

A REVISED MECHANIZATION POLICY

by Timothy K. Nenninger

Many military experts recognized that tanks possessed characteristics similar to horse cavalry. As the mobility of tanks increased the similarity became more apparent. Although the tanks available were unsuitable for a mobile role, the War Department organized the two mechanized forces in 1928 and 1930 to carry out mobile, independent missions. Yet the opposition to an independent mechanized organization hampered development. Such a force threatened the infantry's exclusive control of tanks, while the cavalry feared that a mechanical force might completely take over its traditional mobile role. As Chief of Staff, Douglas MacArthur attempted to allay these fears by ordering all branches to mechanize so far as practicable.

On 1 May 1931 MacArthur issued a memorandum entitled "General Principles to Govern Mechanization and Modernization throughout the Army." For nearly a decade this memo governed the Army's mechanization policies. In this document MacArthur stated, "Too often in the past organization has been attempted from the standpoint of equipment rather than from the standpoint of missions assigned." He considered this unsound policy because few classes of equipment belong exclusively to one arm. As tanks gained strategic mobility they appeared in organizations having missions beyond those normally assigned to infantry. At the same time, modern weaponry eliminated the horse as a decisive factor on the battlefield. To assist the cavalry in developing its organization and equipment for modern warfare, MacArthur ordered the Mechanized Force at Fort Eustis reorganized as a mechanized cavalry regiment. He also recognized that one of the principal roles of tanks remained close support of the infantry. Tanks

with infantry were primarily assault weapons and depended on armor, tactical mobility, and firepower to dislodge the enemy from defensive positions. Speed and strategic mobility were the important characteristics of tanks in mechanized cavalry units. Finally, MacArthur declared that the evolution from mounted trooper to mechanized cavalryman would be complete only when vehicles could perform those tasks formerly assigned to the horse. In an attempt to distinguish between cavalry and infantry tanks and to bypass the National Defense Act which assigned tanks exclusively to the infantry, tanks operating with the mechanized cavalry were called "combat cars."

MacArthur's mechanization program encountered opposition from several quarters. Colonel Van Voorhis, the Mechanized Force commander, feared that branch jealousies would disrupt the proposed program. He advocated strengthening the Mechanized Force and continuing development independent of any branch control. Subsequent events proved Van Voorhis' fear correct. The Chief of Infantry, Major General Stephen Fuqua, who opposed the formation of the Mechanized Force, disagreed with the new War Department mechanization policy. According to Fuqua, tanks were infantry weapons and this arrangement should remain unchanged. Furthermore, he pointed out that the assignment of tanks, or combat cars, to the cavalry violated Section 17 of the National Defense Act. Fuqua believed that neither the cavalry nor the infantry should contribute the personnel required to build up mechanized units.

Cavalry reaction to the new policy was mixed. Major General Guy V. Henry, Jr., the Chief of Cavalry, welcomed the addition of mechanized units to his arm and thought that combat cars could replace



Major General Guy V. Henry, the Chief of Cavalry (facing camera) believed that mechanized cavalry could apply the tactics and techniques of horse cavalry to motor vehicles. This heavily retouched photo shows General Henry in conference at Camp Lee, Virginia, in June 1931. With him (left to right) are Colonel L. W. Oliver, (who, later as a Major General commanded the 5th Armored Division in Europe in WWII) Colonel Daniel Van Voorhis, and Major Sereno Brett.

horses without changing the essential mission of the cavalry. Mechanized cavalry would not be in any way analogous to the infantry tank units. Henry believed that mechanized cavalry could apply the tactics and techniques of horse cavalry to motor vehicles. This depended on the development of mechanized vehicles capable of great mobility.

