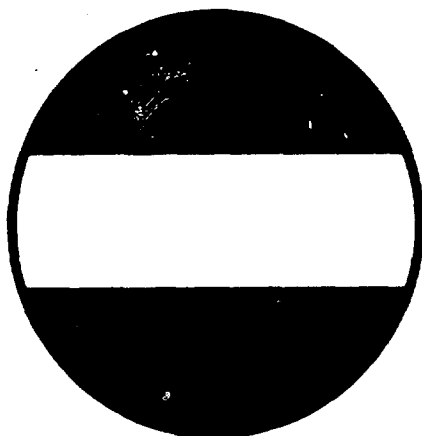


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THE TANK DESTROYER HISTORY

Study No. 29



Historical Section . Army Ground Forces

1946

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TANK DESTROYER HISTORY
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Historical Section - Army Ground Forces
1946

HEADQUARTERS ARMY GROUND FORCES

WASHINGTON 25, D. C.

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1 September 1945

SUBJECT: Studies in the History of Army Ground Forces

TO: All Interested Agencies

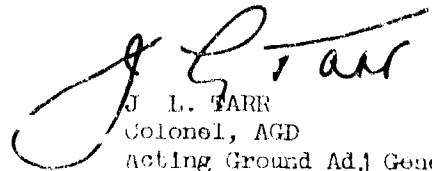
1. The history of the Army Ground Forces as a command was prepared during the course of the war and completed immediately thereafter. The studies prepared in Headquarters Army Ground Forces, were written by professional historians, three of whom served as commissioned officers, and one as a civilian. The histories of the subordinate commands were prepared by historical officers, who except in Second Army, acted as such in addition to other duties.

2. From the first, the history was designed primarily for the Army. Its object is to give an account of what was done from the point of view of the command preparing the history, including a candid, and factual account of difficulties, mistakes recognized as such, the means by which, in the opinion of those concerned, they might have been avoided, the measures used to overcome them, and the effectiveness of such measures. The history is not intended to be laudatory.

3. The history of the Army Ground Forces is composed of monographs on the subjects selected, and of two volumes in which an overall history is presented. A separate volume is devoted to the activities of each of the major subordinate commands.

4. In order that the studies may be made available to interested agencies at the earliest possible date, they are being reproduced and distributed in manuscript form. As such they must be regarded as drafts subject to final editing and revision. Persons finding errors of fact or important omissions are encouraged to communicate with the Commanding General, Army Ground Forces, Attention: Historical Section, in order that corrections may be made prior to publication in printed form by the War Department.

BY COMMAND OF GENERAL DEVERS:


J. L. FARR
Colonel, AGD
Acting Ground Adj. General

1 Incl:
Historical Study



ORLANDO WARD
MAJ. GEN., USA
28 MAY 43 — 24 OCT 43



JOHN H. HESTER
MAJ. GEN., USA
24 OCT 43 — 28 JUNE 44



ANDREW D. BRUCE
MAJ. GEN., USA
1 DEC 41 — 28 MAY 43



ERNEST J. DAWLEY
BRIG. GEN., USA
28 JUNE 44 — 18 MAR 45



ALEXANDER O. GORDER
BRIG. GEN., USA
19 MAR 45

PREFATORY NOTE

The historical record of Tank Destroyers is replete with fast, interesting action and achievement. Brevity being essential, a synoptic narrative history has been presented in one volume with salient reading and statistical detail incorporated in a separate volume - The Appendices.

For example, Major General Orlando Ward's sparkling and penetrating discourse on Tanks and Tank Destroyers is recorded in Appendix Chapter V. Here he says, in part:

"It was unfortunate that The Tank Destroyers, with what is now an obsolete weapon, were first engaged against real enemy armor when the enemy had the initiative. The modern Tank Destroyer, either towed or self propelled, might have changed the tale. --- What commander would want to change 'the young man's spirit', the boldness, the dash, the courage written all over the records of Tank Destroyer action at a time when their weapons were expedient pending production of a weapon fulfilling the tank destroyer concept?"

The list of Board projects, numbering over three hundred, will be found in Appendix Chapter IX. The import of the recommendations made suggests a voluminous history all by itself.

The compiler of this history joined the Tank Destroyer Tactical and Firing Center at Temple, Texas, shortly after its activation. He has remained "on the ground" at Camp Hood throughout Tank Destroyers activities. While an effort has been made to keep the history entirely objective, any deviation therefrom is due to weighing the compendium of objective material and to observing action in propinquity.

The author acknowledges his indebtedness to previous Tank Destroyer Historical Officers, especially to Colonel H. J. McChrystal and to Colonel Wendell Westover, for much of the tabulated historical data.

This Tank Destroyer history is submitted as an objective treatise from inception to 1 September 1945.

CONTENTS :

	Page
Prefatory Note	11
Chapters	
I Origin of the Tank Destroyers	1
II Activities of the Tank Destroyer Tactical and Firing Center at Fort George G. Meade, Maryland	6
III Activities of the Tank Destroyer Command at the Staging Area, Temple, Texas	13
IV Activities of the Tank Destroyer Center at Camp Hood, 21 August 1942--26 May 1943;	23
V Activities of the Tank Destroyer Center 27 May 1943--24 October 1943;	31
VI Activities of the Tank Destroyer Center 2 October 1943--26 June 1944;	36
VII Activities of the Tank Destroyer Center 27 June 1944--18 March 1945;	39
VIII Activities of the Tank Destroyer Center 19 March 1945--1 September 1945;	44
IX The Tank Destroyer Board;	52
X The Tank Destroyer School;	68
XI The Tank Destroyer Unit Training Center;	80
XII The Tank Destroyer Training Brigade;	89
XIII The Tank Destroyer Replacement Training Center;	95
XIV The Tank Destroyer Basic Unit Training Center (Individual Training Center)	101

ILLUSTRATIONS

The Commanding Generals of Tank Destroyer Center.	Frontispiece
Original Expedient Tank Destroyer 75mm Gun on M3 Half Track	Plate I
Expedient Weapon, 37mm Gun on 3/4 Ton Truck M6.	II
General Bruce with Staff and Special Staff.	III
Infiltration under Fire, Battle Conditioning Course	IV
Opening of Camp Hood - 18 September 1942, Assistant Secretary of War Robert P. Patterson, General Donovan, and General Bruce.	V
3" Towed Gun Firing at Buttoned Up Tank	VI
Tank Destroyer Gun Motor Carriage (T70) M18	VII
90mm Gun Motor Carriage M36	VIII
3" Gun Motor Carriage (T35) M10	IX
Armored Utility Vehicle, M39.	X
Car, Armored, Light, MB	XI
Armored Utility Vehicle, M20	XII
3" Towed Gun.	XIII
The Four Tank Destroyers, Expedient and Perfected, M3, M10, M18, M36. . .	XIV

CHAPTER I

ORIGIN OF THE TANK DESTROYERS

Like mercury spilling on a laboratory floor, the tanks and other armored forces of Germany rolled across the plains of Poland in 1939 and again in 1940 rifled through the fortified hills and panoplied valleys of France. Like mercury this armored force dissolved, so to speak, the best armament Poland, France, England, Yugoslavia and Greece could produce. The countries of the world looked on, at first with incredulity, and then with alarm approaching panic. Passive, static and cordon defense had failed to halt or stop the tank supported by planes and infantry. German armor was uncontained.

Prior to 14 May 1941, the accepted United States military doctrine of anti-mechanized warfare was defensive in scope.¹ Such were the tactics in the maneuvers of August 1940, during which practically all antitank guns were employed passively and in cordon defense. In the light of failure of such tactics in Europe and in the August maneuvers of 1940, WD Training Circular No. 3, 23 Sept 1940,² directed that a minimum of antitank guns should be placed in initial fixed positions, and a maximum held as a mobile reserve. This was the first break in a strictly anti doctrine and led eventually to aggressive tactics more compatible with U. S. military tradition.

Some antitank guns existed in divisional artillery but for the most part antitank weapons were at this time allotted to antitank companies of infantry regiments. Such decentralization ran contrary to the principles favored by the War Dept. As late as April 1941, so far as was known by the War Department, of all the armies and corps (excluding the Armored Force), only the VI Corps had issued any instructions on antitank defense.³ "It is beyond belief," wrote Gen. Lesley J. McNair on 12 April 1941, "that so little could be done on the question in view of all that has happened and is happening abroad. I for one have missed no opportunity to hammer for something real in the way of antitank defense, but so far have gotten nowhere. I have no reason now to feel encouraged, but can only hope this apathy will not continue indefinitely."⁴

On 14 April the Chief of Staff, directed prompt consideration be given to the creation of additional highly mobile antitank - antiaircraft units, as corps and Army troops in addition to organic antitank weapons.

Just prior to receipt of the above directive, the Asst Chief of Staff G-3, War Dept. had held on 15 April 1941 the first of a series of antitank conferences.⁶ Offices represented in addition to G-3 War Dept. were: Chief of Infantry, Chief of Field Artillery, Armored Force, Chief of Cavalry, Chief of Coast Artillery, General Headquarters and the War Plans Division, War Department General Staff.

This conference resulted in approval by all for offensive antitank tactics, but was marked by disagreement over the organization and command of antitank units. On branch responsibility, the Chiefs of Infantry, Artillery, and Cavalry each thought his arm should exercise and develop responsibility for antitank defense. The Chief of the Armored Force did not want the burden of antitank defense, deeming it counter to the offensive character of the Armored Force. He recommended the creation of a provisional antitank arm which was the view favored by General Headquarters.

It was decided to retain the antitank companies in Infantry regiments, General Headquarters not concurring, to create divisional antitank battalions and to transfer 37mm antitank guns from the Field Artillery, the Chief of Field Artillery disapproving, and to form a central reserve of General Headquarters antitank battalions, though in smaller number than desired by General Headquarters.⁷

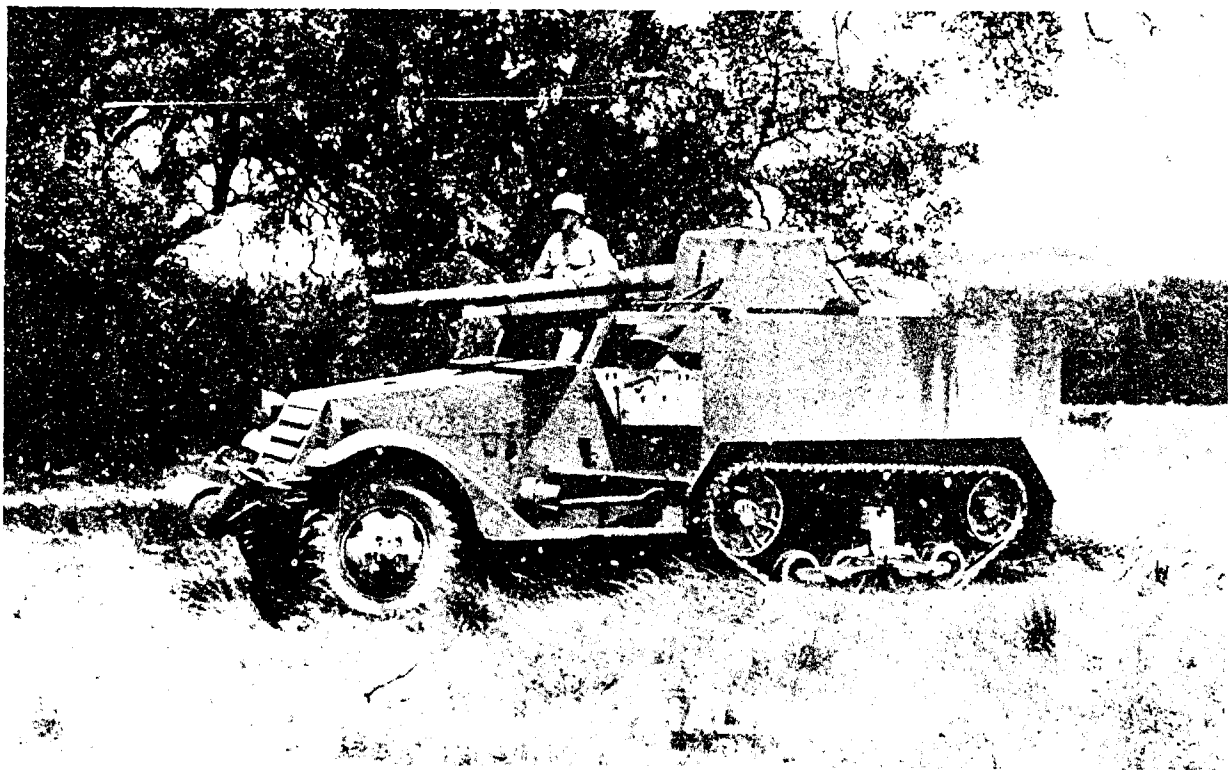
The subject of branch responsibility for antitank defense was still a big problem for the War Department General Staff⁸ when on 14 May 1941, General George C. Marshall, Chief of Staff, directed the Asst Chief of Staff G-3 to take immediate action on antitank measures to include an offensive weapon and organization to combat armored forces. In this directive, Gen Marshall indicated that defense against armored forces was a problem beyond the capabilities of any one arm and probably required the organization and use of a special force of combined arms, capable of rapid movement, interception and active rather than passive defense tactics. The Chief of Staff further directed that the question of another branch or arm was to be tabled, but a planning branch was to be organized to tackle and solve unsolved problems and measures against armored forces. The G-3 Section of the War Department General Staff was given the assignment and directed to work closely with the National Defense Research Committee, Inventors Council, G-2 and the development people in G-4.⁹ The following day the planning branch was established in G-3 War Department under Lt Col Andrew D. Bruce.¹⁰

Col Bruce held a third antitank conference on 26 May 1941 in which it was decided to leave antitank companies with the infantry regiments. Each divisional and higher headquarters was to appoint an antitank officer and new provisional antitank battalions were to be organized at once with weapons taken from the artillery. The most outstanding decision was to establish before the end of 1941 a "large antitank unit."¹¹ Provisional antitank battalions were activated by War Department letter 24 June, and antitank officers were appointed in divisions and higher units.¹²

An historic antitank conference called by the Asst Chief of Staff G-3, War Department, was held at the Army War College in Washington from 14 to 17 July 1941. The purpose of the conference was "to inform antitank officers of the antitank problems, the proposed test in maneuvers, the latest mechanized antitank doctrine, the latest developments in mechanized and antitank means and all duties of antitank officers in organizations." Attending the conference was representatives from General Headquarters, from G-1, G-2, and G-3 of the War Department General Staff, and the recently appointed antitank officers of armies, corps, divisions and service schools.¹³ Brigadier General H. L. Twaddle, Asst Chief of Staff, G-3, War Department, opened the conference with the declaration that, "stopping enemy tanks and other mechanized vehicles is the biggest job confronting our army today." Colonel Bruce, Chief of the Planning Branch, spoke on the AntiMechanized Problem. He referred to the studies that had been made of the problem for months past, as witnessed by training circulars, field service regulations and other publications, as well as numerous conferences with interested agencies. Colonel Bruce reported on the work of the Planning Branch and emphasized the fact that the broad aspects of the antimchanized problem were divided into two phases that should be solved simultaneously rather than successively: first, making use of what was immediately available and placing it in the proper organization; and second, the development of weapons, organization and tactics superior to foreign development. That portion of the tentative plan of the Planning Branch most vital in Tank Destroyer development was: first, to form divisional antitank battalions in each foot infantry division, motorized infantry division, and possibly, armored force division; and second, to form General Headquarters Antitank battalions and General Headquarters Destroyer battalions. Colonel Bruce discussed the controversial questions of limbered weapons, and guns pointing to front or rear, but in line with the new antitank offensive doctrine inspired by General Marshall, he favored a gun pointing to the front or in a turret.

The genesis of the original Tank Destroyer -- a 75mm gun mounted on a half-track -- was related by Colonel Bruce. During an interview with a French ordnance designer, Colonel Bruce learned that some units had successfully used an old 75mm gun mounted on a 5-ton truck and pointed to the rear. The desire for action on the part of the Planning Board necessitated the best use of available means and there were several hundred 75mm guns on hand. They were mounted on a half-track as a

substitute for an ideal tank destroyer in order to create a provisional tank destroyer unit for field test during the autumn maneuvers. Colonel Bruce exhibited the 75mm gun mounted on the halftrack to the personnel of the conference but explained that the tank destroyer unit as visualized by the Planning Branch was a fast moving vehicle armed with a weapon with a powerful punch, which could be easily and quickly fired, and in the last analysis having armored protection against small arms fire, so that the weapon could not be put out by a machine gun. Colonel Bruce further described the ideal tank destroyer as a "cruiser" rather than a "battleship" and such a description seemed apt in considering the closing remarks of General McNair when he said, in part, "the counter-attack long has been termed the soul of defense. Decisive action against a tank attack calls for a counterattack in the same general manner as against the older forms of attack. A counterattack, of course, may be delivered by other tanks, but the procedure is costly. There is no reason why antitank guns, supported by infantry, cannot attack tanks just as infantry, supported by artillery, has attacked infantry in the past. Certainly it is poor economy to use a \$35,000 medium tank to destroy another tank when the job can be done by a gun costing a fraction as much."



General McNair further called attention to the gravity of the task which faced the conference and directed that they thoughtfully and resolutely set out to find the answer, first by study and analysis, and then by practical application and test in the field with troops.

The policy of offensive action and centralized control of antitank guns stressed at the July conference was tried out in the Louisiana maneuvers held in September 1941. The umpire manual was carefully revised to give an accurate picture. New rules were prescribed for the laying of dummy mine fields.¹⁴ The antitank officers of field units were informed of developments in the July conference.

Provisional antitank battalions were available. They were attached to the 3rd Army on maneuvers, for use against the armored elements of the Second.

On 8 August 1941, a directive was issued by General Headquarters to the Commanding General of the Third Army on the tactical employment of antitank battalions.¹⁵ He was instructed to organize nine battalions into three "groups", each group to consist of three battalions and to have, in addition, fully motorized, a headquarters company, ground and air reconnaissance elements, and intelligence, signal, engineer and infantry units. Both offensive and defensive tactics were outlined in the directive with preference expressed for speedy and aggressive action to search out and assault opposing tanks before they assumed formation.

