

THE SECOND ARMORED DIVISION'S  
FORMATIVE ERA, 1940-1944

By

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## PREFACE

Unknown to me, this dissertation had its beginnings in 1959, while I was a cadet attending the Reserve Officer Training Corps summer encampment at Fort Hood, Texas, home of the 2d Armored Division. The following year, as a newly commissioned Second Lieutenant, I was assigned to the First Howitzer Battalion, 14th Field Artillery, 2d Armored Division, where I spent six months waiting for artillery school at Fort Sill, Oklahoma. Little thought was given to the topic until ten years later, when searching for a dissertation project, I discovered that the 2d Armored Division did not have a detailed narrative concerning its existence. This was especially disappointing because of the relationship of the 2d Armored Division and General George S. Patton, Jr., and the fact that the division served under this colorful individual in North Africa and Sicily.

No writer has ever compiled a history without incurring debts. This is especially true of this effort. The author wishes to publicly acknowledge the aid and support given by the 2d Armored Division Association, for many years under the able leadership of Colonel Redding F. Perry. He announced the project in the Association's Bulletin, which led to some favorable responses. Members of the "Hell on Wheels" Association agreed to be interviewed and spent many hours recounting their experiences. Especially valuable for the very large view were the conversations with Generals Jacob Devers and William H. Simpson. Former Division Commanders, Lieutenant General Willis D. Crittenberger,

Major General Ernest N. Harmon, Brigadier General Allen F. Kingman, and General I. D. White, were extremely valuable for their detailed thoughts on the operations in which they participated. Others interviewed were most helpful in reliving experiences at division or lower levels. Major Generals Robert W. Grow, Harold Peckham, and Lawrence R. Dewey, Brigadier Generals Sidney R. Hinds and Wheeler Merriam, and Captains James M. Burt and Donald A. Chace helped to clarify many of the questions raised.

Archivists of various research libraries, including Dr. Richard Sommers, the United States Army Military History Research Collection Carlisle, Pennsylvania; Timothy Nenninger, Charles Phillips, and especially Mrs. Gloria Wheeler of the National Archives, Washington, D. C.; and Mrs. Ann Turner, Reference Librarian at the Henry Prescott Chaplin Memorial Library, Norwich University, Northfield, Vermont, were most valuable in their assistance. With their expert knowledge these dedicated librarians often anticipated this researcher's needs.

The Office of the Chief of Military History, Washington, D. C., provided much assistance through its collection of unpublished materials, and extensive knowledge of the topic. Mrs. Mary Lee Stubbs and Stanley Russell Conner of the Unit History Section provided guidance on the formation of the 2d Armored Division. Mr. Detmar Finke and Miss Hannah Zeidlik of the Reference Section opened their collections to this researcher and helped him to find what was needed. The Deputy Chief Historian at the Office of the Chief of Military History, Mr. Charles B. MacDonald, was most helpful. As the author of several volumes in the United States Army in World War II, he was more than familiar with the role of the 2d Armored Division on the European Continent. He loaned me the Manuscript to the forthcoming volume, "The Last Offensive,"

which concluded the European phase of the War.

The United States Armor School Library at Fort Knox, Kentucky, under the supervision of Brigadier General Robert W. Galloway and his successor, Brigadier General George S. Patton, loaned studies of 2d Armored Division actions done by advanced course students. Armor and its two able editors, Colonel O. W. Martin, Jr., and Major Robert E. Kelso, also loaned materials and scheduled appointments with several of the men interviewed.

On the Oklahoma State University campus, the author is deeply indebted to the late Mrs. Marguerite Howland, and to Mr. Josh H. Stroman, who guided me through the documents section of the library. Mrs. Heather MacAlpine Lloyd and her assistants kindly secured the other needed materials on interlibrary loan.

Special consideration is owed the faculties of the Departments of History and Political Science. The author's graduate studies committee, composed of Drs. Harold F. Gordon and Harold V. Sare of the Department of Political Science; Drs. Douglas D. Hale, H. James Henderson, John A. Sylvester, and chaired by Dr. LeRoy H. Fischer, led me through the tangles of graduate study, rendering valuable advice and assistance along the way. A special tribute goes to Dr. Homer L. Knight, Professor and Head Emeritus of the Department of History, who provided a graduate assistantship which permitted me to pursue graduate study. Dr. Fischer read, edited, and supervised the dissertation from the opening word to the final period; without his able directions, encouragement, and most of all friendship, this project may never have been completed.

Special thanks have been saved for last. John and Carole Albright provided a home away from home while I was doing research in Washington,

D. C. John led me through the many mazes at the Office of the Chief of Military History, introducing me to those who aided my search for materials. Captain William K. Emerson, an enthusiastic student of history, read the manuscript, rendering invaluable service and advice to clarify points which might have confused the reader.

My parents, Mr. and Mrs. Truman P. Houston, aided and encouraged me in my entire graduate program, giving constant encouragement to finish the project. My son, Donald Jr., could not understand why I did not stop to play with him, nor did he know that loud noises and concentration do not mix. My wife, Guyla, edited, typed, critiqued, and supervised the study from the selection of the topic to the last word, while serving as full-time serials librarian at Oklahoma State University.

In spite of all the valuable assistance, advice, and aid, this is my work; I alone assume responsibility for any errors in fact or interpretation.

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## CHAPTER I

### A FOREWORD VIEW

A former chief of staff of the 2d Armored Division once commented that the only thing more difficult than fighting a war was attempting to write about it. Perhaps that comparison could be taken one step further to say that the only thing more difficult than writing about a war is attempting to write about one unit in that conflict.

The American Tank Corps came into existence during World War I because of the stalemated situation in Europe. The armies had battled for almost two years with little change in the territory gained or lost. The tank was the technological answer to restore movement to the battlefield. Once the war ended the Tank Corps returned to the United States and for a moment it appeared that it was to become a separate branch of the service. Unfortunately, Congress agreed with General of the Armies John J. Pershing that the tanks had been an infantry support weapon and should remain with that branch.

With the assignment of the tanks to the infantry, Congress became the author of a conflict which was to dominate military thinking for the following two decades. One group of officers wanted to use the tanks as cavalry, while the other group wanted to maintain the tanks in their traditional infantry support role. Inability to compromise the issue, together with branch jealousies, forced the Chiefs of Infantry and Cavalry to assume dogmatic positions which only served to slow the

development of tactics and vehicles for conducting mobile warfare.

In spite of official barriers raised against the tank enthusiasts, a few far sighted officers began to write encouraging, thought provoking articles, advocating what they considered a new means of conducting warfare. These spokesmen reasoned that with the development of the tank, mobility had been restored to the battlefield. Since cavalry had traditionally been the branch of maneuver, they argued that cavalry should either have the tanks, or that, at the least, infantrymen should be trained to use cavalry tactics. They foresaw that the stagnated situations of World War I would in all probability cease to exist.

This study is based on three fundamental theses. During the 1920's and 1930's tactics and leaders emerged which would place the Armored Force of 1940 on a firm footing. Contrary to several writers, the Armored Force was not left to shift for itself and grope for methods and means, but had twenty years of experience on which to draw. The tactics and methods to employ the 2d Armored Division proved the soundness of the earlier efforts.

The second thesis is that the training of the 2d Armored Division, both at Fort Benning, Georgia, and in the peacetime maneuvers placed the division on a solid foundation for combat, once the tankers entered World War II. After each major engagement, the division reinstated training as a means of maintaining its battle condition. The division, as a result of its constant attention to training, had only to learn a few new techniques: attacking under overhead artillery fire, moving through hedgerows, and participating in amphibious landings. Again, this proved the soundness of the 1920's and 1930's influence and efforts.

The third thesis is that continuity of command was maintained because of the policy of promoting to senior command positions from within the 2d Armored Division. This policy permitted the men to maintain faith in the tactical ability of their leaders. Further consideration has to be given to the large number of enlisted personnel and junior officers who joined the 2d Armored Division at Fort Benning, Georgia, fought through all the actions, and entered Berlin as the first American division to occupy the enemy's capital. These men provided not only continuity, but battle knowledge and experience to the replacements.

The three themes, when followed throughout the history of the 2d Armored Division, portray the unit as the epitome of armored warfare. However, to maintain that the 2d Armored Division was the best in Europe is to fail to remember that the division was one of the two heavy divisions which retained its 1942 configuration. The others were light divisions, which had less than half the tank strength and fewer infantry than the heavy divisions. The 2d Armored Division was able to sustain heavier losses while continuing to advance, with little impairment of its battle ability. A light division suffering the same percentage of losses may well have been required to be relieved and be resupplied with additional men and equipment.

A tank is a fully tracked, armored enclosed vehicle, which serves as the principal assault weapon of armored divisions. Prior to 1930, tanks were classified into three categories. Light tanks were those which weighed less than ten tons and which could be moved on tank carriers. Medium tanks weighed between ten and twenty-five tons and were either too large or heavy to be moved on transporters. Heavy tanks

were those which weighed over twenty-five tons. During the 1930's and continuing until the end of World War II, transporters were no longer required because of the improved mechanical efficiency which permitted tanks to move long distances under their own power. This ability also forced a new set of definitions for tanks. Light tanks were those which weighed less than twenty tons while medium tanks were those over twenty tons. As World War II drew to a close, the new M26 tank weighing some forty-six tons, was introduced. Because of its extreme weight it was rated as a heavy tank. Today, apparently the weight classification system has been abandoned.

Tactical terms may cause some confusion. Penetrations are when armor passes through defensive positions of the enemy in attempting to destroy the positions or his separated forces. Turning movements attempt to get armor on the flank of the enemy, bypass his main force, and race for a distant objective. Its purpose is to force the enemy to abandon his positions or to divert major forces to meet the threat. Usually armor is out of supporting range of other ground combat elements. Envelopments, single or double, are short range turning movements around the enemy. Usually some friendly force attacks at a point to distract the enemy while the friendly armored force attacks at one or both flanks to reach the objective. The attacking friendly force diverts the enemy's attention, either preventing his escape or reducing his ability to react to the armor attack. Exploitations are the rapid advance against lessening resistance. Usually, armor is given a distant objective. By employing maximum speed, bypassing, avoiding, or breaking through enemy resistance, the goal is to secure the objective with a minimum of time. Pursuits are characterized by the race to destroy

the enemy before the foe regains the ability to present a defense or to regroup his forces. During its history, both in maneuvers and actual combat, the 2d Armored Division executed every type of action in which tanks could be employed.

## CHAPTER II

### CREATING AN IDEA: THE INFANTRY ERA

On 28 February 1945, the 2d Armored Division crossed the Roer River and attacked northeastward towards the bridge over the Rhine at Krefeld-Uerdingen, Germany. Sidney Olson, a correspondent for Time magazine, described the scene:

From the air in a Piper Cub the tank drive was a thing of the sheerest military beauty: First came a long row of throbbing tanks moving like heavy dark beetles over the green cabbage fields of Germany in a wide swath - many, many tanks in a single row abreast. Then a suitable distance behind, came another great echelon of tanks even broader, out of which groups would wheel from their brown mud tracks in green fields to encircle and smash fire at some stubborn strong point. Behind this came miles of trucks full of troops, maneuvering perfectly to mop up by-passed tough spots. Then came the field artillery to pound hard knots into submission. From the flanks sped clouds of tank destroyers cutting across the landscape in wild swoops that hit the enemy and cut off communications with bewildering speed.

And always overhead swung and looped the Thunderbolts in perfect air cover, keeping the tanks under absolute safety umbrellas and from time to time diving to knock out trouble points beyond the front. Above them rode farther-roving P-47 missions to dive bomb and strafe every moving truck, self propelled gun or railroad train for many miles beyond, while higher still was the rumble of the great silver Fortress in the top-most sky, purring distantly on to knock out the rearmost reinforcement areas, supply points, and marshalling yards.

This was one of the war's grandest single pictures of united and perfectly functioning military machines in a supreme moment of pure fighting motion.<sup>1</sup>

What the correspondent did not see in this classic armored attack, however, was the many years of training, thinking, and rehearsal that went into the attack. Before anyone obtained this powerful war machine its doctrine slowly evolved from 1917 to 1940. More importantly, during the same period, tank leaders were receiving their training. Not mentioned by the Time writer were two pioneers in armor warfare, Major General I. D. White and Brigadier General Sidney R. Hinds, who were leading the very attack which he was watching.

The tank came into existence because of military necessity in World War I. The European battlefields had become stalemated, when machine guns, barbed wire, and massed artillery had all contributed to eliminating maneuver from the battleground. The only attacks possible were very costly frontal assaults against well-prepared defensive positions. These attacks usually followed massive artillery barrages intended to overcome defensive positions, but more often tore up the ground in no man's land, thus slowing the assaulting force.

A British Lieutenant Colonel, Ernest D. Swinton, conceived the idea of an armor-covered vehicle after seeing a tracked farm tractor in France. He recommended that the vehicle be armor-covered, armed with guns, and used in combat. Winston S. Churchill, First Lord of the Admiralty, liked the idea and urged its adoption. Because of his encouragement, naval terms, such as hull, turret, deck, ports, are used today to describe various parts of the tank.<sup>2</sup> The first time tanks were used in combat, in the Battle of the Somme on 15 September 1916, they were considered a failure, despite limited success. An extremely ardent tank enthusiast, Nathan A. Smith, explained that these tanks were employed over unsuitable terrain, in small numbers, and without the



element of surprise. The attack was a failure not because of mechanical problems or tactical usage, but because of leadership. Smith said:

Generals trained under an ultra-conservative system were too hide-bound, their minds too inelastic to grasp the possibilities of the new weapon or to see the similarity with the past. All they could see were mechanical failures. [It was] ...better to suffer defeat while obeying the ancient tactical customs than to win by the use of a radical idea.<sup>3</sup>

By the time of the Battle of Cambrai, where tanks were next engaged on 20 November 1917, some of the earlier problems had been overcome. Tanks were used en masse, achieved surprise, and local reserves were provided. Some tanks were assigned distant objectives while others were detailed to help the infantry forward. The basic idea was to go as far and as fast as possible to attack reserve and rear area positions. Cambrai, while a tactical success, was a strategic failure, again because of poor generalship. The British commanders did not think that the tanks could achieve surprise, they failed to provide sufficient reserves, and neglected to exploit the breakthrough or to hold the ground won. The Germans launched a vicious counterattack and regained their lost territory.<sup>4</sup>

Following the Somme battle, the American military mission in France had submitted a report on the use of tanks. Major General John J. Pershing, commander of the American Expeditionary Force, approved the report and decided that tanks would be a useful addition to the American Army.<sup>5</sup> Pershing had his staff study the tank question, and they determined that between 375 and 600 heavy and 1200 to 1500 light tanks would be needed. Pershing accepted these figures and asked the War Department to secure the tanks for him.<sup>6</sup>

The American Tank Corps, which came into existence because of the Battle of the Somme and the report by the American military mission, had two beginnings: in France in 1917 and in the United States in 1918. In a letter of application for a command in the Tank Corps in France, Captain George S. Patton, Jr., stated that the mission of light tanks would be similar to light cavalry. His command request was approved, and he was given the duty of organizing and training the first American tank troops.<sup>7</sup>

While training his command, Patton stressed that tanks must aid the infantry's advance. To do this, the tanks would cut barbed wire not destroyed by artillery, stop enemy infantry from manning the trenches when artillery barrages lifted, prevent enemy machine guns and cannons from firing on friendly infantry, help mop up positions, neutralize strongpoints or blind them with smoke, patrol to prevent counter-attacks, and be ready to pursue the enemy after friendly forces had consolidated the positions. Equally important, he stressed coordination between tanks and infantry. Later, he said that tank-infantry operations had two serious limitations -- the physical exhaustion of the infantrymen and terrain obstacles for the tanks. While readying his command, Patton urged ending preparatory artillery fire because of terrain damage. As an alternative, he proposed using smoke to blind antitank guns, and urged using airplanes to maintain radio contact between artillery and tanks.<sup>8</sup>

Lecturing at the tank school, Patton stressed that tanks and other "auxiliary arms are but a means of aiding infantry." In his final report of operations, he emphasized in capital letters the dictum that "Tanks Must Stay With the Infantry."<sup>9</sup> Patton set the tone and

doctrine that would govern tank usage for two decades. Although originally he thought that the tank would be used similarly to light cavalry, he later changed his view, insisting that the tank was an auxiliary arm to aid infantry. Yet, in some concepts, he was far-sighted and would use these ideas when commanding the 2d Armored Brigade and later the 2d Armored Division.

The second beginning for tanks was the creation of the Tank Service of the National Army, authorized by the War Department on 16 January 1918. On that date the Chief of Engineers, Major General William M. Black, raised the first unit under this authorization. The 65th Engineer Regiment was composed of two light tank battalions and two heavy battalions: the 1st Separate Battalion, Heavy Tank Service, and 2d Battalion, Heavy Tank Service.<sup>10</sup> Most units raised under this authorization stayed in the United States.<sup>11</sup>

The Tank Corps and Tank Service were merged into the Tank Corps in 1919, but remained a separate and distinct organization because of funding in the Army Appropriation Act of 19 June 1919. This act permitted the continuance of the Tank Corps until 30 June 1920.<sup>12</sup> This may have led to optimism for the tankers, who possibly foresaw their status as a separate arm. On 3 June 1920, the National Defense Act of that year transferred the tanks "lock, stock, and monkey wrenches," according to Brigadier General Sidney R. Hinds, to the infantry. The force was divided between Fort Benning, Georgia, and Franklin Cantonment, Camp Meade, Maryland. Later, the infantry broke up the tank battalions into companies, deactivated some, and assigned the remainder to infantry divisions.<sup>13</sup>

The National Defense Act of 1920 was a crucial step in armor development. Probably because of tank usage as an auxiliary of infantry during World War I, and perhaps because of the lack of mechanical reliability and speed, the infantry assignment was fairly logical at the time. An independent tank corps was most probably doomed by Pershing's testimony before the House Committee on Military Affairs on 31 October 1919. He said that the tank was a valuable weapon for use with infantry and that its development should be encouraged. He then stated what would be the death knell of a separate tank corps: "The Tank Corps should not be a large organization; only of sufficient numbers, I should say, to carry on investigations and conduct training with the infantry, and I would place it under the Chief of Infantry as as adjunct of that arm."<sup>14</sup> During questioning, Pershing said that he saw tanks closely allied with infantry and that tank development would be encouraged "perhaps to a greater extent" than if the Army maintained a separate Tank Corps.<sup>15</sup> Later, again replying to questioning, he said that in the future tanks may become one of the principal specialized arms of the service, and that the Tank Corps if maintained as a separate unit, would want all the promotions and would probably get them.<sup>16</sup> In his final report as Chief of the Tank Corps, Brigadier General Samuel D. Rockenback correctly observed that "the successful development and value of the arm in the future depends upon the sympathy and support it is given."<sup>17</sup> Infantry gave it very little of either during the next two decades.

Captain Dwight D. Eisenhower in a 1920 article, "A Tank Discussion," observed that since the infantry had tanks it was incumbent on that branch and its officers to study the tank question to determine the

capabilities, limitations, and possible future usage of tanks.<sup>18</sup>

Infantry studied the question for two decades and their answer was to maintain the tank as a support weapon to aid the foot soldiers' advance. Because of that decision, tanks lost their independence of action and were relegated to the speed of infantry: about two and one-half miles per hour.<sup>19</sup>

Infantry thinking was influenced by several factors during the 1920's and 1930's. There was a tendency to embrace the successful tactics of the past with little or no thought of change for future wars. The attempts to establish absolute methods and procedures based on past experiences were efforts to reduce constantly evolving complexities of war to static methods. This attitude fostered a belief that the next war would be the same as the last and encouraged mental rigidity and absolute dogma, neither of which proved serviceable in warfare.<sup>20</sup>

The early tanks were either mechanically unreliable, or when functioning properly, moved forward quickly and left the infantry behind. In either case, the foot soldier was left without tank support. The view that tanks were unreliable failed to consider that mechanical devices could be improved, and apparently no thought was given to speeding up the pace of the infantry. The tank was originally developed to solve a particular problem -- impenetrable defenses. This might not occur in a future war. Why, the infantrymen asked, should tanks be developed?<sup>21</sup> This view contradicts the idea that success in war will influence future thinking. If tanks were successful in breaching the static defenses of 1917 and 1918, would they not be successful for the same use in the future? If the next war was not along static defense lines, then it would be one of maneuver. In that case, the tank

would be most useful in escorting the infantryman while he was maneuvering to reach an advantageous position.

Tactical tank employment and later the official infantry branch policy had been ordered by Headquarters First Army, American Expeditionary Force, on 27 August 1918, in a memorandum, "Combat Instructions for Troops of First Army." The first mission of tanks was to clear gaps through wire. Their second role was to drive the enemy into shelter to prevent the manning of machine guns and cannons against friendly infantry. Infantrymen were instructed to follow their assigned routes regardless of the direction of the tanks; they were not to place themselves between tanks, as that would prevent the tanks from firing to the flanks. The infantry was to remain closer to the tanks to take advantage of the shock action of a tank attack, and to point out targets. Finally, engineers were to be near enough to help tanks over rough ground. Artillery was instructed to fire a high percentage of smoke shells to impair the vision of antitank defenders.<sup>22</sup> In 1921, while visiting the tank school, Rockenback stated that there was no such thing as an independent tank attack. Tanks were an infantry auxiliary, and as such, tank tactics had to conform to infantry tactics. Tanks may proceed, follow, or accompany infantrymen, but were to be controlled by the infantry commander.<sup>23</sup>

In the late 1920's, thinking began to change slowly and imperceptibly. The Chief of Infantry stated that the tank was essentially an offensive weapon, and that it should be used to support the unit delivering the decisive attack. These ideas came from the old Tank Corps, but any idea that light tanks could be used in exploiting a successful attack was new to the infantry. In this new role, tanks could be

could be assigned the task of moving forward quickly to deliver the attack which could possibly turn the enemy's defeat into a rout. Tanks could attack the tails of enemy columns, crushing wagons and artillery. They might even race enemy columns to bridges and railroad centers, attempting to prevent their escape.<sup>24</sup> They could do that even if mechanized cavalry was available. The risk involved, including the possibility of being out of range of supporting infantry or artillery, was justified when there was a reasonable possibility for decisive results. A decade later, in the 1938 and 1939 era, infantry tanks were restricted to their role of exploiting breakthroughs or chasing defeated enemy. This new stance was a slight retreat from the former position. However, both gave tanks a mission similar to cavalry--a mission to pursue, attack, and perhaps destroy.<sup>25</sup>

While the official infantry position was that tanks were auxiliary weapons to aid the foot soldiers' advance, a few people foresaw mobile war in the future. These spokesmen, whom historians have labeled "progressives," argued that tanks would be a principal weapon used with supporting infantry, artillery, and engineers. The unit would be organized, trained, and function as a team; it would be an independent striking force attacking deep into enemy territory. This view caused rivalry and branch jealousy. The proposal transgressed the traditional roles of infantry and cavalry. Neither branch could tolerate the idea of being subordinate to tanks, a problem not encountered by the artillery and engineer branches, which have historically been support units.<sup>26</sup>

There was little tank activity in the 1920's, when the tanks belonged to the infantry and were subordinate to it. There were occasional articles in professional military journals and some experimental

problems were conducted by tank enthusiasts. But the same time, the mobility concept began to spread throughout the Army, and by the end of the 1930's a few military leaders were in positions to implemen-  
these ideas.<sup>27</sup>

In 1922, the infantry conducted tests in the Panama Canal Zone to determine if tanks could be used there. Colonel John W. Heavey, the commanding officer of the 33d Infantry Regiment, had the World War I vintage tanks, removed from storage so that his men could have the experience of working with and against armored vehicles. In each instance, when battalions were maneuvering against each other, the tank-supported unit won. The tanks, commanded by Captain Sereno E. Brett, a World War I tanker and one of Patton's battalion commanders in that conflict, showed that they could maneuver over the rugged, wooded terrain. At the end of the tests there was little doubt that tanks could operate anywhere in the Canal Zone--anywhere artillery could go and almost anywhere that mountain units could go. It was thought that the experiment would lead to some modifications about using tanks in jungles, but apparently that did not happen.<sup>28</sup>

Although the Canal Zone experiment was reported in the Cavalry Journal, the largest single factor in the dissemination of the mobility concept was the Tank School at Camp Meade, Maryland. Brigadier General Sidney R. Hinds, while a first classman at the United States Military Academy, had his introduction to tank warfare in a lecture by Brigadier General Rockenback. After graduation in 1920, Hinds attended the infantry officers school at Fort Benning, Georgia, where he received about a week's instruction in tanks. The class was taught by Captain Brett, who emphasized that land warfare had entered the gasoline-



powered age, and that the days of the two and one-half mile per hour infantryman was over. Brett challenged the young officers to attend the full year course at the Tank School, and Hinds was among those who attended in 1928 and 1929.<sup>29</sup>

The Tank School faced several problems, including little budgetary support, lack of War Department interest, worn-out World War I tanks, official infantry doctrine, and no library. Some instructors such as Lieutenant Colonels Allen F. Kingman, Sereno E. Brett, Alvin C. Gillem, Jr. and Captain Walter McAdams resisted official doctrine, and challenged students to find a better way. The students spent two weeks on map reading, reconnaissance, and road sketching; three weeks on weapons maintenance and firing; seven weeks on all phases of vehicular maintenance; three weeks on driving and convoy routing; a week on history and organization; and two weeks on tactics, including night problems. The final examination was unusual. After completing the course, the student was assigned to the ordnance shop for two or three weeks during which time he had to repair a tank and drive it out of the shop under its own power. The student was then assigned to a tank unit at Camp Meade.<sup>30</sup>

After completing the Tank School program, First Lieutenant Hinds was assigned to the 1st Tank Regiment at Camp Meade, and fell into the routine of garrison life. He recalled that after necessary work details and other distractions, only two or three men were available for training. The tanks were mechanically unreliable and while training often one tank was kept in reserve to be used as a tank retriever if the first broke down or got stuck.<sup>31</sup>

While at Camp Meade, Hinds uttered the most serious heresy conceivable for an infantryman: he suggested that tankers should be

trained in cavalry tactics. He was quickly reminded that tanks were infantry support weapons and would be maintained in that role. Admittedly, he reflected at a later time, the equipment of the 1920's and 1930's would not support a realistic version of wide envelopments, breakthroughs, or distant and powerful pursuit, all maneuvers that Hinds would participate in while commanding the 41st Armored Infantry Regiment and later Combat Command B, 2d Armored Division in World War II.<sup>32</sup> In spite of inadequate equipment, thoughts still turned to finding a better way to fight a war. Hinds was of the opinion, shared by many, that it was not "fair to credit [General Heinz] Guderian, the Germans, or General [G. S.] Patton, alone, with inventing blitzkrieg. The idea had been germinating for a long time and only when the vehicles to fertilize it became available did it come to full fruit."<sup>33</sup>

If there were outside influences on the Army or on tank concepts, Hinds was of the opinion that the British made the larger contribution. While a student, the tactical lessons taught by Captain McAdams reflected the thinking of B. H. Liddell Hart and J.F.C. Fuller. Later, Hinds subscribed to the Royal Tank Corps Journal, which for almost twenty years was the only exclusively tank publication in the world. He donated his copy to the day room where the troopers "ate it up."<sup>34</sup> While some Americans attended the French Tank School, United States tank doctrine was not perceptibly influenced by the French.

In 1931, Hinds was transferred to Schofield Barracks in the Hawaiian Islands and was assigned to the 11th Tank Company, which supported the Hawaiian Division. There tanks were used according to standard doctrine: one tank platoon attached to an infantry battalion for offensive action. Tanks were not massed for use in exploiting a

breakthrough of enemy lines. In defense, especially against an invasion, tanks were to be dug in and used as armored pillboxes. The tank company officers urged that this concept be abandoned, and that the tank company be held in reserve to counterattack against any landing force. To do this required complete motorcycle reconnaissance of trails and roads on the islands. Hinds drove and Second Lieutenant Ralph W. Zwicker, later a general involved in the Senator Joseph McCarthy era demagoguery, sat on the rear holding a stick only slightly longer than the width of a tank. Thus where the motorcycle and stick could go, tanks could go also. In a later exercise, the concept of tanks in counterattack proved itself, and the tank plans were changed accordingly.<sup>35</sup> Though a small change, it was a deviation from accepted infantry doctrine.

In the 1930's, the War Department transferred the Tank School to Fort Benning, Georgia. The reason behind the transfer was the controversy between the old concept of linear tactics versus the new doctrine of mobility which was about to break into the open. By transferring the school to Fort Benning, it would be directly under the Infantry School and conform to its doctrine. Because of this move infantry tanks would continue to reflect infantry thinking up to the creation of the Armored Force in 1940.<sup>36</sup>

In the period from 1920 to 1928, there was little activity in tanks or tank thinking. One man, however, came to the front, and this was Major Bradford G. Chynoweth, described by a former editor of Armor as the leading tank philosopher in the 1920's and 1930's.<sup>37</sup> In the period from 1920 to 1940, there tended to be three schools of thought about the tank. First was praise; this came from former tankers who had fought the vehicles and who had accomplished their mission. Next was

sarcasm and condemnation; this came from those who had served in tanks which failed to accomplish their mission. Last came a more balanced and objective evaluation from those who had either heard stories and/or studied and arrived at their independent conclusions. Chynoweth was one of the latter group.<sup>38</sup>

In an article, "Tank Infantry," Chynoweth reviewed the reasons for adopting tanks, concluding that in a mechanical age the Army had to prepare for mechanized warfare.<sup>39</sup> He carried the argument further in "Cavalry Tanks," stating that future tanks would have greater speed (twenty-five to thirty-five miles per hour) and increased vision. Tanks afforded speed, shock, firepower, and protection, but their use raised a fundamental question in the author's mind: would tanks be controlled by a separate arm? Chynoweth delivered a stinging attack when he said that the Army was holding to previous concepts of organization, refusing to create a new branch whose existence contradicted accepted tactical principles, simply because the tank had supported infantry in World War I.<sup>40</sup>

Cavalry tanks would, in Chynoweth's opinion, be better than infantry tanks, for cavalry was the maneuvering element of an army. Cavalry could be concentrated for an attack and dispersed for reconnaissance and security missions. Many cavalry functions could be carried out with a slight change of equipment. Cavalry, the author reasoned, had to have the firepower and mobility that tanks offered. Concluding, he stated that a tank was only "an iron horse," and did not detract from horse flesh. Such a comment, at that time, did not win the author friends in either the infantry or the cavalry, and may have been one of the many factors which led to branch jealousies for the next two decades.<sup>41</sup>

Chynoweth sent the "Cavalry Tank" article to Major George S. Patton, Jr., for comment; the reply was printed immediately following the article. Patton argued that the United States needed neither infantry nor cavalry tanks, but an independent tank corps as they were special, technical, and vastly powerful weapons. Cavalry, Patton argued, had to advance by enveloping movements, or await a tank breakthrough; it could not batter itself against a stone wall. Fulfilling other cavalry missions such as screens, raids, and long turning movements would make the tanks more a handicap than a help. Cavalry lived off the land; tanks were dependent on long supply lines. Patton saw further that there were places where tanks could not function, such as in Philippine Rice paddies, the mountains of Mexico, in the face of competent artillery fire, in the forests of Canada, and in the hills and gullied plains of Texas. Patton then predicted that he could not "picture a large overseas force giving up that priceless commodity, deck space, to large shipments of tanks.<sup>42</sup> Twenty years later as commanding general of the 2d Armored Division he would lead tanks into the mountains and forests of Tennessee, North and South Carolina, and the swamps of Louisiana. As Commanding General of the Western Task Force, and later the II Corps, he would have armor operating in the hills and gullied plains of North Africa. Stranger still, the Western Task Force was built around the 2d Armored Division.

In 1922 and 1923, Brigadier General Rockenback also entered the literature battle. In an interesting article, "Weight and Dimensions of Armored Vehicles," he stressed that mobility was essential to success in war, and that the Army should no longer think in terms of animal-drawn wagons. He suggested that engineers should think of modifying

their bridging equipment to conform to the heaviest of armored vehicles. He cautioned that there was a need for tracked troop, artillery, and cargo carriers. Heretofore tanks had been transported on special carriers. This had to cease; tanks needed to be able to move under their own power.<sup>43</sup>

Rockenback wrote "American Tanks" in 1923, and showed a more conservative outlook than he had in his 1922 article. Tanks were to be used when terrain permitted and where their use would cause the uninterrupted and economical advance of infantrymen. He argued that there was no such thing as an independent tank attack anymore than there was an independent artillery attack. Tank tactics were those of "modern technical infantry." Tanks would be most useful attacking prepared enemy positions as in World War I and would probably follow the assault battalions and be used when needed. During a breakthrough tanks would probably be attached to the advance guard, but could also be used in rearguard situations to delay or stop enemy units that might be pursuing an American force. This was a change in attitude, as Rockenback was a cavalryman, but here he was espousing infantry doctrine.<sup>44</sup>

Patton reentered the word battle in 1924. In a humorous and interesting article in the Cavalry Journal, he argued that men had always used the wheel in warfare, but that under most conditions they were limited to roads. Now, man had a "more advanced wheel--the caterpillar tread track," giving more mobility both on and off roads. Patton continued that the United States did not have a tank that was capable of keeping pace with cavalry. In a style uniquely his own he recommended that cavalry be equipped with armored cars. The American armored car

would start with a commercial two-ton truck chassis, the advantage being abundant and readily available spare parts. The engine, gas tank, and crew compartment would be armored to withstand rifle fire at 100 yards. There would be no roof to the gun compartment or armor plate on the floor to reduce weight and increase speed. The car would be used for reconnaissance, but editor of the Cavalry Journal labelled this article a "military fantasy."<sup>45</sup>

During this war of words, the Chiefs of Cavalry and Infantry apparently ordered their respective branch officers to hew to the orthodox line. After leaving the White House in 1961, Dwight D. Eisenhower related in At Ease: Stories That I Tell to Friends, how he and Patton while stationed at Camp Meade, experimented with tanks, machine guns, and tactics to improve their efficiency. Since their printed ideas were in conflict with accepted doctrine, Eisenhower was called before the Chief of Infantry, Major General Charles F. Farnsworth, who told him to desist as his ideas were not only "wrong, but dangerous" and that any deviant opinions were to be kept to himself. If the young infantry captain could not comply with accepted doctrine, he would be court-martialed. Eisenhower also thought that Patton received the same message from the Chief of Cavalry, Major General Willard A. Holbrook. Eisenhower stated that while they held to the accepted line, such admonitions only strengthened their resolve to continue to seek the ways and means to improve tank usage.<sup>46</sup>

Probably the outstanding article on tank tactics was written by Captain Sereno E. Brett in 1925. "Tank Combat" could have served as a textbook for the Tank School. Among the points that he made was that tanks should be used by those elements delivering the main attack, if

terrain permitted. They could also be used at other points to create diversions, if the opposition was such that the infantry would suffer heavy losses. Tanks, Brett said, should be used in large numbers, causing the enemy to spread this antitank defense. This much of the article was a restatement of command doctrine, but then Brett got to active usage of tanks he introduced some new ideas.<sup>47</sup>

Tanks should be employed in successive lines, Brett contended, permitting fresh units to continually push forward, bypassing points of resistance and calling in local reserves, available if needed. The second and third waves could eliminate bypassed resistance. This was a new idea and it posed problems. Tanks cannot hold terrain; infantry had to follow the tanks closely, and the distance varied according to circumstances and terrain, ideally about 100 yards behind the first wave. If for some reason the infantry could not advance, then the tanks were to continue onto their objective, hopefully eliminating enemy opposition. The infantry would then join the tanks at the captured position. Brett seemed to say that tanks could have a cautiously limited independent attack role.<sup>48</sup>

Tanks would normally form for attack behind the infantry, Brett continued, then pass through the infantry lines toward their objective. After the tanks had reached the objective, they remained there on it, patrolled enemy trenches, sought out automatic weapons positions and helped the infantry consolidate their positions. The tanks would then pull back to regroup, resupply, and prepare for a new attack.<sup>49</sup>

Tanks were infantry offensive weapons and the tankers had to conform to infantry tactics, Brett said. In defense, tanks should be used to counterattack enemy ground forces. In attacking antitank guns,



all tanks that could fire on the guns should do so, and move toward them; attempting to crush the guns. Infantry and artillery should bring their weapons to bear on antitank guns also. Perhaps using an escape phrase, Brett said that the concepts he had discussed were based on "existent materials," not on future developments. Amazingly, these reflections on Brett's experiences in France in 1917 and 1918 accurately described tank warfare in World War II.<sup>50</sup>

One of the most caustic critics in the literature struggle was Colonel Hamilton S. Hawkins, a horse cavalryman, and a critic of tanks into the 1940's. He complained that mechanical devices were capturing too much public attention. Boys were playing war in terms of tanks and airplanes instead of the "old standys" infantry, cavalry, and artillery. He prophesied that in war, men, not machines, would be victorious.<sup>51</sup> Hawkins, however, had totally misread all the articles to that time. Tank proponents had argued that tanks were a means to an end, and not the end itself. They had never discounted men, but continually pointed out that tanks without trained, competent men were worthless. Hawkins restated all the arguments against tanks. Tanks only assisted cavalry and infantry to move forward but could not replace either; tanks could not capture terrain, could not hold objectives, and had mechanical and supply problems. Finally, since tanks seemed to be merely escort vehicles for infantry, they had to hold down their speed during an attack or lose their infantry and the advantage one afforded the other would be lost.<sup>52</sup>

A refreshing article by J. F. C. Fuller appeared in 1927, in which he said that strictly speaking a tank was a cross-country vehicle that carried weapons, it was but a mobile gun platform, and not a weapon itself.

Since tanks were to precede infantrymen, tanks were the assaulting element and footsoldiers were the follow-up or slow pursuit unit. He cautioned that the army had to cease thinking in terms of names and start thinking in terms of functions; if they did not, then minds would be rigid and unreceptive to new ideas. He argued that in suitable terrain, tanks could attack and hold positions more economically than infantry. Holding, according to the author, did not mean sitting on a position, but taking a position to deny the enemy the opportunity to move from the one he was on.<sup>53</sup> Brigadier General Rockenback wrote a critique of the article. To him, infantry was the only arm and all others existed to make its advance easier.<sup>54</sup>

The literature battle settled nothing. Supporters and opponents lined up and delivered their defenses or criticisms of tanks in a sterile sameness. Brett's "Tank Combat" was the most detailed and complete defense, while Hawkin's "The Importance Of" was the most scathing attack. Historical hindsight affords an opportunity to examine the two positions. Both acknowledged that tanks had mechanical problems. The supporters felt that these problems could be overcome while opponents felt that they could not. Both admitted that tanks were inseparably tied to supply lines; if they were cut or overextended, tanks would be of little use. Both held that tanks and infantry had to work together, and each recognized the need for cavalry, artillery, and engineer support. A rudimentary team concept that would become the basis of armored operations emerged from this early thinking, but neither side was willing to admit this at that time. Both sides admitted that tanks could outrun the foot soldier, thus denying him tank support. For unknown reasons, apparently no one thought of mounting the infantry in

carriers so that it could keep pace with the tanks. The only solution would be to slow down the tanks.

If one considers that the first success of tanks was in being transferred to the infantry in 1920 and not being abolished outright, then the second success for them came in 1928. That year Secretary of War Dwight F. Davis visited the British armor demonstration at Andershot, England, and was impressed. Upon returning home he expressed a desire that the United States should develop a similar force. The War Department had up to that time not given any thought to such a force, its possible role, mission, or organization.<sup>55</sup>

While the War Department was considering whether to create a mechanized force, the first nontank armored unit came into existence. General Order Number 5, issued by Headquarters, Third Army Corps, in February 1928, created a provisional platoon, the 1st Armored Car Troop, made up of one officer and twenty-three enlisted men. The platoon had studied at the Motor Transport School and was stationed at Fort Holabird, Maryland. In May the platoon road marched to Fort Benning, Georgia, a distance of 875 miles in three and one-half days. They returned to Fort Holabird by way of Fort Bragg, North Carolina, a distance of 925 miles, in five days. On 10 July 1928, the Third Army Corps issued General Order Number 19, which changed the platoon to the 1st Armored Car Troop, with a strength of two officers and forty-seven enlisted men. This platoon would become part of the mechanized force.<sup>56</sup>

In 1928, the War Department authorized an Experimental Mechanized Force to be assembled at Fort Leonard Wood, now Fort George G. Meade, Maryland. The force, organized in June 1928, was to be a completely mechanized, self-contained unit of great mobility and striking power,

but of limited holding power. It was to be considered a special offensive unit, since armored divisions were not envisioned at the time. The tank was to be the principal attack element and all other components were to assist. Tactics were to be built around this tank concept as well as the rapid consolidation, securing, and exploiting successes achieved by the tanks. Tactics should insure surprise, speed, and deep penetrations; members of the command were to be imbued with an attitude of using speed to the maximum advantage. Finally, the force was to be considered a tactical unit as well as a tactical laboratory.<sup>57</sup>

The Experimental Mechanized Force, dubbed the "Gasoline Brigade," was activated 1 July 1928. It contained an infantry battalion from the 34th Infantry Regiment; 1st Armored Car Troop; 2d Battalion of the 6th Artillery; a company of Engineers; a signal company; a chemical warfare platoon armed with 4.2 inch smoke mortars; an antiaircraft artillery battery; the 16th Tank Battalion (light tanks); the 17th Tank Battalion (medium tanks); and the 2d Platoon, 4th Tank Company (light tanks). It was a balanced force patterned after the British: a striking force (tanks), a holding and mopping up group (infantry), fire support (field artillery), chemical mortars, anti-aircraft artillery, support troops (engineers and transporters), and supply trains.<sup>58</sup>

In the early summer of 1928 the Experimental Mechanized Force, commanded by Colonel Oliver S. Eskridge, and the G-3 operations and training officer, Major Douglas T. Greene, later commanding officer of the 67th Armored Regiment, 2d Armored Division, supervised the organization and training of the individual units. They conducted essentially strategic or pre-engagement road marches to Upper Maroboro, Maryland, Gettysburg and Toby Hanna, Pennsylvania. The marches

showed that most of the equipment was obsolete, a fact previously known to the men, and that vehicular convoy marching was slower than individual vehicular speed. The positive side was the demonstration that convoy marches of seventy-five miles a day were normal; this was three to five times further than foot troops could march. Distance and speed permitted a larger radius of action and increased capacity for achieving surprise.<sup>59</sup> In late summer, the units started combat training to determine the best tactical use of such a force. All elements of the command took part in road marches, but only the tracked vehicles underwent combat exercises. Overall these were of limited value, for only the newer vehicles could attain a speed over seven miles per hour, but several valuable lessons were learned, such as supply methods, command and control, and procedures for conducting night operations.<sup>60</sup>

In the concluding exercise, three tanks and two cargo carriers, marched from Camp Meade to Gettysburg and returned under their own power. The route was seventy-two miles; going to Gettysburg the force averaged six miles per hour, which included stops; on the return trip, it averaged eight miles per hour. In marching, using all vehicles, wheeled and tracked, the force averaged seven and one-half miles per hour. The conclusion was that while tracked vehicles were not significantly slower than a mixed vehicular column, tanks should not move long distances under their own power because of short track and vehicular life. This march was evidence of the Army's technical advancement and a major factor in bringing about the Army's ultimate mechanization.<sup>61</sup>

The Experimental Mechanized Force learned valuable lessons from these maneuvers which it passed on to the War Department for study and evaluation. A need for uniformity in the speed and characteristics of

armored vehicles was evident. Also, the personnel needed to be intelligent and highly trained to operate the equipment. In the combat phase of training, the force showed that it had enormous firepower compared to a non-mechanized force. The importance of chemical warfare was established, especially the use of smoke; airplanes also proved to be vital for all aspects of mechanized operations.

The two main problem areas were communications and armored infantry carriers. For want of improved radios, a force should be highly trained so that it could respond to various types of situations. For infantry carriers, full-tracked vehicles should be developed that would carry between one-half and a full squad with weapons.<sup>62</sup>

The 1928 experiment proved or disproved various positions previously adopted. One positive effect was the start of a second literature battle, for now writers had a positive example from which to work, and not merely theory. One editor saw the experiment as an apparent effort to emulate Europe. He cautioned: "Let not the glamour of the great armies of Europe be a cause for mechanization which may result in war material unsuited for physical conditions in possible theaters of operations."<sup>63</sup>

Major Clarence C. Benson, a cavalry officer, evaluated the experiment, concluding that it was time to consider mechanizing the ground forces. The size of the force was immaterial, he said, but it should be of balanced composition and highly mobile, with light tanks (which do not need railroad transportation), light artillery, and reconnaissance aircraft. He did not foresee a need for a separate branch, as mechanization would benefit both infantry and cavalry. He acknowledged that both branches would have to change their existing

philosophy. One solution would be to reconstitute the old tank corps, answerable to one chief.<sup>64</sup>

Benson found the major obstacle to the creation of a mechanized force was that tanks belonged to and reflected infantry doctrine. The Chief of Infantry would not voluntarily give up this weapon and he had the 1920 National Defense Act to support his refusal to do so. Benson left unanswered the question that was the basic problem for the next twelve years: which chief would control a mechanized force? K. B. Edmunds wrote the first article expressing a belief that the mechanized force should be a separate branch, and by doing so put into print what was being whispered. The Chiefs of Cavalry and Infantry did not want a separate arm; they intended to control the mechanized force. Edmund foresaw technological and mechanical improvements in tank development. Speed would increase from three to sixty miles per hour, the radius of operation would increase from five to hundreds of miles. With improvements, the mechanized force would be a weapon available to Army or General Headquarters not merely to infantry. It would become a separate arm whose operation would be characterized by firepower, shock, rapid movement, and the capacity for self-sustained actions.<sup>65</sup> The vehicles of such a force would have common characteristics and probably be built utilizing a light tank chassis. Tactically the unit would be primarily offensive, driving straight to the objective in attacks or counterattacks. The assault wave lasting minutes instead of hours, would bulldoze through defensive positions supported by artillery and followed by the holding elements. The holding force, infantry, would move onto the objective, clear enemy defenders and perhaps capture the supporting enemy artillery. The holding force would

finally serve as a pivot around which the tanks could organize to meet any counterattack.<sup>66</sup>

The 1928 experiment was a failure or a success depending on who happened to be expressing an opinion. Critics usually emphasized that mechanical problems justified their contentions about static warfare for the future. Supporters countered by pointing out that mechanical reliability would improve. Most importantly, the Experimental Mechanized Force showed that different branches could work together as a team, and especially promising was the fact that motorized infantry could keep pace with tanks. The War Department created a Mechanized Board to study the results. It concluded that a new mechanized force should be created, consisting of a combined arms team of regimental size, serving as a laboratory to test weapons and tactics for future wars; it would be a separate branch under a general officer. This recommendation was a major step forward in the tanks' battle for life.<sup>67</sup>

The United States Army emerged from World War I with a fairly efficient tank corps. Several officers recognized that the internal combustion engine had changed warfare and urged the Army to adapt to those changes. However, an unsympathetic Congress and a tradition minded War Department refused to maintain a separate tank corps. Instead, tanks became the property of infantry, continuing in that relationship until World War II.

During World War I the tank served as a support weapon and the infantry intended to maintain it for that purpose. Suggestions that tanks could serve other purposes met a hostile reception. During the 1920's some small deviations from official policy occurred, causing the tank enthusiasts to rejoice and the traditionalists to be more



determined to maintain the tank in its support role. A large body of primarily theoretical doctrine was established during the 1920's, and an opportunity to test the evolving ideas required that either the Infantry Branch or the War Department change its attitude. This happened with the creation of the Experimental Mechanized Force which demonstrated that tanks could, as the enthusiasts had maintained, do more than merely support infantry.

FOOTNOTES

<sup>1</sup>Sidney Olson, "A Thing of Beauty," Time, Vol. XLV, No. 11 (12 March 1945), p. 29.

<sup>2</sup>Martin Blumenson, ed., The Patton Papers, 1885-1940 (Boston: Houghton Mifflin Company, 1972), p. 436.

<sup>3</sup>Nathan A. Smith, "The Theory of Mechanization," Infantry Journal, Vol. XLII, No. 6 (November-December 1935), p. 548.

<sup>4</sup>Ibid., p. 549.

<sup>5</sup>The Adjutant General, Official Army Register, January 1, 1920 (Washington: Government Printing Office, 1920), p. 5.

<sup>6</sup>Blumenson, ed., The Patton Papers, pp. 436-437.

<sup>7</sup>Ibid.

<sup>8</sup>Ibid., pp. 453-455, 570.

<sup>9</sup>Ibid., pp. 475, 557, 636.

<sup>10</sup>Department of the Army, Order of Battle of the United States in the World War (1917-1919): Zone of the Interior (3 vols., Washington: Government Printing Office, 1949), Vol. III, Part 2, pp. 1543-1544.

<sup>11</sup>War Department, Annual Report of the War Department for 1917 (3 vols., Washington: Government Printing Office, 1918), Vol. II, pp. 14-15, 19, 50-51.

<sup>12</sup>United States Congress, Statutes at Large of the United States of America from May 1919 to March 1921 (Washington: Government Printing Office, 1921), p. 129.

<sup>13</sup>Ibid., p. 769; Sidney R. Hinds to Willis D. Crittenberger, 30 May 1971, Sidney R. Hinds Papers, Hinds' possession.

<sup>14</sup>United States House of Representatives, 69th Congress, 2d Session, Committee on Military Affairs, Historical Documents Relating to the Reorganization Plans of the War Department and to the Present National Defense (Washington: Government Printing Office, 1927), pp. 365-366.

<sup>15</sup>Ibid., p. 404.

<sup>16</sup>Ibid., p. 428.

<sup>17</sup>War Department, Annual Report of the War Department for 1920 (3 vols., Washington: Government Printing Office, 1921), Vol. III, p. 1895.

<sup>18</sup>Dwight D. Eisenhower, "Tank Discussion," Infantry Journal, Vol. XVLL, No. 5 (November 1920), p. 453.

<sup>19</sup>Interview, Lieutenant General Willis D. Crittenberger with author and John Albright, 24 March 1971, Washington, D. C.

<sup>20</sup>A good example of this concept can be found in Alistair Horne, To Lose a Battle (Boston: Little, Brown and Company, 1969), passim. The thesis is that French defense saved Verdun; Horne contends that this created a defensive mentality resulting in the Maginot Line.

<sup>21</sup>George Macon Shuffer, Jr., "Development of the U.S. Armored Force: Its Doctrine and Tactics, 1919-1940" (Unpublished Master of Arts Thesis, College Park: University of Maryland, 1959), passim.

<sup>22</sup>First Division, "Combat Instructions for Troops of the First Army, 1 September 1918, G-3-905," World War Records, First Division, AEF Regular: Field Orders, First Division, June 1, 1918 to September 18, 1918 (25 vols., Washington: n.p., 1928), Vol. II, pp. 2, 7.

<sup>23</sup>Samuel D. Rockenback, "A Visit to the Infantry Tank Center, Franklin Cantonment, Camp Meade, Md.," Infantry Journal, Vol. XVIII, No. 4 (April 1921), p. 367.

<sup>24</sup>Chief of Infantry, Special Text No. 14, Army Correspondence Courses, Tank Operations (Washington, D. C.: Engineer Reproduction Plant, [1928-1931?], p. 28.

<sup>25</sup>Chief of Infantry, Tank Combat Principals (Fort Benning, Georgia: The Infantry School, 1938), p. 50.

<sup>26</sup>Shuffer, "Development of the U.S. Armored Force," p. 67.

<sup>27</sup>Sidney R. Hinds to George Hoffman, 15 February 1972, Hinds Papers.

<sup>28</sup>John L. Johnson, "Tanks in the Jungle," Infantry Journal, Vol. XXVII, No. 3 (September 1925), pp. 263-268.

<sup>29</sup>Hinds to Crittenberger, 30 May 1971, Hinds Papers.

<sup>30</sup>Ibid.; Shuffer, "Development of the U.S. Armored Force," pp. 117-118; William H. Speidel, "The Tank School," Infantry Journal, Vol. XXVI, No. 6 (June 1925), pp. 646-650.

<sup>31</sup>Hinds to Crittenberger, 30 May 1971, Hinds Papers.

<sup>32</sup>Ibid.

<sup>33</sup>Ibid.

<sup>34</sup>Ibid.

<sup>35</sup>Ibid.

<sup>36</sup>Sidney R. Hinds to Bradford G. Chynoweth, 7 January 1972, Hinds Papers.

<sup>37</sup>Colonel O. W. Martin, Jr., to Colonel George S. Pappas, 9 June 1971, Bradford G. Chynoweth Papers; United States Army Military History Research Collection, Carlisle, Pennsylvania.

<sup>38</sup>Isaac Gill, Jr., "Value of Tanks in Action," Infantry Journal, Vol. XVIII, No. 3 (March 1921), p. 248.

<sup>39</sup>Bradford G. Chynoweth, "Tank Infantry," Infantry Journal, Vol. XVIII, No. 5 (May 1921), pp. 504, 507.

<sup>40</sup>Bradford G. Chynoweth, "Cavalry Tanks," Cavalry Journal, Vol. XXX, No. 124 (July 1921), pp. 247-248.

<sup>41</sup>Ibid., p. 249.

<sup>42</sup>George S. Patton, Jr., to Bradford G. Chynoweth, 8 March 1921, Chynoweth Papers; George S. Patton, Jr., "Comments on Cavalry Tanks," Cavalry Journal, Vol. XXX, No. 124 (July 1921), pp. 251-252.

<sup>43</sup>Samuel D. Rockenback, "Weight and Dimensions of Tanks," Infantry Journal, Vol. XXI, No. 1 (July 1922), pp. 30, 37.

<sup>44</sup>Samuel D. Rockenback, "American Tanks," Military Engineer, Vol. XV, No. 82 (July-August 1923), pp. 307-308.

<sup>45</sup>George S. Patton, Jr., "Armored Cars with Cavalry," Cavalry Journal, Vol. XXXIII, No. 134 (January 1924), pp. 6-8.

<sup>46</sup>Dwight D. Eisenhower, At Ease: Stories I Tell to Friends (Garden City: Doubleday and Company, 1967), p. 173.

<sup>47</sup>Sereno E. Brett, "Tank Combat Principles," Infantry Journal, Vol. XXVI, No. 2 (February 1925), pp. 134-135.

<sup>48</sup>Ibid.

<sup>49</sup>Ibid., p. 139.

<sup>50</sup>Ibid., pp. 132, 139-140.

<sup>51</sup>Hamilton S. Hawkins, "The Importance of Modern Cavalry and Its Role Affected by Developments in Airplane and Tank Warfare," Cavalry Journal, Vol. XXXV, No. 145 (October 1926), p. 487.

<sup>52</sup>Ibid., p. 496.

<sup>53</sup>J. F. C. Fuller, "Tactics and Mechanization," Infantry Journal, Vol. XXX, No. 5 (May 1927), pp. 458-462.

<sup>54</sup>Samuel D. Rockenback, "Discussion of Tactics and Mechanization," Infantry Journal, Vol. XXX, No. 5 (May 1927), p. 466.

<sup>55</sup>Adolph J. Gondek, et al., "Operation of Cavalry Reconnaissance Squadron Integral to the Armored Division," unpublished research report by Committee 17, Officers' Advanced Class, United States Army Armored School, Fort Knox, Kentucky, 1950, passim.

<sup>56</sup>Daniel Van Voorhis, "Mechanization," unpublished speech delivered at the National War College, 13 October 1937, T. D. White Papers, Henry Prescott Chaplin Memorial Library, Norwich University, Northfield, Vermont; Harold G. Holt, "The 1st Armored Car Troop," Cavalry Journal, Vol. XXXVII, No. 153 (October 1928), pp. 600-602.

<sup>57</sup>Raymond Marsh, "Mechanization of Combat Units," Military Engineer, Vol. XXV, No. 144 (November-December 1933), p. 453.

<sup>58</sup>Mildred Hanson Gillie, Forging the Thunderbolt (Harrisburg: Military Service Publishing Company, 1947), pp. 21-22; K. B. Edmunds, "Tactics of a Mechanized Force: A Prophecy," Cavalry Journal, Vol. XXXIV, No. 160 (July 1930), p. 411.

<sup>59</sup>John K. Christmas, "The Mechanization of Armies," Military Engineer, Vol. XXI, No. 119 (September-October 1929), p. 452.

<sup>60</sup>Ibid., p. 452; Timothy Nenninger, "The Development of American Armor, 1917-1940," (Unpublished Master of Arts Thesis, Madison: University of Wisconsin, 1968), passim.

<sup>61</sup>Christmas, "The Mechanization of Armies," Military Engineer, Vol. XXI, p. 454; John K. Christmas, "The New Light Tank Makes a 144 Mile Road March," Infantry Journal, Vol. XXXIV, No. 1 (January 1929), p. 19.

<sup>62</sup>Nenninger, "The Development of American Armor, 1917-1940," pp. 87-88; Christmas, "The Mechanization of Armies," Military Engineer, Vol. XXI, pp. 452, 454-455.

<sup>63</sup>"Mechanizing the Army," Military Engineer, Vol. XX, No. 113 (September-October 1928), p. 405.

<sup>64</sup>Clarence C. Benson, "Mechanization - Aloft and A Low," Cavalry Journal, Vol. XXXVIII, No. 154 (January 1929), pp. 58-62.

<sup>65</sup>Edmunds, "Tactics of a Mechanized Force: A Prophecy," Cavalry Journal, Vol. XXIV, p. 410.

<sup>66</sup>Ibid., p. 413.

<sup>67</sup>Shuffer, "Development of the U.S. Armored Force," pp. 83-84.

## CHAPTER III

### CREATING AN IDEA: THE CAVALRY ERA

Before General Charles P. Summerall, Army Chief of Staff, left the War Department in 1930, he issued a memorandum to "assemble that mechanized force now, station it at Fort Eustis, Virginia. Make it permanent, not temporary." In 1930, Congress authorized \$284,000 to implement mechanization plans in spite of the Mechanizations Board's recommendation for four million dollars over a four year period.<sup>1</sup>

In October, 1930, the new mechanized force began assembling at Fort Eustis, Virginia. This location was selected by Summerall to prevent it from being taken over by the Justice Department for a new federal prison. The force was commanded by Colonel Daniel Van Voorhis of the cavalry, and the executive officer was Major Sereno E. Brett. It included representatives from all arms and some services. The selection of Van Voorhis was desirable in spite of his having no mechanical background. He held the conviction that there was a need to develop a better cavalry mount. He believed that a mounted soldier fought better than a dismounted soldier, especially if the mount afforded a good base of fire and was maneuverable. Van Voorhis saw his mission as giving the mounted soldier a decisive role on the battlefield. Brett was a tank enthusiast from World War I.<sup>2</sup>

The new mechanized force was a self-contained unit designed to fulfill particular missions on the battlefield. For reconnaissance

it had Troop A, 2d Armored Car Squadron. Its striking element was Company A, 1st Light Tank Regiment, supported by Battery A, 6th Field Artillery. The holding-mopping up element was Company H, 34th Infantry Regiment. Company C, 13th Engineer Regiment would provide engineer support, while the 19th Ordnance Company and a quartermaster mobile repair shop would keep the vehicles running. A platoon from Battery E, 69th Coast Artillery was added for antiaircraft protection. A detachment from the 1st Chemical Warfare Service, equipped with 4.2 inch mortars was to provide that support. The force assembled at Fort Eustis included 190 officers, 2,900 enlisted men, and 845 vehicles, including 230 tanks, 50 self-propelled guns, and mortars, 90 half tracks, and 19 armored cars.<sup>3</sup>

While this mechanized force was not a conventional cavalry unit but a composite of all branches, Van Voorhis, a tough disciplinarian by reputation, instituted a policy traditional to cavalry. Before the men left the motor park, the vehicles were maintained, washed, and fueled for the next day's training. This became standard procedure ten years later in the armored force.

The unit began its training by taking part in extended maneuvers. Many times the main body marched seventy-five miles a day while the reconnaissance elements often went 200 miles ahead. Night marches and maneuvers were conducted without lights and used all vehicles. The unit learned to fight under all conditions, and the tactics emphasized mobility, which was not unusual considering its commander's background.<sup>4</sup>

While training in field maneuvers, command post exercises, and road marches, officers soon realized that the primary use for such an organization would be offensive in nature. Its main value was mobility;



success would depend on shock gained by speed, armor, and fire power from its large numbers of automatic weapons. Training stressed operations against entrenched infantry or other mechanized forces. Attacks included wide turning movements, seizures of crucial terrain features, acting as the covering force for larger units, counterattacks, exploitation of breakthroughs and flank and rear guards: all traditional cavalry-type missions.<sup>5</sup>

While undergoing field training, the mechanized force was being studied closely by the Chiefs of Infantry and Cavalry. Rumors began circulating about the possibility of the mechanized force becoming a separate arm; this alarmed the infantry, which feared that the cavalry was attempting to break the infantry's tank monopoly. Infantry's greatest dread was that the mechanized force was trying to acquire infantrymen; this the infantry branch would not tolerate.<sup>6</sup>

In late 1931, the money to operate the experimental force ran out and it was disbanded. Some troops returned to their parent units, while the headquarters, armored car troops, ordnance, quartermaster unit, and signal corps elements went to Fort Knox, Kentucky to create the cadre for a mechanized cavalry regiment. In spite of complaints about obsolete equipment, members of the force made sound and valid recommendations that would be heeded in the future. Major Robert W. Grow, later the first G-3 of the 2d Armored Division, noted in his diary that members of the command had to begin thinking in minutes, not miles, and that each vehicle should have an antiaircraft weapon; the .50 caliber machine gun was such a weapon.<sup>7</sup> Grow talked with Captain George C. Kenney, Army Air Corps, who recommended that the vehicles should be spread seventy-five to one hundred yards apart on

road marches. The consolidated report that Grow helped write emphasized that a mechanized force was for the execution of mobile warfare. He stated that the present force was not suitably organized, equipped, or of adequate strength to carry out the War Department's directive that all arms were to mechanize. A mechanized force needed all its components if it were to train and develop the tactics necessary for success on the battlefield. The report concluded with the recommendation that a mechanized brigade be organized.

During the period 1929 to 1931, the Army, which has always enjoyed a jargon all its own, got involved with semantics, some of which involved hair splitting distinctions. One such distinction however, was essential if any other branch was to work with tanks. General Summerall, in his 1929 Annual Report, urged the Army to mechanize and motorize. Mechanization was the application of mechanics to combat soldiers on the battlefield with a view to increasing their mobility, protection, and striking power. Motorization was the replacement of animal-drawn vehicles by motor-powered vehicles, and the use of motor trucks for rapid movement of large bodies of troops from one part of a theater of operations to another. These definitions suggested that mechanization was of tactical value while motorization was of strategic importance.<sup>8</sup>

In 1931, Army Chief of Staff General Douglas MacArthur, ordered all arms and services to adapt mechanization to their traditional roles. For cavalry this meant substituting vehicles for horses. The Chief of Staff recognized that the first step would be to mechanize one regiment. He also realized there might be a need to keep some horse units. But he felt that modern weapons had eliminated the horse as a source of power,

and except for infantry, the horse was the slowest means of transportation. He visualized that in the future, columns of mechanized cavalry, units from the Tank Corps, and motorized infantry, all moving at a uniform speed and all supported by artillery.<sup>9</sup> Either he failed to realize that tanks could traverse the same type terrain as horses could or he was making concessions to cavalry, or perhaps both.

