in addition, still lower on the spectrum, on counterinsurgency.

The key ideas were upgrading conventional firepower, more tactical mobility and maneuverability, tailoring of units, air-transportability, and divisional brigades like the armored division's combat commands. The studies culminated in the *Reorganization Objective, Army Divisions, or ROAD*, study of 1961.

The significant features of the ROAD divisions were a common division base, combined with brigades as tactical headquarters commanding flexible mixes of maneuver battalion types. Regimental headquarters were eliminated. The ROAD division type was determined by the mix of battalion types: infantry, tank, and (brand new) mechanized infantry. Aviation assets were doubled, and a division support command established. The ROAD divisions, with changes, were standard for the next 20 years.

Offensive doctrine resembled the pre-Pentomic, while the defense included mobile and area defenses including defense in depth. Doctrine emphasized the ROAD units' greater dispersion and mobility. A major factor was creation of the new mechanized infantry battalions mounted in the new M113 APC. In the armored division, mech elements supported the advance of tank elements. In the mech division, vice-versa. Tank doctrine was least affected by ROAD. Artillery was only slightly affected – it was already mechanizing. The mechanized infantry dismounted to fight, but a new type of warfare was facilitated

by protection and rapid movement.

Mechanization widened the fighting front, and with better weapons, it deepened the front as well. The defense now put more emphasis on the destruction of enemy forces, less on retention of terrain. Post-World War II stress on the offense, at the same time, was lessened, even though the ROAD divisions had a greatly increased capability for the attack. As historian Robert Doughty notes, the Army's perceptions of concentration and dispersion had undergone important alterations since the early 1950s. Doctrine had changed as the result of an accumulation of historical factors by the early 1960s: the Korean War experience, the defensive NATO lineup in Germany, the longer trend of attrition warfare, and the stopgap reliance on tactical nuclear weapons. There was increased confidence in the power of the defense.<sup>24</sup>

### Counterinsurgency and Airmobility

Briefly in the 1960s, counterinsurgency came to the fore, not as a competing central idea, but as a prominent collateral doctrine. FM 100-5 doctrine as early as 1962 reflected the new interest. Counterinsurgency doctrine, fraught then as now with a difficult vocabulary, tended to blend into small-unit tactics, and it was never distinctively or satisfactorily elaborated as such.<sup>25</sup> As it happened, the 1960s conflict in South Vietnam soon graduated from counterinsurgency concepts to larger conventional and airmobile doctrinal measures.

Airmobility was a major doctrinal development of the 1960s which today has yet to achieve its revolutionary potential. It developed out of the 1950s doctrinal ideas of Major Generals James Gavin and Hamilton Howze and others. Tests indicated the potential of helicopters for a promising range of combat functions. Concepts for using helicopters in conjunction with ground forces led to the first

U.S. air cavalry organization by 1961. A decisive push by the Kennedy Administration that year initiated a major program of studies, tests, and field exercises under the direction of General Howze, which produced airmobility and air assault concepts based on swift heliborne troop lift with supporting fires, including armed helicopters.

Howze tested and created a new division type, the experimental 11th Air Assault Division, which was tested out in large-scale maneuvers. In June 1965, the division was reorganized as the 1st Cavalry Division (Airmobile), and advanced elements deployed to Vietnam that year. In Vietnam, the division was the organizational heart of airmobility – the dominant tactics of that war.<sup>26</sup>

### Vietnam: Attrition Doctrine

Any analysis of American Army doctrine in the Vietnam War must start with the paradox of tactical victory and strategic defeat, and with the fact of the critical absence of a central operational plan marshalling tactical engagements to strategic purpose. Neither a decisive strategy nor an operational plan to execute it was present. With exceptions, including the Cambodian incursion of spring 1970, the Vietnam War was fought almost wholly at the tactical level.

The responsibility for the Vietnam failure remains in debate. Was it militarily obtuse political leadership geared to crisis-management and attrition thinking? Or was it an insufficiently assertive and perhaps doctrinally unprepared military leadership that all too easily adopted and prosecuted the attrition principle? Whatever the answers, the outstanding doctrinal fact and lesson was the absence of a strategy to destroy the enemy's center of gravity, and an operational vision to execute that strategy. Tactical victories flowed into no campaign aim. They were blocks of numbers in the pyramid of attrition.<sup>27</sup>

<sup>24</sup> Doughty, *Tactical Doctrine 1946-1976*, pp. 19-25.