The antitank units were handled satisfactorily in the Louisiana maneuvers except for a tendency to dissipate their strength and to commit them to positions prematurely. They were again used as provisional battalions with their group organizations in the Carolina maneuvers in November 1941.¹⁶

For long-range planning, in accord with General Marshall's directive of 14 May, the Planning Branch, G-3, War Department, published a detailed memorandum on 18 August 1941. It was designed for an army of fifty-five divisions, then envisaged by the War Department, and proposed the equivalent of four antitank battalions per division; fifty-five (or one each) for the divisions, fifty-five for armies and corps, and one hundred and ten for General Headquarters. In the directive referred to hereinbefore, General Marshall had stipulated that the question of a new branch or arm should not be raised at that time. The old arms--infantry, field artillery, etc.--were therefore now given the responsibility for creating the new antitank battalion; and the antitank center, on the establishment of which all were agreed, was to be put under the authority of the chief of the armored force.¹⁷

The office of the Chief of Staff acted on the G-3 memorandum on 8 October 1941. The provisions for dividing antitank responsibility among chiefs of branches were rescinded. The antitank center, made independent of the armored force, was to be established under War Department control. Provision was made for organic antitank battalions in divisions, corps, and armies, and for the continuance, by the battalions already provisionally organized, of their association with the infantry, field artillery, or other arm in which they had originated.¹⁸

A War Department letter of 27 November 1941, officially ordered the activation, on or about 1 December, of a Tank Destroyer Tactical and Firing Center. Colonel Bruce was to command the new center. Earlier in the month--4 November--Colonel Bruce had been relieved from assignment and duty in the office of the Chief of Staff and assigned to command the Tank Destroyer Tactical and Firing Center, Washington, D. C. "pending the announcement of a permanent site."

The letter of November 27 made no provision for antitank battalions in divisions, corps or armies. The fifty-three antitank battalions whose immediate activation was ordered were all to be under General Headquarters, but might be attached to lower echelons for training.¹⁹

A War Department order of December further reduced the connections still existing between the antitank battalions and the several arms. "Antitank" battalions were redesignated "tank destroyer" battalions, the old termavoring too much of passive defensive tactics. All tank destroyer battalions, it was repeated, were allotted to General Headquarters. Antitank units in cavalry divisions and field artillery battalions and regiments in continental United States were to be inactivated. Infantry antitank battalions were to lose the name "infantry", be renumbered, and redesignated as "Tank Destroyer" battalions.

The net effect was to create a new homogeneous tank destroyer force, composed of battalions, only nominally connected with the older arms. Of these battalions only the 93d, under command of Lt. Colonel Richard G. Tindall, was complete from the first with full reconnaissance and other supporting elements. It was assigned on 30 January 1942, as school troops, to the Tank Destroyer Tactical and Firing Center.²⁰

SUMMARY: Passive, static and cordon defense doctrine against armored forces had failed miserably in Europe during 1939-40. The military doctrine and tactics of the United States were antitank or defensive in scope. Some method had to be found to counter the growing achievements of armored forces. A counterattack negating passive defense -- antidoctrine -- was introduced by General Marshall in advocating and directing an offensive weapon and organization to combat armored forces. It was beyond the capabilities of any one arm. A new force, under strong direction and responsible to General Headquarters, was necessary. Antitank organizations and the antidoctrine were retained in the infantry regiments but, in addition thereto, tank destroyer battalions capable of offensive and defensive tactics, were organized and the Tank Destroyer Tactical and Firing Center was chosen as the means of developing the organization, tactics and doctrine of the new provisional arm--tank destroyer.

CHAPTER II

ACTIVITIES OF THE TANK DESTROYER TACTICAL AND FIRING CENTER at Fort George G. Meade, Maryland

Lieutenant Colonel (later Major General) Andrew D. Bruce was relieved as head of the Planning Branch, G-3, War Department, and assigned as Commanding Officer of the Tank Destroyer Tactical and Firing Center, Washington, D. C. on 4 November 1941.¹ The selection of this officer for such an important duty appeared most logical in view of his four years of service on the War Department General Staff² and his efforts in the preliminary planning for antitank warfare.

On 27 Nov 1941 the War Department issued to the Commanding Officer of the Tank Destroyer Tactical and Firing Center a directive which provided detailed instructions for organization of the Center on 1 December 1941 with temporary station at Fort George G. Meade, Maryland.³ The new Center consisted of: a Headquarters, a Tank Destroyer Board, a Tactical and Firing Center, and a Tank Destroyer School. The Commanding Officer of the Tank Destroyer Tactical and Firing Center was also designated as the Commandant, Tank Destroyer School. The installation was an exempted activity operating under War Department control.

The following mission was assigned by the War Department:

- (a) To formulate, develop and make recommendations to the War Department concerning tactical and training doctrine, improvement and future expansion of tank destroyer forces.
- (b) To cooperate with chiefs of supply arms and services in developing tank destroyer materiel and in making recommendations to the War Department on this subject.
- (c) To organize and operate the Tank Destroyer Tactical and Firing Center, Tank Destroyer Board, and Tank Destroyer School.⁴

Pending the selection of a permanent site, Colonel Bruce with his secretary and a meager number of officers arrived at Fort Meade on 1 December 1941 and proceeded to set up the new Tank Destroyer Tactical and Firing Center, using the limited facilities available.⁵ On 18 November 1941, the War Department had approved for the Center a tentative allotment of eighteen Regular Army officers of field grade, and fourteen reserve officers from Captain to Lieutenant Colonel.

The officers assigned to the Center under this allotment began arriving on 1 December 1941 and by 30 December a skeleton staff had been organized with all officers performing numerous tasks in addition to their regular duties.⁶ Civilian employees authorized by the War Department were used to assist with clerical work and an Adjutant General section was organized to act as an office of record and to handle administrative and personnel matters.⁷

Immediately, the Center was faced with the problems of: perfecting and expanding its own administrative organization; establishing liaison with War Department General Staff sections, and various branches of the service, particularly with Ordnance, and with such organizations as the National Defense Research Committee and the Inventors Council; selecting and testing expedient weapons; and locating a permanent site for the expanding Center.

The establishment of liaison, with Aberdeen Proving Ground, the Armored Force, and the War Department agencies⁸ began at once. The necessity for speed in organizing the Tank Destroyer Tactical and Firing Center into an efficient agency for the supervision and development of Tank Destroyer units was emphasized by the War Department's

directive of 3 December 1941. This directive to the Commanding Generals of all armies and groups and the Chief of the Armored Force, ordered the inactivation, effective 15 December 1941, of all antitank troops in cavalry divisions, and of all antiaircraft - antitank platoons and antitank batteries in field artillery battalions and regiments in continental United States. The eight infantry antitank battalions then existing were redesignated "tank destroyer" battalions and were reorganized as heavy self-propelled battalions.⁹

The same War Department letter directed the activation, effective 15 December 1941, of twenty-eight light and sixteen heavy tank destroyer battalions, which were allotted to General Headquarters reserve.¹⁰ These organizations were to be formed, insofar as available equipment and personnel allowed, as follows:

Heavy battalions--three gun companies armed with twenty-four 3-inch antitank guns, self-propelled (substitute 75mm gun, self-propelled); twelve 37mm antitank guns, self-propelled; eighteen 37mm antiaircraft guns, self-propelled.

Light battalions, towed--thirty-six 37mm antitank guns, towed; eighteen antiaircraft machine guns, dual mount, caliber .50, self-propelled.

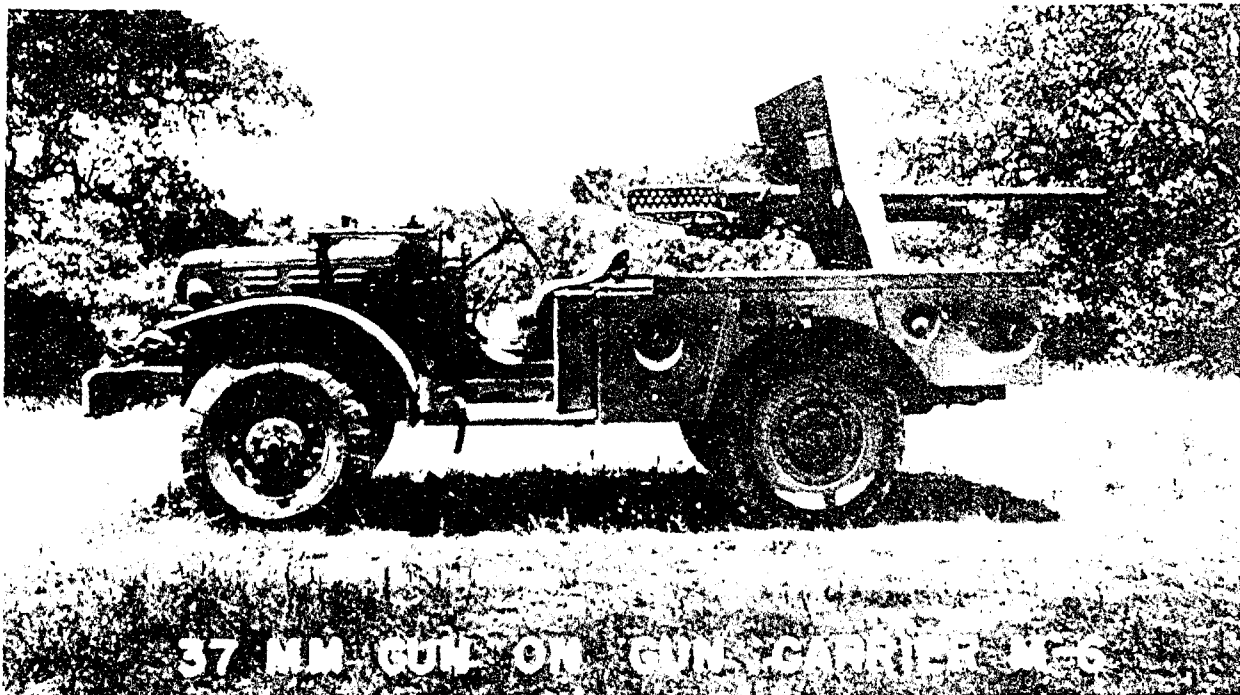
Light battalions, self-propelled--thirty six 37mm antitank guns, self-propelled; eighteen antiaircraft machine guns, dual mount, caliber .50, self-propelled.¹¹

Thus the Commanding Officer of the Tank Destroyer Tactical and Firing Center was confronted with two chief problems: first, that of building his own administrative organization for the rapidly expanding Tank Destroyer activities; second, the preparation of tables of organization and equipment, weapons, doctrine and training for tank destroyer battalions activated. These two problems necessitated simultaneous action.

Colonel Bruce immediately established his own staff sections and informally activated the Tank Destroyer Board, whose chief functions were the development of new weapons and equipment, the improvement of existing weapons, the formulation of tank destroyer tactical doctrine and preparation of tables of organization.

In addition to pushing the Center's administrative expansion, Colonel Bruce planned for the future needs of the Center, and tank destroyer organizations. On 11 December 1941, he recommended to the War Department that a tank destroyer group headquarters be activated at once and assigned to the Center. The tactical necessity for tank destroyer groups had been anticipated but initially the group was to be used as an expedient for facilitating administration of the Center and its school troops.¹² The request for activation of a tactical group headquarters for experimental purposes was disapproved by the War Department on the basis that it did not appear to be urgent and, because it was thought a sufficient allotment of personnel was already available for the Center.¹³

Colonel Bruce had earlier visualized the necessity for the establishment of a replacement training center for tank destroyer personnel in addition to a school and firing center.¹⁴ On 12 December 1941 the War Department, stated that it did not concur in the recommendation for establishment of a replacement training center as part of the Tank Destroyer Tactical and Firing Center, and directed that existing replacement centers be used. This memorandum suggested a unit training center for newly activated organizations.¹⁵ The suggestion in regard to unit training center was noted and such a center was activated on 9 March 1942.



Under the War Department directive organizing the Tank Destroyer Tactical and Firing Center, it was realized that training for officers and enlisted men in existing service schools was an absolute necessity. On 19 January 1942, from the limited number of officers and enlisted men available for the Center, it was recommended by the Center that twenty-five officers and two hundred thirty-two enlisted men be sent to service schools for special training.¹⁶ Thus the Center established the policy of thoroughly preparing personnel who were to become instructors.

Additional officer personnel was requested on 20 January 1942. This letter listed by grade and proposed assignment, specialists in such subjects as automotives and supply, which were desired for assignment to the Center staff and faculty pending the activation of the Tank Destroyer School at the Center's permanent location.¹⁷ These officers were again included in the allotment of 287 officers and 1440 enlisted men requested by the Center on 31 January 1942 from the War Department. Tables of organization for the Tank Destroyer Tactical and Firing Center, Headquarters, Headquarters Company, School Troops Headquarters, Unit Training Headquarters, the Tank Destroyer Board, and Tank Destroyer School Training Regiment, were enclosed with the memorandum.¹⁸

A budget estimate calling for funds in the amount of \$127,991.53 for the period from 1 February 1942 through 30 June 1942, was submitted by the Tank Destroyer Tactical and Firing Center on 31 January 1942. The day before this estimate was submitted, the Center had been allotted \$31,500.00 of Special Field Exercise funds. This allotment was the chief fund of the Center from its activation until 21 May 1942 when \$116,169.00 was allotted by the Quartermaster General to cover 1 February - 30 June 1942. Such meager funds necessitated maximum ingenuity in procuring supplies.¹⁹

Another administrative problem confronting the Tank Destroyer Tactical and Firing Center at this time was that of ammunition allowances and tactical gasoline and lubricant estimates. Army Regulation 775-10 did not specifically consider tank destroyer needs and the War Department believed that allowances indicated for types of weapons in use by tank destroyer battalions would be sufficient. A further complication on ammunition was that during this period, immediately following Pearl Harbor, every branch of the service had representatives in Washington seeking equipment and ammunition. Ammunition allowance for tank destroyer units in excess of that provided in Army Regulation 775-10 was secured, however, following a series of conferences in Washington.²⁰ Required estimate of tactical gasoline and lubricants was submitted to the War Department on 29 January 1942.

The request by the Center of 31 January 1942 for additional personnel was acted on by the War Department 13 February 1942 and 20 February 1942. Personnel were allotted with some slight variation in number of commissioned officers and enlisted men. Various arms and services were included in the allotment and were to be determined by the Commanding Officer of the Center.

The second major problem of the Tank Destroyer Tactical and Firing Center was that of providing and improving available equipment for activated Tank Destroyer battalions, building up and revising the tables of organization for each of the three type battalions activated, and the preparation of a field manual establishing standard procedure of tactics, doctrine and training. While this problem itself was divided into several phases, they were all related to the one important proposition of equipping and making ready for combat the tank destroyer battalions activated by the War Department.

With respect to a tank destroyer weapon, the production of the M-3 tank destroyer-- the 75mm gun mounted on a halftrack-- continued. This expedient weapon had been developed during the late summer of 1941 by the Planning Branch, G-3, War Department.²¹ Eighty-six of these weapons had been produced by 1 December 1941 and fifty of them had been sent to the Philippines where they were used effectively as self-propelled artillery.²² The balance had been issued to the 1st Provisional General Headquarters Tank Destroyer Battalion (93rd Antitank Battalion.)

Another early expedient weapon which became a standard substitute was the motor mount M-6-- the 37mm gun mounted on a 3/4 ton truck. This mount was desired by the Center solely as a training expedient for use while a light armored car was developed for tank destroyer use.²³

The Tank Destroyer Board began at once a search of more than two hundred vehicles listed by the Ordnance Department for vehicles embodying characteristics of the "super-dupe" tank destroyer as visualized by Colonel Bruce. The development of this ideal tank destroyer, the testing and improving of equipment supplied to tank destroyer battalions, as well as the work on tables of organization, and doctrine and training, were functions of the Tank Destroyer Board and are more particularly delineated in Chapter VIII.

The original tables of organization provided for a reconnaissance company, three gun companies and a headquarters company. Field tests and maneuvers had demonstrated that the original concept of providing a reconnaissance company with equipment which would furnish the company with a high degree of mobility, protective armament, light armor protection, and adequate means for rapid transmission of information, was correct. Any tendency to add armament or striking elements capable of a reconnaissance in force seemed undesirable at this time. Tanks were therefore eliminated from the provisional organization.²⁴ Maneuver experience had also demonstrated the necessity of organizing a security section, equipped with light machine guns and rifles, to operate with each tank destroyer platoon to reconnoiter gun positions and to protect the guns while in position.²⁵

The first published results of the study of tank destroyer tables of organization which had been going on since establishment of the Center at Fort Meade were released on 13 December 1941, when tentative tables of organization were sent to commanders of tank destroyer battalions. In an accompanying note, Colonel Bruce stated that these were not official tables and should be used only as a guide in organization. The charts provided for organization of the three types of battalions authorized by the War Department--light, towed; light, self-propelled; and heavy, self-propelled

The need for a higher headquarters to facilitate tactical training of two or more battalions led to the development of a group headquarters organization.²⁶ Official Table of Organization 18-10-1, Tank Destroyer Group Headquarters and Headquarters Company, was issued by the War Department on 5 January 1942. It prescribed that two or more tank destroyer battalions were to comprise a tank destroyer group and the group headquarters and headquarters company was provided with personnel and equipment to enable it to function both as an administrative and tactical unit.²⁷

After much study and analysis on the subject of developing a single standard type battalion which would greatly simplify planning and organization, the Commanding Officer of the Center recommended to the Commanding General, Army Ground Forces, on 19 March 1942, that the heavy, self-propelled battalion should be adopted as standard.²⁸ This recommendation was approved and the table of organization for a single standard type tank destroyer battalion was published 5 June 1942.

Concurrent with the Tank Destroyer Board's other projects, Field Manual 18-5, Organization and Tactics of Tank Destroyer Units, was being written. It was completed during the early part of May 1942, and published on 16 June 1942. Although this manual has since been revised, tank destroyer officers most closely associated with the development of tank destroyer doctrine and tactics, some of whom have observed tank destroyer units in action overseas, believe that the basic doctrine set forth in this first edition of Field Manual 18-5 was, and is, correct.

The tables of organization, and organization and tactics of tank destroyer units, were founded for a large part on the notes compiled by Colonel Bruce and Lt. Colonel Richard G. Tindall, Commanding Officer, 93rd Antitank Battalion, during the summer and fall maneuvers of 1941. This Battalion was released from War Department control, assigned to the Tank Destroyer Tactical and Firing Center on 13 December 1941 and redesignated as the 893rd Tank Destroyer Battalion (heavy, self-propelled) on 15 December 1941.²⁹ On 30 January 1942, this Battalion became the first organization to be designated as Tank Destroyer Tactical and Firing Center School Troops.³⁰

From the date of its activation the Center had been confronted with the problem of deciding upon a site to recommend for its permanent location. Sites had been considered by the War Department near Waco, Paris, and Bastrop, Texas; Durham, North Carolina; Hopkinsville, Kentucky; and Clarksville, Tennessee. Recommendations had been made by the Assistant Chief of Staff, G-3, War Department, as early as 11 August 1941, that the Waco site not far from that at Killeen, be selected.³¹

Governing factors in selection of the site were availability and topographical fitness of land for tactical maneuvers and ranges, cost of land, water supply, availability of utilities, effect of general climatic conditions on training, adequate communication facilities (rail or road), central location, lack of congestion due to proximity of other large camps and proximity to recreational facilities.³²

Preference of Colonel Bruce for a site near Killeen, Texas, was expressed on 7 October 1941 in a memorandum to the Assistant Chief of Staff, G-3, War Department.³³ Despite the pressure of other duties, Colonel Bruce and other officers of the Center, accompanied by two representatives from the Chief of Engineer's Office, were able to

leave Fort Meade on 19 December 1941, to visit the proposed permanent camp site near Killeen, Texas. Although its selection had not yet been officially announced, Colonel Bruce, on 6 January 1942, felt sufficiently sure of the Killeen site to request that the Chief of Army Air Forces locate an observation squadron there for use in training.³⁵ On the next day, in a memorandum for the Assistant Chief of Staff-G-1, War Department, it was requested by the Center that its commanding officer be designated as commander of the camp to be constructed at Killeen in order to prevent a duplication of staffs at Center and post headquarters.³⁶ Favorable action on this request was taken by the War Department, 9 January 1942, and Colonel Bruce was designated by letter orders dated 17 January 1942 to command "the cantonment at Killeen, Texas."³⁷

On 30 January 1942, the cantonment was named "Camp Hood," in honor of General John Bell Hood, Confederate States Army, commander of the Texas Brigade in the Civil War.³⁸ This name was selected because it had the advantages of being short and easily remembered, of appeal to the Texans in whose midst the camp was located, and of association with a historic American commander.