In laying down guidelines for mechanization, MacArthur recognized that tanks had improved mechanically and therefore could be given missions beyond the normal infantry support role. Cavalry was to develop combat vehicles capable of performing reconnaissance, counter reconnaissance, flank actions, pursuit, and similar operations. At the same time infantry was to develop tanks to increase their striking power against strongly held positions. He recognized that tanks were assault weapons and would probably be used only a short time during any action. In developing tanks, stress had to be placed on strategic mobility even though their primary use would be as a tactical weapon. With increased performance, tanks would probably be assigned to the corps or to the Army and used where needed. To evade the provisions of the 1920 National Defense Act, and recognizing that infantry and cavalry would probably develop similar type vehicles, MacArthur said that "Tanks" would be the term applied to infantry vehicles, while "Combat Cars" would be the term used when talking about cavalry vehicles.<sup>10</sup>

MacArthur recommended that the army mechanize a cavalry brigade; two infantry tank regiments; seven separate armored car troops, three for the Regular Army, four for the National Guard; thirteen scout car platoons for regular cavalry regiments; and seven tank companies for

use with regular infantry divisions. Though a bit visionary for the time, it was a step towards developing a mechanized force. The cavalry phase was assigned to Major General Guy V. Henry, Chief of Cavalry. Henry acted slowly for reasons not entirely his fault: budget, reluctance of ordnance to accept ideas from the automotive industry, and the protracted debate over mechanization. This slowness only added to the belief of Van Voorhis and Adna Chaffee that mechanization would not make much progress unless it was a separate branch or under the War Department itself.<sup>11</sup>

The War Department assigned the mechanized force to the cavalry in 1931, with directions to organize a cavalry regiment in order to develop the organization and equipment necessary to perform cavalry missions. That same year, 15 officers and 159 enlisted men were sent to Camp Knox, Kentucky (which became Fort Knox in 1934), forming the cadre for the mechanized cavalry regiment. In 1933, the 1st Cavalry Regiment, minus its horses, was transferred to Camp Knox to become the 1st Cavalry Regiment (Mechanized). In developing the unit, the first objective was always the question of organization and equipment. New developments were the result of constant experimentation, using a wide range of thoughts and ideas.<sup>12</sup>

The main mission of the Cavalry, like the Army, was and is the defeat of the enemy in battle. Traditionally, Cavalry had been the branch of mobility and shock. While retaining both the strategic and tactical mobility, firepower gradually took the place of shock. Once horse cavalry attacked mounted, but following World War I, it maneuvered mounted and attacked dismounted. Gradually the fixed defensive doctrine adopted by the Army during World War I began to

change and the new trend was to restore movement to the battlefield. Mechanized cavalry was a natural response to this required mobility, since it could attack sensitive enemy positions some distance from the front, especially if roads were available. This new breed of cavalry could make maximum use of the firepower of the fast light tanks or combat cars.<sup>13</sup>

In February 1932, Van Voorhis, Chaffee, Grow and Brigadier General Julian R. Lindsey, the commanding General of Camp Knox, discussed the organization of a mechanized regiment and brigade, along with the necessary attachments--artillery, chemical, ordnance, and quartermaster. Grow was ordered to draw up a table of organization for a mechanized brigade. He was not optimistic, for such a proposal had been turned down before, and the Chief of Cavalry imposed a restriction that cavalry officers had to be thoroughly indoctrinated in horse cavalry before being assigned to the mechanized regiment.<sup>14</sup>

In the early phase, the cadre for the mechanized cavalry regiment conducted motor maintenance schools which all members were required to attend, and later there were specialty schools. During the summer it gave demonstrations for the Officer Reserve Corps, the Reserve Officers Training Corps, the Citizens Military Training Camps, and the National Guard. These demonstrations provided another means to test principles and techniques. It required a salesman's job to sell mechanization, but the end result was to make the officers and enlisted men try harder. During the demonstrations, good and bad points about the equipment appeared. One proposal that emerged was to substitute the .50 caliber machine gun for the .30 caliber weapon. After the demonstrations, the units began range firing and it was discovered that the telescopic

sight for the 37 mm main tank gun was not adequate when the vehicle was moving. While trying to evolve tactics and techniques, the cavalry school published a memorandum on the employment of mechanized cavalry. Grow noted that it proposed to break up the mechanized regiment and use the parts to assist horse troops forward. At the same time Van Voorhis complained about people writing regulations who knew nothing about their content.<sup>15</sup>

In attempting to determine equipment and organization, Van Voorhis thought that the regiment should have fewer but bigger tanks, while Grow held the opposite view. Grow maintained that in combat, tank life would be short and therefore large reserves would be needed. Organizationally it was thought necessary to have a separate armored car troop under the regimental commander for reconnaissance purposes. A service troop should assume control of the supply vehicles from the combat troops. The regiment was to have a striking squadron and a holding squadron; a carryover from the mechanized force. On 1 July 1932, the name of the unit was changed from Detachment for Mechanized Cavalry Regiment to Detachment, 1st Cavalry (Mechanized). It meant that the Army was converting an existent regiment from horses to combat cars.<sup>16</sup>

The 1st Cavalry Regiment was stationed at Fort D. A. Russell, Marfa, Texas. Van Voorhis left Camp Knox on 17 December 1932, making the round trip of 3,240 miles in 31 days. Considering the trip was made on icy roads, through much snow, and in below freezing weather, and with the loss of only one vehicle, it was a success. No officer of the 1st Cavalry Regiment was to stay with the regiment, but Grow noted that in his conversations with officers at Fort D. A. Russell, many realized that cavalry had reached a turning point. When the men

arrived at Camp Knox on 16 January 1933, they became the 1st Cavalry Regiment (Mechanized), a force of 52 officers and 749 enlisted men. This first mechanized regiment in the American Army was commanded by Colonel Bruce Palmer; assisting the regimental commander was Major Robert W. Grow, executive officer and acting S-3, and First Lieutenant I. D. White, aide to Brigadier General Julian Lindsey. The regiment had two combat car squadrons of two troops each, a headquarters troop and a platoon of six mortars, a service troop, a machine gun troop, and an armored car troop.<sup>17</sup> Each combat vehicle carried three or four machine guns and radios for communications.

Once the 1st Cavalry Regiment had been mechanized, training resumed in earnest in progressive steps. After the men were introduced to the equipment and learned to handle it, they began tactical training. During the firing and maneuvering exercises, problems emerged. Grow noted that combat cars had a tendency to stop in exposed positions to fire rather than continuing to move forward, firing at targets as they appeared. If the vehicle had to stop, it should do so in a defilade position, or at least under cover to lessen its chances of being destroyed by antitank guns. Map reading was stressed, for on one maneuver the advanced guard became lost. Other problems which had to be solved were segregating baggage trucks from the combat elements, adjusting the distance between the advanced guard and the main body, having the kitchens carry more food, maintaining outposts and guards, and improving radios.<sup>18</sup>

Some problems were apparently solved, for in 1934 the 1st Cavalry Regiment (Mechanized) marched to Fort Riley, Kansas, to participate in maneuvers against horse cavalry units. Prior to the exercises, there

seemed to be two prevailing thoughts about the cavalry: the horse and mechanized units could work together, or they should not be mixed or work together. At this time, most cavalrymen were of the first opinion. The primary purpose of the maneuvers was to determine the progress of the cavalry in mechanization, motorization, and the introduction of new weapons. This was also the first time horse and mechanized regiments maneuvered against each other.<sup>19</sup>

In the maneuvers the mechanized regiment usually ran circles around the horse units. In one instance, a destroyed bridge, the 1st Cavalry Regiment (Mechanized) moved to another location, crossed and attacked the flank and rear of the horsemen. In another instance, the horsemen delivered a night attack and bested the mechanized men. The general attitude was that tanks were here to stay and that horses were on the way out, though it would be 1942 before the horses were finally turned out to pasture.<sup>20</sup>

The major conclusion was that mechanized cavalry units were sensitive to terrain. Rough, broken ground or water obstacles delayed or detoured the mechanized force. Demolitions, it was thought, would assume a greater and more important role in warfare. Supply routes over extended distances had to be planned and protected. One of the most important lessons learned was that mechanized forces would need infantry support for protection at night or would have to pull back from its advanced positions. Another lesson learned was that the "iron horse" could perform cavalry missions. Grow thought that the problems were honestly drawn so as not to favor the horse or combat car. Some weaknesses appeared, but overall, all but the most shortsighted horsemen were convinced that the future of the cavalry lay in mechani-



zation. Grow was convinced that as a result of the maneuvers, mechanized cavalry established itself as a permanent part of the Army in 1934.<sup>21</sup>

The most immediate result of the maneuvers was a training directive published by the War Department entitled "Defense Against Mechanized Units." As a result of this directive, the cavalry started issuing .50 caliber machine guns and 37 mm antitank guns to its horse units. During the demonstrations of its weapons, the mechanized cavalrymen fired their .50 caliber machine guns at armor plate, penetrating one-half inch at 1,100 yards and three-quarter inch at 600 yards. Since no known vehicle carried more than one-half inch of armor, the .50 caliber machine gun could destroy any known vehicle. The directive instructed artillery to be used in an antitank role along with antitank guns of the infantry or cavalry regiments. Tanks would be kept concentrated for an attack or for use in a counterattack.<sup>22</sup> Apparently no one in the War Department foresaw using a tank or combat car in an antitank role.

The antitank weapons debate broke into the literature and added one more problem for the mechanized force. Mechanized warfare was seen as a struggle between tanks and tanks or between tanks and antitank guns. Strictly speaking, an antitank gun is a defensive weapon, while the tank is offensive in character. To develop antitank weapons, the army had two possible choices. The first was to make the weapons tactically mobile, as heavily armed as the tank, and then by superior training and skill attempt to obtain first round disabling hits. The second was to make the weapon a stationary gun platform, using concealment and extreme accuracy to give an edge to the antitank gun.<sup>23</sup> The

army, however, chose to do both, using the tank as an additional antitank weapon.

The 13th Cavalry Regiment, commanded by Colonel Charles L. Scott, later the first commanding general of the 2d Armored Division, arrived at Fort Knox on 5 September 1936. It joined with the 1st Cavalry Regiment (Mechanized) to form the 7th Cavalry Brigade (Mechanized), a force of 150 officers, 2,500 enlisted men, and more than 500 vehicles. Composed of two mechanized cavalry regiments, an artillery battalion of sixteen guns, an engineer troop, a maintenance troop, a medical troop, and the 12th Observation Squadron, it was a modest mechanized force. Besides being a laboratory to develop new equipment and doctrine, it was a tactical unit that could take the field if necessary.<sup>24</sup> While radio was the primary means of communications, the force did have 109 motorcycle troopers to serve as messengers. It was the second step in cavalry mechanization, and the next to last step in creating the Armored Force.

In discussing the 7th Cavalry Brigade (Mechanized), Brigadier General Van Voorhis stated that it retained cavalry type missions, while rejecting the use of large antitank weapons and increasing armor thicknesses because the added weight would decrease mobility. It also resisted introducing a holding force (infantry) because the mission of cavalry was not to hold objectives. If the brigade was given such an assignment, infantry could be attached by General Headquarters. Looking to the future, he stated that if the mechanized force expanded, his brigade would provide the basis for that growth. One question concerning expansion was the number of fighting vehicles that a single commander could control. Based on Van Voorhis'

experience, he thought the number was between 500 and 600, or two regiments. Any larger number would strain the ability of the commander.<sup>25</sup>

In 1936 Colonel Bruce Palmer, the commanding officer of the 7th Cavalry Brigade (Mechanized), led his men into the Second Army maneuvers. Attached to the 7th Cavalry Brigade was the 12th Infantry Brigade composed of the 2d and 6th Infantry Regiments; the 6th was minus one battalion. Also attached were artillery and observation aircraft. Combined, these forces did an excellent job, and it was demonstrated that the force could be adjusted to meet different situations. The flexibility demonstrated later became the hallmark of armor.<sup>26</sup>

Preparing for the maneuvers, Palmer conducted active and simulated exercises, using both real and theoretical unit attachments. The purpose was to determine how best to use such augmentations as infantry, horse cavalry, motorized artillery, and observation aircraft and to determine their mission. These preparations had four goals: to develop the men's professional skills, to make the 7th Cavalry Brigade an efficient combat force, to develop the tactics best suited to the brigade, and to build a smooth functional staff and communications system. Combined, these were to conserve manpower and to bring vehicles and equipment to the maximum state of efficiency. To achieve the greatest surprise, night marches were thought to be the rule and not the exception. Using speed and surprise, Palmer hoped to avoid prepared enemy defenses. This training was conducted under the supervision of the brigade's S-3, Lieutenant Colonel Willis D. Crittenberger, later commanding general, 2d Armored Brigade, and commanding general 2d Armored Division.<sup>27</sup>

Palmer viewed the mechanized unit as just another part of the Army team. It was a tool which could only be appreciated and understood if it trained with other team members. During the maneuvers, the 7th Cavalry Brigade (Mechanized) operated against forces several times its size. By attacking flanks and rears, it caused disruptions. To reach these attack positions, it had to make long night marches, which it did successfully, justifying its previous training. Tactically the brigade tried to place its elements in such positions as to allow several choices of action against the enemy. Repeatedly the brigade showed that its speed of action and its ability to move to the place needed at the proper time confirmed the belief that these were two of the most important principles of mechanized warfare.<sup>28</sup>

The combat cars had shown that they could perform under trying conditions, but the attached units impressed the 7th Cavalry Brigade (Mechanized) commander and observers even more. The artillery had visitors shaking their heads in amazement with its ability to bring fire onto a target. This was achieved by attaching artillery forward observers to all elements of the brigade and by using Air Corps and observation aircraft. In addition to firing high explosive shells, the artillery and mortars in the mortar platoon of regimental headquarters fired more smoke shells in attempting to neutralize antitank guns. The thought, proved valid during World War II, was that if the antitank guns' aim could be disrupted the advance would be easier. In maneuvers, no attack was initiated without first firing or simulating a smoke screen. Several valuable lessons, later implemented, came from the use of indirect fire weapons. Artillery and mortars should be organic parts

of a mechanized force. Ideally a battalion of artillery should be attached to each mechanized regiment; and a mortar platoon should be in the regimental headquarters company.<sup>29</sup>

Infantry had been attached to the brigade. For two years Fort Knox had been experimenting with and urging adoption of the concept of making infantry an organic part of the mechanized force. The brigade had a definite need for infantry to protect artillery once it was in position, for patrolling and outpost duty, to relieve mechanized forces once they had seized a position, to delay attacking enemy infantry, and to take part in coordinated combat car-infantry attack. A rifle troop could be combined with the machine gun troop to create a fire support squadron. Colonel Palmer was of the opinion that motorized infantry was useful, placing only two restrictions on its use. First, infantry should be able to move into position without special protection; second, the infantry's truck column should not interfere with the mechanized elements' tactical mobility. Maneuvers showed that combat cars and infantry could move and attack over unknown terrain. More importantly, tank and infantry coordination was excellent.<sup>30</sup>

The maneuvers were successful from the mechanized cavalry point of view. Usually the mechanized regiment operated as part of a larger force, but, it could also operate independently as a rapidly moving strike force. The maneuvers were a real test for the light tanks or combat cars. Attacks were made over unreconnoitered, rugged ground which would have previously been considered unsuitable tank terrain. Long sustained operations showed that the light tank was mechanically sound and could take rough, prolonged usage. One article summed up the feeling of the mechanized force in the assertion that "Dobbin is making his last stand."<sup>31</sup>

While the United States was experimenting with mechanization, force composition, and conducting non-firing maneuvers, real tests were being carried out in Ethiopia and Spain. For example, the ingenious Ethiopians set fire to dry brush in front of the Italian tanks. The tankers were hesitant to move through the fire, fearing that the gasoline or ammunition or both would catch fire or explode. In the Spanish Civil War, defenders would wait until the tank had passed their positions, then jump aboard, spray gasoline inside the vehicle, and set it afire. When the hatch was opened, hand grenades were dropped inside. This caused several crews to wreck their tanks so that they would not have to go into combat. More realistic antitank defenses revealed that the 75mm gun could only stop tanks under thirty tons. The German 37mm gun could easily penetrate the heavy Russian tank, while machine gun bullets could penetrate the light German tank. The land mine, a new device of five pounds of TNT, could easily put any weight tank out of action. What the wars really revealed was that the tank was no miracle weapon and that no quick decisions were likely. Several articles appeared expressing jubilation about the tank problems, but the negative effects were minimal. The brigade continued to train and experiment, realizing that speed, maneuver, and team work were essential to overcome antitank defenses.<sup>32</sup>

One result of the 1936 maneuvers was the recommendation that observation aircraft be attached to the brigade. The following year, the 12th Observation Squadron was attached to the 7th Cavalry Brigade (Mechanized). During training exercises, techniques and communications problems were solved, enabling the aircraft to support ground troops

both in reconnaissance and combat. This was the beginning of close air-ground coordination that typified combat in Europe during World War II.<sup>33</sup>

The War Department took a special interest in mechanization. In 1938 it published "Policies Governing Mechanization, and the Tactical Employment of Mechanized Units." Mechanization was viewed not as a new arm but as a new weapon to enable the combat arms to do their job. Combined arms infantry, artillery, and cavalry were essential to success. The basic considerations for combat were movement, surprise, and the objective. The attacking force was to be supported by artillery, aviation, and antitank weapons. Mechanized cavalry could take an objective, but could not hold it for a prolonged period without support from infantry or horse cavalry.<sup>34</sup>

The War Department directive divided mechanized employment into cavalry and infantry sections. Cavalry mechanization developed along the lines that increased mobility, firepower, radius of operation, and strategic mobility beyond that of horse cavalry. The great value of mechanized cavalry, as seen by the War Department, was its ability to conduct distant reconnaissance and create initial successes which could form the basis for further action by higher commands. It could have a special role in pursuit and delaying actions because of its mobility and firepower. The mechanized cavalry was especially adapted for use in envelopment, turning movements, or exploiting breakthroughs. To execute these missions, the cavalry needed to be a self contained force capable of independent action. Its scout and combat cars formed the main mechanized elements. Some limitations were placed on the mechanized force which was thought to be sensitive to obstacles, terrain, enemy air attacks, and antitank defenses. To overcome these limitations,

there was a need for complete ground reconnaissance, a fact already known to the mechanized force.<sup>35</sup>

For infantry, mechanization moved along lines that would increase the foot soldier's ability to overcome strongly organized resistance. Infantry tanks were not to be committed to action until a clearly defined objective had been located. Most tanks were to be used at that portion of the front where the decisive effort was to be made. While tanks would not normally operate beyond the effective range of artillery, they would not necessarily be tied to the speed of foot troops. This was the first major change in official policy, and from infantry's main desire to keep the tank as a close support weapon. The infantry believed that attacks would be in succeeding waves. The first wave of medium tanks would closely follow the artillery barrage, hopefully eliminating antitank defenses. The second wave, light tanks, would then move forward to eliminate the machine guns.<sup>36</sup>

In neither case, however, were tanks given a separate and equal role with cavalry or infantry. Their use was restrictively defined and subjected to control by higher headquarters. In both cases, and perhaps accidentally, the War Department stressed that combat cars and tanks might need support from artillery, aviation, and engineers, which officially stated the combat team concept, even though cavalrymen had stressed that idea since 1928. One bright spot that emerged was that if the opportunity presented itself, then mechanized cavalry could pursue, subject to some limitations.

In 1938, the 7th Cavalry Brigade (Mechanized) moved to Fort Riley, Kansas to take part in maneuvers. In the force were 100 officers, 2,000 enlisted men and 638 vehicles. Each night on the march, it took



seventeen refueling vehicles with a capacity of 300 to 1,200 gallons each, approximately two and one-half hours to fuel the command. The 700 mile march, which covered three days and two nights, required forty-one hours, including halts. The force averaged 17.07 miles per hour, considerably faster than horse cavalry or infantry. It arrived ready for action, the most important consideration in any troop movement.<sup>37</sup>

In these maneuvers, and later, Brigadier General Van Voorhis commanded the brigade from the air. He used radio communications and dropped messages to his two regiments directing them to be at the proper place at the appointed time. While on a road march to Georgia, the force again showed its resourcefulness. Previous reconnaissance showed that the bridge over the Cumberland River at Burnside, Kentucky, would carry the weight of a combat car. When the 13th Cavalry Regiment (Mechanized) arrived, it was told that it could not use the bridge. Telephone calls to state and local officials were to no avail. Discovering a ferry nearby, Colonel Scott loaded his combat car on it and crossed the 280 foot wide river. The regiment followed. Thus a major terrain feature could delay mechanized cavalry, but by using the ferry, the force was able to continue its march.<sup>38</sup>

Certain cavalry officers began to assert the belief that the mechanized force should be expanded to a division and that it should be considered as equal to cavalry and infantry. For the cavalry in 1938, however, an unsurmountable stone wall was erected: Major General John K. Herr became the Chief of Cavalry. Herr was a devoted horseman and continued to be one until his death. The last Chief of Cavalry adopted a policy that he would accept mechanization, but "not at the expense of converting any horse units."<sup>39</sup> By taking such a

position, Herr assured the limitation of mechanized cavalry. Congress established the size of the Army at an average enlisted strength of 165,000 and 14,659 officers in fiscal year 1938. Due to budgetary limitations, officer strength was limited to 12,250 while enlisted strength averaged about 162,000.<sup>40</sup> Thus Herr was safe in insisting that any increase in the mechanized force had to be raised, but not from existing units.

Major General Herr spoke to the students at the Army War College on the subject of the historical evolution and use of cavalry. When he discussed mechanization, he stated that the cavalry had adopted mechanization, had developed it tactically and technically, and had learned to appreciate its value with relationship to the horse. Combat cars had been kept light and fast to enable them to carry out cavalry missions, and not to compete with infantry tanks. Mechanized cavalry was faster than horse units over favorable terrain; it had a greater volume of firepower, but was difficult to control on the battlefield. That, to Herr, was "a real problem." Because of supply and maintenance problems, it did not have the capacity for sustained operations, or the flexibility of horse cavalry. Herr desired a mechanized cavalry division and eventually a cavalry corps of three horse and one mechanized division. He saw the possibility of a future war and thought it might be one of movement. If he were correct then there would be extensive use of cavalry. He concluded by urging the students to study history and watch cavalry in maneuvers (strangely he omitted Europe and its problems). Ironically, his final comment was that "there are none so blind as those who will not see."<sup>41</sup> Herr adopted a position, maintained it against advice, and earned the distinction of being the

biggest obstacle to mechanized cavalry expansion.

In 1939, Lieutenant Colonel Robert W. Grow visited Fort Knox. During conversations Brigadier General Chaffee told Grow that he (Chaffee) was going to have a division, even if the men had to come from horse units. He intended to have General George C. Marshall, Chief of Staff designate, visit Fort Knox after the Plattsburg maneuvers in August 1939 and "go to the mat with him." On 29 September 1939, Chaffee, addressing the students of the Army War College, stated that the concept of infantry tanks to support the infantry and mechanized cavalry to aid the cavalry was sound and should be continued. While studying and using armored vehicles, the mechanized force had evolved a fundamental principle, that tanks should not be used independently. They were noisy, blind, and unable to undertake a prolonged defense, but they could serve as the backbone of a mobile force.<sup>42</sup>

In terms which probably made the Chiefs of Cavalry and Infantry furious, he stated that "mechanized cavalry was the newest fighting service in the Army." He argued that the brigade was not the largest force that one person could control. It could be increased without increasing the size of the supply and support echelons. He made recommendations to create a brigade reconnaissance force, to add infantry to the brigade, to increase the artillery from sixteen to twenty-four guns per mechanized regiment, to increase the mechanized regiment from two to three squadrons each, and to add an engineer unit to the brigade. While making these recommendations, he noted that the brigade had never waited for men or equipment, but trained and fitted replacements into the organization when they arrived.<sup>43</sup>

Chaffee reached the major portion of his speech. To this point he had detailed the history, organization, and tactical usage of mechanized cavalry without transgressing traditional lines. He advocated the creation of four mechanized divisions, an expansion of the mechanized force by 800 percent. To get men, he struck the most sensitive nerve in the conflict. He wanted cavalry and field artillery officers who had demonstrated command ability to be reassigned from existing units. These vacancies could be filled by reserve officers on extended active duty. He recognized that some officers and enlisted personnel would have to be supplied at the expense of the horse cavalry and possibly infantry, especially if the increase could not be gained by enlarging the regular Army.<sup>44</sup> Such a position was the highest heresy, but traditionally speeches to the Army War College have been expressions of individual views, to stimulate student thinking, not Army policy.

Comparing the use of the German Panzer Division to the proposed mechanized cavalry division, Chaffee noted that there were sixty medium tanks in each German division. He said they protected the artillery and supported the division's infantry components. The medium tanks, he concluded, might well be considered part of the supporting echelon. Based on the German experience in Poland, he said, well-trained, boldly led mechanized forces demonstrated their efficiency and left no doubt as to their value in a war of movement. Such forces could not be defeated by infantry or horse cavalry no matter how gallantly the defenders fought. The best defense against mechanized cavalry was mechanized cavalry.<sup>45</sup> In spite of continual urging since 1936, the activation or creation of a mechanized division or a similar force would not occur until 1940.

The question of who influenced whom in tank development and usage has been and will continue to be debated. Two schools of thought emerged during the 1920's and 1930's. The first proposed that tanks were a close support weapon for infantry. The second utilized fast armored cars and light tanks to extend the role of cavalry. Britain and France chose the first; Major General Charles L. Scott of the United States Army was of the opinion that Germany and the United States chose the second. Germany's concept was to use large masses of tanks under a single commander to penetrate deep into enemy rear areas. Scott, however, overstated the American position; instead of adopting the second concept, until the creation of the Armored Force, the United States clung to both uses, and continued to do so even during World War II. General Headquarters Tank Battalions were attached to infantry divisions to be their armor support.<sup>46</sup>

During the 1930's several groups of German officers visited Fort Knox. Major Philips on his visit revealed that in philosophy the United States and Germany were similar. A second visit by Major Hans von Greiffenberg revealed the same thinking. On the second visit the Germans were shown the equipment, except the .50 caliber machine guns, and were given rides. Major Robert W. Grow concluded then, and later events confirmed, that United States thinking was ahead of Germany's with respect to the employment of mechanized forces. However, Germany was ahead in vehicular development, a conclusion verified by the 2d Armored Division's study titled "German versus American Equipment."<sup>47</sup>

In the summer of 1937, Colonel Adolph von Schnell, who was in charge of German auto, truck, and tank production during World War II, visited Fort Knox to study American mechanized doctrine and equipment.

He told the Americans that he had ridden in tanks of each European country, and was of the opinion that the cavalry combat car (light tank) had more speed, power, and rode easier than any in Europe. He considered it the equal to any European light tank. During conversations Scott, Chaffee, and Schnell discussed the basis of German armor development. The Germans believed that an armored division had to use the combined arms concept in battle; tanks had to be used in mass to achieve sustained driving power. The vehicles had to be simple, rugged, and mass producible; all elements of the division had to be mobile, which permitted unity of action in all phases of the operation. There had to be 100 percent replacement of tanks and crews during long periods of operation. All these beliefs, later incorporated into United States armor doctrine, had already been expounded by Van Voorhis and Chaffee. As one mechanized cavalryman, Lieutenant Colonel Alexander D. Surles, stated in actual performance, Europe was ahead of the United States. In theory and partial use the United States was five years ahead of Britain by putting light tanks in the cavalry. Scott said that German and American Armor developed along similar lines, "but I wish to point out that we haven't blindly copied the German set up." The United States had been busy with its own development for several years, and Germany's success in Poland proved, to Scott, the soundness of American ideas.<sup>48</sup>

Starting about 1936, the Cavalry Journal began condensing articles and news reports about foreign tank design and usage. Americans were as aware of foreign activities as Europe and Asia were of American advancements. Thus, if there were any influence, it was probably circular; Europe may have been influencing American actions and at the same time American thought and actions were influencing others in the

field. It would be impossible to state categorically who had the most or least influence.

At Plattsburg, New York, in 1939, during the First Army maneuvers, a team of German observers paid close attention to the equipment and its use. For some unknown reason, the German officers quickly departed, but in a few days the reason was apparent: Germany invaded Poland. During the first phase of the maneuvers, the 7th Cavalry Brigade (Mechanized) was split into fragments, assigned to guard the flanks and rears of various infantry brigades, which left only a small part of the mechanized cavalry to function as it should. Later the brigade was consolidated and used as a whole unit. It cut supply and communication lines, and raised havoc with the infantry units. Two invaluable lessons emerged. First, the mechanized brigade was a special weapon, and troops supporting it had to be thoroughly familiar with its tactics, strengths, and limitations. The only way to acquire this was by constant training. Second, the brigade should be kept complete as a unit. It was a mistake to use the regiments separately, but a bigger mistake to subdivide the regiments into task forces. The brigade should be given missions that were deemed most important, and used to execute that assignment. 49

Major General Edward Croft, Chief of Infantry, had transferred the Tank School to Fort Benning, Georgia, in 1934, placing it directly under the Infantry School commandant. Tank School support troops were transferred to Benning and renamed. The 1st Tank Regiment became the 66th Infantry Regiment (Light Tanks), while the 2d Tank Regiment became the 67th Infantry Regiment (Medium Tanks). In 1940 those two regiments became part of the 2d Armored Division.

The following year the Army Chief of Staff, General Malin Craig, issued a directive which said that recent developments in motorization and mechanization may have created a need for new thinking in infantry, especially about organization and tactics. He further stated that study groups might consider keeping horses for artillery. The assistant commandant appointed a board of officers, headed by Lieutenant Colonel Alvin C. Gillem, to study infantry and mechanization, and to make recommendations as to how infantry could improve itself and fight in a mechanized war. Gillem and his fellow board members, Majors Earl Landreth, John N. Robinson, and Captain Floyd L. Parks, issued their report titled "Reorganization of the Brigade, Division, and Higher Units of the Army" on 6 December 1935. It recommended eliminating all horses in infantry units and substituting motor transports. It recognized and urged that infantry divisions be trained to defend against wide envelopments, because part of the enveloping force might include mechanized units. It further urged that the division's light tank company be eliminated and a regiment of light tanks be concentrated at corps level. If needed, a battalion of light tanks could then be available to each of the corps' infantry divisions. The corps would also have a mechanized unit for offensive or defensive combat.<sup>50</sup>

At the field Army level, the board recommended eliminating one horse cavalry regiment and replacing it with a mechanized brigade. A mechanized force was thought to be of great value operating against enemy flanks and rears, lines of communications, exploiting breakthroughs, pursuits, and seizing critical terrain features. The board recommended keeping one horse division for close-in protection and because some terrain might be unsuitable for a mechanized force. The mechanized



brigade would have two mechanized cavalry regiments, a field artillery battalion, three battalions of 75 mm guns, an engineer troop, a maintenance troop, and mechanized medical troop.<sup>51</sup> Probably the Army made very little, if any, use of the board's report. Whether it helped to influence the two regiments concept for the 7th Cavalry Brigade (Mechanized) is doubtful, except the second regiment (the 13th) did not join the brigade until nine months after the report was submitted.

By 1939 and 1940, cavalry had made giant strides in mechanization, but infantry had changed very little, if any. Lieutenant Colonel Bradford G. Chynoweth, after completing military attache duties in England, was assigned to the First Battalion, 66th Infantry Regiment (Light Tanks), stationed at Fort Benning. He remembered that his brother-in-law, Major General George A. Lynch, Chief of Infantry, was determined to keep tanks in their proper place as close support weapons for the foot soldier. If any infantryman tried to talk cavalry tactics, or deviated from accepted doctrine, he was penalized for it. Chynoweth stressed mobility in exercises. He gave orders while moving and worked out hand signals for various maneuvers; meanwhile he received cold, icy stares from his superiors. He finally realized the tanks would continue to be infantry support weapons until somebody changed the system.<sup>52</sup>

Probably unknown to anyone except the War Department, the change so long awaited was about to occur. In the summer of 1940, the War Department decided to use the 7th Cavalry Brigade (Mechanized) and a provisional tank brigade of infantry tanks from Fort Benning, in the Louisiana maneuvers of that year. These maneuvers were to test both horse and mechanized cavalry, mobile concepts of war, and the new

triangular infantry divisions (three regiments instead of four regiments in two brigades as in the older square division). In addition, observers would get a close look at command, supply, administration, maintenance, and the use of aviation over a prolonged period of time.<sup>53</sup>

Preparing for the maneuvers, Brigadier General Chaffee used his influence to have attachments made to the mechanized brigade, including an engineer troop, a medical troop, but most important, the 6th Infantry Regiment (Motorized). For the infantry's part, a provisional tank brigade was created from the 66th and 68th Infantry Regiments (light tanks) and a battalion of the 67th Infantry Regiment (medium tanks), commanded by Brigadier General Bruce Magruder, the first commanding general of the 1st Armored Division. Several times during the maneuvers, the mechanized and tank brigades were brought together to act as a provisional division; it impressed the observers. The Chief of Cavalry, Major General John K. Herr, said that as a result of this experiment two mechanized cavalry regiments, the 1st and the 13th, were lost to cavalry.<sup>54</sup>

Historians of armor stress that in the two decades following World War I, petty branch jealousies, and conservative, almost reactionary leadership in infantry and cavalry prevented the creation of a mechanized or armored force prior to 1940. They argue further, that military leadership continued to think in terms that won the previous war, creating a rigid mentality and a reluctance to change philosophy or means. All this is true, but they fail to consider that men in positions of responsibility are men. They have all the strengths, weaknesses, and inability to foretell the future that everyone else possesses. They were exercising their best judgment at the time, considering their

biases, prejudices, experience, and the conflicting advice they received. What most historians have failed to see (one reason is their concentration on the negative aspect of the period) is that during those two decades armor tactics and techniques were being evolved; more importantly, the armored force leaders were being trained.

Often the men chose tanks at personal sacrifices to themselves and their careers. Lieutenant General Willis D. Crittenger said that he asked to go to the 7th Cavalry Brigade (Mechanized) in 1935, and was told that if he did he could no longer expect any help from the Chief of Cavalry's office. Chynoweth was assigned to an infantry regiment to get him away from tanks, and as a result spent the war in a Japanese prisoner of war camp.<sup>55</sup> The American experience was successful; General I. D. White said, "The 7th Cavalry Brigade (Mechanized) served as a model for the Germans to copy. The soundness of American tactical doctrine was proven in Poland, the Low Countries, and France. As a result the Germans got ahead in technical development of armored vehicles, but never surpassed Americans in tactics."<sup>56</sup> This was a statement by an early pioneer in mechanized cavalry whose World War II experience included commanding a reconnaissance battalion, a tank regiment, a combat command, and finally the 2d Armored Division during its race to Berlin in April 1945. The 7th Cavalry Brigade and infantry tanks served as a laboratory for evolving those tactics, techniques, and for training men to assume leadership positions in the Louisiana maneuvers during the summer of 1940.

FOOTNOTES

<sup>1</sup>General Charles P. Summerall to Major T. E. Sims, 7 June 1945; Gondek, "Operation of Cavalry Reconnaissance Squadron Integral to the Armored Division," p. 6.

<sup>2</sup>Robert W. Grow, "Ten Lean Years: From the Mechanized Force (1930) to the Armored Force (1940)," p. 7, unpublished essay, Robert W. Grow Papers, Grow's Possession, Falls Church, Virginia.

<sup>3</sup>Ibid., pp. 14-15; Gillie, Forging the Thunderbolt, pp. 36-39.

<sup>4</sup>Arthur Wilson, "The Mechanized Force: Its Organization and Present Equipment," Cavalry Journal, Vol. XL, No. 165 (May-June 1931), p. 7.

<sup>5</sup>Arthur R. Wilson, "With the Mechanized Force on Maneuvers," Cavalry Journal, Vol. XL, No. 166 (July-August 1931), p. 5; Grow, "Ten Lean Years," p. 13, Grow Papers.

<sup>6</sup>Shuffer, "Development of the U.S. Armored Force," pp. 97-98.

<sup>7</sup>Grow, "Ten Lean Years," pp. 15, 17, 20, Grow Papers.

<sup>8</sup>Marsh, "Mechanization of Combat Units," Military Engineer, Vol. XXV, p. 451.

<sup>9</sup>"Mechanized Force Becomes Cavalry," Cavalry Journal, Vol. XL, No. 165 (May-June 1931), pp. 5-6.

<sup>10</sup>Douglas MacArthur, "Report of the Chief of Staff to the Secretary of War," Annual Reports of the War Department for 1931 (Washington: Government Printing Office, 1932), pp. 42-43, 68.

<sup>11</sup>Ibid., p. 68; Grow, "Ten Lean Years," p. 11, Grow Papers.

<sup>12</sup>Van Voorhis, "Mechanization," unpublished speech at the Army War College, 13 October 1937, pp. 3-5, White Papers.

<sup>13</sup>K. S. Bradford, "Modern United States Cavalry," Military Engineer, Vol. XXXII, No. 182 (March-April 1940), pp. 84-89.

<sup>14</sup>Grow, "Ten Lean Years," p. 27, Grow Papers; Harrison H. D. Heiberg, "Organize a Mechanized Force," pp. 9-10, unpublished essay in the office of Armor, Washington, D. C.

- <sup>15</sup>Grow, "Ten Lean Years," pp. 29, 36, 38-39; Grow Papers.
- <sup>16</sup>Ibid., pp. 28, 34, 53-54.
- <sup>17</sup>Ibid., pp. 42, 45; Gondek, "Operation of Cavalry Reconnaissance Squadron Integral to the Armored Division," pp. 9-10; Bradford, "Modern United States Cavalry," Military Engineer, Vol. XXXII, p. 87; "Iron Horses for the Cavalry," Literary Digest, Vol. CXII, No. 12 (19 March 1932), p. 41; David C. Shanks, "The Army on Wheels," Popular Mechanics Magazine, Vol. LX, No. 1 (July 1933), pp. 50-51, 53.
- <sup>18</sup>Nenninger, "The Development of American Armor, 1917-1940," p. 139; Grow, "Ten Lean Years," pp. 58, 53; Grow Papers.
- <sup>19</sup>Shuffer, "Development of the U. S. Armored Force," p. 113; "The Cavalry Maneuvers at Fort Riley, Kansas, 1934," Cavalry Journal, Vol. XLIII, No. 184 (July-August 1934), pp. 5-6.
- <sup>20</sup>Ibid., pp. 12-13; John K. Herr and Edward S. Wallace, The Story of the U.S. Cavalry (Boston: Little, Brown and Company, 1953), p. 252.
- <sup>21</sup>Grow, "Ten Lean Years," pp. 54-60, 63, 67-68; Grow Papers; "The Cavalry Maneuvers at Fort Riley, Kansas, 1934," Cavalry Journal, Vol. XLIII, pp. 12-13.
- <sup>22</sup>Ibid., pp. 5-6; War Department, "Defense Against Mechanized Units," 10 October 1934, AG537-3, pp. 1-2, 7, Alvin C. Gillem Papers, United States Army Military History Research Collection, Carlisle, Pennsylvania.
- <sup>23</sup>See Timothy R. O'Neill, "Tank Destroyers for the '70's," Armor, Vol. LXXXII, No. 3 (May-June 1973), pp. 38-43; a differing opinion, see General I. D. White's letter to the editor of Armor, Vol. LXXXII, No. 4 (July-August 1973), p. 2; Smith, "The Theory of Mechanization," Infantry Journal, Vol. XLII, pp. 549-551.
- <sup>24</sup>I. D. White, "Mechanized Tactics," unpublished essay; White Papers; Hayden A. Sears, "Mobility-Firepower and Shock," Cavalry Journal, Vol. XLVIII, No. 4 (July-August 1939), p. 287.
- <sup>25</sup>Van Voorhis, "Mechanization," unpublished speech at Army War College, 13 October 1937, pp. 11-12; White Papers.
- <sup>26</sup>Bruce Palmer, "Report on Second Army Maneuvers: Report of the Commanding General," p. 1, White Papers.
- <sup>27</sup>Ibid., pp. 1-5.
- <sup>28</sup>Ibid., pp. 4-6.
- <sup>29</sup>Bruce Palmer, "Mechanized Cavalry in the Second Army Maneuvers," Cavalry Journal, Vol. XLV, No. 6 (November-December 1936), p. 476.

<sup>30</sup>Ibid., pp. 475-746; Vernon G. Oldsmith, "Tanks, Trucks Troops," Infantry Journal, Vol. XLII, No. 5 (September-October 1936), pp. 406-407.

<sup>31</sup>Ibid., pp. 406-407; "Dobbin's Last Stand," Literary Digest, Vol. CXXI, No. 19 (9 May 1936), p. 37.

<sup>32</sup>Arthur Grahame, "How Good are the New War Machines?" Popular Science Monthly, Vol. CXXXII, No. 1 (January 1938), p. 134.

<sup>33</sup>Palmer, "Report of Second Army Maneuvers," pp. 9-10, White Papers; Gillie, Forging the Thunderbolt, p. 100.

<sup>34</sup>War Department, "Policies Governing Mechanization and the Tactical Employment of Mechanized Units," 25 March 1938, A.G. 537.3, p. 10, Gillem Papers.

<sup>35</sup>Ibid., p. 2.

<sup>36</sup>Ibid., pp. 3-4.

<sup>37</sup>Redding F. Perry, "Supply of a Mechanized Cavalry Brigade on a March," Cavalry Journal, Vol. XLVIII, No. 2 (March-April 1939), pp. 99-100; "The Mechanized Cavalry Takes the Field," Cavalry Journal, Vol. XLVII, No. 4 (July-August 1938), p. 291.

<sup>38</sup>Ibid., pp. 299-300.

<sup>39</sup>Grow, "Ten Lean Years," p. 94, Grow Papers.

<sup>40</sup>Secretary of War, The Annual Reports of the Secretary of War to the President for 1938 (Washington: Government Printing Office, 1939), pp. 51-52.

<sup>41</sup>John K. Herr, "The Cavalry," unpublished speech at the Army War College, 19 September 1938, White Papers.

<sup>42</sup>Grow, "Ten Lean Years," p. 107, Grow Papers; Adna R. Chaffee, "Mechanized Cavalry," unpublished speech at the Army War College, 29 September 1939, pp. 1-2, White Papers.

<sup>43</sup>Ibid., pp. 13-14.

<sup>44</sup>Ibid., pp. 33-34.

<sup>45</sup>Ibid., pp. 30-31; Adna R. Chaffee, "The Seventh Cavalry Brigade in the First Army Maneuvers," Cavalry Journal, Vol. XLVIII, No. 6 (November-December 1939), p. 461.

<sup>46</sup>Charles L. Scott, "The Early History of Mechanization," unpublished essay in C. L. Scott Papers, Library of Congress, Washington, D. C.

<sup>47</sup>Grow, "Ten Lean Years," pp. 55-56, Grow Papers.

<sup>48</sup>Heiburg, "Organize a Mechanized Force", p. 24; office of Armor; Shuffer, "Development of the U.S. Armored Force," p. 122; Alexander D. Surles, "The Cavalry and Mechanization, 1936," Cavalry Journal, Vol. XLV, No. 1 (January-February 1936), p. 6; Scott, "The Early History of Mechanization," p. 4, Scott Papers.

<sup>49</sup>Chaffee, "Mechanized Cavalry," unpublished speech at the Army War College, 29 September 1939, p. 26, White Papers; Shuffer, "Development of the U.S. Armored Force," pp. 145-146.

<sup>50</sup>Malin Craig to All Corps Commanders and Chief of Infantry, 5 November 1935, Assistant Commandant, U. S. Army Infantry School to Lieutenant Colonel Alvin C. Gillem, Memo 5, 14 November 1935, and Lieutenant Colonel Alvin C. Gillem to Assistant Commandant, U.S. Army Infantry School, "Reorganization of the Brigade, Division and Higher Units of the Army," 6 December, 1935, pp. 3-5, 7, 11, Gillem Papers.

<sup>51</sup>Ibid., p. 14.

<sup>52</sup>Bradford G. Chynoweth to Sidney R. Hinds, 4 and 6 January 1972, Hinds Papers; Bradford G. Chynoweth to Colonel George A. Pappas, 24 October 1967, Chynoweth Papers.

<sup>53</sup>Jean R. Moenk, A History of Large-Scale Army Maneuvers in the United States 1935-1964 (Fort Monroe, Virginia: Headquarters United States Continental Army Command, 1969), p. 27.

<sup>54</sup>George F. Howe, The Battle History of the 1st Armored Division: "Old Ironsides" (Washington: Combat Forces Press, 1954), p. 136; Chynoweth to Hinds, 4 January 1972, Hinds Papers; Herr and Wallace, The Story of the U.S. Cavalry, p. 250.

<sup>55</sup>Interview, Crittenberger with author and Albright.

<sup>56</sup>I. D. White, "The Second Armored Division," unpublished speech at the Cavalry School, undated, pp. 1-2, White Papers.

## CHAPTER IV

### THE FORT BENNING ERA: ACTIVATING AN ARMORED DIVISION

General George C. Marshall, the Army Chief of Staff, testifying before the House Military Affairs Committee on 23 February 1940, indicated that the War Department was considering expanding the 7th Cavalry Brigade (Mechanized) into a division, and increasing the infantry tank strength to two light tank regiments and one medium regiment. The Protective Mobilization Plan called for a force of 734 light tanks and 194 medium tanks, while the Army currently had only 648 light and 144 medium tanks. The 7th Cavalry Brigade (Mechanized) was to gain two combat car squadrons, giving it two regiments of three squadrons each. A reconnaissance and support squadron were to be added. In the latter would be a scout car troop, a motorcycle troop, and a machine gun troop. The artillery strength would be increased from sixteen to twenty-four guns and a two battalion regiment of infantry would be added. In effect the 7th Cavalry Brigade (Mechanized) would be a small division.<sup>1</sup>

The Chief of Cavalry, Major General John K. Herr, testified before a sub-committee of the House Appropriations Committee on 11 March 1940. He attempted to show that the cavalry had adopted mechanization, including giving eighty hours of instruction in the regular and basic courses at the Cavalry School. In addition, there was a



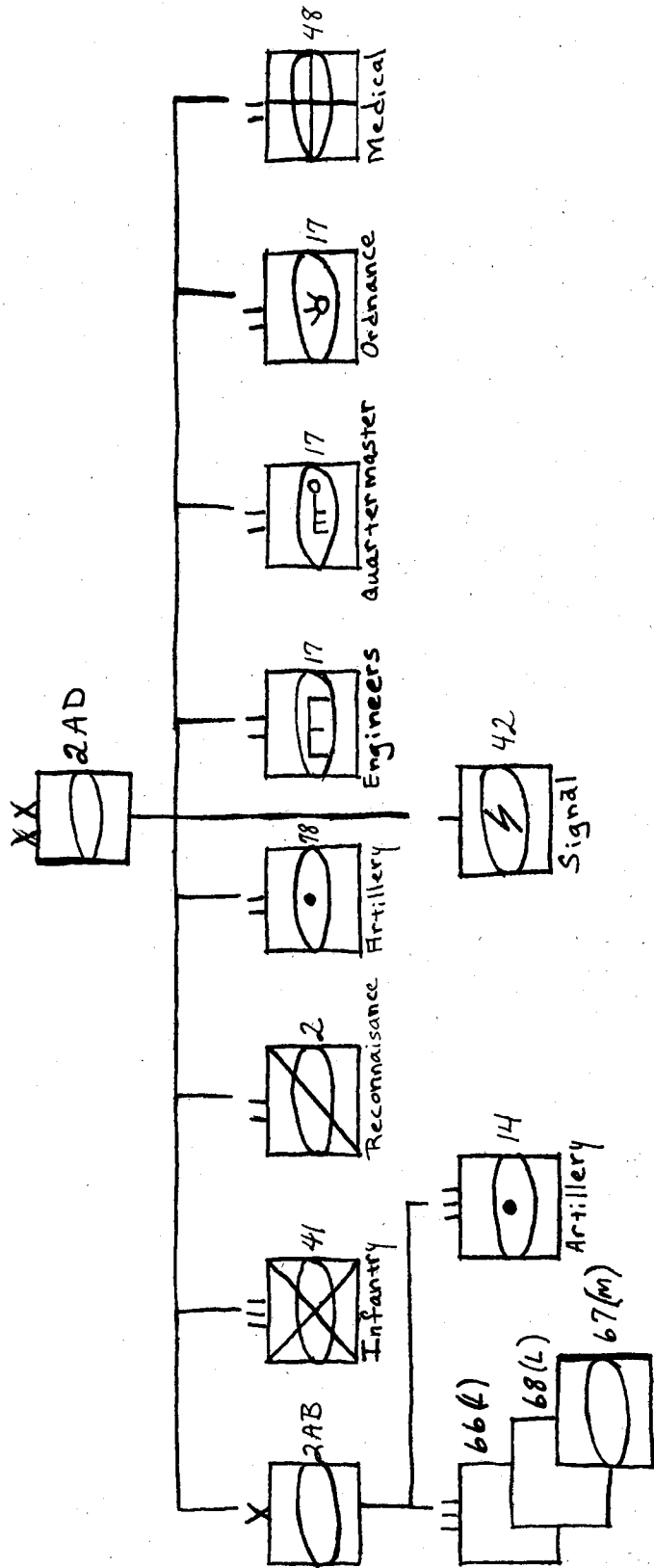


Figure 1. An Armored Division, 1940.

four and one-half month advanced motor maintenance course. He wanted a larger training area in the southwest, around Fort Bliss, Texas, so horse and mechanized units could work and evolve the tactics necessary for the employment of both types of units. He wanted a cavalry corps of two horse divisions and a mechanized division, probably the first time that this latter had been mentioned. While recognizing the value of mechanized units, he argued that an armored vehicle could not go certain places and did not have the flexibility of a horse, a conviction which he carried until his death.<sup>2</sup>

While Congress was considering the military appropriations for fiscal 1941, the Army gathered almost all of its armored vehicles to take part in the Louisiana maneuvers of 1940. The maneuvers, as always, revealed definite needs. For example, infantry had to keep pace with tanks, since they were mutually dependent upon each other, and artillery needed to be self-propelled, not horse or vehicular towed, especially if it was to be part of a tank or mechanized force. The most important lesson learned was that there existed a need for an armored force.

On 25 May 1940, immediately prior to the final critique of the Louisiana maneuvers, infantry and cavalry tank-minded officers had met with Brigadier General Frank M. Andrews, Assistant Chief of Staff, G-3, in the basement of the Alexandria, Louisiana High School. This group, including Brigadier Generals Adna R. Chaffee and Bruce Magruder, and Colonel George S. Patton, Jr., concluded that an armored force was needed at once. The discussion pointed out that the present infantry-cavalry mechanization concepts were inadequate, that time to correct the situation was short, and that tankers had so far received second-class treatment, in relation to the members of the traditional branch. The

unanimous opinion of the "basement group" was, that if the Army would have an Armored Force it would have to be taken out of the hands of the Chiefs of Cavalry and Infantry. It was decided that Brigadier Generals Chaffee and Andrews should take that message to Washington for consideration. The group recommended that two armored divisions be activated, using the 7th Cavalry Brigade (Mechanized) and the infantry Provisional Tank Brigade as a basis, with one division stationed at Fort Knox, Kentucky, and one stationed at Fort Benning, Georgia.

Chaffee and Andrews went to Washington. Chaffee saw Herr and presented the plans and recommendations of the "basement group". Chaffee argued that mechanization was a cavalry assignment and urged Herr to mechanize other cavalry regiments, to form the nucleus for the armored force. Herr, who had been in Louisiana for the maneuvers, but not present for the "basement meeting," replied that he would be willing to accept armor as part of cavalry, but he would not give up one horse to create an armored force. Major General Robert W. Grow noted that because Herr procrastinated and was not willing to sacrifice horses for tanks, "he lost mechanization for the cavalry and...cavalry...lost a prestige that it can never regain."<sup>3</sup>

General Marshall was more receptive to the recommendations of the armor advocates. Brigadier General Andrews presented written plans for the organization of two armored divisions, which included a number of important points. He argued that the level of mechanization was inadequate and a considerable increase was desirable; the current policy of developing branch needs required revision, as did the current infantry-cavalry organizations, especially when viewed in the light of the German experience; while a definite requirement existed for a large mechanized

echelon (division) as well as for separate tank elements (battalions) to be in General Headquarters reserve. Andrews further stated that the basic armored combat unit should be a division formed from a combination of various arms and services to insure the most efficient usage of weapons and equipment and formations in combat. In conclusion, Andrews pointed out that current Army plans for expansion provided for enlarging the mechanized units with personnel and equipment; the "basement group" believed that the first step should be to determine the composition of an armored division.<sup>4</sup>

Andrews and his section evolved several principles that were to be followed in organizing the armored divisions. These would not constitute a new arm or corps, for any such action would be the function of the General Staff. The development of materials and tactical doctrine for the armored divisions and separate armored battalions would be supervised by a Field Forces Commander, Armored Corps. The divisions, one to be stationed at Fort Knox, and the other at Fort Benning would be exempt from corps area control except for routine supply, discipline, and court martial jurisdiction. In organizing the initial two divisions, maximum use would be made of existent units: the 7th Cavalry Brigade (Mechanized) and the 66th, 67th, and 68th Infantry Regiments (Tanks). The War Department would authorize the transfer of personnel and equipment if necessary. Separate medium and heavy tank battalions would be assigned to General Headquarters reserve and attached to infantry units when needed.<sup>5</sup> While Andrews denied that the armored force was a separate armor branch, it would have an independent status not enjoyed by other arms. The Field Forces Commander, Armored Corps, while not recognized as an

equal with the other chiefs of branches, was given the same responsibilities, with an additional duty, to be the 1st Armored Corps Commander, a command not given to other service chiefs.

Tactically the armored division would be most effectively employed when conditions permitted maximum use of speed, firepower, and mobility. It should be supported by aviation and followed quickly by other troops. The basic concept, probably influenced by the 7th Cavalry Brigade (Mechanized), was to use the proposed division as the brigade had been used. It was to lead offensive spearheading drives to take strategic objectives and nerve centers. It could exploit breakthroughs, be used to pursue or delay enemy advancements, function as a long range reconnaissance force, protect less mobile forces while they advanced, and serve as a mobile reserve.<sup>6</sup>

In planning the organization, the G-3 section thought that the division should be a small, fast-moving, hard-hitting maneuverable unit of 8,000 to 11,000 men with 350 to 450 tanks, the division's basic weapon. All other elements were to be used in support. Proper grouping would be essential to maneuverability, tactical employment, and maintenance. Such a force was seen as too large for one column, thus necessitating thinking in terms of multiple columns and combat teams. The large number of vehicles would probably cause control, mobility, and maintenance problems, and take up excessive road space. One maintenance solution would be to keep the types of vehicles to a minimum. The first table of organization had a division of 511 officers and 8,380 enlisted men, 416 tanks, 85 cars, 24 howitzers, 3,116 machine guns, 464 antitank guns (37mm), and 80 antitank machine guns. The division would be composed of five echelons. In the command echelon

would be the division headquarters, a signal company, a headquarters company, a military police company, and an observation squadron. The reconnaissance echelon had a three company reconnaissance battalion. An ordnance company, a medical battalion, and a quartermaster battalion would constitute the supply and service echelon. The main combat elements were to be in two brigades, a shock echelon composed of two tank regiments of two battalions, each having two medium companies and one light tank company. The ground holding echelon had a reconnaissance company, an antitank battalion, an engineer battalion, an artillery regiment, and an infantry regiment of two rifle battalions and an antitank company.<sup>7</sup>

For organization purposes, Andrews and his section had counted noses and tanks. He said that there were 2,868 mechanized cavalrymen at Forts Riley and Knox, along with 2,677 personnel in infantry tank units at Forts Benning, Meade, and Lewis. These units had 328 combat cars and light tanks, 133 scout cars, and an estimated 18 medium tanks. Men and material would have to be transferred, ending with a force at Fort Knox estimated at 2,918 personnel, 166 light tanks, 9 medium tanks, and 68 scout cars. Fort Benning would get 2,623 men, 162 light tanks, 9 medium tanks, and 65 scout cars. With these troops, and others that would be attached, there were an estimated 7,986 men available to begin creating two divisions, with an estimated 9,500 men still needed to organize two divisions of 8,743 men each. Such strength, acceptable for peacetime, would be inadequate for combat use.<sup>8</sup>

After submission to Marshall, the plan was presented to other staff sections and to the service chiefs for their comments. Lieutenant Colonel Jonathan W. Anderson, of the War Plans Division, agreed with the

armored concept, but considering the European situation, suggested that one division be completely organized from the 7th Cavalry Brigade, and a second be started from units not needed by the first. The advantage would be to get one division ready quickly, but the disadvantage was the slower organization of two armored divisions. Major General Julian L. Schley, the Chief of Engineers, argued that the engineer battalion should be increased from 281 men to approximately 400 to 500 men. He thought that the War Department had failed to heed the Developments in the European War. For example, the Germans used engineers in their attack forces to clear mine fields, to reduce fortifications, and to bridge streams. Germany's engineer battalion, he pointed out, had almost three times the proposed United States strength. He and his branch wanted to be part of an armored division and thought their contributions would be greater if their battalion were enlarged.<sup>9</sup>

Major objections to the proposed force came from the Chief of Infantry, Major General George A. Lynch, and the Chief of Cavalry, Major General John K. Herr. Lynch concurred in principle to the plan, but his objections to key provisions negated his concurrence. He tried to refute the idea that there were any deficiencies in infantry tanks or organization, stating that with some improvements they were equal to any in the world. He said that although the basic plan denied that armor would be a separate branch or arm, two sections of the plan certainly implied that. Lynch thought that it would be dangerous for national defense to take the expertise away from one agency and give it to others who "lack both the specialized background and the organization to

general, I Armored Corps, should not be given the powers proposed in respect to research and development, particularly to infantry tanks, their organization, and doctrine development should remain a duty of the Chief of Infantry. The final major point, Lynch stated, was that combat cars and light tanks should not be mixed. Each had distinct tactical usages. The light tank was superior in assaulting power and the ability to withstand punishment, but lacked the mobility or range of combat cars. He concluded that if the proposed plan was to increase expansion and create an armored branch with a chief who had all the duties of branch chiefs, then he would have no objection, but he said, "this proposal under consideration does not and offers nothing over the present means of control."<sup>10</sup>

The most bitter statement against the creation of an armored force came from Major General Herr. He said there was no need for a separate organization, and proceeded to launch a bitter, caustic, vitriolic attack on the background and creation of the proposed force. He correctly assumed that the decision to create an armored force was arrived at in Louisiana at a meeting that neither he nor Lynch was invited to attend. Andrews, according to Herr, invited a "few officers of more or less experience in tank battalions and in the mechanized brigade."<sup>11</sup> He complained that at a planning conference called in Washington, Lieutenant Colonel Sereno E. Brett told persons at Fort Leavenworth, Kansas, that he was going to Washington to advocate the creation of a separate armored force. At the meeting, the discussion was open and wide-ranging, except on one issue; Marshall had already decided that two armored divisions would be activated from infantry and mechanized elements. One division was to be stationed at Fort



Benning, Georgia; the other at Fort Knox, Kentucky. Herr failed to see the need for such a force, arguing that the same results could be attained under the Chief of Cavalry.<sup>12</sup>

The Chiefs of Cavalry and Infantry emphasized that perhaps an armored force was needed, but they denied that a separate force was the solution. Both felt that the same results could be attained if left to their respective branches. What both failed to see, perhaps because they were traditionalists, was that little progress had been made under their jurisdictions over the last twenty years. Both viewed tanks much like a foster child which had been pushed on their branch. They might be responsible for tanks, but they certainly would not obtain a place of preeminence in either branch. If tanks were to achieve equality with infantry and cavalry, attitudes would have to be changed and concessions made. Herr and Lynch were reluctantly willing to alter their previous positions only because of the threat of losing the tanks to a separate arm. The twenty years of procrastination by the branch chiefs lost mechanization for cavalry and probably for infantry.<sup>13</sup>

Word began to leak from the War Department that changes were in the immediate future. Lieutenant Colonel Robert W. Grow and his family arrived in San Francisco preparatory to sailing for duty in the Philippines. Because of ship problems, his departure was delayed a few days. On 26 June 1940 he sent telegrams to the Adjutant General's office and to Major Gilbert Z. Cheves to explain the situation. In his reply the same afternoon, Cheves told Grow that he would probably be reassigned to mechanization headquarters at Fort Knox or Fort Benning. He added, "very confidential, [it] looks like the Mech[anization] Force boys have won the day."<sup>14</sup> When Grow and his family returned to Fort Knox and

found that he was to be the G-3 of the division stationed at Fort Benning, he started studying organizational charts, concluding that the most difficult part of his job would be to "get the push into infantry tank regiments but that will be largely (Colonel) George Patton's job."<sup>15</sup> From the last of June until mid-July, the War Department set a rapid pace. On 30 June 1940, it selected Brigadier General Charles L. Scott, a cavalryman, to command the 2d Armored Division, at Fort Benning; Brigadier General Bruce Magruder, an infantryman, was to command the 1st Armored Division at Fort Knox; and Brigadier General Adna R. Chaffee was to command the I Armored Corps headquartered at Fort Knox.<sup>16</sup> The stationing of Scott and Magruder at their posts was apparently an attempt to alleviate hard branch feelings.

On 28 June 1940, the War Department had issued a directive recommending the initial composition of the general and special staff. One week later this recommendation was approved, listing specifically one commanding general, his aide, five general staff officers, a signal officer, an Air Corps officer, two adjutant generals (one regular and one reserve officer), an inspector general, a division quartermaster, an ordnance officer, a judge advocate, a finance officer, and one chaplain.<sup>17</sup> In its next directive, "Organization of Armored Force," issued 10 July 1940, the War Department stated that for the purpose of service testing, an armored force was created and would include all armored corps, division, and General Headquarters Reserve tank units. Brigadier General Chaffee was given two assignments: commanding general of the I Armored Corps (a tactical assignment) and Chief of the Armored Force (an administrative role).<sup>18</sup> The use of experimental armored force phraseology was in fact a successful effort to circumvent

the 1920 National Defense Act, which gave tanks to infantry, but failed to mention "mechanization", a phrase MacArthur used in 1930, or "armor", the phrase used in 1940. Thus the War Department by employing semantics, was able to create an Armored Force in the absence of Congressional action. Afterwards, perhaps by way of giving tacit approval, there was no action by Congress to do away with the Armored Force.