<sup>25</sup> *Ibid.*, pp. 25-27.

<sup>26</sup> See Lt. Gen. John J. Tolson, *Airmobility: 1961-1971*, Vietnam Studies Series (Washington, D.C.: Department of the Army, 1973) for an account of the development of the airmobility concept and its execution in the Southeast Asia conflict.

While America's misconceived attrition strategy foreclosed the very operational planning necessary to win, the topography of Indochina – rice paddies, triple-canopy jungle, rugged mountains – conditioned the infantry-airmobile war's tactical doctrine. Larger-unit tactical operations, such as Junction City in early 1967, were less characteristics than area-blanking tactical actions featuring small-unit foot patrol and heliborne action. Helicopters were ubiquitous, employed in all roles from vertical insertions large and small to transportation, supply, reconnaissance, air artillery, and the earliest precision guided munition attack by attack helicopter – the latter, the final tactical- doctrine phase of a combat developments experimentation series originating at Fort Hunter Liggett.

Airmobility and better communications also opened up a new stage in unit control, but also over-control, by large-unit commanders. Critics speak of a „company commander's war" and of stacks of helicopters rotating in a vertical chain of command above the small unit fray.

Tactical operations were of several types, including search and destroy, and clearing operations to destroy enemy support bases. Attrition was the approach, not holding ground. Commanders employed the tactical sequence of find and fix by the infantry, fight and finish by artillery and air, a tactics of „pile-on". On some terrain and in absence of effective antitank weapons, mechanized forces were

effective. Heavy reliance on artillery fire-bases contributed to emergence of a „fire-base psychosis," i.e. infantry operating only within friendly artillery range. Air Force ground support was effective and good.

Altogether, firepower was the dominant characteristic, maneuver being limited tactically to find and fix. Infantry assault was deemphasized. Yet, given the lack of strategy and operational plan, massive firepower probably saved lives; shock and maneuver tactics to no determinate end would have cost even more.<sup>28</sup>

### **The American Army's Doctrinal Renaissance**

The decade of the 1970s was a critical period in the defense posture of the United States. Even as a deteriorating American Army wracked by serious morale and drug problems withdrew from Vietnam, a significant expansion of Soviet military power was reaching dangerously threatening levels in central Europe, soon to be accompanied by Soviet power moves elsewhere. Though the U.S. Army had made improvements in helicopters, antitank weaponry, rocket-assisted artillery, and other equipment, those improvements were dwarfed by the Soviet modernization and buildup of those years. U.S. leaders spoke of a lost generation of modernization during the preoccupation with Vietnam. Set in motion by Army Chief of Staff General Creighton Abrams was a major modernization and reform effort that would encompass all elements of the Army. An important functional realignment in 1973 united the Army's combat, doctrine, and training developments functions into a single training and school establishment: the Training and Doctrine Command at Fort Monroe. General William DePuy, the first TRADOC commander, was a decorated combat veteran of World War II and commander of the 1st Infantry Division in Vietnam. DePuy was a determined reformer who attained reputation as one of the most influential military figures in the

American Army in the 20th century. DePuy presented a conception of how the elements of change that were sorely needed after Vietnam went together: weapons, training, leader development, tactics and doctrine, and force design. Much of what he fostered was in place or well in train when he left command in 1977. His successors would complete the work in the next ten years. The key to change was a revised tactics and doctrine.

Not the Vietnam War, however, but the Arab-Israeli conflict of 1973, was the laboratory of modern armored battle in the 1970s. DePuy and his assistants studied intensively this short war that was so immensely destructive of tanks and other major materiel systems. Featuring the largest armor battles since World War II, the 1973 war had produced stark lessons of the stunning advance in the tempo of battle and in the lethality of antitank, air defense, and other modern weaponry. The Mideast war also made plain the essentiality of better suppressive tactics, use of terrain, and combined arms coordination. DePuy believed it necessary to modernize the whole body of American tactical doctrine and training literature to incorporate those lessons.<sup>29</sup>

TRADOC under DePuy produced a new edition of the Army's basic war fighting doctrinal manual, FM 100-5, Operations, in 1976, the first stage in a post-Vietnam revival of doctrinal thinking. The new doctrine focused specifically on the critical NATO theater and on the new weapon technology so emphatically demonstrated in the Mideast War. It confronted directly the prime strategic problem the U.S. Army faced: a U.S. force quantitatively inferior in men and equipment on an armor-dominated European battlefield. The 1976 doctrine stressed the commander's substitution of firepower for maneuver, and the potential of U.S. weapons to concentrate combat power to decisively alter force ratios. A highly-active defense characterized the requirement to move forces rapidly from battle position to battle position, in concentra-

<sup>27</sup> See Colonel Harry G. Summers, Jr., *On Strategy: A Critical Analysis of the Vietnam War* (Novato, Calif.: Presidio Press, 1982) for a vigorous and influential analysis of the American strategic defeat based on failure to apply the classic principles of war.