On 11 January 1942, the Tank Destroyer Tactical and Firing Center was transferred from Fort George G. Meade, Maryland, to a permanent station at Killeen, Texas, commencing on or about 15 January. Temple, Texas, was designated as a staging area, pending availability of facilities at Killeen.³⁹

Although the Tank Destroyer Tactical and Firing Center and its then existing components were designated exempted installations operating under the War Department, the camp to be established at Killeen was designated as non-exempt and subject to normal echelon command.

A member of the Tank Destroyer Tactical and Firing Center staff was at once ordered to Temple, to make a preliminary survey of facilities there. He requested and received authority from the Commanding General, Eighth Corps Area, to rent office space; and made arrangements with civilians in Temple for the organization of a billetting board to fix rents and list available housing for military personnel.⁴⁰

The forward echelon of the staff and the area engineer arrived in Temple on 16 January 1942.⁴¹ The first enlisted detachment ordered to the staging area comprised eight men of the 893rd Tank Destroyer Battalion, who were ordered to Temple on 2 February 1942 to drive government vehicles.⁴² By 3 February 1942, a complement of seven officers of the Tank Destroyer Board had preceded the movement of headquarters and were established in temporary offices at Temple ready to continue development of tank destroyer tactics, organization and weapons.⁴³

The advance echelon at Temple immediately attached problems on improvement of roads within and surrounding the reservation, measures to safeguard the health of military personnel in the new camp, inspections of public eating places to insure a sanitary condition, and the institution of vigorous measures to suppress prostitution. Officials of Bell, Coryell and Lampasas counties met, conferred and acted upon the suggestions of the officers from the Tank Destroyer Tactical and Firing Center. The formation of the Central Texas Health District with funds appropriated by the three counties was a direct result of the initial efforts of the officers of the Tank Destroyer Tactical and Firing Center at Temple, Texas.

Activities of the Center closed at Fort Meade at 1200, 14 February 1942 and the advance echelon opened Center headquarters at Temple, Texas, at the same date and hour.⁴⁴

SUMMARY: The administrative organization of the Tank Destroyer Tactical and Firing Center was projected at Fort George G. Meade, Maryland, during the period

1 December 1941 to 14 February 1942. This was accomplished concurrently with administrative and training organization designed to equip and train tank destroyer battalions activated within fifteen days after the activation of the Center itself.

The problems confronting the new Tank Destroyer Tactical and Firing Center were numerous, viz: lack of trained and experienced personnel; no antecedent special school for basic training; lack of equipment; lack of tables of organization; and lack of needed facilities, the selection of which constituted a major problem in itself.

CHAPTER III

ACTIVITIES OF THE TANK DESTROYER COMMAND at the Staging Area, Temple, Texas

The Tank Destroyer Tactical and Firing Center began the second phase of its activities with the opening of its headquarters in Temple, Texas, at 1200, 14 February 1942.

Its mission, as stated in the War Department directive of 27 November 1941, which ordered its activation, was a triple one:¹

- (a) To formulate, develop, and make recommendations to the War Department concerning tactical and training doctrine, improvement, and future expansion of tank destroyer forces.
- (b) To cooperate with chiefs of supply arms and services in developing tank destroyer materiel and in making recommendations to the War Department on this subject.
- (c) To organize and operate the Tank Destroyer Tactical and Firing Center, Tank Destroyer Board, and Tank Destroyer School.

The principal activity of the Center at Fort Meade had been the planning prerequisite to functioning according to mission in toto with greater emphasis placed on organization for the future expansion of tank destroyer forces. At Temple, Texas the Center's principal activity while continuing mission as stipulated in paragraph (a) above, was more particularly directed to the second and third missions.

Temporary offices were established in various buildings in the Temple business district. Conferences were initiated by the staff sections of the Center and the Eighth Corps Area Headquarters at Fort Sam Houston, San Antonio, Texas. These conferences were for the purpose of discussing supply, service command personnel needs, temporary installations in Temple, the acquisition of Camp Hood reservation, the building of the cantonment, sites for ranges, temporary base camps and an airfield.²

When Colonel Bruce arrived in Temple on 16 February 1942, thirty officers of his staff had preceded him and the Center was organized and functioning. Two days later Colonel Bruce was promoted to Brigadier General with grade and date of rank from 16 February.³

Among the growing number of pressing problems which demanded immediate attention were: billeting of military personnel; completing the acquisition of the reservation area and moving therefrom approximately 200 families; construction of the cantonment; construction of ranges to meet expanding requirements; preparation for training of tank destroyer units in temporary field camps pending the completion of the construction; and establishment of subordinate headquarters to direct training. All of the above problems were necessary in that they furthered the accomplishment of the Center's pressing mission of developing tank destroyer units trained and equipped for combat missions.

The problem of locating and listing quarters for personnel was critical. Facilities in the area were limited, and it was difficult to hold rents at a reasonable level. On 22 February 1942, an officer was appointed to consult with a civilian rent committee and control the lease arrangements of military personnel.⁴ Under the policy of requesting civilian participation unexpected housing was developed and rents were much more favorable than under later developments under the Office of Price Administration.

The division engineer of the Eighth Corps Area had established a real estate branch in Gatesville, Texas, and proceeded to acquire the needed land by securing options from owners. This method proved too slow and it was necessary to obtain a "take order" through the Federal Court in Waco, Texas for securing the lands needed.⁵ The families in the area, many of them representing four generations, were somewhat dazed when confronted in January with the fact, first: that their land was to be taken and, second, that they would have to move within a period of four months. In a few cases great reluctance was indicated and even open avowal that they would not move. General Bruce, while being firm about the matter, was at all times kind and reasonable and wisely refrained from any show of military might. He simply referred the problem to the Federal Marshal at Waco, Texas and the Federal Marshal, using civilian processes with which the inhabitants were acquainted, readily achieved the results desired by the military. In this manner, friction was avoided between the military and any of the inhabitants and a spirit of cordiality was developed between them.

Plans had been prepared by the Quartermaster General for housing at Camp Hood.⁶ While there were no building requirements peculiar to the organization and equipment of the tank destroyer battalion, General Bruce recommended that the housing requirement be the largest of the three types -- that the heavy, self-propelled battalions be adopted as a standard for all tank destroyer construction.

Since General Bruce had been put in command of the cantonment at Killeen, he was enabled to go direct to the area engineer, Major Gerald R. Tyler, and achieve action without delay. The original plans for the Camp Hood cantonment called for housing for 2,262 officers and 33,612 enlisted men. Initial construction was started 7 April 1942.

On the 24th of February the first step was taken toward solution of the problem of ranges and training aids by the appointment of a board of officers to consider the type, number, location, approximate cost and other details connected with the construction of field facilities on the reservation.⁷ The board submitted its report on 14 March, recommending that nineteen different types of ranges and other training aids be constructed at a total cost of \$230,662.27. This construction was approved and expenditure ratified by letter of 1 April 1942 from the Commanding General, Army Ground Forces. Temporary ranges were constructed and used until the completion of these permanent facilities.⁸

With the knowledge that housing facilities would not be available for tank destroyer units for at least six months, reconnaissance was made in the reservation for field camps. Sites were chosen for the 893d Tank Destroyer Battalion which arrived at Camp Hood 31 March 1942, and for the 753d Tank Battalion (medium) on 14 April 1942, which organizations were assigned as school troops.⁹ Field camps were largely constructed of salvage material from old abandoned CCC camps in the Eighth Corps Area.

The expansion of the Center's administrative organization to set up subordinate headquarters and to care for the tank destroyer training and development program projected for Camp Hood was accomplished on 9 March 1942. The following organizations were activated:¹⁰

Headquarters and Headquarters Company, Tank Destroyer Tactical and Firing Center.

Unit Training Center, commanded by Colonel (later Brigadier General) Richard G. Tindall, consisting of Headquarters; Headquarters and Headquarters Company, First Tank Destroyer Group; Headquarters and Headquarters Company, Second Tank Destroyer Group.

Tank Destroyer School Training Regiment, commanded by Lieutenant Colonel (later Colonel) George S. Beatty.

Tank Destroyer Board, president, Colonel Fay Ross.

Headquarters and Headquarters Company, School Troops (activated without personnel).

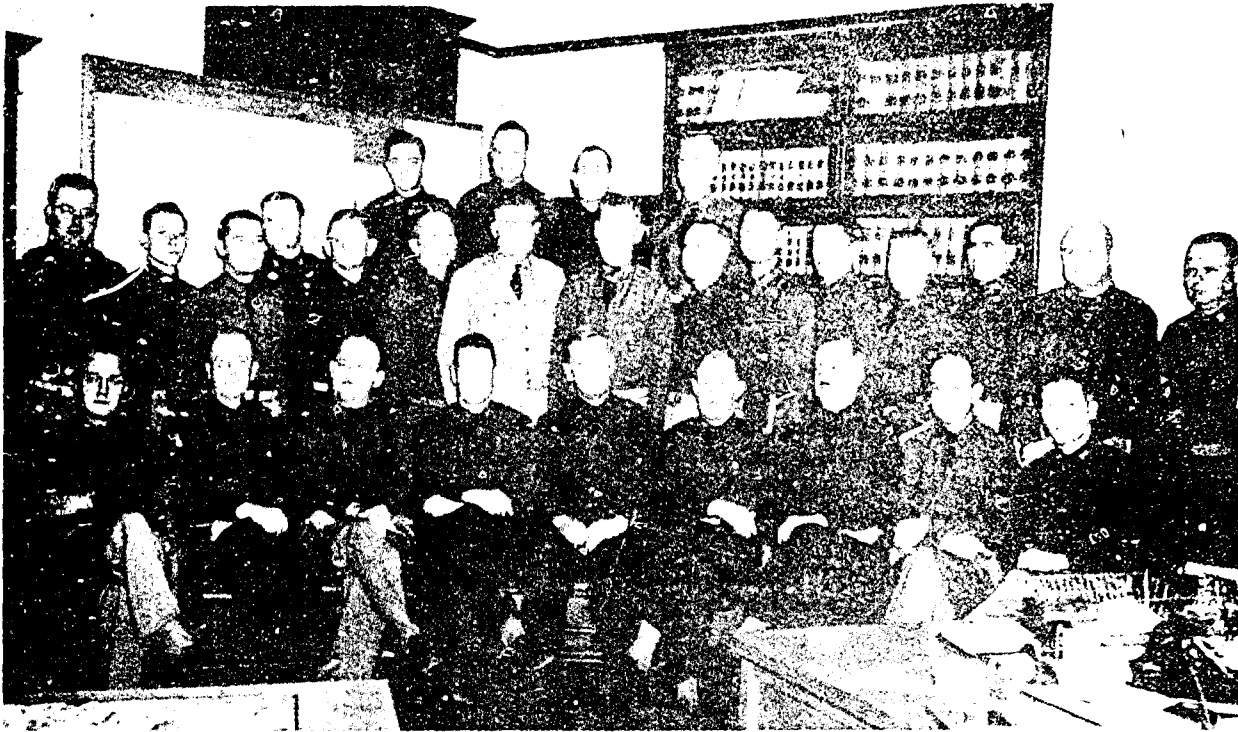
Although not mentioned in the activation order of 9 March 1942, the Tank Destroyer School was activated on that date and its activation confirmed and made of record on 15 July 1942.¹¹ Colonel (later Brigadier General) Hugh T. Mayberry was relieved from assignment to Headquarters, Tank Destroyer Tactical and Firing Center, on 11 March 1942, and was assigned to the Tank Destroyer School Training Regiment for duty as assistant commandant, Tank Destroyer School.¹² The Center had requested by letter on 9 May 1942 to Army Ground Forces that the officer directly in charge of the Tank Destroyer School--the Assistant Commandant--be designated as Commandant. This position had been held by the Commanding General of the Tank Destroyer Tactical and Firing Center.

The mission of the Tank Destroyer School Training Regiment was the messing, housing and supplying of Tank Destroyer School personnel, both temporary and permanent. The mission of the School Troops was to furnish demonstration units to the School, Unit Training Center and Board. In the same letter requesting that the Assistant Commandant of the School be designated as Commandant, authority was requested by the Center to redesignate the Tank Destroyer School Training Regiment as the Tank Destroyer School Service Regiment, in line with its functions as a housekeeping organization. Accordingly the School Training Regiment was redesignated as the School Service Regiment on 22 May 1942,¹³ and Colonel Mayberry was assigned as Commandant of Tank Destroyer School on 27 May 1942.¹⁴ On 14 March 1942, The Tank Destroyer Tactical and Firing Center was redesignated the Tank Destroyer Command and placed under the Army Ground Forces.

The Tank Destroyer School was organized into a headquarters and five academic departments-- tactics, communications, pioneer, automotive and weapons.¹⁵ Using officer personnel of these departments and the Unit Training Center, and assistant instructors and demonstration units from the 893d Tank Destroyer Battalion and the 753d Tank Battalion, the School conducted officers' orientation courses on the reservation near Gatesville, Texas, from 4 May to 30 May and from 4 June to 30 June, 1942.¹⁶ These courses, designed to educate inspector-instructors for existing tank destroyer units and to orient officers without tank destroyer experience who were assigned to the Tank Destroyer Command, were the first training of any type conducted under the supervision of the Command.¹⁷

While the Tank Destroyer School was conducting its first officers' orientation courses at Gatesville, plans were made for the instruction of officer candidates. On 26 June 1942, in a memorandum for the Commanding General, Army Ground Forces, the War Department announced its approval of the immediate establishment of a Tank Destroyer Officer Candidate School at Camp Hood.¹⁸ The Tank Destroyer Officer Candidate School was activated by the Tank Destroyer Command and assigned to the Tank Destroyer School on 16 July 1942.¹⁹ On the same day, the Tank Destroyer School activated the Officer Candidate School Regiment; School Headquarters; the Academic Division, consisting of headquarters and eight departments--reproduction, automotive, communication, officer candidate school department, pioneer, publications, tactics, and weapons; Academic Regiment; and Student Regiment, consisting of the Student Officer Battalion and the Student Enlisted Battalion.²⁰

The necessary organization having been effected, the first Tank Destroyer School Officer Candidate course began on 20 July 1942, with 150 students reporting to Gatesville, Texas, where the first two officers' orientation courses were held.²¹ In



accordance with War Department direction a new class began each week, the first four reporting to Gatesville.²²

While the Tank Destroyer School was conducting its second officers' orientation course, tank destroyer battalions began arriving at Camp Hood for training. On 27 May 1942, nine battalions were ordered to proceed to Camp Hood for training as soon after 1 June as practicable.²³ When the first of these detrained at Copperas Cove, Texas, on 8 June 1942, the Unit Training Center was ready to begin carrying out its mission of technical and tactical training for tank destroyer organizations.²⁴

Following its activation on 9 March 1942,²⁵ under the command of Colonel Richard G. Tindall, and the organization of its headquarters, in Temple, Texas, the project of the Unit Training Center had been the preparation of a mobilization training program for tank destroyer units. Without such a program specifically designed for tank destroyer units, the standardized training of such units was impossible. Tank Destroyer Mobilization Training Program 18-1 was completed in March and published by the War Department on 1 April 1942.²⁶

On 9 May 1942, the Tank Destroyer Command recommended to Army Ground Forces that the organization of the Unit Training Center be made more flexible and that the control of unit training be centralized by placing all battalions in the Unit Training Center and authorizing for the Center five or six groups, the number and the designation as tactical or training groups to be dependent upon future needs.²⁷

Accordingly, the organizational chart for the Tank Destroyer Command which was approved on 23 May 1942, by Army Ground Forces, authorized six group headquarters under the Unit Training Center, which might be either training or tactical.²⁸ Two

training groups were organized by the Center in June 1942 and the tank destroyer battalions which arrived during the summer of 1942 were attached to these groups, which were charged with both administrative and instructional supervision of organizations under their control.²⁹

Prior to the arrival of the first battalions in June 1942, officers of the Unit Training Center and the Tank Destroyer Command staff made a series of trips to the reservation to locate tactical firing and bivouac areas; and on 5 June 1942, the Unit Training Center established forward echelon headquarters in the field. Rear echelon headquarters remained in Temple.³⁰

Training periods of two or three months each were allotted to the battalions, depending upon the unit's tactical and technical proficiency one month after its arrival at Camp Hood. Technical training was emphasized for all units during the first month of training. Tactical training predominated in the second month's work for battalions scheduled to remain in the Unit Training Center only two months. Units which remained three months reviewed the first month's subjects during the fifth and sixth weeks of their stay in order to correct their deficiencies and spent the last six weeks on more advanced tactical and technical training.³¹

In July 1942, the Unit Training Center, with the permission of the Tank Destroyer Command, introduced training in infiltration under fire. In this course, live ammunition was fired over advancing troops for the first time in United States Army training.³²

Without any change in its organization or training mission, the Unit Training Center was redesignated as the Advanced Unit Training Center on 17 August 1942.³³ This change in name was made to distinguish it from the Basic Unit Training Center, which was activated on 28 November 1942.³⁴ to provide for the activation of new tank destroyer battalions and to prepare existing battalions for advanced unit training.

Until the completion of the Camp Hood cantonment allowed it to move into permanent quarters on 21-22 August 1942, the Advanced Unit Training Center continued to train tank destroyer battalions bivouacked in field camps on the reservation.³⁵

Both the Tank Destroyer School and the Advanced Unit Training Center were served by organizations under the control of Headquarters and Headquarters Company, School Troops. Activated without personnel on 9 March 1942,³⁶ this headquarters received its first three officers on 30 April 1942;³⁷ and on 2 May, Colonel (later Brigadier General) Harry F. Thompson was assigned and assumed command.³⁸

Acting staff appointments were made on 7 May 1942 and on 20 May the headquarters moved into a field camp near the bivouac area of the 893d Tank Destroyer Battalion and the 753d Tank Battalion, both School Troops, to be in a position from which it could coordinate Tank Destroyer School demonstration troop requirements for the second officers' orientation course. Troop requirements for the first course were handled by direct contact between the Tank Destroyer School and the two battalions involved.³⁹

As a result of the first officers' orientation course, the Headquarters and Headquarters Company School Troops were forced to expand rapidly. Company "C", 49th Quartermaster Regiment (Truck) arrived at Gatesville, 12 June 1942,⁴⁰ followed the next day by the 49th Ordnance Company (MM). These units had been procured through the efforts of the Command's representative in the Requirements Division, Army Ground Forces. Further addition to School Troops was the 809th Tank Destroyer Battalion which arrived understrength and without equipment on 29 June 1942.⁴¹ Due to the state of training of these units and lack of equipment, they forced on School Troops the

additional mission of training. Instructors and vehicles were provided by the 893d Tank Destroyer Battalion and the 753d Tank Battalion for this training.