The American armored divisions were similar to those of Germany, but not a copy. In the German division was division headquarters, a reconnaissance battalion, a tank brigade of two regiments of about 450 tanks, an infantry brigade of two regiments, a motorized artillery regiment, an antitank battalion, a motorized signal battalion, and various service elements. The American division had a headquarters, an armored brigade of two light and one medium tank regiments, one armored infantry regiment, an armored field artillery regiment, one armored field artillery battalion, an armored engineer battalion, a signal company, and service units.<sup>19</sup>

The 2d Armored Division was activated on 15 July 1940 at Fort Benning, Georgia. At the first formation, there were about 99 officers and 2,202 enlisted men, mostly from the 66th Armored Regiment (Light) and a few cadremen of other divisional units. That same day Scott issued General Order Number One, assuming command of the division. Since the division at full strength was to have 530 officers and 9,329 enlisted personnel, this initial formation represented only a skeleton force.<sup>20</sup>

Organizationally, the 2d Armored Division was to have a headquarters and headquarters company, the 2d Reconnaissance Battalion (Armored), the 2d Armored Brigade (made up of the 66th and 68th Armored Regiments (Light) and the 67th Armored Regiment (Medium) and the 14th Field

Artillery Regiment (Armored), the 78th Field Artillery Battalion (Armored), the 17th Engineer Battalion (Armored), the 41st Infantry Regiment (Armored), the 48th Signal Company (Armored), the 17th Ordnance Company (Armored), the 14th Quartermaster Battalion (Armored) and the 48th Medical Battalion (Armored). The Chief of Cavalry was ordered to provide officers for the reconnaissance battalion, while the Chief of Infantry was to provide officers for the three tank regiments, the infantry regiment, and the headquarters of both the division and brigade. The Chiefs of Cavalry and Infantry also were to assign officers who had either tank or mechanized cavalry experience. When the officers reported for duty they were not reporting for duty in a particular branch. The tank section of the infantry school would be used to teach the officers and enlisted men of the Armored Force, and Chaffee was authorized to move the school to Fort Knox, Kentucky if he thought it proper, which he did later.<sup>21</sup>

The two light tank regiments, the 66th and 68th, which traced their lineage and continuous active duty to the World War I Tank Corps and Tank Service, were organized into three battalions, a machine gun company, a reconnaissance company, a service company, and headquarters and headquarters company. There were to be 91 officers, 1,405 enlisted men, 82 scout cars, and 136 light tanks per regiment. The force began assembling. The First Battalion, 66th Armored stationed at Fort Meade, Maryland, was moved to Fort Benning and became the Second Battalion of the 68th Armored. It was to leave twenty of its tanks at Fort Meade to equip the 70th Tank Battalion (Medium). The Third Battalion, 66th Armored, had been moved from Fort Devens, Massachusetts to Fort Benning in January 1940. At this time (July 1940),

part of the Second Battalion, 68th Armored, which began leaving Fort Lewis Washington, left its tanks and equipment at Fort Knox, while the personnel moved on to Fort Benning. By the end of July, most of the light tank regimental cadre had either arrived or were enroute to Fort Benning.<sup>22</sup>

Originally, the medium tank regiment, stationed at Fort Meade, Maryland, was to be the 70th Tank Regiment. Because of a pencilled change in the War Department directive, the 70th Tank Regiment became the General Headquarters Tank Battalion and the 67th Tank Regiment, already stationed at Fort Benning, became the 2d Armored Division's medium tank regiment. The regiment was to have a headquarters and headquarters company, and two tank battalions of three companies each, with 64 officers, 1,047 enlisted personnel, 9 scout cars, and 110 medium tanks. The third battalion of the 67th Armored Regiment was to be sent to Fort Knox to become the 69th Armored Regiment of the 1st Armored Division. When the battalion transferred, near the end of July, it left the 2d Armored Division with only eight medium tanks with which to train. Grow hit upon the idea of substituting light tanks for use in driver and maintenance training.<sup>23</sup>

The infantry regiment, the 41st Infantry Regiment (Armored), was reactivated after being inactive since 1921. It had 63 officers and 1,526 enlisted men forming a headquarters and headquarters company, a service company, an antitank company, and two infantry battalions with three rifle companies and a heavy weapons company. The War Department directed that the Second Battalion, 6th Infantry Regiment, would be transferred to Fort Knox, to become the 1st Armored Division's infantry regiment. The men and equipment would be sent to Fort

Benning to create the 41st Infantry Regiment (Armored). By the latter part of August 1940, the men began to arrive at Fort Benning, moving into tents because of the lack of permanent type buildings.<sup>24</sup>

The artillery components, a regiment and a battalion, were redesignated from existing organizations. The 14th Field Artillery (Regiment) (75mm guns, horse drawn) was renamed the 14th Field Artillery (Armored), while the 78th Field Artillery (75mm guns, truck drawn) was redesignated the 78th Field Artillery Battalion (Armored). Personnel and 2 batteries of the 68th Field Artillery Regiment (Armored) of the 1st Armored Division, were transferred to Fort Benning to form the nucleus of the 14th Field Artillery (Armored). The 14th Field Artillery had 37 officers, 822 enlisted men, and four firing batteries of six guns each (75mm howitzers). The 78th Field Artillery Battalion (Armored) had 28 officers, 659 enlisted men, three, six gun batteries armed with 105mm howitzers and an antitank gun battery with eight 75mm antitank guns. On 24 July 1940, about 650 men arrived at Fort Benning to form the cadre of the 14th Field Artillery (Armored), as well as the reconnaissance battalion, quartermaster, signal and engineer units. On the same day that the Third Battalion, 67th Armored Regiment left for Fort Knox, 165 men arrived to man the 78th Field Artillery Battalion (Armored).<sup>25</sup>

The 2d Reconnaissance Battalion (Armored) was a new unit, activated on 15 July 1940. It was to have 29 officers and 554 enlisted men in two reconnaissance companies, an infantry company, and a light tank company. The 13th Armored Regiment (Light) of the 1st Armored Division was to transfer a machine gun platoon and reconnaissance platoon to Fort Benning. On 24 July 1940 the first 89 men arrived and the cadre,

coming from the 2d, 3d, 11th, and 14th Cavalry Regiments (Horse) was completed on 11 August 1940.<sup>26</sup>

The Department of the Army withdrew the 17th Engineer Battalion (Heavy Pontoon) from II Corps, renamed it the 17th Engineer Battalion (Armored), and stationed it at Fort Benning as a component of the 2d Armored Division. The battalion was to have 20 officers and 463 enlisted men in its battalion headquarters, headquarters company, and three line companies. An important element was its reconnaissance platoon which some other components of the division did not have. The primary reason for this unit was that the engineers would be well forward in the columns and would need to know enemy strength, location, and disposition, as well as terrain and obstacles that could delay the division's advance.<sup>27</sup>

The remainder of the division's elements were service units whose main purpose was not to engage in combat but to support the division. The 48th Signal Company (Armored) was brought on to active duty 15 July 1940. During the first week it was in existence, it cleared its area, raised its tents, built messing and sanitation facilities, and put in a switchboard which linked division headquarters with all the component elements. This signal company showed early in its existence that it would rely primarily on radio, rather than telephone or telegraph, as the primary means of communication. The reason was obvious, the division was 100 percent mobile and its communications had to be consistent with its speed.<sup>28</sup>

The 17th Ordnance Company (Heavy Maintenance) was renamed the 17th Ordnance Company (Heavy Maintenance) (Armored) and made a part of the 2d Armored Division. In November 1940 it was raised to battalion

level and redesignated as the 17th Ordnance Battalion (Armored). It was to have a strength of 8 officers and 194 enlisted men. The 14th Quartermaster Battalion (Armored) and 48th Medical Battalion (Armored) were newly activated units for the armored force. The quartermaster had 9 officers and 251 enlisted men, while the medical unit had 20 officers and 289 enlisted men. Six chaplains were to be attached to the medical battalion.<sup>29</sup>

The 2d Armored Division and its components were grouped into five echelons according to functions. Command rested with the division commander, his staff, and special staff. Reconnaissance was the duty of the 2d Reconnaissance Battalion (Armored) which was to move in front of the division, gaining information about the enemy and terrain. Working with the ground reconnaissance force were to be observation aircraft. The battalion was armored and could fight, if necessary, to gain information. The third echelon was the strike force built around the 2d Armored Brigade, the three tank regiments, and the artillery regiment. Assisting this group was the support echelon made up of the infantry regiment (referred to as the division trouble shooters), the engineers, and artillery battalion. Last was the service echelon, whose duty it was to keep the men and machines repaired, supplied, and in good health. To carry out this scheme, the division had about 700 armored vehicles, over 300 guns and howitzers, and more than 6,500 automatic and semi-automatic weapons. When moving, the Armored Brigade took up more than forty-one miles of road space, necessitating multiple columns. This may well have been a factor in creating combat teams.<sup>30</sup>

A pressing problem for the 2d Armored Division was finding quarters for the men. Fort Benning was the home of the Infantry School,



its support units, and the home post for the 4th Infantry Division. Permanent buildings were at a premium because of the Army's rapid expansion. The 2d Armored's headquarters was initially located in a former red brick mess hall which had been condemned several years before; its roof was falling in and had to be propped up. Elements of the division, living in tents, were scattered from Harmony Church to Lawson Field, a distance of about eight miles. While looking over possible tent sites for the various units, Grow picked a likely cantonment area where permanent buildings would be built. One unit, the 68th Armored Regiment, was located near Harmony Cemetery. Grow noted that new problems were arising all the time, but some progress was being made. It would take some time to make the division a fighting force.<sup>31</sup>

The most serious problem facing the division--training, was complicated by many factors beyond anyone's control. The division was short of personnel, equipment, clothing, quarters, and maintenance areas. A directive from the Commanding General of I Armored Corps, stated that the division would be ready for battle, with such men and equipment as it had, by 1 October 1940; a mere three and one-half months to convert an untried organization into a combat-ready force. To help solve part of the problem, the two armored divisions were removed from corps area control and enjoyed a semi-autonomous status, responsible to the Chief of the Armored Force, who being also the Armored Corps Commander, could deal directly with General Marshall and the War Department.<sup>32</sup>

Colonel George S. Patton, Jr., arrived at Fort Benning on 27 July 1940 to command the 2d Armored Brigade. As far as the division G-3 was concerned, Patton was responsible for brigade training. The problem

which faced the brigade commander was inadequate morale and material. The troops were neither highly motivated, nor accustomed to Patton's views on discipline. Some officers looked on their assignments as chores to be endured and not as challenges to be overcome. These early days tested the ingenuity and patience of both the officers and the men. There were few precedents for organizing an armored division, little equipment, and insufficient time to learn by trial and error.

Scott told Chaffee that it was impossible to train properly because of equipment shortages. Citing individual weapons, he reported that the division was short 4,297 pistols, 495 M-1 rifles, and 1,381 sub-machine guns. Revolvers of commercial manufacture could be substituted for pistols, but no proper substitutes could be found for the other weapons. In the crew-served weapons category, the division needed 120 machine gun mounts for the scout cars, but they had none; they also required eighty .30 caliber machine guns and had only twenty-two; they needed forty .50 caliber machine guns, but had only seventeen. Since the 120 machine guns were to go in the scout cars which had no gun mounts, the machine guns on hand were of limited use. Finally, Scott said he needed ninety-eight 37mm guns for the M2A4 (light) tanks, but had only eighty-six. In the early phase the division trained with wooden guns.<sup>34</sup>

In spite of shortages in material and lack of permanent housing, recruits, mostly from the southern states, began arriving in August 1940 and training began in earnest. The armored division also drew visitors to see the progress made. General George C. Marshall arrived on 14 August, refusing to say if any more armored divisions would be activated. Two days later, Major General Adna R. Chaffee,

Chief of the Armored Force, received the first formal escort, by elements of the 66th Armored Regiment, which the division conducted. Chaffee was optimistic that the division would have its equipment by fall, except for medium tanks, which would probably be available some time in 1941. He noted that recruiting parties were reporting that interest was high because the armored divisions offered opportunities for specialized training. The officers of the 2d Armored Division reported to Chaffee that the recruits were easy to train and quick to learn.<sup>35</sup>

Trying to get materials, housing, training manuals, and weapons ranges was extremely difficult and caused a constant flow of letters between Fort Benning and Fort Knox. About three weeks after activation, Scott received six technical manuals on marching, advance guard, combat car drill, doctrine for small elements, and schools. Clothing created other problems. Originally the men were issued four shirts and three pairs of trousers each, but that had to be reduced to two shirts and two pairs of trousers. They were forced to use overalls in almost all their work because of the clothing shortage. Scott informed Chaffee that this situation, if it continued, could cause problems, because the men would not have uniforms to go on pass. Also at this time, Scott was trying to get \$570,000 to build eighty-two maintenance shops, pave roads, and build parking sheds for his vehicles, especially those with radios. In October 1940, Lieutenant Colonel Ernest N. Harmon, Armored Force G-4, and a future commander of the 2d Armored Division, told Scott that he had approval to spend \$32,000 to build arms and radio storage buildings at Fort Benning. The division also needed ranges and was able to arrange priorities

with the post headquarters. Scott told the Commandant of the Infantry School that he would need the following kinds of ranges: a moving vehicle range, moving target range, tank combat range, infantry combat range, and an antiaircraft range.<sup>36</sup>

Another problem faced by the division was the temporary loan of personnel to attend the Armor School at Fort Knox. In October the division sent 100 vehicles and 773 men to Fort Knox for three months of schooling in radio maintenance, gunnery, and automotive maintenance. These men represented a cross section of recruits and veterans. Since they drove to Fort Knox, the trip was used to give the drivers experience in convoy operations and as a test of the equipment. In mid-February 1941, the division had to supply seventy-two enlisted men to be instructors at the Armor School; at the same time it sent 176 more students there for training. In January 1941, thirty lieutenants had returned from a four week gunnery school where they had learned to use all the weapons of the division. Now their mission was to train their units. On February 21, the officers began their attendance at a three week aerial observer school, an indication of the importance the division placed on aerial observation.<sup>37</sup>

The decision to activate an armored force of two divisions, while the product of the European war, was influenced by those who had been actively involved with infantry tanks and the mechanized units. The directives published by the War Department reflected the theory and doctrine which had evolved during the previous two decades.

The Army originally had had its armored troops scattered in company or battalion size units in many different locations. The various elements had to be brought together and fitted into a smoothly

functioning whole, a task that could cause considerable difficulty.

The organizational problems were partially eased by assigning officers and enlisted personnel to the new force who had served in either the old tank units or the old mechanized force.

FOOTNOTES

<sup>1</sup>United States House of Representatives, 76th Congress, 3d Session, Committee on Appropriations. Military Establishment Bill for 1941 (Washington: Government Printing Office, 1940), pp. 5-6, 22.

<sup>2</sup>Ibid. pp. 674-676, 682; Herr and Wallace, The Story of the U.S. Cavalry, pp. 258-261; Howe, The Battle History of the 1st Armored Division, pp. 5-6; Gondek, "Operation of Cavalry Reconnaissance Squadron Integral to the Armored Division," pp. 16-17; Nenninger, "The Development of American Armor, 1917-1940," p. 185.

<sup>3</sup>Grow, "Ten Lean Years," p. 116, and Robert W. Grow, Manuscript Diary, 4 July 1940, Grow Papers.

<sup>4</sup>Brigadier General Frank M. Andrews to General George C. Marshall, "Mechanization," G-3/41665, 5 June 1940, pp. 1-2, Record Group 407, National Archives, Washington, D. C.

<sup>5</sup>Ibid., Tab B.

<sup>6</sup>Ibid., Tab E.

<sup>7</sup>Ibid., Tab D.

<sup>8</sup>Ibid., Tab F, pp. 1-3

<sup>9</sup>Lieutenant Colonel Jonathan W. Anderson to Brigadier General Frank M. Andrews, "Mechanization," G-3/41665, 23 June 1940, and Major General Julian L. Schley to Brigadier General Frank M. Andrews, "Engineer Component for Armored Division," AF 320.2 (6-22-40) M (Ret), 22 June 1940, Record Group 407.

<sup>10</sup>Major General George A. Lynch to General George C. Marshall, "Mechanization," 22 June 1940, *ibid.*

<sup>11</sup>Major General John K. Herr to Brigadier General Frank M. Andrews, "Organization of the Armored Force, Your G-3/41665," AF 320.2 (10-2-40), 19 November 1940, AG 320.2, 7 December 1940, *ibid.*

<sup>12</sup>Ibid.

<sup>13</sup>Grow, Manuscript Diary, 4 July 1940, Grow Papers.

<sup>14</sup>Ibid., 26 June 1940.

<sup>15</sup>Ibid., 9, 11 July 1940.

- <sup>16</sup>Columbus Ledger, 16 July 1940, p. 3.
- <sup>17</sup>Brigadier General William E. Shedd to General George C. Marshall, "General and Special Staff, Armored Divisions and Armored Corps," G-1/13864-328, 28 June 1940, and Major General E. S. Adams to Chiefs of All Arms and Services and All Corps Area Commanders, "General and Special Staff, Armored Division and Armored Corps," AG 320.2 (6-21-40), O-A, 3 July 1940, Record Group 407.
- <sup>18</sup>Major General E. S. Adams to Commanding General of All Armies, Corps Areas, and Panama Canal Department; Chiefs of Arms, and Services; and Commanding Officers of Exempted Stations, "Organization of Armored Force," AG 320.2 (7-5-40) M (Ret) M-C, 10 July 1940, p. 1, *ibid.*
- <sup>19</sup>Frederick M. Barrows, "Streamlining the Offence: the Evolution of the Panzer Division and its Place in Blitzkrieg," Command and General Staff School Military Review, Vol. XXI, No. 80 (March, 1941), pp. 12, 15.
- <sup>20</sup>Second Armored Division, General Order 1, 15 July 1940, Record Group 407; E. A. Trahan, ed., A History of the Second United States Armored Division (Atlanta: Albert Love Enterprises, 1946), not paged.
- <sup>21</sup>Adams, "Organization of Armored Force," pp. 2-3, 9-10, Record Group 407.
- <sup>22</sup>*Ibid.*, pp. 2-3, Inclosure I, pp. 1, 4; Grow, Manuscript Diary 31 July 1940, Grow Papers; Message, Commanding General Fort Devins to Headquarters Infantry School, 4 January 1940, Record Group 407.
- <sup>23</sup>Grow, Manuscript Diary, 23 July 1940, Grow Papers; Adams "Organization of Armored Force," p. 2, Inclosure I, pp. 1, 5, Record Group 407.
- <sup>24</sup>*Ibid.*, pp. 3-4, Inclosure I, pp. 1, 7-9; Grow, Manuscript Diary, 30 July 1940, Grow Papers; Columbus Ledger, 18 August 1940, p. 4.
- <sup>25</sup>Adams, "Organization of Armored Force," pp. 2-3, 5, Inclosure I, pp. 1, 6, 9, Record Group 407; Grow, Manuscript Diary, 24, 29 July 1940, Grow Papers.
- <sup>26</sup>Adams, "Organization of Armored Force," pp/ 2-3, 9, Inclosure I, p. 3, Record Group 407; I. D. White, "Radio Address over Radio Station WRBL, Columbus, Georgia," 29 March 1942, White Papers.
- <sup>27</sup>Adams, "Organization of Armored Force," p. 5, Inclosure I. p. 6, Record Group 407.
- <sup>28</sup>*Ibid.*, p. 5, Inclosure I, p. 3; Columbus Ledger, 29 September 1940, p. 10.

<sup>29</sup>Adams "Organization of Armored Force," p. 6, Inclosure I, p. 10; Brigadier General Frank M. Andrews to Major General E. S. Adams, "Redesignation of Ordnance Companies," G-9/42940, 14 November 1940, Major General E. S. Adams to Major General Adna R. Chaffee, "Redesignation of Ordnance Companies," AG 320.2 (11-14-40) M (Ret) M-C, 22 November 1940, and Second Armored Division, General Order 23, 27 November 1940, Record Group 407.

<sup>30</sup>"Organization of New American Armored Corps," Cavalry Journal, Vol. XLIX, No. 4 (July-August 1940), p. 317.

<sup>31</sup>Alfred E. McKenny, "The New Benning," Infantry Journal, Vol. XLVIII, No. 1 (January 1941), pp. 10-12; Grow, Manuscript Diary, 18-21, 26 July 1940, Grow Papers.

<sup>32</sup>2d Armored Brigade, Training Memo 3, 12 August 1940, Record Group 407.

<sup>33</sup>Grow, Manuscript Diary, 27 July 1940, Grow Papers.

<sup>34</sup>Trahan, ed., A History of the Second United States Armored Division, n.p.; C. L. Scott to Adna R. Chaffee, 9 September 1940, Record Group 407; B. H. Rutland to I. D. White, 8 November 1957, White Papers.

<sup>35</sup>White, "Radio Address over WRBL," White Papers; Grow, Manuscript Diary, 16 August 1940, Grow Papers; Columbus Ledger, 15 August 1940, p. 2, 16 August 1940, p. 2.

<sup>36</sup>Jack W. Heard to C. L. Scott, 6 August 1940, C. L. Scott to Adna R. Chaffee, 12 September 1940, E. N. Harmon to C. L. Scott, 8 October 1940, and C. L. Scott to Commandant, Infantry School, 24 September 1940, Scott Papers; Grow, Manuscript Diary, 8 August 1940, Grow Papers.

<sup>37</sup>White, "Radio Address over WRBL," White Papers; Columbus Ledger, 31 October 1940, p. 10, 31 January 1941, p. 17, and 18 February 1941 p. 12.



## CHAPTER V

### THE BENNING ERA: TRAINING AN ARMORED DIVISION

Brigadier General Scott expressed his concept of armored warfare to Brigadier General Robert C. Foy. An armored division, he said, was similar to a cavalry division, except that the men rode in armored vehicles instead of on horses. In an orientation address to new officers in the division, Scott built on the theme. An armored division attempts to find weak spots in enemy defenses, penetrates to the rear, and then spreads out to cut communications and supply lines. It endeavors to drive the adversary into a holding force for destruction. Tanks are helped through enemy opposition by support units which quickly follow, taking advantage of the shock generated by the tank attack. A standing operating procedure, attempting to cover every situation that an enemy or terrain could present, should not be developed. To do so, Scott thought, would result in mental rigidity. Cooperation between tanks and all other divisional units would overcome enemy opposition; teamwork had to be practiced on all occasions. Coordination between the assault and support groups was paramount to success.<sup>1</sup>

An armored division, Scott maintained was an offensive, aggressive weapon. Its most valuable attribute--surprise--was achieved by speed, direction of attack, and continual forward movement. It used mobility to choose the best direction to attack and to reach the enemy's rear areas. All combat elements of the division had one common factor:

when meeting the enemy, a base or pivot of fire was to be established while other divisional elements ~~maneuvered to strike the flanks or rear~~ of the adversary's position. The maneuver could be a single or double envelopment or penetration, depending on the enemy and the terrain, but fire superiority was to be established when the advance guard was unable to move forward.<sup>2</sup> The procedure Scott described, pivot of fire and maneuver, is the same that Patton called "grabbing the enemy by the nose and kicking him in the pants."<sup>3</sup> This is the same situation variously depicted in every grade B Western movie. The "good guys" have the villain pinned down in the rocks or a barn. One good guy says to the other, "keep him busy and I'll slip around behind him." The bad guy has one of three choices: he can fight, usually getting killed, he can surrender, usually offered, or he can run. Any enemy force had the same options and the same results. Repeatedly, during World War II, the 2d Armored Division employed this device successfully.

The division accepted Major General Chaffee's idea that an emergency existed. Scott and Patton stressed unit training and divisional maneuvers. The men received squad, platoon, company, and battalion training, and were required to display their skills in regimental, brigade, and divisional exercises. The soldiers, receiving simultaneous training at both small and large unit level, hopefully would learn their assignments in a minimum of time. Scott instituted a division officers school where tactics, methods, strengths, and limitations of each unit were discussed. In addition, it served as a forum for the division and brigade commanders to express their views about dress, military courtesy, care of men, and social diseases. In November 1940, about the time that Patton assumed command of the division, the officers school was changed to a tactical school for unit commanders and their staffs.<sup>4</sup>

As the division started training, its first major objective was to examine and eliminate mistakes made in the 1940 Louisiana maneuvers. Apparently reconnaissance and scout cars had been used as tanks. This was a mistake, as these vehicles had only a minimum of armor and should fight only when forced to do so. Patton cautioned the reconnaissance elements to use binoculars to scout ahead, and before crossing a ridge or moving around a curve, a foot reconnaissance should be conducted to see if any enemy was present. The foot scout should be protected by the weapons of the reconnaissance force. When approaching cross roads, they were to stop the vehicles on the friendly side and proceed on foot. This could prevent the enemy from cutting an escape route if it were needed. Every element should put out flank guards when halted; some units had not done this in Louisiana and had been surprised. If a column was attacked by aircraft, it should fire back; if not seen, it should hide and keep quiet. When any part of the command was hiding, it should be well off the road, with glass, such as windshields and lights, covered, and use fresh camouflage materials. Vehicles should be refueled at every opportunity or each halt.<sup>5</sup>

The first driving lesson, especially for tanks, was to familiarize the driver with the controls and let the student drive the vehicle. In the second lesson, the student had to drive the tank with the ports closed, in tank terminology, he had to drive it "buttoned up." After the third lesson, the driver had to be able to maneuver in platoon formation, obeying flag signals. The tankers fired all vehicular weapons during the first month of training. To instill a fire and maneuver spirit, the men were taught that they fired to be able

to move, and not that they fired or moved. On all marches and maneuvers, combat vehicles were to move in battle order, with all weapons and ammunition racks mounted and all pistol ports closed.<sup>6</sup>

Patton began to stamp his personality on the 2d Armored Brigade. He told his subordinates to "remember that your command is not only yours, but it is you." Training Memorandum Number 7 detailed the tactical training program and the objectives. The division was to be ready to take the field by 1 October 1940, and at the same time it was to train a 25 percent increase of personnel by the same date. The 1st and 2d Armored Divisions were to provide cadres for the projected activation of the 3d and 4th Armored Divisions. Training would be concurrent, it would conform to existing field manuals, and there would be frequent tactical exercises, in which all available personnel, equipment, and vehicles would participate. Tactical training was to include antiaircraft defenses, offensive and defensive operations against other armored forces, night operations, defenses of bivouac areas, and protection of the supply and maintenance columns. Also included was reconnaissance and security; communications, both by radio and motorcycle messenger; and maintenance and camouflage training. The teaching was designed to instill a will to fight into the command.<sup>7</sup>

The first division exercise was simple, designed to acquaint all personnel with the size of the division. The problem scenario envisioned a mythical enemy attacking Fort Benning. The 2d Armored Division was to move to assembly areas preparatory to attacking the adversary. The move, led by Major I. D. White's 2d Reconnaissance Battalion (Armored), was followed by the three armored regiments, supported by the 17th Engineer Battalion (Armored) and the 14th Field Artillery

Regiment (Armored). The 41st Infantry Regiment (Armored) and the 78th Field Artillery Battalion (Armored) were to follow the tank regiments and consolidate the captured positions. The division moved out and halted on three roads so that Scott could inspect their formations and dispositions. After inspection, the troops moved to and established their assembly areas, which were also inspected; then, without launching an attack, they returned to the post.<sup>8</sup>

The exercise, which had included about 350 vehicles (200 were tanks), was considered a success overall. Especially pleasing to Lieutenant Colonel Grow was the performance of the 66th Armored Regiment (Light) and the two artillery units, but he felt that the 41st Infantry Regiment (Armored) had the poorest march disposition and discipline. There was only one major problem, the division headquarters' radio failed. Patton was pleased with his brigade's overall appearance and remarked that the deficiencies noted were "conspicuous due to rarity." His complaints concerned the following: officers and men sitting in vehicles in an unsoldierly manner, some with their feet outside the vehicle; some men had been smoking in the vehicles; some vehicles did not have their tops down; and the distances between vehicles (50 yards) as well as the interval between companies and battalions (150 yards) was not always maintained.<sup>9</sup>

On 18 September 1940, when the division conducted its first dismounted review with about 8,000 men assembled, it was the first time the division had been together as a whole. Patton commanded the parade, while Scott, the reviewing officer, trooped the line in a scout car. The Columbus Ledger called it a "spectacular scene." Grow observed that the uniforms looked better than expected, and that

the units in cavalry boots looked better than those without boots. Scott reported later to Chaffee that while the units looked and marched well, the 2d Armored Division was still not receiving sufficient clothing. Clothing and a soldierly appearance were also concerns of Colonel Patton. In a training memorandum, unusual because it was over Patton's signature, not the Brigade S-3's, he stated that many soldiers had been seen in downtown Columbus, wearing dirty uniforms, drunk, hitchhiking, or in the colored people's part of town. While none of these persons were members of the 2d Armored Brigade, he pointed out that an "ignorant recruit could cause problems." He then stated what was to become one of the division's hallmarks: "the foundation of the state of military perfection we propose to attain rests in soldierly pride in dress, and behavior on the part of every officer and man. Once this state of mind is secured, organizational excellence follows naturally and easily." The meaning was clear and did not need to be repeated.<sup>10</sup>

Early in September, the division was alerted to receive some foreign delegations the following month and to be prepared to conduct a demonstration of an armored division attack. The division's solution was to draw up a problem, Combat Exercise A, which became the standard demonstration exercise for all visiting dignitaries. The exercise, built in successive stages, began with artillery concentrations on the initial objectives, followed by machine gun, mortar, and bombing attacks. With the initial objective under fire, the reconnaissance battalion was to advance, followed by the three tank regiments, then the supporting infantry was to follow to mop up and consolidate the positions. On 1 October, when the division conducted three practice

sessions, it concluded that the area was too small for all units to be properly deployed, but satisfactory considering the number of men and the amount of equipment.<sup>11</sup>

An extremely busy day for the division occurred on 3 October. In the morning there was a hastily called ceremony with salute guns to congratulate Scott and Patton on their promotions. Scott received his second star and Patton his first. According to division legend, Scott turned to Patton and said, "Well, George, they just promoted the two most profane men in the Army."<sup>12</sup> Neither had too much time to consider their promotions, for their twenty South American visitors were to arrive that afternoon. For this group, the division staged a review of two light tank battalions, a medium tank company, two field artillery batteries, two infantry companies, and a motorcycle platoon, followed by a reception at the officer's club. The next day the division went through Combat Exercise A. While to the untrained eye all went well, the commanders noted that the tanks were sluggish, failing to perform as combat cars, but the infantry, engineers, and artillery did a good job.<sup>13</sup>

Two weeks later, on 17 October, the division again went through its exercises for more foreign visitors, and the tanks made a better showing. A month later, giving the demonstration for Secretary of War Henry L. Stimson and retired Major Generals Paul B. Malone and Harold B. B. Fike, the timing was off and the tanks attacked before the bombers flew over. Later in the same month, at a demonstration for newsmen, it rained, grounding the bombers, but the other elements of the division gave an excellent demonstration. In December and

January, more demonstrations for a National Guard General Officers Class were conducted. The December exercise was an excellent show, but the January one was superior because of improved communications with the 27th Bomb Group. Lieutenant Colonel Grow probably echoed the thoughts of other cavalymen in saying that the more he saw of Combat Exercise A the more it appeared "that this division has a cavalry role and we should be cavalry, not a separate arm."<sup>14</sup> While the demonstrations permitted the division to show its collective skills, impressing the inexperienced eye, unit training continued in order to smooth out the rough spots.

On 10 October the 2d Armored Division had conducted its first overnight problem. The primary goal was to establish bivouacs and post security guards, and while the men did well overall, a lot of routine problems arose which would have to be solved; for example, some units were slow, and one seemed to want everything done for it.<sup>15</sup>

While the desire to have the division, or the available elements, combat ready by 1 October 1940 was a worthy goal, it was hardly realistic. Colonel Alvin C. Gillem, commanding officer of the 66th Armored Regiment, conducted a regimental officers conference on 17 October. Discussing the organization of the Armored Brigade, he showed that the 66th Armored had a regimental headquarters company and three light tank battalions; the 68th Armored Regiment had two battalions organized from individual companies and platoons, and the 67th Armored Regiment had a headquarters company and two medium tank companies. Neither the 67th nor 68th had any personnel allocated for headquarters; the 66th had six tank battalions, but they had no maintenance or service companies to support them. The 66th regimental headquarters had become the



provisional brigade headquarters and was working directly with the battalions.

Colonel Gillem was convinced that tank regiments should have the same strength in war or peace. He stated that the division's training was hurt by a lack of training directives from the War Department, with the guidance for training coming from Patton's brigade headquarters. Later the Armored Force learned that the War Department had deliberately done this, forcing the people on the spot to think and act for themselves. Gillem pointed out that when problems had arisen, solutions had been found. A means had been found to pass tanks through ground troops and to use supporting fire while other tanks or infantry attacked. The concept of having tank and other units training together was especially valuable. All men were to be skilled in reconnaissance, combat, intelligence, map and aerial photo reading, driving, shop and field maintenance, radio and basic tank communications, gas training, camouflage, tank tactics, and platoon, company, and battalion day and night operations. Gillem was stressing another trademark of the division: every man in a unit was trained to do the job of anyone else. The insistence placed on that ideal was to have immeasurable results during combat.<sup>16</sup>

To the regimental commander of the 66th Armored Regiment, maintenance was a serious problem. The division hoped to have one type of light tank by 1 January 1941, but actually had three. In addition, there were seven types of engines, both gasoline and diesel, six types of generators, five different types of starters, and three different voltage regulators. The tanks were prime candidates for the junkyard; repair parts were unavailable through normal supply channels. An

unconfirmed but often repeated story is that Patton heard a soldier say that back home, when needing some repair part, he ordered it from Sears, Roebuck, and Company. The commander is supposed to have ordered the needed parts and paid for them himself.<sup>17</sup>

In December 1940, after Scott became Commanding General of the I Armored Corps, and Patton had assumed command of the division, he told Patton that he had just stopped a news story to the effect that American tanks were junk, that ordnance was not trying to solve the maintenance problem, and that the Armored Force was the Army's step child. Some of the allegations, Scott said, were half truths, while others were totally false. In the future, he warned, the I Armored Corps Commander would be the spokesman for armor, and anyone else who was critical would be disciplined. The officers of the Armored Force were to accept the issued equipment, learn to use it properly, teach their men to have confidence in it, or "we become a rabble."<sup>18</sup>

Patton began his tenure as division commander with plans to take the division on a 600 mile road march to either Panama City, Florida or Valparaiso, Florida, in December. Lieutenant Colonel George L. King, assistant G-3, and Major Redding F. Perry, division G-4, made an inspection trip and recommended that Panama City be the site. It offered better facilities such as water, fuel, food, recreational activities, and easier accessibility.<sup>19</sup>

King recommended that the march be undertaken 12 to 17 December, regardless of limitations and shortages. He felt that the advantages of marching, camping, and resupply far outweighed the disadvantages; it would provide a nucleus around which to build. He estimated that 22 officers and 1,035 enlisted men would be left behind because of

schools and other duties. Patton approved the plan and sent a convoy to Fort Knox to return some trucks that had just taken students to the Armored School. Alerting the division for the march, priorities for personnel were established. Emphasis was placed on officers who had not made such a march, noncommissioned officers, prospective non-commissioned officers, drivers, maintenance, and communications specialists. To make room for the maximum number of troops, personal baggage was to be limited; the men could have only three blankets apiece.<sup>20</sup>

Training Memorandum Number 37, issued on 6 December 1940, stated that the purpose of the march was to perfect march discipline, formations and procedures; bivouacs; ground and air reconnaissance; march security, control, and communications; and supply and field maintenance. To do this, the division was to move in two columns of approximately equal strength, with tanks in both columns. The 2d Reconnaissance Battalion (Armored) and the 16th Observation Squadron of the Air Corps were to furnish route reconnaissance. Gasoline was to be supplied by Standard Oil of Kentucky and the Gulf Oil Company, while Texaco was to furnish the diesel fuel.<sup>21</sup>

Two days before the march began, the 2d Reconnaissance Battalion (Armored) conducted an initial route reconnaissance to determine the suitability of the bridges on the routes. They reported that one 300 foot wooden bridge between Eufaula and Abbeville, Alabama, had wooden pilings with a 6" x 12" floor; they recommended that not more than one vehicle be on the bridge at a time. The remainder of the Alabama (west) route was judged acceptable. The Georgia (east) route had several places that the reconnaissance battalion considered unsafe

for tanks. One stretch of Route 41 between Weston and Shellman was thought to be safe for reconnaissance vehicles only.<sup>22</sup>

The division's first public appearance was 12 December 1940 in its march from Fort Benning, Georgia to Panama City, Florida. In the convoys were 392 officers, 6,079 enlisted men, 101 light and 74 medium tanks, and approximately 1,000 other vehicles. The march started smoothly, with only a few minor problems, until about 1500 when it started to rain. This gave the men the opportunity to learn to stay dry in the field. One plane crashed and the division had to provide a guard and rush the pilot back to Fort Benning for medical treatment. Apparently no other problem was encountered as the division pulled into Abbeville and Blakely to refuel and spend the night. The 2d Reconnaissance Battalion (Armored) scouted ahead to determine if the route was possible. One road, Marianna to Clarksville, was impossible because of a washed-out bridge. Route 6, Clarksville to Kinard, was considered to also be impossible. The bridge west of Steam Mill had but a 4,000 pound weight capacity, limiting it to reconnaissance scout cars use. In Florida, Route 159 (Grand Ridge to the junction of Highway 126) was unsuitable for medium tanks, and the entire Route 159 road was thought to be suitable only for reconnaissance vehicles.<sup>23</sup>

The east column resumed moving at 0600, the west at 0700, and had no difficulty reaching Panama City that evening, after travelling 114 and 156 miles respectively. Grow passed the column several times, checking march discipline, which he judged to be excellent. Patton was pleased with the appearance of the soldiers and the discipline displayed on the march. The division spent two days at Panama City, resting, maintaining vehicles, and preparing to return on 16 December.<sup>24</sup>

On the return trip the Armored Brigade, the engineer and ordnance battalions, and detachments of the quartermaster and medical battalions constituted the west (Alabama) column. The east (Georgia) column had primarily wheeled vehicles, which could traverse lighter bridges. The columns left Panama City for Blakely, Georgia, and Abbeville, Alabama, at 0600 and in pouring rain, arriving late that afternoon. Grow expected Patton to order a surprise night march, and as a good G-3 should, he planned ahead, and started drafting orders for such a move, in case they were needed.<sup>25</sup>

The division commander did indeed order a night march. The call to arms came at midnight, with the advance guard to leave at 0135, while the main column (east) was to move out at 0200 and the brigade (west) at 0745. The division could possibly have made twenty-four miles per hour in full moonlight without vehicle lights. Moving the final eighty-three miles in three hours and forty-five minutes, the division concluded its march with an attack on Fort Benning. Scott told Chaffee that the division had an exceptionally good march and that the maintenance was extremely pleasing, because they had to tow only one tank into Fort Benning.<sup>26</sup>

The final report on the Panama City march was issued in late January 1941. It restated the purposes of the exercise: to give the men training in march discipline and field duties and to establish standard procedures for such movements. The units displayed very high standards in individual and unit training. While the weather had prevented extensive use of aircraft, each column was attacked, giving the men training in warning and the actions to be taken in such attacks. The reconnaissance battalion and regimental reconnaissance companies

received extensive training in scouting routes in unknown territory and reporting that information to headquarters. While each column used security detachments and practiced control, it was apparent that more drill was necessary. All elements of the division had received valuable training in supply and maintenance, with the engineer battalion getting training in strengthening bridges. It was learned that a night march, using vehicle lights, could cover about the same distance as daylight marching. The division also found that it could not rely on commercial agencies to supply gasoline, but rather that the quartermaster battalion should have that assignment. It was decided that tanks needed to carry enough gasoline to cover 130 miles, while other vehicles should carry enough to cover 150 miles.<sup>27</sup>

Discipline had been excellent on the march. In Panama City, about seventy-five men were returned to their units by the Military Police, but no charges were filed against them. Only four serious cases arose: a reported radio theft from a radio station; a citizen reported a robbery of \$24.00; a knife assault case; and one stolen bicycle, which resulted when a drunken soldier rode off on a child's bicycle. Only two of the incidents resulted in court martial charges being filed.<sup>28</sup>

Before and after the Panama City march, each type of platoon in the division conducted demonstrations showing its capability. These were not to be school solutions, but a means of stimulating discussion and solution finding. The 41st Infantry Regiment (Armored)'s "platoon problem A" was an assault against prepared defenses. Mortars, assault guns, and machine guns would begin firing on the objective, attempting to keep the defenders in their foxholes, and then the mortars would fire smoke to blind the defenders. The indirect fire weapons would

continue their shelling until the infantry platoon leaders requested that the fire be lifted, and then the platoon would launch its final assault to capture the objective. The 17th Engineer Battalion (Armored)'s demonstration involved obstacles that could stop tanks. Grow thought that railroad rails driven deeply into the ground would be effective. The tanks were also used to show that when rolling over prepared positions such as foxholes and machine gun nests, the occupant could escape injury if he stayed down, even when the machine gun nests were seven feet in diameter.<sup>29</sup>

Company exercises were conducted at the same time. The first series of exercises was designed to teach the men how to react to certain situations. Each company was to make a blind approach to the enemy. The men were to be brought under antitank fire to learn what to do to avoid it and the actions necessary to suppress antitank weapons. Once the enemy had been located, the company was to make an approach using covering tank fire to help them reach the objective. Once on the objective, the men had to consolidate it, prepare for counterattacks, and be ready to resume their own attack.<sup>30</sup>

The reconnaissance and machine gun companies were to give similar demonstrations. The regimental reconnaissance companies were to show how they moved when not in close proximity to the enemy, and its actions when it learned the enemy was nearby. Finally, it was to demonstrate how to overcome a defended roadblock that could hold up the column's advance. The machine gun company was to be part of the advance guard and show how it would react if the advance guard had to be deployed. It had to show how the machine guns would be used to cover a tank battalion attack, how it would give supporting fire, how to

protect an assembly area, and how to consolidate and hold a captured position.<sup>31</sup>

The units began to train utilizing the capabilities of other divisional elements. River crossings, perhaps one of the most difficult exercises, involved getting a protective force to the opposite bank, enlarging the bridgehead, building a ferry to get light tanks across, and then building a bridge so the whole division could cross. The reconnaissance company, 41st Infantry Regiment (Armored), devised a means to get its light vehicles across; it used the canvas of a large truck, made a raft, and pushed the vehicle across the river. In December the infantry and engineer units gave a "splendid demonstration" of an assault crossing of the Uaptoi River. Grow later noted, while watching an infantry tank team serving as the advance guard, that it was odd to see infantry acting like mechanized cavalry, and rated the 41st Armored Infantry Regiment as a good outfit.<sup>32</sup>

Colonel Paul W. Newgarden and Major Sidney R. Hinds, commander and S-3, respectively, of the 41st Infantry Regiment (Armored), were long-time tankers who realized that the armored infantrymen had to be in peak physical condition. They created a physical training program more rigorous than today's airborne requirements. Before the regiment would classify anyone as a soldier, officers and enlisted men alike had to be able to drop to a prone position and fire an aimed shot in less than three seconds. Within eight seconds, he had to rush forty yards and drop to a prone position. The infantrymen had to be able to chin himself six times, or three times with his rifle slung over his shoulder. He had to jump an eight foot ditch and march five miles within an hour.<sup>33</sup>



Late in October 1940, the 2d Armored Division was informed that it was to receive about 2,100 recruits and give them basic training. Then the recruits would be sent to the qualification ranges and learn to drive all the vehicles of the Armored Brigade. In addition, the division was to receive 133 newly commissioned and or reserve officers called to active duty, and would have to run a replacement depot for them. Scott told Chaffee that he would need to quarter the officers in tents, but he did not think it advisable to put the trainees in tents, especially when he found that the men were not to arrive until January 1941. He also said that he would need \$37,500 to establish the replacement center.<sup>34</sup>

The first groups of trainees--draftees under provision of the Burke-Wadsworth Act of 1940--arrived from Chicago. They went to the 2d Armored Division's replacement center, where they were clothed, fed, and assigned to barracks. They were to get twelve weeks of training; the first six would involve intensive basic; the second six, intensive training according to their job assignment. After twelve weeks, the men were to be assigned to training companies for intensive individual and small unit (squad, platoon, and company) tactical training. In one platoon at the replacement center, there were men from nine countries, the United States, Britain, Germany, Puerto Rico, Mexico, Italy, Czechoslovakia, Armenia, and the city of Danzig. Included in this group was a former officer in the Italian army and one soldier of fortune. A newspaperman, John P. McDermott who had a regular column "Inside the Outpost at Fort Benning," wrote an interesting, but humorous item, about recruiting for the division. It seemed that at an interview, a potential recruit admitted that he had no special skills

or abilities for any unit in the army: "Officer (unnamed) - What was your occupation? Recruit - I was a merry-go-round operator. Officer - Fine. You're just the kind of man we want. You'll feel right at home with the Second Armored Division."<sup>35</sup>

Representative James Wadsworth, Republican of New York and co-sponsor of the Burke-Wadsworth Act of 1940, who visited the 2d Armored Division's replacement center, found the food to be excellent. He also observed the division training with its 270 tanks and awaiting the delivery of others. He noted the good humor of the men, and that housing, clothing, training, and most important, morale, were high. An indicator of morale, social diseases, he found to be low. The men were even laughing at odd moments.<sup>36</sup>

The two existing armored divisions, the 1st and 2d became the parents of the Armored Force by providing trained cadres for the activation of the Third and Fourth Armored Divisions. During the training period, estimates varied as to how many officers and men would be lost with numbers varying from 600 to 900 officers and from 3,000 to 4,000 enlisted men. In April 1941, Brigadier General Alvin C. Gillem, with 687 officers and 4,875 enlisted men, went to Fort Polk, Louisiana, to activate the 3d Armored Division.<sup>37</sup>

Patton protested the loss of men. He pointed out to Scott that cadres for the replacement centers were taking a heavy toll of potential noncommissioned officer material and he foresaw making corporals of men with less than five months of service. Patton wanted to know the ratio of officers to noncommissioned officers that would be put into the cadre for the 3d Armored Division; he recommended 30 to 70 percent. If it were 50-50, then he thought the combat effectiveness of the 2d

Armored would suffer without making a "justifiable advantage" for the 3d.<sup>38</sup>

Scott, in a blistering reply to Patton's inquiry, stated that he was familiar with the problems. He knew the 2d Armored had lost men to create new units, and that the commanders had surplus qualified persons when compared to the World War I situation. The War Department, according to the I Armored Corps commander, wanted to expand the Armored Force as quickly as possible, by training as many men as it could. These objectives could not be attained if all the trained personnel were kept in one unit, leaving the newer ones with nothing. It was absurd, he reasoned, to think that division commanders could have fully trained units and expand at the same time. He then hit Patton sharply by asking, "how many experienced men did you have in your tank center overseas?"<sup>39</sup>

To help solve potential noncommissioned officer problems, Scott recommended that incoming personnel be screened to determine if any had had Citizens Military Training Camp or military school experience, some of which might be better noncommissioned officer material than persons serving their second or third enlistments. Reserve officers, he thought, were better than their World War I counterparts and in "many instances are better than some of the old crocks that have been floating around the Regular Army for the past 25-30 years." Scott was insistent that the newer divisions get their fair share of trained personnel. The I Armored Corps commander was considering moving the old division, brigade, and regimental commanders to the new divisions and turning the older units over to newer appointees. He declined to do that, but ordered Patton and Magruder, 1st Armored Division commander,

to pick the cadremen as if they were to command the new divisions themselves.<sup>40</sup>

In January 1941 the 2d Armored Division began intensive range and combat firing, combat exercises, and reconnaissance training. The 2d Reconnaissance Battalion (Armored) and the reconnaissance companies in the armored infantry regiment and the engineer battalion were to coordinate their efforts.<sup>41</sup>

Patton directed Major I. D. White, commanding officer 2d Reconnaissance Battalion (Armored) to devise and conduct tests for all the reconnaissance companies. The purpose was to test their reaction to conditions that they might encounter on the battlefield. It involved the reconnaissance of towns, routes, defiles, fords, bridges, terrain for use by combat elements, observation of hostile units, hostile encounters, establishing bridgeheads, guiding troops, self maintenance when operating alone, and above all reporting the information back so that it could be used. The test was to cover twenty-four hours, need gasoline for 150 miles, and have twelve phases from the reception of the warning order to the execution of the mission.<sup>42</sup>

The tests revealed what many had thought; all personnel needed more training in scouting and patrolling. Foot patrolling, vital at times, slowed down the units, but speed could be made up between critical areas. Proper reconnaissance could only be done if the reconnaissance unit were given a sufficient lead time. It could not be done from fast moving vehicles. All men had to be completely informed about a mission. During the test, one platoon leader, First Lieutenant John Tyler of the 66th Armored Regiment, was injured and could not continue. His platoon sergeant assumed command of the platoon,

finished the test, and scored the highest of any unit tested.<sup>43</sup>

Shortly after the division was activated, Scott noted that the ground and air force needed coordinated training with both observation and combat aircraft. He recommended that observation aircraft be attached to the division for use by the commanding general and the brigade commander and their staffs. In February 1941, the 4th Infantry Division (Motorized), the 501st Parachute Battalion and the 2d Armored Division tried to work out the problems: of minimum bomb distances, minimum altitude for attacks, communications, means to signal the end of an air attack, means to call for an air attack, and how to give proper target designations. Some method had to be found to identify friendly troops and aircraft from those of the enemy. How could the two coordinate an air-ground attack and what kind of targets would be proper for an air attack? How much lead time was needed, and who would control the aircraft, all were questions that needed answering.<sup>44</sup>

The first test in February 1941, had the 2d Armored Brigade attacking the 41st Infantry Regiment (Armored). The bomb group that was to support the brigade was stationed in Atlanta. The infantry regiment stopped the tanks, who in turn sent out a call for air support. The bombers were in the air in ten minutes and attacked fifty minutes after getting the call. The communications between the ground and the airplanes worked beautifully, but the airmen hit the wrong target. However, they did hit the enemy artillery about two miles away. Later the bombers accurately attacked a second target and needed only five minutes. The moral of this as Grow saw it was that these procedures needed practice: "you can't do them by theory."<sup>45</sup>

Air control was a problem, recognized as such, and both the Air Corps and the ground forces were working to find the solution. Scott told Patton that both had a lot to learn and probably they would not get very far until the Air Corps worked with the ground troops every day. The best answer had apparently not occurred to either branch. Hinds recalled that air-ground work improved when the Air Corps put a pilot into a tank and he went into combat with the ground forces in 1944.<sup>46</sup>

Patton wanted another exercise stressing that an armored division did not attack strong points, if it could find a weak spot or get on the enemy's flank. The operational theory behind an armored division was changing; instead of being a weapon for the reduction of strong points, it now avoided strongly held positions if possible. The armored division was not a great rushing mass of tanks but a spear thrust through weak spots, then fanning out behind the enemy, trying to cut supply and communications lines, and attacking reserve areas and command posts. It operated in conjunction with other forces or alone. The armored division was a powerful instrument, but had limitations, for it was thought to be sensitive to terrain, and its utility could be reduced in mountains and in marshy areas; also, it was weak in holding power.<sup>47</sup>

The division began extensive field work in April and May 1941, preparing for the summer and fall maneuvers of that year. The first of a long series of problems was held on 2-3 April when the division went on a march to a concealed bivouac, and practiced supply and servicing under blackout conditions. The march out was ragged and sloppy because of so many new men, but the bivouac and resupply problem went

well. The next morning after breakfast the division rolled into post for a mounted review, which was held in a driving rain. Patton told the assembled division, about 14,000 men in 2,500 vehicles, that "armored and air warfare makes higher demands on courage and discipline than have ever before been experienced by the fighting men of our race." The review went fairly well, except when passing the reviewing stand the columns were ragged and a traffic jam occurred because people did not do what they were told to do.<sup>48</sup>

Later in April, the division put on the same problem for Major General Chaffee. Grow, while checking the columns from the air, had to drop messages to them because his radio failed. After the exercise, Chaffee addressed the officers, pointing out that the vehicles were not displaying the proper identification panels for aircraft, and that some drivers were going around corners too fast. He cautioned the officers to expect war soon. Division headquarters was aware that it had to solve some serious problems: the improper or sometimes the nonuse of liaison officers, and the vexation of brigade attachments. These questions had to be solved before the division participated in large scale maneuvers.<sup>49</sup>

In May, Patton issued a memorandum stressing that training would be progressive, from small unit to division. The division would move to the field in multiple columns while the 2d Reconnaissance Battalion (Armored) was to practice locating the division and if possible delay its movement. Regimental reconnaissance companies were to cover the movement to the maneuvers area. During the training, constant practice against ground and air attack was to be carried out, with alarms being sounded and antiaircraft weapons being manned and bivouacs

blacked out. The commanders were cautioned about overcommanding, and instructed to maximize radio usage; no written orders were to be given, but rather oral commands or fragmentary orders in conference were to be used.<sup>50</sup>

The troops marched out on the afternoon of 6 May, to go into night bivouacs and to prepare for a predawn assault river crossing. During the night, rain started. Patton had instructed the men that three long blasts of an air horn meant an air raid attack. The men were just beginning to fall asleep when the quiet was shattered by a long blast of a horn, followed by another, then a short blast. It was not an air raid warning, so the men attempted to go back to sleep, only to have the procedure repeated. The antiaircraft weapons were manned and ready for use when the horn sounded again. It turned out not to be a signal, but a horn on a scout car which had shorted. Its wires were disconnected and the men slept. The next morning the 41st Infantry Regiment (Armored), supported by the artillery, seized a bridgehead over the Uaptoi River, the engineers built the bridge, and the division crossed to continue its attack.<sup>51</sup>

The week of 19-26 May was spent in the field following the directives Patton had given two weeks earlier. The division moved out in multiple columns and the 2d Reconnaissance Battalion (Armored) was again given the aggressor role to try to delay part or all of the columns. The 66th Armored Regiment (Light) was delayed but reached its bivouac area. The next day the division practiced platoon and company problems. Major General Scott and Lieutenant Colonels Hugh J. Gaffey, Allan F. Kingman, and John M. Devine, all future commanders of the 2d Armored Division were pleased when they viewed the problems



and saw how the units functioned. The battalion problems went well, and the men prepared for the combined 2d Armored and 4th Infantry Division (Motorized) exercises.<sup>52</sup>

The 2d Armored Division helped to devise the tests for the 4th Infantry Division (Motorized). In the final problem the 4th Infantry was to relieve the armored troops, who were to pull back, regroup, and attack through the infantry division. There had been some good-natured rivalry displayed between the two divisions and the 4th Infantry supposedly was of the opinion that "Now, we'll show those high and mighty bastards something."<sup>53</sup> The 2d Armored made a night march to its assembly area and attacked at 1000, only to have the attack stopped by the officials for a critique at 1145. The division returned to its post and had a showdown inspection on the review field. Scott said that it was the first time he had seen a showdown inspection and he believed it to be the first time ever at the end of maneuvers. Many items were in short supply, but he believed the division could fight if it had to.<sup>54</sup>

During the maneuvers, much of the publicity centered around the 2d Armored Division because it was a new type division, and tanks were drawing much print about their use in Europe. A messenger, Private Ralph C. Radtke, Headquarters Company, 2d Armored Division, was given a mission to take news releases to post headquarters for distribution. Radtke took a short cut and was captured by men of B Company, 101st Anti-Tank Battalion. The battalion adjutant, Captain Keith F. Driseale, wrote a note to accompany Radtke, explaining how he had been captured, and had the private marched into post headquarters under guard.<sup>55</sup>

In the critique, Major General Lesley J. McNair, commanding

general, Army Ground Forces, stated that the 2d Armored and the 4th Infantry Divisions were among the most ready for battle. He cautioned the officers that he did not say they were ready but "that you are more ready than the rest." Patton observed that all the maneuvers had demonstrated that an armored division must be given "an assignment of mission rather than a definite assignment of method."<sup>56</sup> Patton was arguing for the basic tenet of armored warfare, and one that would be demonstrated repeatedly in Europe. When given an assignment of method, armored divisions were usually slowed down and suffered casualties far in excess of those suffered when executing the assignment of mission-type orders.

Scott noted that the division was ready for field duty, and referring to the forthcoming Tennessee maneuvers, warned the men that they had to get the most from the maneuvers because "who knows. It may be the last chance you have to practice."<sup>57</sup> A few days later, Scott told Lieutenant Colonel Ernest N. Harmon that the division was in fine shape and that the small units were exceedingly well trained. Scott was very pleased at the way the companies and reinforced battalions worked against antitank guns and roadblocks.<sup>58</sup>

While at Fort Benning, the division started two traditions which are still in existence. General Order Number 7 specified how and when the division patch was to be worn. All men would wear it over the left breast on the field jacket, and officers would wear it over the left breast on their coveralls. Today every member of the division wears the patch over the left breast on field jackets and fatigue uniforms. The divisional motto "Hell on Wheels" came into existence at Fort Benning, and was applied to the 2d Armored prior to the Tennessee

maneuvers, where division legend has the phrase originating. The Columbus Ledger on 6 April 1941 stated that the man who first used the phrase "Hell on Wheels" must have foreseen American armored divisions. Two weeks later the paper carried a picture of the patch, saying that "it means Hell on Wheels." Between 6 April and 23 May, the Columbus Ledger used that phrase no less than nine different times when referring to the 2d Armored Division. On May 2, a columnist, Allen Thomason, who replaced McDermott as the author of "Inside the Outpost at Benning," wrote of activities of four officers from the "Second Armored 'Hell on Wheels' Division." By the time of the Tennessee maneuvers, the phrase clearly meant 2d Armored Division; the Tennessee maneuvers only verified its application to the division.<sup>59</sup>

The 2d Armored Division's training was primarily the work of Major General Patton, his staff, and the unit commanders. While they had some experienced personnel from the infantry, tank, and mechanized cavalry units, the men were primarily new enlistees. The armor method, to give basic training and then simultaneous large and small unit training, was designed to teach the tankers their assignments in the shortest possible time. The older armored divisions trained the cadres for future organizations, and in doing so became the father of the armored divisions that fought so well in World War II.

The units demonstrated their competence in many maneuvers against other elements of the division and other units stationed at Fort Benning. In eleven months, the various components of men and tanks had been transformed from a collection of individual units to a unified and disciplined fighting force that was preparing to make its debut in large-scale maneuvers.

FOOTNOTES

<sup>1</sup>C. L. Scott to Robert C. Foy, 26 July 1940; and "Orientation Talk to Officers of the Divisions of I Armored Corps," 10 November 1940, pp. 1-5, Scott Papers.

<sup>2</sup>Ibid., pp. 4-5.

<sup>3</sup>Blumenson, ed., The Patton Papers, 1885-1940, p. 849.

<sup>4</sup>Grow, Manuscript Diary, 16 September 1940; 20 November 1940, Grow Papers; "The Second Armored Division Grows Up," Cavalry Journal, Vol. L, No. 2 (March-April 1941), pp. 49-51.

<sup>5</sup>Second Armored Brigade, Training Memo 1, 30 July 1940, Record Group 407.

<sup>6</sup>"The Second Armored Division Grows Up," Cavalry Journal, Vol. L, p. 49; Second Armored Brigade, Training Memo 5, 23 August 1940, Record Group 407.

<sup>7</sup>Second Armored Brigade, Training Memo 7, 30 August 1940, *ibid.*

<sup>8</sup>Grow, Manuscript Diary, 27 August 1940, Grow Papers; Columbus Ledger, 26 August 1940, p. 1.

<sup>9</sup>Grow, Manuscript Diary, 27 August 1940, Grow Papers; Second Armored Brigade, Training Memo 6, 28 August 1940; Record Group 407; Columbus Ledger, 28 August 1940, p. 3.

<sup>10</sup>Ibid., 18 September 1940, p. 3; Grow, Manuscript Diary, 18 September 1940, Grow Papers; C. L. Scott to Adna R. Chaffee, 23 September 1940, Scott Papers; Second Armored Brigade, Training Memo 9, 3 September 1940, Record Group 407.

<sup>11</sup>Grow, Manuscript Diary, 21, 23 September 1940, 1 October 1940, Grow Papers; Columbus Ledger, 6 October 1940, p. 10.

<sup>12</sup>Ibid., 3 October 1940, p. 1; confidentially communicated to author, tape recording in author's possession.

<sup>13</sup>Columbus Ledger, 3 October 1940, p. 1; Grow, Manuscript Diary, 3-4 October 1940, Grow Papers.

<sup>14</sup>Second Armored Brigade, Training Memo 17, 14 October 1940, Record Group 407; Grow, Manuscript Diary, 18 October 1940, 19 November 1940, 25 November 1940, 20 December 1940, 23 January 1941, 27 February 1941, Grow Papers.

- <sup>15</sup>Ibid., 5, 10-11 October 1940.
- <sup>16</sup>Colonel Alvin C. Gillem, "Notes for Officer's Conference, 66th Armored Regiment, 7 October 1940," Gillem Papers.
- <sup>17</sup>Ibid.; Ladislas Farago, Patton: Ordeal and Triumph (New York: Ivan Obolensky, 1964), pp. 142, 145-146; William Bancroft Mellor, Patton: Fighting Man (New York: G. P. Putnam's Sons, 1946), p. 146.
- <sup>18</sup>C. L. Scott to George S. Patton, Jr., 6 December 1940, Scott Papers.
- <sup>19</sup>Second Armored Division, Interoffice memo from [George L.] King and [Redding F.] Perry to Asst. C/S G-3 (Grow), 3 November 1940, Record Group 407; Grow, Manuscript Diary, 26 November 1940, Grow Papers.
- <sup>20</sup>Ibid., 26 November 1940; George L. King to Robert W. Grow, "Notes on Proposed Practice March to Florida," and Second Armored Division, Memorandum to Brigade and Regiments, 24 November 1940, Record Group 407.
- <sup>21</sup>Second Armored Division, Training Memo 37, 6 December 1940, Second Armored Division, Field Order 1, 6 December 1940, Second Armored Division, Administrative Order 1, 7 December 1940, *ibid.*
- <sup>22</sup>Second Reconnaissance Battalion to Commanding General, Second Armored Division, "Route Reconnaissance," 10 December 1940, *ibid.*
- <sup>23</sup>Trahen, ed., A History of the Second United States Armored Division, n. p.; Grow, Manuscript Diary, 12 December 1940, Grow Papers; Second Reconnaissance Battalion to Commanding General, Second Armored Division, "Route Reconnaissance," 13 December 1940, Record Group 407.
- <sup>24</sup>Ibid.
- <sup>25</sup>Second Armored Division, Field Order 3, 14 December 1940, *ibid.*; Grow, Manuscript Diary, 15 December 1940, Grow Papers.
- <sup>26</sup>Ibid., 17 December 1940; Charles Scott to Adna R. Chaffee, 30 December 1940, Scott Papers; "Defense Week," Newsweek, Volume XVI, No. 26 (23 December 1940), p. 27.
- <sup>27</sup>Second Armored Division, "Report of Division March," 12-17 December, 1940," pp. 1-5, Record Group 407.
- <sup>28</sup>Ibid.
- <sup>29</sup>Interview, Hinds with author; Interview, Robert W. Grow with author, 8 June 1972, Falls Church, Virginia.
- <sup>30</sup>Second Armored Brigade, Training Memo 21, 24 October 1940, Record Group 407.

- <sup>31</sup>Second Armored Brigade, Training Memo 25, 4 November 1940, Training Memo 30, 16 November 1940, *ibid.*
- <sup>32</sup>Soundtrack to movie, "Benning to Berlin," in Hinds' possession; Grow, Manuscript Diary, 7 December 1940, Grow Papers; New Orleans Times Picayune, 26 July 1941, p. 4; Grow, Manuscript Diary, 26 March 1940, Grow Papers.
- <sup>33</sup>New Orleans Times Picayune, 26 July 1941, p. 4; Grow, Manuscript Diary, 26 March 1940, Grow Papers.
- <sup>34</sup>Second Armored Brigade, Training Memo 22, 28 October 1940, Record Group 407; Grow, Manuscript Diary, 25 October 1940, Grow Papers; C. L. Scott to Adna R. Chaffee, 23 October 1940, Scott Papers.
- <sup>35</sup>Columbus Ledger, 9 January 1941, p. 9, 19 January 1941, p. 16, 11 December 1940, p. 7.
- <sup>36</sup>United States Congress, Congressional Record: Proceedings and Debates of the 77th Congress, First Session (Washington: Government Printing Office, 1941), pp. 2900-2901.
- <sup>37</sup>I. D. White, "The Second Armored Division," address to the Cavalry School, Fort Riley, Kansas (undated), p. 1, White Papers; "The Second Armored Division Grows Up," Cavalry Journal, Vol. L, p. 49.
- <sup>38</sup>George S. Patton, Jr., to C. L. Scott, 4 February 1941, Scott Papers.
- <sup>39</sup>C. L. Scott to George S. Patton, Jr., 7 February 1941, *ibid.*
- <sup>40</sup>*Ibid.*
- <sup>41</sup>Second Armored Division, Training Memo 3, 9 January 1941, Record Group 407.
- <sup>42</sup>Paul A. Disney, "Reconnaissance Units Training Test, 2d Armored Division," Cavalry Journal, Vol. L, No. 5 (September-October, 1941), pp. 68, 72.
- <sup>43</sup>*Ibid.*, p. 72.
- <sup>44</sup>Kent Roberts Greenfield, Robert A. Palmer, Bell-I. Wiley, The Organization of Ground Combat Troops: United States Army in World War II (Washington: Department of the Army, 1947), pp. 106-107.
- <sup>45</sup>Grow, Manuscript Diary, 11 February 1941, Grow Papers.
- <sup>46</sup>C. L. Scott to George S. Patton, Jr., 12 February 1941, Scott Papers; Sidney R. Hinds to George Hoffmann, 20 January 1972, Hinds Papers.

<sup>47</sup>Grow, Manuscript Diary, 24 February 1941, Record Group 407; J. A. Pickering, "Second Armored Division," 1 August 1941, pp. 1-8, Record Group 407.

<sup>48</sup>Columbus Ledger, 2 April 1941, pp. 1-2, 3 April 1941, pp. 1-2; Grow, Manuscript Diary, 2 April 1941, Grow Papers.

<sup>49</sup>Ibid., 18-19, 24 April 1941; George S. Patton, Jr., to C. L. Scott, 28 April 1941, Scott Papers.

<sup>50</sup>George S. Patton, Jr., to Chief of Staff, G-3, G-4, Provost Marshal, "Type of Maneuver," May 1941, Record Group 407.

<sup>51</sup>Grow, Manuscript Diary, 7 May 1941, Grow Papers; Columbus Ledger, May 9 1941, p. 3.

<sup>52</sup>Grow, Manuscript Diary, 19-21 May 1941, Grow Papers.

<sup>53</sup>"Test for the Fourth," Time, Vol. XXXVIII, No. 18 (3 November 1941), p. 31; Grow, Manuscript Diary, 24 May 1941, Grow Papers.

<sup>54</sup>Columbus Ledger, 23 May 1941, p. 12.

<sup>55</sup>Ibid.

<sup>56</sup>Ibid., p. 14.

<sup>57</sup>Ibid., 25 May 1941, pp. 1, 25.

<sup>58</sup>C. L. Scott to E. N. Harmon, 29 May 1941, Scott Papers.

<sup>59</sup>Second Armored Division, General Order 7, 17 February 1941, Record Group 407; Columbus Ledger, 6 April 1941, p. 11, 20 April 1941, p. 4, 2 May 1941, p. 5, 6 May 1941, p. 12, 7 May 1941, p. 14, 9 May 1941, p. 9, 10 May 1941, p. 12, 13 May 1941, p. 8, 23 May 1941, p. 12.

## CHAPTER VI

### THE TENNESSEE MANEUVERS

The Armored Force was left undisturbed to develop its doctrines. After a year of training, the 2d Armored Division was to take part in large-scale field maneuvers. Plans to use the division were first announced in February 1941, when Major General Scott, Commander of I Armored Corps, informed the War Department that he wanted to use the Fort Benning tankers twice in corps training and twice in Army training exercises. His rationale was that participating troops would receive invaluable training in the modern concepts of employment and defense against armored units.<sup>1</sup> Soon it was announced that Patton's division would be included in the Second Army maneuvers of 16 to 18 June 1941.