Not all cavalry officers shared Henry's enthusiasm for mechanization. Many could not accept the fact that the horse had a limited use on the modern battlefield. Brigadier General Hamilton S. Hawkins epitomized this staunch horse cavalry group. Even after World War II Hawkins wrote articles for the *Cavalry Journal* pointing out what he considered the limitations of tanks and advocating an increase in the number of Army horses. Even one of the most ardent advocates of mechanization but also an ardent horse lover throughout his life, Adna Chaffee, had reservations about ending the service of the horse. Most cavalrymen took a moderate, somewhat philosophical view of the subject. Both literally and figuratively, cavalrymen thought they had a wider perspective than others: one could see farther from the back of a horse than walking in the dust. Above all they hated to see the elimination of the horse. But most recognized the necessity of fighting from something more substantial than a horse's back. Mechanized cavalry offered a logical alternate to the horse.

Some Congressmen expressed concern over MacArthur's change in the mechanization policy. Despite the claims of its proponents, mechanization was expensive. During the Depression, Congress was reluctant to appropriate funds for the military. Some people in Congress as well as in the Army considered

mechanization an unnecessary expense. Among the Congressional supporters of an aggressive mechanization was Ross Collins, Democrat from Mississippi, the Chairman of the Subcommittee on Military Affairs of the House Appropriations Committee. When MacArthur appeared before his committee, during hearings on the 1932 War Department Appropriations Bill, Collins asked the Chief of Staff why the Mechanized Force had been abandoned. Collins declared that his committee was always the champion of an independent mechanized organization. MacArthur replied that "a small independent Mechanized Force could not reach the ultimate development of mechanized possibilities." Furthermore, as mechanized and motorized equipment increased, the number of Army horses and mules would decrease by about 3000 per year. Reassured that this would keep the cost of mechanization to a minimum, Collins replied that he was most encouraged about future developments.

Despite the optimism of its strongest Congressional supporter and the apparent support of the Chief of Staff, War Department budget appropriations restricted the development of mechanization during the thirties. The cost of equipping one light tank battalion was approximately \$2 million. During the early thirties this was a great deal to spend on any single item in the military budget. The *Army-Navy Journal* editorialized on the cost of mechanization and the prospect of acquiring the needed appropriations: "While Congress might feel kindly toward the mechanization of the Army it was realized that the extreme cost of any extensive mechanization would run up against the 'wall of budgetary limitations.'" Congress was



Three types of Army tanks lined up at Fort Benning in 1940. Left to right are the M2 medium tank, T4 medium tank, and M2A3 light tank. European tank battle experiences caused new American designs to be adopted and none of these 66th Infantry Regiment tanks saw action.

actually more willing to appropriate funds than the *Journal* anticipated. The problem was one of priorities. The War Department, not Congress, determined the priorities.

Rather than spending money for many tanks and complete mechanized units, MacArthur advocated a gradual approach. He believed that progress in mechanization should consist of producing the best pilot vehicles, making arrangements to speed tank production in time of emergency, producing sufficient tanks for thorough tactical tests to develop doctrine, and indoctrinating the entire Army as to the capabilities of mechanized units. At that time he thought production of large numbers of tanks an unnecessary expense because they would become rapidly obsolete. MacArthur hoped that eventually tank technology would become stable. As the effective life of tanks increased, additional investment in mechanization would be warranted. But during the early Thirties mechanization received only a small share of military appropriations.

Some years later MacArthur claimed he "stormed, begged, ranted and roared; I almost licked the boots of certain gentlemen to get funds for motorization and mechanization and air power." The Chief of Staff did strongly support mechanization in theory. But he had to make a choice between appropriating funds for mechanized equipment and money to support more personnel for the Army. Faced with this decision, MacArthur chose the latter. The General Staff wanted to maintain a large, well-trained officer corps and strong civilian components capable of rapid expansion in time of war. An expandible Army, they reasoned, could better meet any threat facing the country. Mechanized units were not as adaptable;

weather, terrain, and availability of gasoline limited mechanized combat.

Congressman Collins strongly opposed this policy. In a House speech on 10 May 1932 he declared that the United States Army and the General Staff, in particular, were "utterly unable to lift themselves out of the rut and apply new principles to military science in the United States." Collins emphasized the need for developing modern weapons such as tanks and airplanes. According to Collins, a comparatively small Army of well-trained experts, utilizing the newest concepts of warfare, would provide the best security for the United States. Because MacArthur put preservation before progress, Collins opposed increasing War Department appropriations. If Congress appropriated more money, Collins feared that the Army would spend it on pay for more men and not on modernization.