To meet the demands of an anticipated increase in the number of tank battalions assigned as School Troops, the Seventh Tank Group was assigned on 1 July 1942.⁴²

In keeping with its expansion, Headquarters and Headquarters Company, School Troops, was redesignated as Headquarters and Headquarters Company, Training Brigade, on 15 July 1942.⁴³ Before its units began moving from field camps into the cantonment area on 2 September 1942,⁴⁴ the Training Brigade was augmented by the assignment of the Second Tank Destroyer School Band on 15 August 1942;⁴⁵ the 374th Engineer Battalion (General Service) on 17 August 1942;⁴⁶ and the 744th Tank Battalion (Light) on 21 August 1942.⁴⁷

The rapid expansion of the Command's activities resulted in the procurement by the Commanding General of the Command of necessary Service Command facilities. A Camp Hood Quartermaster was designated on 3 March 1942, and placed on detached service at Camp Bowie, Texas, to organize and train personnel of a Quartermaster section and to forward supplies to designated railheads in the area.⁴⁸

The Camp Hood Quartermaster detachment arrived 7 April,⁴⁹ established a warehouse at Temple and operated railheads at Gatesville and Copperas Cove to handle troop movements and supplies for units on the reservation.⁵⁰ Other Post activities organized were: a post ordnance detachment activated 4 April 1942,⁵¹ Camp Hood Finance Officer 6 April 1942⁵² and Post Engineer's section 7 April 1942. The 1848th Corps Area Service Unit, Camp Hood Station Complement (CASC), was activated 13 April 1942.⁵³

By 3 June 1942, the 1848th Corps Area Service Unit had been expanded to include all sections and agencies⁵⁴ and General Bruce at his request was relieved as Post Commander and Colonel Charles M. Thirlkeld, F.A., who had acted as executive officer since 22 May 1942, assumed command of the cantonment on 21 July 1942.⁵⁵

The Tank Destroyer Command made its first request for a tank destroyer replacement training center on 8 May 1942, with a recommendation to Army Ground Forces that a tank destroyer section be established in each of the replacement training centers at Fort Riley, Kansas; Fort Sill, Oklahoma, and Camp Wolters, Texas. The letter stated that existing and proposed facilities of the Tank Destroyer Command were insufficient for the training of loss replacements for existing tank destroyer units and those to be activated and that the current programs of established replacement training centers did not properly prepare personnel for service in tank destroyer units.⁵⁶

It was recommended that the proposed tank destroyer sections be organized initially to train 2,000 tank destroyer replacements each and that both commissioned and enlisted instructors for these sections be trained and furnished by the Tank Destroyer Command.

Trainees from these sections in excess of those required for loss replacement were to be forwarded to the Unit Training Center to be used as filler replacements for newly activated units.

On 23 May 1942, Headquarters, Army Ground Forces, approved an organizational chart for the Tank Destroyer Command. The principal components of the Command were the Tank Destroyer School, School Service Regiment, School Troops, Unit Training Center, and the Tank Destroyer Board. Liaison with the ordnance and armored force boards was shown as a function of the Tank Destroyer Board. Under the Unit Training Center were six group headquarters, which might be headquarters of either training or tactical groups.

The Tank Destroyer Command staff was headed by an executive officer and consisted of personnel, intelligence, operations and training, supply and fiscal, and adjutant general's sections. Other special staff functions were performed by the corps area service command.⁵⁷

On 2 June 1942, the Tank Destroyer Command made the following recommendations to Army Ground Forces:⁵⁸

That tank destroyer battalions attached to division be assigned to divisions.

That tank destroyer battalions not specifically assigned to divisions be placed under a group commander and assigned to task forces in training, or to corps or armies.

That tank destroyer groups held in General Headquarters reserve in the zone of the interior be placed under the control of the Tank Destroyer Command, operating under the direct orders of Headquarters, Army Ground Forces.

That tank destroyer replacement training for loss replacements be provided by organizing a tank destroyer section in the replacement training center at Camp Wolters, Texas, effective 1 August 1942.

That the Tank Destroyer Command organizational chart of 23 May 1942 be amended to show General Headquarters tank destroyer units as assigned and the Tank Destroyer Replacement Training Center as components of the Command.

In support of the recommendations regarding assignment of tank destroyer battalions, it was stated that the necessity for some control to be exercised over all tank destroyer units was becoming increasingly evident. Tank Destroyer commanders needed the assistance of higher headquarters in matters affecting their units. In many cases, the battalions attached to divisions were not considered on the same basis as assigned organizations and, consequently, suffered in the procurement of personnel, supplies, and training literature.

It was further stated that the assignments recommended would not make tank destroyer units organic parts of the organizations to which assigned and would not preclude their reassignment on other missions when needed. This action was believed to carry out the original concept of General Headquarters as contained in its memorandum for the Assistant Chief of Staff, G-3, War Department, dated 2 September 1941, in which General Headquarters submitted its recommendations on the organization of an antitank force.⁵⁹ It had been previously proposed on 7 January 1942 that tank destroyer battalions be assigned to divisions. This proposal was disapproved by the War Department at that time.⁶⁰

In support of the recommendations pertaining to the Tank Destroyer Replacement Training Center, it was stated that the training programs of existing replacement training centers did not train replacements sufficiently in tank destroyer requirements.

It was believed that on or about 1 August 1942, the plan of activating all tank destroyer units at Camp Hood, in accordance with the concept of the General Headquarters memorandum of 2 September 1941, would be realized. When this plan went into effect, trainees would be received from reception centers and filler replacements would no longer be required. The establishment of tank destroyer sections in the replacement training centers at Camp Wolters, Fort Mill, and Fort Riley as proposed would provide loss replacements.

None of the recommendations contained in the Tank Destroyer Command's letter of 2 June 1942, ever received favorable action. The desirability of a separate replacement training center for tank destroyer forces, however, was recognized and led to the activation of the Tank Destroyer Replacement Training Center on 3 October 1942, at Camp Hood.⁶¹

While the Tank Destroyer Command was occupied with its internal problems of personnel, organization, training, and control of tank destroyer organizations, the problem of its command status within Army Ground Forces was under consideration by that headquarters.

On 10 July 1942, the Commanding General, Army Ground Forces, approved a memorandum for the Assistant Chief of Staff, G-3, War Department, recommending that the Tank Destroyer Command be redesignated as the Tank Destroyer Center and assigned as an element of the Replacement and School Command.⁶² This recommendation was approved by the War Department on 24 July 1942.⁶³

On 30 July 1942, a telegram from Army Ground Forces informed the Tank Destroyer Command that the Tank Destroyer School had been placed under the Replacement and School Command, operating through the Tank Destroyer Command.⁶⁴ To the Tank Destroyer Command, this change seemed to present more disadvantages than advantages, since the School now was under the control of the Replacement and School Command for administration but continued to operate its training program under the control of the Tank Destroyer Command.⁶⁵

Complete instructions confirming the telegram of 30 July 1942, and redesignating the Command as the Tank Destroyer Center were received in a letter of 14 August 1942 from Army Ground Forces.⁶⁶ Redesignation was accomplished on 17 August.⁶⁷

Despite the multiplicity of administrative problems, the Center never lost sight of its primary responsibility for the development of tank destroyer doctrine and materiel and for the general improvement of tank destroyer forces.

The Tank Destroyer Board's study of the question of developing a single standard type tank destroyer battalion, which had been directed by the Commanding Officer of the Tank Destroyer Tactical and Firing Center on 3 February 1942, resulted in the recommendation to Army Ground Forces on 19 March 1942 of tables of organization for such a unit.⁶⁸

The tables of organization submitted for this standard heavy battalion increased both officer and enlisted personnel and enlisted grades and ratings above those authorized for the existing heavy organizations. A number of modifications in materiel were recommended to increase fire power and flexibility of transportation and to insure a complete and unfailing radio communication within the battalion.⁶⁹

On 23 April 1942, it was learned that the War Department had approved in principle the Tank Destroyer Command's proposal for a standard type tank destroyer battalion. It was decided to confine all future instruction to the heavy battalion. It was also decided to send representatives to Washington, D.C., to try to prevent reduction in trucks, radios, and personnel in the proposed battalion.⁷⁰

Conferences were also held with the Signal Corps Coordination Board concerning the proper radio equipment for tank destroyer battalions. The radio nets essential to the tactical functioning of tank destroyer battalions were discussed and suggestions made for the issue of available sets for training and for the equipping of battalions under orders for overseas duty pending production of equipment designed especially to meet tank destroyer requirements.⁷¹

The request by the Tank Destroyer Command on 19 March 1942, for a single standard type heavy self-propelled Tank Destroyer battalion was acted on by the War Department first by a warning directive by the Adjutant General's Office on 31 May 1942,⁷² and then by the subsequent approval by the War Department on 3 June 1942 and the printing of the new tables of organization on 17 June 1942.

Field Manual 18-5, Tank Destroyer Organization and Tactics, was also published in June 1942, and distributed to tank destroyer battalions. Prior to its approval and distribution, on 19 March 1942, the Tank Destroyer Command had sent copies of the 893rd Tank Destroyer Battalion's training notes to all tank destroyer organizations to fill the need for a standard guide on organization and tactics pending the publication of the official manual.⁷³

Following the publication of the standard tables of organization and of the field manual, tables of basic allowances for standard type tank destroyer battalion were published by the War Department on 29 July 1942.

In accordance with verbal instructions of the commanding general, Army Ground Forces, the Tank Destroyer Command on 11 August 1942 made the following recommendations for the establishment of higher command organizations for tank destroyer units:⁷⁴

One tank destroyer brigade per type corps, each brigade comprising one brigade headquarters and headquarters company, two group headquarters and headquarters companies, and six tank destroyer battalions.

Two tank destroyer brigades per type army, comprising two brigade headquarters and headquarters companies, four group headquarters and headquarters companies, and twelve tank destroyer battalions.

Brigade headquarters were recommended for the supervision and coordination of training; for the operation of a local center for the immediate collection of antitank information; for the control of tank destroyer units in battle; to furnish an officer with the necessary assistants to act not only as a tank destroyer commander but as a staff officer for the corps or army commander; and for controlling task forces formed with tank destroyer units as the nucleus.

It was recommended that if any echelon in those listed must be deleted, the group headquarters and headquarters company be eliminated, and the brigade organization be retained for the reason that previous to this time tank destroyer units had lacked the means for sufficient training supervision.

The comprehensive organization of higher headquarters for tank destroyer units was never put into effect. But the needs which it was desired to meet were later recognized in the authorization of two tank destroyer brigades and a considerable number of tank destroyer groups.

One of the important lessons learned by the Tank Destroyer Command was the effectiveness of direct liaison with different agencies. The liaison officers were given full and complete orientation by the Commanding General of the Command with respect to the problem of tank destroyers. Each liaison officer knew specifically what the Commanding General visualized for tank destroyers and was thus enabled to paint the picture for the agency with which he served. This method also served to minimize red tape.

The movement of elements of the Tank Destroyer Command from temporary headquarters in Temple and from field camps on the reservation into permanent quarters began on 14 August 1942, with the opening of Tank Destroyer School headquarters at Camp

Hood.⁷⁵ The Command moved its headquarters into permanent offices on 20 August, the Unit Training Center moved on 21 August and the Training Brigade began moving on 2 September 1942.⁷⁶

The camp was not formally opened until 18 September 1942, and its facilities were not complete when these movements took place. Construction was, however, sufficiently advanced for the Center to occupy its permanent quarters and carry on all its operations at Camp Hood.⁷⁷

SUMMARY: At the Temple, Texas, staging area, the Tank Destroyer Command successfully organized its subordinate elements and supervised the beginning of their operation on the Camp Hood reservation well in advance of the completion of construction there. Before the Center moved its headquarters to the cantonment, the Tank Destroyer School had already given instruction to 496 officers and had begun the training of approximately 600 officer candidates; the Unit Training Center had already trained and shipped out six tank destroyer battalions and had begun the instruction of seven more.

All this had been done with speed, and by the use of expedient methods and material, which necessarily resulted in the saving of both time and expense to the government.

An outstanding achievement of the Command during this period was the "entente cordiale" developed with the civil authorities of the entire area, through the policy of requesting their participation in solutions to problems of housing, rents, and the acquisition and the possession of the reservation.

While the Tank Destroyer Board continued its work on the development of material during this period, its principal contributions to the improvement of tank destroyer forces were the completion of Tank Destroyer Field Manual 18-5 and the formulation of the tables of organization and tables of allowances for a standard type tank destroyer battalion. Recommended to Army Ground Forces by the Tank Destroyer Command, both the field manual and the tables of allowances and organization were approved and published by the War Department in June 1942.

With the completion of its organization and the solution of its personnel and construction problems, the Tank Destroyer Center was ready to concentrate on its basic mission of training when it moved to Camp Hood.

CHAPTER IV

ACTIVITIES OF THE TANK DESTROYER CENTER AT CAMP HOOD 21 August 1942 - 26 May 1943

The Headquarters of the Tank Destroyer Center was officially opened at Camp Hood, Texas, on 20 August 1942.¹ A limited number of buildings were ready for occupancy to permit the Center to begin functioning. By 1 October 1942, additional housing had been completed, thereby enabling all elements of the Training Brigade to move into camp.

On 18 September 1942, Camp Hood was officially opened and dedicated. Among the distinguished guests were Colonel John B. Hood, Jr., son of General Hood in whose honor the Camp was named, Under Secretary of War Robert P. Patterson, who delivered the opening address.² In his address, the Under Secretary of War enumerated the many difficult problems initially confronting the tank destroyers and he highly commended their intensive training and their accomplishments.³ The shoulder sleeve patch, the first identifying insignia for tank destroyer use, was designed by General Bruce and his staff and was officially presented to the tank destroyers for their use by the



Under Secretary of War, at which time he praised the motto "Seek, Strike, Destroy" as symbolic of tank destroyer tactical function. In order to simplify the design, the motto was removed from the shoulder patch which illustrated a black cougar on a disk of golden orange, crunching a tank between his jaws.

Other distinctive insignia for the tank destroyer forces were later authorized in March 1943. These included the collar and lapel insignia, a color of arm and hat cord, and guidons. The collar insignia and guidons featured the half-track, 75mm gun motor carriage M-3, which was the first standard tank destroyer weapon. The tank destroyer colors, --black and golden orange--were used in the guidon and hat cord. The guidon was black with the M-3 in golden orange. The hat cord was black with parallel stripes of golden orange.

The center was now confronted with the problems of expanding the training program, further improving the tactical and training doctrine, and pushing the development of materiel to replace the expedient weapons then in use by tank destroyer battalions.

Commensurate with the increased responsibility of commanding the enlarged Tank Destroyer Center, Brigadier General Bruce was promoted to the grade of Major General on 23 September 1942, to rank from 9 September.⁴

Expansion of the training program was indicated on 28 August 1942,⁵ when three battalions were set aside for the Tank Destroyer School to train initial cadre in weapons, motors, and communications for use in a Tank Destroyer Replacement Training Center then being considered by the War Department.⁶

The establishment of the Tank Destroyer Replacement Training Center provided standard training for tank destroyer replacements, but the need for a uniform standard of basic training of newly activated destroyer units was apparent. Experience of the Advanced Unit Training Center had disclosed that organizations arriving for advanced training required further work in basic subjects to enable them to absorb advanced instructions.⁷

This led to the development of the Tank Destroyer Basic Unit Training Center, which for temporary lack of facilities at Camp Hood, was activated at Camp Bowie, Texas, on 28 November 1942.⁸

The activation of the Tank Destroyer Replacement Training Center and Tank Destroyer Basic Unit Training Center, imposed the problem of acquiring approximately 35,000 acres of additional land and building another cantonment to house 35,000 troops. This, while requiring considerable attention from the Commanding General of Tank Destroyer Center and his staff, was somewhat simplified by the assistance of Post Headquarters.

A third expansion of training activities; the result of a directive by Army Ground Forces, 21 October 1942,⁹ was the organization of a Tank Destroyer Center Inspecting Team under Colonel Herbert J. McChrystal.¹⁰ While the mission of the inspecting team was reporting upon the state of training and efficiency of all tank destroyer units in the Army Ground Forces, the team performed much constructive work in its specific recommendations for corrective action in training, supply, personnel and equipment.

A closer supervision of tank destroyer battalions in training at Camp Hood was made possible by the activation of the Fourth, Fifth and Seventh Tank Destroyer Groups on 1 September 1942, and their assignment to the Advanced Unit Training Center.¹¹

Two more groups were added on 13 October 1942, with the activation of the Eighth and Ninth Tank Destroyer Groups.¹² Another echelon of command was established on 24 November 1942, when the First and Second Tank Destroyer Brigades were activated.¹³

The personnel problems of the Center were incidental to expansion authorized by the War Department. At the request of the Center, six officers were allotted for the Inspection Team and Liaison 14 October 1942¹⁴ - 7 November 1942.¹⁵

A request for 62 additional officers for the Tank Destroyer School on 22 October 1942,¹⁶ approved through Tank Destroyer Center to Replacement and School Command and approved by Replacement and School Command, resulted in only 17 additional positions allotted by the War Department to Center for duty with the Tank Destroyer School. With the School directly under the jurisdiction of the Replacement and School Command, this allotment to Center was somewhat confusing, but was remedied 8 January 1943.¹⁷ On that date, 400 branch immaterial officers were allotted to School and a total of 160 officers for Tank Destroyer Center.¹⁸ It was set out in an indorsement to this letter that 579 officers - branch immaterial, 1 officer - Medical Corps, and 6 officers - Adjutant General's department, were allotted for the Tank Destroyer Replacement Training Center.¹⁹

To provide a source of officers for activation of new units and lost replacements, an officer pool was organized under the Tank Destroyer Replacement Training Center. This pool, starting with 79 lieutenants, 23 October 1942,²⁰ had increased to a total of 1,079 when officially activated on 26 April 1943.²¹ The main source of these officers was the Tank Destroyer Officer Candidate School.²²

The direct jurisdiction over the School, Replacement Training Center, and Officers' Pool held by Replacement and School Command, interposed in some instances unnecessary delay from the viewpoint of the Commanding General, Tank Destroyer Center. On 27 November 1942²³ the Center requested Replacement and School Command to delegate authority to the Commanding General, Tank Destroyer Center, to assign and reassign officers of the School and Replacement Training Center. It was pointed out that the policy of rotating troop age officers in the School and Replacement Training Center, and the plans for activation of tank destroyer battalions, groups and brigades in 1943 under the direction of the Center, would require many reassignments of officers. In a further attempt to simplify administrative procedure and facilitate execution of duties, authority was also requested from Replacement and School Command on 27 November 1942, to issue necessary travel orders involving School and Replacement Training Center personnel.²⁴

While both of these requests were refused on 14 December 1942²⁵ by Replacement and School Command on grounds of standard procedure for all sub installations, a further study of the problem was made by Replacement and School Command and resulted in a change of command status on 15 March 1943.²⁶ On that date the Commanding General was authorized to assign officers and to transfer enlisted cadre of the Tank Destroyer School and Replacement Training Center. This change of status simplified the administrative problems of the Center and facilitated the activation of tank destroyer units.