Reorganization of the 2d Armored Division, and its major components had been considered almost simultaneously with its activation. The division organization had been hastily drawn; in late 1940 Chaffee and others were reconsidering the organization. The main argument was that the brigade was too ponderous and unwieldy; the division commander needed several combat teams, not one brigade. In September 1940, I Armored Corps called the division G-3's together, suggesting a reorganization to include two brigades, one made up of the light tank regiments, and the other composed of the medium tank and infantry regiments. This was apparently turned down. Finally, in May 1941, Scott told the 2d Armored officers that he wanted them to experiment with organizational



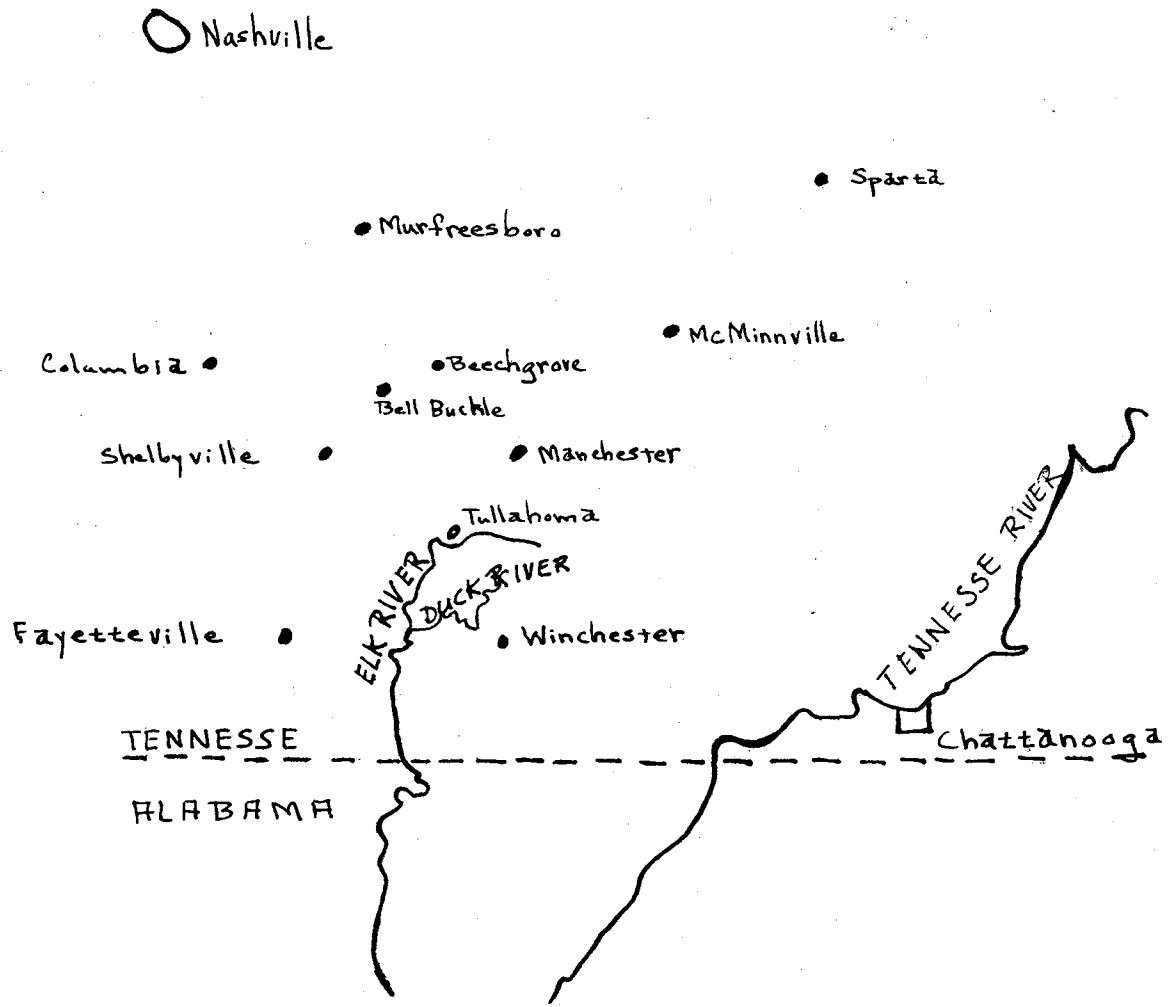


Figure 2. The Tennessee Maneuvers, 1941.

changes in Tennessee. He wanted three battalions in the infantry regiment, three battalions in the medium tank regiment, three artillery battalions commanded by a division artillery commander, and an additional bridge company in the engineer battalion. The division reorganized into four artillery battalions under a division artillery commander. The 41st Infantry Regiment had three battalions, and a reconnaissance company was formed for the medium tank regiment. The remainder of the division conformed to existing tables of organization.<sup>2</sup>

In March 1941, the War Department had selected the Camp Forrest, Tennessee, area for the Second Army maneuvers. The location is in south central Tennessee, between the Duck River and the Tennessee Cumberland divide. The main terrain features are the Duck River, which is twenty to fifty yards wide, and the Tennessee Cumberland divide. There were concrete and light load carrying bridges, the river banks were usually steep and the bottoms rocky, but there were vehicle fords. The area was mountainous and forested, and thought to be unsuitable for tank warfare.<sup>3</sup>

A series of opening maneuvers started, which some members of the 2d Armored Division thought were designed to limit or perhaps embarrass the division and its performance. The first exchange concerned the amount of time the division would spend in Tennessee. Army General Headquarters, commanded by Lieutenant General Lesley J. McNair, made the division available for the entire maneuver period from 2 to 28 June 1941. The Second Army, commanded by Lieutenant General Ben "Yoo Hoo" Lear, wanted the division for only part of that time, to which Army General Headquarters agreed. The division Chief of Staff, Lieutenant Colonel Geoffrey Keyes, told Lieutenant Colonel Ernest N. Harmon that

hopefully the situation would be settled to everyone's satisfaction.<sup>4</sup>

The second problem arose with regard to the division's using the 87th Engineer Battalion (Heavy Pontoon). The Second Army had authorized the use of the complete battalion, but General Headquarters changed the authorization, using the excuse of inadequate motor transportation, and would permit using only one company. Two weeks prior to the maneuvers, another change occurred, and the Second Army granted its consent to use the entire battalion.<sup>5</sup> The division needed the Engineers, and Patton told Scott that he had driven around the Camp Forrest area, and in his opinion, any divisional success might depend on its ability to make bridgeheads and force river crossings.

The most severe blow came when the division was told that it would have to furnish fifty-one umpires for the maneuvers. Scott wrote Chaffee, bitterly protesting because the 2d Armored Division needed its officers to make a good showing, and he recommended that the umpires be taken from the 1st and 3d Armored Divisions. Scott saw advantages to all three divisions this way. The 2d Armored had recently furnished the cadre for the 3d Armored and was short of experienced officers and men. If the other divisions could furnish umpires, the 2d Armored officers could stay with their units, and the division would not have to use noncommissioned officers to command units normally commanded by officers. To accomplish this, however, would require additional funds. Scott was able to persuade Chaffee to make forty officers available from other armored divisions.<sup>6</sup>

Administrative plans were made also. Blank ammunition was to be furnished from the Second Army depot, and two heavy maintenance ordnance companies, the 30th and 31st, were to accompany and support the

Armored Force in Tennessee. The 30th was attached for field maintenance, while the 31st was stationed at the Murfreesboro Army Depot for those repairs that could not be made in the field. The Armored Force would furnish ordnance spare parts, while quartermaster parts would be available at the Army depot. The Army would attempt to supply gas and oil at designated locations and in the quantities needed on six hours notice. The gasoline for the ground troops would be furnished in tank cars to be broken down into ten gallon cans. Aviation fuel would be delivered to the landing fields.<sup>7</sup>

Scott assembled and addressed the umpires for the maneuvers. He pointed out to them that both the Second Army and Army General Headquarters wanted to stress the proper usage of small units. The umpires were to see that small units received proper credit for their good performances as well as having their errors made known to them. He cautioned the umpires that they had neither command or instructional functions, and should avoid revealing information gained through umpire activities. They could, and were required, on the other hand, to make known those things normally seen, heard, or known in battle. Lastly, in situations not covered by the umpire's manual, they were to use common sense. The higher unit umpires working on the battalion, regiment, brigade, and division levels were responsible for informing the lower level umpires of situations and for moving them to the proper places so that they could best umpire the critical points and situations.<sup>8</sup>

Apparently, the most anticipated time in the maneuvers was the entry of the 2d Armored Division and its colorful commander, Major General Patton. Rice Yahner, a correspondent for the Memphis Commercial

Appeal, noted that Tennessee would be the first "battle-array exhibition" of an armored division. Patton would be trying to get his division into the maneuver area undetected, however, while the VII Army Corps Commander, Major General Frederic H. Smith, was determined to find the "Hell on Wheels" division. To add a little spice to the determination of both sides, Smith offered a \$25.00 reward to the man who captured Patton. Not to be outdone, Patton placed a \$50.00 bounty on Smith's head. The maneuvers opened on a note of high expectation.<sup>9</sup>

The division left Fort Benning at 0500 on 14 July 1941 in two columns, each about sixty miles long. The west column made good time, the only complaint being that the 41st Armored Infantry Regiment was ragged in their marching. The west column was held up by some road construction and by excessive caution at the Chattahoochee bridge northwest of Newman, Georgia. All units were in the bivouac area by 1800 on the evening of 15 June. The next morning, the division moved to concealed bivouac areas, unloaded their tanks and half tracks that had been sent by rail, and prepared to enter the exercise. Patton had been instructed that the problem opened tactically when he met Major General Joseph M. Cummins, the commanding general, 5th Infantry Division. Patton was to be permitted to use reconnaissance units to go anywhere to gain information while the remainder of the division protected the detraining point. Scott thought that the enemy VII Army Corps might attempt to disrupt the unloading.<sup>10</sup>

The first problem was relatively simple. A Blue enemy force (27th and 30th Infantry Divisions) was attempting to push the friendly Red force out of the area. The Red 5th Infantry Division and 153rd Infantry Regiment was to hold a defensive line until it could be reinforced by

the 2d Armored Division. Then it was to attack and push the Blue troops to positions west of Bell Buckle, Tennessee. The opening move was to be a practical demonstration of the "nose and seat of the pants theory." The 2d Armored Brigade was to attack the rear (west) of the Blue forces, while the 41st Infantry (minus a battalion) was to attack on the north flank. A composite force, resembling the tank-infantry teams of World War II, led by Lieutenant Colonel Sidney R. Hinds, attacked on the south flank. The holding job was to be handled by the 5th Infantry Division. While the Blue force was preoccupied on its flanks the 67th Armored Regiment was to deliver the knockout blow from the east.<sup>11</sup>

The plans were made, the columns were organized, and the division moved to its attack positions without lights, and under radio silence, beginning at 2000 on 16 June. By 0400 the next morning the division was in position to launch the attack after its columns had moved from 70 to 130 miles. The attack was to be coordinated by the column commanders, as the line of departure was not defined.

The 2d Armored Division entered the battle about 0600 on 17 June. The enemy VII Army Corps (Blue) was forced to abandon its offensive and to assume a defensive posture. The tankers launched a swarming type attack, hitting the enemy force from four directions. The 68th Armored and the 41st Armored Infantry Regiments captured Hoover's Gap about two and one-half hours after the exercise opened. The 2d Armored Brigade, principally the 67th Armored Regiment, attacking astride Highway 41, met strong antitank defenses and was slowed down. The crossroads were defended by machine guns and 75 mm antitank guns. Every time a tank exposed itself, it was fired on. The main problem was the lack of infantry to eliminate the guns and to facilitate the tanks' advance.<sup>12</sup>

The commanding officer, 2d Battalion, 67th Armored Regiment, Major John P. Kidwell, led his thirty-one tanks over one mountain trail "that would vex a mule"--"where a Tennessee farmer would not take a wagon." He then sent Private Francis Cutrupi to scout ahead, but he was captured. Kidwell's tank was knocked out, but he was not a casualty. He returned with more tanks to challenge the 37 mm antitank guns, only to have the umpires rule that he suffered three more losses. His battalion could not break through the antitank gun defenses.<sup>13</sup>

In spite of the tenacious antitank defense, the 2d Armored Division drove the Blue forces to positions west of Bell Buckle, surrounded and cut them off. The umpires terminated the exercise at 1140 on 17 June, about five and one-half hours after Patton and the tanks had entered the battle. The Blue forces were not destroyed even though they were defeated. The 2d Armored Division was in position to deliver the final attack, even though Blue tanks threatened the flank of one column. The umpires ruled that the "Hell on Wheels" men lost approximately 135 tanks, many other vehicles, and many men. In the end, both sides claimed victory.<sup>14</sup>

Both at least learned from the experience. Major General Samuel T. Lawton, commanding general, 33d Infantry Division, had arranged his antitank guns into a new type battalion, had dug them in, and had them on the flanks and in the rear. As he explained to the Nashville Banner, "Armored troops don't attack on a broad front as the old system of anti-tank defense offered. They pick a weak spot and hit fast. You've got to get your defense into those weak spots before the tanks arrive."<sup>15</sup> In a news conference Patton told reporters that "fear of the unknown was the greatest force that the armored division could wield."<sup>16</sup> He meant

that the opposition did not know where the division was or where it would strike. An armored division was "the most powerful striking force the mind of man ever evolved."<sup>17</sup> As the exercise had unfolded, it was not uncommon for Blue soldiers to lay their weapons aside and grab their cameras as the tanks approached, for they were still an object of curiosity. A former correspondent for the Memphis Commercial Appeal noted that the great Confederate cavalryman, Nathan Bedford Forrest, did not believe in attacking enemy strong points and neither did the 2d Armored Division. Forrest's lesser known motto, "Get 'em skeered and keep 'em skæered [sic]," correctly described the "Hell on Wheels" division.<sup>18</sup>

The 2d Armored Division personnel had confidence in themselves and felt that they could defeat anyone in simulated or real battles. This first test showed that they may have been over confident. The Blue force channelized their attack, denied them freedom of movement, and blunted their offense by a strong antitank defense. There was also a lack of coordination between the 2d Armored and 5th Infantry Divisions, in spite of Second Army's directive to establish radio nets and liason officers with the infantry division. As Lieutenant Colonel Grow noted in his diary, "In general we won the war."<sup>19</sup>

The second exercise, C-8, had the 2d Armored Division becoming part of the Blue army at midnight 19-20 June. Patton was permitted to start planning with the VII Corps prior to that time, and the corps ordered him to send the division's reconnaissance elements out at 0500 on 19 June to attempt to locate the Red Army's positions. Grow flew to Lynchburg to talk with Major I. D. White. On the return flight, when the plane was about fifty feet off the ground, it crashed. However,



neither Grow or the pilot was injured. When Grow returned to the division headquarters, he had to change the attack orders because of the conference between Patton and Smith. Patton had agreed to exploiting a breakthrough to be made by the 27th and 30th Infantry Divisions. The 67th Armored Regiment, at Smith's insistence, was detached from the division and in effect became a General Headquarters Tank Battalion, to be used at the discretion of the corps commander.<sup>20</sup>

By dusk on 19 June, the Blue forces, minus the 2d Armored Division, had made small gains, but at 0700 on 20 June, the 2d Armored added its weight to the assault. The 67th Armored Regiment attacked through the 30th Infantry Division along Highway 41, and, after breaking through the Red positions, was two miles from its objective, Manchester, by 0845. Meanwhile, the bulk of the division was advancing in three prongs toward Manchester from Lynchburg. Patton was out front fighting with his scout car and leading the division in his traditional manner. They had to cross many fords and had some close fights with the enemy. The division commander was in the midst of the action, cursing people out, and urging them on to Manchester. About 0900, three members of the 67th Armored Regiment had observed an airplane drop a message near their location, and correctly reasoned that a headquarters lay nearby. The tankers attacked the infantrymen and captured Brigadier General Cortlandt Parker, commanding general, 5th Infantry Division, and his staff. For their initiative, a 2d Armored hallmark, the men received \$25.00 from a jubilant Patton. At 1100, four hours after the 2d Armored Division entered the battle, the umpires ended the exercise.<sup>21</sup>

In the after-exercise critique, the chief umpire stated that the action of the 2d Armored Division was not as decisive as it might have

been. He felt that better results could have been obtained if the division had attacked en masse, and if infantry had been used to overcome the antitank guns. The reconnaissance units were criticized for stopping to harass installations and for taking prisoners not needed for identification purposes. Such remarks caused some veterans to believe that attempts were being made to discredit either the division, its commanders or both. One of Patton's biographers noted that Lieutenant General Leslie J. McNair ordered the umpires to stifle Patton and that every decision went against him. The Memphis Commercial Appeal noted that the encircling attack was led by spotter aircraft and it seemed "cool and calculating, efficient, and deadly." Regardless of what the umpires said or did, including the ruling that Patton was a casualty when his scout car went through a simulated artillery barrage, the problem was terminated twelve hours early, because the division had taken too many objectives.<sup>22</sup>

In the third problem, Exercise C-9, the 2d Armored Division was still part of the Blue force. The 5th Infantry Division (Red) was occupying a defensive line from Tullahoma to Hillsboro. The Blue force mission was to rout the enemy to prevent him from linking up with additional Red forces to the northeast. The division was planning to use the nose and seat of the pants idea again. As events transpired, the posterior elements were in position and doing their jobs before the frontal units got started.

The 66th Armored Regiment, supported by the First Battalion, 78th Armored Artillery, a company of engineers, and the 41st Infantry Regiment (less two battalions), was to attack the Red's east flank at 1100. The 8th Bombardment Squadron was ordered to bomb Prairie Plains, 5th

Infantry Division headquarters. The attack took place at 1115, just in front of leading 66th Armored Regiment elements. The attack was so successful that the 66th Armored Regiment reached the Elk River, the restraining line, by 1215. The second flanking element was a composite force of the 82d Reconnaissance Battalion; 3d Battalion, 41st Armored Infantry Regiment; Second Battalion, 78th Artillery, and a company of engineers. This force reached Winchester by 1000, proceeded to block the crossings of the Elk River, and attacked the Red force in the rear. The bulk of the 2d Armored Brigade constituted the "nose" force. The brigade was ordered to attack the center of the Red line at 1330; it did, passed through, and started exploiting its success towards the Elk River. The attacks were so successful that the exercise was terminated at 1410, or forty minutes after the bulk of the 2d Armored Division entered the attack.<sup>23</sup>

Critics had only praise for the tankers. For a problem thought to require twenty-four hours to carry out -- the 2d Armored Division had needed only three. The division used a "trick play." A message was dropped to an armored car, later captured, which said the main effort would be made from the west at 1330. Instead, it came from the north-east at 1300. A second factor may have been press reports concerning the two earlier exercises, which indicated that the tankers were pulling their punches. In this third exercise, the tankers roared through forests and over fences and fields. The vehicles before had largely stayed on the roads, causing little damage, even if that damage was paid for. One humorous escapade occurred: Captain Harry B. Koon, Sr., Chaplain of the 105th Quartermaster Regiment, 30th Infantry Division, was on his way to pick up that units mail. His vehicle was not flying

the white administrative flag, so it was fair game, and the vehicle and its occupants were captured. Their captor was the chaplain's son, Private Harry B. Koon, Jr., a member of the 2d Armored Division.<sup>24</sup>

In the final exercise, the 2d Armored Division rejoined the 5th Infantry Division to constitute the Red force. The Blue forces were defending the area between the Duck and Elk Rivers. Red's mission was to push the Blue forces back and capture Tullahoma, with the problem to begin at 0500 on 26 June 1941. The division started moving about 0300 to envelop the north flank of the Blue forces, while the 5th Infantry Division held the Blue forces in the line and enveloped the south flank. By 0700 the 82d Reconnaissance Battalion had secured two crossings over the Duck River and turned them over to the 41st Armored Infantry Regiment to defend. The main body started crossing the river, and by 1230 it had reached its assembly areas, regrouped, and was launching attacks against Tullahoma. The problem ended about 1320 with the capture of the town and the destruction of the enemy force - six and one-half hours after the 2d Armored Division had entered the fight. One Cub airplane being tested as an artillery observer and liaison aircraft signaled the end of the exercise, but when the plane's signal was not understood, it landed, taxied down the road and overtook one tank to give its occupants the word.<sup>25</sup>

The chief umpire noted that the 2d Armored Division's actions were rapid, coordinated, and decisively effective. However, the division was criticized for inadequate reconnaissance, which resulted in unnecessarily high tank losses. The 41st Armored Infantry Regiment was credited with superior action. Self-criticism is probably the most valid: Lieutenant Colonel Grow noted that about half of the tanks of the 2d

Armored Division were late getting across the Duck River, everything was committed piecemeal, and as a result the units were scrambled. The main reason for the debacle, according to Grow, was that the "command and staff functioning was very poor." He thought that division headquarters was terrible and control was non-existent because of personality differences. Grow observed that the men of the division were fine, but the units got progressively worse as they moved up the organizational ladder.<sup>26</sup>

The division returned to Fort Benning and began preparing for the Louisiana maneuvers, about six weeks in the future. As Patton told reporters, the division no longer charged an opponent, but probed for weak points, and then penetrated those weak areas to attack the flanks and rear. The Tennessee maneuvers tested the division's theory and training. Patton led his men on swift long-distance marches; pontoon bridges were put over rivers and streams, rapid raids were carried out, and enemy strongpoints were attacked. During the exercises, the division ran roughshod over its opposition.<sup>27</sup>

On 7 July, 2d Armored Division headquarters issued General Order 28, which was congratulatory and advisory in tone. The present state of training had been attained despite shortages of equipment and losses of experienced personnel to other units. Since equipment had begun arriving and personnel losses were due to slow down, the division was now to concentrate on training. The next day the division assembled and Patton conducted a critique of the recently held maneuvers. He noted the division's mistakes, saying, "if there were not mistakes, there would be no need for maneuvers."<sup>28</sup> He complimented the men on their courtesy, dress, and the favorable impressions they had made on senior

commanders and the Secretary of War. He observed that if the men would continue improving, "you will make your shoulder patch something that will cause as much dread to the enemies of your country as it causes pride among your friends."<sup>29</sup>

The division commander thought that the men had carried out every mission with efficiency and timeliness. The division had earned a favorable reputation because of its performance and high standards. To continue to lead, the division could not be content with its accomplishments, but would have to continue to improve, retaining the good and avoiding errors such as those committed in Tennessee.<sup>30</sup>

Turning to the mistakes, Patton stated that tanks were vulnerable to antitank fire. It was folly to think of charging antitank guns with the intention of "crushing [them] beneath our tracks," as the tank was only a squad with a large amount of firepower. Once through antitank defenses, their armor and speed permitted them to attack rear area positions with a large degree of safety because rear area soldiers were without antitank defenses. To help overcome antitank guns, new sets of formations would soon be given to companies and battalions. Since antitank guns were towed and had to stay on or near roads, Patton ordered the tankers to get off the road when they came to within 1,000 yards of an antitank gun. Since antitank guns were almost always at crossroads, the men were to flank them from one or both sides. In addition, if the force had artillery or mortars, these should be fired at the antitank guns or their suspected position.<sup>31</sup>

Patton said that the division, especially the reconnaissance elements, was suffering a disease associated with the motorized age--"waffle ass." It occurred because people sat too much. Getting to specifics,

he told the reconnaissance elements that when approaching points that might contain mines and antitank guns to get off the road and walk or crawl, using binoculars to investigate. This would be hard work, but it was better than getting killed. Death would result if reconnaissance elements did not take the proper precautions. After securing information, they were to send it back to headquarters in the most expeditious manner possible, so that it could be used.<sup>32</sup>

Teamwork was vital for success in an armored division. Patton thought that there was still too much of a tendency for each type of unit to be a "one-handed puncher. The rifleman wants to shoot, the fellow with the mortar to burp, and so on." This was not the way to win a war. Each type weapon, as each type instrument in an orchestra, must support the other. He told the "musicians of Mars" not to wait for the leader to signal when to enter the battle, but to use their own initiative and to be at the proper place at the proper time. Initiative was another topic of instruction. Patton told of an unnamed reconnaissance sergeant and crew who were the survivors from a platoon. When an umpire asked the man what he was doing, the sergeant told him the mission, what had been accomplished, and what remained to be done. He then proceeded to complete the mission. That sergeant earned the congratulations of his division commander. But, Patton noted, since almost all members of the division had been in schools for about a year, the division had acquired what he called the "student complex--a tendency to wait for instructions." That malady was particularly manifest in lieutenants, captains, and noncommissioned officers. To overcome this, he suggested that a very safe rule to follow is, that in case of doubt, "push on just a little further and then keep on pushing."<sup>32</sup>

The maneuvers were successful for the 2d Armored Division. The army was introduced to "blitzkrieg" tactics. Maximum pressure was brought to bear on crucial or weak points, and breaks were made permitting tanks to penetrate to weakly held rear areas. This method was made possible by the airplane and the tank. The second aspect of mobile warfare displayed was to avoid strong points wherever possible and to go around them. Another lesson learned was that the way to stop tank attacks was with an active defense--in reality, a counterattack by planes and tanks. Passive measures, such as antitank ditches, mines, and antitank guns, delay, but do not stop armor attacks.<sup>34</sup>

The division was a victim of its own successes and the Army's ignorance about armor warfare. It received little or no credit for its performance. In three attacks the division surrounded the enemy and was in position to destroy him, but the umpires and maneuver directors ruled against the division. In the third exercise, the division penetrated the enemy line, but the enemy escaped. Yet this was considered a major victory for the 2d Armored Division. This situation pointed out that major commanders must know armor tactics.<sup>35</sup>

The 2d Armored Division changed the tempo of battle. Each exercise ended the same day that the division entered it; usually twelve to twenty-four hours before the problem was scheduled to end. The maneuvers demonstrated that a fundamental change in philosophy had to occur. Instead of pushing the enemy back, emphasis should be placed on destroying him in place; such destruction could be complete and rapid.<sup>36</sup>

Major General Charles L. Scott, Commander of the I Armored Corps, and an observer at the maneuvers, told Major General Adna Chaffee, Chief of the Armored Force, that the 2d Armored Division did an excellent job



in Tennessee in spite of shortages. He noted that the division had less than 60 percent of its combat vehicles, 14 percent of its radio equipment, and that 40 percent of its personnel had about four months of duty with tanks.

Scott raised three questions that he considered basic and which would require answers. He wanted to know if an antitank battalion was sent out to stop an armored division, what would keep artillery and infantry from pinning the battlion down, thus permitting the division to go around it? Second, if enough antitank guns were available to establish a perimeter defense, what was to prevent punching a hole in the enemy line, penetrating, and then fanning out behind the guns; thus avoiding most of the antitank guns. Last, he asked, if the tanks penetrated enemy lines by either method, what was to protect rear installations? Adding a bit of humor, and perhaps because of Brigadier General Parker's capture, he wanted to know if rear area defenders would rush forward with rifles and light machine guns to try to stop the tanks?<sup>37</sup>

Channelizing mechanization was a worn out and meaningless phrase. Scott complained that persons who applied it envisioned using antitank guns and antitank battalions in that way, and they failed to realize that an armored division's infantry, artillery, engineers, air components, and supporting forces not only prevented channelizing but permitted an armored division to attack in any direction it chose. The Tennessee maneuvers and six years of experience showed that conventional troops as they were presently equipped and organized could easily be surrounded, disrupted, and disorganized. The Army must develop new means and methods to counter the mechanized threat.<sup>38</sup>

The Tennessee maneuvers settled nothing; they were an extension of the debate of the 1920's and 1930's. Instead of feuding between infantry and cavalry, the debate centered on the role of armor and the means of defeating it. The Army was concerned about armor, especially how to protect nonarmored personnel from armor attacks. The exercise to them was a test of the antitank gun theory, which needed testing, but was unrealistic. Umpires permitted 37 mm gun crews to claim destruction of tanks, when in fact, tanks were the only armored vehicle that that size gun could not destroy, except by a lucky hit.

Early in the brigade maneuvers at Fort Benning, the tankers had learned that infantry had to support the tanks closely, in fact accompany them, rather than following behind. There was also a need for tracked vehicles to carry infantrymen to the objective.<sup>39</sup> The essential teamwork that evolved and was demonstrated in Tennessee confirmed the theory and training of the armored force. In the Louisiana maneuvers, this training and the ingenuity of the men would be put to a more severe test.

FOOTNOTES

<sup>1</sup>C. L. Scott to General Headquarters, United States Army, "Corps and Army Training," AG 353/13 (AF) 8 February 1941, Record Group 337.

<sup>2</sup>Grow, Manuscript Diary, 17 August 1940, 5 September 1940, 1 May 1941, Grow Papers; Second Armored Division, "Report of Operations—Second Army Maneuvers, June 1941," (15 July 1941), p. 1, Record Group 407.

<sup>3</sup>Benjamin Franklin Cooling, "The Tennessee Maneuvers, June, 1941," Tennessee Historical Quarterly, Vol. XXIV, No. 3 (Fall 1965), pp. 268-269.

<sup>4</sup>Geoffrey Keyes to E. N. Harmon, 4 May 1941, Record Group 407.

<sup>5</sup>Radiogram, Second Army to Commanding General Second Armored Division, 22 May 1941, Telegram, Second Army to Commanding General Second Armored Division, 3 June 1941, and George S. Patton, Jr., to C. L. Scott, 28 April 1941, *ibid.*

<sup>6</sup>C. L. Scott to Chief of Armored Force, 26 April 1941, Scott Papers; C. L. Scott to Brigadier General Donald A. Robinson, 26 April 1941, Record Group 407.

<sup>7</sup>Second Army to Commanding General Armored Force and Commanding General Second Armored Division, 24 April 1941, AG 463.7-4 (E), Record Group 337.

<sup>8</sup>C. L. Scott, "Talk Given to Officers Detailed for Umpires with Second Armored Division from First Armored Division," undated, Scott Papers.

<sup>9</sup>Cooling, "The Tennessee Maneuvers, June 1941," Tennessee Historical Quarterly, Vol. XXIV, p. 273; Memphis Commerical Appeal, 15 June 1941, Section I, p. 9.

<sup>10</sup>Geoffrey Keyes to Marion O. French, "Letter of Plans," 1 May 1941, and Second Armored Division, Field Order 12, 13 June 1941, Record Group 407; Grow, Manuscript Diary, 14-15 July 1941, Grow Papers; C. L. Scott to George S. Patton, 10 June 1941, Scott Papers.

<sup>11</sup>Cooling, "The Tennessee Maneuvers, June 1941," Tennessee Historical Quarterly, Vol. XXIV, p. 273; Oscar W. Koch, "Second Armored Division Maneuvers in Tennessee," Cavalry Journal, Vol. L, No. 5 (September-October 1941), p. 65; "Force of 70,000 Play at War in First U. S. Test of Tanks," Newsweek, Vol. XVII, No. 26, (30 June 1940), p. 28; Second

Army, "Preliminary Instructions to Exercise C-7," 14 June 1941, Record Group 407; Grow, Manuscript Diary, 16 July 1941, Grow Papers.

<sup>12</sup>"Test in the Field," Time, Vol. XXXVIII, No. 26 (30 June 1941), p. 18; Second Armored Division, "Annex 3 to Report of Operations - Second Army Maneuvers Held in Tennessee, June 1941," (15 July 1941), p. 1, Record Group 407.

<sup>13</sup>Memphis Commercial Appeal, 18 July 1941, p. 15; "Test in the Field," Time, Vol. XXXVIII, p. 18.

<sup>14</sup>"Force of 70,000 Play at War in First U. S. Test of Tanks," Newsweek, Vol. XVII, p. 28.

<sup>15</sup>Memphis Commercial Appeal, 18 June 1941, p. 15; Nashville Banner, 17 June 1941, p. 13.

<sup>16</sup>Nashville Banner, 16 June 1941, p. 12.

<sup>17</sup>Ibid.

<sup>18</sup>Nashville Banner, 20 June 1941, p. 9; Memphis Commercial Appeal, 19 June 1941, p. 13.

<sup>19</sup>Ibid., 19 June 1941, p. 13; Cooling, "The Tennessee Maneuvers, June, 1941," Tennessee Historical Quarterly, Vol. XXIV, pp. 273-274; Second Army to Commanding General Second Armored Division, 16 June 1941, Record Group 407; Grow, Manuscript Diary, 17 June 1941, Grow Papers.

<sup>20</sup>Second Army to Commanding General VIII Corps, 18 June 1941, VIII Corps, Field Order 11, 18 June 1941, and Second Armored Division, "Annex 4 to Report of Operations - Second Army Maneuvers held in Tennessee, June 1941," (15 July 1941), p. 1, Record Group 407; Grow, Manuscript Diary, 19 June 1941, 21 June 1941, Grow Papers.

<sup>21</sup>Ibid., 20 June 1941; Columbus Ledger, 30 June 1941, p. 11.

<sup>22</sup>Second Army, "Comments of the Chief Umpire, Exercise C-8," 21 June 1941, Record Group 407; Farago, Patton: Ordeal and Triumph, p. 161; Memphis Commercial Appeal, 21 June 1941, p. 3; "Force of 70,000 Play at War in the First U. S. Test of Tanks," Newsweek, Vol. XVII, p. 28.

<sup>23</sup>Second Armored Division, "Report of Operations - Second Army Maneuvers," p. 2, Record Group 407.

<sup>24</sup>Memphis Commercial Appeal, 24 June 1941, p. 5; 82d Reconnaissance Battalion (A), "Operations, 82d Reconnaissance Battalion (A) during Second Army Maneuvers, Period 16-26 June 1941," p. 1, White Papers; Grow, Manuscript Diary, 23 June 1941, Grow Papers; Columbus Ledger, 22 June 1941, p. 9.

<sup>25</sup>Second Army, "Preliminary Instructions (Red) to Exercise C-10," 24 June 1941, and Second Armored Division, "Annex 6 to Report of Operations - Second Army Maneuvers, held in Tennessee, June 1941," (15 July 1941), p. 1, Record Group 407; 82d Reconnaissance Battalion (A), "Operations, 82d Reconnaissance Battalion (A) during Second Army Maneuvers, Period 16-26 June 1941," p. 2, White Papers; Second Army, "Summary

of Operations 0500 - 1320, 26 June 1941," Record Group 407; Cooling, "The Tennessee Maneuvers, June 1941," Tennessee Historical Quarterly, Vol. XXIV, p. 278.

<sup>26</sup>Second Army, "Summary of Operations 0500-1320, 26 June 1941," Record Group 407; Grow, Manuscript Diary, 26-27 June 1941, Grow Papers.

<sup>27</sup>Dallas Morning News, 3 August 1941, Section IV, p. 13; Trahan, ed., A History of the Second United States Armored Division, n. p.; Jean R. Moenk, A History of Large Scale Army Maneuvers in the United States, 1935-1964 (Fort Monroe, Virginia: Headquarters United States Continental Army Command, 1969), p. 44; "Armored Force," Life, Vol. II, No. 1 (7 July 1941), p. 73.

<sup>28</sup>Second Armored Division, Field Order 28, 7 July 1941, Record Group 407; Cooling, "The Tennessee Maneuvers, June 1941," Tennessee Historical Quarterly, Vol. XXIV, p. 278.

<sup>29</sup>George S. Patton, Jr., to C. L. Scott, 9 July 1941, Scott Papers.

<sup>30</sup>Ibid.

<sup>31</sup>Ibid.

<sup>32</sup>Ibid.

<sup>33</sup>Ibid.

<sup>34</sup>Robert Gerard, "Blitzkrieg: A Warning to Americans," Christian Science Monitor, (Magazine Section), 19 April 1941, pp. 1-2.

<sup>35</sup>Grow, Manuscript Diary, 28 June 1941, Grow Papers.

<sup>36</sup>Ibid., 4 July 1941; Second Armored Division, "Report of Operations - Second Army Maneuvers, June 1941," pp. 3-4, Record Group 407.

<sup>37</sup>C. L. Scott to Chief of Armored Force, "New Means and Methods to Combat Armored Units," AG 537.3 5 July 1941, Scott Papers.

<sup>38</sup>Ibid.

<sup>39</sup>Hinds to Crittenberger, 30 May 1971, Hinds Papers.

## CHAPTER VII

### THE LOUISIANA MANEUVERS, 1941

The Louisiana maneuvers were the second large scale exercise in which the 2d Armored Division participated in 1941. In June the division had effectively demonstrated its nickname "Hell on Wheels" in the Tennessee maneuvers.<sup>1</sup> During the period from 9 August to 4 October, the division in Louisiana showed again that it deserved that title.

Lieutenant General Leslie J. McNair, Commanding General, Army Ground Forces, wanted the maneuvers to be realistic, as he wanted a crack officer corps. Hopefully, the exercises would reveal the officers' strong and weak points. General George C. Marshall, Army Chief of Staff, was looking for promotable colonels and lieutenant colonels. Most of the divisions participating in Louisiana were national guard units, and the exercises were to acquaint them with the strengths and weaknesses of armor, its tactics and theory. The Armored Force would experiment with new concepts. Major General Charles L. Scott, Commanding General, I Armored Corps, told McNair that while the Armored Force had not studied the possibility of following armored divisions with motorized infantry and support units, the Louisiana exercise or the Carolina maneuvers scheduled for November, would be a good time to consider it.<sup>2</sup>

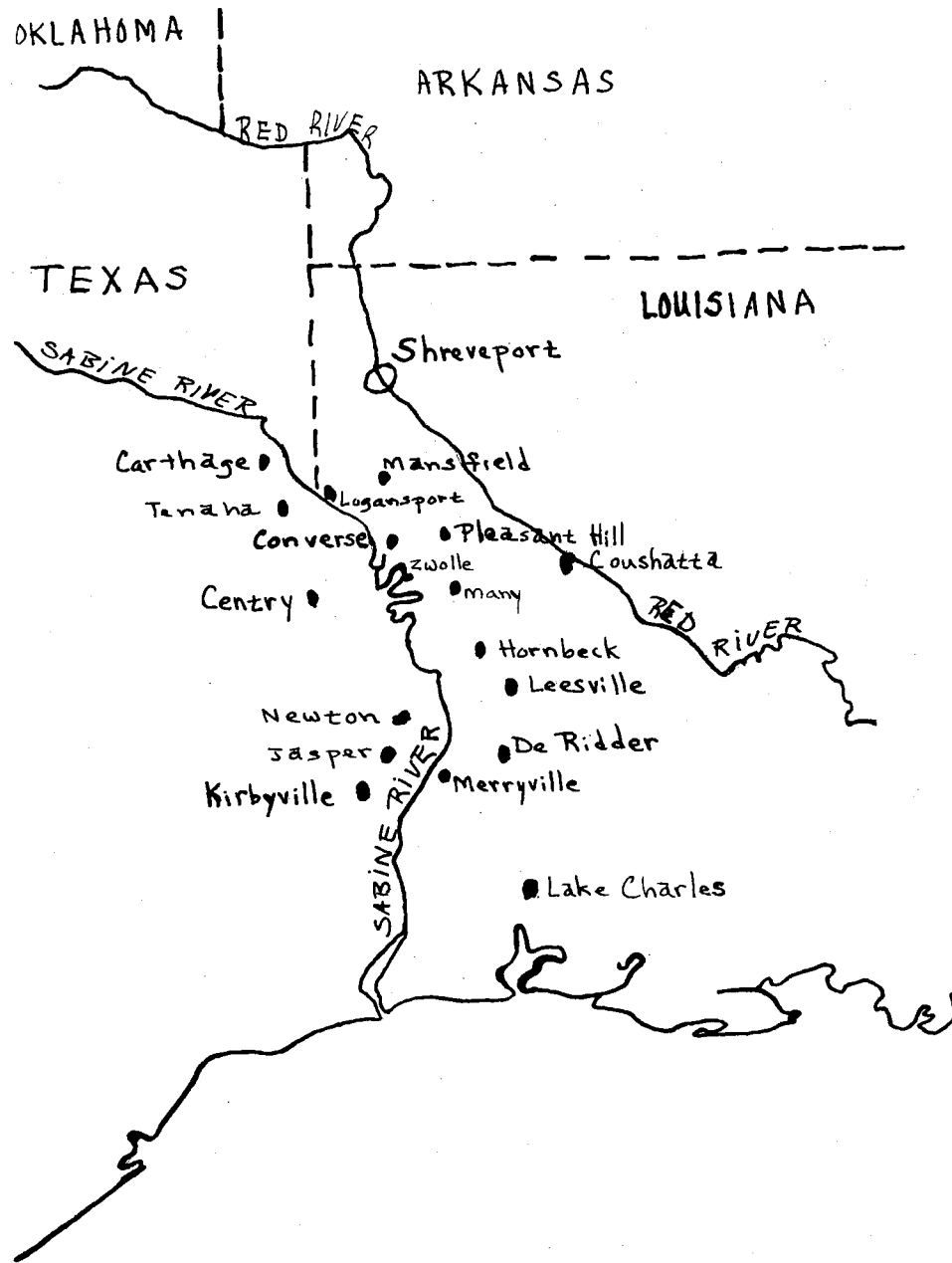


Figure 3. The Louisiana Maneuvers, 1941.

The maneuver area was bounded by Shreveport on the north, by Lake Charles on the south, by the Sabine River on the west, and by the Red River on the east, an area which covered about 13,637,416 acres. It was not considered tank country because it was covered with rice fields, stagnant water, swamps, and thick forests. During the maneuvers the division would change the definition of tank country to anywhere a tank could go. For the Louisiana maneuvers the organizational structure was altered to that of the Tennessee maneuvers. Artillery was organized into four battalions under a division artillery commander. The 41st Armored Infantry and 67th Armored Regiments were organized into three battalions each. The 66th Armored Regiment received a support battalion by regrouping its reconnaissance company, machine gun company, and mortar platoon. These were organized so as to give each battalion of the 68th Armored Regiment a support company. The infantry company in the 82d Reconnaissance Battalion was reorganized to provide a third reconnaissance company.<sup>3</sup>

The 2d Armored Division was still in its wooden gun and outmoded vehicle state. One picture in a divisional history shows a tank on a flat car ready to be sent to Louisiana and calls the reader's attention to the absence of guns. Lack of equipment continually hampered the division during its early existence.<sup>4</sup> The division shipped its tanks, half tracks, and artillery by rail, while most of the men and vehicles marched in two columns from Fort Benning, Georgia, on 9 and 10 August to Grand Cane, Louisiana. The two columns, more than seventy miles in length, required more than three hours to pass a given point. Initially, the division numbered 649 officers and 9,145 enlisted men, with 2,543 vehicles. During the maneuvers it gained 19 officers,



470 enlisted men, and 148 quarter ton and two and one-half ton trucks. One important loss to the division was the G-3, Lieutenant Colonel Robert W. Grow, who was assigned to the 5th Armored Division. He was replaced by Major Howard L. Peckham, commanding officer of the 17th Armored Engineer Battalion. Sixteen Canadian officers were temporarily assigned to the division and went with them.<sup>5</sup>

The maneuvers were built around the following scenario: KOTMK (Kansas, Oklahoma, Texas, Missouri, and Kentucky) was Red, and the invaded nation, while ALMAT (Alabama, Louisiana, Mississippi, Arkansas, and Tennessee) was Blue and the aggressor nation. Lieutenant General Ben "Yoo-Hoo" Lear commanded the Red Second Army while Lieutenant General Walter Krueger commanded the Blue Third Army. The exercises started with four corps problems and a command post exercise lasting from 16 August to 14 September. The two large-scale Second versus Third Army problems were held 15-28 September. Even during the corps problems, the situation of invader and defender dominated the situation.

The first problem had the Red Army V Corps landing at Lake Charles, then moving north to seize the Pleasant Hill-Noble-Mansfield Air Field. For this, V Corps had the 32d, 34th, 37th, and 38th Infantry Divisions, the 1st Cavalry Division, and the 1st Tank Group. Defending, the Blue VIII Corps had the 2d Armored Division, 2d, 36th and 45th Infantry Divisions, 18th Artillery Brigade, and the 56th Cavalry Brigade. Its mission was to attack southward, destroying the enemy wherever found, and to push the Red forces back into the Gulf of Mexico.<sup>6</sup>

Major General George V. Strong, Commanding General, VIII Corps, made his plans to attack southward, seizing the Peason Ridge area to

have a usable road net. The corps was then to continue southward, seizing Leesville, splitting the Red forces into two groups, which would be mopped up by the infantry following the 2d Armored Division. "Hell on Wheels" was to spearhead the VIII Corps movement. It was to move south, break through or envelop hostile resistance, seize Peason Ridge, and continue southeast, with an infantry division on each flank. The armored spearhead was supported by a 155mm howitzer regiment from the 18th Field Artillery Brigade.<sup>7</sup>

The 82d Armored Reconnaissance Battalion, commanded by Major I. D. White, assembled the afternoon of 16 August, and White cautioned his battalion that their job was to gain information, to find the 1st Cavalry Division, and the 1st Tank Group. They were not to worry about small groups but to find the bulk of the enemy forces. He stressed the need for teamwork: "we are not going to win the war all by ourselves as we did in Tennessee."<sup>8</sup>

The 2d Armored Division was organized into three columns, each having light and medium tanks, artillery, infantry, and engineer support, with the reconnaissance battalion reinforced with an engineer platoon. The division waited for the order which would send them into the exercises. For control purposes, both corps would attack on Third Army's order, which was given at 0200 on 17 August 1941.<sup>9</sup> The reconnaissance battalion moved out about 0400, while the division attacked about two hours later.

The exercise, which started in a rain, soon ran into dust. Initial enemy contact was along the Anacoco-Kurthwood-Hornbeck line. The reconnaissance battalion was delayed about one and a half hours south of Kurthwood by a blown bridge, while the left column was held

up for thirty-five minutes by a Red scout car south of Anacoco. After these delays, a platoon of tanks was placed in the lead and encountered little resistance until they met the 32d Infantry Division in a defile north of Rosepine. From Kurthwood on to Leesville, the 82d Reconnaissance Battalion ran into numerous antitank guns of the 1st Cavalry Division and had to scout ahead on foot. They managed to work themselves around the guns and arrived at Leesville at 1600. They continued south to a point two miles north of Pickering, while the leading elements of the three columns were at Anacoco, Kurthwood, and Slagle by 1630.<sup>10</sup>

North of Pickering, the reconnaissance battalion made contact with the 66th Armored Regiment, which was facing stiff opposition. White used B Company and the 2d Battalion, 78th Armored Artillery, in an attempt to help them. The 66th Armored Regiment attacked repeatedly but could not dislodge the enemy force from the defile north of Rosepine, losing an estimated forty to fifty tanks in the meantime. Late in the afternoon, the regiment broke contact, made a circling move to the east, and got on the flank of the 32d Infantry Division. By 2000 part of the 66th Armored Regiment had managed to get into Rosepine.<sup>11</sup> The first day ended with the 2d Armored Division making good progress.

The power drive technique used the next two days yielded to flanking attacks. VIII Corps ordered the attack resumed at 0500 on 18 August. The plan was to envelop the enemy right flank and push the Red Corps to the southeast. The 2d Armored Division was to make the main effort. The west column, 66th Armored Regiment (minus a battalion), started moving to the south of Pickering, but it was halted by hostile

antitank guns four miles south of the town. It had the 144th Regimental Combat Team attached, but was unable to overcome the enemy's antitank guns. The west column was split and there was no chance of relieving it. The center column, 2d Armored Brigade, was heavily engaged near Slagle, but managed to reach Sugartown that night. The east column, 68th Armored Regiment, cleared Pitkin, took Sugartown by 1345, and managed to work its way into Rosepine by 1430. Darkness found the east column almost entirely surrounded by the 1st Cavalry Division and an infantry division. At 1845, VIII Corps ordered the division to disengage and to assemble near Cravens, Pitkin, Leander, and LaCamp. The next morning it was to attack towards DeRidder, break through, and destroy those forces opposing the friendly 2d and 36th Infantry Divisions. The major effort was to be made by the 2d Armored and 45th Infantry Divisions. There was no hope of relieving the west column. It was left in place to attack southward the following day.<sup>12</sup>

The attack resumed at 0500. The center column made good progress below Pitkin; the east column pushed the enemy back and made progress toward Craven. The west column had trouble with the 32d Infantry Division, which slowed the column all day long. In an enveloping attack, the 45th Infantry Division surrounded the 1st Cavalry Division, and the 2d Armored was almost to DeRidder. The reconnaissance battalion moved on south. A company was at Lake Charles, while some tanks of the 66th Armored Regiment were moving into that area.<sup>13</sup> The exercise ended at 1500, with the units to bivouac in place and to keep all roads open.

In the critique, Lieutenant General Krueger pointed out that such conferences tended to dwell on mistakes and ignore good work. His opinion was that corps versus corps exercises permitted an opportunity to eliminate mistakes. Noting that V Corps (Red) had accurately located the 2d Armored Division in the opening phase of the battle, he pointed out that they could have determined the main battle area if such a plan of action had been already formulated. It had not been, in the Army Commander's mind. The Blue force, by using the 2d Armored Division to spearhead its attack, had reduced the need for other reconnaissance measures. The continued pushing by the division against organized defenses resulted in tank wastage, reduced the number of tanks available for the final attack, and forced the piecemeal use of armored vehicles. Lieutenant Colonel Grow observed that the division, however, was given credit for a good job. It had not done anything startling, but had kept pushing along.<sup>14</sup>

For the second exercise, the 2d Armored Division was assigned to V Corps (Red) and moved to assembly areas southeast of DeRidder on 23 August. While it was on this administrative move, Patton had the division practice maintaining tactical distances during marches and in bivouac at DeRidder, the division received a message to be sure that the tanks were marked correctly. It appeared that in the first exercise some tanks were not marked, while others had their organizational bands, which were red, while the division was a member of the Blue forces. General Krueger wanted this confusion stopped.<sup>15</sup>

In the theoretical situation, the Red forces had invaded Louisiana from the Gulf of Mexico and were trying to capture oil fields in the Mansfield area. Blue attacked south and was stopped along the

Hemphill-Hornbeck-Kisatchie line. The Red force mission was to drive the Blue defenders south of the Many-Robeline line and capture the oil fields in the Mansfield area. Lieutenant Colonel Grow formulated three plans. One was to make a wide envelopment into Texas and attack the Blue forces from the north (their rear). He thought that whether the division got much of its force across the Sabine River or not, the Red Corps would win the war. The second plan was to move a small force across the Sabine, as in plan one, while the bulk of the division awaited an infantry breakthrough. The third plan was to wait for an infantry breakthrough, which he thought would cause heavy casualties. The first plan was adopted. Field Order 6 ordered the 2d Armored Division to cross the Sabine, move north, seize crossings over the Sabine between Converse and U. S. Highway 59, cross the river, and attack the Mansfield area.<sup>16</sup> In the corps effort, the infantry divisions were to be the nose holding elements while the 2d Armored kicked the Blue force from the west and the 1st Cavalry Division enveloped the east flank and did the same there.

The 2d Armored Division crossed the Sabine River the afternoon of 24 August and established bivouac in the Jasper-Burkeville, Texas area. Using three columns, the division moved north, starting about 0500 on 25 August. The left or west column, protecting that flank, went as far as Lufkin. It turned east, found and captured a useable bridge at Carthage, and Grow, who was with the column, asked Patton to put an armored regiment across. Patton failed to do so, and the 2d Armored Brigade had a more difficult experience because of his decision.<sup>17</sup> The east and center columns turned northeast. Arriving at Logansport, they found the bridge there damaged, but not protected

by artillery or small arms fire. A heavy pontoon engineer battalion built 500 feet of bridge, while the 17th Engineer Battalion repaired the highway bridge. The lighter elements of the division began fording operations about 1205, while the engineers did their work, and by late afternoon, the division was across and behind Blue lines. Major General Strong, VIII Corps Commander, noted that the limited drive by the tank brigade was an excellent attack and conducted to the satisfaction of all concerned, except headquarters of the 125th Infantry Regiment, 36th Infantry Division. It seemed that the infantrymen were "peevish to find tanks running over their mess kits."<sup>18</sup>

The Blue forces shifted most of its troops northward, intending to attack and cut off the 2d Armored Division from its supply trains, and to open a route into the Mansfield area. The division resumed the attack on 26 August with its mission to advance to the Many-Robeline line, defeating the enemy wherever met.<sup>19</sup>

The 82d Reconnaissance Battalion moved southward, finding many antitank guns and blown bridges. It arrived at Fort Jessup about 1200, only to find the town already captured by one of its own units, a platoon from B Company. Apparently, the enemy would have liked to counterattack, but thought a larger force was in the town than the three scout cars actually there. Later in the evening, the enemy did attack and the umpires ruled that the reconnaissance troops would have to pull back which was a fair decision, because armored vehicles are vulnerable at night.<sup>20</sup>

During the day, most of which was spent detouring blown or burned bridges rather than fighting, the tankers showed that they were ingenious. As one tank company traveled down a road, two infantry

battalions of the 37th Infantry Division moved out on the road to see them. The infantrymen climbed on, and the tankers turned their guns on the footsoldiers. Umpires ruled the two battalions out of the battle. First Lieutenant D. A. Kelley gained information by renting a boat, removing his clothing, and pretending to fish. He rowed back and forth listening to the enemy talk. Returning to his side, he dressed, and told his company commander what he had discovered. That night, to add a little excitement to the war games, a scout section of the 2d Armored Division, having only a scout car, smoke pots, and a rifle, decided to set off the smoke pots and fire as fast as possible at the Blue forces. The Blue force thought the battle was beginning and returned the fire with all types of weapons, while messengers rushed away carrying the news of the attack, and leading reinforcements to the "battle." The results were that the Blue forces in that area got very little sleep that night.<sup>21</sup>

Orders were issued to continue the attack at 0500 the next morning, to complete the destruction of the Blue forces. During the night of 26-27 August, White had sent A and D Companies, 82d Reconnaissance Battalion, to block the Blue forces retreat to crossing points along the Red River. When these companies linked with the 1st Cavalry Division, Lieutenant General Krueger ruled that the last escape routes were closed and ended the battle at 0800.<sup>22</sup>

In the critique, Lieutenant General Krueger praised the 2d Armored Division for moving into Texas to outflank the Blue line, but he thought that in a real war the move would have been a dangerous division of forces. After getting behind the Blue force, the 2d Armored Division had cut Blue's communications and supply lines. The division



then revealed that it had carried food for five days and gasoline for 400 miles. Krueger was also unhappy about the lights in the division's command post and its traffic control. He also pointed out that road-blocks or blown bridges were only nuisances unless they were defended. The rule should be to make the enemy work to remove or repair obstacles to its advance. Major General Strong, however, disagreed, noting that the Logansport bridge was guarded and had a written statement of damages. The chief umpire later reestablished partial damages, which the division had to repair, using 100 man hours. Strong's remark was, "some engineering."<sup>24</sup> The bridge debate was the crucial issue, because by repairing and using the bridge, the 2d Armored Division had been able to position itself behind Blue lines. Apparently, Strong felt that had the proper damages been observed, he would have been able to shift his antitank units to counter the threat. The VIII Corps commander ended his remarks with scorn and sarcasm. He extended his compliments to the Fort Benning tankers for their new equipment--Kangaroo Tanks. These vehicles permitted the tankers to go over demolitions that were emplaced by engineers, and properly posted and flagged, without damage. After being critical of the 1st Cavalry Division, he cautioned that "hell will have an awful stench of the burning of hair and flesh when these two divisions are called to their final reward."<sup>25</sup>

The Red force commander, Major General Edmund L. Daley, however, compared the flanking attack favorably to any that had been done in Europe. Patton's men kept themselves supplied, kept Daley informed of enemy situations, and accomplished their assigned mission, which was commensurate with their mobility and firepower. Unaided, the

division cut the enemy's routes of communications and escape, and had it had following infantry, perhaps the mission could have been done more quickly. Lieutenant Colonel Grow noted that since the enemy failed to defend the Sabine River and knew that the 2d Armored Division was in Texas, it actually sealed its own fate from the beginning.<sup>26</sup>

The division was inactive from 28 August to 2 September. During three of those days, it was alerted for participation in a command post exercise, but it did not move from its bivouac areas. During the week, it conducted needed maintenance, and the men rested up for the remaining month of problems.

Exercises 3 and 4 opened on 5 September, with the two being combined into one problem, slated to terminate on 10 September. Rain from a hurricane turned the lowland into traps and threatened to take the blitz out of the maneuvers. Louisiana was becoming a tough proving ground. The exercise was built around two tactical concepts. The Red force was to occupy and defend the crossings over the Calcasieu River while the Blue force, of which the 2d Armored was a part, was to pursue the enemy and destroy him. The division, assigned to Third Army, initially was in Army reserve, positioned on the flank of VIII Corps, to help either VIII or V Corps, or to execute a wide flank movement if the situation permitted. Patton led his men to bivouac areas near Leesville and was ordered to attack the afternoon of 5 September. The division moved north in two columns to the Kiastchie-Kurthwood area, to relieve pressure on VIII Corps' flank. One column met strong resistance from the 1st Cavalry Division, while the other column met resistance from Red infantry and armor. Plans were made to resume the offensive at 0500 the next morning.<sup>27</sup>

The Red threat against the VII Corps flank was serious. The 2d Armored Division resumed the attack, meeting strong, determined opposition from the 1st Cavalry Division. The tankers captured Brigadier General Charles H. Gerhardt, commanding general, 2d Brigade, 1st Cavalry Division, as he led his brigade against the Third Army flank. Pushing through the Kisatchie National Forest in spite of land mines, antitank guns, and the weather, the division encircled the enemy and was in position to start the systematic defeat of the Red force, when the exercise ended at 0700.<sup>28</sup>

The men rested but were alerted to resume their attack at dark on 7 September. The division was to move in two columns, bridge the Red River in the Montgomery area, and cross the river to the Red forces on the east bank. Each column was to have rubber assault boats to cross the river or streams. The left column, commanded by Colonel James R. N. Weaver, commanding officer of the 68th Armored Regiment, was to feint an attack four miles northeast of Natchitaches to cover bridgehead operations west of Montgomery. The right column, led by Brigadier General Willis D. Crittenberger, was to establish a bridgehead west of Montgomery and to cover it by a feint five miles northeast of Clouterville.<sup>29</sup>

The division marched from its bivouac area and met stiff resistance from the 1st Cavalry Division. The 82d Reconnaissance Battalion, leading the 2d Armored Brigade, captured most of the cavalry division's service elements. Upon reaching the Red River, the combat organization of the division was modified, but its mission remained unchanged. Crittenberger was to cross the Red River on a pontoon bridge to be built by the 87th Engineer Battalion, while the 68th Armored

group protected the bridgehead. The 67th Armored group, commanded by Colonel Douglas T. Greene, was to attack and destroy the 1st Cavalry Division and Corps medium artillery, and to help the 68th Armored in bridgehead defense.<sup>30</sup>

Bridging operations began the next morning, but were delayed about an hour by air attacks. While the 87th Engineers built the pontoon bridge, the 17th Armored Engineer Battalion began ferrying tanks across the Red River. Patton had ordered that the bridge be completed by 2100; it was completed with two minutes to spare. The first vehicle crossed at 2101. While the tankers were crossing, the 1st Armored Division came upon the tail of the 2d Armored. A realistic fire fight followed, with both sides giving a good account of themselves. As the umpires were assessing the casualties, the 1st Armored seemed to have an advantage. Word was then received that it was all a mistake; the two divisions were in two different maneuvers and had accidentally met in Montgomery. The 2d Armored crossed the Red River, turned south and entrapped the Red forces. The 67th Armored Regiment remained on the west bank repelling attacks by the 1st Cavalry Division. Finally, Lieutenant General Krueger ended the problem, about twenty hours ahead of schedule.<sup>31</sup>

In the critique, Krueger was complimentary about the 2d Armored Division's work, saying that it had completed its mission in an excellent manner. However, he noted several small infractions that could have had deadly consequences in wartime. When crossing the Red River, there was severe traffic congestion, which indicated a lack of control by responsible officers. An air or artillery attack at that time would have caused serious losses. More disturbing to the

Army commander was the fact that certain elements were not ready for battle. Thirty-one vehicles from the 66th Armored Reconnaissance Company, 82d Reconnaissance Battalion, and 78th Armored Field Artillery had stumbled into an ambush. That itself did not anger Krueger, but the lead half-track had had its machine guns covered, a platoon of howitzers was covered, and the men in the vehicles did not have their individual weapons or were not wearing their ammunition belts. The Third Army commander wanted this situation corrected.<sup>32</sup>

The last two exercises were to be large scale: Second Army versus Third Army. The first one opened at 0530 on 15 September. Krueger's Blue Third Army had invaded southern Louisiana. Its mission was to attack up the Mississippi River valley, cutting the United States in half. Lieutenant General Ben Lear's Red Second Army was given the mission of repelling the attackers.

The 2d Armored Division, part of I Armored Corps, was to move during darkness on 14 September, cross the Red River at daylight, and seize the Fort Jessup-Many line extending to the Sabine River. Once the line was taken, reconnaissance was to be pushed southward. Because of the experience of Patton's men, they were told to be ready to do more than the 1st Armored Division. Lear opened the battle by sending his armored divisions heading south across the Red River. The columns were strafed by Air Corps and Navy aircraft. By early afternoon the division had taken its objectives, and held its position against increasing enemy opposition until 18 September. After preparing his defenses, Patton alerted the division to be ready to attack southward in two columns. The 82d Reconnaissance Battalion extended itself to Mt. Carmel in the early afternoon.<sup>33</sup>

On the second day of the exercises, a strong enemy force attacked Mt. Carmel, forcing the 2d Armored Division defenders out of the village. Five roads joined there, and since armored troops needed roads, it was of tactical importance. The 2d Armored counterattack was launched amid mass confusion. The men realized that a serious fight was about to occur, for many observer cars, press cars, commercial radio vehicles, and newsreel cameramen's vehicles were headed for the village. The element of surprise was lost because of the visitors, and the battalion executive officer wanted to attack in the dust of the VIP's. However, the umpires ruled that out of order. The first attack was by one tank and one half track, immediately ruled to be casualties, but the attack did reveal the positions of four antitank guns. Finally the umpires permitted the attack to resume, and two companies came out of the woods on the south, attacking the defenders in the rear. The umpires stopped the attack to assess damages and casualties. During the intermission, when aircraft bombed the neutral vehicles, both the Red and Blue forces wanted the umpire and other vehicles ruled out of action, but "rare is the umpire to rule out his own transportation." Later the umpires decided that the 2d Armored Division had retaken the town. When attempting to drive the Blue force out of positions north of town, the tankers had to stop, "ambushed by umpires," because of safety factors. All three sides argued as to which combatant had the firepower and force necessary to win the battle.<sup>34</sup> Patton's men won the round.

Patton was then ordered to attack southward towards the Peason area to drive the Blue forces from that position. He warned the men that the Third Army had the roads covered by antitank guns. The

Blue force raced the 2d Armored Division to the Hornbeck area, won the race, and controlled the hard surfaced roads to the Third Army area. After the 2d Armored Division lost the race, two infantry divisions, the 2d and 45th, threatened to encircle the Red force tankers, cutting them off from their escape routes. The terrain and antitank defenses had stopped the tankers. More crucial was the threat posed by the 1st Cavalry Division to the division's gasoline supply dumps and supply lines. The division was ordered to withdraw during the night of 18-19 September and then attack northwestward towards Zwolle to assist the 2d Cavalry Division in repelling the enemy 1st Cavalry Division. The 1st Cavalry captured the gasoline supply and earned its "moment of glory." Without gas, the tankers could do nothing and the exercises ended. For the first time, the 2d Armored Division was on the losing side.<sup>35</sup>

The fight lasted five days and the Second Army had been defeated. The Blue forces had turned the Red's flank, destroyed bridges, and the terrain was unsuited for armor. The tankers tried to break through at various points and some did, but they were captured or destroyed by Third Army's hunter-killer antitank units. The question whether a smaller unit, using tanks (Second Army), could hold off a force three times its size which lacked armor, was answered negatively for the time being. However, the tankers pointed out that had the maneuvers been elsewhere the results would have been different. Patton's men grumbled "wait 'till the next time." They felt that they had been denied the opportunity to use their speed and power properly and were anxious to show what they could do.<sup>36</sup>

Third Army was puzzled by the absence of armored strength on its front. The early mission was commensurate with the mobility and firepower of the 2d Armored Division, but any advantage gained was lost by the imposed delay. Armor's flexibility had been shown by its ability to withdraw from action, regroup, and then attack thirty miles in the opposite direction. The division also demonstrated that it could breach antitank gun defenses and make advances, but it lacked sufficient infantry strength to hold open the gaps. When the tanks passed through, the enemy infantry closed in behind the tankers and armored infantry, and they had to fight their way out. Lieutenant Colonel Sidney R. Hinds and his Second Battalion, 41st Armored Infantry Regiment, had been behind the Blue lines for the whole exercise. During the week, he and his men overran enemy positions, established ambushes, and generally raised havoc. One morning after routing an infantry regimental combat team, Lieutenant General Walter Krueger gave Hinds some "personal attention" for being "unrealistic." Even though the umpires supported the battalion commander, he had to comb the countryside, rounding up the routed enemy.<sup>37</sup>

The final exercise, again Second Army versus Third Army, was the most spectacular, and the one most often referred to when mentioning the 1941 Louisiana maneuvers or Patton. In this problem, the 2d Armored Division was part of Krueger's Third Army. Its mission was the advance on and the capture of Shreveport.

The exercise began in the rain; roads were almost impassable and the creeks, bayous, and rivers were flooded. In addition, Lieutenant General McNair wanted the armored attack and the antitanks guns to be the focal point of the exercise. The exercise, however, turned



out to be the battle of the bridges. Given the terrain and weather, every move depended on destroying bridges and building pontoon bridges to replace them. Every strategic move hinged on the Red or Sabine Rivers. The advantage rested with the defending Second Army.<sup>38</sup>

The battle for Shreveport opened on 24 September and was scheduled to end five days later. For this exercise the I Armored Corps consisted of the 2d Armored Division and the 2d Infantry Division (Motorized). It was a new type organization and one with which Major General Scott had indicated a desire to experiment. The infantry division could now keep pace with the tankers. Their mission would be to find and fix the enemy in positions. Then the tankers would attack through them. The 2d Infantry would follow, clearing enemy resistance overlooked or bypassed by the armor unit.<sup>39</sup>

The division was held in reserve for two days. Given the mission to pass through the gap created by the 2d Infantry Division, cross the Sabine River, and operate against the enemy's flank and rear, Patton issued orders for the envelopment of Shreveport. The division was divided into two columns: the west column, composed of wheeled vehicles permitted to use their lights, was made up of the 2d Battalion, 41st Armored Infantry Regiment, the 78th Armored Artillery, and C and D Companies of the 82d Reconnaissance Battalion; the east column, primarily consisting of tanks without lights, consisted of the remainder of the division. The reconnaissance elements departed at 2030, while the main body of the west column followed at 2200 on 25 September. Crossing the Sabine at Orange, the west column moved through Beaumont, turned north through Woodville, Nacogdoches, Henderson, Gladwater, Jefferson, and Belcher, Louisiana, ready to attack Shreveport on the 28th.<sup>40</sup>

The east column crossed the Sabine at Merryville, moved north through Jasper, San Augustine, Taneha, and Carthage. If successful, the tankers would be in position to launch attacks against Shreveport from the west, southwest, or south. The tankers encountered blown and defended bridges. Colonel William H. H. Morris, commanding officer of the 66th Armored Regiment, found a ford, drove off the defenders in a two hour battle (in reality it took that long to get an umpire to the scene), only to find the river had risen eight feet in twenty hours. He called for engineers to put in a pontoon bridge. Elements of the 68th Armored Regiment had crossed the Sabine and had moved to about fifteen miles of Shreveport. But the exercise's conclusion found most of the tanks at or near the river waiting to cross to the east bank.<sup>41</sup>

The Shreveport campaign was brought to its termination not by the tank threat, but by the wheeled column that came upon Shreveport from the rear. The column came under stiff antitank gun fire from units that had been shifted to counter the threat. Led by Lieutenant Colonel Hinds, the Second Battalion, 41st Armored Infantry Regiment, captured the water works on the city's western edge and then proceeded to capture the city airport and business district. While this was in progress, two platoons of B Company, 82d Reconnaissance Battalion, captured the operations office at Barksdale Field, preventing the Air Corps from sending out any more planes that day. In this maneuver, the 2d Armored Division had whiplashed around Lear's flank and attacked him from the rear, forcing the Second Army Commander to abandon defensive positions. He was preparing to retreat when the exercise ended at 1645 on 28 September, twenty-four hours ahead of schedule.

