

HEADQUARTERS  
701ST TANK DESTROYER BATTALION  
APO 464 U. S. ARMY

1 May 1945

COMBAT LESSONS LEARNED - 1 - 30 APRIL 1945

During the entire month of April 1945, the 701st Tank Destroyer Battalion was in support of the 10th Mountain Infantry Division; with the exception of Company "B" which, during the period 17 - 30 April was under operational control of the 1st Armored Division. Operations, for the greater part, were offensive; consisting of fast-moving Infantry-Tank - Tank Destroyer Combat Teams under Infantry Command. Resistance varied from strong to nil, and the operations covered the entire area from the Appenines through the Po River Valley to the Alps. Terrain varied from flat cultivated valleys with good road nets to high barren mountains where roads were a nonexistant factor. Every conceivable German anti-tank devise from the A/T Grenade and Bazooka to the 88mm gun was contacted by elements of this Battalion.

From the many and varied combat experiences of our personnel during the period, a wealth of combat lessons have been derived. For the sake of simplicity, these Lessons will be discussed under the following headings:

1. Tank Destroyer Gun Companies.
2. Tank Destroyer Reconnaissance Company.
3. Tank Destroyer Headquarters and Headquarters Company.
4. Communications.

## 1. TANK DESTROYER GUN COMPANIES

During the period 1 - 30 April the 701st Tank Destroyer Battalion and the 751 Tank Battalion worked in close conjunction supporting the 10th Mountain Division.

Innumerable Tank - Tank Destroyer tactical groupings were attempted, all arranged to meet a given tactical situation. Proper communication enabled each of these organizations to successfully carry out their assigned missions. The two Battalions initially interchanged crystals on all 508 and 528 radios within their respective organizations. This automatically insured communication of any combined groups of Tanks and Tank Destroyers.

Initially in the period each Tank and Tank Destroyer Company interchanged one Platoon. This gave each tank company two platoons of M-4's and one platoon of L-10's, and gave each TD Company two Platoons of L-10's and one Platoon of L-4's. One mixed company was then sent in support of each assault Infantry Battalion. Later in the period all conceivable combinations were profitably used. (Note - The integral Platoon construction always remained unaltered. Exchanges were not made involving units smaller than the Platoon)

The actual assault on enemy positions was carried out as follows:

The Tank Destroyer platoons were used as a base, firing in direct support of the advancing Infantry. The Medium Tanks were slightly in rear as a mobile reserve. After the TD direct fire had softened the enemy strong points, the medium tanks came forward, passed through the TD's, and pushed forward to the objective with the Infantry. The TD's continued to over-watch, engaging all targets of opportunity.

In the initial stages of the Divisional attack (vicinity of Castel d' Aiano) some Tank - Tank Destroyer companies had engineers platoons attached. Numerous mines and demolitions were encountered and without immediate engineer assistance the progress of the armor would have been frequently delayed.

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In the advance across the Po River Valley, one platoon of Tank Destroyers usually operated with the forward elements of the motorized columns. The remainder of the TD company were interdispersed (by sections) between the trucks of the Motorized Infantry to protect the column from roving German self-propelled guns, which after being bypassed, often fired on the trucks in rear of the armor.

TANK DESTROYER GUN COMPANIES (Cont'd)

It has been the policy of this Battalion that Platoon Leaders are on the L-10 for more effective control of the guns and for his own protection. In flat terrain, such as the Po Valley, the fire of all platoon guns are brought on each target (in mountainous terrain this is not always possible). If the Platoon Leader brings the fire of his gun onto the target, he no longer commands a platoon but one gun; if he does not engage the target, but continues to control the fire of his platoon, he loses the fire of one of his guns. One Company Commander suggests the addition of the fifth gun to the platoon (Organization then similar to the tank platoon). Another Company Commander suggests a light tank in the TD platoon as the Platoon Commander's vehicle (in lieu of the authorized L-20).

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It is imperative that Tanks and Tank Destroyers keep moving when roadbound in mountainous terrain when under enemy observation. North of SAVIGNANO three tanks were destroyed by enemy tank and artillery fire when the column jammed and stopped on the road as the lead tank reached the objective. In this connection, it may be said that when operating with dismounted Infantry columns in mountainous terrain, only a small portion of the TD company should be kept forward (possibly a section or a platoon). The column that advanced up the east side of Lago di Garda ably proved this point in that the entire attached TD company was kept well forward. A blow in the road was reached and the entire armored column was jammed forward (it being next to impossible to get off the road). The entire left column was thus exposed and offered a most promising target to enemy guns across the lake (range 2500 to 3000 yards).