The increase of personnel and processing of their records became a problem. In order to facilitate the personnel administration of all units, the 90th Machine Records Unit was activated on 8 December 1942 and assigned to the Tank Destroyer Center.²⁷

Since the development of tank destroyer organizations was relatively new, lack of information and misinterpretation of tank destroyer doctrine, tactics and equipment was prevalent throughout the Army. In order to disseminate information of

tank destroyer development, Army Ground Forces on 18 November 1942, directed the Tank Destroyer Center to conduct a series of tank destroyer indoctrination courses at Camp Hood for commanders and staff officers.²⁸

These courses were to include methods of tank destroyer training and employment, demonstrations illustrating tank hunting methods, problems of tank destroyer battalions versus tank battalions, and a command post exercise to illustrate the employment of a reinforced tank destroyer group. Each course was to be of five days duration. Two officers from each Army, corps, division, command, center or force headquarters were directed to attend. The officers selected were to be general officers or general staff officers.

The first "Tank Destroyer Indoctrination Course" was conducted from 30 November to 4 December 1942. Three further courses, renamed the "Tank Destroyer Special Observers' Course" were conducted on the following dates: number two, from 14 December to 18 December 1942; number three, from 11 to 15 January 1943; and number four, from 25 to 29 January 1943. The total attendance for the four courses were 250 visiting officers and included seventeen major generals, sixty-six brigadier generals, fifty-two colonels, fifty-nine lieutenant colonels, twenty-nine majors, sixteen captains, and eleven lieutenants.²⁹

In a weekly staff report for the period 25 - 30 January 1943, the G-3, Tank Destroyer Center reported to the Chief of Staff that tank destroyer orientation courses had been attended by representatives of all major units of Army Ground Forces, along with Army Air Forces, the United States Marine Corps and the Tank Automotive Center.³⁰ Supplementing this effort to clarify tank destroyer doctrine, a letter was issued by General Bruce and enclosed therewith was the Center's Information Bulletin No. 7 of 19 May 1943.³¹ Distribution of this letter and bulletin was made to all tank destroyer units and down to divisions in Army Ground Forces as well as the Eighth Service Command.

General Bruce said, "It will be noted that our tactics continue to be epitomized in our shoulder sleeve insignia and in our motto. Panther-like, we seek information of enemy tanks and of suitable firing positions; panther-like, we strike and destroy by gunfire from favorable positions. This does not mean that we seek out tanks with guns nor chase them, nor pursue them, nor charge them."

The Tank Destroyer Board, the organization, function and activities of which are recorded in Chapter IX, kept abreast of tank destroyer expansion and development.

The viewpoint of the Commanding General of Tank Destroyer Center was reflected throughout the activities of the Board. He felt that Ordnance and other creative agencies of the War Department were capable of designing many types of tank destroyers and that as architects they could design and plan. However, in order to make the tank destroyer efficient, and in order to attain the perfection indicated by test and trial, constant tangency with those agencies was necessary.

It was during this period that the Board, starting with a vehicle having Christie suspension, necessary for speed, and the 37mm gun, -- worked through the T-49, having a 57mm gun -- then to the T-67, having a 75mm gun, and eventually to the T-70 with the 76.2mm or 3 inch gun.

An outstanding accomplishment of tank destroyers was illustrated during this period of developing a tank destroyer weapon. Partly psychological, it marked the beginning of the end for German armor. The German Mark III and Mark IV tanks of 1939 and 40, weighing 25 and 32 tons, had great mobility. The 37mm gun could destroy them, so the Germans produced the Mark V, the Panther, a 46 ton tank armed with either a 75

or 88mm gun. Our 75's could destroy them, so the Germans went to the Tiger Mark VI, a 66 ton, 56 caliber, 88mm gun. Then, anticipating our 3 inch tank destroyer, they again immobilized with the 75 ton Royalty-Jager Panther and 75 ton Ferdinand. German armor immobilized itself, to meet the threat of more and more proficient tank destroyers.

In a move to standardize vehicle equipment, the War Department appointed a special armored vehicle board on 13 October 1942.³² This board, generally known as the "Palmer Board" after its senior member, Brigadier General Williston B. Palmer, was composed of members of the armored force, ordnance, tank destroyers, and cavalry.

With respect to a tank destroyer, the "Palmer Board" concluded that the tank destroyer was essentially a gun carriage and not a tank and that a suitable tank destroyer gun motor carriage was critically needed. Their visualization of a tank destroyer was identical with that of General Bruce as described in 1941.³³

On 22 July 1942, Army Ground Forces informed the Tank Destroyer Center that a decision had been reached to make the 3 inch self-propelled gun the standard weapon for tank destroyer battalions. This eliminated the 37mm gun in the light platoons of tank destroyer companies.³⁴

On 9 November 1942, the Commanding General, Tank Destroyer Center, submitted recommendations to Army Ground Forces for changes in the tank destroyer battalion tables of organization which eliminated the light platoons, equipped with the 37mm gun; and provided for three heavy platoons, armed with the 3 inch gun, in each gun company.³⁵

This substitution necessitated an increase of personnel and equipment right at the time that the Army Ground Forces issued an overall directive for a reduction of 15 per cent of total personnel and 20 per cent of total motor transportation.²⁶

However, the Center submitted a revised table of organization on 1 December 1942,³⁷ which was issued by the War Department on 27 January 1943. This Table of Organization authorized a total of 673 for personnel and 158 for motor vehicles, all gun companies to be equipped with 3 inch self-propelled gun.

Another important project which was carried out by the Tank Destroyer Board was the development of a towed tank destroyer battalion. The testing of such an organization was directed by Army Ground Forces on 1 January 1943.³⁸ Extensive field tests were conducted during January and February, using 36 3 inch M-1 and personnel from the 801st Tank Destroyer Battalion.

A tentative table of organization was developed for the towed battalion and a report of the tests was submitted to Army Ground Forces on 12 March 1943.

On 31 March 1943, ten self-propelled battalions of the Advanced Unit Training Center and five of the Basic Unit Training Center were converted to towed battalions upon a directive from Army Ground Forces.³⁹ This change was made on a tentative basis, for training, and the battalions operated under the provisional table of organization prepared by the Tank Destroyer Board.

On 7 May 1943, Table of Organization 18-35, Tank Destroyer Battalion, Towed, was officially issued by the War Department and the towed battalion authorized as a new tank destroyer unit.⁴⁰

While the Tank Destroyer Board was increasing the scope of its activities, the Tank Destroyer School's teaching program was expanded to provide better trained personnel for tank destroyer units.

The first officer candidate class, which had started in the limited facilities at Gatesville, was graduated on 16 October 1942.⁴¹ By 28 December 1942, the Officer Candidate School had increased to its peak enrollment of 2,005 students with the entrance of the 23rd class.⁴²

The addition of courses to its schedule of instruction brought the Tank Destroyer School to its maximum attendance of 4,810 students on 31 December 1942. On this date, twelve officer candidate school classes, nine officers' courses, and twenty-four enlisted courses were in progress.⁴³

The publications department of the Tank Destroyer School, which had been activated on 9 March 1942, without personnel, began operation on 28 December 1942, when a director was appointed.⁴⁴

This department acted as a coordinator of all materials published by the School, assisted instructors in drafting graded tests, edited manuscripts for instructional manuals, wrote and edited articles for service journals and other publications, conducted a weekly radio program, and maintained contact with other service schools to exchange instructional material.⁴⁵

The training program of the Tank Destroyer Center was further augmented by the expansion of the Advanced Unit Training Center upon its movement to Camp Hood.

The original organization of the Advanced Unit Training Center had included a headquarters and headquarters company and two training groups, organized to train three battalions each.⁴⁶ Projected plans for the expansion anticipated an increase of four training groups to provide training supervision for 18 battalions, which would preserve the ratio of one group for each three battalions.⁴⁷

On 1 September 1942, four tactical tank destroyer groups were activated and assigned to the Advanced Unit Training Center but no authorization was received for the activation of more training groups.⁴⁸

The demands of Army Ground Forces for tank destroyer battalions with unit training completed resulted in many of the first battalions' receiving less than two months' training.⁴⁹ By 29 October 1942, it was possible to schedule three months' training for the battalions then at Camp Hood and for all that arrived after that date. The three months' schedule included five weeks of firing, one week on the battle conditioning course, and six weeks of tactical training.⁵⁰

As the training program expanded, improvements were made wherever possible to add realism. One of the most valuable phases of weapons training--subcaliber firing at moving tanks--was introduced in March 1942. Buttoned-up light tanks, equipped with periscopes and reinforced to protect the drivers, were used to afford the tank destroyer gun crews rapidly moving targets. The ability of the tanks to maneuver provided marksmanship training closely approaching combat conditions.⁵¹

By 13 April 1943, forty-two tank destroyer battalions had been trained and released by the Advanced Unit Training Center.⁵² The number of groups and battalions under the Advanced Unit Training Center reached its peak on 25 May 1943, when a total of eight groups and twenty-eight battalions was in training.⁵³

Because of the over-all expansion in training, it was necessary to increase the number of troops in the Training Brigade, first on 21 August 1942 when the 744th Tank Battalion (light) was assigned,⁵⁴ and subsequently on 15 December 1942 when the 113th Cavalry Regiment (mechanized) was attached.⁵⁵ The addition of the latter



organization provided the tank destroyers with experience in maneuvering against mounted reconnaissance.

The 13th Ordnance Battalion, which was assigned on 26 October 1942, at first entailed additional training responsibility for the Tank Destroyer Center but later was able to assume maintenance and supply responsibilities for the Training Brigade, thereby rendering a most valuable service.⁵⁶

Two additional service organizations were included in the Training Brigade troops. The 374th Engineer General Service Battalion, assigned on 17 August 1942,⁵⁷ constructed many of the training facilities at Camp Hood and North Camp Hood. The Provisional Truck Battalion, activated on 4 February 1943,⁵⁸ furnished transportation for the Tank Destroyer School, Board, and other units of the Center when called upon.

SUMMARY: By 25 May, when the command of the Tank Destroyer Center passed from General Bruce to Major General Orlando C. Ward,⁵⁹ the organization and expansion of the Center had been accomplished.

Sound tactical and training doctrine had been formulated; Tank Destroyer battalion, group, and brigade organizations had been developed and improved. The Tank Destroyer Center, Board, School, Advanced Unit Training Center, Replacement Training Center, and Basic Unit Training Center had been established at a permanent site with excellent range and maneuver areas and housing facilities for 80,000 troops. A suitable weapon--the T-70--to replace the expedients used since the organization of tank destroyer units had been developed. The battalions trained by the Center, despite

their being armed with unsatisfactory and makeshift expedients, had given an excellent account of themselves in combat.

All this had been accomplished in only 18 months, with a speed necessitated by the urgent need for a force capable of destroying enemy armor in order to allow the successful operation of the army combat team.

The building up of the Training Brigade to include Tanks, Mechanized Cavalry, and Tank Destroyer revealed the fact that General Bruce appreciated fully the vital necessity for integration of arms and the ability of commanding officers to cope with this vital problem.



CHAPTER V

ACTIVITIES OF THE TANK DESTROYER CENTER

27 May 1943 - 24 October 1943

When Major General Orlando C. Ward assumed command of the Tank Destroyer Center on 25 May 1943,¹ organization and expansion had been achieved. How well was indicated when, four days later on the occasion of the formal opening of North Camp Hood, Lt. General Lesley J. McNair said:

"I know of no war training agency which was conceived, planned, built and put into full operation with greater speed, skill and soundness than Camp Hood."

The attention of the Center was thereafter focused on its training and developing mission. With major administrative problems out of the way, the new Commanding General was able to concentrate his attention on the improvement of training. General Ward, former commander of the First Armored Division during the North African campaign, was thoroughly acquainted with the exploits, good and bad, of tank destroyers in battle. He was well qualified for the job ahead with tank destroyers, both because of a realistic knowledge of battlefield conditions and his sincere belief in the capabilities of tank destroyers.²

His principal emphasis was on perfection in gunnery and the correlation of all practice firing with combat firing. His objective was to produce perfect gun teams, - teams perfected in training, automatically perfected in battle action. As a corollary to this emphasis on individual teams, General Ward believed in the efficacy of battle plays -- maneuvers which could both be practical on the drill field and in actual combat.

Battle plays for tank destroyers were tested by the Center and recommended to Army Ground Forces on 28 August 1943. These consisted of a few basic formations for unit movement and of maneuvers for entry into action.³ Army Ground Forces was favorably impressed by tank destroyer battle plays,⁴ but no official reaction was received by the Center; consequently, while used to advantage for instructional purposes within the Center, they were not taught as a part of official tank destroyer doctrine.

To accentuate realism of battle field requisites, General Ward requested Army Ground Forces on 27 May 1943 to secure for the Center officers with recent battlefield experience. Although ten officers were requested by name, only two were assigned to the Center during the summer of 1943.⁵

To impress all personnel with the characteristics of good combat firing position and to link training on the range with battlefield conditions, signs were placed at and near all ranges indicating good and bad combat positions. This resulted in a very definite "terrain appreciation" for officers and enlisted men, many of whom needed the definite illustration to clarify a misty conception so easily acquired from words.⁶

Concurrently, the Center increased its emphasis on training for secondary missions as indirect fire and beach defense. This change came about with the recognition of the versatility of tank destroyer organizations and the fact that the day of the blitzkrieg warfare had dimmed.⁷

Training was increased on the battle conditioning course and made more realistic by the addition of instruction in night infiltration and by the use of live fragmentation grenades by personnel undergoing the course. Other innovations were the training of medical personnel in removing wounded under fire and the introduction of a course in woods fighting.⁸

Also awaiting action in December 1943, was a recommendation of 22 September 1943 to the Chief of Staff, War Department, through Army Ground Forces, that eight liaison planes with essential personnel be included in the tables of organization and equipment of the tank destroyer group.⁹ Tests of air-ground liaison had been conducted and liaison planes had been used in training by the Center since 25 May 1942.¹⁰ Suggestions for the organic assignment of air liaison elements to tank destroyer organizations had been made as early as 18 July 1942.¹¹

In support of the 22 September recommendation, it was pointed out that the location of tank threats and the maintenance of contact with located enemy armor was essential to successful antitank action. Tank destroyer missions not practicable for, nor of prime interest to, air support commands were listed, and the successful performance of such missions by liaison planes during the Tunisian campaign was cited. This list included the following tasks: Route reconnaissance and marking; march control and guidance, reconnaissance of close-in terrain; reconnaissance governing employment; oblique photos for weapons employment, terrain studies, and camouflage discipline; command reconnaissance; air observation posts for conduct of fire; command and lateral liaison; acting as an additional agency in the tank warning net; and spotting for vehicular and emergency personnel recovery. The use of liaison planes for these purposes had been tested and found practical by the Tank Destroyer Center.¹² It was further pointed out that these missions could best be performed by air elements organically assigned to tank destroyers. In reply the Army Ground Forces indicated generally conforming recommendations had been made by them to the War Department and that the Center would be advised as soon as War Department had completed its study and rendered a decision.¹³

Integration of arms in battle was considered by General Ward, as by General Bruce, -- a paramount issue. Thus added to the other arms of the Training Brigade, the 1st Battalion of the 51st Armored Infantry 4th AD was secured as additional school troops on 12 July 1943,¹⁴ and the 264th Field Artillery Battalion was secured 4 November 1943.¹⁵

Only a few major administrative changes were made in the organization of the Tank Destroyer Center while General Ward was in command. Pursuant to verbal orders from Army Ground Forces, the Basic Unit Training Center was redesignated as the Individual Training Center on 13 August 1943, and the Advanced Unit Training Center reverted to its original designation as the Unit Training Center.¹⁶ This redesignation was in keeping with the mission of the elements involved, the Individual Training Center being primarily concerned with the individual training of personnel of newly activated tank destroyer organizations and the Unit Training Center with the preparation of organizations for combined training in maneuvers conducted by higher headquarters.

Two months later, on 15 October 1943, the Individual Training Center was inactivated, in accordance with War Department directions.¹⁷ Seven colored tank destroyer battalions were the only organizations then in training under its supervision, and these units were transferred to a tank destroyer group to complete their basic instruction under the direct control of the Tank Destroyer Center.¹⁸

The activation of an Army Specialized Training Program basic training center at North Camp Hood was anticipated, and the Provisional Headquarters Company, Basic Training Center, was established there on 16 October 1943 in order to retain in one organization the enlisted personnel of the former Headquarters Company, Individual Training Center, for use at the new installation.¹⁹ Since the expected Army Specialized Training Program center did not materialize, this provisional headquarters unit was disbanded on 5 November 1943, pursuant to verbal instruction from Army Ground Forces.²⁰

One change in the administrative organization of the Tank Destroyer Board and two changes in that of the school were also made during this period. On 18 August 1943,

the officers comprising the tactics section of the Tank Destroyer Board, which was principally concerned with the preparation of field manuals and other publications setting forth tank destroyer doctrine and organization, were transferred to the publications department of the School; and the School then assumed the responsibility for preparing all tank destroyer training literature and visual aids.²¹

Personnel accounting not only of troops at the Tank Destroyer Center but of all tank destroyer organizations was simplified by an Army Ground Forces directive of 8 June 1943, which designated field artillery as the branch of all enlisted men assigned to tank destroyer units.²² Prior to issuance of this directive, administration of tank destroyer organizations was complicated by the fact that both officers and enlisted men had retained for personnel accounting purposes their designations as members of the branches from which they had been transferred to the tank destroyers.

The Commanding General of the Center was empowered to exercise general court-martial jurisdiction over all ground force personnel under control of the Center on 1 October 1943.²³ This had been expedient for the Center since 18 May 1942.²⁴

The use of personnel of the Women's Army Auxiliary Corps at the Center occasioned many communications during this period, and illustrated a major problem of the Service Command with its attendant problem for Army Ground Force units. On 1 June 1943, the 164th WAAC Post Headquarters Company which had been attached to the Center and further attached to the Training Brigade since 13 April 1943, was disbanded and reorganized as the WAAC Detachment, Tank Destroyer Center. The new organization was assigned to the Center, further assigned by the Center to the Training Brigade, and attached to the Replacement Training Center.²⁵

On 3 June 1943, the commanding officer of the WAAC Detachment reported to Army Ground Forces that her command--three officers and 160 enrolled women--had replaced 110 enlisted men in the Replacement Training Center and thirty-one enlisted men in the Basic Unit Training Center.²⁶ By indorsement, the Replacement and School Command stated that the replacement of nineteen additional enlisted men would be necessary in accordance with the War Department's policy that WAAC's would be used to release an equal number of male military personnel.²⁷ Both the Basic Unit Training Center and the Replacement Training Center replied that it was impossible to effect any further displacement of enlisted men since the nineteen women not replacing men were needed to operate the WAAC Detachment headquarters and mess. All other WAAC's performed duties which would otherwise have necessitated an increase in the enlisted strength of Basic Unit Training Center headquarters companies.²⁸

Subsequently a separate WAC Detachment for both the Tank Destroyer Center and the Tank Destroyer Replacement Training Center was organized pursuant to War Department directive 25 September 1943.²⁹

The lesson pointed to in the WAC Detachment was that housekeepers also need housekeepers. This was solved by the Center and its subordinate units by rotating personnel from regular duties to their own housekeeping duties.