The opinion that Patton had "little more than a nuisance grip" on the city hardly seems justified. McNair threw a bouquet to the tankers for their Sabine River crossing near the battle's end, and Hinds and his men were called "damn nuisances," which they considered to be their first battle commendation.<sup>42</sup>

The destruction of the Bon Weir Bridge caused the 2d Armored Division to take a 350 to 400 mile detour, which was completely out of the maneuver area. Captured quartermaster records revealed that the division had bought a great quantity of fuel from local dealers, with cash, to make the move. This in itself was not entirely illegal, but required a liberal interpretation of a VIII Corps memorandum for its justification. On 11 August, VIII Corps had issued a memorandum stating that gas and oil could be purchased for individual vehicles only on courtesy cards issued by the quartermaster of the home station. It did not permit authorization for motor parts.<sup>43</sup> There was grumbling in some circles at the War Department that Patton did not play the game according to the rules of war. The only question, of course, is whose rules? In fact, the ferocity of the 2d Armored Division was more than play acting.

The division was hampered by thick forests, swamps, quagmires, and yet it specialized in capturing enemy command posts, and in cutting supply, communication, and escape routes. Patton, either in a plane or in a vehicle, was always up front, urging his men on with the cry of "God dam [sic] it, keep moving."<sup>44</sup> It seemed that the division commander had an innate sense which directed him to trouble spots. At one crossroad, where vehicles were bunched, he flew low and screamed at the personnel to get the vehicles under cover, as such a congested scene afforded an excellent air or artillery target.<sup>45</sup>

The maneuvers revealed many difficulties, notably that Louisiana was not the best tank terrain. There was limited maneuver space, extensive and effective use of demolitions, and mobile antitank opposition. Patton stated bluntly that catching infantry and artillery unaware was more difficult as antitank defense progressed, and that the "honeymoon" armor had enjoyed was coming to a close. At no time, however, was the division's forward movement completely stopped or its supplies totally disrupted. The division showed that, supported by motorized infantry, it could make the initial attack and seize key points which delayed or prevented the enemy's concentration. It could penetrate and exploit a narrow gap when backed by infantry and additional artillery fire. By using armor's inherent mobility and speed, it could, by surprise, flank and attack the enemy's rear.<sup>46</sup>

Lieutenant General Krueger wrote Patton to congratulate him and the division for their performance. The Third Army commander was "constantly impressed by the high morale, technical proficiency and devotion to duty by personnel of 2d Armored Division." He wanted the men thanked for their "loyal, tireless, cheerful, and efficient service."<sup>47</sup> Several weaknesses, however, had been revealed that needed improvement. Major General Devers noted that not all the junior officers knew their jobs, and that there was faulty staff work at the higher command levels. March discipline, bivouacs, maintenance and reconnaissance should be stressed in the upcoming Carolina maneuvers.<sup>48</sup>

Louisiana was the division's proving ground. In the earlier Tennessee maneuvers, Patton and his staff realized the size of an armored division. The training at Fort Benning had been regiment

versus regiment, or tank versus infantry, supported by artillery.

In Louisiana, together with the Tennessee experience, the division executed almost every type of action that it would encounter during World War II.

#### FOOTNOTES

<sup>1</sup>Trahan, ed., A History of the Second United States Armored Division, n.p.

<sup>2</sup>Greenfield, Palmer, and Wiley, The Organization of Ground Combat Troops, pp. 44-45; "Discipline Wanted," Time, Vol. XXXVIII, No. 15 (13 October 1941), p. 34; Charles L. Scott to Leslie J. McNair, 29 July 1941, Scott Papers.

<sup>3</sup>New Orleans Times Picayune, 3 August 1941, p. 17; Second Armored Division, "Report of Operations, Corps Field Exercises and Army Maneuvers, August 9-October 3, 1941," (23 October 1941), p. 1, Record Group 407.

<sup>4</sup>Trahan, ed., A History of the Second United States Armored Division, n.p.

<sup>5</sup>Second Armored Division, Field Order 2, 7 August 1941, and Second Armored Division, "Report of Operations," p. 1, Record Group 407; Grow, Manuscript Diary, 31 August 1941, Grow Papers; Interview, Major General H. L. Peckam with author, 1 June 1972, Washington, D. C.; Second Armored Division, Memo to Staff, 1 August 1941, Record Group 407.

<sup>6</sup>New Orleans Times Picayune, 4 August 1941, p. 17; Third Army, "Third Army Critiques and Critique Notes, Maneuvers, 1941: Summary of Operations: First Field Maneuvers--V versus VIII Army Corps, 12 Noon, 15 August 41 to 3 p.m., 19 August 41," p. 1, Record Group 407.

<sup>7</sup>Third Army, "Third Army Critique and Critique Notes, Maneuvers, 1941: Remarks of [Major] General [George V.] Strong," p. 2, Record Group 337; Second Armored Division, Field Order 4, 16 August 1941, Record Group 407.

<sup>8</sup>I. D. White, "Notes, Conference of all Men and Officers," 16 August 1941, White Papers.

<sup>9</sup>Grow, Manuscript Diary, 16 August 1941, Grow Papers.

<sup>10</sup>Second Armored Division, "Annex Number 4, to Report of Operations-Corps Field Exercises and Army Maneuvers, August and September 1941," (16 October 1941), p. 1, Record Group 407.

<sup>11</sup>Grow, Manuscript Diary, 17 August 1941, Grow Papers; 82d Reconnaissance Battalion, "Record of Operations of 82d Reconnaissance Battalion (A) Louisiana Maneuvers, 1941," (10 October 1941), p. 1, White Papers.

<sup>12</sup>Third Army, "Third Army Critique and Critique Notes, Maneuvers, 1941: Remarks of [Major] General [George V.] Strong," p. 2, Record Group 337; Second Armored Division, "Annex Number 4 to Report of Operations-Corps Field Exercises and Army Maneuvers," pp. 1-2, Record Group 407; Grow, Manuscript Diary, 18 August 1941, Grow Papers; Third Army, Third Army Critiques and Critique Notes, Maneuvers, 1941: Summary of Operations," p. 6, Record Group 337; Grow, Manuscript Diary, 18 August 1941, Grow Papers; Second Armored Division, "Annex Number 4 to Report of Operations," p. 2, Record Group 407.

<sup>13</sup>Grow, Manuscript Diary, 19 August 1941, Grow Papers; Third Army, "Third Army Critiques and Critique Notes, Maneuvers, 1941: Summary of Operations," p. 7, Record Group 337; 82d Reconnaissance Battalion, "Record of Operations of the 82d Reconnaissance Battalion (A) Louisiana Maneuvers 1941," p. 1, White Papers.

<sup>14</sup>Third Army, "Third Army Critiques and Critique Notes, Maneuvers, 1941, Remarks of [Lieutenant] General [Walter] Krueger," p. 1, Record Group 337; Grow, Manuscript Diary, 21 August 1941, Grow Papers.

<sup>15</sup>Second Armored Division, Field Order 5, 22 August 1941, and Third Army to Commanding General Second Armored Division, 23 August 1941, Record Group 407.

<sup>16</sup>I. D. White, "Notes, Conference by Battalion Commander to Assembled Officers and Men," 29 August 1941, White Papers; Grow, Manuscript Diary, 22 August 1941, Grow Papers; Second Armored Division, 24 August 1941, Record Group 407.

<sup>17</sup>Shreveport Times, 30 August 1941, p. 20; Grow, Manuscript Diary, 25 August 1941, Grow Papers.

<sup>18</sup>Second Armored Division, Field Order 7, 25 August 1941, Record Group 407; Third Army, "Third Army Critiques and Critique Notes: Remarks of Major General George V. Strong; August 28, 1941," pp. 1-2, Record Group 337.

<sup>19</sup>Ibid., p. 2; Second Armored Division, Field Order 8, 25 August 1941, Record Group 407.

<sup>20</sup>I. D. White, "Notes: Conference by Battalion Commander to Assembled Officers and Men, August 29, 1941," White Papers.

<sup>21</sup>New Orleans Times Picayune, 27 August 1941; p. 8; Columbus Ledger, 2 October 1941, p. 22; John Field, "The Battle of Louisiana--With the Red Army," Life, Vol. XI, No. 15 (13 October, 1941); p. 15; Grow, Manuscript Diary, 26 August 1941, Grow Papers.

<sup>22</sup>Second Armored Division, Field Order 9, 26 August 1941, Record Group 407; Grow, Manuscript Diary, 27 August 1941, Grow Papers; I. D. White, "Notes: Conference by Battalion Commander to Assembled Officers and Men, August 29, 1941," White Papers.

<sup>23</sup>Shreveport Times, 29 August 1941, p. 8, 30 August 1941, p. 20.

<sup>24</sup>White, "Notes: Conference by Battalion Commander to Assembled Officers and Men, August 29, 1941," White Papers; Third Army, "Third Army Critiques and Critique Notes: Remarks of Major General George V. Strong, August 28, 1941," p. 2, Record Group 337.

<sup>25</sup>Ibid., p. 4.

<sup>26</sup>Third Army, "Third Army Critiques and Critique Notes: Remarks of Major General Edmund L. Daley, August 28, 1941," p. 1, *ibid.*; Grow, Manuscript Diary, 28 August 1941, Grow Papers.

<sup>27</sup>New Orleans Times Picayune, 3 September 1941, p. 16, 10 September 1941, p. 6; Second Armored Division, "Report of Operations--Corps Field Exercises and Army Maneuvers, 9 August to 3 October 1941," (23 October 1941), p. 4, "Annex Number 7 to Report of Operations--Corps Field Exercises and Army Maneuvers, August and September, 1941," p. 1, Second Armored Division, Field Order 11, 4 September 1941, and Second Armored Division, Field Order 12, 5 September 1941, Record Group 407.

<sup>28</sup>New Orleans Times Picayune, 6 September 1941, p. 13; 82d Reconnaissance Battalion, "Report of Operations of 82d Reconnaissance Battalion, Louisiana Maneuvers, 1941," p. 2, White Papers; Second Armored Division, "Annex Number 7 to Report of Operations--Corps Field Exercises and Army Maneuvers, August and September 1941," p. 1, Record Group 407.

<sup>29</sup>Second Armored Division, Field Order 13, 7 September 1941, *ibid.*

<sup>30</sup>Second Armored Division, Field Order 14, 8 September 1941, *ibid.*

<sup>31</sup>Second Armored Division, "Report of Operations--Corps Field Exercises and Army Maneuvers, August 9 to October 3, 1941," (23 October 1941), p. 4, and "Annex Number 7 to Report of Operations--Corps Field Exercises and Army Maneuvers August and September, 1941," p. 2, Record Group 407; Shreveport Times, 11 September 1941; pp. 13, 20; John Hutchinson, "According to Plan," Cavalry Journal, Vol. L, No. 6 (November-December 1941), p. 61.

<sup>32</sup>Third Army, "Third Army Critiques and Critique Notes, Maneuvers 1941: Critique by [Lieutenant] General [Walter] Krueger, 11 September 1941," pp. 8-9, Record Group 337.



<sup>33</sup>"New Army Puts Muscle to Test in Nation's Biggest Maneuvers," Newsweek, Vol. XVIII, No. 13 (29 September 1941), p. 30; I. D. White, "Notes: Conference of Company Commanders North of Hargis on September 10, 1941," p. 1, White Papers; Second Armored Division, Field Order 16, 14 September 1941, Record Group 407; "Big Maneuvers Test U. S. Army," Life, Vol. XI, No. 14 (6 October 1941), p. 33; Second Armored Division, "Report of Operations-Corps Field Exercises and Army Maneuvers, August 9 to October 3, 1941," (23 October 1941), p. 5; and Second Armored Division, Field Order 17, September 15, 1941, Record Group 407; 82d Reconnaissance Battalion (A), "Record of Operations of 82d Reconnaissance Battalion (A), Louisiana Maneuvers, 1941," (10 October 1941), p. 2, White Papers.

<sup>34</sup>Leonard H. Nason, "The Fight at Mt. Carmel," Cavalry Journal, Vol. L, No. 6 (November-December, 1941), pp. 47-48; Edward K. Thompson, "The Battle of Louisiana--With the Blue Army," Life, Vol. XI, No. 15 (13 October 1941), p. 23.

<sup>35</sup>Second Armored Division, Field Order 19, 17 September 1941, Record Group 407; New Orleans Times Picayune, 17 September 1941, p. 1; Moenk, A History of Large Scale Army Maneuvers in the United States, 1935-1964, p. 57; "New Army Puts Muscle to Test in Nation's Biggest Maneuvers," Newsweek, Vol. XVIII, No. 13, pp. 30-31; 82d Reconnaissance Battalion (A), "Record of Operations of 82d Reconnaissance Battalion (A), Louisiana Maneuvers, 1941," (10 October 1941), p. 2; White Papers; G. Patrick Murray, "The Louisiana Maneuvers: Practice for War," Louisiana History, Vol. XIII, No. 2 (Spring 1972), p. 129; Herr and Wallace, The Story of the U.S. Cavalry, p. 251.

<sup>36</sup>"Big Maneuvers Test U.S. Army," Life, Vol. XI, No. 14, pp. 33, 38; New Orleans Times Picayune, 19 September 1941, p. 3; 22 September 1941, p. 3; "New Army Puts Muscle to Test in Nation's Biggest Maneuvers," Newsweek, Vol. XVIII, No. 13, pp. 30-31.

<sup>37</sup>Murray, "The Louisiana Maneuvers: Practice for War," Louisiana History, Vol. XIII p. 129; Second Armored Division, "Annex Number 8 to Report of Operations-Corps Field Exercises and Army Maneuvers, August and September, 1941," (16 October 1941), p. 1, Record Group 407; Columbus Ledger, 25 September 1941, p. 18; Sidney R. Hinds to Bradford G. Chynoweth, 7 January 1972, Hinds Papers.

<sup>38</sup>New Orleans Times Picayune, 22 September 1941, p. 3, 25 September 1941, p. 9; "The 'Battle of Bridges'," Cavalry Journal, Vol. LI, No. 1 (January-February 1942), p. 50; "Battle of Shreveport," Time, Vol. XXXVIII, No. 14 (6 October 1941), p. 42.

<sup>39</sup>Second Armored Division, "Annex Number 9, to Report of Operations-Corps Field Exercises and Army Maneuvers, August and September 1941," (16 October 1941), p. 1, Record Group 407; Columbus Ledger, 25 September 1941, p. 18.

<sup>40</sup>Second Armored Division, Field Order 21, 25 September 1941, Record Group 407; 82d Reconnaissance Battalion (A), "Record of Operations of 82d Reconnaissance Battalion (A) Louisiana Maneuvers, 1941," (10 October 1941), p. 3, White Papers; Second Armored Division, "Report of Operations-Corps Field Exercises and Army Maneuvers, August 9 to October 3, 1941," (23 October 1941), p. 6, Record Group 407.

<sup>41</sup>"Battle of Shreveport," Time, Vol. XXXVIII, No. 14, p. 42; Second Armored Division, "Report of Operations-Corps Field Exercises and Army Maneuvers, August 9 to October 3, 1941," (23 October 1941), p. 6-7, Record Group 407.

<sup>42</sup>Sidney R. Hinds to Author, 13 April 1971, author's papers; Shreveport Times, 29 September 1941, p. 2; 82d Reconnaissance Battalion (A), "Record of Operations of 82d Reconnaissance Battalion (A), Louisiana Maneuvers, 1941," (10 October 1941), p. 3, White Papers; "Battle of Shreveport," Time Vol. XXXVIII, No. 14, p. 44; Robert S. Allen, Lucky Forward: the History of Patton's Third U.S. Army (New York: The Vanguard Press, Inc., 1947), p. 10.

<sup>43</sup>"The Battle of Bridges," Cavalry Journal, Vol. LI, p. 50; VIII Army Corps, Administrative Memorandum, 11 August 1941, Record Group 407; James Wellard, General George S. Patton, Jr.: Man Under Mars (New York: Dodd, Mead, and Company, 1946), p. 49.

<sup>44</sup>Duncan M. Smith, "With Major General Patton Riding Ahead," Christian Science Monitor (Magazine Section), 9 January 1943, p. 13; Wellard, General George S. Patton, Jr., p. 49.

<sup>45</sup>Harry H. Semmes, Portrait of Patton (New York: Coronet Communications, 1955), p. 82; Interview, General John K. Waters with author, 1 June 1972, Potomac, Maryland.

<sup>46</sup>Charles L. Scott to A. T. Caldwell, 14 October 1941, Scott Papers; New Orleans Times Picayune, 7 September 1941, p. 16; Second Armored Division, "Report of Operations-Corps Field Exercises and Army Maneuvers, August 9 to October 3, 1941," (23 October 1941), pp. 6-7, and "Annex Number 9 to Report of Operations-Corps Field Exercises and Army Maneuvers, August and September 1941," (16 October 1941), pp. 1-2, Record Group 407.

<sup>47</sup>Walter Krueger to George S. Patton, Jr., 9 October 1941, *ibid.*

<sup>48</sup>Jacob L. Devers to Charles L. Scott, 15 October 1941, Scott Papers.

## CHAPTER VIII

### THE CAROLINA MANEUVERS

The Carolina maneuvers of November 1941 were the last large-scale peacetime exercises in which the 2d Armored Division participated. In Tennessee, the division discovered that it was a large organization; while in Louisiana, it was sharpened as an offensive weapon. The Carolina maneuvers honed its skills and helped the division to correct defects noted in both of the earlier maneuvers, and prepared it for a war that it hoped the United States could avoid. The maneuvers sought answers to two questions. How could the armored force be used to prevent or destroy an enemy invasions, and what was the most effective means to kill tanks, thus ripping the vitals out of a panzer division?<sup>1</sup>

The division returned from Louisiana in early October 1941 to prepare for the Carolina maneuvers. That same month, Major General Charles L. Scott, commanding general, I Armored Corps, addressed the officers about defects in training. He opened and concluded his remarks with the observation that the Armored Force had made excellent progress in spite of equipment shortages. Training was satisfactory and improvements were continuing. He also noted that the officers and men knew how to shoot, drive, and maintain their vehicles. They had an abundance of energy and confidence in their ability to complete any assignment.<sup>2</sup>

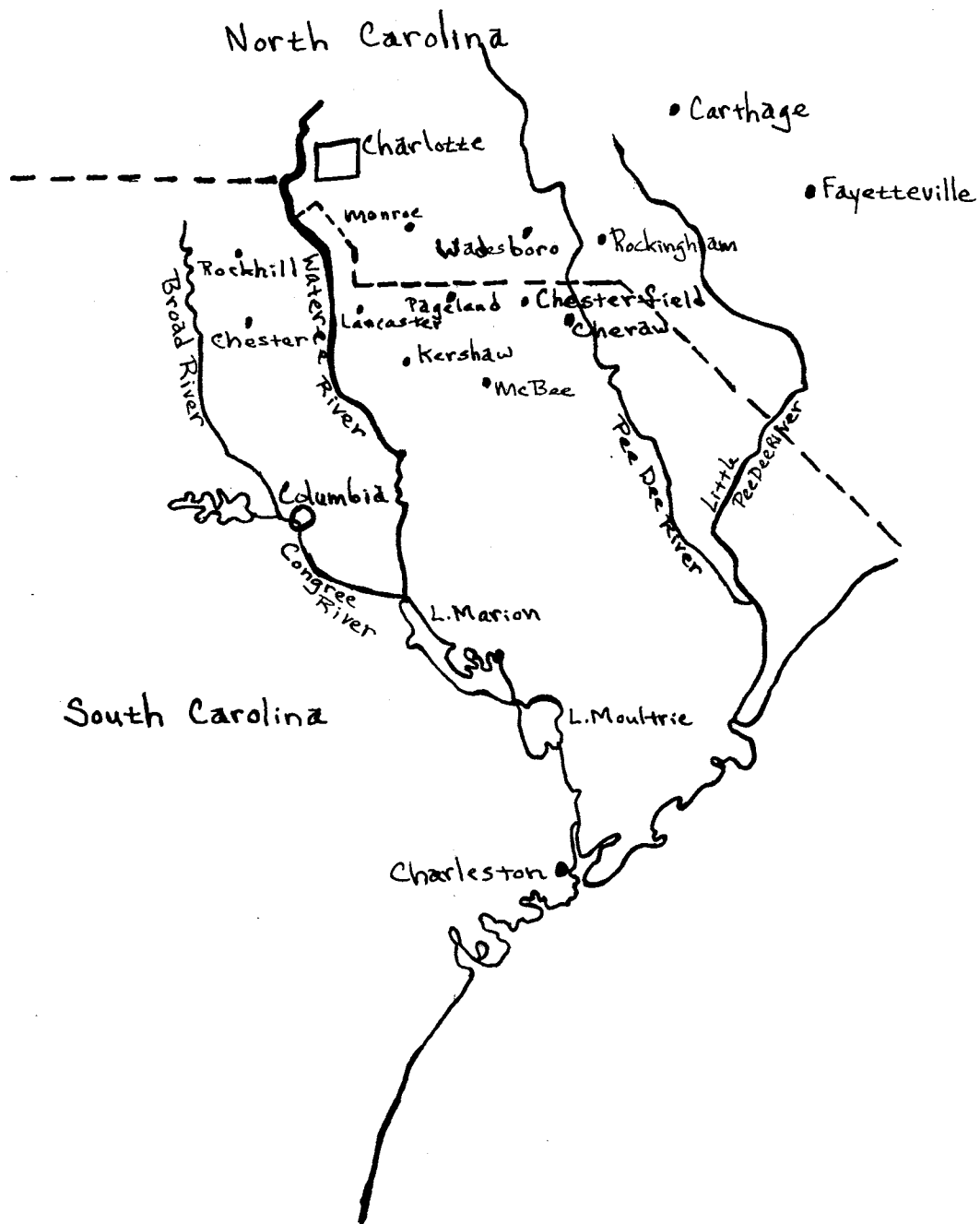


Figure 4. The Carolina Maneuvers, 1941.

Sandwiched between the laudatory opening and closing remarks were a "repetition of errors that should be and must be corrected if we are to be successful in battle," said Scott.<sup>3</sup> He felt that column commanders did not use all of their weapons when confronted by certain situations. Some officers displayed a lack of leadership by not being well forward in their columns or at the scene of problems. There was failure by some column commanders to arrange the various elements so that different units could be properly and quickly employed to their best advantage. He noted specifically that one officer was given a mission to force a river crossing and had his engineers and artillery to aid him. Since he had placed these units well to the rear of his column, vital time was used bringing them forward, where they should have been in the first place.<sup>4</sup>

Scott detailed other problems: armored divisions were too roadbound, and they should move cross-country more; reconnaissance, route markings, road guides, vehicular control; and the timing of the units' arrival at the scene of the action. He attributed many of the errors to lack of detailed advance planning, failure to establish standard operating procedures, and the failure to use various service schools. "Brilliant plans of the higher commanders," Scott said, "are worthless if the execution is faulty. Simple plans and simple plays, well executed, are the goals to be sought."<sup>5</sup>

To eliminate some of the complaints, Patton issued instructions that drivers, platoon leaders, and all commanders would check their vehicles for defective lights, horns, and brakes, both at the end of the day and prior to the next day's usage. To keep the troops informed, and to disseminate orders, a point that Scott had also stressed,

messengers and couriers were ordered to stop at all command posts and to tell the command personnel the situation as the messenger knew it. In addition, the Columbus Ledger found that a daily order was issued, stating that sweat shirts were not authorized outer garments, especially the ones lettered "Hell on Wheels."<sup>6</sup>

While preparing for the Carolina maneuvers, the division received 231 replacements for the more than 600 men who were being discharged as overage. In addition, equipment was arriving, such as 112 half-tracked personnel carriers and artillery prime movers, 32 M-3 medium tanks, and 43 M-3 light tanks. On the eve of the Carolina exercises, the men felt that in spite of lacking about 2 percent of their equipment, primarily medium tanks, they were "fit for and capable of immediate and decisive combat in the event of a national emergency."<sup>7</sup>

The maneuver area would challenge the tankers as had the Tennessee and Louisiana areas. The area was bounded by Columbia, South Carolina, on the southwest and Salisbury-Sanford, North Carolina, on the northeast. In the area and posing difficulties, were the Broad, Catawba, Wateree, Black, Lynches, Great Pee Dee, and Little Pee Dee Rivers. The terrain was covered with thick pine forests, that were dry from a lack of rain.

Movement orders were issued on 27 October; the 2d Armored Division was to move in two columns to positions near Chester, South Carolina. The vehicles were to carry gasoline for a 200 mile march and sufficient oil and grease for 400 miles. Column commanders were instructed to constantly check march discipline, including the rate of march and the distance between vehicles. The 17th Engineer Battalion was dispatched

three days ahead of the division to do some necessary work, while the tanks were sent by train.<sup>8</sup>

As in Tennessee and Louisiana, the division underwent reorganization: four artillery battalions under a division artillery commander, and three battalions of two companies each in the 41st Armored Infantry and 67th Armored Regiments. A provisional support battalion was added to the 66th Armored Regiment, while the 68th Armored Regiment had a support company added to each of its battalions. The 82d Reconnaissance Battalion changed its infantry company into a reconnaissance company, giving it three reconnaissance companies and a tank company. Initially, 613 officers, 9,111 enlisted personnel, and 2,847 vehicles were involved in the exercises.<sup>9</sup>

In the first exercise, a hostile Blue Army had landed at Savannah, Georgia, captured Columbia, South Carolina, and then attacked northward to protect its beachhead area for further landings. The 2d Armored Division, part of the Red IV Corps, was to move south from Chester and attack and destroy the enemy force wherever found between the Broad River and Highway 21. The 31st Infantry Division was on the left flank of the tankers and the 4th Infantry Division (Motorized) was held in Crops Reserve. The Red Army mission was the capture of Columbia, South Carolina, and its communications facilities.<sup>10</sup>

The 2d Armored Division was organized into three columns and moved to the restraining lines during the evening of 4 November. The Reconnaissance Battalion and the advance guards moved further south, protecting the roads into the division's bivouac area. Preparations were made to attack anytime after 0600 on 5 November, and when the attack order was received at 0630 the men started moving south immediately.<sup>11</sup>

Initially, the division made satisfactory progress, destroying most of the 3d Cavalry Regiment. The center and east columns were slowed by enemy artillery, infantry, cavalry, and antitank weapons. The west column continued to make excellent progress, and was in position to deliver a strong flanking attack the following day to assist the advance of the center column. Company C, 82d Reconnaissance Battalion, captured the 179th Field Artillery Regiment (155mm howitzers) while they were moving down a road.<sup>12</sup>

After the attack resumed on 6 November, the 2d Armored Brigade reported capturing thirty truck loads of infantrymen of the 112th Infantry Regiment, 28th Infantry Division, while Company D, 82d Reconnaissance Battalion, captured the First Battalion, 103d Infantry Regiment, 43d Infantry Division. Headquarters IV Corps decided to commit the 4th Infantry Division (Motorized) to the battle on the 2d Armored Division's right flank, between the Broad River and U.S. Highway 215. This required that the 2d Armored shift the axis of its attack eastward.

Patton halted the division for the evening, and resumed the offensive at 0600 the following morning. With the 4th Infantry Division (Motorized) attacking southwest, the 2d Armored Division was to attack southeast and east, hopefully capturing Columbia and trapping the enemy troops east of the city. The center column advanced so quickly and with such surprise, that it captured the commanding general of the 85th Infantry Brigade, along with 1,041 other officers and men. Meanwhile elements of the 82d Reconnaissance Battalion reached Columbia about 0900. The roads leading into the city were clear of enemy opposition and the 2d Armored and 4th Infantry Divisions



were ready to launch their attack on the objective when the exercise was halted at 0900.<sup>13</sup> The first exercise was a partial repeat of the Tennessee and Louisiana maneuvers. The tankers had moved quickly through a zone, then had their attack corridor held open by an infantry division on each flank. The introduction of the 4th Infantry Division permitted the tankers to swing wide around the east flank of the city, rendering once again the nose and seat of the pants operation. The terrain was ideal for tanks, justifying their prophesy in Louisiana of waiting until the next maneuvers.

The second corps exercise matched the I Armored Corps (Blue) against the IV Corps (Red). This was to be the first time that the two trained armored divisions would participate in a maneuver together. As the scenario was written, the Red and Blue Armies were fighting in northwestern Carolina. Both had large forces east of the Broad River, attempting to envelop the flank of the other. Movement west of the Broad River was permitted. A neutral state existed east of the Catawba River and both belligerents were to respect its neutrality.<sup>14</sup>

The I Armored Corps camped north of Columbia, South Carolina, was to attack, seizing Chester, its railroad and railroad facilities, and then prepare to attack the rear of the Red Army. To accomplish this mission, Major General Scott decided to attack with three divisions abreast--the 1st Armored on the east, the 2d Armored on the west, and the 4th Infantry (Motorized) in the center. The route of attack was the same as it had been in the first exercise, except that the units would be moving north, not south.<sup>15</sup>

The 2d Armored would attack north in three columns. The force commander had been verbally instructed to send reconnaissance and advance guard elements to the restraining line, but not to cross it until ordered to do so by the division commander. At 2330 on 9 November, Field Order Number 6 was issued, alerting the division for possible employment any time after 1800 that day. The column commanders were instructed to leave infantry detachments to guard bridges in order to relieve the 82d Reconnaissance Battalion of the task.<sup>16</sup> The Armored Corps issued its attack order at 0630 on 10 November, but the message was delayed, not reaching the division headquarters until thirty-five minutes later. Initially, the two armored divisions were to lead the attack, but because of the lack of roads there was a change in plans, and they were instructed to screen the 4th Infantry Division's zone until the 2d Armored passed through Lebanon and the 4th Infantry joined the attack.

The 2d Armored Division started northward, meeting initial opposition about 0725, but progressed steadily, despite problems from the retreating Blue forces. One Blue combat team caused a traffic jam at a bridge over Salem Creek and was attacked by the Red bombers. By 1215, the division was north of Lebanon, and was then ordered to clear the roads so that the 4th Infantry Division (Motorized) could enter the battle. When the infantrymen did join the fight, it freed one tank column to rejoin the division as its reserve. In the late afternoon the 107th Cavalry Regiment (Blue) attacked the division train (non-combat elements of the division), only to be driven off with the loss of two troops (companies). During the night of 10-11 November, the division formed two combat columns

instead of three, and the attack resumed at 0630 the following morning. The enemy was retreating and had no organized defenses. If the commanding general had correctly estimated the situation, the division's attack should gain speed and perhaps end the exercise ahead of schedule.<sup>17</sup>

When the attack resumed, B Company, 41st Armored Infantry Regiment, stumbled onto a motor park containing cargo trucks, kitchen, and other miscellaneous vehicles belonging to a Blue force artillery regiment. One squad captured the motor park guards. A Blue force artillery sergeant blew his whistle to rouse his men, and as they came out of their tents carrying their mess gear, they were promptly captured. The division attack gained momentum, and by noon the 2d Armored had captured its objective, twenty-four hours ahead of schedule. Patton was pleased. He issued a general order congratulating the men for their tireless work and then observed that the "2d Armored Division is prepared to acquit itself in the final maneuvers with the First Army so as to maintain indisputably its well-earned position as "Second to None."<sup>18</sup>

The tankers were given a short rest while the maneuver rules were altered. These changes, whether intentionally designed to handicap the armored force or not, had that effect. The changes permitted the destruction of tanks with hand grenades, but mortar fire could not destroy antitank guns; also smoke could not be used by the armored force to cover its advance. To counter these changes, Major General Scott ordered the two armored division commanders to use their full firepower and to tell the umpires of the amount and types of weapons

fired. The tank forces were to move cross-country, hopefully avoiding mines, hand grenades, and antitank guns.<sup>19</sup>

In the next exercise the tankers were to have their first lesson in military government. The 2d Armored Division was to create a civil affairs section (G-5), to function in the manner prescribed by the division commander and by the War Department's Field Manual 27-5. Officers were to be appointed to oversee the administration of public works, utilities, fiscal affairs, public health and safety, communications, and economics, and a judge advocate was to be appointed to administer laws.<sup>20</sup> The only preclusion was that the military government would be simulated, not actually implemented.

The General Headquarters directed phase of the maneuvers promised to be the most satisfying for Patton personally. The I Armored Corps was attached to IV Corps, commanded by Major General Oscar W. Griswold. The First Army was to oppose this force. Its commander, Lieutenant General Hugh A. Drum, was a long-time personal enemy of Patton, and there was no love lost between the two men. If either man could publicly embarrass the other, he would do so with pleasure.<sup>21</sup>

As the problem was drawn, the Wateree River formed the boundary between two states, with Red on the west bank, and Blue on the east bank. The Blue First Army was reportedly concentrating east of the Pee Dee River, getting ready to invade Red territory. They had established a bridgehead at Rockingham. To eliminate this threat, the Red I Armored Corps was ordered to attack, defeat all enemy forces, and cut Blue's lines of communications west of the Pee Dee River. The 2d Armored Division was to attack, capturing the west bank of the Pee Dee between Cheraw and Morven.<sup>22</sup>

After dark on 15 November, the division's three combat columns moved to concealed bivouac areas west of Great Falls and Camden and prepared to attack the following morning. The 82d Reconnaissance Battalion and the advance guard elements crossed the Wateree River shortly after 0630, while the main body waited for the 1st Armored Division to cross. By noon, all elements of the 2d Armored were on the east bank of the Wateree, hurrying to join the advanced guard.

The attack began with one spectacular action. Captain John H. Huckins, commanding officer of D Company, 82d Reconnaissance Battalion, led a patrol to positions east of the Pee Dee River looking for "big game." General Drum had been watching his troops cross the Pee Dee River, and was returning to his headquarters when he came upon a roadblock. His vehicle stopped, and the young captain greeted him with "Good Morning General. Will you join me." McNair was notified that his Army Commander had been captured; the umpires ordered the general released because he could not be returned to Red country. By evening, one column had reached Cheraw. Part of the 41st Armored Infantry Regiment became separated from F-3, the attacking column, by a strong enemy attack from the direction of Society Hill. For the next forty hours a small force of light tanks, an infantry platoon, and an artillery battery, defended themselves and the 2d Armored's flank from repeated attacks. That evening, Patton issued orders to withdraw to a line west of Pageland-Bethune and prepared to resume the attack either to the east or the south on the following morning.<sup>23</sup>

After the Cheraw bridghead had been reduced, the 4th Infantry Division (Motorized) took over the defensive area. This permitted

the tankers to pull back to refuel and regroup. About midnight, Patton issued verbal orders to attack the next morning against Drum's left (south) flank and cut the supply and communication lines, and escape routes. If they were successful, the Blue Army would be trapped and ready to be reduced. In the first hours of the attack, a brigade command post, including a brigadier general and two regimental commanders and their staffs, were captured. By noon the town of Cheraw had been surrounded and within eight hours the town and the water and power plants had been captured and prepared for destruction. The main bridge over the Pee Dee River had been destroyed two hours earlier. After receiving orders to pull back to defensible positions at 2000, supplies and utilities were destroyed.<sup>24</sup>

After a day of maintenance and rest, the attack resumed on 19 November against the same south flank. The tankers made good progress until noon, when resistance began to stiffen near Chesterfield and Ruby. The 62d Infantry Regimental combat team, attacked to relieve the pressure on the division, but had to pull back in the face of a forest fire. In the late afternoon the division was again ordered to pull back to the area that it had occupied the evening of 18-19 November.<sup>25</sup> The attack continued on the morning of November 20. The main area was shifted to the region between Pageland and Monroe in order to relieve Blue pressure on the 1st Armored Division. Patton directed that the attack begin at 0900, but difficulties caused by the night withdrawal delayed one column's attack almost three hours. The second column attacked on schedule only to encounter massed antitank guns which slowed their attack. More embarrassingly the 4th Infantry Division (Motorized) attacked straight into the spearhead of the 2d

Armored Division, causing considerable confusion on both sides. Action was halted at 1515 and the units were directed to pull back and regroup and attack the following morning at 0600. Two and one-half hours later, at 0840 on 21 November, the exercise was ended.<sup>26</sup>

In the critique, Lieutenant General McNair stressed mobility and its related problems. The Red strategy had been to rush its armored and motorized divisions east to protect the homeland. The two slower square divisions were to follow and relieve the armored divisions for possible counterattacks. This was a feasible plan, because the Blue Army had eight infantry divisions as compared to five divisions in the Red Army. In addition, Blue created six antitank gun hunter groups, with a total of 764 guns, to attack the tanks. In addition, the Blue force had over 3,500 other antitank guns and artillery if the hunter units were unable to stop the tanks. In the exercise, 983 tanks were casualties; 91 percent of these were ruled out of action because of antitank gunfire. McNair acknowledged that this might be a questionable loss under real conditions.<sup>27</sup>

The umpires' manual gave the antitank guns victory over the tanks primarily because the gun was a small, concealable weapon. If the guns were not concealed, or if surprised by a tank, then the tank should be the victor. Antitank guns could also be neutralized by artillery fire or captured by infantry. The tankers were unhappy with the rules and one was heard to say, "Why goddamit [sic] we'd go so fast in a real war we'd squash those gunners before they could fire." Most tankers agreed with the Armored Force commander, Major General Jacob L. Devers when he said, "We were licked by a set of umpires' rules."<sup>28</sup>

General Drum's remarks were strangely silent about his capture. He observed that a modern army needed an armored force, medium bombers, and the darkness of night. Infantry could be successful against armor with night operations, and he felt that they should be trained for these and permitted to use them during the maneuvers. However, to allow infantry to operate against armor at night, was giving the infantry an unfair advantage, because tanks were not permitted to attack except during daylight hours, for safety reasons. Over 80 percent of Drum's First Army had not seen or taken part in tank operations, and they suffered initially from "tank fever." The men quickly learned that the tanks could be contained by antitank guns while the main attack continued. Local battle islands were created, and the tanks in those islands could be captured or destroyed, especially if they were without infantry support. While these local tank fights were occurring the bulk of the army continued its mission. To the Army Commander, this was "a main lesson of the maneuvers."<sup>29</sup>

The IV Corps Commander disagreed with Drum's main lesson. To him, the need for mobile infantry was acute. The armored divisions constantly requested more infantrymen, necessitating the use of every available soldier as infantry. The withdrawals of the 2d Armored Division were caused by a shortage of foot soldiers to hold the ground taken by the tankers. He recommended that the Armored Corps organization be changed to include one motorized infantry division, and that the armored divisions learn to better use their infantry regiments.<sup>30</sup>

The final phase of the maneuvers took place on 25-28 November. Again, the 2d Armored was assigned to the Red I Armored Corps, controlled by the Red IV Corps. The Blue forces were concentrated at Greensboro,



North Carolina. The Red Army was to actively defend its bridgehead over the Wateree River at Camden. To protect this bridgehead, the 2d Armored was to seize and hold the line from Monroe to Wadesboro along U.S. Highway 74.<sup>31</sup>

The division assembled five miles south of Ruby, South Carolina, organized its three columns, and prepared to move north on order. The problem started at 0630 on 25 November. As the columns moved north they encountered light but increasing resistance. By noon, when the division was almost to its objective, it discovered that it was opposing the II Corps advance. The 2d Armored's advance was stymied, and at one point D Company, 82d Reconnaissance Battalion, found itself defending against an attack by a tank and an infantry battalion.<sup>32</sup> The other divisional units were also facing the same type of increased pressure.

Patton issued verbal orders to start withdrawing during the night. The withdrawal continued throughout the day against increasing Blue pressure. One column, F-2, was overrun and forced out of its positions. On the right flank, a gap occurred between F-2 and an infantry regiment, but division artillery fire prevented Blue from using the gap. By nightfall the division had pulled back to positions south of Black Creek, or about the same positions from which it had started the attack the day before. The day's action had been costly. The first battalion, 41st Armored Infantry Regiment, had been surrounded and when the 3d Battalion, 67th Armored Regiment, was sent to rescue them, it was ruled to have suffered a 100 percent loss of tanks.<sup>33</sup>

During the night of 26 November, Columns F-2 and F-3 were combined into one (F-2) under the 2d Armored Brigade, commanded by Brigadier

General Willis D. Crittenger. Orders were issued to F-1 to attack north through Pageland, while F-2 was to move further west and then move north through Tradesville. This was an attempt to get on the flank and into the rear areas of the Blue force, causing disruption to supply and communications lines, and hopefully to turn the Blue force around and make them counterattack northward.<sup>34</sup>

Before F-1 could reach its line of departure at 0600, it was attacked by Blue infantry and had to counterattack. However, by 0900 F-1 had reached and secured Pageland against stiff resistance. It extended its forces northwest in time to break up an enemy attack so successfully that the enemy had to retreat. F-2 was making progress on the left flank, but by noon Patton had to issue verbal withdrawal orders because the 1st Armored Division had encountered very stiff resistance and could not keep pace with the 2d Armored Division.<sup>35</sup>

The 2d Armored was pulled out of the line and ordered to assemble north of Kershaw. It was to be under corps control and was ordered not to attack unless ordered by the Armored Corps. The 4th Infantry Division (Motorized) was to cover the division's withdrawal. However, because both the 4th Infantry and the 1st Armored were engaged in a heavy struggle and could not pull back on time, Patton had to cover the corps front during the night of 27-28 November. The division continued to pull back to positions just north of Camden on 28 November. In McNair's judgment, the problem had been carried to completion, and he ended the exercise at 1628.<sup>36</sup>

McNair spoke of the men in his final critique. Their training was progressive from the individual, through various units, and finally to Army level. Noting that during World War I training had

gone no further than division level, he felt that the soldier of the 1940's had improved his chances for survival and had improved the "prospect of American success."<sup>37</sup> The training had also physically conditioned the men, so that in the director's opinion they could march as far and as fast as the German footsoldier. He was building to answer a question that reporters had repeatedly asked during the problem. "Are these troops ready for war?" McNair provided an answer: "It is my judgment that, given complete equipment, they certainly could fight effectively. But it is to be added with emphasis that the losses would be unduly heavy, and the results of action against an adversary such as the Germans might not be all that could be desired."<sup>38</sup> He directed that the units return to their home stations to resume training and to attempt to raise the high standards even higher.

Major General Griswald was more concerned that armor should learn to cooperate effectively as a team member and cease to operate independently of the remainder of the corps. He thought that tanks and infantry should work more closely to reduce antitank defenses. These maneuvers convinced the IV Corps Commander that the tank, in addition to being an offensive weapon, could be valuable in defense or in fighting a delaying action. The presence of tanks instilled caution and delay even before they were committed to action.<sup>39</sup>

The division returned to Fort Benning. The tanks, half-tracks, and artillery were sent by rail, while the wheeled vehicles made the 354 mile march in thirty-four hours, in one column on one road. Patton and his men had spent sixteen weeks in the field and were probably the most maneuvered unit in the Army. Paying tribute to the men, Patton issued General Order Number 67:

You have completed six months of active field training under severe conditions. Through Tennessee, Louisiana, and Carolina maneuvers, you have acquitted yourselves individually and by units as soldiers. You were commended by the highest and most experienced officers in the Army for your appearance, your discipline, your soldierly deportment, and your combat efficiency. By every test short of war you are veterans. Protect your record.<sup>40</sup>

Patton used such words as "soldier" and "veterans" sparingly and only in a complimentary fashion. Ironically, his order is dated 6 December 1941, one day before the Japanese attack on Pearl Harbor.

The two questions, how to use an armored force to repel an invasion, and how to stop tanks produced two different answers. To repel an invasion required aggressive action as in the General Headquarters exercises. The tanks would rush forward, denying the invader favorable terrain. Ideally, they would be supported by infantry, and the invader would be driven back across his border. That was a situation Americans did not face during World War II. The 2d Armored Division, however, made two combat landings on foreign soil and was part of the second day landing group at Normandy.

The question of the best means to defeat a tank is still a hotly debated issue. The maneuvers created the impression that tank hunter groups would be successful. It was a false impression which later caused many tank destroyer units in Europe to suffer high and unnecessary losses in men and material. Many tankers, then and now, think that the best antitank weapon is another tank.

FOOTNOTES

<sup>1</sup>"Our New Mechanized Army: A Fighting Force Takes Form," United States News, Vol. XI, No. 23 (5 December 1941), p. 14.

<sup>2</sup>Charles L. Scott, "Defects in Training," address to the Officers of the I Armored Corps, October 1941, pp. 1, 9; Scott Papers.

<sup>3</sup>Ibid., p. 1.

<sup>4</sup>Ibid., pp. 1-2.

<sup>5</sup>Ibid., pp. 2-5, 8.

<sup>6</sup>Second Armored Division, Memorandum to Brigade, Regimental, and Separate Unit Commanders, 9 October 1941, Second Armored Division, Memorandum to Brigade, Regimental and Separate Unit Commanders, 19 October 1941, Record Group 407; Columbus Ledger, 10 October 1941, p. 20.

<sup>7</sup>Ibid., p. 1, 23 October 1941, p. 1, 3 November 1941, p. 11.

<sup>8</sup>Second Armored Division, Field Order 2, 27 October 1941, and Second Armored Division, "Report of Operations, IV Army Corps and G.H.Q. Directed Carolina Maneuvers," 10 November 1941, pp. 1-2; Record Group 407.

<sup>9</sup>Ibid., p. 1.

<sup>10</sup>Second Armored Division, "Annex 4 to Report of Operations-IV Army Corps G.H.Q. Directed Carolina Maneuvers. First Phase IV Army Corps Maneuvers," p. 1, and Second Armored Division, Field Order 3, November 4, 1941, *ibid.*

<sup>11</sup>Second Armored Division, "Annex 4 to Report of Operations," p. 1, *ibid.*

<sup>12</sup>82d Reconnaissance Battalion (A), "Report of Operations of 82d Reconnaissance Battalion (A) in Carolina Maneuvers, 1941," (5 December 1941), p. 1, White Papers; Second Armored Division, "Report of Operations," p. 2, Record Group 407.

<sup>13</sup>Second Armored Division, Field Order 5, 7 November 1941, and Second Armored Division, "Annex 4 to Report of Operations," p. 2.

- <sup>14</sup>Second Armored Division, "Annex 5 to Report of Operations-IV Army Corps and G.H.Q. Directed Carolina Maneuvers," (10 December 1941), p. 1, *ibid.*
- <sup>15</sup>*Ibid.*
- <sup>16</sup>*Ibid.*
- <sup>17</sup>*Ibid.*, pp. 1-2; Second Armored Division, Field Order 7, 10 November 1941, *ibid.*
- <sup>18</sup>Columbus Ledger, 16 December 1941, p. 8; Second Armored Division, "Annex 5 to Report of Operations," p. 2, and Second Armored Division, General Order 63, 19 November 1941, Record Group 407.
- <sup>19</sup>Charles L. Scott to Bruce Magruder and George S. Patton, Jr., 15 November 1941, *ibid.*
- <sup>20</sup>Second Armored Division, Administrative Annex 10 to Field Order 10, 14 November 1941, *ibid.*
- <sup>21</sup>Farago, Patton: Ordeal and Triumph, pp. 113, 116, 164-166; Fred Ayer, Jr., Before the Colors Fade (Boston: Houghton Mifflin Company, 1964), p. 111; Greenfield, Palmer, and Wiley, The Organization of Ground Combat Troops, pp. 59-60; William T. Shenkel, "Tank Stoppers," Newsweek, Vol. XVIII, No. 22 (1 December 1941), p. 42.
- <sup>22</sup>Second Armored Division, "Annex 6 to Report of Operations-IV Army Corps and G.H.Q. Directed Carolina Maneuvers," (10 December 1941), p. 1, Record Group 407.
- <sup>23</sup>Columbus Ledger, 19 November 1941, p. 15; Shenkel, "Tank Stoppers," Newsweek, Vol. XVIII, No. 22, p. 42; Second Armored Division, "Annex 6 to Report of Operations," pp. 1-2, Record Group 407; 82d Reconnaissance Battalion (A), "Report of Operations of 82d Reconnaissance Battalion (A) in Carolina Maneuvers, 1941," p. 2, White Papers; Second Armored Division, Field Order 10, 17 November 1941, Record Group 407.
- <sup>24</sup>Columbus Ledger, 2 December 1941, p. 2.
- <sup>25</sup>Second Armored Division, "Annex 6 to Report of Operations," p. 2, Record Group 407.
- <sup>26</sup>Second Armored Division, Field Order 12, 20 November 1941, and Second Armored Division, "Annex 6 to Report of Operations," pp. 2-3, *ibid.*; "Battle of the Carolinas," Time, Vol. XXXVIII, No. 22 (1 December 1941), p. 32.
- <sup>27</sup>General Headquarters, "Critique of First Phase, G.H.Q. Directed Maneuvers, Carolina Area, 16-21 November 1941; Remarks of Lieutenant General L. J. McNair," pp. 1-2, Record Group 337.

<sup>28</sup>Ibid., "Battle of the Carolinas," Time, Vol. XXXVIII, No. 22 p. 34; Interview, Jacob L. Devers with author, 6 June 1972, Washington, D. C.

<sup>29</sup>General Headquarters, "Critique of the First Phase G.H.Q. Directed Maneuvers, Carolina Area, 16-21 November 1941: Remarks by Lieutenant General H. A. Drum," (24 November 1941), pp. 2-3, Record Group 337.

<sup>30</sup>General Headquarters, "Critique of the First Phase, G.H.Q. Directed Maneuvers, Carolina Area, 16 to 21 November 1941: Remarks by Major General O. W. Griswold," (3[?] November 1941), pp. 1-6, *ibid.*

<sup>31</sup>Second Armored Division, "Annex 7 to Report of Operations-IV Army Corps and G.H.Q. Directed Carolina Maneuvers," p. 1, Record Group 407.

<sup>32</sup>*Ibid.*, pp. 1-2; Second Armored Division, Field Order 14, 24 November 1941, *ibid.*; 82d Reconnaissance Battalion (A), "Report of Operations of 82d Reconnaissance Battalion (A) in Carolina Maneuvers, 1941," p. 2, White Papers.

<sup>33</sup>Second Armored Division, "Annex 7 to Report of Operations," p. 2, Second Armored Division, G-3 Report, 26 November 1941, and Second Armored Division, G-3 Periodic Report 21, 26 November 1941, Record Group 407.

<sup>34</sup>Second Armored Division, Field Order 15, 27 November 1941, *ibid.*

<sup>35</sup>Second Armored Division, "Annex 7 to Report of Operations" pp. 2-3, *ibid.*

<sup>36</sup>*Ibid.*; Second Armored Division, G-3 Periodic Report 25, 28 November 1941, *ibid.*

<sup>37</sup>General Headquarters, "Critique of Second Phase of G.H.Q. Directed Maneuvers, Carolina Area, 25 to 28 November 1941: Remarks of Lieutenant General L. J. McNair," p. 1, Record Group 337.

<sup>38</sup>*Ibid.*, p. 2.

<sup>39</sup>General Headquarters, "Critique of Second Phase of G.H.Q. Directed Maneuvers, Carolina Area, 25 to 28 November, 1941: Remarks of Major General O. W. Griswold (30 November 1941)," pp. 1-2, *ibid.*

<sup>40</sup>Second Armored Division, General Order 67, 6 December 1941, Record Group 407.

## CHAPTER IX

## PREPARATION FOR WAR

The 2d Armored Division was one of the best trained units in the American Army as a result of the three large-scale exercises in 1941. Many thought that the division was ready for war if it should come. However, Lieutenant General L. J. McNair had observed that the Army might suffer heavy losses and that the results might not be what the American people expected. When the Japanese bombed Pearl Harbor and Germany declared war on the United States, combat became a reality. Whether the Army was ready or not, the United States was now actively in the conflict and the various division commanders were faced with the task of readying their men for combat.

After returning from Carolina, the 2d Armored Division resumed small unit tactics and underwent a fundamental reorganization. In December the Armored Force directed that a tank destroyer battalion be activated at Fort Benning and that the men and equipment be furnished by the 2d Armored Division. Battery D, 78th Armored Artillery, was deactivated and the men and equipment were used to create the 702d Tank Destroyer Battalion.<sup>1</sup>

The War Department also directed name changes, probably for uniformity, and General Order Number 3, from the 2d Armored Division, ordered these changes. For a year and a half, the units had been designated by the word "Armor" in parentheses following the numerical



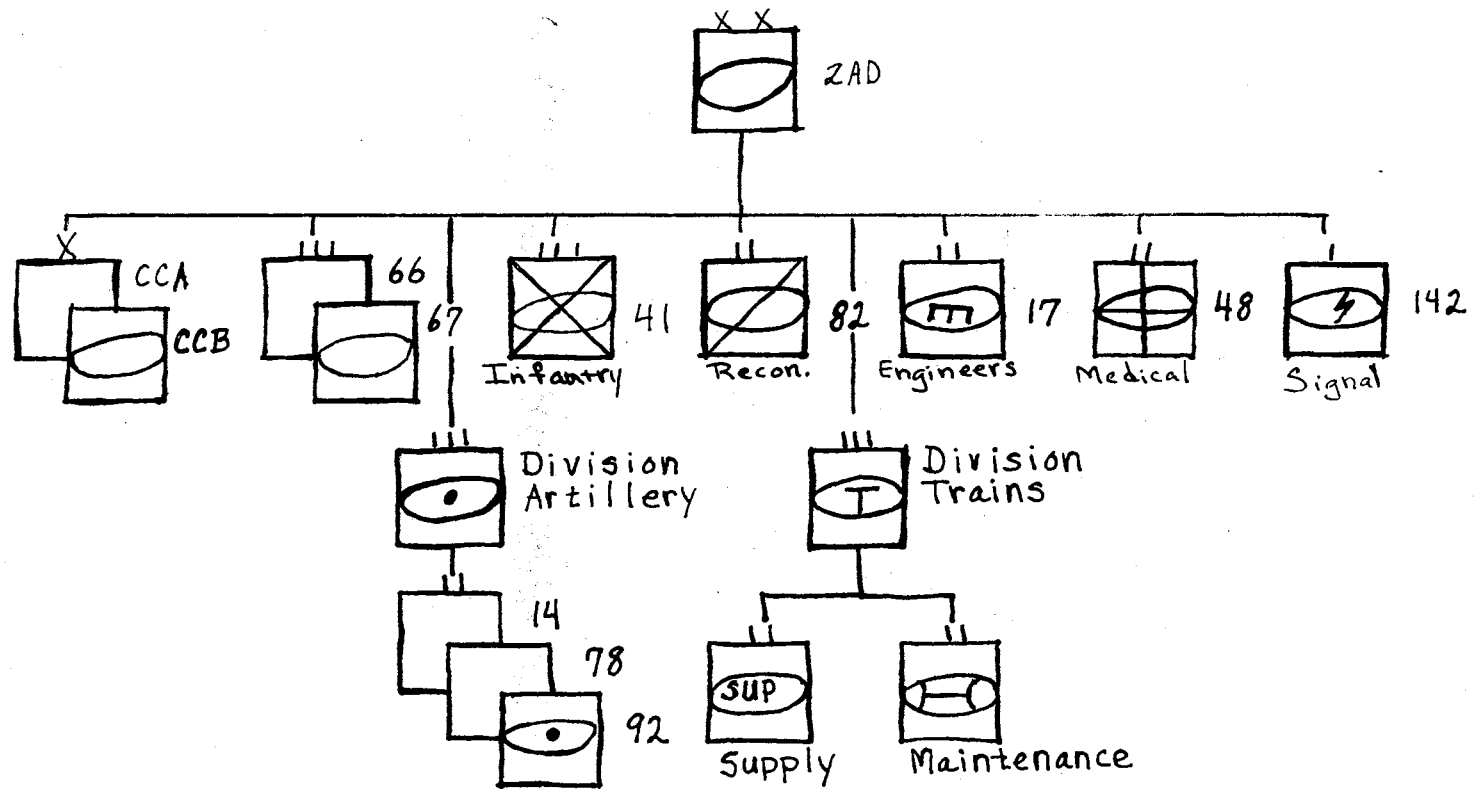


Figure 5. An Armored Division, 1942.

and branch designation. Now, the word "Armor" was to follow the number and come before the branch indication. The order also directed that the 66th and 67th Armored Regiments drop the words "Light" or "Medium" from their names. An indication of the thinking was the designation of the 14th Field Artillery (Armored) as the 14th Armored Field Artillery Battalion, 105mm Howitzer. The 14th Artillery was also changed from a regiment to a battalion.<sup>2</sup>

The same day, General Order Numbers 4 and 5 directed that the 14th Quartermaster Battalion and the 17th Ordnance Battalions be deactivated and the personnel transferred to a newly created Maintenance Battalion, 2d Armored Division. To supervise this unit, the Headquarters and Headquarters Company, 2d Armored Brigade, was deactivated and the men used to activate the Trains Headquarters Company, a new unit that would oversee divisional supply and maintenance.<sup>3</sup>

The 92d Armored Artillery Battalion was activated on 8 January 1942, its men coming from the 14th and 78th Armored Artillery Battalions. Deactivated that same day was the 68th Armored Regiment (Light). The War Department directed that the personnel, equipment, and property was to be disposed of as the 2d Armored Division commander directed.<sup>4</sup> Most of the men and equipment were transferred to the 66th and 67th Armored Regiments.

The maneuvers had indicated that a reorganization was needed at the brigade level. During each exercise, attachments were made to the brigade; at no time had it fought as a brigade, but rather had been divided into combat teams. No one man could control the teams, so the brigade was eliminated and two combat commands were substituted for it. These were tactical headquarters that had only headquarters

personnel permanently attached. In combat, the division commander would be able to assign it the troops that he thought necessary. This assignment ability permitted the division and combat commanders to shape the command to the mission. By intention or by accident, the War Department and the Armored Force had created the main characteristic of armor--flexibility.<sup>5</sup>

By the end of January 1942, the 2d Armored Division had taken its new shape. There were five major headquarters: Division, Combat Command A, Combat Command B, Division Artillery, and Division Trains. In the tank regiments were two medium tank battalions and one light tank battalion. The infantry regiment of the division had three battalions, and the three division artillery battalions had three firing batteries each for a total of fifty-four howitzers. The division reconnaissance battalion lost its infantry company, but it had three reconnaissance companies and a light tank company. The engineer battalion had four companies and a treadway bridge company. Altogether the division numbered 14,618 officers and men.<sup>6</sup>

During the maneuvers the 2d Armored Division had been experimenting with methods of employing the Air Corps in direct support of tanks and mobile units. A Bomber Demand Unit (modern day Forward Air Controller) had always been attached to the 82d Reconnaissance Battalion, and to each of the mission forces in the maneuvers. However, it was felt that too much time was required from the time that air support was requested until the planes were over the target. The time ranged from twenty minutes to three hours. The problems were technological; the best type of communications were telephone

or teletype, both unsuitable for armor. The solution, in the tankers' opinion, would be radio which was later adopted.<sup>7</sup>

One of the arguments that had existed during the 1920's and 1930's was that armor could be used to secure and hold vital terrain features until conventional troops arrived to relieve them. Lieutenant Colonel Sidney R. Hinds, after witnessing an airborne demonstration at Fort Benning, decided that possibly paratroopers could be used to secure an objective and tanks could then be sent quickly to relieve them. Working with the 501st Parachute Infantry Battalion, and using the bridge at Albany, Georgia, as their objective, this plan worked to perfection. However, when the 2d Armored Division tried to use this tactic during World War II, the paratroopers were not available, and the division was offered the excuse that it would require more time than was available to carry out the maneuver.<sup>8</sup>

While the division was undergoing reorganization, it was also getting a new commanding general. Major General George S. Patton, Jr., was assigned to command the I Armored Corps. Replacing him was Brigadier General Willis D. Crittenger. Patton had planned to depart from the post without fanfare, but the men heard a rumor that he was leaving, and they lined the streets waving and cheering. Perhaps, because it was the first division which he commanded, perhaps because of the sendoff, or possibly because of later accomplishments, the 2d Armored Division was always Patton's favorite armored division.<sup>9</sup>

After the reorganization period, the division settled into a routine of platoon and squad tactics. The company and battalion commanders tried to include every conceivable type situation that could be met on the battlefield. The men could feel the urgency; earlier in

1941, after returning from the Carolina exercises, Patton had told the assembled men that "this is the last time you will fight with blank ammunition. The next time we meet like this the bullets will be real."<sup>10</sup> On one of the overnight exercises, the new division commander was testing the perimeter defenses of the various units. One company commander, Captain John K. Waters, received a note, "Captain Waters; For the purpose of training, I have directed Captain (Lindsey) Harkness to enter your camp by stealth and hand you this note." It was signed by Crittenberger. Waters said that after that night, his perimeter defenses improved.<sup>11</sup>

In mid-1942, events were taking place which would test the division and the men. In June, the Germans pushed the British back from El Alamein, and there was a desperate need for reinforcements in Egypt. For a time, General Marshall thought of sending the 2d Armored Division either alone, or as part of a larger force, to North Africa. This idea was abandoned in favor of sending every tank and self-propelled artillery piece from the division.<sup>12</sup>

The division was out in the field, testing the new M-4 medium tanks (Shermans) and the M-7, 105mm self-propelled howitzers, when Major General Devers called, directing the division to return to Fort Benning and prepare the tanks and the self-propelled howitzers for shipment to North Africa. Crittenberger and his personnel did as directed, but at the same time, Crittenberger sent a message to Marshall requesting that the men be allowed to follow the equipment. This request was disapproved, mainly because the division was to have a part in Operation Torch, the western Task Force invasion of North Africa, but the men did not know it at the time.<sup>13</sup>

In addition to the equipment, Generals Marshall and Devers wanted to send some trained mechanics to maintain the equipment. These mechanics were directed to send each part that needed replacement back to the United States for study to determine the reasons for its failure. Heading the maintenance and advisory group was Major General Charles L. Scott, former commanding general, 2d Armored Division. As the 1st Armored Division had already sailed to Ireland, most of the men came from the 2d Armored Division.<sup>14</sup>

Devers sent Major Henry Cabot Lodge, Jr., along with the group, as his personal representative. During the Battle of Libya, former 2d Armored Division personnel, led by Major Lodge and Captain Charles Stelling, manned some of the American tanks and destroyed nine German tanks in perhaps the first real battle in which 2d Armored personnel participated. The American vehicles were hit several times, but not damaged, as the battle raged from 3,000 to 700 yards. Following the battle, the General Sherman tank was rated as the best tank in the desert.<sup>15</sup>

The second major reason for having the Americans in the desert with the British was to study the tactical aspects of the war. Scott told Major General Ernest N. Harmon, commanding general 2d Armored Division, that the British had the philosophy of stopping their movement when the Germans came into sight and opening fire at long ranges. Since the German weapons had a longer range, the British were outgunned, wasted ammunition, and suffered a heavier loss of vehicles. The solution as Scott saw it was to continue movement towards the enemy, reaching the effective range of friendly weapons before firing.<sup>16</sup>

Although the British were trying to improve, their maintenance was weak, especially in training. The officers tended to delegate responsibility to the enlisted men and noncommissioned officers. However, the officers did lead in battle and appeared to die with no concern at all. The British apparently had no concept of air-ground training. All they did was maneuver and fire. They were adding antitank guns and artillery to their armored brigades, and increasing the number of antitank guns and artillery in the infantry brigade of their infantry divisions. Unfortunately, with these additions, there was little or no training between the new elements and the units that they were to support. Tank commanders were heard to boast of how they were going to stop and shoot it out, even with dug-in antitank guns. If that happened, Scott predicted, the British would suffer even higher losses. His comments were factual and tainted with pessimism. However, he concluded that he found nothing to warrant any major changes in American organization, equipment, tactics, or techniques.<sup>17</sup>

Scott continued to observe and to comment on what he saw. The British did not use their tanks, infantry, artillery, air, and antitank guns in any coordinated manner. This was a major failure and violated the basic training doctrines of American armor. The American equipment, contrary to press and radio reports, was superior to that of the Germans. Therefore, according to Scott, the British situation had to be explained in different terms. Tactically, the Germans were superior to the British. Most of the British tank losses were due to the 88mm antitank-antiaircraft gun and by the British habit of fighting tank versus tank. The Germans avoided tank versus tank battles whenever

possible, using their tanks to go around flanks to attack nerve centers and to get to decisive objectives.<sup>18</sup>

Scott was optimistic when talking of American equipment and organization. The antiaircraft armaments were similar to the German arrangement and superior to the British. The Americans, however, did need to strengthen their organization by adding dual purpose .50 caliber and 37mm antitank-antiaircraft guns to their divisions. He further believed that the American divisions should have two antitank battalions attached to them as priority units. They should be three inch, self-propelled weapons. In addition, neither the Germans nor the British had armored personnel carriers for their infantry or artillery, and lacked self-propelled 88mm antiaircraft weapons. Neither combatant had armored maintenance vehicles, and no assault guns in their tank or infantry battalions. The American light tank was rated as the most mechanically reliable and the fastest in the desert.<sup>19</sup>

To correct any possible deficiencies in maintenance, Scott recommended that the 2d Armored Division's Ordnance Battalion have nine reserve tanks to support the regiments when necessary. The ordnance personnel should be divided so as to be able to give the maximum support to the regiments. He thought that any vehicle that had to go to the rear should not be the division's responsibility. There should also be nine reserve tanks in the regimental maintenance section. Each maintenance company in the regiments should have some type of rescue vehicle, which should be armored and on a medium tank or self-propelled artillery chassis.<sup>20</sup>



The desert experience proved the theory false that a combat crew can fight all day and perform maintenance at night. The first echelon maintenance should be done by the company maintenance sections, which should not have any rescue vehicles and should not be required to evacuate any vehicles to battalion or regiment. That should be the duty of the higher headquarters.<sup>21</sup> Scott, in passing along his observations, stressed those items which he thought might need improvement, so that the Americans could stay alive. Having been in the mechanized brigade and having commanded an armored division, he had more than a passing interest in seeking improvements.