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German anti-aircraft gunners on the dual-purpose 88 mm gun apparently do not make good A/T gunners. The presence of armor seems to make them lose their nerve. Also, trained to taking leads on fast moving aircraft the A/A gunner firing on tanks will invariably overestimate the lead, and fire in front of the tank. Four times in two days enemy 88 mm A/A guns used for A/T purposes fired on armored cars and TD's at ranges under one thousand (1000) yards, and missed. One particular gun fired five rounds, missing each time. Then the crew evidently abandoned their gun when a TD came forward to engage and destroy it.

## USE OF STAR SHELLS

During the past several months the naval shell, Illuminating, 3 - inch M 24, Mod. 1 w/Fuze T & Sg M54 has been used by this Battalion in the following three roles :

- (1) Illumination of targets for night bombing.
- (2) Illumination of enemy strong points to be engaged by direct fire.
- (3) Illumination of targets for Field Artillery observers for night adjustments.

### Night Bombing:

Our night bombing missions were prearranged by the Air Corps and transmitted to the Battalion through Corps Artillery. We have found that it is necessary to have an officer, familiar with methods of fire direction and simple survey and two guns, with the sole mission of firing illuminating shell. Also several hundred rounds of shell were always on hand at the Battalion dump.

The guns had to be well forward so as to be able to engage efficiently the targets selected by the Air Corps for the night operations. The Battalion was never informed until late afternoon of the locations of the targets (centers of communication, road junctions, etc) which usually were well in front of our lines.

Registration by Air OP or ground OP on area targets is desired but not always necessary. On several occasions, when time did not permit day-light registration, the guns were laid by compass and fired with satisfactory results.

The method of engaging targets by the Battalion was laid down by the Air Corps and IV Corps artillery.

At TOT (Time over Target) - 2 minutes, an aircraft releases a flare in the target area. This served as an alert notice to the guns which fire two illuminating shells over the center of the target at TOT. At TOT plus 2 minutes, two additional shells are fired over the center of the target. Then from TOT plus 2 minutes to TOT plus 6 minutes both guns fire as many illuminating shells as possible directing them in the

manner: Center of target, three hundred (300) yards left of target  
and three hundred (300) yards right of target

Engaging Targets with direct fire at night.

At one time during the 10th Mountain Division operation in the Castel d'Aiano sector the enemy was known to be building a strong point about eight hundred (800) yards from our front line. It was planned to have "A" Company, 701 TD En fire star shells over this point and have "B" Company, 701 TD En engage the target with direct fire. Time did not permit registration during day light on the target. The guns were laid by compass and when fired, not having been registered, were off several miles in deflection and instead of lighting up the target, lit up the platoon that was to fire. We never fired this type mission again, but the necessity for registration is obvious.

Registration of Field Artillery by FO at night using Illuminating Shell.

During our operations with the 10th Mountain Division in the Castel d'Aiano sector we used, with some success, illuminating shells for right adjustment of Field Artillery. The method although somewhat crude, is as follows:

Communications with the Artillery were extremely difficult. Mountain artillery can find firing positions without much trouble, while for our gun with its flat trajectory, very few suitable positions could be found. Therefore, distances between artillery and TD's were, as a rule, great, and were impracticable. The SCR510 and SCR 508, due to the mountains were not reliable. So the following method was devised. When the FO picked up or was informed of a target the coordinates were sent to the Battalion which in turn figured the data for the target. The En would be ready to fire but would not fire until so ordered by the FO and then only after he had seen the star shell over the target area. The area then would be continually lighted until the registration was completed which usually took five (5) to six (6) minutes.

It is felt that some better method could be worked out to insure good illumination using a minimum of shells.

## 2. TANK DESTROYER RECONNAISSANCE COMPANY

During the period the Reconnaissance Company of this Battalion seldom operated under Battalion Control or with or in support of the Gun Companies of the Battalion. None the less, the information they derived would be of general value to all Reconnaissance Troops.

In general engagements between Infantry and Reconnaissance Troops, the Infantry will invariably come off second best. M-8 Armored Cars are used as a mobile base of fire against enemy Infantry while 1/4 ton, 4 x 4, crews of the Reconnaissance Platoon operate dismounted, attacking aggressively under covering fire of the M-8's. Six (6) kilometers south of Bomporto, Italy, one Reconnaissance Platoon attacked some one hundred (100) enemy Infantrymen using the above procedure. By segmenting the enemy Infantry into small groups by wedging the M-8's between them, the Platoon captured, killed or wounded the entire group of enemy without casualty to themselves. This enemy group contained thirteen (13) Officers while the total strength of the attacking Platoon was only seventeen (17) men. (Note - Although all of the enemy group were armed with small arms and machine guns, they possessed no useable A/T weapons).