It is apparent that budgetary limitations played a significant role in determining such purely military matters as tactical doctrine. Because of the limited funds available, prospects for a large mechanization project were bleak. Until the late Thirties when the Roosevelt Administration began spending more for defense, American mechanized forces consisted of two regiments of mechanized cavalry and the infantry tank units remaining from the 1920s. Because of insufficient equipment, the War Department actually skeletonized several of the infantry tank companies during this period. Conforming to the policy outlined by MacArthur, the Army concentrated on developing tactical doctrine for mechanized combat and on producing a few pilot models to improve the mechanical capabilities of tanks.

Although the War Department mechanization program of 1931 directed all branches to mechanize, this order concerned primarily the cavalry and the infantry. Throughout the Thirties officers with the mechanized cavalry developed new concepts for the use of tanks. The tactics employed by armored divisions during World War II evolved from these concepts. For this reason the infantry tank organizations of the period are often forgotten. During the 1930's infantry tanks functioned as they had in the past: their primary mission was to assist the advance of the rifleman.

The *Infantry Field Manual* of 1931 outlined this mission. Leading tanks preceded the main assault force, broke into the hostile defense, and penetrated deeply to facilitate the rapid and extensive advance of friendly troops. Fast tanks were best suited for this task but firepower was even more important since close support of assault troops was the primary consideration. Normally organized in light tank platoons and attached to infantry battalions, accompanying tanks reduced points of resistance which developed in front of, or to the flanks of, the unit they supported. Apparently the infantry still thought in terms of fighting a static war similar to the Western Front from, 1914 to 1918. Certainly they did not envisage the mobile warfare of World War II as practiced by the Germans in Poland and the Low Countries or by the Americans in France. When confronted by hostile troops in prepared positions infantry tanks assisted the foot troops in a frontal assault. Infantry doctrine gave no thought to bypassing these positions and isolating them from their command and supply facilities. Mechanized cavalry might attempt such a solution but the infantry rejected the use of tanks in independent, mobile missions.

In 1933 Major General Edward Croft, the Chief of Infantry, expressed his views on tanks in a letter to the President of the Infantry Board. According to Croft, the infantry should leave the development of mechanized forces to the cavalry. Croft, who believed in concentrating on the use of tanks with foot troops, said, "Personally I doubt very much if in the next war tanks will be able to go charging about the battlefield in the face of antitank weapons no matter how hard we try to overcome inherent weaknesses. The success of tanks in battle will lie . . . in cooperation with the Infantry foot troops."

The Infantry Board, disagreeing with Croft's assessment, pointed out that possibilities existed for the employment of tanks other than as direct support for infantry or as mechanized cavalry. Often tanks

could effectively support riflemen from a position other than immediately in front of them. Members of the Infantry Board thought, "The modern tank should not pull the foot troops forward by their boot straps if there is any possibility of maneuvering against the position holding up such foot troops from the flank or rear." Nevertheless, Croft's ideas prevailed. His successor, George A. Lynch, restated official infantry views on the employment of tanks in order to ensure a unity of views within the branch. Infantry training needed to stress the use of tanks in close support of the foot soldier. Lynch said that tank attacks should be launched against clearly defined objectives. Only in exceptional circumstances and only when mechanized cavalry was unavailable would infantry tanks engage in the pursuit of a defeated enemy or any similar mobile mission. The limited use of tanks by the infantry, exemplified by the views of Croft and Lynch, prevailed until the spring of 1940.

For some time the Army had planned to move the Tank School from Fort Meade to the Infantry School at Fort Benning where tank doctrine would more likely conform to the dictates of the infantry. In January 1932 the Secretary of War directed that the Tank School move to Benning and become the Tank Section of the Infantry School. The curriculum of the Tank Section remained similar to what it previously had been at Fort Meade but some changes were made. One improvement was that all officers in the Infantry Company Officers Course received sufficient instruction in tank tactics to enable them to understand the powers and limitations of tanks. However, the Secretary's directive reduced the course for officers regularly assigned to tank units from one year to five months. Tank personnel had to learn conventional infantry tactics before studying their specialty. The Secretary wanted to avoid too much specialization.