After sending its vehicles and a detachment of men to North Africa, the division received replacements and conditioned them for use. On 20 June 1941, the Armored Force issued instructions that any armored unit might expect overseas orders and that they would "be prepared to execute these orders expeditiously and efficiently." The directive then stated that the units should inventory their equipment, especially small items, tool kits, and spare parts. Training was secondary to preparation for movement. The units were to load their vehicles with the equipment that was assigned to it.<sup>22</sup> Since the 2d Armored Division was the most experienced division and the 1st Armored Division was in Ireland, the alert could only mean that the division was slated for deployment somewhere overseas.

The 2d Armored Division was to take part in its last large scale maneuvers--the Carolina maneuvers of 1942. The division was to return to the same area that it had been in in 1941. Speculation on the possibility of overseas movement increased when Crittenberger issued Special Order 160 on 29 June 1942, which stated that the

division and the 702d Tank Destroyer Battalion would depart for the main maneuver area about 7 to 8 July, and at the termination of the exercise, neither unit would return to Fort Benning. The new permanent station would be announced later.<sup>23</sup>

The division went to the maneuver area and for a month raced back and forth across the Pee Dee River, testing those ideas that were being sent back from the desert. Two essential improvements emerged from the exercises. First, communications were perfected, for along with the new M-4 medium tanks came better radios. In addition, the division constructed wire lines to its bridgehead force, putting those units in direct and secure contact with the division. Second, it was the first time that the division had received large quantities of materials under field conditions. It proved the wisdom of the division emphasis on maintenance and supply procedures.<sup>24</sup>

During the Carolina maneuvers, Major General Crittenberger was transferred to command the III Armored Corps and Brigadier General Ernest N. Harmon assumed command of the 2d Armored Division. In spite of following three excellent commanders, Harmon knew that he could not lead the division into battle unless he was convinced that the men could do their jobs. He had questions that had to be answered: could the artillery fire accurately and rapidly, could the tanks support each other, and could the infantry move with the tanks? He gave indications of his thinking to the division. Noting that although President Franklin D. Roosevelt had praised the division, Harmon asked the men to be realistic: "What in hell does the President of the United States know about the 2d Armored?"<sup>25</sup>

Following the maneuvers, the 2d Armored Division was assigned to Fort Bragg, North Carolina, and began training for a secret assignment. When the men moved into their new area, they suffered an epidemic of dysentery so severe as to possibly jeopardize the combat effectiveness of the division. At one time it was questionable if it would take part in the North African operation, although at that time very few in command knew that the operation was in the planning stage. The reason or reasons for the epidemic are unknown. The division had stayed in one bivouac area for an extended period during the height of the fly season and there were few, if any, sanitary conveniences. During this time there was a vigorous campaign to eliminate the flies and to control the disease. There were many inspections of kitchen sumps and latrines. On one such inspection, Major Thaddeus Coykendall and Captain William R. Grimes lowered a lantern into a latrine that someone had generously treated with diesel fuel and other combustible products. It blew up in their faces, causing injuries that prevented their sailing with the division in October 1942.<sup>26</sup>

Training began to intensify for the 2d Armored Division. There were long road marches, obstacle courses, and a new device--a rope ladder- which was hung about twenty-five feet high between two pine trees. It was easy to climb, and the novelty of it added to the course. In addition to the physical conditioning, the men resumed weapons training and firing, and were expected to qualify with their individual weapons. They also fired their vehicular weapons. This was probably the most intensive and effective training that the division had undergone in such a short time.<sup>27</sup>

Patton was assigned the command of the Western Task Force on 24 August 1942. A few days later, Major General Harmon was called to Washington to meet with Patton and General Marshall. Patton greeted Harmon with the question, "Do you want to go to war?" Harmon replied, "Sure, when do we start?" Thus the 2d Armored Division was committed to the landing in North Africa in a somewhat casual manner.<sup>28</sup>

In late August or early September, the landing teams were formed and began to receive intensified training. The general plan was to have three landing teams, each with elements of the 2d Armored Division. Usually the team would have two light tank companies, an armored infantry company, an artillery battery, two engineer platoons, and a reconnaissance platoon. The landing teams were separated from the remainder of the division, not to be reunited until Christmas Day.<sup>29</sup>

While the division was undergoing its training, it began to receive new equipment, such as gasoline-powered tanks, and advice from the African front. When the division received its new tanks, it had to turn in the old diesel-powered ones. These had to be in proper shape, and even had to be painted, all of which took time that the division did not have. The question of half-tracks came up, and for a time it appeared that the infantrymen were on the verge of losing their personnel carriers, because the rear idler spindle was fixed in place and could not bend or give when moving over rough terrain. First Lieutenant Thomas Hauss and Master Sergeant Gerry Noble came up with a scheme to replace the fixed idler with an eyebolt and nut, and a coil spring from a caterpillar tractor. Colonel Sidney R. Hinds personally paid for the items and directed that it be tested

and that he be informed of the results. It was successful. Hinds took the idea to the Division Ordnance Officer, Lieutenant Colonel Fred Crabb, who took the suggestion to Major General Harmon. Harmon quickly approved it and had the ordnance section buy the modification parts and install the device on all the half-tracks that were slated for North Africa.<sup>30</sup>

Meanwhile, Major General Scott passed along to Patton advice based on his observations in North Africa: when terrain permitted, tanks should lead their infantry; against antitank fire or direct artillery fire, tanks should lead with artillery fire, infantry, machine guns, and aviation. All the tanks should be marked alike so that the enemy could not tell the officers' tanks from the others; thus dummy antenna masts should be installed on all tanks. He urged making night attacks by illuminating the targets and then firing all fire direct, which usually resulted in a massacre.<sup>31</sup>

In September, the assault teams were separated from the remainder of the division and began to undergo "amphibious" training at Mott Lake on the Fort Bragg reservation. All the time Harmon kept stressing that the training would save lives. The practice landings, the establishing of beachheads, and dawn assaults were exactly what was planned for the North African venture. The training was good and worth the effort. The troops, who were not told of the actual plans, knew that something was about to take place.<sup>32</sup>

The combat team from the 1st Battalion, 67th Armored Regiment, went to Camp Pickett, Virginia, was assigned to the 3d Infantry Division, and missed the severe epidemic of diarrhea that hit the rest of the 2d Armored Division. At Camp Pickett, the men found that

all preparations, equipment, and personnel matters had to be kept up to date. With all the work to be done, extra supply personnel were brought in to supplement the men of the 2d Armored. By working night and day, by begging, borrowing, and sometimes using extra-legal means, the work was completed and the unit was ready to sail with the convoy. Life at Camp Pickett was not the most pleasant, however. The camp site itself had been turned into a bog of mud by two weeks of rain. The men came under the command of Major General Jonathan W. Anderson, commanding general, 3d Infantry Division, and the post facilities were for the post personnel only. The tankers were forced to use the facilities of the 3d Infantry Division for movies and beer, all adding to the crowded conditions. There were few rooms for families to visit, and there was even less time to see the families. The men realized that the time was nearing for departure.<sup>33</sup>

The landing team and the infantry began to practice amphibious landings, loadings, and unloadings in the Chesapeake Bay, Little Creek, and Solomon Island in October 1942. Once the training began, deficiencies in organization, training, planning, and technique became known. One ship captain refused to participate because he claimed that his crew was untrained. The Navy (Rear Admiral Henry K. Hewitt) issued orders that landings would be limited to one small beach for fear of damaging the boats' propellers. Because of that edict, the landing teams could only unload their infantry and no vehicles. Originally, no night rehearsals were permitted by order of Major General Patton. Hewitt changed the order to permit night landing practice, but sailing orders were received, and the teams had only one or two night landing exercises.<sup>34</sup>

While the divisional combat teams were training, other members of the division went to Transport Quartermaster School at Norfolk, Virginia, to learn combat loading: the predetermined loading of men, vehicles, and supplies so that they could be put ashore in the proper sequence. The original plan was to have the vehicles and their crews on the same ship. Due to a shortage of shipping, however, the vehicles and drivers sailed on the same ship, but the crews went on different ships. At the schools and even while loading, there were two views that had to be reconciled. The Army wanted to carry as much as possible; the Navy thought that the men should carry the minimum and that the heavy supplies and equipment should follow in a later convoy.<sup>35</sup>

In early September, TORCH took final form. The Western Task Force under Rear Admiral Hewitt and Major General Patton was supposed to capture Casablanca and Port Lyautey. The task force was actually composed of three sub-task forces, each assigned a separate and distinct mission. The Northern Attack Group was to land and capture Port Lyautey and the airport. The Center Attack Group was to land at Fedala. The Southern Attack Group was to land at Safi, secure that port, block reinforcements from the south and then aid the center group in capturing Casablanca. Harmon pointed out that only those persons who had a direct need to know the destination and objectives be told. In the 2d Armored Division, the information went to Colonel Maurice Rose, Chief of Staff, Lieutenant Colonel Lawrence R. Dewey, G-3, and of course, Harmon. These men were the only ones to have the full details until the convoy had actually sailed.<sup>36</sup>

In early October 1942, there was a noticeable increase in the tempo of preparations. The War Department directed that only those items necessary for housekeeping and messing would be taken. The remainder would be marked for shipment and turned into the local post commanders for shipment later. About 12,000 men and two-thirds of the vehicles would remain behind with Brigadier General Allan Kingman, commanding general, Combat Command A. While the remaining men were trying to ready themselves, Harmon was worrying about losing trained men to Officer Candidate School. About 3,500 men had taken and passed the test, and based on past experience, about 1,000 of those would be selected to attend. It would hurt the mission forces if any of the selected men were taken out of those forces, and it would hurt morale if one out of every fifteen men in the division was taken from it at this time. Harmon told Devers that it would be "a terrible thing to take leaders away." Devers' reply was for Harmon not to worry about the 2d Armored Division, and that the men would deliver when they had to. There was no mention of the Officer Candidate School question that prompted Harmon to write in the first place.<sup>37</sup>

After all these problems, the assault teams went to Norfolk and entered the dress rehearsal phase of training in the Chesapeake Bay. Harmon was concerned about the men unloading into assault boats, forming into assault waves, and landing. During one exercise and with a light house beacon on, only one boat landed at its assigned place-- Harmon's. While he had landed at the designated place, he was in the first wave, instead of in the third wave, where he was supposed to be. The remainder of the men were scattered, and it required about twelve hours to reassemble them. This was directly traceable to the



inexperience of the Navy personnel involved. As if that were not bad enough, the training exercises indicated that the chain cargo nets were unsatisfactory and the division had to get rope ones from Fort Bragg.<sup>38</sup>

The 2d Armored Division was ordered to send one element to the New York Port of Embarkation to load its equipment. The trains were loaded at Fort Bragg so that the loading could be done easily. The first vehicles onto the ships would be the last ones to come off. While enroute one flat car struck a bridge. It did not suffer serious damage, but had to be taken to a repair shop, and this threatened to delay the loading. To expedite matters, Colonel I. D. White personally called a vice president of the Pennsylvania Railroad to get priority treatment. As it was, the train was twenty-four hours late arriving in New York.<sup>39</sup>

At Fort Bragg, the 2d Armored Division had made efforts to waterproof their vehicles, primarily by covering them with a thick layer of grease. At the port, where there were experts to do the job, the men had to remove the grease which they had used so generously. This only added to the frustrations that were setting in on the command.<sup>40</sup>

The ship, the Seatrain, or properly, the U.S.S. Lakehurst, was not very impressive. Having recently been a ferry between Florida and Cuba, it was without bulkheads or compartments. There was no way to block off damaged compartments in the event of being hit by shell fire or torpedoes. White remembered the ship's captain telling him that if the ship were hit it would probably sink in five minutes, if it did not explode because of the large amount of gasoline and ammunition that it carried: 175,000 gallons of gas in five gallon

cans, and nearly 4,000,000 rounds of ammunition, mines, and grenades. In addition, the Seatrains were to carry 13,870 gallons of SAE 30 and 50 weight oil in quart cans.<sup>41</sup>

Before loading the vehicles, the men had to load the bulk items. The gasoline cans needed to be inspected to be sure that they were not leaking. They were stacked one on top of another and probably did leak once the ship was under way. Next to the engine room, the men stored the ammunition and the rations for thirty days. Vehicle loading was a problem, created by the New York Port authorities and the railroad. White had planned to move the flat cars alongside the ship and then unload them, but the railroad thought differently. When one car was unloaded, it was pulled out, the train respotted, and the next car unloaded, a time consuming and unnecessary method. When about half of the vehicles were loaded it became apparent that the ship could not hold them all. A decision was made to cut the rations by about 50 percent to make room for the vehicles. In order to insure a balanced diet, the men had to call several different quartermaster units to determine the contents of the ration boxes, because the boxes were not labeled. Somehow the division managed to cut its food supply by about half and still maintain a balanced diet.<sup>42</sup>

The rules at the port were strict about ammunition. The port officials originally would not permit the combat loading of ammunition in the tanks and other vehicles. That would have to wait until the ship was at sea. If the division had been held to this policy, it would have been difficult if not impossible to accomplish while at sea. After much delay, the division was granted permission to load the ammunition in the vehicles. As the day for sailing neared, plenty of

work remained to be done. It was difficult to get civilians to work around the clock, and while the command had a company of military engineers for unloading, union rules prevented using military labor to load ships. White and his men were concerned, fearing that they might not go because the ship was not ready. When the ship was finally loaded, it was angled down four feet at the bow. This situation was corrected by shifting fuel oil and by loading medium tanks on the stern's upper deck. Some half-tracks that mounted 37mm and twin .50 caliber antiaircraft guns were placed on the top deck for antiaircraft protection.<sup>43</sup>

After the Seatrain was loaded and ready to sail to Hampton Roads to join the fleet, the ship's captain announced that they would sail unescorted, except for a blimp the might be over them during daylight hours. White called Harmon, Harmon called Patton, and Patton called who knows, but the Seatrain received a two destroyer escort. A few days after the vessel sailed, the harbor of New York was closed because of mines sown by a German submarine.<sup>44</sup>

At Hampton Roads and Norfolk, the loading of men and equipment was progressing smoothly. The headquarters of Blackstone, Harmon's code name, was aboard the U.S.S. Harris. On the morning of 19 October 1942, the ships sailed out to Solomon Island, enabling the men to get one last practice at landing from combat vessels. On 22 October they had their first abandon ship drill. The men were confined to ship, and about midnight on the 23rd, the convoy weighed anchor and headed to sea. When the men woke the next morning and went on deck they saw the convoy with its destroyer escorts all around them. As the 2d Armored's Catholic chaplain noted, the destroyers were a very comforting thing to view.<sup>45</sup>

Patton had warned the division earlier that the day would come when they would be using live ammunition. The men were now on their way to war with the destination still unknown to all but a few. They could and did ask themselves if they had trained properly: had they learned the lessons that the officers and the maneuvers had been designed to teach? The 2d Armored Division was one of the best trained units in the Army, but their opposition had been their friends and brother units until now. The enemy would be real and the ammunition would be live.

## FOOTNOTES

<sup>1</sup>Second Armored Division, General Order 70, 15 December 1941, Record Group 407.

<sup>2</sup>Second Armored Division, General Order 3, 6 January 1942, *ibid.*

<sup>3</sup>Second Armored Division, General Order 4, 5 January 1942, General Order 5, 5 January 1942, and General Order 7, 7 January 1942, *ibid.*

<sup>4</sup>Second Armored Division, General Order 8, 7 January 1942, and General Order 10, 10 January 1942, *ibid.*

<sup>5</sup>I. D. White to Hugh Exton, 24 February 1948, White Papers; Gondek, et. al., "Operation of Cavalry Reconnaissance Squadron Integral to the Armored Division," pp. 23-24; Howe, The Battle History of the 1st Armored Division: "Old Ironsides", p. 10; Columbus Ledger, 7 January 1942, p. 11.

<sup>6</sup>Trahan, ed., A History of the Second United States Armored Division, n.p.; Greenfield, Palmer, and Wiley, The Organization of Ground Combat Troops, p. 323; "Faster, Tougher Panzers," Time, Vol. XXXVIII, No. 25 (22 December 1941), p. 62; Columbus Ledger, 3 March 1942.

<sup>7</sup>Second Armored Division to Chief Armored Force, "Final Report on Employment of Aviation in Close Support of Ground Troops," 15 December 1941, Record Group 407.

<sup>8</sup>Interview, Hinds with author, 31 May 1972, 6 March 1974.

<sup>9</sup>Trahan, ed., A History of the Second United States Armored Division, n.p.; Alden Hatch, George Patton: General in Spurs (New York: Julian Messner, 1950), p. 96; Columbus Ledger, 22 January 1952.

<sup>10</sup>Smith, "With Major General Patton Riding Ahead," Christian Science Monitor (Magazine Section), 9 January 1943, p. 2.

<sup>11</sup>Willis D. Crittenberger to John K. Waters, 16 April 1942, John K. Waters Papers, Waters' possession.

<sup>12</sup>Interview, Jacob L. Devers with author, 6 and 20 June 1972, Washington, D. C.; Richard M. Leighton and Robert W. Cookley, Global Logistics and Strategy, 1940-1943 (Washington: Department of the Army, 1955), pp. 365-366; Jack F. Wilhm, et al., "Armor in the Invasion of North Africa," (Unpublished Research Report by Committee 25, Officers Advanced Course, United States Army Armor School, Fort Knox, Kentucky,

1949-1950), p. 6; Maurice Matloff and Edwin M. Snell, Strategic Planning for Coalition Warfare: United States Army in World War II (Washington: Department of the Army, 1953), p. 249.

<sup>13</sup>Willis D. Crittenberger, "2d Armored Division Tanks at Battle of Alamein," Armor, Vol. LXVIII, No. 4 (July-August 1959), pp. 50-51; Sidney B. Fay, "The First 'Second Front,'" Current History, Vol. III, No. 16 (December 1942), p. 292.

<sup>14</sup>Interview, Devers with author; Interview, Allan F. Kingman with author, 7 May 1972, Chapel Hill, North Carolina.

<sup>15</sup>War Department, War Department Communique 231, 6 July 1942; Edward Kennedy, "U.S. Tanks Destroy Nine Nazi Machines in First Troop Encounter," Columbus Ledger, 7 July 1942, p. 5.

<sup>16</sup>C. L. Scott to E. N. Harmon, 25 May 1972, Scott Papers.

<sup>17</sup>Ibid.

<sup>18</sup>C. L. Scott to Henry Cabot Lodge, Jr., 24 June 1942, *ibid.*

<sup>19</sup>Ibid.

<sup>20</sup>C. L. Scott to Jacob L. Devers, 3 August 1942, *ibid.*

<sup>21</sup>Ibid.

<sup>22</sup>Armored Force to All Armored Divisions, "Overseas Movement of All Armored Force Units," 20 June 1942, Record Group 407.

<sup>23</sup>Second Armored Division, Special Order 160, 29 June 1942, *ibid.*

<sup>24</sup>Interview, Kingman with author; Trahan, ed., A History of the Second United States Armored Division, n.p.

<sup>25</sup>Second Armored Division, General Order 53, 31 July 1942, Record Group 407; E. N. Harmon, Combat Commander: Autobiography of a Soldier (Englewood Cliffs: Prentice-Hall, 1970), pp. 62-64.

<sup>26</sup>Ibid., p. 65; I. D. White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa," p. 1, White Papers; History 67th Armored Regiment (Brunswick, Germany: Georg Westerman, 1945), pp. 13-14.

<sup>27</sup>Ibid., pp. 59-60; White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa." p. 1, White Papers.

<sup>28</sup>Samuel Eliot Morison, Operations in North African Waters, October 1942 - June 1943: History of United States Naval Operations in World War II (15 vols.; Boston: Little, Brown, and Company, 1947), Vol. II, p. 23; Wilhm, et al., "Armor in the Invasion of North Africa," p. 9; Harmon, Combat Commander, p. 66.

<sup>29</sup>Trahan, ed., A History of the Second United States Armored Division, n. p.; Wilhm, et al., "Armor in the Invasion of North Africa," p. 12; History 67th Armored Regiment, pp. 14, 60; F. M. Muller, "2d Armored Division Combat Loading, Morocco: Part 1," Armored Cavalry Journal, Vol. LVI, No. 4 (July-August 1947), p. 3; White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa," p. 2, White Papers.

<sup>30</sup>Ibid., p. 1, S. R. Hinds to Willis D. Crittenger, 30 May 1971, Hinds Papers.

<sup>31</sup>C. L. Scott to George S. Patton, Jr., 14 September 1942, Scott Papers.

<sup>32</sup>White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa," p. 2, White Papers; Trahan, ed., A History of the Second United States Armored Division, n.p.; Wilhm, et al. "Armor in the Invasion of North Africa," pp. 13-14; Harmon, Combat Commander, p. 68.

<sup>33</sup>History 67th Armored Regiment, pp. 61-62.

<sup>34</sup>Donald G. Taggart, ed., History of the Third Infantry Division in World War II (Washington: Infantry Journal Press, 1947), pp. 8-9; Semmes, Portrait of Patton, p. 87; Truscott, Command Missions, pp. 84-89.

<sup>35</sup>Muller, "2d Armored Division Combat Loading; Morocco: Part 1," Cavalry Journal, Vol. LVI, p. 3; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 14-15, 30.

<sup>36</sup>Morison, Operations in North African Waters, October 1942 to June 1943, Vol. II, pp. 17,33; Harmon, Combat Commander, p. 67.

<sup>37</sup>War Department, Movement Order 3324, 2 October 1942, E. N. Harmon to Jacob L. Devers, 2 October 1942, and Jacob L. Devers to E. N. Harmon, 3 October 1942, Record Group 407.

<sup>38</sup>History 67th Armored Regiment, p. 169; Wilhm, et al., "Armor in the Invasion of North Africa," p. 60; "Final Report of Operation BLACKSTONE 072400-110730 November 1945", (28 November 1942), p. 7, Record Group 407.

<sup>39</sup>White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa," pp. 3-4, White Papers; Muller, "2d Armored Division Combat Loading," p. 4.

<sup>40</sup>White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa," pp. 2-3, White Papers.

<sup>41</sup>War Department, Movement Order 3324W, 2 October 1942, Record Group 407; White, "Statement Regarding the Operations and Activities of the 2d Armored Division Just Prior to and During the Invasion of North Africa," pp. 3-4, White Papers.

<sup>42</sup>Ibid.

<sup>43</sup>Ibid., pp. 3-5.

<sup>44</sup>Ibid., p. 5.

<sup>45</sup>Urban J. Wurm, Manuscript Diary, 23 October 1942, Record Group 407.



## CHAPTER X

### OPERATION TORCH: THE INVASION OF NORTH AFRICA

During the Arcadia Conference in December 1941, President Franklin D. Roosevelt and Prime Minister Winston Churchill agreed that an invasion was necessary to bring the United States into the war. The President favored an attack on the European mainland, while the Prime Minister favored either North Africa or Norway, in order to build a ring around the Nazis, relieve the pressure on the Russians, and ease the pressure on the British, primarily in Libya and Egypt. The Americans and British vacillated until 25 July 1943, at which time the President committed the United States to Operation TORCH.<sup>1</sup>

The outline of the plan was completed about 6 September. The assault was to occur simultaneously at three places. One group was to capture Casablanca, one was to capture the deep water port at Safi, and one was to land at Port Lyautey to capture the airfield. Patton estimated that the forces needed would be considerable. In order to capture the airfield, he thought that two infantry battalion combat teams and a reinforced armored battalion would be necessary. The main landing at Fedala would require a division (minus one regimental combat team), reinforced with an armored regimental combat team. At Safi the forces were to be an infantry battalion combat team, one armored battalion combat team and a floating reserve of one regimental combat team. TORCH was one of the biggest gambles of the

war, and the largest operation to date. Success depended to a great extent on political rather than military considerations. There was to be no preliminary bombardment or other preparatory barrage. The assault forces would start ashore, hoping they did not meet any resistance. The landing on the Atlantic Ocean side of French North Africa was to be strictly an American venture, while those on the Mediterranean Coast, at Oran and Algiers, were to be in partnership with the British.<sup>2</sup>

The Western Task force, under the command of Major General Patton, sailed from the United States on 23 October 1942. The convoy numbered over 100 ships, with about 35,000 men and 149,000 tons of supplies (enough for thirty days). The task forces were built around the 3d Infantry Division, most of the 9th Infantry Division, and the 2d Armored Division. During the crossing, the troops drilled for hours, climbing down rope ladders and landing nets. The officers and non-commissioned officers studied maps and other information. The landing teams drilled on their specific assignments, so that each man knew his mission and what was expected of him. Because of the problems experienced during the practice landings, Harmon had maps of the Safi area painted on the walls of the ward rooms, and the men memorized the terrain features. Harmon also decided that in future operations every man "down to the lowest private would be briefed on the battle plans."<sup>3</sup>

Besides the tactical assignments, the men learned to fire the new bazooka. No one in the task forces had seen this new antitank weapon until they were at sea. The Army taught the Navy how to use the .30 caliber antiaircraft machine guns. Classes were conducted in the recognition and avoidance of booby traps, the customs of the

Moslems, camouflage, naval weapons, first aid, identification of aircraft and armored vehicles, signal training, and proper conduct if captured. Each day the men took part in abandon ship and general quarters drills. Chaplain Urban J. Wurm noted that the men understood the gravity of the situation, and that they were engaged in a serious undertaking. They were told of their destination while at sea.

Wurm was pleased that Patton had been selected to command the task force. He noted that Patton "knows his men, and whose men know him; in knowing him love him, in loving him will follow him--Anywhere."<sup>4</sup>

The convoy elements did not all sail together, and on 27 October, the Y force, which had sailed from New York, joined the convoy. Led by the cruiser U.S.S. Augusta, it included the carrier U.S.S. Ranger with approximately ninety planes. The fighting force was an impressive spectacle to behold. Hopefully the men would not have to hurt anyone, but if the coded phrase, "play ball" was passed then there was going to be "some gore." Two days later, the U.S.S. Calvert, joined the convoy; on board the Calvert was Brigadier General Hugh J. Gaffey, commanding general, Combat Command B. The submarine threat was a constant worry. During the voyage, the Navy conducted fire, collision, and abandon ship drills, and on 30 October, three days after Y force joined them, the convoy experienced its first submarine activity, but none were actually sighted. Three days later, they were in the midst of a submarine wolf pack and rumors were circulating that a U-boat had been sunk that morning. However, the convoy lost no ships to submarines on its journey.<sup>5</sup>

The French Moroccan coast had almost unlimited sites for amphibious landings; generally the beaches had suitable gradients, fair

exits from the beaches, and few obstacles to landing craft. However, the exits were sandy, which could be a problem for wheeled vehicles. The major hazards were the surf, heavy swells, and strong winds. The weather men predicted only one or two days of acceptable landing conditions, which would necessitate rapid landings on a wide front. Because there were no navigable rivers to any extent and few capes and headlands, obtaining control of the three ports of Safi, Casablanca, and Port Lyautey was essential to the allied force. The Navy planned to arrive in position by midnight on 7 November and spend four hours unloading the vessels, with the attack scheduled to take place at 0400 on 8 November. Initially, the landing teams would have to depend on Naval air support until they captured the airfields, enabling them to have land-based aircraft support. The Port Lyautey convoy was late in arriving at its destination. It should have been on station at 2300, but did not arrive until 0300 on 8 November. H-Hour was initially changed from 0400 to 0430, but that also proved too early.<sup>6</sup>

The battle for North Africa opened in a most unorthodox manner. The President of the United States announced to the people of French Morocco that the Army was coming. His message stressed historic American and French ties. The United States and Great Britain were striving to restore ideals, liberties, and democracy to those living under the Tri-Color. The Allies were attempting to restore the right of self-government, the right of religious freedom, and the right to live as one pleased. The Americans came to destroy the enemy and would leave when the job was done. Concluding, he added, "I am appealing to your sense of realism, self-interests, and ideals. Do not obstruct this great purpose. Help us and the day of a world of peace will be hastened."<sup>7</sup>

The British and American governments issued a joint declaration stating that the landings were the first step in the liberation of France. The immediate objective was the isolation and destruction of the Germans in North Africa. The Allies were there as friends; French sovereignty remained unaffected. They also cautioned the French in France not to do anything yet, for the time was not yet for them to rise up.<sup>8</sup>

Lieutenant General Dwight D. Eisenhower's proclamation said the same; the Allies came as friends to defeat the Italians and the Germans, and had no designs on French territory. The Allies would take no offensive action against the French if they did not resist the landings. If the French wanted to comply with the directions and not resist, they were to fly two Tri-Colors or a Tri-Color and an American flag one above the other during the daylight hours. At night, searchlights were to be vertical, towards the sky. Orders were issued for the French navy and merchant marine to stay in port and not to scuttle their vessels. The coast guard units were to withdraw from their stations and not to man the guns, and aviation units were to keep their planes on the ground. All Frenchmen were to obey the orders of American officers.<sup>9</sup>

The original plan was for the President's message to be broadcast simultaneously with the three landings; Oran, Algiers, and the western ones. The message was sent out at 0300 in order not to hazard the two Mediterranean landings, but as it turned out that was actually one hour ahead of the Western Task Force landing time. Brigadier General Lucian Truscott, commanding general, 9th Infantry Division, observed that due to the premature broadcast, "if the

French were not waiting beside their guns, we would indeed be lucky."<sup>10</sup>

Task Force Goalpost was to seize, stock, and maintain the airport at Lyautey and Sale, and cover the northern flank of the entire operation. It was the smallest of the three task forces and, in some respects, had the most difficult time. It was to be the first tank fight in which elements of the 2d Armored Division participated. To carry out his assignment, Truscott had the 60th Regimental Combat Team, commanded by Colonel Frederic J. de Rohan from the 9th Infantry Division, and the First Battalion Combat Team, 66th Armored Regiment, commanded by Lieutenant Colonel Harry Semmes. Both units were in excellent condition, the staffs well organized, the units at almost full strength, and both had received some amphibious training.

The planners thought that the French would be defending the Port Lyautey area with a regiment of infantry (3,080 men), twelve antitank guns, artillery, and engineers. Reinforcements, which would be available from the Spanish Moroccan border towns Meknes and Rabat, included two regiments of infantry, a battalion of tanks (forty-five) and 1,200 mechanized cavalrymen. All could be brought to Lyautey anywhere from D+1 to D+4. Consideration of possible enemy reactions to the landings required that the Americans get their tanks and anti-tank guns ashore as quickly as possible. Unknown to the Americans, there were two opinions among French officers. One group wanted to carry out orders regardless, while the other did not want to fight the Allies. Commanders in the threatened area had authority to open fire on their own initiative, so when the attack came, they did not have to wait for the French government to grant permission.<sup>11</sup>

The original planning for the Port Lyautey landings included two plans. In Plan A the Americans were to land south of the airport, then move onto the field as a unit. Its advantage lay in its simplicity. The disadvantage was that the invading force was about the same strength as the enemy. It was thought that it would require most of the first day for the troops to land and assemble, and bad weather could prevent the landing of other troops. In Plan B, the Americans would land in several different locations and advance on the airport from different directions. The advantage was speed and surprise of attack, and the ability to get men and material ashore as quickly as possible. The major disadvantage was that the Americans would not have a superiority of troops at any point and there would be few troop reserves. Since the basic factor was the weather, Truscott adopted Plan B.<sup>12</sup>

While the men were loading into their assault craft, five French vessels sailed past the American ships. One flashed a message which read, "Be aware. Alert on shore for 5 a.m." It simply confirmed that the task force had failed to surprise the French and that the President's message had not changed the French decision to resist.<sup>13</sup> The armor landing team was to land inside the breakwater at Port Lyautey, on the order of the force commander, beginning about 0750. Its mission was to assemble, and protect the south against any enemy approaching from that direction. As the reserve force, it was to be ready to aid in the attacks to secure the airports at Port Lyautey, Rabat-Sale, and Sibi-Yahia, and the radio station at Rabat-Sale. To aid the Armored Battalion, one reinforced infantry company from the 3d Battalion Landing Team would be available in a reserve role. The Third Armored

Landing Team personnel were on the John Penn, while the light tanks were on the Electra. The Armored Battalion was to land as quickly as possible after daylight and after the infantry assault battalions. Lieutenant Colonel Harry Semmes, commander of the 3d Armored Landing Team, almost did not get to go to North Africa, because he was overage for his rank. He had appealed to Patton personally, and the general decided to take him because of his personal loyalty and because he had served with him in France during World War I.<sup>18</sup>

The surf, rather than French resistance, hampered Truscott's landing. Three of the landing craft bringing the armor ashore were swamped, and a light tank, a half-track, and a scout car were lost, but the crews escaped injury. By nightfall, the tankers had six or seven tanks ashore. Semmes was ordered to the south flank and to take command of the infantry and antitank units that were there. He went into position about a mile south of the lagoon, and the next morning had the privilege of fighting the initial 2d Armored Division action of the war. On D+1, 9 November, Semmes had his tanks in position to oppose any threat from the south. About 0430, fourteen French tanks were seen moving north along the Rabat-Port Lyautey road. Pulling back to defilade positions behind a low ridge, the Americans opened fire when the approaching tanks came within range. The French retreated to a eucalyptus grove, which the Navy shelled, driving the French away. Samuel Eliot Morison incorrectly credited the Navy with breaking up that attack, when in fact, it was the small armored force that initially repulsed the French.<sup>15</sup>

Semmes and his command had their problems. Before leaving the United States, they had been issued new radios, but did not have time



to calibrate them. While at sea, the command was under radio silence and therefore could not properly care for them. Moreover the tank guns were not bore-sighted (the telescopic sight aligned parallel to the axis of the main gun), and the men were forced to use the trial and error method of aiming. After repulsing the first threat to the beachhead, Semmes' small force had about an hour's rest before fighting off an infantry attack, at about 0600. After routing the infantry, the Americans were attacked a second time by tanks. The old French Renaults were repulsed, and the French lost four tanks. Semmes accounted for two of them himself. The French gunnery had been accurate, as attested to by the two shells imbedded in the front slope armor of Semmes' tanks.<sup>16</sup>

The tempo of the action increased; about 0815, while observing the naval gunfire rout the French from the grove of trees, the armored group received some reinforcements. About ten tanks from Company C, 70th Tank Battalion, arrived to aid the 2d Armored Division take on about thirty-two French tanks at 0900. The French were attempting to reach the American beachhead. The American tanks counterattacked, driving the French three miles inland and forcing them to abandon twenty-four of their tanks. After this fight ended at about 1500, Company C of the 70th Tank Battalion was detached and ordered to help the infantry in its attempt to take the airfield. Semmes, meanwhile, had been reinforced with Cannon Company, 60th Infantry Regiment.<sup>17</sup>

Truscott made repeated appeals for supplies and equipment, but the surf, rated as only moderate, hampered unloading. The losses in landing craft were high; 70 of the available 162 boats had been damaged or destroyed. During the night, nine additional tanks, a platoon of

the 443d Coast Artillery (antiaircraft artillery), and the reconnaissance platoon joined their parent units at the south end of the lagoon. To add to the misery, rain began during the night and continued during most of the next day. However, the defenders were in position and ready for whatever the French might try on 10 November.<sup>18</sup>

The next morning the French continued their attempt to relieve the Port Lyautey garrison. About 1100 the reconnaissance platoon spotted twenty French tanks moving north on the Rabat-Port Lyautey road. Six American tanks and two assault guns from Cannon Company went into the woods east of that road, while the remainder of the American force stayed in their positions. The French sent six tanks into the woods to flush out the Americans while the remainder of the French continued northward. The French tanks which had gone into the woods were fired on by the Americans and they quickly withdrew. The Navy placed heavy gunfire on the French, who pulled back, losing seven more tanks: three to naval gunfire and four to antitank fire.<sup>19</sup>

Semmes and his small force were solidly astride the road the French needed to resupply their garrison. About 1600 that afternoon, a task force of four tanks was sent into the valley northeast (towards Port Lyautey) looking for enemy cavalry troops. They found none, but did make contact with the First Battalion Combat Team from the 60th Infantry Regiment; this contact encircled the French, making their positions untenable. About 2300 on 10 November, the Americans received a message that the French wanted to discuss ways and means of ending hostilities. At 0200 on 11 November, the Americans were informed that the French commander, Major General Mathenet, had ordered the French resistance to halt and a meeting was arranged for 0800 the same

morning. Semmes and a company of light tanks accompanied Truscott to the meeting with the French commander, to "lend something of military display to the event." Major General Mathenet revealed that he had been ordered to end the fighting, pending decisions of higher headquarters. The local terms were favorable to both the Americans and the ever-sensitive French. The Americans were to occupy the port and the airport, but would not interfere with the French if they did not interfere with the Americans. The French had resisted the landing and fought well, inflicting over 200 casualties on the Americans, but their zeal declined as the battle continued. With their inability to resupply the garrison, caused primarily by the tanks of the 2d Armored Division, the French were, as one participant so bluntly stated, "firing their shot for honor."<sup>20</sup>

The Western Task Force's major objective was Fedala, from which it planned to assault the rear of Casablanca. A direct assault was considered to be too costly; especially against such well defended positions. Patton's letter of instruction to Harmon said that the initial mission of the Western Task Force was to assault and capture Casablanca and the nearby airport, and then if necessary to build a strike force to secure Spanish Morocco. The second step would be the occupation of French Morocco in conjunction with the Center Task Force that had landed at Oran.<sup>21</sup>

The French garrison at Fedala was estimated to be approximately 2,500 men; however, an estimated 6,500 reinforcements were available to aid the defenders. Formidable defenses opposed the landing force. In the Batterie du Port were three 100mm guns which faced north-westerly but could be turned to fire on the center beach. A battery

of two fixed 75mm guns could be brought to bear on several of the beaches. The Batterie Pont Blondin, four 138.6mm with a range of 18,000 yards, were in sunken emplacement. These major shore defense positions were defended by machine gun emplacements and by mobile batteries of 75mm artillery in unknown locations.<sup>22</sup>

Brushwood, code name for the Fedala landing, was assigned to the 3d Infantry Division, commanded by Major General Jonathan W. Anderson, and the Armored Landing Team built around the First Battalion, 67th Armored Regiment, commanded by Major Richard E. Nelson. This group had a combined strength of 19,783 officers and men and seventy-seven light tanks. Their objectives were Fedala and Casablanca, fifteen miles south of the landing sites. Casablanca, considered the key to liberating French North Africa, had a deep water port which could serve as the main supply port for any Allied venture in western Africa.<sup>23</sup>

Most of the tankers made the Atlantic crossing on the Biddle, along with about a third of their vehicles, while most of the vehicles and about 100 men crossed on the Arcturus. Initially, Anderson planned to land two infantry regimental combat teams, keeping one infantry regiment and the armored landing team in floating reserve. The armor was scheduled to land approximately three hours after the first wave, then join the 7th and 15th Infantry Regiments for the attack on Casablanca.<sup>24</sup>

The infantry landing teams started ashore about 0430 8 November. Several factors including troop ships and cargo transports out of their assigned positions, and inexperience of Army troops in landing, and lack of skill on the part of the Navy, caused a thirty minute delay. When the operation started, some of the landing craft

foundered on the rocks and reefs and were lost. Shortly after the Americans started ashore, the French turned on a searchlight which lit up the beaches; it was quickly shot out by a patrol boat. This ended any hope that the French would not fight. However, both major batteries were silenced by cruiser gunfire, which greatly eased the landings. The officers and men of the armored landing team were awakened by naval gunfire and soon lined the rails of the ships to watch the fight. They had a fright as they saw a transport racing towards the beach. It was fired on, but beat a hasty retreat: the ship was the Biddle, carrying part of their vehicles. At 1600, Nelson went ashore, returning at 1800 with instructions to start unloading. The loss of landing craft hampered efforts, but by dark a platoon of Company A, 67th Armored Regiment, was ashore and had taken up positions overlooking Fedala; during the night it met no enemy resistance. The remainder of the tanks were to be unloaded the following day, as the sea was getting rougher; one tank had been damaged, crashing into the side of the ship while it was being unloaded.<sup>25</sup>

By 1700 on 8 November, about 40 percent of the Center Landing Team was ashore. Once again there had been a large loss of landing craft, for about half of their 347 boats were casualties. In spite of the difficulties, Anderson and his men captured most, if not all, of their initial objectives before sunrise on 9 November. Once the port was in American hands, emphasis was placed on landing the tanks. The Arcturus was brought to the docks and unloaded, while landing craft unloaded the Biddle. By 1900, the Armored Landing Team was ashore and in position between the railroad and a highway. It was ordered to move east of the Qued Mellah to guard against possible infiltrators.

Defenses were established on the east bank of the river and guards posted on the bridges, but no enemy tested the tankers that night.<sup>26</sup>

At dawn the armored team sent reconnaissance patrols to its front. One platoon of Company A, 67th Armored Regiment was sent towards Mediouna, where it found the 15th Infantry Regiment and acted as a flank guard for the infantry that day. Southwest of Casablanca, 600 Moroccan Spahis were in position to attack the flank of the 15th Infantry. There was a minor skirmish, but the French forces were driven off without loss to the Americans. The remainder of the armored force stayed in the Brushwood reserve awaiting orders. About dark, the Armored Battalion was ordered to move to positions west of Casablanca, and be ready to attack at 0800 on 11 November. It started to rain and because of the extreme darkness each tank had to be led on foot. In spite of all precautions, there was a minor accident; one quarter-ton vehicle went over a cliff. In the morning, after a brief artillery concentration, fired by the 78th Armored artillery, the tanks began moving forward. At that point Patton ordered a cease fire because the French had surrendered.<sup>27</sup>

The French resistance was not as determined as it could have been. One explanation was the surprise of the landings; a second was the lack of desire to fight the Americans. Possibly the French fought for honor, but they were willing to join the Allies as soon as they surrendered.

The main 2d Armored Division landing was at Safi, about 120 miles southwest of Casablanca. Patton had issued detailed instructions to Major General Ernest N. Harmon, the 2d Armored Division's commanding general. Task Force Blackstone was to land, secure its positions, and

be ready to assault the land defenses of Casablanca. That mission could only be deterred by actual combat. Once the troops were ashore, they should move quickly to capture, undamaged if possible, the telephone exchange, and wireless station, which were considered vital to the establishment of civil control.<sup>28</sup>

Safi had to be secured. The mission might be difficult and costly, but the city needed to be captured and the Seatrain unloaded. Harmon was instructed, that if, for any reason beyond his control, he could not unload the Seatrain, he was to send it to Fedala. He was admonished to be careful with the Seatrain, not to expose it to unnecessary dangers, and to make every effort to get it to the docks and unloaded. As the Seatrain carried the only medium tanks in the Western Task Force, the admonitions were not unnoticed or unheeded. After unloading the command, Harmon was to get to Casablanca as quickly as possible. He had to secure a crossing over the Bria River, while maintaining his lines of communications to Safi. Any attack against Safi was to be the only enemy action that Harmon was to consider. If he felt that it was necessary to abandon Safi, he was to contact Patton for approval; in the event he could not reach him he was authorized to use his own judgment.<sup>29</sup>

Harmon issued a field order detailing much the same information that he had received from Patton. In addition, he cautioned the commands that they might have to fight the Marrakech garrison, about 100 miles south of Safi. The landing had three phases: unloading and establishing a 5,000 yard radial beachhead; expanding this beachhead to 10,000 yards; and future operations would occur following the enlargement of the beachhead. No plans were made to land any part of

the command, except the assault troops, anyplace except on the docks at Safi.<sup>30</sup>

Safi was a dangerous place to try a landing. Heavy swells occurred that time of year which could dash the light landing craft on the rocks. There were few suitable beaches, and those were short and butted into high cliffs. The harbor, however, was one of the three deep water ports on the Atlantic side of French North Africa. It was triangular in shape, with the entrance about 500 yards wide while a narrow opening was formed by a long jetty and a pier that came together, forming right angles. Inside the harbor was a quay which could handle three ships and, in addition, there were electric cranes to help with the unloading. Nearby covered storage sheds were connected by a spur railroad track which led to the interior. If the 2d Armored Division could get to these facilities, the unloading of the tanks would be greatly eased, as no landing craft could handle the medium tanks of the task force.<sup>31</sup>

The invaders expected a force of about 1,000 men opposing them. Actually, they found about half that number. At Marrakech there was a considerable number of reinforcements available, including 1,400 cavalry, 2,000 infantry, 2 battalions of horse drawn guns, and 40 tanks and armored cars. The Safi harbor defenses were covered by artillery and machine guns. The Batterie Roilleuse had four 130mm coast defense guns; three batteries of 75mm guns and four 155mm guns; which could raise havoc with the landing force, if the French chose to resist. The convoy arrived at their positions about 2245 on 7 November. After being fed potato salad, sandwiches, and coffee, the men started over the side at 2330. To their amazement the lighthouse inside the harbor was



blazing and continued to do so until about 0200. Apparently the convoy had arrived undetected. The men loaded into their assault craft as early as possible to minimize losses in the event that the French should decide to put up a fight.<sup>32</sup>

From the time of the first alert at Safi (0320) until the Allied landing, the French had about an hour and ten minutes to prepare. A rickety old French vessel, the Alfonse De Lande, fired the first shot and was promptly sunk by American gunfire. Shortly after 0500 Commander Deuve, the French commander at Safi, was notified that ships had been sighted, but he refused to give permission to open fire until the spotters could identify the ships. Later when he saw a warship enter the harbor, he gave the order to fire; the French may have scored a hit on a torpedo boat. His actions were answered by gun flashes that lit up the horizon.<sup>33</sup>

The initial landings were made by the 47th Infantry Regiment of the 9th Infantry Division, commanded by Colonel E. H. Randel; its mission was to establish the initial beachhead. After that, it was to hold the beachhead while the medium tanks were being unloaded and the Armored Force prepared to move northeast to Casablanca. Harmon learned that the French had placed a boom across the mouth of Safi Harbor. He suggested that two destroyers ram it and enter the harbor carrying two infantry companies. They needed to take the electric cranes intact if the tanks were to be unloaded. Upon arriving at Safi, however, they found no boom, but Harmon and Rear Admiral Lyal A. Davidson decided to go ahead with the plan to send the destroyers into the harbor anyway. As a result, the port was secured without serious damage to the facilities. The crane was damaged by a watchman,

but the next day he returned and repaired it in about three hours. The reconnaissance platoon of the 47th Infantry Regiment seized the telegraph and telephone centers intact and successfully cut Safi off from the rest of North Africa. Company L of the same regiment captured the oil storage tanks east of the harbor. By dawn (about 0600), the harbor, railroad station, post office, and highways to the south were held by the Americans, but they did not have the town. The battle to take the town began in earnest and was making such progress that the Seatrain sailed into the harbor and began to unload the medium tanks about 1400. About the same time, the Titania, which carried the light tanks of the armored landing team, tied up to the dock and started unloading. As the tanks were unloaded, they went to an assembly area near Horseshoe Hill, three miles northeast of town. As the unloading started, a boom broke, causing a three hour delay until it could be repaired. Even so the medium tanks were unloaded at a rate of approximately one tank every five minutes. All the combat vehicles were unloaded in forty-eight hours.<sup>34</sup>

Harmon moved his headquarters to Safi about 1530 on 8 November, where he found sniping by the French and inactivity on the part of the Americans. He sent tanks and infantry to clean out the snipers and thus cleared up the unloading problems. The major problem was that the task force did not have any Army troops to move the supplies inland. The Arabs were too slow, indifferent, and unreliable. Finally, the men of the 47th Infantry Regiment were used, but they were tired, and felt insulted at having to do non-infantry work. They also had to send crews on the destroyers Cole and Bernadau to Mazagon to resupply

the task force as it moved north to take part in the assault on Casablanca.<sup>35</sup>

Thus far French resistance had been from the garrison at Safi. The French airforce at Marrakech did not take off because of "weather conditions"--unlimited visibility. The next morning at 0630, a French plane strafed and bombed the docks, destroying several vehicles, and causing some casualties. It was shot down by the antiaircraft gun crews on the Lakehurst. American aircraft attacked the French Air Force at Marrakech, destroying about forty planes on the ground. On their way back to their carrier, the Navy pilots spotted and attacked a French column on its way to counterattack the Americans at Safi. The air attack slowed the French, enabling Harmon to rush troops to meet their advance. The French had reached Bou Guedra, about twenty-six kilometers (approximately fifteen miles) from Safi, when they met elements of the 2d Armored Division. About 1350 on 9 November, Harmon ordered Brigadier General Gaffey to oppose the French. Gaffey moved out at 1413 with the light tanks of the 2d Battalion, 67th Armored Regiment, while the medium tanks of the 3d Battalion were kept in Combat Command reserve. At 1700 the light tanks, commanded by Lieutenant Colonel William M. Stokes, encountered the enemy about a mile and a half east of Bou Guedra, and forced them to pull back to positions in the hills. The Americans went into defensive positions, planning to resume the attack the next morning. After firing about 300 rounds of 105mm howitzer ammunition, but not dislodging the French, it was decided to break off the engagement and prepare to move northward to Casablanca. A determined attack could have dislodged the French, but that would have cost lives and tanks that were needed elsewhere.

Harmon thought that the 47th Infantry Regiment and Company B, 70th Tank Battalion, could handle the situation, while the 2d Armored Division moved north.<sup>36</sup>

Having no word from Patton, Harmon decided to start towards Casablanca on the afternoon of 10 November. The decision was risky, for the enemy still had considerable forces at Marrakech and at Mogador. Harmon considered that Colonel Randel could hold Safi, aided by naval gunfire, and if it really became necessary, the infantry could fight its way back to the beach and board the ships.<sup>37</sup>

At noon, as the preparations for the march were being made, the French civil authorities loaned the Americans two buses to transport the headquarters personnel. Combat Command B was ordered to cease operations at 1715 and pull back for movement to Casablanca. The march began at 1900 under blackout conditions, through unknown territory, at excessive speeds, and with a time limit. The command had to capture Mazagon, where the Navy was sending the Cole and Bernadeu to refuel and resupply the tanks. The column stopped several times, and each time some of the drivers, who had had very little sleep, went to sleep. On one such stop, Harmon and his G-3, Lieutenant Colonel Lawrence R. Dewey, found an old French soldier standing in uniform beside a rock, and holding a light. Harmon listened to the old veteran explain that he had done his duty for the French Republic. The division commander invited the old man to stand aside. The old Frenchman did, explaining that he was holding the light because he did not want the Americans to hurt themselves.<sup>38</sup>

The tankers reached the outskirts of Mazagon at 0430. Harmon, not wanting to launch a night attack, decided to wait until dawn

(about 0630) and to attack the town with infantry. Gaffey was sent to capture the bridge at Azemmour, which he did. Harmon, meanwhile, met with the French commander and, under the threat of air and naval bombardment, persuaded the French to surrender at 0745, with full military honors, permitting them to keep their weapons. Chaplain Wurm was of the opinion that the French were truly glad to see the Americans. After the surrender, the column moved to assembly areas just north of town to refuel, and prepared to resume the march northward. While refueling, Harmon was informed that the French had ceased operations against the Americans in all of North Africa and that he should stop in place. To show his appreciation, Harmon bought 5,000 eggs for his command, a gesture much appreciated after a steady diet of K-rations.<sup>39</sup>

The Allied landings in North Africa came as a complete surprise to the Germans. They thought that the landing teams which went ashore at Oran and Tunis were destined for the eastern end of the Mediterranean Sea. After the landings, the Germans had only the choice of surrendering or continuing the fight, for evacuation was out of the question. The first German explanations to the world pictured the greedy Americans and British as not being ashamed to grab the territory of their former ally in violation of all laws. On the third and fourth day following the landings, German propaganda claimed that the Allies landed in North Africa to make the Mediterranean an Allied lake, because they were short on shipping and could not wait for their ships to go around the Cape of Good Hope. The Nazis dropped the shipping argument on the fifth day and switched to a new line: Fortress Europa had a weak link,

which was southern France. Therefore Germany was justified in moving into what had been Vichy France.<sup>40</sup>

After three days, combat ended with the French decision to surrender. Apparently, the French had been told by Germany that if they could defend their colonies they could keep them, but if Germany had to defend the colonies Germany would take them over. Most of the French had no animosity towards the Americans, and seemingly fought because they had been told to do so. The indifferent resistance offered and the quick surrender would seem to verify this point. In addition, the threat of American tanks hastened the decision, according to French officials.<sup>41</sup>

The 2d Armored Division had taken part in perhaps the most difficult of all military operations--an amphibious landing on hostile soil. The division proved its training under the most demanding of tests: combat. The tankers had had a variety of missions; at Port Lyautey, they defended, preventing the French from resupplying the garrison; at Safi, after blocking the reinforcing column, they executed a deep penetration against almost no resistance; they were in position to attack when the resistance ended. TORCH showed that an amphibious force could be transported across an ocean, landed against opposition, and execute its mission against hostile forces. It also revealed that better landing methods were needed, if other amphibious landings were to be carried out. North Africa was a testing ground for the 2d Armored Division and, in a larger sense, for the Army.

## FOOTNOTES

<sup>1</sup>Wesley Frank Craven and James Lee Cate, Europe: Torch to Pointblank August 1942 to December 1943: The Army Air Forces in World War Two (7 vols., Chicago: University of Chicago Press, 1949), Vol. II, pp. 42-45; George F. Howe, Northwest Africa: Seizing the Initiative in the West: United States Army in World War II (Washington: Department of the Army, 1957), p. 14; Morison, Operations in North African Waters, Vol. II, p. 12; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 1-2.

<sup>2</sup>Cravens and Cate, Europe: Torch to Pointblank, Vol. II, p. 50; George C. Marshall, Biennial Report of the Chief of Staff of the United States Army July 1, 1941 to June 30, 1943 to the Secretary of War (Washington: Government Printing Office, 1943), p. 19.

<sup>3</sup>Ibid., pp. 41-43, 89; "Ring Tightened Around Axis with Blitz on Vichy Empire," Newsweek, Vol. XX, No. 20 (16 November 1942), pp. 17-23; Harley Cope, "Play Ball, Navy," United States Naval Institute Proceedings, Vol. LXIX, No. 10 (October 1943), p. 1313; Harmon, Combat Commander, p. 81; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 20, 25.

<sup>4</sup>Ibid., p. 25; History 67th Armored Regiment, p. 64; Wurm, Manuscript Diary, 25 October 1942, Record Group 407.

<sup>5</sup>Ibid., 26, 27, 30 October 1942, 3 November 1942.

<sup>6</sup>Wilhm, et al., "Armor in the Invasion of North Africa," p. 111; Howe, Northwest Africa, pp. 17-18; Morison, Operations in North African Waters, Vol. II, p. 51; "Attack on Mehdia and the Port Lyautey Airdrome," pp. 2-5, Unpublished Manuscript, Office of the Chief of Military History, Washington, D. C.

<sup>7</sup>Franklin D. Roosevelt, "The President's Message to General Eisenhower for the People of North Africa," 7 November 1942, Press Branch, Bureau of Public Relations, War Department, Library, Oklahoma State University, Stillwater, Oklahoma.

<sup>8</sup>War Department, "Joint American-British Declaration to the People of France," 7 November 1942, *ibid.*

<sup>9</sup>Dwight D. Eisenhower, "General Eisenhower's Proclamation to the People of French North Africa," 7 November 1942, *ibid.*

<sup>10</sup>Lucian Truscott, Command Missions: A Personal Story (New York: E. P. Dutton and Company, 1954), p. 96.

<sup>11</sup>Howe, Northwest Africa, p. 149; Semmes, Portrait of Patton, p. 90; Wilhm, et al., "Armor in the Invasion of North Africa," p. 110; "Attack of Mehdia and the Port Lyautey Airdrome," p. 62; Office of the Chief of Military History; Russell Brooks, "Casablanca-The French Side of the Fence," United States Naval Institute Proceedings, Vol. LXXVII, No. 9 (September 1951), p. 916.

<sup>12</sup>Wilhm, et al., "Armor in the Invasion of North Africa," pp. 115-116.

<sup>13</sup>"Attack on Mehdia and the Port Lyautey Airdrome," p. 5-6, 15-18, Office of the Chief of Military History.

<sup>14</sup>Wilhm, et al., "Armor in the Invasion of North Africa," pp. 58, 119; "Attack on Mehdia and the Port Lyautey Airdrome," p. 8a, Office of the Chief of Military History; Howe, Northwest Africa, p. 153; Semmes, Portrait of Patton, p. 86.

<sup>15</sup>Morison, Operations in North African Waters, Vol. II, p. 128; Truscott, Command Missions, p. 115; "Attack on Mehdia and the Port Lyautey Airdrome," p. 57, Office of the Chief of Military History.

<sup>16</sup>Truscott, Command Missions, p. 115.

<sup>17</sup>"Attack on Mehdia and the Port Lyautey Airdrome," pp. 57-58, Office of the Chief of Military History; Wilhm, et al., "Armor in the Invasion of North Africa," p. 130; Trahan, ed., A History of the Second United States Armored Division, n.p.; Howe, Northwest Africa, p. 162.

<sup>18</sup>"Attack on Mehdia and the Port Lyautey Airdrome," pp. 80-83, 102-103, Office of the Chief of Military History.

<sup>19</sup>Wilhm, et al., "Armor in the Invasion of North Africa," pp. 137-138.

<sup>20</sup>Howe, Northwest Africa, p. 165; Joseph B. Mittelman, Eight Stars to Victory: A History of the Veteran Ninth U.S. Infantry Division (Columbus: F. J. Heer Printing Company, 1948), p. 73; "Attack on Mehdia and the Port Lyautey Airdrome," pp. 81-82; Office of the Chief of Military History; Wilhm, et al. "Armor in the Invasion of North Africa," pp. 133, 134-135; Truscott, Command Missions, p. 122; Interview, James M. Burt with author, 16 June 1972, Hancock, New Hampshire.

<sup>21</sup>George S. Patton, Jr., to Ernest N. Harmon, "Letter of Instructions," 10 October 1942, White Papers.

<sup>22</sup>Howe, Northwest Africa, p. 118; Morison, Operations in North African Waters, Vol. II, pp. 56-58.



<sup>23</sup>George S. Patton, Jr., War As I Knew It (Boston: Houghton Mifflin Company, 1947), p. 392; Howe, Northwest Africa, p. 121; "The Attack on Fedala and Its Defenses," p. 2, Unpublished Manuscript, Office of the Chief of Military History, Washington, D. C.

<sup>24</sup>Wilhm, et al., "Armor in the Invasion of North Africa," pp. 57, 69, 73; History 67th Armored Regiment, p. 65; Howe, Northwest Africa, pp. 122-123.

<sup>25</sup>Donald G. Taggart, ed., History of the Third Infantry Division in World War II (Washington: Infantry Journal Press, 1947), pp. 13, 31; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 69-71, 73-74; Howe, Northwest Africa, p. 125; Morison, Operations in North African Waters, Vol. II, pp. 75-78; History 67th Armored Regiment, pp. 65-66.

<sup>26</sup>Howe, Northwest Africa, pp. 123, 137; Taggart, ed., History of the Third Infantry Division in World War II, p. 31; History 67th Armored Regiment, p. 67; Wilhm, et al., "Armor in the Invasion of North Africa," p. 77.

<sup>27</sup>Ibid., pp. 18, 78, 79; Howe, Northwest Africa, pp. 144-145; "Attack on Fedala and Its Defenses," pp. 81-82, Office of the Chief of Military History; History 67th Armored Regiment, pp. 15, 67-68.

<sup>28</sup>Patton to Harmon, "Letter of Instructions," 10 October 1942, White Papers.

<sup>29</sup>Ibid.

<sup>30</sup>BLACKSTONE, Field Order 1, 18 October 1942, Record Group 407; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 87-88, 91.

<sup>31</sup>Cope, "Play Ball, Navy," United States Naval Institute Proceedings, Vol. LXIX, p. 1312; Howe, Northwest Africa, pp. 97-99; Morison, Operations in North African Waters, Vol. II, p. 137; Wilhm, et al., "Armor in the Invasion of North Africa," p. 91.

<sup>32</sup>BLACKSTONE, "Final Report of Operation BLACKSTONE 072400-110730, November, 1942," (28 November 1942), pp. 3-4, Record Group 407; Howe, Northwest Africa, pp. 99-100; Morison, Operations in North African Waters, Vol. II, pp. 137-138; Wurm, Manuscript Diary, 7 November 1942, Record Group 407; Robert Wallace, "Africa, We Took It and Liked It, Part 1," Saturday Evening Post, Vol. CCXV, No. 29 (16 January 1943), p. 20; Harmon, Combat Commander, p. 84.

<sup>33</sup>Howe, Northwest Africa, p. 100; Ship's Commander Deuve to Commanding General of the Marrakech Division and the Sector of Safi-Mogador, "Operations for November 8 and 9, 1942," November 14, 1942, pp. 1-3, White Papers; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 92-93.

<sup>34</sup>Mittelman, Eight Stars to Victory, p. 60; Wilhm, et al., "Armor in the Invasion of North Africa," pp. 89, 98; Harmon, Combat

Commander, pp. 79, 85-86; Wallace, "Africa, We Took It and Liked It," Saturday Evening Post, Vol. CCXV, No. 29, p. 80; White, "Statement Regarding the Operations and Activities of the 2d Armored Division, Just Prior to and During the Invasion of North Africa," pp. 6-7; White Papers; Cope, "Play Ball, Navy," United States Naval Institute Proceedings, Vol. LXIX, p. 1314; History 67th Armored Regiment, p. 231; Muller, "Second Armored Division Combat Loading, Part One," p. 5.

<sup>35</sup>Wilhm, et al., "Armor in the Invasion of North Africa," p. 99; Howe, Northwest Africa, p. 111; Harmon, Combat Commander, p. 89.

<sup>36</sup>Wurm, Manuscript Diary, 9 November 1942, Record Group 407; White, the 2d Armored Division, p. 4; White Papers; BLACKSTONE, "Final Report of Operation BLACKSTONE 072400-110730 November 1942," p. 5, Record Group 407; Harmon, Combat Commander, pp. 88-89.

<sup>37</sup>Wilhm, et al., "Armor in the Invasion of North Africa," pp. 103-104.

<sup>38</sup>Wurm, Manuscript Diary, 10 November 1942, Record Group 407; Interview Lawrence R. Dewey with author, 2 June 1972, Falls Church, Virginia; Harmon, Combat Commander, p. 94; Combat Command B, "Report of Operations of Combat Command B, 8-11 November 1942," Record Group 407.

<sup>39</sup>Morison, Operations in North African Waters, II, p. 155; Wurm, Manuscript Diary, 12 November 1942; and Combat Command B, "Report of Operations of Combat Command B, 8-11 November 1942," Record Group 407; White, the 2d Armored Division, pp. 4-5; Harmon, Combat Commander, p. 99.

<sup>40</sup>George C. Marshall, Biennial Report of the Chief of Staff July 1, 1943 to June 30, 1945, pp. 45, 146; Argus, "Goebbels in a Jam," The Nation, vol. CLV, No. 22 (November 28, 1942), p. 575.

<sup>41</sup>Brooks, "Casablanca-The French Side of the Fence," United States Naval Institute Proceedings, vol. LXXVII, p. 910; Wallace, "Africa, We Took It and Liked It, Part 2," The Saturday Evening Post, Vol. CCXV, No. 30 (23 January 1943), p. 78; Trahan, ed., A History of the Second United States Armored Division, n.p.