<sup>28</sup> Doughty, *Tactical Doctrine 1946-1976*, pp. 29-40.

<sup>29</sup> John L. Romjue, *From Active Defence to AirLand Battle: The Development of Army Doctrine 1973-1982* (Ft. Monroe, Va.: HQ TRADOC History Office, 1984), pp. 3-4.

tion tactics calculated to force the enemy to vulnerable positions. The Active Defense was like the „fight and roll” tactics of Korea, but now against armor-mechanized forces, and was similar to Vietnam’s „pile-on” tactics. No new attack doctrine was advanced; envelopment was preferred.<sup>30</sup>

The 1970s Active Defense doctrine stirred wide debate. Critics found in it many flaws. It overemphasized firepower over maneuver. Its concentration tactics posed unacceptable risks to flanks and front. The perception was widespread that U.S. doctrine had veered too far toward firepower-attrition.<sup>31</sup>

By the late-1970s, a sharp evolution had set in that led to a second stage of doctrinal reform. The doctrine of AirLand Battle, developed by TRADOC General Donn Starry, came out of the Active Defense debate, but also arose from new concepts and concerns. AirLand Battle was also the product of the wider historical currents of the time—the impact of the 1979 Soviet invasion of Afghanistan, and the opening of the Iranian hostage crisis. Those events changed naive perceptions in the Carter Administration about the Soviet Union and an unstable third world and contributed to the election of the defense-minded Reagan Administration the following year.

To sketch only briefly the development of the U.S. Army’s AirLand Battle doctrine: General Starry, coming to the task from command of the

V Corps in Germany, brought a sharp appreciation of the force and depth of the Soviet follow-on echelons. Regardless of how the major corps battle on the forward line went, the enemy’s unimpeded follow-on echelons would roll over the Active Defense by sheer force of numbers. Starry’s analysts suggested the requirement to fight a separate deep battle simultaneously with the close-in battle. U.S. forces could delay and disrupt the enemy’s echeloned line-up and throw off his timetable. General Starry’s doctrine deputy, Brig. Gen. Don Morelli, a small but tough American of Italian descent given to colorful speech, described it this way: „You grab the enemy by the neck while you’re kicking his ass.”

Further thinking was prompted by Army Chief of Staff General Edward C. Meyer, who pointed to global contingency needs in the 1980s beyond NATO. Starry also visualized a more „integrated” battlefield—conventional, and nuclear and chemical in extremity—as well as air-land integrated, a battlefield of deeper dimension, on which integrated maneuver and fire support was the rule, and extending from the U.S. rear area forward and deep into the enemy rear.

On this base, the AirLand Battle writers formulated a broad doctrinal vision that extended beyond the physical dimension of battle and away from a mechanistic approach, to the human and moral dimension of combat. AirLand Battle emphasized maneuver and the fundamentals of war, and distilled the tenets of depth, initiative, agility, and synchronization as the heart of doctrine. The basic idea, applicable to offense and defense, was to throw the enemy off balance with a powerful blow from an unexpected direction and to seize and retain the initiative.

Other significant ideas introduced into American doctrine in 1982 were the German Army principle of *Auftragstaktik*, and the operational level of war. AirLand Battle emphasized maneuver and not only firepower. Air-land cooperation was fused into a

concerted AirLand operation of coordinated airpower and ground forces. An updating in 1986 expanded the clarifying idea of the operational level of war, put into better balance the offense and defense, and highlighted the synchronization of the close, deep, and rear battles. With the restoration of American strategic perspective in the early 1980s, AirLand Battle provided the conceptual basis for an Army reassuming an explicitly initiative-oriented readiness. The doctrine reforms were the symbol and basis of the 1970s and 1980s modernization of the American Army.<sup>32</sup> The 1980s saw, collaterally, the rebirth of light-forces organization and doctrine, as well as doctrine for heavy-light employment.