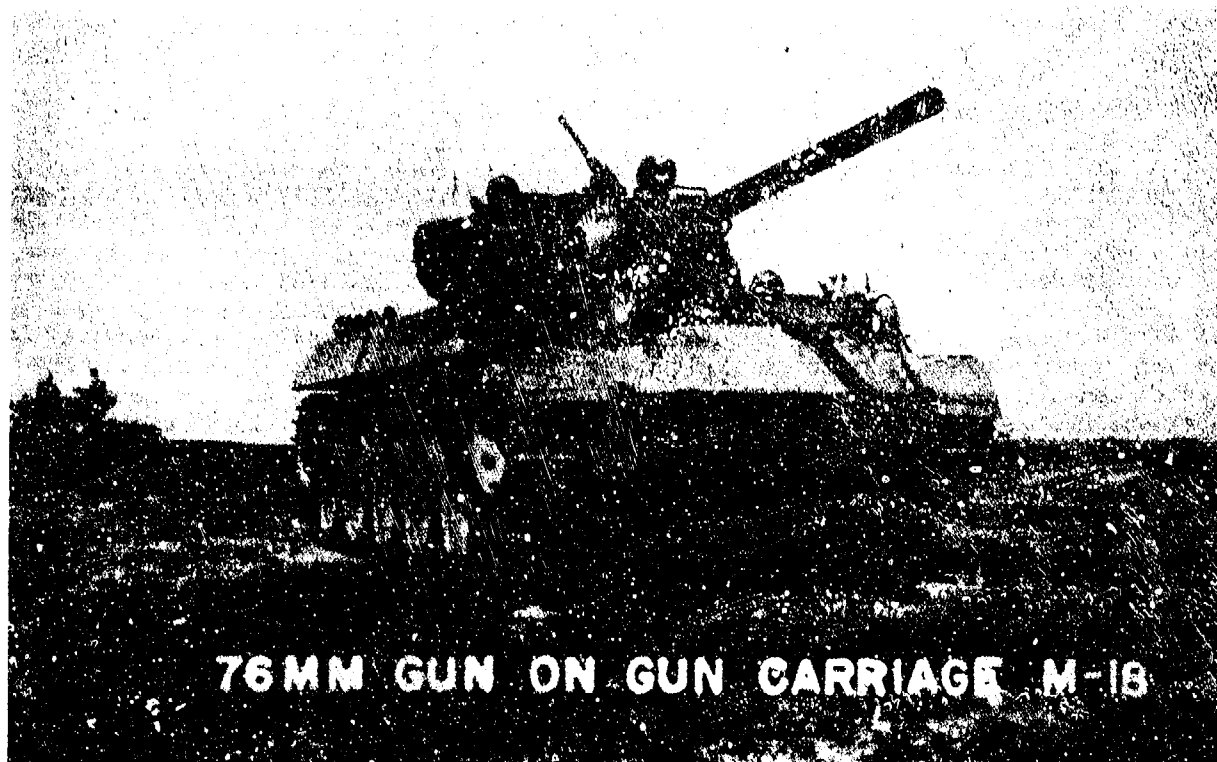
The personnel of the WAC Detachment were capable, adaptable and they performed admirably in their mission of releasing manpower for combat missions.

The sole changes in the administrative organization of the Center itself during General Ward's command were in the staff sections. An inspection team to check on motor maintenance by organizations under the control of the Center was established in the G-4 section early in July, and a liaison sub-section was organized by G-4 in October 1943.³⁰

A signal officer's section was added to the Center's special staff in July 1943, to inspect the signal equipment of tank destroyer organizations and to conduct experiments with communications apparatus.³¹ As originally organized, the section was composed of the signal officer only, but it was later increased by five officers placed on special duty from the Officers Replacement Pool, North Camp Hood.³²

An Inspector General's section for the Center was authorized by Army Ground Force late in July 1943, and was accordingly organized by the Center. An inspector general was already on duty, and additional personnel were secured from the Advanced Unit Training Center, Basic Unit Training Center, and Replacement Training Center.³³

A reduction in the number of civilians employed by the Center and an increased efforts to secure items of equipment from government sources rather than by purchases were necessitated by a cut in the Center's budget for the fiscal year 1943-1944. The Center requested \$430,160, but its budget as approved amounted to only \$276,100. The reduction was not as drastic as appears from these figures, however, as part of the money requested was later included in special field exercise funds. In order to effect the required decrease in the use of civilian employees, increased use was made of enlisted personnel.³⁴



As production models of the T-70 became available, the Board put this weapon through every possible practical test before its final standardization. In order to secure personnel for these tests, sixty-five officers and sixty enlisted men were placed on special duty with the Board, the majority of the officers being drawn from the Officers Replacement Pool. Extensive testing was begun in September 1943.³⁵

Field Manual 18-9, as originally published on 16 June 1942, was fundamentally sound; but its use uncovered several faults for the correction of which a revision of

the manual was considered necessary.³⁶ This work was begun by the tactics section of the Tank Destroyer Board. The section, after its transfer, collaborated with the School's tactics department in completing the revision.

Since it was impossible to include the details of platoon employment in Field Manual 18-5 without its becoming too bulky, four other field manuals were prepared. These treated the self-propelled gun platoon, the towed gun platoon, the reconnaissance platoon, and pioneer platoon.³⁷

A notable meeting was held in October 1943 at Camp Hood to discuss the desirability of combining elements of the Tank Destroyer School and the Field Artillery School. The meeting was attended by General Orlando Ward and members of his staff and General Balmer of the Field Artillery School and members of his staff. Conclusions were very definite and submitted to Army Ground Forces in a letter of 12 October 1943.³⁸

This letter forcefully pointed out that a combination of the Schools would not result in added efficiency, that the technique and tactics of tank destroyers were entirely different from that of supporting artillery -- that direct fire with high velocity cannon was a specialty and that there was already "too much of a tendency to compartmentize instruction."

This analysis by highly experienced artillerymen, reflecting that tank destroyers were specialists in their own right, was significant when considered in the light of the opinion of the Chief of the Armored Force in 1941, when he did not want the responsibility of tank destroyers, deeming their mission counter to mission of tanks.³⁹

SUMMARY: The Center's principal activities under General Ward were; training designed to improve gunnery, team work, battle plays and practice firing under combat conditions. The development of equipment and the formulation of tactical doctrine were subjected to all manner of tests to the end of proving them for battlefield use. Tests were made of indirect fire methods,⁴⁰ and field artillery type controlled instruments, whose addition to the equipment of tank destroyer battalions⁴¹ was necessitated by the growing prominence of the secondary mission of tank destroyer battalions, viz, indirect fire and beach defense. The revision of FM 18-5 was undertaken to bring tank destroyer doctrine into conformity with the lessons of combat in Africa as interpreted by higher headquarters.

CHAPTER VI

ACTIVITIES OF THE TANK DESTROYER CENTER

25 October 1943 - 26 June 1944

Major General John H. Hester, a veteran of two combined operations in the Southwest Pacific, assumed command of the Tank Destroyer Center on 24 October 1943. He continued the training policies of his predecessor; while stressing perfection in gunnery and teamwork, he added emphasis on initiative and leadership, pointing out the vital importance of combat leaders knowing, not only the technical aspects of their profession, but also intimately the men of their command.

Due to non-activation of additional tank destroyer units, General Hester was immediately confronted with the problem of recasting the Center's organization. On 3 September 1943, the Center recommended to Army Ground Forces plans for its future.¹ The inactivation of both the Individual Training and the Unit Training Centers was recommended, with the Headquarters of Tank Destroyer Center expanded to assume the attenuated instructional activities of these units. The Tank Destroyer Board and School were to continue as well as the Replacement Training Center. It was further recommended that all activities be concentrated at South Camp Hood, with the Replacement Training Center consolidated with the School and the School divorced from the Replacement and School Command. The Training Brigade was to be expanded to provide school troops for combined training of tank destroyer units which would be returned to Camp Hood for refresher training and redeployment. All control was to be placed under the Tank Destroyer Center and Army Ground Forces.

Although the Individual Training Center was inactivated on 15 October 1943, no further action had been indicated on the reorganization plans of the Tank Destroyer Center by 15 November 1943. The inactivation of the Individual Training Center and the uncertainty of the future of tank destroyers had a disturbing effect on morale, particularly on the young officers. Attempts were made by the Tank Destroyer Center to get a reassuring statement of policy from Army Ground Forces and the War Department.

On 25 October 1943, a letter from General McNair to the commanding general, Tank Destroyer Center, stated his views on the situation.² In substance, he said that curtailment of tank destroyer activities was not in the least peculiar to them alone for all branches except the Air Force were halting their expansion. He further expressed confidence in the T-70 Tank Destroyer as bidding fair to becoming an outstanding weapon of the self-propelled type - that for the first time we had weapons which were suited for tank destroyer purposes, and that they had inflicted serious damage to German armor. While giving assurance of no fundamental change at Camp Hood, he emphasized that the scope of all activities depended on Troop Basis and the rate of shipment of units overseas.³

In November 1943, General McNair announced that Army Ground Forces had reached sufficient strength to attain preconceived strategical objectives. Affecting the Tank Destroyer Center, this resulted in a schedule for the completion of the training of all tank destroyer battalions at Center during January 1944, and a reorganization of the Center 13 February 1944.⁴

The net effect of this reorganization with respect to units of the Center were: the inactivation, effective 18 February 1944, of the Tank Destroyer Unit Training Center and the Training Brigade Headquarters and Headquarters Company; and the disbanding of the 90th Machine Records Unit on 15 March 1944. The mission of the first two units had been accomplished, and attenuated personnel processing and records was to be accomplished through the 8th Service Command Machine Record Unit at Dallas, Texas.

With respect to the Center itself, personnel was reduced to a Headquarters comprising twenty-one officers and forty-seven enlisted men. With respect to administration, command, and training the reorganization tended to integrate tank destroyer activities. The Center, School and Replacement Training Center were placed under the Replacement and School Command with the Commanding General, Tank Destroyer Center exercising normal command functions as delegated by the Commanding General, Replacement and School Command. Whereas the Center and Board were formerly under the Army Ground Forces, and the School and Replacement Training Center formerly under the Replacement and School Command, the revised status left only the Board under Army Ground Forces, but comments and concurrence by the Center were to be included in Board proceedings. The net effect of the new policy gave the Center integrated control-- at least "viva voce," -- without denying former prerogatives.⁵

The sharp reduction of tank destroyer units throughout Army Ground Forces at this time emphasized the diminishing threat of German armor which had continued to immobilize itself with heavy and heavier armor. The original plans for activation of tank destroyer units called for one battalion per division; one group and three battalions per army corps; and two groups, six battalions, and one brigade per army. Based on plans in July 1943, a grand total of seven brigades, 32 groups and 177 battalions was anticipated.⁶

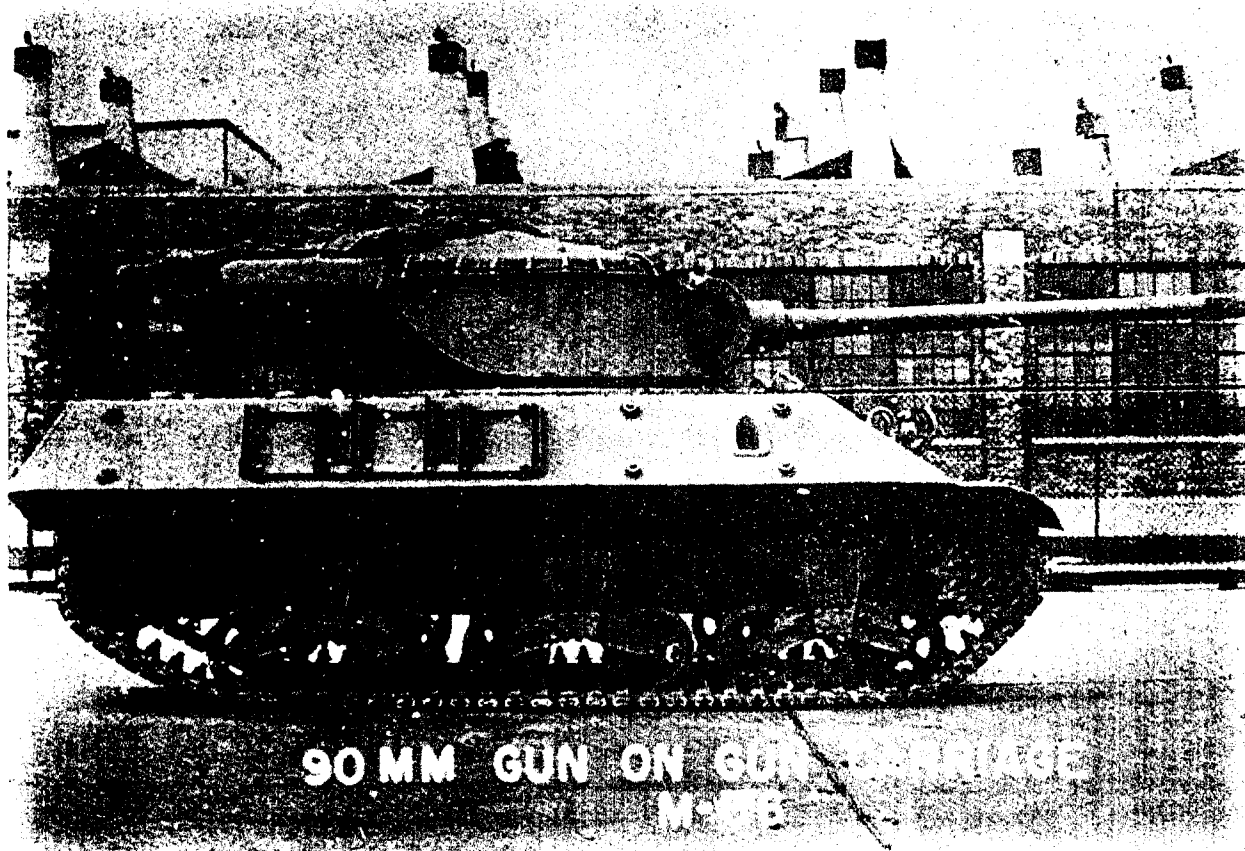
Under the reorganization of Army Ground Force units in February 1944, plans called for a reduction to 78 battalions,⁷ and on 21 February 1944 the Headquarters and Headquarters Company, 2d Tank Destroyer Brigade, was inactivated, thus leaving one tank destroyer brigade in existence.⁸ With numerically curtailed responsibilities for training, equipping, and inspecting tank destroyer units, the Tank Destroyer Center's revised allotment of 21 officers and 47 enlisted men was redesignated along two clear-cut functional lines-- viz: The organization, doctrine and training section,⁹ and the equipment and materiel section,¹⁰ both activated 1 March 1944. The organization, doctrine and training section, (ODT)-- was responsible for tank destroyer doctrine and training, review of training literature and visual aids, and inspection of all tank destroyer units of Army Ground Forces.¹¹ The equipment and materiel section, (E&M)-- was responsible for: equipment; tables of organization and equipment; G-4 functions; and coordination with Tank Destroyer Board activities on equipment.¹²

The efforts of the ODT section were now centered on inspections of tank destroyer units. General Hester had visited Army Ground Forces in April 1944¹³ for the purpose of clarifying the team's purpose and action. With permission from Army Ground Forces, the procedure of inspecting officers was altered from that of the perfunctory inspector to that of observers anxious to disseminate the correct and latest doctrine and technique. Explanation and constructive suggestions were effected without delay. This procedure focused attention upon tactical and technical proficiency of the unit and sufficient investigation of maintenance to determine whether the unit could operate successfully in combat. Evening conferences of instructional nature, presenting composite experiences of combat, were held with officers of units to give them battle vision.

The E&M Section of the Center was composed largely of personnel formerly assigned to the G-4 section of Tank Destroyer Center, and included ordnance and signal officers. This Section participated in the Fiscal, G-4 and Signal Section conferences held in Washington during May and June. All purchasing and handling of fiscal funds for the Tank Destroyer Board, Tank Destroyer Replacement Training Center and the Center were accomplished by the E&M Section in addition to routine supply and equipment needs of units.

The recommendation by the Commanding General of the Center for the consolidation of all tank destroyer activities at South Camp Hood,¹⁴ was not approved by the

War Department and an Infantry Replacement Training Center was established at South Camp Hood,¹⁵ with a future anticipated strength of 30,000 troops. The Center had sought to have the Infantry Replacement Training Center minus its antitank companies, located at North Camp, from the standpoint of consolidating its own activities, thereby being closer to ranges and effecting considerable saving in mileage for track vehicles. Further, if antitank companies of the Infantry Replacement Training Center were left with the Tank Destroyer Center at South Camp, coordination in the anti-tank effort was visualized.¹⁶



One notable development affecting tank destroyers during this period was the mounting of a 90mm gun on the M-10 chassis. German tanks had continued adding armor and a gun with considerable more penetration was required by tank destroyers. On the 29th of December 1943, Army Ground Forces directed the Tank Destroyer Board to undertake and report on service test of this 90mm GMC T-71. Subsequently, on 18 February 1944, after extensive tests, the Tank Destroyer Board recommended through the Tank Destroyer Center that the 90mm GMC T-71 be considered suitable for use as a Tank Destroyer.

SUMMARY: The period of expansion for all Army Ground Forces had passed. Tank Destroyers, like others, were sharply curtailed in units and scope of activities. The reorganization of the Center effected centralized control and added to administrative efficiency. The Center, with an organization doctrine and Manning Section and Equipment and Materiel Section, established efficient Training Inspection Teams. These teams secured a greater degree of perfection in TD units by helpful and on-the-ground corrections of deficiencies.

CHAPTER VII

ACTIVITIES OF THE TANK DESTROYER CENTER

27 June 1944 - 18 March 1945

Brigadier General Ernest J. Dawley, Commandant of the School and a veteran of the Mediterranean campaign, assumed command of the Tank Destroyer Center, 26 June 1944, upon Major General John H. Hester's reassignment and departure.¹ Like his predecessors in command, General Dawley enunciated the value of teamwork, precision and realistic battle conditions in training. He, however, sought to develop more speed in gunnery and hitting power. Precision came first with him but speed developed to the acme of swiftness, he felt, was essential to reduction of casualty attrition in tank destroyers.