## CHAPTER XI

### NORTH AFRICAN INTERLUDE

Operation TORCH was the "wildest adventure" that Major General Harmon and the 2d Armored Division had ever experienced. The anxiety and suspense were as awesome as they would ever undergo. Everyone, Army and Navy alike, was inexperienced, but the initial mission of the Western Task Force had been accomplished with only nine 2d Armored Division casualties; four dead and five wounded. French Morocco had been captured. While Port Lyautey and the Fedala-Casablanca venture were primarily an infantry operation, the landing at Safi was mainly a tank action. Following the French surrender, the division settled down to occupation duty, as no plans had been made to use the 2d Armored Division in the Tunisian desert campaign. Patton permitted the French to retain administrative jurisdiction of their colony. As long as the French could control the native population and not interfere with the war effort, the United States would not interfere in the internal affairs of French Morocco.<sup>1</sup>

The 2d Armored Division was alerted for movement on 13 November 1942. It was to occupy a bivouac area in the Mamora Cork Forest about eighteen miles northeast of Rabat. Lacking transportation for its headquarters personnel, the division impressed two charcoal burning buses to take them to Casablanca, where thanks to the "ingenuity of Captain Maurice T. Fliegelman," the remainder of the

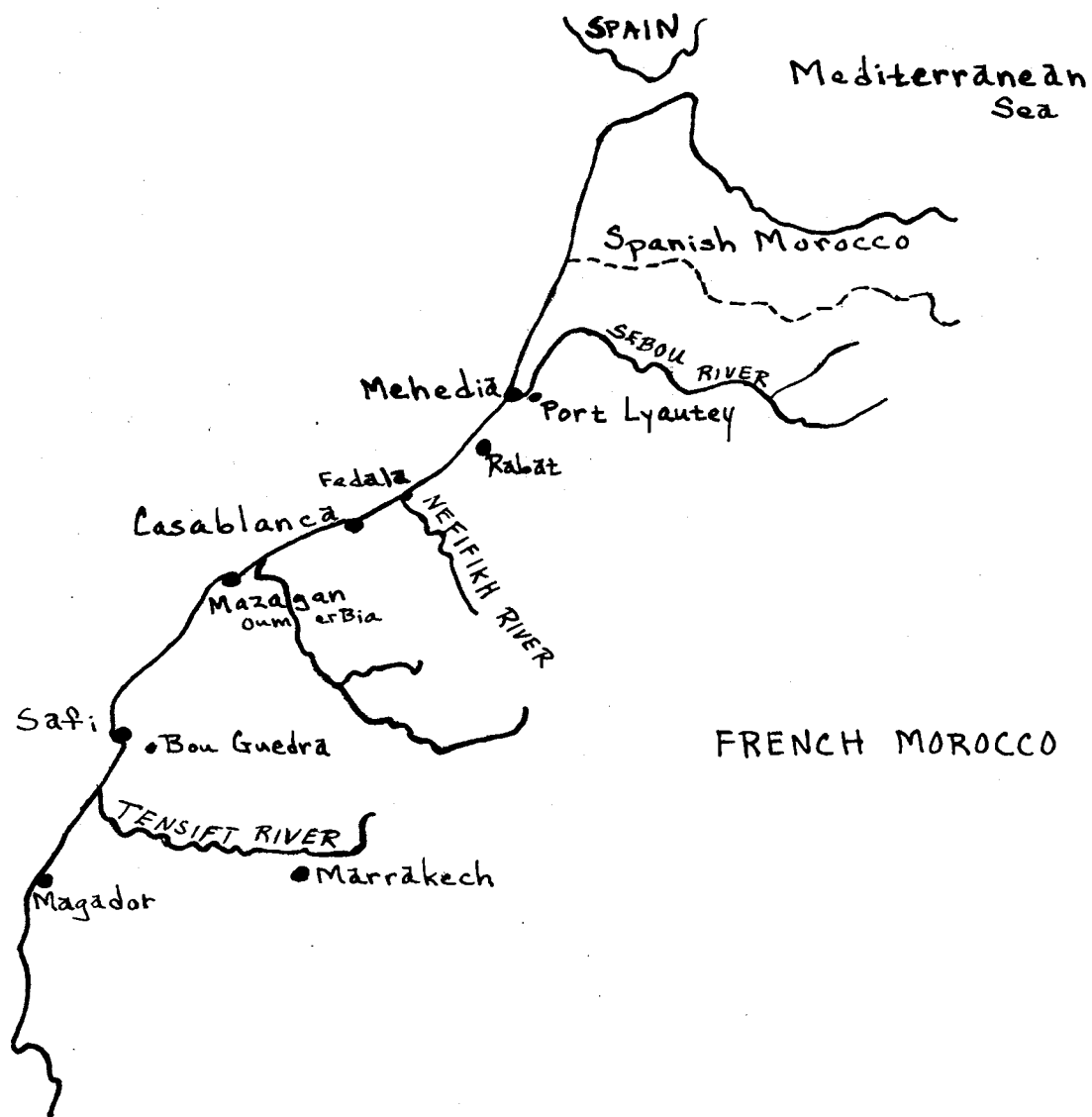


Figure 6. North Africa, 1942.

trip was made in a large deluxe French bus. Chaplain Wurm observed that the area was picturesque and that the division did not have a better bivouac area, even when on maneuvers back in the States. However, the sun blazed down during the day and at night there was usually a cold rain.<sup>2</sup>

While bivouaced in the Cork Forest, the division and the Western Task Force faced two serious problems: the French reaction to British participation, especially after the British had attacked Dakar, and how the governments of Spain, Vichy France, and French North Africa would react to the invasion. The Americans were especially concerned about the 130,000 Spanish and native Spanish Moroccan troops causing them problems. Spain had made statements about pushing the frontier south of the Sebou River (Port Lyautey is on the Sebou River), but the Americans were committed to maintaining French possessions as they were.<sup>3</sup>

The 2d Armored Division's mission was to guard the Spanish-French Moroccan border, to prevent attempts by Spain or Germany to attack supply and communications lines, and keep open the single track railroad between Casablanca and Oran. The Spanish, under Lieutenant General Luis Orgas Yoldi, kept making threats about their frontier. To discourage any such venture, Patton decided to invite the Spanish general to a review presented by the 2d Armored Division. He came, and as the Spanish did not have any weapon to combat the tanks, there was no more talk about expanding to the Sebou River. Harmon confessed that while he had been opposed to the idea of permitting the Spanish to view the division, the gamble worked, and that was the major consideration.<sup>4</sup>

The next problem facing the men was how to get along with the native population. The Sultan of Morocco was friendly to the Americans, but the situation could be very serious if anything were to occur to change his mind. Chaplain Wurm knew that Rabat was the second principal holy city for the Moslems. The young men of the division were warned about "youthful indiscretions."<sup>5</sup> Harmon was able to solve many problems which arose by liberal dosages of money. This was especially true if the natives found dud ammunition while scavenging in the target or impact area. If the dud exploded in a home, the Army paid for the losses. He also established a Souk-el-Harmon (Harmon's market), so that the American soldiers could buy products from the Arabs and not be robbed. At night the soldiers cooked their purchases over stoves made from number ten cans filled with sand and soaked with gasoline. Patton initially objected to the consumption of approximately 500 gallons of gasoline a week for this purpose, but he gave his consent and found that the morale soared at the same time.<sup>6</sup>

The division resumed training, but all was not work. There was time for socializing and experimentation. Since there was an abundance of wine, but a lack of hard liquor, Captain Tom Wishard discovered that by heating wine almost to the boiling point and condensing the steam, a fairly tasty liquid called "Kickapoo Joy Juice" could be distilled. When mixed with grapefruit juice, it satisfied the wants of most of the men. However, the "still" had the same end as most moonshine operations. One day the "revenooer", Colonel I. D. White, walked into the mess tent while a batch was being run off, and that was the end of the "experiment".<sup>7</sup>

Back in the states, the remainder of the division was preparing to sail for North Africa. The 702d Tank Destroyer Battalion was relieved from assignment to the division and reassigned to Army Ground Forces. The other units continued training while preparing their equipment for North Africa. After most of the organizational equipment had been packed, the men spent long hours on the rifle ranges. On 1 November 1942, the division moved to Fort Dix, New Jersey, where they loaded on the transports on 11 December 1942, for the trip to Casablanca. The bulk of the division landed Christmas Day and were treated to a memorable Christmas dinner: C-rations in the rain. The traditional and promised turkey arrived for New Year's. The new arrivals remained at Casablanca for several days before moving to the Cork Forest. Chaplain Wurm observed an undercurrent of petty jealousy among the new arrivals for when Casablanca was bombed on 28 December; the new men wanted to know how soon they could place a star on their service ribbons.<sup>8</sup>

The area around the Cork Forest afforded the division excellent terrain for training. Basics were restressed: crew drills, marches, range firing, and tactical problems. Lieutenant Colonel Lawrence R. Dewey was not pleased with the tank sights. Using several destroyed tank hulls as targets, he soon discovered that until the sights were improved, the tankers would have to use the artillery bracketing method to hit the target: firing over and short of the target, and then splitting the difference. Colonel Thomas H. Roberts, commander of Division Artillery, and Colonel John H. Collier, commanding officer, 66th Armored Regiment, experimented with attacking under overhead artillery fire. The artillery, using time fuses, fired so that the

shells burst in the air and the shrapnel fell around the tanks, permitting the tanks to attack with artillery support and forcing defenders to keep their heads down.<sup>9</sup>

Training became more realistic. Major General Harmon remembered that on one exercise, when he stopped a point man and asked him his assignment, the man recited what he was supposed to do. Harmon decided that the men needed to be trained to react, not to recite procedures. The training began to reflect lessons learned in Tunis. In late November, Companies G and H, 67th Armored Regiment, left French Morocco and joined the British 78th Division at Beja. On Christmas Day they took part in some of the heaviest fighting of the African campaign, and then returned to French Morocco on 11 January 1943. That experience was invaluable, because the men had received battle training that the American service schools could not offer.<sup>10</sup>

In January 1943, the division was alerted that something significant was about to occur in North Africa. While sitting in his tent one night, Lieutenant Colonel Dewey heard a radio bulletin referring to an impending visit by the President of the United States to Casablanca. Realizing the importance of such a message, he ordered the radio operator to answer in code, while he alerted Harmon. Company A, 67th Armored Regiment, served as an honor guard for the President and the British Prime Minister when they met in conference. The meeting was so secret, that while President Roosevelt addressed the men of the division and had lunch with them in the field, some doubted that he was in North Africa. Chaplain Wurm, who was meeting with Archbishop Francis Spellman at Rabat, found it difficult to believe that Roosevelt was in Casablanca. He agreed that "Anything is



possible, thought this story to our mind reaches the height of fantasy even though some men swear that they were a few yards from the President."<sup>11</sup>

The Casablanca Conference had a direct influence on future operations of the 2d Armored Division. It was decided to conduct further operations in the Mediterranean region to help ease the pressure on the Russians, and since the troops were already there, it would be easier than attempting a cross-channel attack. Any cross-channel attack would have to be successful on the first landing, which was not viewed as a definite possibility at the time. Britain argued that it would be better to force the Germans to stretch their military forces across the continent of Europe. They felt that the best way to do this would be to eliminate Italy from the war. It was therefore decided to attack Sicily as soon as conditions permitted; meanwhile the Allies would rearm the French. This decision posed a problem; however, since the Americans did not have sufficient shipping to send additional equipment, and the French would require training in the use of the American equipment.<sup>12</sup>

While the 2d Armored Division was beginning to meet the demands placed on it by the Casablanca Conference, in the Tunisian battle the Germans attacked and routed the 1st Armored Division at Kasserine Pass in February 1943. There was an immediate need for replacements. Since it was not possible to resupply the tanks, self-propelled artillery, and the personnel from the United States, owing to the lack of shipping, replacements had to come from the 2d Armored Division. Eisenhower was of the opinion that "Hell on Wheels" could be relieved of its occupation duty and sent to the Tunisian front, but his supply people told him that additional combat troops could not be supplied and

maintained there. For this reason, the 2d Armored and 3d Infantry Divisions were stripped of trucks to send to the front. Eisenhower wanted to send one armored regiment to the east, but concluded that there was not enough equipment left in the 2d Armored Division to get a regiment ready for action. In addition to losing its men and most of its tanks, Harmon was transferred to the front. Originally he was to relieve the 1st Armored Division commander, but became deputy corps commander instead and did not have to perform that unpleasant task.<sup>13</sup>

After driving the Germans out of Kasserine Pass, Harmon returned to the 2d Armored Division, and reported to his men about the fighting on the Tunisian front. Since Patton had replaced Major Lloyd Frendenhall, Harmon thought that the division might be called to the front. If the division was not sent there, he indicated to the men that there would still be a bigger job ahead of them. Hinting that something was in the wind, he told them that they would be sent to amphibious school in the second week of March.<sup>14</sup>

Later, when Harmon was reassigned to be the new commanding general of the 1st Armored Division, he was replaced by Brigadier General Allen F. Kingman, and Colonel John H. Collier became commanding officer of Combat Command A. Colonel I. D. White assumed command of Combat Command B. About this same time, Lieutenant General Mark W. Clark began looking for a general officer who spoke French and had a technical knowledge of American equipment, to become the senior adviser to the French armored units. Since Kingman had studied at the French Armor School between the wars and met the other requirement, he was offered the job and took it. When he arrived at his new headquarters, he found that many of the enlisted men assigned to him

were the same men that he had selected to go to aid the British a year earlier. Brigadier General Hugh J. Gaffey, former commanding general of Combat Command B, and most recently, Chief of Staff of II Corps (Patton's command), replaced Kingman as division commander. In spite of losing two commanders within thirty days, the men did not display a defeatist attitude; they had confidence in Gaffey.<sup>15</sup>

While the division was training for the invasion of Sicily, and simultaneously rearming the French and the 1st Armored Division, General George C. Marshall inquired if it would be possible to rotate the 3d Infantry and 2d Armored Divisions with those in II Corps reserve. Eisenhower and Major General Omar N. Bradley discussed the situation. They advised against it because a major offensive was to begin in a few days, and the training for the invasion of Sicily was too advanced to justify wholesale transfers. Patton had been asked for his opinion about the transfer, and if the changes could be completed in about a week. His answer, apparently lost for historical purposes, must have been in the negative, for the plan was not adopted.<sup>16</sup>

The division was applying the lessons learned from its observers who had gone to the Tunisian front for extended duty with the 1st Armored Division. When they returned, they passed along the knowledge gained to the remainder of the division, which was training from dawn to after dark. The division reinstated chemical training and defenses against chemical agents. Live ammunition was being used to make the men more cautious, and to get them accustomed to the sounds of the battlefield. Many times they were supported by fighter-bomber

aircraft. The men realized that while they were making progress, they still had much to learn.<sup>17</sup>

Major General Harmon, while visiting the 2d Armored Division, compared the battle ability of the Americans and Germans, concluding that he thought that American doctrine was sound, but that the Germans were superior to the Americans in their thoroughness and greater discipline. He was of the opinion that the Americans tried to do many things instead of trying to do a few things well. Based on experience, he thought that tank battles were won by the combatant which got in the first shot. The Americans needed to be trained to respond automatically, not to think. Addressing the officers and the noncommissioned officers, he advised them to be aware of the battle-weary soldier. When casualties reduced a squad or platoon to two or three men, they should be pulled out of the line and rested; at that point, green but vigorous men would be of more value than tired veterans. He stressed that every man in the unit should be briefed on the mission, since leaders might be killed or wounded and a private might have to assume command. Such a briefing would insure the smooth completion of the mission.<sup>18</sup>

Harmon was of the opinion that the Americans should have tank destroyers, with their three inch guns, up with the tanks, unless the tanks had heavier guns. Tanks should move forward by bounds: one tank firing from a hull defilade position, while the second tank moved forward. That movement might be rapid or slow, depending on the situation. In addition, the tanks must learn to coordinate their movements with supporting infantry. He was somewhat critical of previous armor theory. Speed was missing from the battlefield;

movement was slow and deliberate. The maneuvers had given the soldiers a false picture because of their failure to portray supply situations accurately, their lack of casualty evacuations, and their failure to properly conduct reconnaissances. Speaking directly to the division, and in a critical tone, he said, "In maneuvers we have been guilty of rewarding officers and men for grandstand moves such as would be impossible to make on the battlefield and which gave a false impression of what can be accomplished."<sup>18</sup> He warned the men to be aware that if the Germans lost any ground it was axiomatic that they counterattacked to regain it. When capturing positions from the Germans, the American soldiers must be ready to meet that counterattack.<sup>19</sup>

The plans for Operations HUSKY, the invasion of Sicily, were made in 1943. The assaulting forces, with the exception of Oklahoma's 45th Infantry Division, were battletested. The 2d Armored Division was to provide the armor for the assaulting divisions and to be their floating reserve.<sup>20</sup>

In late April 1943, the division moved to Oran to begin their amphibious training. They had been ordered to send one combat command to the Fifth Army Training Center for attachment to the 3d Infantry Division. Combat Command A, commanded by Colonel John H. Collier, was selected for this duty. The command was composed of the 66th Armored Regiment; 41st Armored Infantry Regiment (minus one battalion); 14th Artillery Battalion; B Company, 82d Reconnaissance Battalion; B Company, 48th Medical Battalion; A Company, 2d Armored Division Supply Battalion; and C Company, 2d Armored Division Maintenance Battalion. Combat Command headquarters was augmented with personnel from division headquarters and the 142d Signal Company. Because of a

shortage of rail equipment, a flash flood, and a heavy concentration of both rail and road traffic it took a month to complete the move. After Combat Command A completed its move, Colonel Maurice Rose returned to the division and assumed the command of Combat Command A. On 3 June 1943, Combat Command A moved to Bizerta, became part of the 3d Infantry Division (Reinforced), and began rigorous training for the assault. This training consisted of speed marching, attacks on pillboxes, street fighting, and the loading and unloading of various types of landing craft. On 25 June the 3d Infantry Division (Reinforced) made a practice invasion near Bizerta and El Djebel, with apparent success. After this landing the combat command returned to its bivouac area, without its vehicles, and spent the next several days checking the waterproofing of equipment, completing basic loads, and making final arrangements for embarkation for the invasion. Eisenhower's deputy, Major General John P. Lucas, observing the landing, was impressed by the men and the apparent competence of Rose.<sup>21</sup>

The remainder of the division assembled at Monastir for the move to Port aux Poules, about twenty miles east of Oran. Moving the tanks and half-tracks of the division took a month, because the move was made over a single track railroad, which was subject to frequent washouts, and the number of freight cars available only permitted shipping about one medium tank company at a time. The wheeled vehicles moved overland. While the division was preparing for the invasion of Sicily, it had to resupply itself with tanks and artillery. Since supplies from the United States were slow in getting to North Africa, the division had to get some equipment from the 1st Armored Division. One supply officer, First Lieutenant James M. Burt, recalled signing

a hand receipt for "so many acres of armored equipment." First Lieutenant Morton Eustis unofficially modified the jeeps of C Company, 82d Reconnaissance Battalion, by mounting British machine guns on them. Feeling that the jeeps did not afford sufficient firepower, he decided to see if he could "beg, borrow, or steal" some machine guns and mounts. Putting on his old Air Corps insignia, Eustis went to an Air Corps base and got ten British machine guns and 150,000 rounds of ammunition. He designed the mount, taught the men how to use the weapons, and finally gained approval for the use of the weapons from his battalion and division commanders.<sup>22</sup>

For the invasion, Combat Command B, commanded by Colonel I. D. White, had the 3d Battalion, 67th Armored Regiment (minus two platoons): A Company, 41st Armored Infantry; three firing batteries of the 78th Artillery; C Company, 82d Reconnaissance Battalion; B Company, 17th Engineer Battalion, and a detachment from Company E of the same battalion; D Battery, 107th Coast Artillery (Antiaircraft Artillery); and a detachment from the 48th Medical Battalion. The remainder of the division, not assigned to Combat Command A, was controlled by the 2d Armored Division commander to be used at his discretion.

Combat Command B trained for the assault in much the same way as Combat Command A. Tactical training consisted of fighting and capturing villages, and combined arms team work, all making the maximum use of live ammunition. The command underwent amphibious training: for the most part, the loading and unloading of the various types of assault ships; some practice landings to familiarize the troops with landing problems; and experimentation with firing tank guns from the

decks of the ships. Major General Gaffey was not entirely satisfied with the naval support. Beach gradients had forced the Navy to experiment with various unloading procedures. One method was to unload the tanks from an LST (Landing Ship Tank) to an LCT (Landing Craft Tank) which had had its sides cut out. This method, slow and laborious during very calm seas, was difficult at night, and all but impossible if the sea was running. Gaffey later stated that "except for very junior officers" the Navy paid little attention to the practice landings and did not mention LST weight limitations. Later, the Navy indicated that the LST's were overloaded and that the Combat Command B would have to meet weight limitations imposed by the Navy. If the division had accepted the weight limitations, there was a serious possibility that only one medium tank company could have been taken to Sicily.<sup>23</sup>

While training was being conducted, Combat Command B started to load the transports. The ships lacked sufficient antiaircraft weapons, so for the second time, the 2d Armored Division placed its antiaircraft weapons on the decks to help protect the ships. Army personnel at this time were under the control of the Navy. When the order came to load, the actual loading of personnel was done at night for security reasons. The vacated bivouac areas were taken over by those who were staying behind. The rear detachment constructed dummy tents, and other facilities to indicate to any spying eyes that all was normal. A signal detachment took over the radio traffic patterns to confuse the Germans and Italians. All orders and plans were kept under guard in a locked room; all orders to subordinates were given without explanation or discussion.<sup>24</sup>

One final inspection occurred before the convoy sailed. On 23 June, a review was conducted before George VI of England. Accompanying



the monarch, Eisenhower had an opportunity to inspect the 2d Armored Division and the 82d Airborne Division, which he pronounced to be in splendid shape with fine discipline. The convoy carrying Combat Command A sailed from Bizerta on D minus 6. It stopped at Tunis, rendezvousing with the other elements of the convoy which had sailed later. All elements met off the coast of Malta on D minus one. During the trip, the convoy was hit by a storm, the most severe in recent years, which caused some loss of small craft and equipment. The misery of sea sickness among the men did little to calm minds or improve morale. There was also damage to some of the special floating ramps which were to be used to unload the equipment.<sup>25</sup>

During the North African interlude, the 2d Armored Division faced situations reminiscent of its maneuver exercises. The men had to guard the border between French and Spanish Morocco, preventing pro-Axis Spain from attacking the supply lines which linked Casablanca and the Tunisian front. In addition, the division supplied men and materials to both the United States 1st Armored Division and the French Armored Division, an activity that paralleled its experiences at Fort Benning. The training engaged in by the division was based on the tactical lessons learned in the desert operations. The men of the division prepared for the invasion of Sicily while completing other missions with their customary thoroughness, in spite of having three different division commanders during this period. It would appear that it was not the division commander that made the difference, although he would impart his personality to the division. However, the success of the 2d Armored Division seemed to lie in its continuity of command at the combat command, regimental, and battalion level.

While preparing for Sicily, the division's senior commanders (except Gaffey and Rose) were those who had been with the division from its activation at Fort Benning, and who had the respect and confidence of their men.

## FOOTNOTES

<sup>1</sup>Harmon to Committee 25, Officers Advanced Course, United States Armor School, Fort Knox, Kentucky, 10 February 1950; Wilhm, et al., "Armor in the Invasion of North Africa," Forward; BLACKSTONE, "The Final Report of Operations of Operation BLACKSTONE," Annex 1, Record Group 407.

<sup>2</sup>Wurm, Manuscript Diary, 14 November 1943, *ibid.*; History 67th Armored Regiment, p. 15.

<sup>3</sup>Wilhm, et al., "Armor in the Invasion of North Africa," p. 3; Harmon, Combat Commander, p. 108.

<sup>4</sup>*Ibid.*, p. 108; White, "The Second Armored Division," pp. 5-6, White Papers.

<sup>5</sup>Wurm, Manuscript Diary, 15 November 1943, Record Group 407.

<sup>6</sup>Harmon, Combat Commander, pp. 106-107; "Hell on Wheels," Bulletin of the 2d Armored Division Association, No. 1 (1970), p. 10.

<sup>7</sup>History 67th Armored Regiment, p. 71.

<sup>8</sup>Provisional Corps to Commanding General 2d Armored Division 31 October 1943, Record Group 407; History 67th Armored Regiment, pp. 15, 38, 69-70; Wurm, Manuscript Diary, 24-25 December 1942, and Second Armored Division, Movement Orders, 27, 28, 29 December 1942, 1, 2, 3, 4, 5 January 1943, Record Group 407.

<sup>9</sup>History 67th Armored Regiment, pp. 70, 173; 338; "History 2d Armored Division," 602-0.1, p. 14, Record Group 407.

<sup>10</sup>Hugh J. Gaffey to NSTOUSA (North African Theater of Operations United States Army), "Battle Participation Awards," 25 January 1943, *ibid.*; Howe, Northwest Africa, pp. 316-317; History 67th Armored Regiment, pp. 15-16, 232.

<sup>11</sup>Wurm, Manuscript Diary, 21 January 1943, Record Group 407; Harmon, Combat Commander, pp. 109-110; History 67th Armored Regiment, p. 70; White, "The Second Armored Division," p. 6, White Papers.

<sup>12</sup> Charles F. Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 1, unpublished research report by Committee 4, Officers Advanced Class, United States Armor School, Fort Knox, Kentucky, 1950; Martin Blumenson, Sicily, Whose Victory? (New York: Ballantine Books, 1969), p. 16; Field Marshall Earl Alexander of Tunis, The Alexander Memoirs 1940-1945 (New York: McGraw-Hill Book Company, 1961), p. 108; Marshall, Biennial Report of the Chief of Staff of the United States Army July 1, 1941 to June 30, 1943, p. 121; Interview, Allen F. Kingman with author, 17 May 1972, Chapel Hill, North Carolina.

<sup>13</sup> Martin Blumenson, Kasserine Pass (Boston: Houghton Mifflin Company, 1967), pp. 117-118; Dwight D. Eisenhower, The Papers of Dwight D. Eisenhower (5 vols., Baltimore: John Hopkins Press, 1970), Vol. II, pp. 937, 971; Howe, The Battle History of the 1st Armored Division, p. 197.

<sup>14</sup> Wurm, Manuscript Diary, 1, 2, 5, 6 March 1943, Record Group 407.

<sup>15</sup> Interview, Kingman with author; 2d Armored Division, General Order 25, 3 April 1943, and Wurm, Manuscript Diary, 3 April 1943, Record Group 407; Marcel Vigneras, Rearming the French: United States Army in World War II (Washington: Department of the Army, 1957), p. 232; Second Armored Division, General Order 32, 11 May 1943, Record Group 407.

<sup>16</sup> Eisenhower, The Papers of Dwight D. Eisenhower, Vol. II, pp. 1003-1004, 1023, 1066.

<sup>17</sup> Wurm, Manuscript Diary, 16, 22 March 1943, and II Corps to Personnel Concerned, Movement Orders, 27 March 1943, Record Group 407; White, "The Second Armored Division," pp. 5-6, White Papers.

<sup>18</sup> Ernest N. Harmon, "Notes on Combat Experience During the Tunisian and African Campaign," pp. 1-6, Record Group 407.

<sup>19</sup> Ibid., pp. 4-5, 7-8.

<sup>20</sup> Eisenhower, The Papers of Dwight D. Eisenhower, Vol. II, pp. 1123; Maurice Matloff, Strategic Planning for Coalition Warfare: United States Army in World War II (Washington: Department of the Army, 1959), p. 150.

<sup>21</sup> Second Armored Division, General Order 27, 21 April 1943, I Armored Corps, Movement Order, 22 April 1943, Second Armored Division, "Historical Record-Operations of the U.S. Second Armored Division (KOOL FORCE) for the period April 22 to July 25," 5 August 1943, pp. 1-2, and Combat Command A, "Operations of Combat Command A for the period 21 April to 25 July," 30 July 1943, pp. 1-2, Record Group 407; John P. Lucas, Manuscript Diary, 19 June 1943, John P. Lucas Papers, United States Army Military History Research Collection, Carlisle, Pennsylvania.

<sup>22</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 57-58; Interview, James M. Burt with author, 16 June 1972, Hancock, New Hampshire; Interview, Donald A. Chase with author, 15 June 1972, Keene, New Hampshire; Morton Eustis, War Letters of Morton Eustis to His Mother (Washington: The Spiral Press, 1945), pp. 124-126.

<sup>23</sup>Second Armored Division, General Order 27, 21 April 1943, and Second Armored Division, "Historical Record-Operations of the U.S. Second Armored Division (KOOL FORCE)," p. 1, Record Group 407.

<sup>24</sup>2d Armored Division, "Historical Record-Operations of the United States Second Armored Division, (KOOL FORCE)," p. 2.

<sup>25</sup>Eisenhower, The Papers of Dwight D. Eisenhower, Vol. II, pp. 1212-1213; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 35.

## CHAPTER XII

### OPERATION HUSKY: THE INVASION OF SICILY

The Americans still wanted a cross-channel attack, but realized they did not have the men or equipment to stage such an assault at the time. Sicily was the next logical invasion site if the Allies were to continue operations in the Mediterranean. Moreover, the island located two miles from Italy and ninety miles from North Africa, straddled British supply lines, forcing the British to keep two fleets in the Mediterranean area. The invasion of Sicily was intended to make the Mediterranean supply lines more secure, to ease German pressure on Russia, to intensify pressure on Italy, and to keep the United States active in the conflict.

The decision to attack Sicily was aided and abetted by a unique British intelligence plan. Plan MINCEMEAT was carried out in May 1943. The scheme was to take a corpse, plant false documents on it, and place the body in the waters off the coast of Spain, so that Spanish, and later German officials, could get their hands on the documents. The correspondence indicated that the landing on Sicily was only a cover for landings that were to occur on the Greek coast or on the island of Sardinia. "The Man Who Never Was" lured some German reinforcements from Sicily.<sup>1</sup>

Intelligence sources estimated that initial resistance would come from six or seven Italian coastal and field divisions and two German

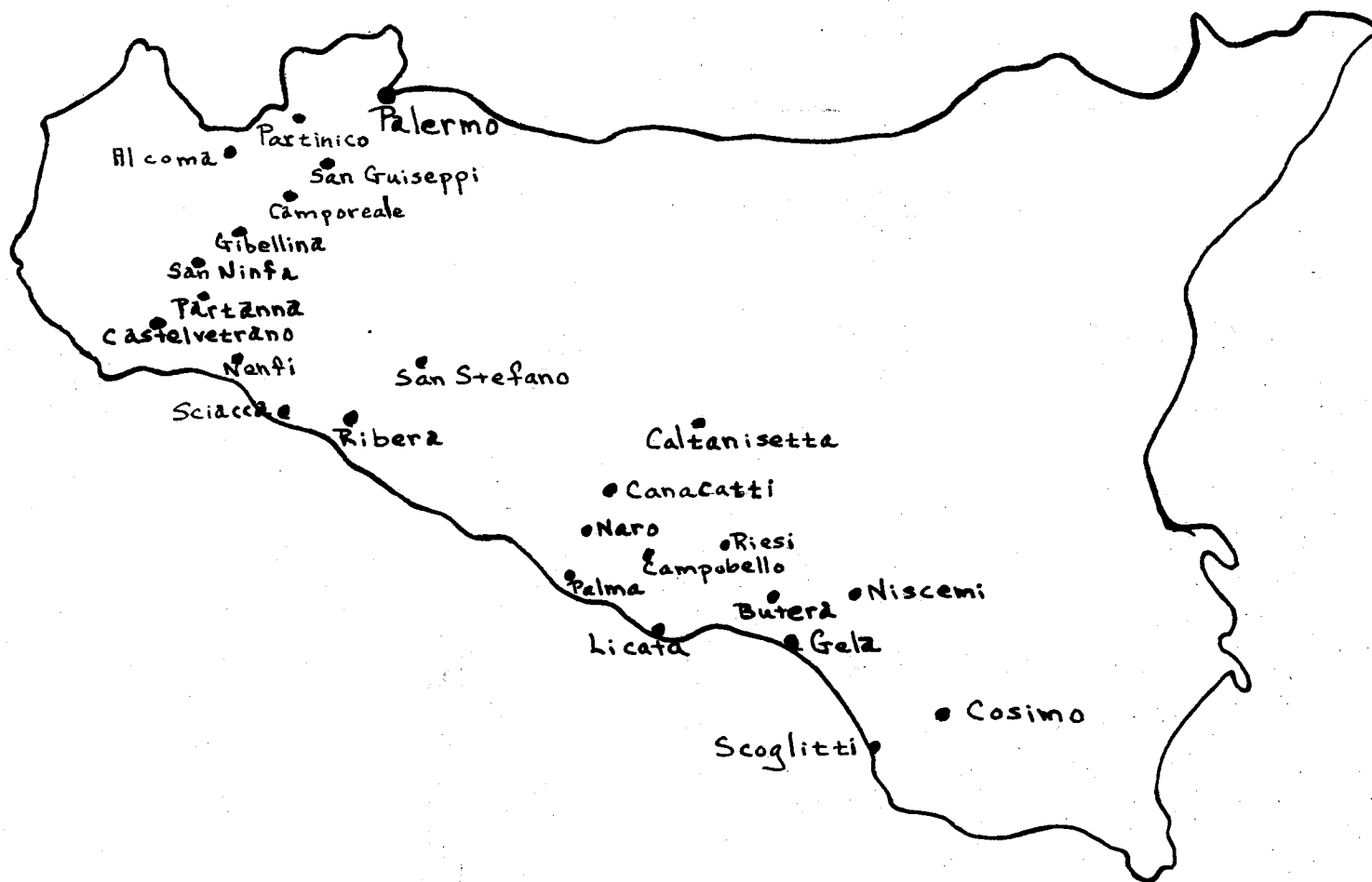


Figure 7. Sicily, 1943.

divisions, a force of perhaps 208,000 Italians and 30,000 Germans. The German units were the Hermann Goering Panzer Division and the 15th Panzer Grenadier Division. Since the Italian Air Force was flying obsolete and inferior aircraft, the Germans had taken over the air defense of Italy. Intelligence indicated that the Germans and Italians would have about 1,104 planes available as compared to the Allies' 3,680. While at sea, the task forces learned that the German airfields at Gela and Comiso had been bombed and put out of operation; this freed an estimated 3,000 to 4,000 additional Germans to man defenses in the area where Combat Command B was to land. The Americans were warned to expect to encounter concrete pillboxes, strong points surrounded by barbed wire, machine gun emplacements, tank traps, and tank ditches. It was thought that the beaches were wired and mined.<sup>2</sup>

The Axis navies, while also a concern of the planners, proved to be a negligible factor. The Italians lacked radar and aircraft carriers. Because of their previous heavy losses and the distances involved, the Italian Navy was reluctant to use its fleet in Sicilian waters, unless "an extraordinarily good opportunity presented itself" and air protection was available. The Germans had a few landing craft at Messina and a few submarines in the Mediterranean, but the German admiralty decided not to reinforce the submarine fleet because of the increased danger posed by Gibraltar. Because of these factors, the main defensive burden would rest upon the Axis ground forces. Also to the advantage of the Allies was the friction between the Axis partners caused by their own North African experiences.<sup>3</sup>



The enemy was thought to have three options: defend at the beaches and counterattack when the Allies' attack slowed down; withdraw to favorable defensive positions and battle the invaders there; or surrender, which was not considered a serious possibility. The Americans thought that the Germans would not be involved in counterattacks against the beachhead. The Italians planned to fight at the water's edge, with a small force close to the beaches, and a reserve force available to shift to any seriously threatened sector. The major flaw of the Axis plan was their lack of transportation. The German units would have to be the reserve because of their mobility. They would be capable of independent action and able to move without orders from the Italian commander, for the Germans thought that the Italian will to fight had all but disappeared. If a determined counterattack was launched before the Americans could land tanks and artillery, the Germans felt that it might be possible to push them back into the sea. At Gela this plan almost worked.<sup>4</sup>

The Americans planned to land in the Gulf of Gela over a distance of about seventy miles. About half of that distance was sandy shore line; the remainder was rocky points and low cliffs, while inland there were plains surrounded by mountains. The three American beaches were considered ideal for landing, but they were also ideal counterattack country. If the Italians and Germans carried out their plans to defend the island, then the Americans could be in for a difficult time. The invasion forces were commanded by British General Sir Harold R. L. G. Alexander. In his opinion, the main effort would fall on the British Eighth Army, commanded by General Bernard L. Montgomery, while the Americans Seventh Army, commanded by Lieutenant General George S. Patton, Jr., would be the shield protecting the British left flank. This plan

relegated the Americans to a secondary role, which neither the men nor their firey, hard fighting commander thought appropriate.<sup>5</sup>

The American Seventh Army was scheduled to land at three different sites. On the east, CENT FORCE, the 45th Infantry Division (the Oklahoma National Guard division), was to land at Scoglitti. In the center, DIME FORCE, the 1st Infantry Division and the 2d Armored Division (minus Combat Command A), was to land at Gela. These two landings were under the American II Corps, commanded by Major General Omar N. Bradley. On the west, JOSS FORCE, the 3d Infantry Division reinforced by Combat Command A of the 2d Armored, was to land at Licata. One other division, the 82d Airborne, was supposed to make an air drop in the Gela region to aid the landing force. JOSS was a separate command from II Corps, whose composition had been decided before it left North Africa. The infantrymen and Combat Command A had trained together in landing operations, securing initial objectives, and establishing beachheads. Its first day mission was to capture the port and airfield at Licata, and take the high ground soon after. Patton wanted all three forces to take their initial objectives in three days.<sup>6</sup>

Combat Command A sailed with the 3d Infantry Division as its reserve force. It was to be ready to execute one of four missions: to advance north on Campbello di Licata, to move west on Palma di Montechiaro, to move east to reinforce II Corps, or to meet and destroy any enemy counterattack from the east, north, or west. Colonel John H. Collier warned his 66th Armored Regiment that they were to insure the maintenance of American ideals in human relations. The men were charged with the proper care and treatment of women and children; no

misconduct along that line would be tolerated. The task force arrived at its station at 0245 on 10 July 1943 and the 3d Infantry Division and the 3d Ranger Battalion went ashore a few minutes later. The initial assault, supported by the 3d Battalion, 66th Armored Regiment, aided the infantry landing teams in clearing and establishing the beachhead. By daylight most resistance had been overcome, with the landings carried out on schedule. The other elements of Combat Command A were to land as quickly as the situation permitted.<sup>7</sup>

The bulk of Combat Command A spent most of the day on their LST's, subjected to continuous bombing. By noon, infantry and engineers landed at the port of Licata and began unloading. By working all night, the men were able to unload all the personnel and about two-thirds of the equipment. After unloading, the men went to assembly areas north of the town. On 11 July, enemy bombers hit an LST carrying about half the equipment for Combat Command Headquarters, a medium tank company, and vehicles for an infantry company. Before the LST sank, the men managed to unload fourteen medium tanks, but were unable to save the remainder of the gear. Personnel losses were estimated to be about 25 percent of the men on the ship.<sup>8</sup>

During the night of 10-11 July, the 62d Armored Field Artillery Battalion and two batteries of the 443d Coast Artillery Battalion (Antiaircraft Artillery) were attached to Combat Command A. For the 62d, this was the first of a long series of attachments to the division. At midnight, Brigadier General Maurice Rose was ordered to attack at 0600 on 11 July, to secure the towns of Naro and Canacatti, and the hills north of Canacatti, against possible counterattacks from the German 15th Panzer Grenadier Division, which had been spotted returning

to the west by air observers. Rose gave orders that the remainder of the command should close on the main body by company size units as soon as they landed.<sup>9</sup>

The reconnaissance company moved out at 0330, leading the combat command into Naro. The remainder of the command followed at 0600. Initially the men met resistance from snipers and some machine guns. Enemy planes strafed and bombed the column, but inflicted little damage. The worst problems were caused by the poor roads and difficult terrain. Just outside the town, the column was met by two civilians, the mayor and his small son. The mayor told them that the town was unoccupied and the people were not hostile. They rode back into town on the hood of Colonel Sidney R. Hinds' half-track, at the head of the column. The exits to the town were quickly secured and two officers and a platoon of infantry were left to police the town, while awaiting AMGOT (Allied Military Government of Occupied Territory) officials. The combat command then moved north, coiling in the woods. The 2d Armored Division had captured its first Sicilian town.<sup>10</sup>

Shortly after Naro was captured, the American Air Corps sent over a flight of eighteen B-26 bombers, and partially destroyed the town. The attack resulted from the Air Corps refusal to permit direct air-ground communications and by their refusal to recognize that the situation on a battlefield is fluid, which could change without notice. Unfortunately, the Air Corps was using phase lines and refused to recognize that some advances were more rapid than others. Usually, the Air Corps was about twenty-four hours behind the actual battlefield situations. This was not the first time, nor would it be the last, in which American troops suffered because of the uncoordinated efforts of the Air Corps and ground troops.<sup>11</sup>

After taking Naro, Major General Lucian Truscott, commanding general of the 3d Infantry Division, ordered the Combat Command to send reconnaissance elements towards Canacatti. B Company, 82d Reconnaissance Battalion proceeded about a mile before spotting some Italian soldiers. First Lieutenant W. R. Neilson brought up two light tanks and started through the pass. The tanks halted before proceeding around a curve in the narrow road, a curve that was found to be covered by four large caliber guns. Two 37mm assault guns were brought forward to help the advance, but Italian machine guns on the high ground took the reconnaissance company under fire. The Americans, however, were able to fight their way out of the trap without a loss. The remainder of the column, moving north behind the reconnaissance company, was attacked from the air by German aircraft. After fighting off the planes, the command proceeded on their way with the infantrymen of G Company, 41st Armored Infantry Regiment, riding the tanks of D Company, 66th Armored Regiment; this was possibly the first time that this had happened, at least in actual battle.<sup>12</sup>

Since the enemy was dug in, B Company, 82d Reconnaissance Battalion, called for infantry help. After G Company, 41st Armored Infantry Regiment, arrived, riding the tanks of D Company, 66th Armored Regiment, they made slow progress against the Italians. Under the cover of darkness, the enemy pulled out and the Americans had the pass, four miles short of their objective, Canacatti. During the night the Americans moved forward to capture the high ground south of the town and made plans to resume the attack the following morning.<sup>13</sup>

The attack to take Canacatti was to be proceeded by a ten minute artillery barrage after which Companies F and G, 66th Armored Regiment,

and Company G, 41st Armored Infantry, were to attack, seizing the southern entrances to the town. When the barrage lifted, a white flag was seen flying from a building in the town. Brigadier General Rose and Colonel Hinds mounted their vehicles and headed into town to receive the surrender. While making their way along the road, they were fired on by artillery. Rose and his party dived into a nearby ditch and a thirty minute artillery barrage followed. The town was finally captured about 1500 on 12 July and the confusion of the white flag was explained. It was found to be a Red Cross flag atop a hospital.<sup>14</sup>

After the town was secured, the infantrymen mounted the tanks and moved to take the high ground northeast of town. H Company, 41st Armored Infantry Regiment, attacked to take the ridges north of town. Progress was slow, but the infantrymen secured their objectives against enemy machine gun and antitank fire. During the night the command was reorganized and the following morning (13 July) attacks were launched to clear the high ground northwest of Canacatti. The attack started at 1600 and by 1030 the enemy had been driven out of positions overlooking the town. After capturing the high ground, Combat Command A sent reconnaissance patrols toward the outskirts of Caltanissetta. During the night two men, an officer and an enlisted man, moved through enemy lines into Caltanissetta, stole two bicycles and rode them back, reporting to their regimental commander, Colonel Hinds. After seizing Canacatti, Combat Command A was the 3d Infantry Division's reserve force. While in that role, Rose continued to send out reconnaissance patrols which were so aggressive that they actually captured several towns without the aid of the main body of the combat command.<sup>15</sup>

Patton, an aggressive leader, did not like conducting secondary attacks, and he requested permission from Alexander to capture Arigento. The Army Group commander replied that he would permit that if Patton could capture the town by a reconnaissance in force. Patton promptly ordered Truscott to take the town by a reconnaissance in force--all the force he had: the 3d Infantry Division, part of the 82d Airborne Division, two Ranger Battalions, and a task force from the 2d Armored Division.<sup>16</sup>

When on 17 July it was reported that a strong enemy column was approaching from the northwest towards Aragona and Comotini, the 1st Battalion, 66th Armored Regiment, and the 14th Armored Artillery Battalion were alerted to meet the threat. However, air reconnaissance failed to reveal any such enemy and the armored troops were not used. That night, Combat Command A was ordered to assist the 15th Infantry Regimental Combat Team in its attack on Serradiffalco. Again Rose pushed strong reconnaissance elements into the area. Patrols of the 41st Armored Infantry Regiment moved towards San Cataldo and Caltanissetta ahead of the 15th Infantry Regiment. A reserve force of tanks and infantry went into assembly areas north of Canacatti ready for use. Patrols from the reconnaissance company, 66th Armored Regiment, captured and secured Serradiffalco by 2230. An hour later, Company E of the 41st Armored Infantry Regiment captured San Cataldo. The next morning, by 0730, patrols from the 66th Armored and the 41st Armored Infantry Regiment had captured and secured Caltanissetta. By 18 July, the area of the 3d Infantry Division was secure and Patton ordered Combat Command A to rejoin the 2d Armored Division in Army reserve.<sup>17</sup>

The 2d Armored Division (minus Combat Command A) sailed with the assault convoy. KOOL FORCE, as the Seventh Army reserve, was to execute one of two plans. Using Plan A, the tanks would land on an established beachhead, assemble, and await the orders of the 7th Army Commander. If the division had to carry out Plan B, it would force a landing at one or more beaches, and aid one of the other assaulting forces. Either plan would be carried out on Patton's order. KOOL FORCE, commanded by Major General Hugh J. Gaffey (an artilleryman and a pioneer in armor warfare), was composed of two major groups--the 18th Infantry Regimental Combat Team, commanded by Colonel George A. Smith; and Combat Command B, commanded by Colonel I. D. White. In Smith's force was his infantry regiment from the 1st Infantry Division, an artillery battalion (the 32d), a company of engineers, a medical company, and two platoons of tanks from I Company, 67th Armored Regiment. Combat Command B contained the 3d Battalion, 67th Armored Regiment; the first battalion, 41st Armored Infantry Regiment; the 78th Armored Artillery Battalion; Companies C and D of the 82d Reconnaissance Battalion; and B Company of the 17th Engineer Battalion.<sup>18</sup>

The convoy arrived off the Gela coast about 0200 on 10 July. As the reserve, it had to spend most of the day aboard ship, enduring shell fire and bombing attacks. At 1330 Gaffey went to the flagship and received orders from Patton that Plan A was in effect. Gaffey sent a landing party ashore, under Colonel Redding F. Perry (division Chief of Staff), to make provisions for assembly areas, routes and guides. Gaffey had been told that the Navy would select the proper beach. However, either Major General Terry Allen, commanding general of the 1st Infantry Division, or his assistant division commander,



Brigadier General Theodore Roosevelt, decided that the tanks should land at a different site than the one originally selected, because of their concern that the beaches might be mined. Other factors in the change were the deep draft of the LST's, the unsatisfactory gradient of the original landing site, and the fact that some of the pontoons to be used in unloading the tanks were damaged, while others had landed at Scoglitti, out of the division zone. These changes, and the task force's arrival in cruising formation rather than landing formation, caused a two hour delay in the landing. Because of the delay the infantry elements were to be landed first as it was not feasible to return to sea, regroup, and arrive in landing formation.<sup>19</sup>

The first troops to land were the headquarters of Combat Command B, which went ashore about 1700 on D Day (10 July). Colonel I. D. White decided to use the area near the Gela-Faullo landing zone as the assembly area. The infantry elements started ashore about 1800 and by midnight all Combat Command personnel were ashore. The tanks were in the process of being off-loaded from the LST's to the LCT's, but fatigue and the high seas caused the Navy to postpone landing more vehicles until daylight on 11 July. Two platoons of medium tanks had been landed about 0200 on 11 July, but they got stuck in the soft sand of the beach. The first day had been a rough one for the Americans. They had withstood several counterattacks by the Italian, but had also lost the pontoons to bring their tanks ashore. If the Germans decided to attack the beachhead before the 2d Armored Division could land its armored vehicles, the situation could become desperate.<sup>20</sup>

The next morning, when unloading resumed, the third platoon, C Company, 82d Reconnaissance Battalion, received its vehicles and was

given the mission of locating enemy tanks which were supposedly operating against the east flank of the 1st Infantry Division near the Acata River. Finding the enemy, they kept him under observation until later in the day, when G Company, 67th Armored Regiment, engaged the enemy and drove him off. Two German divisions formed in the valley northeast of Gela, attacked towards the beachhead, and came very close to defeating the American landing efforts. When the German counterattack began about 0800 on 11 July, an estimated thirty to forty German tanks attacked the second battalion, 16th Infantry Regiment, on the 1st Infantry Division's right flank between Gela and Niscemi. Six officers and forty-five enlisted men kept beating off German attacks with one antitank gun, a bazooka, and finally a tank destroyer that joined them later in the day. This action saved the right flank.<sup>21</sup>

The headquarters element of Combat Command B had stayed ashore during the night. In the morning Colonel I. D. White returned to the beach, attempting to find any LST's that might be carrying the tanks. The Combat Command executive officer, Lieutenant Colonel Briard P. Johnson, remained at the command post to guide any troops and vehicles to the assembly areas. Johnson and the headquarters personnel were watching the 26th Regimental Combat Team attack along the Gela-Ponto Olivo road when they saw thirty or forty German tanks attack and penetrate the regiment. This put the Germans on the plain north of Gela and gave them an apparent unopposed approach to the beach.<sup>22</sup>

Johnson immediately sent the Combat Command S-2 to alert Colonel White and to bring First Lieutenant James A. White and his platoon of four medium tanks to the command post area. While the messenger was gone, Johnson tried unsuccessfully to locate the 33d Artillery Battalion.

Returning to the command post and surveying the situation through binoculars, he observed shells falling in and around the German tanks, apparently causing damage to one, for the crew dismounted and fled to the rear. While Johnson was placing the medium tanks in position to fire, others at the command post continued to count and determined that forty tanks came onto the plain, headed for the beach.<sup>23</sup>

The four American tanks were placed in firing positions astride the Gela-Vittorio road about where it enters the high ground on the east side of the plain. Three tanks were on the north side of the road; one was on the south (Lieutenant White's). The four American tanks began firing, with Johnson standing on the back deck of the platoon leader's tank, pointing out targets. The tanks were scoring hits against the approaching German Panzers at the same time that indirect fire from artillery batteries, 4.2 inch mortars, and perhaps naval gunfire, was landing in the area. The huge amount of indirect fire concealed the fact that direct fire weapons were there and firing. About the time that the American tanks started firing, a lone 105mm howitzer, from the 32d Artillery Battalion arrived, and the chief of section reported to Johnson for instructions. The howitzer was placed in position about forty to fifty yards from Lieutenant White's tank and started firing at the Germans.<sup>24</sup>

Colonel White rushed Companies D and C (minus one platoon) of the 82d Reconnaissance Battalion, armed only with their side arms, to the command post. He feared that the Germans might be supporting their tanks with infantry. The men from the reconnaissance battalion had a grandstand view of the fight, as no enemy fire was falling in their location at that time. Suddenly fire began to fall at the

command post. The men took cover behind some nearby sand dunes. The use of reconnaissance personnel in such a manner caused their battalion commander, Lieutenant Colonel Paul A. Disney, to later say that this was a case of "grasping at straws."<sup>25</sup>

Four to six German tanks reached the main road, stopping close to a farm building. Johnson, who had visited the howitzer and given the gun crew a lesson in leading targets, returned to the tanks and resumed pointing out targets. The Germans were difficult to see because of the buildings. The tanks on the north side of the road expended their ammunition and pulled back 400 to 500 yards, reloaded, and one tank returned to the fight. The Germans stopped near the farm buildings started moving forward; they were taken under fire by White's tanks and by the 105mm howitzer. One tank was destroyed and the others pulled back.<sup>26</sup>

Johnson sent Major Joe A. Clema to the rear to find more ammunition, as White and the howitzer each had about four rounds left. He was unable to find any ammunition, but did return with an M-7 self-propelled 105mm howitzer belonging to Cannon Company, 16th Infantry Regiment. One German tank that had stayed near the farm buildings had its turret turned towards the Americans. The infantry Captain commanding Cannon Company did not think that standing guard over a German tank was a proper mission for the self-propelled howitzer, but Clema finally persuaded him. The towed howitzer belonging to the 32d Artillery Battalion departed to find its unit.<sup>27</sup>

The 2d Armored Division was acutely aware that tanks were needed, and did not spend time de-waterproofing them, as Samuel Eliot Morison has alleged, but rushed them inland as quickly as

they landed. The tank tracks became entangled in the Summerville matting (chicken wire placed on the ground to give better traction) which had to be cut from the tracks and drive sprockets. Several tanks tried to avoid the matting by traversing the soft sand which resulted in their throwing one or both tracks.<sup>28</sup>

When Major Clifton B. Batchelder, executive officer of the Third Battalion, 67th Armored Regiment, came ashore, Colonel White told him to take the American tanks inland to meet the German Panzer attack. Batchelder asked what the plans and orders were. White remembered being told later that his rather abrupt answer was, "Plans Hell! This may be Custer's last stand." The executive officer led the tanks of G Company to the nearby sand dunes at about the time that the Germans started retreating through the smoke, and about the time that the self-propelled howitzer from Cannon Company arrived to help the American tankers.<sup>29</sup>

The attack of the Herman Goering Panzer Division was beaten off with a loss of fifteen German tanks, while the Americans had only three men wounded. Sheer bravery won the day for the Americans. During the battle, two tanks had stoppages or malfunctions with their main gun. The tank commanders (sergeants) calmly got out of their tanks and cleaned the bores of their weapons while under fire. One tank commander then led his tank to a better firing position.<sup>30</sup>

About 1100, the first battalion, 41st Armored Infantry Regiment (minus Company A) was sent to join the Rangers at Gela for a proposed attack on Mount Lapa. The tanks were later pulled out about noon to support the regiments of the 1st Infantry Division. By dark, all the tanks of the third battalion, 67th Armored Regiment were ashore, along

with eight light tanks of D Company, 82d Reconnaissance Battalion. The remainder of the tanks came ashore the following day, giving the force a total of forty-two medium tanks attached to the 1st Infantry Division, and twenty-two medium and twenty-one light tanks under Combat Command B control.<sup>31</sup>

Gaffey issued orders late in the night on 11 July for KOOL FORCE to protect the flanks of the 1st Infantry Division, and to be prepared to counterattack enemy advances from the northwest or northeast. Combat Command B was to assemble, and be prepared to counterattack to the northwest, northeast, or southeast. It was to extend reconnaissance efforts to the southeast. This was done by sending out the 18th Infantry, tank remnants, and the engineers. C Company, 82d Reconnaissance Battalion, took numerous prisoners, and established contact with the 45th Infantry Division at Vittoria and Cosimo. The engineers (B Company, 17th Engineer Battalion) put in minefields, prepared the bridges for demolition, and removed several enemy minefields.<sup>32</sup>

G Company, 67th Armored Regiment, was attached to the 16th Regiment. The following morning this force encountered antitank fire, artillery, and bombing and strafing attacks. The tanks were ordered to withdraw. When they started to do so, the lead tank, commanded by First Lieutenant K. E. Beichley, suffered damage and fell behind. The next four tanks passed him and stumbled into a German ambush. One tank, commanded by Sergeant William Belz, fought the German Tiger tank at a range of 100 yards but lost. However, as three German tanks passed Beichley's position, he destroyed them. The fight continued to rage in the 16th Infantry zone. The Germans attacked several times with tanks and infantry supported by aircraft. Their apparent goals

were to drive a wedge between the American forces or to reach the beachhead. By evening, after losing six tanks and three other vehicles, the Germans withdrew, leaving the Americans in position.<sup>33</sup>

The third platoon of H Company was assigned a separate road blocking mission. It, and later in the day, A Company of the 41st Armored Infantry Regiment, was put in the gap on Hill 211 northeast of Gela, between the 16th and 26th Infantry Regiments. During the day, the tank platoon destroyed three German tanks and a command car. Being on dominant terrain, these two platoons were subjected to heavy artillery fire. However, they maintained their positions until reassigned to their parent units on 16 July.<sup>34</sup>

In the 26th Infantry Regimental zone, two platoons of H Company, 67th Armored Regiment, were supporting its advance to capture the Ponto Olivo airdrome. Supported by tanks firing as artillery, the infantry captured Il Costelluccia, after the tanks had knocked out several pillboxes and machine gun nests. First Lieutenant Van Valkenberg's tanks overran the airdrome, losing one tank to a land mine. The third platoon of H Company, on Hill 211, could see the battle below, and their fire knocked out two tanks, a weapons carrier, a motorcycle, and a personnel carrier. As the tankers overran the airfield, they captured a German artillery officer, four enlisted men, and uncounted Italians.<sup>35</sup>

The two platoons originally sent to Gela to support the Ranger attack on Mount Lapa had their mission changed. One platoon stayed to help the Rangers while the other was sent to aid the 26th Infantry. The attack to capture Mount Lapa was scheduled for the night of 11 July, and the infantry phase had been accomplished. The attack was

supported by Company A, 83rd Chemical Battalion, firing 4.2 inch mortars and high explosive shells. At dawn the tanks were told to expose themselves, hopefully drawing enemy fire: they did! Returning the fire, they destroyed several enemy pillboxes and machine guns. Mount Lapa was captured ahead of schedule. The tanks then reconnoitered the high ground beyond, destroying two artillery and mortar observation posts and the Rangers took Mount Nicola.<sup>36</sup>

The night of 13 July the Rangers and the 41st Armored Infantry were ordered to capture Butera, which the Navy had begun shelling earlier in the day. Company C, 82d Reconnaissance Battalion, was to protect the flanks of the attacking force while the tank company (Company D, 82d Reconnaissance Battalion) was the force reserve. The Rangers, after capturing the city, were to take the high ground around Mount Lungo. American possession of that terrain would protect the left flank of the 1st Infantry Division. The attackers had seen a white flag from the town, but the attack proceeded as scheduled. Nearing the town, the Americans encountered heavy resistance on the outskirts. This was overcome, and with the capture of Butera by 0300, a large number of Italian prisoners were taken. The reconnaissance platoons continued northward and were in position to aid the 1st Infantry Division to capture Mazsarina, Pietroperzia, and Caltanissetta.<sup>37</sup>

In the period 11 to 14 July, Combat Command B had attached most of its tanks to the 1st Infantry Division, and guarded the flanks and filled in the gaps that had existed in the American lines. On the morning of 14 July, all the tanks came under the control of the 2d Armored Division. Reports that enemy armor was massing southwest of Caltagirone required that the armor of Combat Command B be used to



again protect the right flank of the 1st Infantry Division. The outpost road-blocking units were relieved by the 18th Infantry Regiment and rejoined Combat Command B, which was massed as force reserve from that date.<sup>38</sup>

On the morning of the 16th, Allen reported that the 26th Infantry Regiment was being attacked by German tanks and needed help. Gaffey and Major General Geoffrey Keyes, who happened to be in the headquarters at the time, departed to examine the situation. The division commander alerted D Company, 82d Reconnaissance, and the 78th Armored Artillery Battalion and led them to meet the enemy. Arriving at Mazzarino, the two generals received word that the attack had been repulsed and that their help was not needed. The armored force returned to its assembly areas near Butera.<sup>39</sup>

That same day, Patton relieved the 2d Armored forces from patrols and outpost duty for maintenance and rehabilitation, and ordered the division to assemble near Campobello. This rest period resulted from the need to consolidate the division for a move planned by Patton. At this time, Patton and others thought that the Americans were being improperly used in the Sicilian campaign. He planned a spectacular move which, if successful, would capture public attention and gain favorable publicity which he thought the American soldiers needed. He created a provisional corps under Major General Geoffrey Keyes, the original chief of staff of the 2d Armored Division. Keyes requested the "Hell on Wheels" division as part of this force. In addition, he had the 3d Infantry and the 82 Airborne Divisions and the Ranger Battalions. The missions of this provisional corps were to clean out western Sicily and capture Palarmo. The 2d Armored Division was to

follow the infantry division, ready to exploit their successes. Palermo attracted Patton like a "lode star." The city, although a port and the original landing site favored by Patton, had ceased to be of strategic value. It was hoped that by capturing the Sicilian capital, they would seize headlines at home and hopefully convince the British that the Americans could fulfill their role in the war. Patton wanted the city taken in five days. The provisional corps assembled 100 miles from their objective, and with little or no transportation for the troops, captured the city in only four days.<sup>40</sup>

On 18 July, Combat Command A was relieved of its attachment to the 3d Infantry Division. The Combat Command also lost its attachments (the 62d Armored Artillery Battalion, and two batteries of the 443d Coast Artillery) and by 1330 had joined the division at Campobello. While the division was assembling, the 82d Reconnaissance Battalion sent a patrol to Pietraperzia and captured it by 1200; the men were favorably received by the civil population. The 82d Reconnaissance Battalion was then assigned the mission of providing reconnaissance for the provisional corps. At the same time the division moved from its assembly area towards Castelvotrano and went into assembly areas south of Agrigento before morning on 19 July.<sup>41</sup>

While the 2d Armored Division was moving and preparing for battle, the intelligence section was making estimates of the situation based on the information being received. The enemy was thought to have about 60,000 Italian soldiers guarding western Sicily, which were believed to be badly equipped, poorly armed, and for the most part were considered to be second-rate troops. They were thought to have three options: defend in place; defend in successive positions

and wage limited objective counterattacks; or defend in position and counterattack the western flank of the advancing corps. Based on enemy reactions up to that time, it was thought that the Italians would probably occupy the American troops while the Germans withdrew to final defensive positions near Messina.<sup>42</sup>

The 2d Armored Division stayed in reserve positions on 19 to 20 July, but late in the evening of 20 July it was alerted to move to Ribera. They had to provide transportation for the 1st and 4th Ranger Battalions, to enable them to be in position to attack Castelvetro. Meanwhile the Italian prisoners were helpfully providing information. They reported that the shoulders of the roads were mined, especially near roadblocks, and that booby traps could be expected. There was a report that the enemy was using gas, but this was considered erroneous, for Sicily produced about ninety-five percent of the world's sulphur supply. The burning sulphur produced a pungent odor and gas, which was non-toxic.<sup>43</sup>

The Provisional Corps issued the attack order on 20 July. The 2d Armored Division, reinforced by the 1st and 4th Ranger Battalions, was to move to assembly areas, refuel, and be prepared for offensive action. Combat Command A was to lead the attack followed by Combat Command B, which was to be ready to exploit the success of or support Combat Command A. Combat Command B was to assume protection of defiles after Combat Command A passed through them. The 82d Reconnaissance Battalion was to conduct reconnaissance on the front and flanks of Combat Command A, to block the southern exits from Castelvetro and to protect the left flank and rear of the division. All artillery units were to be in direct support of Combat Command A initially and,

except when actually moving, were to be in position to fire. Gaffey authorized and encouraged the use of captured enemy vehicles for clearing enemy minefields, and supplementing the division's supply vehicles.<sup>44</sup>

Company C, 82d Reconnaissance Battalion, preceded the 82d Airborne Division, making enemy contact at the Magazzola River. After a brief fight, the company took fifty-five prisoners and continued to Ribera after removing the mines from the road. In taking the town, they acquired an additional seventy prisoners. On 21 July, C Company reached Alcamo, where the Italian garrison surrendered with great pomp and ceremony. The company captured a gasoline dump outside town, posted guards, and the rest of the unit pulled back to San Ninfa for the night. In the morning (22 July), C Company was to lead the 2d Armored Division into Palermo. Since their gas tanks were almost empty, because the company had not been resupplied during the night, the decision was made to use the captured gas. An armed convoy was sent for it, and apparently none of the vehicles were damaged from its use. This situation had arisen because supply vehicles had been pulled off the road by over-zealous and ill-advised staff officers who were attempting to insure that the division's combat elements reached their proper assembly areas. Because of damage to the roads, the company did have difficulty moving from Alcamo. Some of the roads were cratered because of bombing, artillery fire, and land mines. Bridges had been destroyed and in some places the road was blown away from the side of the hill.<sup>45</sup>

The 2d Armored's move from Agrigento to assembly areas west of the Belice River was made against great difficulties. The main bridges had been destroyed, causing a detour through precipitous gorges, and

at times through railroad tunnels. Engineers worked to remove mines which were encountered, to construct bypasses, and to widen trails to serve as roads. In addition, the division had to move across the rear of two infantry divisions, sharing the same road with the two Ranger battalions, and a separate infantry regiment. Orders were received to attack at 0600 on 22 July to capture Palermo by 2000 that same day. The division was charged with securing the port area and the shipping in the harbor and preventing their sabotage. It was to patrol the city and docks and restore and maintain order until relieved by the 3d Infantry Division. This order led to the 41st Armored Infantry receiving one of its most unusual orders of the war: capture an enemy battleship that was supposed to be in the Palermo harbor.<sup>46</sup>

Combat Command A crossed the Belice River line at 0600. The reconnaissance elements had made contact with the enemy and the advanced guard (3d Battalion, 41st Infantry and E Company, 66th Armored Regiment) was moving across the river when the command was ordered to halt, permitting the 39th Infantry Regimental Combat Team, 9th Infantry Division, and the 4th Ranger Battalion to pass through their lines. When the 2d Armored Division started moving again after the delay, it found the defiles defended by antitank guns and machine guns, which were wisely emplaced and well defended by infantry. Each strong point had to be eliminated one by one. The Italians continued to defend each position until surrounded by infantry and shelled by artillery or the tanks. These skirmishes were fought by the reconnaissance and leading elements.<sup>47</sup>

The first determined enemy resistance occurred at the pass north of San Guiseppe. Company C, 82d Reconnaissance Battalion, having

captured San Ninfa at 0930, disarmed the defenders, put their weapons into their jeep, and prepared to continue northward. At this time one of the Italians told them that the road ahead was mined and there were guns in position at the next pass. The company set out, using its customary precautions. The location was ideal for an ambush, for the road climbed up through a series of hairpin curves to a narrow pass at the top. As they started up the narrow road, they ran into a minefield. However, the mines had been stacked by the side of the road, rather than put into the ground. Proceeding onward, they encountered thirty Italians who laid down their weapons and surrendered. The lead scout car had gone about a hundred yards further, when the prisoners indicated that something was ahead. Eustis and First Lieutenant Donald Chace conducted a reconnaissance by fire (firing into an area to see if any enemy fire would be returned), which was answered by heavy weapons; the second shot destroyed the scout car. Every weapon started firing and the two officers were trapped between the German fire and American artillery fire which had been called in and was falling in the area. Finally, the American artillery stopped, and the men moved forward, finding the first antitank gun destroyed by the American fire. All resistance was overcome by 1315 and the column moved through the pass. The enemy had been caught off guard and did not have time to prepare for the 2d Armored Division. The original thought, that the enemy would delay in a series of positions was correct, but the division was moving so rapidly that instead of falling back to successive positions, the enemy was having to fall back to alternate positions (i.e., instead of falling back from line A to line B, they had to fall back from line A to line C, and so on).<sup>48</sup>

After the battle at San Guiseppe, the next fight was the pass at Monreale. The 2d Armored Division surprised the Germans, who were emplacing mines and demolitions. Colonel Hinds, with the advance guard, had been disappointed with the performance of G Company, 41st Armored Infantry Regiment, and promised them the regiment's next rough assignment. This was it. The Germans had three or four antitank guns in position and protected with infantry and machine guns. Mortar and artillery fire destroyed several of the enemy guns and the last one was taken out by a platoon of G Company, led by Second Lieutenant Naupis. The platoon leader remembered the Fort Benning Platoon Problem A, and in the attack, the men killed or captured the entire gun crew. An American assault gun fired a round into the casement, insuring that the German gun would not be fired again. The gate to Palermo was open.<sup>49</sup>

About 0930 Combat Command B moved from its assembly area, following Combat Command A, until ordered into bivouac about Camporeale. Colonel White went to division headquarters, where he was ordered to advance along the division's west (left) flank, generally along Highway 113. He was to clear enemy resistance to the north and west and to assist Combat Command A's capture of Palermo. Leading elements made contact about 1200, approximately four miles south of Partinico, when they were fired on by four 105mm guns and mortars. After destroying the guns and capturing an ammunition dump, their march continued, with the command meeting resistance all the way to Partinico, which it entered about 1500. Light and medium tanks took the lead, and the advance continued against lessening enemy resistance. About four miles south of Terracini, Combat Command B captured 350 mountain troops and continued their

march northward. Three miles north of town, leading elements came on a large crater blown in the road. After the engineers constructed a bypass, and about twenty-five German prisoners had been taken, the reconnaissance elements scouted the defile ahead, removing mines and overcoming several tank traps. The march resumed towards Carini, where the mountain had been blown down over the road, but reconnaissance found a trail over the mountain. The command passed over the mountain, descended to the town, and captured about 600 amazed Italians. White halted his men about three miles north of Carini for the night.<sup>50</sup>

As Combat Command A moved north from Monreale, B Company, 82d Reconnaissance Battalion, sent the first patrols into Palermo about 1200. By 1500 the leading elements of Combat Command A reached the corps restraining line, after passing through minor sporadic resistance. When the patrols entered the outskirts about 1558, they met resistance from German gun crews. When the main body of the 2d Armored Division started moving, they were surprised by a Mercedes-Benz from Palermo that went speeding by. Realizing that it contained several of the Italian staff, Colonel Hinds, who was with the advanced guard, radioed back to stop the car and return the occupants and car to him. One of the occupants, General di Brigata Guiseppe Molenero, commander of the port defenses, volunteered to surrender to Keyes which he did at 1900 at the Royal Palace. The reconnaissance battalion continued to patrol the city until relieved the next day. Patton, guided by the division chief of staff, entered the city about 2100.<sup>51</sup>

The question of which division first entered the city has been argued ever since. Major General John P. Lucas expressed the hope that someone would eventually decide who entered the city first: the



2d Armored Division or the 3d Infantry Division. It has been alleged that Patton ordered the 3d Infantry to hold back so that he could make a triumphal entry with the 2d Armored. The Third Infantry Division history maintains that when the tankers entered the city they found the streets patrolled by Lieutenant Colonel John A. Heintges' battalion of the 7th Infantry Regiment.<sup>52</sup>

Colonel Sidney R. Hinds, with the advance guard, was riding in the third vehicle of the column. His regiment had been given the mission of capturing a battleship that was supposed to be in the harbor, but which had actually sailed the day previously. He maintained that the only American troops that beat him into the city were the two armored cars in front of his. Combat Command A's after-action report stated that the Reconnaissance Company, 66th Armored Regiment, patrolled the city during the night and were relieved by the 3d Infantry Division the following day. Further evidence that the 3d Infantry Division did not arrive prior to the 2d Armored Division was the staff car carrying the Italian general, who was looking for someone to whom to surrender. Had the 3d arrived before the tankers, he could have surrendered to them.<sup>53</sup>

On 23 July, both combat commands had entered the city and began patrolling and guarding the docks, banks, utilities, and other important buildings as a precaution against looting. The same day, Combat Command B was ordered to clean out the western end of the island, which it did. Major General Gaffey divided the 2d Armored Division zone of occupation into three parts, assigning the city proper to Colonel Thomas H. Roberts, division artillery commander. The combat commands had approximately equal size areas on the outskirts and surrounding area.<sup>54</sup>

By utilizing the speed attained by tracked vehicles, the 2d Armored Division suffered only 56 killed, 250 wounded, 32 missing, and had 5 men captured. During combat, the division captured 16,199 Germans and Italians. However, the division was not used advantageously. Had it been concentrated and landed as a whole, then the attacks may well have been quicker and the results more productive. The decision to split the division into combat commands, operating separately in two different roles pointed out the same vital lesson the maneuvers had demonstrated: senior commanders needed to be familiar with armor tactics. The division learned that something would have to be done to correct the inability to work with the Air Corps. During the Sicilian campaign, the Americans suffered more from the errors of the American Air Corps than it did from the Luftwaffe. In one week, Combat Command A lost fourteen vehicles and seventy-five men killed or wounded by friendly aircraft. Brigadier General Rose had ordered the command not to fire on friendly aircraft, but one day the Americans, in self-defense, shot down a P-38. The pilot bailed out and suffered no injury, except to his pride. The Air Corps got the message, however, and air attacks stopped for the duration of the campaign.<sup>55</sup>

The capture of Palermo was a brilliant maneuver which closely resembled several exercises that the 2d Armored Division had participated in during the Tennessee and Louisiana maneuvers of 1941. Several men in the reconnaissance battalion commented that they had pulled the wide sweeping, flanking movement before. Thoughts expressed during the prewar exercises, that the tankers could not do such during wartime, were proven to be erroneous.<sup>56</sup> The division clearly demonstrated that its previous training had been valid, and the long hours spent in the

maneuver field saved lives, with the battle shortened accordingly.