Under similar circumstances, however, this same Platoon some five (5) days later engaged a similar number of enemy SS Troops near Bardolino, Italy. In this case the Platoon procedure for attack was the same, and a wedge was driven between the enemy. This time, however, the enemy troops withdrew a short distance, working to the flanks, and began to attack the armored cars launching A/T Grenades and Bazookas. This aggressive action by the enemy forced the Reconnaissance Platoon to withdraw, but only after it had succeeded in inflicting an estimated ten (10) to twelve (12) casualties upon the enemy.

In action against enemy Infantry in towns and villages, Reconnaissance troops often do not fare so well. In Bomporto, Italy, there were two river and canal bridges which the Division Commander had ordered to be secured intact, if possible. This Company was the first unit to reach these bridges and found them intact upon arrival. Some fifteen to twenty enemy Infantrymen were on the far side of the bridge, plainly visible. Suspecting the bridge to be mined, the Platoon Leader none the less elected to attack. He ordered his armored cars across the bridge firing upon the enemy as they advanced. The enemy Infantry scattered, and by this aggressive action the Platoon Leader saved the bridge. (Some six hundred pounds of TNT was later taken from the bridge by the Company Pioneer Platoon) The second bridge was in the center of the town. The Platoon Leader advanced swiftly and crossed the second (It too was prepared for demolitions). He had dropped off a 1/4 ton, 4 x 4, and crew at each bridge for protection, and now found that he must advance on

through the town without sufficient personnel to clear the houses bordering the street as he advanced. Enemy Infantry evidently realized this and launched A/T grenades from the houses at the M-8's. One Armored car was hit, set on fire, and the Platoon Sergeant and radio operator were killed. The German Infantry then counterattacked and forced the Platoon to withdraw back across the bridge. From this action it may be said that, against aggressive and determined enemy troops in towns and villages, all houses along the route of advance must be cleared abreast of the advancing armor.

When Armored Cars are compelled to engage Tanks or A/T Guns, the results are usually disastrous. On Highway 2 in Italy one Platoon was heading west toward Modena. This Platoon was engaged by an anti-tank gun firing at a range of three hundred (300) yards. The German A/T gunner evidently realized the limited turning radius of the M-8 for he knocked out the second armored car in the column first, then destroyed the lead M-8 before it could turn away. The Platoon Leader was killed, but the Sergeant in command elected to attack the gun dismounted. He found the gun to be protected by determined German Infantry. Thus, one well placed A/T gun hopelessly blocked a major highway to the Reconnaissance elements and a new route of advance had to be chosen. In this action the Platoon suffered nine (9) casualties while the enemy lost only one (1) man.

Throughout the operation, an armored Field Artillery Battalion used the same 500 series radio channel as the Reconnaissance Company of this Battalion. Thus, without official sanction and entirely by the laws of chance, an all-important and life-saving arrangement was worked out mutually between the air-OP's of the AFA Battalion and the Reconnaissance Platoons. The Observers and Platoon operators gradually learned to distinguish radio voices, and even though the call signs changed daily, each group was able to recognize the other. The Reconnaissance Platoons were habitually in the lead of all north bound columns, and when air-bound the air OP would call the Platoons asking if he could be of any help. The Platoons would reply with their forward location, asking the OP to observe to their front. This resulted several times in the location of enemy tanks and A/T guns to the front and in the passing down of invaluable information to the Platoon from the OP. This procedure was worked many times in the advance to the north, and the possibility of its use in future operations in any theatre should be seriously considered by all echelons of Command.

The Reconnaissance Company, through the above means virtually assured at all times of adequate FA support. At Anzola, Italy, on Highway 9, the Reconnaissance Company was utilized in the defense of the town. At night, German truck columns came west from Bologna to approximately five hundred (500) yards of the forward Platoon outpost, and German Infantry began to detruck. The Platoon leader immediately called for fire from the AFA Battalion. A Battalion concentration immediately broke up the

prospective counterattack.

In retrospect, however, although the damage inflicted upon the retreating enemy by the Reconnaissance Company of this Battalion was beyond measure; Reconnaissance, as befits the name, was a dismal failure. During the entire period, although every Combat Command of the Division used during the period had reconnaissance elements, the Task Force Commander at no time had communication with this reconnaissance. Thus, although the Reconnaissance Platoons ever carried out their assigned missions and were habitually first on objective, they served no purpose than that they were first, for they could not transmit that information which they obtained to the proper authorities. In addition, when the Reconnaissance elements engaged the enemy they were often forced to fight the whole action by themselves, for they were unable to call upon the Task Force commanders for adequate support. This resulted in relatively high casualties in men and equipment and lowered morale among the personnel.

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### 3. Tank Destroyer Headquarters and Headquarters Company.