The paucity of reports and official news of tank destroyers on the battlefronts, linked with the fact that reports were usually written by commanders often unfamiliar with tank destroyers' capabilities and limitations, led to a further effort by Tank Destroyer Center to establish a greater knowledge of tank destroyers and their use throughout the Army.² Thus on the 26th of June 1944, a Group and Division Commanders Conference was held at Camp Hood. The conference covered the following phases (a) organization of towed and self-propelled battalions, (b) tank destroyers in secondary mission of indirect fire, (c) direct fire at moving targets, (d) destruction of pillboxes, (e) direct fire at surprise targets simulating a tank attack, (f) night firing and (g) preparation of tank destroyer direct fire position.³ Due to the success in mission and the enthusiasm shown at the first conference,⁴ an Army and Corps Commanders' Conference patterned along similar lines, was held 29 July 1944.⁵ These conferences effected a more complete understanding of capabilities and limitations of tank destroyers and their employment with the combined arms.

An outstanding achievement of the Tank Destroyer Center during this period was the result obtained to effect further coordination of arms. The importance of this has been reflected throughout the history of the Center in its attempt to build the Training Brigade with all arms represented. The Center effected the assignment of a tank destroyer battalion to the Armored Force at Fort Knox, for use as school troops, - another tank destroyer battalion was assigned for school troop duty with the Infantry School at Fort Benning.⁷ Further coordination of arms was effected during August 1944 between the Field Artillery School and the Tank Destroyer School, wherein one tank destroyer platoon (Sp) was assigned to school troop duty with the Field Artillery School and one platoon of 105mm howitzers was assigned to school troop duty with the Tank Destroyer School.⁸

On 18 September 1944, a telephone directive from the War Department was received by the Center to the effect that the Armored and Tank Destroyer Schools were to be combined, using facilities at Fort Knox. The Commanding General of the Center, upon being requested to comment, vigorously opposed this consolidation at Fort Knox, pointing out that the range facilities and training aids at Camp Hood were superior to any other known station and that such facilities at Fort Knox were limited and unsatisfactory for tank destroyer use. He further recommended that if for reasons of economy a consolidation was essential, then a consolidation be made with the Field Artillery at Fort Sill where facilities were available, though not equal to those at Camp Hood.⁹ Subsequently, on 1 November 1944,¹⁰ Army Ground Forces directed a consolidation at Fort Knox of only the Officers Candidate Schools of Cavalry (Mechanized), Tank Destroyers and Armor. The Tank Destroyer allotment for Class No. 70, 1 November 1944, was 11, and did not materially affect the status quo of Tank Destroyer Center except for loss of a few additional officer instructors to the School at Fort Knox.

During General Dawley's period of command, no major changes in administration occurred for Center, but the War Department, perceiving the dwindling threat of armor and the bold and aggressive stature of the Tank Destroyer Center and its elements, was, in its overall planning, forced now to consider the future of tank destroyers. The question of whether it was to be a separate arm or a protege of an established arm, was important.

Thus the Commanding General of the Center was directed, 19 October 1944, by Army Ground Forces to make recommendations regarding the status of tank and tank destroyer units in the post-war army. His letter of 4 November 1944, given in toto in appendix of Chapter VII, established cogent reasons for his recommendation that tanks and tank destroyers each be set up as a separate arm by law. His logic was based on the antithesis, divergence and contrast in missions of the several arms and subject elements.

The future of tank destroyers was at stake, and the backlog of opinion, beginning with the Chief of the Armored Force in 1941, and following through successive commanders of Tank Destroyer Center as well as the Palmer Board (see Chapter VI) indicated unified support for the idea that the mission and technique of tank destroyers was divergent from that of other arms.

Collateral with the question of the future of tank destroyers was a review of tank destroyer achievements with respect to: materiel, equipment, doctrine and training, and organization, in order to aid Army Ground Forces in establishing a program to act as a guide in postwar development. Such a review and report had been directed on 22 September 1944 by Army Ground Forces.¹¹

It was thus that the Commanding General and his staff and sub-sections assumed two major objectives during the last quarter of 1944 and the first quarter of 1945. Supervision of training designed for perfecting in combat those tank destroyer units still in the United States was a continuous major objective and to that was added analysis, digest, review and report of tank destroyer developments and achievements. The functional design of Tank Destroyer Center headquarters with an organization, doctrine and training section, and an equipment and materiel section, appeared ideal for the two major missions, although combined study and interwoven effort was involved.

A preliminary report on equipment was made by the Center on the 25th day of October 1944,¹² which included recommendations by the Center on: items to be eliminated, items to be replaced, items to be modified, and items to have standard nomenclature list change.¹³

The final report on review of developments was made 2 December 1944.¹⁴ This review and report included one appendix covering tank destroyer developments and dealt specifically with mission, organization and equipment of Tank Destroyer Center units. It was based on analysis of facts received from battlefronts in all sectors and recommendations made were designed for specific improvement of tank destroyer action in theatres of operation. With respect to mission, it was recommended that the present mission as defined in Field Manual 18-5 was so broad and so all inclusive that an extension thereof or change in the future could not be foreseen. As to organization, the report covered the two types of tank destroyer units; namely, the self-propelled and the towed type. Emphasis was given to the self-propelled mount with an explanation that the towed gun was an expedient. Analysis of battlefield reports indicated that the existing organization of the self-propelled battalion, consisting of a headquarters company, a reconnaissance company and three gun companies, was basically sound and would remain sound. The report also dealt specifically with the advantages and disadvantages of tank destroyer equipment, including the gun motor carriages,

ammunition transport, ammunition, fire control equipment, communications equipment and miscellaneous accessories. It was clearly indicated that the M-18 was the ideal type of gun motor carriage desired because of maneuverability and mobility. One of the lessons learned, however, through a study of past achievements and battlefield reports, was the necessity for more gun power which, considered from the standpoint of highest velocity possible, indicated that the ideal maximum caliber consistent with mobility, rate of fire and capacity for volume of fire, was the 90mm gun motor carriage, M-36. The minimum ideal appeared to be the 76mm GMC, M-18. These calibers were indicated through the visualization of improvement of ammunition, both through propellant charges minimizing flash, and types of projectiles similar to the sabot type and the tungsten core type.

Another lesson indicated was the necessity for the improvement of the gun motor carriage through the provision of a canopy turret cover, to provide protection against aircraft and fragmentation. From tests it appeared that this turret cover should be at a height above the edge of the turret to permit all around vision. Another factor developed from the study of review of battlefield reports was the need of stabilization of the gun turret permitting accurate fire in landing operations and during movement. The need for effective blast deflectors and blast mats continued to be a problem without a satisfactory solution."

In connection with redeployment and the possible reorganization and re-equipment of infantry divisions, thereby enabling them more quickly to achieve objectives of primary mission, the Army Ground Forces requested the Center for recommendations as to the inclusion of tank destroyer units in infantry divisions.¹⁵

The Commanding General of the Center, - Brigadier General E. J. Dawley, strongly recommended that a tank destroyer battalion be included as an organic component of the infantry division.¹⁶ The Commanding General of the Center pointed out in his recommendation that combat experience indicated an absolute necessity for the inclusion of tank destroyer battalions as an organic component. The increase in size of the infantry division thereby, was, in the opinion of the Commanding General of the Center, offset by the fact that if tank destroyers were essential to infantry in combat, it was elemental that tank destroyer units be available to the divisions in training periods to establish cooperative and coordinated action.

From a study of battlefield reports it was remarkable that tank destroyer doctrine as conceived and developed by Tank Destroyer Center in 1942 was so basically right in its vision and prescience that it stood all tests of combat missions. Probably the most valuable lesson learned by Tank Destroyer Center through the review of activities, battlefield reports and study for redeployment was that a specific plan of training and doctrine once established through careful study and analysis should not be changed by fluctuating opinions induced by local or limited horizons. The original Field Manual 18-5 as conceived and published by the Tank Destroyer Center caused some criticism because of the aggressive and bold spirit indicated. After a study of battlefield reports and the varied uses made of tank destroyer units, boldness and aggressiveness on the part of tank destroyers in direct support of infantry was demanded by commanding generals on many occasions.

In the January 1945 issue of Tactical and Technical Trends, MIS, War Department, Washington, D. C., the chapter on German self-propelled weapons outlined current German doctrine for employment of Panzer Jaeger (tank destroyers) as follows: "In attack, tank destroyers use fire and movement to the utmost. Their constant readiness to move and fire makes them, according to the Germans, an ideal mobile reserve. The tank destroyer platoons accompanying the infantry engaged sighted enemy tanks by surprise. Positions behind hedges were considered most favorable, and when possible, positions in defilade or on reverse slopes. In defense, the main task of tank

destroyers is destruction of tanks which have broken through. The Germans believe that an efficient warning net is, therefore, important."

Thus German doctrine conformed in substance with the three directives which successively governed our own tank destroyers.¹⁷ Analysis further revealed that there was not much difference between the original Field Manual 18-5 and the revised edition of 18 July 1944. However, the one essential difference was that of emphasis. The original emphasized aggressive maneuver, - the revised emphasized caution and position. The term "fire and movement" which keynoted the original manual was omitted in the revised edition. The language of the original was bold and vivid, that of the revised was guarded and conservative. The revised version, after opening with the statement: "Action of tank destroyers is characterized by an aggressive spirit," itself then partially submerged that spirit by emphasis on static position. The only two italicized sentences in the revised version were ones which suggested static position. The revised version enunciated the importance of towed tank destroyers, and even stated: "Towed guns are more suitable for advanced positions than self-propelled guns." In contrast, the original Field Manual said in preface that tank destroyers may be either self-propelled or towed, but in its tactical section makes no mention whatever of the towed gun.

The review of achievements in planning for redeployment revealed the Tank Destroyer Center still considered the 3 inch towed gun an expedient. The War Department on the 5th of February 1945 advised the Tank Destroyer Center that all towed battalions in theatre of operations had been converted to self-propelled battalions with one exception.¹⁸ At the same time the War Department requested the Tank Destroyer Center for recommendations regarding the continuance of instruction in towed guns in the Tank Destroyer Replacement Training Center and School. The Center recommended that the towed guns be continued for instructional purposes because of economy in conduct and adjustment of fire of towed weapons and also because of the ability of the instructor better to observe and instruct student gunners. Another reason cited was that the towed gun could be disassembled by the students whereas Ordnance prohibited the disassembly of self-propelled guns. It was thus that the Center was taught one outstanding lesson which was "Teach and train unit personnel in minute detail but be sure the overall picture is attained so that supported units may know tank destroyer capabilities and limitations." The second major objective of Tank Destroyer Center during the period of 1 November 1944 to V-E Day was that of perfecting for combat those tank destroyer battalions still in the United States. The mission of the Center was to assist these units in attaining the acme of perfection in training and equipment.

An inspection team composed of officers from the Center made several trips to each tank destroyer battalion to observe their state of training, witness tests and make recommendations. Presentations were made at evening conferences to bring before the personnel of units visited developments and doctrine and training with emphasis on secondary missions involving both direct and indirect fire.

Combat efficiency tests were reviewed in the light of overseas experience and revisions were made accordingly. Training and the testing and perfection of equipment were simplified for the Center through the delegation by Headquarters Army Ground Forces of command responsibility to the Commanding General, Tank Destroyer Center, on the matters pertaining to the Tank Destroyer Board,¹⁹ on the 13th of December 1944, and also the delegation of command responsibility to the Commanding General, Tank Destroyer Center, on matters pertaining to Tank Destroyer School and Tank Destroyer Replacement Training Center on 28 December 1944.²⁰

Considerable time and effort were spent during January and February 1945 by the officers of the Organization, Doctrine and Training Section on problems in

attack on fortified positions. The technique of assault on field fortifications was developed and patterned along a line designed to be the most effective in assisting the front line infantry in securing their objectives.²¹ Frequent visits were made by tank destroyer officers to different infantry replacement training center battalions at Camp Hood to observe their training methods and further to perfect coordinated tank destroyer support of infantry. A solution was sought to the problem of coordinated attack and teamwork with the infantry in the destruction of pillboxes and bunkers. This involved the use of tank destroyer companies, platoons, sections and even single guns rather than entire tank destroyer battalions in direct support of infantry units.

SUMMARY: Evidence supported the fact that tank destroyers were specialists in a technique and in training basically different from other arms. The tank destroyers had achieved superior weapons and a sound doctrine and the Center, through conferences with high commanders at Camp Hood attempted to demonstrate limitations and capabilities of tank destroyers, to the end of establishing proper uniform employment. While successful "in esse," the disappearance of German tanks left the tank destroyers without adversary according to their first mission, and therefore nullified the great need experienced in 1941 - 42 and 43.

With abated mission and exploitation, the tank destroyers continued improvement in training and equipment of units with emphasis on indirect fire, destruction of pillboxes and other secondary missions. Training was improved by inspecting teams effecting direct on-the-ground corrections. Equipment was studied, tested and changes made for added efficiency in battle.

CHAPTER VIII

ACTIVITIES OF THE TANK DESTROYER CENTER

19 March 1945 - 1 September 1945

Brigadier General A. O. Gorder, Commanding General of the Tank Destroyer Replacement Training Center, assumed command of the Tank Destroyer Center 18 March 1945,¹ upon Brigadier General Ernest J. Dawley's reassignment.² General Gorder's viewpoint and policy were similar to those of General Dawley. He emphasized perfection in training, teamwork, accuracy and precision. His vision of speed was rhythmic action resulting from "doing all things decently and in order." While commanding the Replacement Training Center, he was most active in training inspections and was particularly concerned with intelligent performance on the part of the trainees. He insisted that the men know the why, how and wherefor of their duties.

The commanding generals and combat commanders in the ETO were requested to submit their recommendations on the status of tanks and tank destroyers in the post-war army, coincident with the same request of the Commanding General of Tank Destroyer Center.³ Copies of the opinions of commanding generals in ETO were sent to the Commanding General, Tank Destroyer Center, on 8 May 1945. General Eisenhower stated that the consensus was that, if separate branches were set up in the post-war army, there should be a separate branch for armor but not for tank destroyers, and that towed tank destroyers should form a part of the artillery.⁴ Generals Bradley, Devers, Patch, Haislip, Brooks and others favored a new arm for armor to include tank destroyers. Still other general officers favored armor as a separate arm, but tank destroyers as a protege of artillery.

There was one reply on the question by Lt. General Gerow, Commanding General of the V Corps, 1st Army,⁵ which enunciated certain principles which each of the commanding generals of Tank Destroyer Center had considered paramount. General Gerow said, in part, "The Post War Army should not contain a new or separate arm composed chiefly of tanks. The principal functions relating to any primary weapon and units built around it are development of the weapon and employment of the unit and its weapons as an element of the combined arms. In all of these functions, coordination with other weapons and integration with the combined arms is a paramount requirement which is insufficiently considered in the isolation which builds up around a separate arm, particularly in peace time."

Each of the commanding generals of Tank Destroyer Center, in building the Training Brigade and School troops of Tank Destroyer Center to include all possible arms, had emphasized the importance of coordination of weapons and integration with combined arms. They felt that theirs was a primary weapon, having very definite and fixed missions different from other elements, and that specialized effort and training were essential in building the unit which perfected its weapon and the use thereof in the execution of its mission.⁶

General Gorder's viewpoint was that the question of coordination with other arms and the integration of combined arms was of first importance, and separate arms or branches might militate against ideal integration.⁷

Albeit tank destroyers engaged tanks and tanks did not engage tanks in their primary missions, the consensus by ETO commanders, as revealed by analysis of their recommendations,⁸ was that the tank destroyer was just another tank.⁹ The similarity of tank destroyers and tanks was emphasized, but the question of divergent missions and specialized training was not touched upon except by General Gerow and implied by General Eisenhower in his reference to "if there are to be separate branches."

Early in April 1945, events indicated a speedy termination of hostilities in Europe. The Center, with practically all tank destroyer tactical units foreign bound, initiated plans for future training and redeployment of tank destroyer units.¹⁰ The School and Replacement Training Center were alerted to plan for refresher training for tank destroyer battalions returning for redeployment against Japan.¹¹

Japan's armor was negligible, but reports revealed an intricate and effective system of field fortifications, the destruction of which required direct fire by high velocity weapons with the accuracy of tank destroyers. Questionnaires were submitted to all officers of Tank Destroyer Center recently returned from the Southwest Pacific and recommendations were sought for correct participation by tank destroyers.

One lesson indicated was increased emphasis on tank destroyer cooperation with infantry in achieving front line objectives. The pillboxes and cave openings of the Japanese offered a very small aperture as a target and direct hits were necessary to destroy them. The M18 with its accuracy and power proved most effective at Ie Shima,¹² but close coordination with infantry was elemental.

The ODT Section worked with different battalions at the Infantry Replacement Training Center at Camp Hood to effect a standard of coordinated effort on the problem presented by Japanese field fortifications.¹³ Recommendations sought from officers of The Infantry School were interwoven in tank destroyer procedure.¹⁴

In the meantime, the War Department felt growing concern over the large number of casualties experienced by units attacking Japanese fortifications. Leyte, Ie Shima and Okinawa were extremely costly in wounded and dead. Japanese field fortifications were mainly natural terrain barriers developed into intricate subterranean strongholds from which the Japanese could emerge and attack American units in the rear and on each flank. Cave openings were self-supporting and were so ably concealed that assault teams, after taking a frontal slope and/or reverse slope would find that they had bypassed strongpoints from which a murderous fire all but wiped them out.

The Tank Destroyer Center, perceiving the gravity of the problem, and believing the tank destroyers with their accuracy and high velocity weapons could offer some solution, set up a special team to work on the problem. Lt. Colonel V. W. Pyland, a veteran tank destroyer officer of the European campaign was placed in charge. The ODT Section assisted in the tactical set-up. The Tank Destroyer Board performed tests of weapons.¹⁵

On the 18th of May 1945, representatives of the Army Ground Forces were called to Washington for a conference on the problem presented by Japanese viscid defense.¹⁶ Representatives of the Armored School, the Infantry School, the Infantry Board, Field Artillery School, Rocket Board and Artillery Board were present as was Colonel Pyland representing the Tank Destroyers. Verbal instructions were given to all to test and develop a technique to frustrate and checkmate Japanese field fortifications.¹⁷

Officers of different arms attending this conference made a trip to Dugway Proving Ground, Utah and returned to Fort Sill and thence to Camp Hood. A conference was held on 22 May at the Tank Destroyer Center Headquarters and the name "Sphinx" was suggested as a secret code name for the project.¹⁸

Subsequent to this conference, with the help of officers from the ODT Section, the E&M Section and the Tank Destroyer Board, Colonel Pyland supervised the construction of field fortifications in the Elm Mountain area of Camp Hood. These

fortifications were made to resemble Japanese strongholds as far as possible. Replicas of Japanese camouflage methods were attempted and all other artifices and devices known were used to duplicate Japanese construction. The Tank Destroyer Board was designated by the Commanding General of the Center to assist in the project and render weekly reports on tests.¹⁹ The 76mm M18, the 90mm M36 and 2.36 inch rockets were the weapons tested for closing cave entrances and for the demolition of field fortifications. Different types of fuses, ranging from superquick to .15 seconds delay, and different types of projectiles were used to establish the type most effective against cave entrances. Different types of observation instruments were used to establish the most efficient observation for both forward observers and distant observers. The 90mm M36 demonstrated superiority in the demolition of cave entrances. The 76mm M18 produced excellent results but not as good as the 90mm. The best results from fuses were the T-105 or the M-78 fuse. The new observation telescope, 20 power, T133, was found to be superior from the gun position.²⁰ In a letter of 23 May 1945,²¹ the War Department indicated the high priority and the great importance attached to this test by giving a list of references covering the fundamentals of demolitions, training films, field manuals pertinent to assault, training literature on new weapons such as the portable flame throwers, mechanized flame throwers, recoilless rifles, chemical mortars and radar.