Patton, who wanted Palermo taken in five days, started the attack from 100 miles distant. The city was in Americans hands in four days; the 2d Armored Division had entered the fight, shortened it, as it had repeatedly done during training.

## FOOTNOTES

<sup>1</sup>J. C. Masterman, The Double-Cross System (New York: Avon Books, 1972), pp. 196-201; Ewen Montagu, The Man Who Never Was (New York: J. B. Lippincott Company, 1954), *passim*; Interview, Hinds with author.

<sup>2</sup>KOOL (2d Armored Division) Annex 1 to Field Order 1, 19 June 1943, Record Group 407; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 5; KOOL (2d Armored Division), Amendment 2 to Annex 1 to Field Order 1, 8 July 1943, Record Group 407; Albert N. Garland and Howard McGaw Smyth, Sicily and the Surrender of Italy: United States Army in World War II (Washington: Department of the Army, 1965), p. 83.

<sup>3</sup>Ibid., pp. 82-83.

<sup>4</sup>Ibid., pp. 83, 163.

<sup>5</sup>Morison, Sicily-Salerno-Anzio; Vol. IX, p. 71; Truscott, Command Missions, p. 198; Paul A. Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign, 10-22 July 1943: Personnel Experience of Battalion Commander," unpublished report, school of Combined Arms, Command and General Staff School, Fort Leavenworth, Kansas, 1946-1947, p. 8; Garland and Smyth, Sicily and the Surrender of Italy, pp. 89-91.

<sup>6</sup>Ibid., pp. 89-98; Cravens and Cate, Europe: TORCH to POINTBLANK, August 1942 to December 1943, Vol. II, p. 450; Omar N. Bradley, A Soldier's Story (New York: Henry Holt and Company, 1951), p. 113; Patton, War As I Knew It, p. 55.

<sup>7</sup>Combat Command A, Field Order 4, 26 July 1943, and 66th Armored Regiment, Intelligence Annex to Field Order 2, 3 July 1943, Record Group 407; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 36; Combat Command A, "Report of Operations of Combat Command A, 21 April to 25 July 1943," (31 July 1943), pp. 2-3, Record Group 407.

<sup>8</sup>Ibid., p. 2, 14th Field Artillery, S-3 Report 23, 110600 July 1943, and Combat Command A, S-3 Journal, 11 July 1943, Record Group 407.

<sup>9</sup>Lida Mayo, The Ordnance Department on Beachhead and Battlefield: United States Army in World War II (Washington: Department of the Army, 1968), p. 164; Garland and Smyth, Sicily and the Surrender of Italy, p. 155; Combat Command A, "Report of Operations of Combat Command A," p. 3, Record Group 407.

<sup>10</sup>Combat Command A, "Report of Operations of Combat Command A," p. 3, *ibid.*

<sup>11</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 39.

<sup>12</sup>82d Reconnaissance Battalion, "Report of Operations of the 82d Reconnaissance Battalion, 1-28 July 1943," (31 July 1943), p. 1, Record Group 407; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 37-38.

<sup>13</sup>Garland and Smyth, Sicily and the Surrender of Italy, pp. 194-197; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 39.

<sup>14</sup>*Ibid.*, pp. 40-41; Interview, Hinds with author; Combat Command A, "Report of Operations of Combat Command A," p. 4, Record Group 407.

<sup>15</sup>*Ibid.*, Truscott, Command Missions, p. 216.

<sup>16</sup>John P. Lucas, Manuscript Diary, 14 July 1943, John P. Lucas Papers, The United States Army Military History Research Collection, Carlisle, Pennsylvania; Patton, War As I Knew It, p. 380.

<sup>17</sup>Trahan, ed., A History of the Second United States Armored Division, n.p.; Combat Command A, "Report of Operations of Combat Command A," p. 4-5, Record Group 407.

<sup>18</sup>KOOL (2d Armored Division), Field Order 1, 19 June 1943, and Combat Command B, "Report of Operations of Combat Command B, 24 June to 25 July 1943," (31 July 1943), p. 1, Record Group 407.

<sup>19</sup>Combat Command B, "Report of Operations of Combat Command B," p. 2, *ibid.*; H. R. Knickerbocker, Danger Forward: The Story of the First Division in World War II (Atlanta: Albert Love Enterprises, 1947), p. 194.

<sup>20</sup>Second Armored Division, "Brief History of the Second Armored Division," 602-0.1, p. 2, and Combat Command B, "Report of Operations of Combat Command B," p. 4, Record Group 407.

<sup>21</sup>History 67th Armored Regiment, p. 233; Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," pp. 8-9; "March From the Beaches," Time, Vol. XLII, No. 4 (26 July 1943), pp. 28-30.

<sup>22</sup>I. D. White to R. F. Perry, 27 September 1958, and Briard P. Johnson to I. D. White, 23 March 1961, "Comments on Chapter XIX: Part V, Securing the Gela Beachhead, Sicily and the Surrender of Italy," White Papers.

<sup>23</sup>*Ibid.*; History 67th Armored Regiment, p. 233.

- <sup>24</sup>Ibid.
- <sup>25</sup>Ibid.; Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," p. 9; Eustis, War Letters of Morton Eustis to His Mother, pp. 140-141.
- <sup>26</sup>Johnson to White, 23 March 1961, White Papers; History 67th Armored Regiment, p. 234.
- <sup>27</sup>Johnson to White, 23 March 1961, White Papers.
- <sup>28</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 24.
- <sup>29</sup>I. D. White to R. F. Perry, 27 September 1958, White Papers; Johnson to White, 23 March 1961, White Papers.
- <sup>30</sup>History 67th Armored Regiment, p. 234.
- <sup>31</sup>Second Armored Division, "Historical Record-Operations of the United States Second Armored Division (KOOL FORCE) for the period April 22 to July 25," (5 August 1943), p. 1, Record Group 407.
- <sup>32</sup>KOOL (2d Armored Division), Field Order 2, 11 July 1943, *ibid.*; Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," pp. 8-9; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 27-29.
- <sup>33</sup>History 67th Armored Regiment, pp. 16, 235; Second Armored Division, "Historical Record", pp. 5-6, Record Group 407; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 28; Trahan, ed., A History of the Second United States Armored Division, n.p.
- <sup>34</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 30; Combat Command B, "Report of Operations of Combat Command B," p. 4, Record Group 407.
- <sup>35</sup>Second Armored Division, "Historical Record," p. 6, and Combat Command B, "Report of Operations of Combat Command B," p. 4, *ibid.*; History 67th Armored Regiment, pp. 17, 238-239; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 27-29; Trahan, ed., A History of the Second United States Armored Division, n.p.
- <sup>36</sup>History 67th Armored Regiment, pp. 238-239; William S. Hutchinson, "Use of the 4.2 inch Chemical Mortar in the Invasion of Sicily," Military Review, Vol. XXIII, No. 8 (November 1943), pp. 15-16.
- <sup>37</sup>Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," pp. 9-10; KOOL (2d Armored Division), Field Order 3, 11 July 1943, Record Group 407; Knickerbocker, Danger Forward, p. 110.

<sup>38</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 29-30; Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," p. 10; Second Armored Division, "Historical Record," p. 6, Record Group 407.

<sup>39</sup>Lucas, Manuscript Diary, 16 July 1943, Lucas Papers; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 45-46; Second Armored Division, "Historical Record," p. 7, Record Group 407.

<sup>40</sup>Truscott, Command Missions, p. 222; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 47; Combat Command A, "Report of Operations of Combat Command A," p. 5, Record Group 407; Bradley, A Soldier's Story, p. 139; Garland and Smyth, Sicily and the Surrender of Italy, pp. 230-231; Blumenson, Sicily, Whose Victory?, pp. 91-93; Charles Whiting, Patton (New York: Ballantine Books, 1970), p. 39.

<sup>41</sup>Combat Command A, "Report of Operations of Combat Command A," p. 5, Second Armored Division, "Historical Record," p. 7, and Second Armored Division, G-2 Periodic Report 7, 18 July 1943, Record Group 407; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 43.

<sup>42</sup>Second Armored Division, G-2 Estimate 1, 20 July 1943, Record Group 407; Blumenson, Sicily, Whose Victory?, p. 88.

<sup>43</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 45-46; Second Armored Division, "Historical Record," p. 7, and Second Armored Division, G-2 Periodic Report 8, 19 July 1943, Record Group 407.

<sup>44</sup>Second Armored Division, Field Order 4A, 20 July 1943, and Second Armored Division, Field Order 4B, 20 July 1943, *ibid.*

<sup>45</sup>Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 50; Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," pp. 16-18.

<sup>46</sup>*Ibid.*, p. 14; 82d Reconnaissance Battalion, "Report of Operations of the 82d Reconnaissance Battalion," p. 2, Record Group 407; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 49; Provisional Corps, Field Order 3, 21 July 1943, Record Group 407; Interview, Hinds with author.

<sup>47</sup>Second Armored Division, Field Order 5, 21 July 1943, and Combat Command A, "Report of Operations of Combat Command A," p. 6, Record Group 407; Second Armored Division, "Historical Record," p. 8.

<sup>48</sup>Eustis, War Letters, pp. 151-153; Interviews Chace with author; 82d Reconnaissance Battalion, "Report of Operations of the 82d Reconnaissance Battalion," pp. 4-5, and Combat Command A, "Report of Operations of Combat Command A," p. 6, Record Group 407.

<sup>49</sup>Sidney R. Hinds to R. H. Stetson, 11 October 1948, Hinds Papers.

<sup>50</sup>Disney, "Operations of the 82d Reconnaissance Battalion in Sicilian Campaign," p. 17; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," pp. 50-51; Combat Command B, "Report of Operations of Combat Command B," pp. 7, 8, Record Group 407.

<sup>51</sup>Combat Command A, "Report of Operations of Combat Command A," p. 8, *ibid.*; Interview, Hinds with author; 82d Reconnaissance Battalion, "Journal of Operations," p. 5, Record Group 407; Garland and Smyth, Sicily and the Surrender of Italy, p. 254.

<sup>52</sup>Morison, Sicily-Salerno-Anzio, Vol. IX, p. 184; Taggert, ed., History of the Third Infantry Division in World War II, p. 60; Truscott, Command Missions, p. 227.

<sup>53</sup>Record, "Messages Recollecting the Second Armored Division of World War II," 2 Records, Side 3, Comments of Brigadier General Sidney R. Hinds; Interview, Hinds with author; Combat Command A, "Report of Operations of Combat Command A," p. 7, Record Group 407.

<sup>54</sup>*Ibid.*; Taggert, ed., History of the Third Infantry Division in World War II, p. 61; Trahan, ed., A History of the Second United States Armored Division, n.p.

<sup>55</sup>Second Armored Division, "Historical Record," Inclosure 10, Record Group 407; Sidney R. Hinds, to George Hofmann, 20 January 1972, Hinds Papers; Ryan, et al., "The 2d Armored Division in the Sicilian Campaign," p. 39.

<sup>56</sup>Interview, Chace with author.



## CHAPTER XIII

### THE SICILIAN-ENGLISH INTERMISSION

Following twelve days of combat in Sicily, the 2d Armored Division entered a period of military occupation. Unlike its duty in North Africa, the tankers had an active role in the military government of Sicily. The island was the testing ground for the government of occupied territories, and the military worked out procedures which would later be employed in captured towns and cities in Germany.

The 2d Armored Division was ordered to be ready to carry out one of several missions. Its primary mission was to administer and police the Provisional Corps' zone of occupation. As the Seventh Army reserve, it had to be ready to move east into combat on twelve hours notice, while division artillery was to be ready to move east on six hours notice. Also the men were to be ready to embark and engage in amphibious operations with only seventy-two hours notice.<sup>1</sup>

While making plans for their tactical assignments, the men had to get their vehicles and equipment into battle condition. The first consideration was the thorough maintenance of vehicles, arms, and equipment. After that the men were to resume training, with calisthenics and other hardening exercises, which were to be led by the officers. The combat vehicles had been in constant and heavy use since landing. The light tanks apparently caused the most problems, for their tracks were almost worn through. Combat efficiency was low because of the lack of spare

parts, particularly tank engines and tracks. The tank engines needed extensive overhaul or replacing, and the wheeled vehicles had not been serviced or checked during operations. The situation began to improve in the latter part of August 1943, as replacement parts began to arrive. On 21 August, the division received a report that replacement tracks for the light tanks had been lost at sea. However, by the time the division left Sicily, the tracks had been replaced and the equipment was ready for use, as the needed parts finally arrived.<sup>2</sup>

Training resumed in earnest, starting with school for the soldier and progressing to small unit problems. The men were also given every opportunity to swim. They were cautioned that they would maintain high standards of military courtesy, discipline, conduct, and dress; commanders were to stress proper wearing of the uniform. The men were to shave daily, except when engaged in actual operations; then they would have to shave at least every other day. They were to wear their steel helmets and to carry their appropriate weapons. One added feature in the training was the firing of captured weapons. The men received instructions in handling civil disorders, as that was one of their primary missions at that time. They took long road marches despite bad weather. One platoon leader, Morton Eustis, thought that it was high time that the men got back into condition.<sup>3</sup>

As much as the vehicles needed maintenance, and as much as the men needed to be kept at a peak of efficiency, the division's main mission was to police and govern the occupied area of Sicily. The Allies attempted to make maximum usage of the civilian authorities. AMGOT (Allied Government of Occupied Territory) was brought into existence with the purpose of keeping the military out of government as much as

possible. The thinking was simple; by not having to worry about the civil population, the military was free to concentrate on fighting the war. The AMGOT officials worked through local officials, mayors, priests, and police. Their goal was to preserve order, feed the people, and make few changes, while removing as many of the Fascist trappings as possible. The local officials were interviewed and, if their record was acceptable, were retained in office; if not, they were removed and replacements were found.<sup>4</sup>

Two days after entering Palermo, the 2d Armored Division G-2 issued a warning that while the enemy would probably not interfere with the occupation, sabotage could be expected; therefore guards, sentries, and patrols should be on the alert to prevent hostile acts. He cautioned that time would be needed to clean out small pockets of resistance, to disarm the civilians and deserters, and to institute a system of government. The western end of the island (the 2d Armored's sector) was divided into three sections, with each combat command responsible for the policing of its sector. The Palermo military district was the responsibility of Colonel Thomas H. Roberts, Jr., the division artillery commander. The three area commanders: Brigadier General Maurice Rose of Combat Command A, Colonel I. D. White of Combat Command B, and Roberts, were to include route reconnaissances, guard posts, patrols, and to draw up plans to repel any attacks, seaborne or airborne.<sup>5</sup>

Palermo, itself, was divided into two equal sections and assigned to Companies B and C, 82d Reconnaissance Battalion. The main streets were constantly patrolled, while the smaller or less important ones were patrolled at staggered intervals; the outlying districts were patrolled once daily. Permanent guard posts were established at the

railroad yards, water works, fuel pumping stations, public buildings, and the radio station. Members of the Carabinieri Reale, the civil police, rode in patrol cars with the Americans. Bars and eating establishments were inspected to insure cleanliness; if any discrepancies were noted, they were placed off limits.<sup>6</sup>

The downtown area was filled with craters and destroyed buildings with the waterfront a mass of rubble. When the division took over, the civilians had scattered to the countryside. Those that had stayed had been without food and water for about five days. The division began to help make the city livable again. The engineers removed mines, filled in tank traps, removed roadblocks and built bypasses around the destroyed buildings and craters, and restored radio and telecommunications within the division zone. The men extended a helping hand in the restoration of health, food supplies, and public finances. The city began to recover and, by the time the division left Sicily, signs had appeared in hotels saying "the officers, under officers, and soldiers are begged to pay for their rooms on advance, and signed by the directions."<sup>7</sup>

While carrying out the military government of the island, and while patrolling, the 2d Armored Division arrested those who violated curfew or blackout regulations, had weapons in their possession, or who were illegally transporting grain or flour. The prime candidates for arrest were military age males who could not account for not being in the military. Some Italians had deserted their units and gotten civilian jobs while the 2d Armored Division was overrunning the western end of the island. Some Germans were reported on the island and patrols went in search of them; apparently several were captured.<sup>8</sup>

A nonfraternization policy had been instituted after an American soldier was arrested for driving a weapons carrier that contained seven male and female civilians. Blackmarket activities began to surface, and many civilians with government issue items in their possession were arrested. Investigations revealed that the primary offenders were from the 53d Quartermaster Battalion in Palermo.<sup>9</sup>

Much of the credit for stopping looting must be given to the Carabinieri, who were under American control. The primary concern of the Sicilian police and the Americans was the maintenance of order; the best way to accomplish this was by a rationing system, insuring that the people received a fair amount of food. Many farmers refused to bring their grain to town; instead they held it back to sell at an inflated price or hoarded it. At Pirizzi, the citizens rioted when local officials started taking grain from the warehouses, and men from the 2d Armored Division were promptly dispatched. The situation was soon under control. Near San Cipirello a Carabinieri was wounded attempting to stop a man for illegally transporting grain. His assailant escaped, and the local police considered the incident part of the Mafia activities. The division G-3 report noted that when distributing grain, it was necessary for the division to do it, because the local authorities did not give the matter proper supervision.<sup>10</sup>

The 2d Armored Division also had to secure and capture all weapons and ammunition that could possibly fall into enemy hands. All the ammunition was to be collected into a central area. At one dump near Perciain, the ammunition exploded for some unknown reason, sending an American soldier and eight prisoner of war laborers to the hospital with second degree burns. Investigation later revealed that the division

ammunition officer, Second Lieutenant L. E. Lawrence, heard a loud pop, probably a booby trap, then saw a flash as the powder exploded. Thirteen people were killed when an ammunition dump exploded near San Guisepe, and several other dumps exploded for unknown and unexplained reasons. Civilians were apprehended for having military equipment in their possession. One, who threw hand grenades at a guard near the division water point, was arrested, taken to Partinico, and his house locked up. A fisherman was arrested and jailed for fishing with dynamite, and a second man was jailed for allegedly giving the explosives to him.<sup>11</sup>

About 1950 on 20 August 1943, a patrol from the Third Battalion, 41st Armored Infantry Regiment, found sixty-nine drums of mustard gas. The following day the 2d Armored Division took over sixty barrels of a persistent gas (probably mustard gas) from the 82d Airborne Division. The barrels (50 gallons each) totalled 6,450 gallons. This may well have been the most frightening experience the division had on Sicily. Earlier the odor of burning sulphur had raised the possibility that the Axis was using gas. The men had received chemical training in North Africa before going to Sicily, and they did have gas masks available.<sup>12</sup>

One of the most serious situations was the apparent sabotage of the 2d Armored Division's communication lines. Patton ordered the lines patrolled according to standard procedure and authorized the shooting of anyone caught trying to sabotage the lines. He indicated that the house or nearest dwelling to the scene of the sabotage, on a second attempt, would be torn down. Brigadier General Rose bluntly ordered the wire guards to shoot on sight anyone cutting communications. Four days after the order was issued, a wire guard shot and wounded a civilian.

The same day, Gaffey sent a message to Hinds: "the Commanding General desires to compliment the soldier who shot the wire saboteur today." Patton was apparently not entirely pleased, for two days later he sent a message to Gaffey: "target practice for wire guards indicated." Apparently the civilian that had been shot was going to be tried for sabotage, for on 11 August Keyes indicated that he wanted to make an example of him. The shooting of the civilian, however, did not stop the wire cuttings. Periodic reports and the regimental and battalion logs indicate that they continued and perhaps even increased during August, but decreased and then stopped as the division spent more time on the island.<sup>13</sup>

Along with the wire problems, there were several reports of clandestine radios and other illegal means of communications. In late August a special team was formed to try to find these radios. A few days later, the 2d Armored Division was also informed that someone was burning flares in Borgetto. Investigation revealed that a civilian was watering his tomatoes when a stoppage occurred in the communal water system, which flowed through his garden. He had lit several cornstalks, and walked back and forth several times along the water system, in an effort to find where the problem was. This explanation was deemed unsatisfactory at the time, and the man was jailed. Apparently his case was decided by AMGOT, for the division records do not mention this again. Another light scare was caused by several unshielded lights in civilian homes and by brushfires. These incidents were viewed as accidental and not intended to signal enemy ships or planes. In October, an Italian seaplane landed near Palermo. The crew said that the Germans in Rome had burned the planes there when the Italian crews refused to

fly them to Germany. This one seaplane was repaired and the Italians flew it to Sicily so that they could surrender to the Americans.<sup>14</sup>

All was not work, even though Morton Eustis lamented in the middle of October that they were still patrolling, and "God knows if we will ever fight again." In September, Gaffey had issued a directive that 5 percent of the command could be issued passes in accordance with existing policies. However, enlisted men were forbidden to enter Palermo and Sterrativallo except on official business. In August, the troops were treated to a U.S.O. (United Service Organization) show featuring Bob Hope and Francis Langford.<sup>15</sup>

Eustis described the daily life of patrols in his letters home. The reconnaissance personnel conducted raids against blackmarketeers, stopped riots at breadlines, escorted drunks to the stockades, and on one occasion, while taking a woman to a hospital, almost had a baby born in their vehicle; they beat the stork by about two minutes. As a result of the patrolling, members of the 82d Reconnaissance Battalion were familiar with all the back alleys and bombed-out rooms, because they were attempting to stop the "migrant women" who moved from room to room in pursuit of their trade.<sup>16</sup>

In lighter moments, the officers had parties which were fun, once the generals departed. C Company, 82d Reconnaissance Battalion had a unique party. The men swamped the town with invitations to "Gentile Signorina", telling them to be at a certain loading point at a certain time. The more than forty girls "of questionable virtue" may have included some "genteel" ones, but as Eustis confessed, "who cares in that kind of party."<sup>17</sup>



The Germans, during their stay on the island, had waged a propaganda war against the United States. As the 2d Armored Division's civil government personnel moved through the town of San Guiseppe they saw a civilian carrying a sign reading, "Long Live the United Nations. Long Live Liberty. For twenty years we have been forced to keep silent. We welcome you so that we may again have Liberty and Freedom." Many civilians were surprised that the women were not raped, and that homes were not looted or pillaged during combat or the American occupation. The Americans had been portrayed as vicious, barbaric, and bloodthirsty. The Americans did make one startling discovery; the Germans had fed their troops the same horror stories as those told to the Sicilians. However, because German prisoners in Canada had been permitted to write about their conditions and treatment, refuting the Nazi propaganda, the German troops apparently did not believe the propaganda.<sup>18</sup>

Prisoner of war interrogation teams of the 2d Armored Division were busy questioning the large number of prisoners. The Germans talked about their equipment and munitions. A mine had been developed that could only be removed by exploding it after it had been emplaced. The Germans also had a new type "S" mine, which looked exactly like the older model, but had an antilifting device built into it. The new model had a hole in its base to install a pull igniter. Also developed was an antitank weapon made of two containers connected by wires; once on a tank, the weight of the containers pulled the wire that was also the fuze. The Russians had combated this device by surrounding their tanks with barbed wire. In another type device, the Germans used the principle of the shaped charge. The "Hollow Magnetic Grenade" was held on the tank by three magnets, and the detonation was concentrated at one

point. Also described was a flamethrower with a range of fifteen to twenty-five meters and a life of seven to eight seconds. The interrogator noted that the source of this information said that this piece of equipment never functioned properly.<sup>19</sup>

The questioning also revealed much about American soldiers and their weapons. American infantrymen were reported not to take proper concealment measures during advances towards an objective. Their artillery and mortar fire had adverse effects on German and Italian morale. One prisoner, Lieutenant Colonel Altini, said that the main reason many surrendered was to get away from the artillery and mortar fire. The American fragmentation grenade was not considered equal to the German one because the American grenade fragmented into large chunks, while the German one fragmented into small chunks.<sup>20</sup>

Where AMGOT officials were not available, the men of the 2d Armored Division had to be their representatives. Their instructions were carefully detailed, so as not to cause problems. They were to request permission before using civilian cars or billets, and captured enemy supplies and equipment. The town commanders were to call local meetings, establish the local judiciary, and reopen minor courts at once. The banks were to be closed except to lend the city money, and if money was not available, then the town commanders were to notify AMGOT, who would make funds available. At Godrano, where tax collectors were confiscating private property, allegedly for use by the United States government, the tax collectors were arrested.<sup>21</sup>

In the latter part of September 1943, the 2d Armored Division had been alerted for movement to another theater of operations. The men were to take their clothing, two wool blankets, two pairs of service

shoes, and three pairs of light wool socks. They would carry one magazine or clip for their individual weapons. The units were permitted to take those housekeeping items that were necessary for administrative work: typewriters, desks, safes, coin counting, duplicating, computing, adding, mimeographing, and pay roll machines. They could take all signal equipment not mounted in combat vehicles, with the exception of the SCR-299's. The division was also permitted to take one steel treadway bridge and the vehicles necessary for it. That the division's destination was England, was known to very few. In October, an order assigning code numbers for the movement arrived, and the order was sent to several other headquarters, including the "CG ETO," (Commanding General, European Theater of Operations).<sup>22</sup>

Patton had issued an order alerting the 2d Armored Division for movement, and directing that the division would be organized according to the latest T/O and T/E (Table of Organization and Tables of Equipment). The new organization, which would be termed "Light", would have the division lose three regiments: the 66th and 67th Armored, and the 41st Armored Infantry. In their place the division would have three tank battalions and three infantry battalions. In effect, the division was to lose over fifty percent of its tank strength and a lesser part of its infantry strength.<sup>23</sup>

The pace began to quicken; in the last week of October 1943, the division was ordered to assemble (minus the detachments that were in North Africa) near Capaci by 3 November. They were to be relieved of their area of police responsibility by 1 November. Once at Capaci, the men were to be restricted to the area. On 27 October, Brigadier General Maurice Rose was selected to lead an advance party of three officers

and eighty-one enlisted personnel to their new area. These personnel, primarily from the 17th Engineer Battalion, the Maintenance and Supply Battalions, the 142d Signal Company and two from division headquarters, were to make the necessary advance arrangements for the division.<sup>24</sup>

The 2d Armored Division was ordered to turn in its property, except for the vehicles that were necessary to move to the staging area, between 25 and 29 October. The equipment was to be made ready for use; the vehicles and weapons were to be thoroughly cleaned and oiled. On 9 November the destination was revealed to some of the officers. Major General Gaffey issued a memorandum to a select number of officers, stating that the division was going to the United Kingdom, where they would draw new equipment and make preparations for the continuation of the war against the enemy; the troops were to be told of their destination once they were at sea.<sup>25</sup>

In North Africa, the rear echelon of the 2d Armored Division was undergoing the same preparations as its parent unit on Sicily. In the latter part of September, they were ordered to the port of Oran, turned in their equipment and prepared to depart for the United Kingdom; they sailed on 14 November.<sup>26</sup>

During the movement from Sicily and North Africa to England, the division took only those items necessary to start again. After the men loaded aboard ships and the ships were at sea, rumors began to circulate as to their destination. One story was that the division was returning to Fort Benning; the ships proceeded so far west, that one man swore that he saw the Empire State Building in New York City. On board ship the bunks were four high and close together, and the men slept in their clothing. They were fed two meals a day, but could buy candy and crackers

from the ship's PX (Post Exchange) if they wanted anything else. Usually there was a high stakes dice game going on at each end of the various compartments. The ships docked at Liverpool, England, on Thanksgiving Day. The men ate Thanksgiving dinner aboard ship, but in the words of the men of one unit, "it was something not to be thankful for."<sup>27</sup>

After debarking, the men of the 2d Armored Division boarded a train for the trip to Tidworth Barracks on the Salisbury Plain, a former English Army cavalry post. The division was to draw new equipment, the main area of concentration for the first few weeks. Arriving at their new post, the men found that they would not have to live in pup tents as they had in North Africa. The 3d Armored Division had prepared the billets and bunks for the men to move into, as well as putting the kitchens in operating order. Later, 2d Armored would do the same for the 4th Armored.<sup>28</sup>

During the first week the men got settled into their barracks. There was no central heat, but there were coal grates in each room. Although the weather was chilly and damp, the men were not unhappy, for they were only sixty-four miles from London. Life in England was enjoyable, at least the soldiers thought so. There were post exchanges, beer, movies, and one theater. They could get daily passes to Salisbury, Andover, and Amesburg; forty-eight hour passes to London; and seven day furloughs to any other part of England or Scotland. The division maintained cordial relations with the British civil and military populations. Weekly dances were held, which were extremely popular with the British women. One especially popular feature of these dances was the food which consisted of sandwiches, doughnuts, and coffee. On Christmas Day, the division played host to British war orphans. The

officers and men had saved their candy ration to share with the children, and later their turkey and Christmas extras. The men also vied with each other to see who would wear the homemade Santa Claus suit. Some wondered who had the most fun -- the kids or the men.<sup>29</sup>

There were, of course, some complaints about the Americans being in England. However, Eustis told about the local pub run by an elderly couple that took the Americans in on the strength of their tipping. The pub owners seemed glad to have the Americans. Eustis also noted that the Americans had too much money, that they were too loud and boisterous, and that some were stealing British girls from their British boyfriends. This caused friction. Eustis closed a letter to his mother by noting that the "Limeys" said there were "too bloody many Yanks around;" or as someone unknown put it, the "Americans were overpaid, over sexed, and over here."<sup>30</sup>

After getting settled into their new barracks, the men of the 2d Armored Division drew new equipment and began cleaning and testing the gear. Training resumed in earnest. The division started with the individual and crew drill and went on to driver instruction. The 66th Armored Regiment had a most unusual teaching method for drivers: chasing jackrabbits, the idea being that a rabbit demonstrated all the moves necessary on the battlefield. After crew and squad training, the units progressed to platoon and company training. This was followed by weapons firing and tactical training; then first aid and weapons qualifications, as well as supply discipline. This was basic training all over again, but designed to insure that nothing had been omitted. The division sent its regiments to the Imber and Minehead ranges for maneuvers and firing of tank guns.<sup>31</sup>

Training continued during the cold, wet winter for the 2d Armored Division. Many of the men had been at Fort Benning with Patton, and remembered that his philosophy of rugged, demanding training saved lives. In some respects the division packed the training they had received at Fort Benning and on the maneuvers into the few months now available. Special emphasis was placed on amphibious operations, mine detection, and booby-traps. Each division in England was required to train at least ten men to use mine detectors in the infantry, artillery, and signal battalions. All company grade officers (lieutenants and captains) of infantry and engineers were to be trained in directing artillery fire. The 2d Armored required this of its tank officers.<sup>32</sup>

In January 1944, the 195th Antiaircraft Artillery Battalion (Automatic Weapons) (Self Propelled) was attached to the 2d Armored Division, and the division was ordered to incorporate it into its training; this attachment was to last throughout the rest of the war. On 8 February 1944, the division was assigned to XIX Corps, commanded by Major General Charles H. Corlett. Eisenhower told the Corps Commander to create a family feeling in the organization. He did not want genius or brilliance, but he did want common sense. The 2d Armored Division established extremely good relations with its fellow corps members, a relationship that was also to last through the conflict on the continent.<sup>33</sup>

In April 1944, the Reconnaissance Battalion went to the British antiaircraft range. The men felt that it was better than garrison life with all the paperwork, policing, and emphasis on spit and polish. They spent a good deal of time firing at target sleeves; although this was not like the real thing to them, it did teach them a great deal. The other parts of the division were undergoing combined exercises with

their fellow corps partners and the British at Broadsands.<sup>34</sup>

While training, the 2d Armored Division was threatened with having to reorganize into a smaller division. Under the proposed plan, the division would lose three regiments and get three tank battalions and three infantry battalions. There would be 2,187 men in the three tank battalions, as compared to 4,848 in the tank regiments. The three infantry battalions would have 3,003 men as compared to 2,389 in the old armored infantry regiment. Division artillery would lose about 500 men, but the reconnaissance battalion would have more men, 935 as compared to 872. The most drastic reduction would be in the engineer battalion which was to be cut approximately fifty percent, from 1,174 to 693, while the supply battalion was to be eliminated altogether. The new division structure was to have 10,937 men as compared to 14,620 men in the old structure.

In equipment, the new 2d Armored Division organization would have 127 fewer tanks (263 compared to 390); fewer half tracks (501 compared to 733); and 977 less vehicles (3,630 compared to 2,653). The new arrangement would call for an increase in weapons: 174 more .30 caliber machine guns (465 compared to 291); 301 more .50 caliber machine guns (404 compared to 103); 643 more .45 caliber submachine guns (2,803 compared to 2,160); 1,035 more M-1 rifles (2,063 compared to 1,628); but fewer .30 caliber carbines (5,286 compared to 6,042). For some unknown reason, perhaps because of strong influential leaders such as Patton, Gaffey, and others who were in England, Eisenhower amended the order, permitting the 2d and 3d Armored Divisions to retain the regimental structure and directed them to draw up a list of needed equipment to send them into battle. So while the division did undergo some



reorganization, it was internal. The old regimental structure was altered somewhat, for instead of having two medium and one light battalions per tank regiment, they now had three battalions of two medium companies and one light company. This caused confusion because the light tank companies retained their old unit designation instead of being relettered.<sup>35</sup>

Major General Earnest N. Harmon, commander of the 2d Armored Division in the landing of North Africa who had assumed command of the 1st Armored Division in April 1943, was in England. Harmon, who probably had more command experience in an armored division than anyone else in the Army at the time, recommended that the infantry and armored elements be balanced to forge a team, with a second regiment attached to the division. He foresaw using the heavy divisions, with one or two infantry divisions on the armored division's flanks, much like the opening exercise in the Louisiana maneuvers of 1941.<sup>36</sup>

The 2d Armored Division commander, Major General Gaffey, wanted to eliminate the half tracks from the Armored Infantry regiment and replace them with trucks. Colonel Sidney Hinds argued with Gaffey about the idea. He told Gaffey that if it were done, any infantry could function with the tankers. To Hinds' mind, armored infantrymen were specially trained for their role. In Sicily, the 41st Armored Infantry used half-tracks with tow hooks attached, permitting the regiment to capture and save enemy equipment found on the battlefield. Gaffey cast some aspersions on the "Gypsy Caravan," but the half tracks and their strange assortment of equipment contributed to the health, well being, and most importantly, the morale of the men. Apparently what Gaffey did not understand was that the infantrymen viewed their half-tracks

in the same manner as the tankers or artillerymen viewed their vehicles. The half-tracks could follow the advancing foot soldier closely, carrying those items that the infantryman could not carry on his person, such as extra ammunition, mines, barbed wire, weapons and food, and, if necessary, could be used to evacuate the wounded or dead.<sup>37</sup>

Hinds was of the opinion that the current tables of equipment did not provide for the maximum firepower and recommended that some thought be given to the substitution of antiaircraft .50 caliber machine guns for the antiaircraft .30 caliber machine guns which the regiment then had. The regiment would need 42, but the men would have a weapon of increased range to defend themselves. He also wanted 108 .30 caliber ground-mounted machine guns (one for each rifle squad), and 27 quarter-ton trucks in the regiment. The Browning Automatic Rifle had been substituted for 81 M-1 rifles in the regiment (one per squad), but he would like to see the 60mm mortar replaced with 27 longer-ranged 81mm mortars, mounted in M-4 weapons carriers. In addition, the regimental commander wanted permission to have 3 M-8 reconnaissance cars added to the regiment mounting a 37mm gun, and grenade launchers for each vehicle that did not have a 37mm or larger weapon. He was of the opinion that the reconnaissance units could be improved if they mounted a 37mm antitank gun in their M-3 carriers. Hinds pointed out that this had been done in Sicily, with deadly results for an enemy ten-man patrol and a 90mm enemy gun.<sup>38</sup>

Apparently Hinds' arguments were successful, for two weeks later, Gaffey submitted a requisition to VII Corps for the needed equipment. Gaffey requested 71 .50 caliber and 132 .30 caliber machine guns for the infantry regiment, and 4 750-gallon gasoline tankers for the maintenance

battalion, and 710 grenade launchers. The stated rationale was that the division had turned these items in at Sicily when ordered out of the Mediterranean Theater of Operations. Gaffey apparently had little success with his original request, for in the last week of February 1944, he again submitted a letter, saying that shortages of equipment would constitute a serious handicap to the 2d Armored Division once it was committed to battle. He stated that the maintenance battalion needed, and should carry, spare parts for the armored vehicles; by doing so, they would be readily available for immediate use. The division needed antiaircraft mounts for its .50 caliber machine guns, for at the moment the M-8 armored reconnaissance car had no means to defend itself against an air attack. The Brockway bridge equipment trucks that the division had in North Africa and Sicily were worn out and not fit for service. Finally, the division needed twelve-volt batteries for their quarter-ton trucks which were equipped with radios. The division had seventy-one of these vehicles, but only one twelve-volt battery. The men could switch to amphibious half-ton trucks, but there would still be a shortage of thirty-six batteries.<sup>39</sup>

The letter slowly wound its way through channels, gaining endorsements, but little else. XIX Corps accepted Gaffey's recommendations, then mentioned each item individually. The 2d Armored Division could get spare parts in three weeks; antiaircraft mounts were to be obtained through supply channels or the division could make them; as for the engineer trucks, the division could either get them (note here that Corps did not believe them to be available) or cannibalize others to repair the trucks. The radio mounts and twelve-volt battery converters were on their way from the United States. First Army, the next step on

the command ladder, expressed hope that the spare parts could be obtained from existent stocks, without having to open the reserves already packed for shipment to the continent. They had no comment on the availability of machine gun mounts; First Army was short 140 engineer trucks, and neither trucks nor parts were available. After saying that there was a definite need for the radio conversion kits, they indicated that they had no idea of when, or if, the kits would be available.

Eisenhower's headquarters said that 80 percent of the needed spare parts had been made available to the division, with the remainder on order from the United States. As to machine gun mounts, the supply personnel were instructed to issue substitutes that could be modified to the needs of the division. In the case of trucks, they were to be released by the Engineer service; some spare parts were available and the remainder were to be sent over. As for the conversion kits, they had been issued and cannibalization was not authorized. In late April 1944, Major General Edward H. Brooks (the new division commander) was told that some radio conversion kits would be supplied and he could expect more later.<sup>40</sup>

About mid-April, the 2d Armored Division asked that Eisenhower's headquarters seek to supply items that were authorized above the Table of Equipment, as these items were needed for training, testing, and qualification of men prior to the invasion of Europe. The division also asked for Ford engine tanks because of their increased power and longer engine life. Other items requested included 132 .30 caliber ground-mounted machine guns; 95 .50 caliber machine guns; 81 Browning Automatic Rifles; 21 personnel carriers, and 16 battery conversion kits. Eventually, almost all the needed items were obtained through depots, with

few if any, being drawn from marshalling areas.<sup>41</sup>

The preceding year, in late September 1943, General Eisenhower had told General George C. Marshall that he would like to use the newer divisions to make the initial landings and to save the veteran divisions as follow-up units, to pass through and seize the early objectives. The units assigned to the First Army were either battle experienced or supposedly well trained.<sup>42</sup>

In March 1944, the Army activated the headquarters of the Third Army, under the command of Lieutenant General Patton. He was supposed to have told Eisenhower that he did not want a brilliant staff, but rather a loyal one. To get that loyalty, he turned to the 2d Armored Division, taking Major General Gaffey, the division commander, and Colonel Redding F. Perry, the Chief of Staff. Replacing these men in the 2d Armored were Major General Edward H. Brooks (an artilleryman and developer of the M-7 105 mm self-propelled howitzer), and Colonel Charles Palmer.<sup>43</sup>

In the middle of April 1944, all passes and leaves were cancelled. Two weeks later all men were restricted to their regimental or battalion areas. In May, the 2d Armored and the 9th Infantry took part in an exercise of marshalling the build-up units. This problem, done under the protection of fighter aircraft, revealed deficiencies that needed correction. Fortunately, this discovery came early enough to permit corrections, instead of having to live or die with the problems, as had occurred in North Africa and Sicily.<sup>44</sup>

As D-Day approached, the 2d Armored Division engaged in practice landing operations at the actual camps and ports they would be using. Brooks conducted a series of map problems, terrain board exercises,

and staff conferences on the forthcoming landing. During this time of planning probably many in the division echoed the thoughts of Morton Eustis, who hoped that the Germans did not collapse until the division had a chance to hit them good from the west; he added, "I hope my platoon is the first to set foot in Berlin."<sup>45</sup>

Brigadier General Maurice Rose and the advance command post personnel departed from Tidworth Barracks to join the 9th Infantry Regiment of the 2d Infantry Division at the Barry, Wales, marshalling area. They went aboard the S.S. Charles Sumner the following day, and on 5 June, sailed for the rendezvous off the Isle of Wight. Two days later they were off the coast of France. The advance group landed about 1830, and established their command post north of St. Laurent-Sur-Mer. The purpose of the advance group was to gain information on the progress of the operation, receive and organize Combat Command A, and to receive, orient, and command all units of the division until the division commander landed.<sup>46</sup>

The 2d Armored Division moved from Tidworth Barracks on 6-7 June to the marshalling areas of Portsmouth and Southampton. The major part of the division loaded and started for France that night, landing on 9 June. While the division was not entitled to its third bronze arrowhead for being part of the initial landing group, it was in its third combat landing, as part of the initial follow-up force. It was about to take part in battles that would test it as it had not been tested before.<sup>47</sup>

During the period 23 July 1943 to 6 June 1944, the 2d Armored Division had made the circle from war to peace and back to war. In Sicily, after initially landing as separate units the division united

and for the first time in its history, fought as a division. It did not take part in the final two-thirds of the Sicilian campaign, but served in a military government role. This was to prove beneficial, for it would have to assume that role again. While acting as "policeman," its secondary mission was to be ready for deployment if the Seventh Army Commander thought it necessary. He never did.

When in England, preparing for the eventual landings in France, the 2d Armored Division in many instances trained even harder than it had in the past. It had the operations in North Africa and Sicily to draw on for battle experience. While the previous battles had been against second and third rate troops, fighting without conviction, this time the enemy would be the cream of the German Army, which was battle tested and battle hardened.

The 2d Armored Division started ashore at Utah Beach on 7 June 1944, led by the advance detachment under Brigadier General Maurice Rose. Soon afterwards the entire division was ashore, the first armored division to land on the continent of Europe. Shortly after landing, Combat Command A was sent to Carentan to aid the 101st Airborne's defense of that town. Had the Germans been successful in their counter-attack, they would have split the American beachheads, affording an excellent opportunity to defeat each. The tankers earned the begrudging respect of the Germans when the enemy pinned the nickname "Roosevelt's Butchers" on them. In that fight with an SS Parachute Regiment, the tankers took less than a dozen prisoners, while killing about 800 of the finest soldiers Hitler had in his army.

For a month after landing in Europe, the 2d Armored Division was held as a reserve force, ready for instant deployment if needed. In

late July, the division prepared for one of its most spectacular actions. Combat Command A, which was to prevent reinforcements from arriving to aid the Germans, led the attack in the breakout at St. Lo. Combat Command B attacked the following day, 27 July, and while initially having a secondary role in the operation, soon assumed the primary attack role because of the heavy enemy resistance being met. Spearheading the advance, Combat Command B built an armored ring around the retreating German Seventh Army, trapping the bulk of the enemy forces inside. The men slowly inched their way towards Vire, where Eisenhower had decided to pivot the Americans and move them northward.

The Germans launched a serious counterattack to prevent entrapment and free their troops still inside the Contentin Peninsula. Fighting in two different corps, the 2d Armored Division battled the spearhead of the German effort at Mortain and Barentan, defeating the enemy and causing them to flee in complete disarray. The Americans started a pursuit of which the theorists of the 1920's and 1930's had dreamed. Stopping only to refuel and resupply, the 2d Armored Division raced the Germans for the crossings over the Seine River at Elbeuf and won, trapping the enemy in the Pais de Calais area.

The 2d Armored Division was then ordered to move on to Tournai, Belgium, and to capture it within forty-eight hours. Attacking in an around-the-clock effort, they took the town with two hours to spare. By taking the objective, the paratroopers, who were making plans to capture the town, cancelled their attack because of "bad weather." The tankers regrouped their forces and started towards the German border, only to be stalled by a serious fuel shortage. Apparently no one in the Allied high command structure considered that the enemy armies would be



routed as quickly as they were. The slowdown of the Allies gave the enemy time to regroup his forces and prepare defenses along the Siegfried Line.

After crossing the Albert Canal, the 2d Armored Division moved eastward, attacking through the 30th Infantry Division, to take its portion of the vaunted West Wall. For about eight days the men struggled against some of the stiffest enemy resistance they were to encounter. The tanks were handicapped by the severe weather which had turned the terrain into a sea of mud. Because the American VII Corps on the south flank could not keep pace with XIX Corps, and because the enemy still retained control of three dams on the Roer River, the advance was delayed. In November 1944, the 2d Armored Division was ordered to move to the Roer River. For two weeks, the tankers struggled against fanatical resistance, mud, rain, and snow, advancing about ten miles. They became somewhat of a magnet, drawing the attention of three German Panzer Divisions. The fight was, according to many, the most savage tank battle on the western front.

In December 1944, the Germans launched a counterattack which took the Americans by complete surprise. The 2d Armored Division was alerted for movement, and conducted one of the outstanding road marches of the war. It moved some 100 miles in twenty-two hours, positioning itself at the point where the German 2d Panzer Division would have to turn north to reach the bridges over the Meuse River. On Christmas Day, attacking contrary to the wishes of the Army and Army Group commanders, the 2d Armored Division in four days totally destroyed its exact counterpart in the German Army. By stopping the German spearhead, the tankers stopped the German westward movement. In January 1945, after a

few days of rest, the 2d Armored Division led the attack towards Houffalize, where the First and Third Armies were to join hands and seal the base of the Bulge. For two weeks, the tankers battled snow, ice-caked roads, and zero visibility, advancing some fourteen miles. The Germans had spent their efforts, and for them the prospect of winning the conflict vanished. Now, when the Allies resumed their offensive, the Germans would have little possibility of stopping their advance.

The 2d Armored Division attacked on 28 February 1945; its assignment was to pull up to the Rhine and prepare for the last offensive eastward. The men knew that it would mean the defeat of Germany. There was little reason to expect that the Allies could capture a bridge across the Rhine, but on 1 March 1944, Combat Command B was ordered to make every effort to seize the Krefeld-Uerdingen Bridge. Again the men attacked in around-the-clock efforts to take the prize--the Adolph Hitler Bridge, an appropriate reward for "Roosevelt's Butchers." After two patrols had crossed the bridge and plans were being made to rush two infantry battalions over to the east bank, the Germans destroyed the bridge, literally in Combat Command B's face, denying them that reward.

Once across the Rhine on a bridge built by the 17th Armored Engineer Battalion, and fulfilling a Patton prophesy, the Division started eastward with one goal in mind: Berlin. After starting its advance, Combat Command B was ordered south to link with the 3d Armored Division at Lippstadt, sealing the Ruhr pocket and trapping more enemy troops inside it than the Russians captured at Stalingrad. The division labored for four days through the Teutoberger Wald, a freak geological formation resembling the eastern Ardennes, which had traditionally served

as a protective barrier against invading armies from the west. Once through the Teutoberger Wald, the 2d Armored Division was on the north German plain with few barriers to slow its attack. The division was forced to halt at Hildesheim to permit the other armies to pull alongside the Ninth Army. On 10 April 1945, the division started eastward one last time. The next day, division headquarters was electrified by the message that Combat Command B was on the Elbe River, only fifty-two miles from Berlin.

Hinds sent three battalions of infantry across the Elbe to establish a bridgehead, while the engineers built a bridge to move tanks across. The Germans met this threat with extremely accurate artillery fire, which defeated every attempt. Finally, on 14 April, after repeated efforts to build a bridge, including moving the bridging site to get out of the range of enemy guns, Hinds had to give the only retreat order issued in thirty months of combat. The next day Eisenhower ordered the Americans to maintain their positions while the Russians were given the opportunity to capture Berlin. The 2d Armored Division, with the 30th Infantry Division, was ordered to capture Magdeberg, which it did in about twenty-four hours.

As a reward for its able performance, the 2d Armored Division was ordered into Berlin, to be the first American division performing occupation duty in the German capital. While there, the division did honor guard duty for the Potsdam Conference, and staged several reviews for the Allied political and military leaders.

The 2d Armored Division wrote its history across two continents, earning the respect of friend and foe alike. Its brilliant performance epitomized armored warfare and totally justified the claims made by

the theorists during the preceding two decades. Through sunshine, snow, rain, fog, and mud, and against some of the best enemy soldiers faced by any unit, the 2d Armored Division showed that it had earned the right to be called the "Hell on Wheels" Division.

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## CHAPTER XIV

### A BACKWARD GLANCE

Throughout history man had attempted to devise better weapons with which to impose his will on his enemy. In attempting to find such weapons, man has experimented with many vehicles to increase mobility, permitting an attacker to position himself on the flanks or in the rear areas of his foe. Once the attacker has gained this advantage, he is usually able to cause confusion and disrupt supply and communications routes which are necessary for controlling an army. The ancients used chariots and later cavalry for this purpose. Leonardo di Vinci devised a tank-like vehicle, which had a cannon mounted inside a protective covering, and was propelled by horses. As time progressed, battlefield movement was reserved for cavalry, while the infantry usually attacked over open ground against entrenchments, which reached their maximum employment during World War I.

During the industrial revolution of the late nineteenth and early twentieth centuries, the internal combustion engine was developed, which was to make revolutionary changes in warfare. With the engine man was able to develop the airplane, permitting a new look at the battlefield, and at the same time employ trucks to rapidly move large bodies of troops to various sectors of the battlefield when needed for offensive or defensive purposes. In World War I, all the necessary factors, entrenchments, massed artillery, automatic weapons, barbed wire, and

no-man's-land, were present and forced a new concept in warfare. To break the stalemate which had endured for almost three years, the tank, crude and slow, was introduced. It proved to be successful when measured in terms of efficiency and reliability of the time. Since it was a new weapon, its use was dictated both by necessity and traditional concepts. It was to be an infantry support weapon, reducing strong points which prevented or delayed an infantry attack.

When World War I ended and the American Tank Corps returned to the United States, it fell victim to historical traditions, the new feeling of international disarmament, and bitter feuding between the service branches. The tank, since it was slow and because it had been an infantry support weapon, was given to the infantry and was to labor there for two decades. A few farseeing officers sought to make the tank into a powerful offensive weapon, but they were told to hold to branch lines or face disciplinary action. Given these possibilities, most chose to remain silent, or to discuss forbidden matters within a circle of well-chosen friends. These men at times risked their careers to advocate creation of a tank unit which would employ tactics designed to increase battlefield mobility and cause panic among the enemy.

The international situation began to change, and this was to have a tremendous effect on the evolution of armor in the United States Army. In the late 1920's, Great Britain developed an armored force and demonstrated it to foreign visitors. The American Secretary of War witnessed the demonstration, and when he returned to the United States, he directed that the Army begin to develop a similar force. Attempting to comply with the Secretary's direction, the Army encountered resistance from the Chiefs of Cavalry and Infantry, as well as a Federal statute

which gave tanks to the infantry. This controversy was to mar development of armored vehicles and tactics for the next twelve to fifteen years.

Armor leaders received their training during the late 1920's and 1930's through a skillful evasion of the law which detailed tanks to the infantry. When the Mechanized Force was created, it was to serve as a laboratory for the training of armor leaders and the development of tactics. This was a crucial period in armor evolution, for many wanted to see the experiment fail. However, it was successful, and when the Armored Force was created in 1940, a second evasion of the 1920 statute, the leaders which had served with the Mechanized Force emerged to take command of the armored divisions and regiments.

Armor historians like to point to the 1930's as being the period where cavalry tactics were adopted for the tank. Infantry maintained that the tank was merely another weapon with which infantrymen could better carry out their assignments. A closer examination of the facts reveals that both cavalry and infantry were correct. The tactics of deep thrusts, penetrations, wide turning movements, and exploitation of enemy flanks and rear areas are the traditional role of cavalry. However, once committed to battle, tanks usually advanced at a much slower rate, resembling the support role which infantry had advocated. Thus it would appear that instead of being one or the other, armor tactics were the skillful blending of both.

The far-sighted theorists of the 1920's and 1930's knew that for armor warfare to be successful, more than tanks would be needed. Armor had to develop the team concept, including the addition of artillery, antiaircraft protection, engineers, infantry, and chemical troops.

During experimentation, Adna Chaffee, Daniel Van Voorhis, and others had become aware that airplanes were also needed to perform reconnaissance and attack missions. Their beliefs and ideas were totally justified when the Germans attacked and quickly defeated their neighboring nations.

The 2d Armored Division was activated during controversy at the War Department. Some, especially the Chiefs of Cavalry and Infantry, denied that such a force was needed and that in reality it already existed within their own areas of responsibility. General George C. Marshall denied such a contention, implying that the two branch chiefs had had an opportunity to create such a force, but they had been reluctant to do so. Others at the War Department, primarily those whose branches had traditionally been support branches, endorsed the plan readily, and suggested improvements in the organization. Later some of the suggestions were to be incorporated.

Activated by Brigadier General Charles L. Scott, the men of the 2d Armored Division were pushed to achieve a state of readiness before the end of 1940. This was difficult because of the shortage of men and equipment. Scott started the men on their way to becoming a battle-ready force, but soon he was assigned to replace the dying Adna Chaffee as 1st Armored Corps Commander. Succeeding Scott was perhaps the most famous commander the division was to have, Major General George S. Patton, Jr. He followed the model outlined by Scott, and then led the division to achieve even higher standards. Training was emphasized to keep the men alive, while inflicting maximum damage on the enemy. Patton, a firm believer in publicity, led the division on an extended road march and in three peacetime maneuvers. While the press made the

division, its exploits, and its colorful commander famous on these maneuvers, critics said that the division would not do as well in combat. When Patton left the division in 1942, he had a trained, battle-ready force, which was polished and honed by his successors. One officer's wife, Mrs. Sidney R. (Regina) Hinds, said that as a result of the training the division received, there was no doubt in her mind that her husband would return alive. That tribute was all that any division commander could ask.

Once committed to battle, the 2d Armored Division showed that armor doctrine had been founded on a solid footing. Most interestingly, when permitted to exploit gains or holes which the infantry created, as in Sicily, their advance was rapid. The men showed that contrary to the critics comments on the peacetime maneuvers, they could make long sustained marches and attacks against an enemy. Battle revealed that the men needed more training, and that became the main activity of the division when not in actual combat. After its initial battle, the division constantly trained, incorporating those ideas learned from experience and observers who witnessed other forces in combat. The division learned a new technique, attacking under overhead artillery fire. The remainder of its skills were those that had been imparted at Fort Benning or during the maneuvers.

The 2d Armored Division owed its success to several factors: training, which created a will for the offensive, continuity of command, and its organization. At no time did the division avoid a fight, unless specifically ordered to do so. Even so, the men had several engagements which might have slowed a less determined division. The most serious struggles faced came after D-Day at Vire, Mortain, Barentan, through

the siegfried Line, the closing to the Roer River, and the bitter struggle through the January 1945 phase of the Battle of the Bulge. They failed to daunt the offensive spirit of the division. At times, the division was slowed to a snail's pace in these actions, but the men continued to move forward against formidable opposition. Then, with a few days of rest and maintenance, they continued to attack.

The 2d Armored Division commanders, Generals Scott, Patton, Crittenberger, Harmon, Kingman, Gaffey, and Brooks, each had the desire to fight the enemy. Removing individual personalities and judging the men on tactical ability, the historian finds that they were all well qualified to command the division. With the exceptions of Brooks and Harmon, the division commanders were promoted to that assignment from within the division. Commanders at all levels demonstrated a concern for the welfare of their men, which the men in the ranks were well aware of and acted to appreciate that concern.

Organizationally, the heavy division was the primary factor in the 2d Armored Division's success. With two armored regiments and an armored infantry regiment, the division was able to maintain itself, in spite of heavy losses. With the huge attachments added, usually an infantry regiment and five to seven artillery battalions, the 2d Armored Division had a combat strength more than twice that of the light divisions, which had only three tank and three infantry battalions. No less an authority on armor warfare than General Patton knew that there was no comparison between the light division and the 2d Armored Division with its powerful attachments.

The 2d Armored Division usually planned only one or two days ahead when operating against the enemy. Flexibility, one of the primary

characteristics of armor, permitted the division commander to shape the combat teams which were employed. With the division's organization, and the usual attachment of an additional infantry regiment, the division commander could create three equal-strength combat teams. Employing mission orders, which gave an objective and zone of attack, also emphasized flexibility and permitted the best utilization of armor. When the division received an assignment of method, it was usually slowed down and suffered higher losses of men and material.

The history of the 2d Armored Division reveals that it came into existence during controversy, that it trained rigorously, and that it became a battle-ready division only after more than two years. As it moved through the war it impressed friend and foe alike. Perhaps one of the greatest compliments it received was during the Battle of the Bulge when, after capturing a German General, he asked how many 2d Armored Divisions the Americans had. He added that the last intelligence reports which the Germans had placed the division north of Aachen. Apparently the enemy failed to consider that the tankers could move the distance involved and be ready for a major fight.

Many students of behavior, then and now, feared the release of the 2d Armored Division's trained killers into society. They thought that the battle hardened veteran would be unable to adjust to a quieter life. What they failed to consider was that, for the most part, the soldier was a civilian at heart, and was simply doing what he thought was his duty. While the soldiers did kill, and delighted in seeing the "master race" fight for discarded cigarettes, the men fed the Sicilian and German children, often denying themselves to do so.



The 2d Armored Division is justly proud of its history, written across two continents, through blazing sun, rain, fog, and snow. Its professional performances revealed an aggressive determination and desire to be a great combat team. Attacking across mud and through snow, it has written its story in blood, sweat, and tears. Bravery was an accepted standard; often the deeds were rewarded with less than the merited decoration. For thirty months, the division fought, and its battle history revealed that once it started toward greatness, it would continue until it had attained that status. The 2d Armored Division epitomized armor warfare during World War II and demonstrated convincingly that it was second to none.

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