### Doctrine for the post-Cold War

Major shifts in American Army doctrine followed the world-changing events of 1989-1991 that brought to a close the Cold War. The warming superpower relations that had preceded 1989 had already begun the planning process for a general drawdown of U.S. forces. Interrupted only by the Gulf War of 1990-1991, the U.S. Army entered a period of major adjustment.

In briefest summary, that change encompassed a rapid strength reduction and reorientation from the substantially Europe-based and Europe-oriented Cold War force to a smaller „force projection” Army based preponderantly in the United States.<sup>33</sup> From total active strength of 780,000 and 18 divisions at its peak in the 1980s, the American Army has currently reduced to 500,000, going to 10 divisions.

Accompanying these events and force reorientation was the train of U.S. and U.S.-allied military operations that began in 1989: the intervention in Panama, the Gulf War, the Somalia relief operation, the actions in Haiti and Rwanda, and the American commitment to join NATO partners in

<sup>30</sup> (1) *Ibid.*, pp. 3-11.

(2) Doughty, *Tactical Doctrine 1946-1976*, p. 46.

<sup>31</sup> Romjue, *AirLand Battle*, pp. 13-21

<sup>32</sup> *Ibid.*, pp. 23-66.

<sup>33</sup> For a summary of the major events of 1989-1991 and their impact on the doctrinal mission of TRADOC, see John L. Romjue, Susan Canedy, and Anne W. Chapman, *Prepare the Army for War: A Historical Overview of the Army Training and Doctrine Command 1973-1993* (Ft. Monroe, Va.: HQ TRADOC Office of the Command Historian, 1993), pp. 115-23.

Bosnia. This range of military actions – a swift unilateral coup de main; a major coalition war to protect world oil supply; multinational humanitarian missions, and missions to halt the 20th century's newest genocides, were a dramatic demonstration of the greatly altered, still indeterminate strategic era at hand.

The American Army's first doctrinal response to the new strategic era came in a new Operations edition in 1993. Developed over the previous two years by TRADOC commander General Frederick Franks, it was the Army's first doctrine for the post-Cold War. General Franks' influence was primary. Franks had led the U.S. VII Corps deployment from Germany and had directed the maneuver of that five-division corps (including the British 1st Armored Division) in the ground war of February 1991. His impressions of a new dynamic of war, as revealed in leading-edge weaponry and the operational experience, decisively shaped the 1993 doctrine. Franks saw that war as both validating, and rendering obsolete, AirLand Battle.

Current American Army doctrine has been widely briefed. Just to note essentials: future warfare would be joint warfare, likely combined/coalition warfare as well. A second shift was away from a primarily forward-deployed, forward-supporting stance to a global force-projection readiness and the strategic sphere. A third change was the extension of fundamental Army doctrine to non-war operations in which it could increasingly expect to be involved: peacekeeping tasks, disaster relief, humanitarian assistance, and so forth, termed collectively, operations other than war.

War fighting remained, undiluted, the core of doctrine. But a changed battle

dynamics was presented. The leading idea was simultaneity of attack in depth by tactical, operational, and strategic-ranged means and systems to paralyze and destroy the enemy with overwhelming force.

Was the doctrine of overwhelming power also overweening? Was it but a deeper-dimensioned version of America's traditional power-strategy, the head-on application of attrition power? The doctrine stressed overwhelming power, but not head-on attritive power. Simultaneous attack in depth was not grinding attrition, but a simultaneity of force application that made full use of maneuver and firepower, and that transcended the levels of war and introduced time as a new battle dimension. And yet, one may ask how universal in application is the central idea of simultaneous attack in depth, and how sustainable in the long haul? How long will strategic circumstance certify this doctrine's short-war assumptions?

In other changes, battle command replaced the familiar concept of command and control, or C2. Battle command was an art exercised by the commander and not a technology-driven function. The new central notion of battle space added, to the commander's extended and flexible physical picture, an imagination-stretching ingredient. Also emphasized were critical early-entry deployment doctrine, and a more flexible „split-based" logistics. The addition of the tenet of operational and strategic versatility was significant. Also important was revision of the principle of mass to signify the massing of the effects of combat power, rather than massing of large formations. Doctrine allowed for critical post-conflict activities, such as the security and relief operations in the postwar „no-fly" zones of Iraq.

Tactically, the notions and principles of AirLand Battle (sans designator) were kept with little change, and the offense remained „the decisive form of war," with flanking the preferred movement. Both mobile defense, to

draw the enemy into exposed positions, and area defense were retained.<sup>34</sup>

Still further ahead lies a potential new central idea – whether it will transcend the tactical to the operational remains to be seen. That is the Force XXI concept of a „digitized battlefield," whose units operate from real-time situational awareness of friendly and enemy components.