Closely following this action, the War Department directed on 29 May 1945²² that the Commanders of the Tank Destroyer Center, Armored School, Infantry School and Field Artillery Board, undertake at once under the highest priority, a test of standard weapons and material ~~and newly developed materiel~~ against Japanese fortifications. The purpose of these tests was to determine which weapons were the most suitable for the reduction or neutralization of Japanese field fortifications.²³

The scope of the tests directed indicated to the Commanding General of the Center the possibility of a combined arms test. The Elm Mountain area did not appear adequate and after an aerial and ground reconnaissance, the Manning Mountain area was selected for an anticipated combined arms tactical test.²⁴ This area provided a series of ridges and hills of finger-like arrangement, more nearly duplicating Japanese field fortifications in depth and mutual support.

While tests were conducted in the Elm Mountain area, large numbers of German war prisoners were put to work in the Manning Mountain area - digging caves, constructing pillboxes and spider holes, to duplicate the many hundreds of strongpoints usually developed by a Japanese front line regiment, with its supports.

On 11 June 1945, General Gorder appointed a board of officers to conduct tests and determine the best tactical methods to apply in the reduction of Japanese field fortifications by assault teams composed of Infantry, Artillery, Engineers and Tank Destroyers. Brigadier General Kenneth G. Althaus, a veteran of the 10th Division Combat Team under General Patton, was president of this board.²⁵ The board first met on 13 June 1945 with effort concentrated on the efficacy of test ideas and plans as presented by officers assembled.

On 15 June, General Gorder submitted recommendations to Headquarters, Army Ground Forces, on a combined arms test for the reduction of Japanese field fortifications.²⁶ This recommendation, which was made pursuant to a letter from Headquarters, Army Ground Forces,²⁷ advocated that the test be held at Camp Hood, Texas, and indicated the troops which would be needed for the test. After receipt of recommendations from the Commanding General of Tank Destroyer Center for the all-out combined arms test, Major General A. W. Waldron, Headquarters Army Ground Forces, together with a large staff of Army Ground Force officers, visited Camp Hood to inspect the area suggested and to confer on the tactical problem involved. The visit of General Waldron

and his staff to Camp Hood was closely followed by the directive on 26 June 1945, authorizing a test of materiel against Japanese field fortifications.²⁸ In this directive a combined arms test was ordered for the period 15 to 25 July 1945, and North Camp Hood was designated as the station for the control and test troops of the Tank Destroyer Center "Sphinx" Detachment.

Brigadier General Kenneth G. Althaus, then Commandant of the Tank Destroyer School, was named to command all troops engaged in the test and was responsible for the conduct of the test, in accordance with War Department directive. Colonel Stephen S. Hamilton, Inf., Captain John M. Harbison, Inf., and 1st Lieutenant Theodore S. Bell, Inf., all veterans of the 77th Division in action on Leyte and Okinawa, were made available as technical advisors to General Althaus during the project. Control officers were also made available from Infantry, Armor, Tank Destroyers, Field Artillery, Chemical Warfare Service, Signal Corps, Engineers, Ordnance, and Air Forces. Control troops were made available for technical and special requirements.

The test troops for the project consisted of: 1 Infantry Battalion, 1 Tank company (composite), 1 Tank Destroyer company (composite), 1 Chemical Mortar platoon, 2 Field Artillery battalions, Artillery liaison planes, 1 Engineer company, 1 Ordnance company, Radar and Dodar detachments, Antiaircraft battery, and Air Forces composed of photographic reconnaissance and bomber units. Recoilless rifle teams for both the 57mm and 75mm recoilless rifles were made available, as were personnel for using the new sniperscopes and snooperscopes.

The control group was utilized for controlling each phase of the test, appraising the results of the weapons employed, and taking necessary action to insure that battle conditions during the tests were realistic; and for observing safety regulations.

The troops were assembled at North Camp Hood prior to 10 July and attached to the Tank Destroyer Center. Due to the limited troop resources, it was necessary in some cases to form composite units for use as test Troops. This was true of the Provisional Tank Destroyer Company, the Provisional Tank Company, the Provisional Headquarters Company, the 53rd Infantry and other smaller units.

The various test phases included:

a. Aerial reconnaissance.

- (1) To determine how much of an enemy defensive area can be discovered during all phases of the fight by this method. It is particularly important to determine the usefulness of low obliques of reverse slopes.
- (2) To test the ability of troops to orient themselves for an attack on a reverse slope by means of these photos.

b. Bombing.

To determine the amount of damage to cave installations that can be expected by bombing based on information obtained from: (1) photo reconnaissance and (2) ground reconnaissance during the fight.

c. Defoliation.

- (1) To determine the ability of present weapons to defoliate and their comparative efficiency.

(2) The amount of defoliation normally needed to disclose positions sufficiently to plan a coordinated effort.

d. Ground reconnaissance for the gathering of specific information.

(1) To determine the best technique of assisting and protecting reconnaissance patrols by various means such as: smoke, diversionary attacks, protective barages, darkness.

(2) To determine the value of information obtained by these patrols.

e. Coordination of action.

To determine the best means of integrating the fire of supporting weapons with the movement and assault troops so that close-in assault groups arrive at their objectives with a maximum of protection furnished them during their movement, during the accomplishment of their missions, and during the critical period of holding their objective until the area is consolidated.

f. The final objective of all Sphinx activities is expressed in paragraph e above, and is considered the primary purpose for the holding of a combined arms exercise.

General Althaus formed his staff from officers supplied by headquarters, Tank Destroyer Center. He was immediately confronted with the problem of training and coordinating the effort of approximately 3500 troops, many of whom had never served together before in their own unit and a few of whom had had experience in a combined integrated arms test.

Intensive training was prescribed for the different units upon their arrival and continued until the period of the combined tests. General Althaus perceived that the project was a tremendous task for both the officers and the enlisted men. In order to secure the coordinated effort necessary, he held a series of meetings with all officers and enlisted men assigned to the project. He explained the situation and the magnitude of the task confronting them and emphasized the secret classification of the project. He also pointed out that the Tank Destroyer Sphinx Detachment, in securing a solution to the problem, would undoubtedly save many American lives.²⁹ Through these measures, he produced the highest "esprit de corps." The men kept their secret and they trained and performed like veterans.³⁰ Another stimulant used by the Commanding General of Tank Destroyer Center Sphinx Detachment was the display of a "county fair" method of new and improved weapons. The capabilities and limitations of the newer weapons and their coordinated use was explained. New equipment such as the sniper-scope, sniperscope, head viewer, recoilless rifles, and the use of radar for locating enemy armament, bolstered the morale of all personnel and added to their enthusiasm to do the job according to its magnitude.³¹

The reconnaissance phase was completed by the 3rd Tactical Air Command prior to 15 July and the actual assault by combined arms began on the 20th. The intermediate five days had been given to testing of separate arms with their improved weapons. It was during these five days that some of the arms learned a valuable lesson with respect to their limitations and capabilities. The Air Corps had thought that they could defoliate an area by ordinary bombing. The Artillery believed that they could defoliate effectively by concentrations. The Engineers believed that they could defoliate with the use of "snaken." However, after the Air Corps tested defoliation with napalm, the other arms quickly perceived the superiority of this method.³² The Commanding General

of the Tank Destroyer Sphinx Detachment had carefully worked out the integration of the combined arms test with the control officers of each branch. Thus when the combined arms test began on the 20th of July, it was a continuous problem with each arm entering the picture of action in its proper place to pave the way for the continual assault of the infantry squads. The consensus of the control officers, General Waldron of Army Ground Forces, General Gorder, and all other officers present, was that cave openings, pillboxes, and their support and depth were methodically destroyed, thereby enabling the infantry assault team to attain objective after objective with a minimum of exposure.³³

The problem was completed the 24th of July. Immediately thereafter a writers' group which had been detailed by the War Department began the preparation of the final report to the War Department. This report on the Sphinx Project contained 16 separate reports and was printed by Headquarters Army Ground Forces on 5 August 1945. The subject matter of the report was embodied in a training circular issued by the War Department 11 August 1945,³⁴ as a guide for assault against Japanese type field fortifications.

The achievement by the Tank Destroyer Center through its Sphinx Detachment was considered by the Army Ground Forces and War Department as a superior accomplishment. Major General A. W. Waldron of Army Ground Forces highly complimented the Commanding General of the Sphinx Detachment and Tank Destroyer officers for the superior work done and the valuable and effective solution achieved.³⁵

While the primary objective of the Sphinx Project was to obtain a solution to the problem of reduction of Japanese field fortifications, the test revealed also the terrific hitting power achieved when all arms were integrated in action. The "1-2 1-2" effect of the boxer and fighter was illustrated in the action and General Gorder of the Center felt that this in itself was a superior achievement.

Albeit the surrender of Japan appeared certain during the early part of August, the Tank Destroyer Center continued training activities along the predisposed lines of April and on official V-J day, 2 September, they still possessed "a young man's spirit" and were convinced that their doctrine was sound to the end of victory in integrated combined arms action.

SUMMARY OF TANK DESTROYER ACTIVITIES: In conclusion, it is fitting to summarize the Tank Destroyer Center's evolution and major accomplishments.

When the German army defeated Poland in three weeks and overran the Low Countries and France with astounding swiftness, the other armies of the world were stunned. It was clear that the French static defense, in which other armies had placed confidence, was impotent against the German air-armor-infantry team.

A defeatist attitude permeated the opposing armies and threatened the United States Army. Suggested antidotes for German armor were defensive in attitude, admittedly expedient in nature and put forth without confidence. In our own army the solutions were static, apathetic-- gun defense intended to subject enemy armor to some slight attrition as it penetrated the antitank net. They held no promise of stopping and destroying German tanks but merely the hope of exacting sufficient toll to reduce the initial strength of the attacking enemy armor. This, then, was the pathetic weakness of our situation until General Marshall directed immediate and conclusive planning of defense against armored forces, to include offensive action and organization.

In consequence of this directive, tank destroyers were born and with them was reborn an aggressive spirit and the confidence that guns could destroy enemy tanks.

The original tank destroyer concept bolstered our courage though many leaders clung to the tank versus tank idea. It was so new and imparted so much confidence that a surging wave of enthusiasm and assurance swept through our Army. The belief that we could stop, destroy and defeat German armor grew through all ranks until, by the test of combat, it was confirmed.

Energizing this confidence was the Tank Destroyer Center. Physically, it converted 160,000 acres of varied terrain into a training reservation which provided a unique combination of ranges that permitted simultaneous firing from opposing directions of the largest tank destroyer weapons; tactical areas conveniently located and served by a well-developed road net; and two self-sustaining environments with total housing facilities for 85,000 troops.

Productivity of the Center has been measured in terms of the graduation from Tank Destroyer School courses of 5187 officers and 17,062 enlisted men; the commissioning of 5299 second lieutenants from the Officer Candidate School; the processing of 42,000 enlisted men by the Replacement Training Center; the training of tank destroyer organizations including two brigade headquarters, twenty-four groups, and 100 battalions; the development by the Board of the M18 tank destroyer, admittedly the finest weapon of its type in the world, together with satisfactory direct fire telescopic sights (in conjunction with the Armored Force Board), and other important developments.*

Tactical doctrine was kept abreast of combat experience by minor modifications of the original sound concept. Technique of direct fire was constantly studied and tremendous advances made both in the application of this fire and in its accuracy. Indirect fire, the chief secondary mission of tank destroyers, was incorporated in all training. Advanced training aids, such as the battle conditioning courses, sub-caliber mounts, sub-caliber firing at moving tanks, and realistic ranges including battlefield firing conditions, were developed.

The tank destroyer units trained at Camp Hood contained more heavy guns than the total of all the divisional field artillery pieces possessed by the American Expeditionary Force in World War I. The total tank destroyer fire power represented was further enhanced by the ability of the self-propelled guns to repeat fire from rapidly changed positions.

The organization and growth of the Center was accomplished under the guidance and control of the Tank Destroyer Center Headquarters and its general staff, which centralized tank destroyer thought, development, tactics, and technique for the Army.

It created, with filial credit to the United States Army, the necessary answer to the German Panzer threat. Tank destroyer development influenced British army tactics; the Russian self-propelled antitank artillery supported the tank destroyer concept and proved it on the battlefield; the Germans themselves created similar Panzer Jaeger units. Our own tank destroyer combat experiences, despite many violations of doctrine imposed by higher headquarters due to exigencies of the situation, and the use of expedient weapons, more than vindicated the courage and convictions of the original tank destroyer advocates. The world-wide effect of the tank destroyer concept and especially its influence upon the confidence and aggressive spirit of our Army, represents a major contribution by Tank Destroyer Center to our successful conclusion of this war.

Just as tanks and other terrible devices of warfare have produced the psychological effect of terror, so did the tank destroyers produce a psychological effect in hastening the conclusion of World War II. The first effect was felt with the

* See Appendix Chapter VIII

advent of tank destroyers with constantly increasing armament; the Germans delved for security against them by increasing the armor of tanks to such an extent that they practically immobilized their armored forces. The use of mines had been dedicated to the purpose of immobilizing and stopping tanks until fire could be brought to bear upon them but such procedure was negative in theory. The aggressiveness of tank destroyers with their mobility and maneuverability forced German armor to immobilize itself. The second psychological effect was the creation of an aggressive spirit and confidence on the part of the armored forces of the United States Army that tanks could be stopped and destroyed and their exploitation foiled by tank destroyers and gun fire. An outstanding material achievement of the tank destroyers was that of speeding up by months, if not by years, the marriage of the artillery gun to truck and tractor. This was a whole era ahead of towed artillery.

The material damage wrought by tank destroyers in action is still a matter of recapitulation by the statistical section of the War Department but an insight into the effectiveness of tank destroyers as opposed to tanks, vis a vis, is given by the two histories of tank destroyer units which have been received by the Tank Destroyer Center. These two histories were - that of the 5th Tank Destroyer Group,³⁶ which was attached to the 15th Corps, and that of the 704th Tank Destroyer Battalion,³⁷ which was attached to the 4th Armored Division. The history of the 5th Tank Destroyer Group lists a grand total of 1155 tanks and self-propelled guns destroyed in their action with the 15th Corps during the period 31 July 1944 to 10 May 1945. The 704th Tank Destroyer Battalion lists 73 tanks, and 195 guns, artillery, vehicles, pillboxes and strongpoints destroyed in their action from 17 July 1944 to 9 May 1945. The casualties as listed for the period of operations for each of these two units indicated an attrition of enemy armor and personnel of approximately 10 to 1.

The history of the 5th Tank Destroyer Group emphasizes throughout the motto of the tank destroyers - "Seek, strike, destroy" - although the action recorded reflected authorized offensive action beyond that emphasized by tank destroyer doctrine. On page 9 of that history, it was indicated that two German tank attacks against the 15th Corps were thwarted by the mobility and maneuverability of tank destroyers.

Unless requested by higher authority, the commanding generals of Tank Destroyer Center never raised the question of a separate arm for tank destroyers but each of them believed that the tactics and technique of the tank destroyers were so different from that of other arms that they required specialized training.

AL history records the race between armor and armament with first one in the ascendancy and then the other. Armor will continue improvement in mass and movement and should tank destroyers become a part of armor, the problem will then arise as to substitution and restitution to armament, thereby restoring equilibrium between armor and armament -- this equilibrium universally considered effecting some guarantee of peace.

CHAPTER IX

THE TANK DESTROYER BOARD

Coincident with the opening of Tank Destroyer Tactical and Firing Center at Fort Meade 1 December 1941, the Tank Destroyer Board was informally initiated. Major General Bruce, then Lt. Colonel, designated Lt. Colonel Ray C. Montgomery and Major Thomas G. Shaffer as Board members.¹

These two officers, forewarned by the record of events during November, were then in the execution of duties aligned with the missions of the Tank Destroyer Tactical and Firing Center. Colonel Montgomery established liaison with Aberdeen Proving Ground and Major Shaffer with Ordnance Department. Each of these officers was searching and analysing vehicles and weapons, trying to find adaptable basic characteristics for a Tank Destroyer weapon.²

Personnel of the Tank Destroyer Board had increased to seven members upon arrival at the staging area in Temple, 3 February 1942.³ While not officially activated until 9 March 1942,⁴ the Board was organized by Colonel Fay Ross, designated as President on 14 February 1942.⁵ An administrative section, a tactical section and a test section were established.

The activities of the Board were directed to: the development of new weapons and equipment, the improvement of existing weapons, the formulation of tank destroyer tactical doctrine and tables of organization, the preparation of training literature and aids, and the tests of vehicles and other equipment developed by the manufacturing services.⁶

The big problem confronting the Board initially was the development of an ideal tank destroyer. Colonel Bruce had described it as a "fast moving vehicle mounting a weapon with a powerful punch which could be easily and quickly fired" and "with armored protection against small arms fire."⁷

The magnitude of this problem was indicated when, in studying a list of approximately 200 vehicles undergoing tests by Ordnance in February 1942, none of the vehicles embodied the characteristics desired.⁸

General Bruce knew what he wanted, and he early imbued members of the Board with a concrete visualization of the ideal tank destroyer and from that time on there was no compromise on characteristics.⁹ This necessitated beginning from scratch and building a tank destroyer, using thirteen definite characteristics,¹⁰ the most important of which was mobility in all cases superior to that of hostile tanks. This implied speed, not only on highways, but across country, and this implied maneuverability and this implied flotation. These three essentials formed the basis of the proposed tank destroyer primary weapon.

As early as 2 December 1941, the Tank Destroyer Tactical and Firing Center published for its command a list of self-propelled antitank weapons.¹¹ This list included 8 gun motor carriages, all in experimental stage, and designated as the T2, T11, T8, T13, T14, T21, T22 and T23, all designated for the 37mm gun. The T12, a 75mm gun motor carriage, substitute for the 3" antitank gun, until that gun was produced, together with the T1, T7, T15 and T24, all experimental gun motor carriages for the 3" gun, were listed also. It was hoped that something could be borrowed from each of these vehicles, but in all of them the basic No. 1 characteristic was missing. The one other weapon listed on this memorandum was still a word picture of a 3" gun motor carriage of "Planning Board design."¹²