The Battalion Headquarters of a Tank Destroyer Battalion (and any other Battalion or similar Headquarters) must be prepared to defend themselves in case of attack by infiltrating enemy. This is an easy statement to make, but to execute in fact requires prior preparations and organization. The Headquarters Commandant is the logical person to place in charge of the organization of the Headquarters group, and he should be the one to take charge in case of emergency. In the past operation, North of the Ro River, the headquarters of this Battalion became engaged in three fire fights against revving enemy units.

In fast-changing situations it is almost impossible for the TD Battalion to keep close check upon all of its units, for components of the Battalion are usually spread over a complete divisional or often Corps sector. At present writing it is approximately 180 miles from Battalion Headquarters to the Company CP of one of the Gun Companies of this Battalion. Three more platoons (one platoon from each of the gun companies and one Reconnaissance platoon) are more than 145 miles from the Battalion CP. The administrative problems created by these distances are a perpetual strain upon the facilities of the Battalion. During the past winter, the Battalion Headquarters and Gun Companies operated in one Corps while the Reconnaissance Company operated in another far across the enemy front. The well-being of these far spread Companies almost completely depends upon the interest displayed in them by the units to which they are attached.

This Battalion began the past Operation with five (5) G.C trucks on detached service to the provisional IV Corps trucking Company. Most of the time during the operation at least one (1), and usually two (2), Tank Companies were attached to the Battalion. This imposed a supply strain which the Transportation Platoon and the Battalion Supply Officer were unable to overcome. Trucks were just not available to haul the required gasoline, diesel, and ammunition. All kitchens, tentage, supply, and other equipment had to be dropped along the way. Due to lack of adequate truckage, it was necessary for the personnel of the unit to forfeit their beer and like rations. Nothing but items of absolute necessity could be carried. Captured enemy vehicles all eviated this shortage for a short time, but Army orders for the turn in of captured vehicles soon put an end to this.

#### 4. COMMUNICATIONS

This Battalion had so long operated with the 1st Armored Division where communications and communication problems have been successfully mastered that the difficulties encountered in operating with an Infantry Division brought about almost unsolvable situations. Adequate communication was not insured between the component elements of the Infantry-Tank-Tank Destroyer forces and the situation of each often became obscure to the other.

The Tanks and Tank Destroyers both used the 500 series radios and a mutual exchange of radios and crystals insured proper and adequate communication between them. Neither, however, had adequate communication with the Infantry they supported. For this reason, Infantry Commanders in the excitement of battle, having no communication with Tank or Tank Destroyer Commanders would attempt to seize control of individual guns often ordering them into impossible situations all without the knowledge of the Armored Platoon Commanders. Confusion and antagonism were the only results of these situations; all unfortunate and inexcusable but understandable. In the same manner, Tanks and Tank Destroyers were often required to fire in support of Infantry actions when they did not have an adequate knowledge of the situation, and the resultant support fires were somewhat ineffective.

Communications between small Tank and Infantry units could have been properly arranged for the Tank - Tank Destroyer Platoon Leaders all possessed 300 series Infantry radios, but were never informed of the unit channels of the organizations that they supported.

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The 528 radio has been suggested as the standard set to equip L-10's in lieu of the present 510. This would give the Tank Destroyers a set-up equivalent to that of the Medium Tanks, would allow a greater range of communication, and would enable a Tank Destroyer unit, which is subject to a change of attachment within a Division, to carry integrally the proper channels for the major units within the Division.

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Air-Ground Tactical communication is still extremely unsatisfactory; the "Rover Joe" and "Rover Pete" organizations are not the answer to this acute problem.

Air-Ground communication should be under the control of the foremost echelon commander of a given Task Force (not the Force Commander, but the commander most forward who has adequate communication with the components of the force). This would normally be either the commander of the Reconnaissance elements or the commander of the Advance Guard.

COMMUNICATIONS (Cont'd)

In the past operation, the Reconnaissance Company of this Battalion was strafed by American P-38 aircraft and one M-8 Armored Car was knocked out even though the vehicle was plainly marked by the maximum display of the prescribed yellow panels issued for identification purposes. Two other times the column was mistaken for enemy, and strafing by P-47 aircraft resulted.

P-47 aircraft at one time worked some 300 yards in front of the lead vehicle of the Reconnaissance Company strafing enemy Infantry, and as the Company approached Highway 9, P-47's strafed an enemy group some five hundred (500) yards to the left rear. With proper communication, this case could have become the rule rather than the exception.

Without exception, the most singly important tactical consideration in any proposed military operation is proper and adequate communication between all component elements of the given command. Three years of Overseas operations by this Battalion have proven this statement to be true.

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