## Indications

To sum up and to hazard some indications and conclusions:

**Policy and strategy:** Dramatic shifts have characterized U.S. Army doctrine since the inter-world war period. War strategy or national policy has determined and shaped the change in every instance. A corollary is true. The global strategic imperative of the United States in the 20th century has presented Army doctrine with an insoluble but unavoidable dilemma. American national policy and strategy have placed before the Army ranges of security situations that its doctrine could not anticipate and meet much of the time. This dilemma suggests the need not only for the most versatile of doctrines, but for a sustained Army institutional cultivation of an objective strategic sense in which to root its doctrine.

**The circumstance of war** has had decidedly mixed impact on doctrine: World War II had the very fullest impact, both in the two-year respite before U.S. entry, and in the school of war throughout its course. The Korean War affected doctrine little; its principal consequence was to encourage attrition solutions. The Vietnam experience yielded contributions to airmobile and attack helicopter tactics, but the valuable doctrinal lesson of Vietnam was the negative lesson: the self-attrition that results from a limited tactical-war vision. The 1973 Arab-Israeli War was of fundamental consequence in the lessons that were drawn from it. The Gulf War's sugge-

<sup>34</sup> (1) Romjue, Canedy, and Chapman, *Prepare the Army for War*, pp. 144-46.

(2) John L. Romjue, *American Army Doctrine for the Post-Cold War*, TRADOC Historical Monograph (draft), Chapter V.

stion of a technological revolution in warfare and a new time dimension shifted doctrine profoundly.

**Technology** has unquestionably been of first significance. Major materiel innovations transformed and dominated American tactical and operational doctrines from the 1930s on, from motorization and mechanization to tactical nuclear technology to deep battle systems. The United States' technological proficiency and production richness fostered doctrines weighted to firepower, though striking exceptions are present: MacArthur, Patton, AirLand Battle. It is also true that the industrial wealth that translated into mobility and mechanization did not nurture maneuver doctrine equally.

**Institutional mechanisms** had significant impact on U.S. Army doctrine: The 1941 GHQ Maneuvers are an example that stands unique. The atomic Army tests conveyed a powerful negative lesson. The 11th Air Assault tests were the most successful example of in-division doctrine development.

**Doctrinal theory.** Only Clausewitz has been of first-order influence on American doctrine, and primarily in recent decades. Doctrine in the 1980s

and 1990s is impregnated with the fundamental conception of Sun Tzu. J.F.C. Fuller's *Principles of War* framework has been doctrinally well-honored. Liddell-Hart's indirect approach, John Keegan's writings on the human side of war, and more recently, Paddy Griffith and the notion of a technologically-conditioned empty battlefield have been influential.

Finally, the doctrinal influence of the fathers of **20th century American Army doctrine.** We must note here the long reach of Ulysses S. Grant, the hard and persevering attrition master; the armor doctrine development of Adna Chaffee and George Patton; the mixed contribution of Lesley McNair; the operational genius of Douglas MacArthur, whose example stands to confound attrition advocates; the work of the airmobile theorists, Hamilton Howze and others; William DePuy, the reformer of the post-Vietnam Army, who raised doctrine to a new prominence; Donn Starry, the deep-battle advocate and restorer of operational vision and maneuver. Frederick Franks and the revolutionary doctrine of deep-dimensional simultaneous attack.

America's industrial might, technological advantage, and lives-sparing

priority have tended to make firepower preeminent in the doctrine of its Army. The American doctrinal record in most of this century is a story of firepower dominance. Paradoxically, firepower dominance, by discouraging the maneuver solutions of operational art, had high-casualty results. Tactically adept, the American Army operationally was negligent in most of its 20th century wars. That weakness owed foremost to the missing link of the operational level – a recurring gap in basic U.S. Army doctrine until the 1980s.

At the end of the 20th century, American doctrine is clear about war's interdependent levels of action. Our doctrine has achieved at long last a maneuver-firepower balance. It has crystallized battle command and vision as a dynamic element of battle. American doctrine has outlined the emerging technological facet of war and produced striking concepts to harness it.

As the U.S. Army looks ahead, it must forever push the technology envelope and must tirelessly develop the concept-technology mix into new doctrine. But our doctrine must also spurn technology's attrition temptation. Friction will be alive and well on the battlefields of the 21st century. ■