During the Thirties infantry tank units, often skeletonized and understrength, were stationed at many posts. Forts Benning, Meade, and Devens held elements of the 66th and 67th Infantry (Light Tanks). Company F at Benning was the only active unit of the 67th. Divisional tank companies, organic to infantry divisions, served at the home stations of their parent units. Posts housing the seven divisional companies stretched from Miller Field, New York to Schofield Barracks, Territory of Hawaii. About 2,000 enlisted men and 120 officers served in the two regiments and seven divisional companies.

By 1939 unanimity of opinion existed throughout



M2A3 light tank of the 68th Infantry at Fort Benning in 1940. The M2A3 appeared in 1938. Maximum armor was .75 inches and weight was 13 tons. Speed was 40 mph. Armament consisted of a .50 caliber machinegun in one turret and a .30 caliber in the other.

the Army on the need to eliminate the light tank company as an organic element of the infantry division. New infantry doctrine called for the use of tanks in mass formations. The Chief of Infantry, General Lynch, ordered the organization of all light tank companies into battalions; training would proceed on the basis of the battalion organization. Only in rare circumstances would tanks be used in units smaller than a battalion. Redesignated the 68th Infantry, all divisional tank companies concentrated at Fort Benning in January 1940. Combined with other infantry tank units, the 68th participated in the 1940 maneuvers as part of the Provisional Tank Brigade. At this time the infantry tanks and the mechanized cavalry became closely allied.

A caustic letter from Lieutenant Colonel James R. N. Weaver, a battalion commander in the 66th Infantry, to the Office of the Chief of Infantry aptly reflects the state of infantry tank development during the Thirties. Writing in 1939, Weaver presents a case for the adoption by the infantry of the M2 medium tank, "We can get what we want if we insist on it. I saw the cavalry get everything it asked for including the non-statute light tank by calling it a *combat car*; I saw them get 56 so-called combat cars when all we had was 18; I saw them get (through General then Colonel Chaffee's intercession as Chief of the budget and Legislative Branch, WDGS) \$600,000 of the President's reserve for equipment of the cavalry mechanized brigade."

Throughout the Thirties the mechanized cavalry overshadowed the infantry tanks. The mechanized cavalry developed new tactics and generally projected a more spectacular image. Furthermore, Adna Chaf-



Production of the M2 medium tank began in 1939. A 350 hp Wright radial airplane engine pushed the 19-ton M2 to speeds up to 30 mph. Maximum armor thickness was 1 inch. Armament consisted of one 37mm gun and six caliber .30 machineguns.

fee, a proponent of mechanized cavalry since its inception, served as chief of the General Staff section which planned War Department budget requests. From this powerful position he lobbied for the cause of mechanized cavalry. All these factors contributed to limiting the infantry's share of the already small War Department mechanization appropriations. This further stifled development of infantry tanks during the 1930's.

Bibliographical Note

The author used numerous sources in preparation of this article. Correspondence of the Chiefs of Cavalry and Infantry found in RG 177 at the National Archives was most useful for statements of official policy on mechanization. Material in RG 94, the Adjutant General's File, was another source for this as were *War Department Annual Reports*. The proceedings of Congressional hearings, particularly House hearings on the 1932 and 1933 Military Appropriations Bills, provided another perspective on the difficulties of mechanization. John W. Killigrew's dissertation from Indiana University, "The Impact of the Great Depression on the Army, 1929-37," contains much valuable information on budgets and military policy. Personal insights were obtained from General MacArthur's *Reminiscences*, Charles G. Mettler's obituary of General Chaffee in the April 1942 *West Point Assembly*, and from correspondence with officers involved in mechanization during this period. Information from the author's interviews with LTG Willis D. Crittenger and from a letter from the late MG Guy V. Henry to the author was used in this article.