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Report date: July - October 1944

Title: Twelfth Army Group Battle Experiences

Organization: United States Army

Abstract: Battle experiences are published to enable units in training to profit from the latest combat experiences of troops that fought the Germans in Europe – brief description taken from paragraph written by Lieutenant General Omar Bradley.

Number of pages: 238 p.

Notes: From the MCoE HQ Donovan Research Library, Fort Benning, GA. Documents collection. Call #: D 748.112 .A3 #1-64.

Classification: Unclassified; Approved for public release

D 748.112

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BATTLES EXPERIENCES
Nos 1-64

1-64 40 TWELFTH ARMY GROUP
BATTLE EXPERIENCES

No. 64

UNCLASSIFIED

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By command of Lieutenant General BRADLEY:

C. R. Landon
C. R. LANDON
Colonel, AGD
Adjutant General

I TRANSPORTING AN INFANTRY REGIMENT.

Note: The following solution to transporting an inf CT using only the T of atchd combat units was worked out by the 18th Inf Regt.

1. Situation. "After the break-through we were faced with the necessity of moving forward more rapidly than foot troops could walk if we were to keep pressure on a disorganized enemy. There was no corps or army T available. After crossing the Seine River we succeeded in making arrangements by which we could move between 30 and 35 miles per day and still keep the men in condition to fight. Prior to this time we had used as many as 108 QM trks to do the same job.

2. Method of transporting troops. "We counted the T of our atchd TD co, 155mm how bn, and 2 plats of med tks and set up the following plan:

a. Leading battalion (adv gd).

(1) Riflemen rode the 15 ki trks (ki loads and rolls dumped) and the trks and bicles of 2 tk plats and 1 TD plat.

(2) Hv wpns co men rode their own T.

b. Second battalion.

1) Riflemen rode the wpns and T of the FA bn of the CT.

2) Hv wpns co men rode their own T.

c. Third battalion.

The cn co, AT co, 2 plats of the atchd TD (SP), and a 155mm how bn moved with n. These orgns were able to carry all of the riflemen of the third bn.

Advantages. "This method of motorizing the regt depends, of course, on using hd units. In this div, it is normal procedure to attach the TD unit, 155mm and tks to the CT and to always attach the same units. Having the atchd ry the foot soldiers furthers mutual understanding and reliance on each other. nal advantage is in having inf rifle orgns always present to defend the arty caught by surprise attacks."--3-3, 18th Inf Regt in WD Board Report.

II DESTROYING CAST STEEL PILLBOX TURRETS.

"Experience in the Brest operations indicated that the only effective method of reducing cast steel turrets on pillboxes is to use a C-2 explosive charge of 10 lbs or more placed in the embrasure. None of the direct fire wpns (3" guns and 155mm hows) used were able to penetrate these turrets and thermite grenades were ineffective because of the high percentage of slag in the cast steel."--29th Inf Div Report.

III ROUTE MARKING.

"To reduce the number of guides and route markings an armed FA bn in Italy used the following SOP: 'Except when markers indicate otherwise the unit stays on the road. At a 'Y' junction with equal road conditions it takes the right-hand fork. Upon arrival at a crossroad it continues straight ahead. At extraordinary intersections, main traffic crossroads, or any places where doubt may arise, a guide is dropped.'--AGF Board Report.

IV REPAIR OF SPIRAL-FOUR CABLE.

"The following method of splicing spiral-4 cable was devised because of the lack of equipment for executing regular factory splices: 'On each side of the break peel back the rubber insulation about six inches, at the same time keeping the shield intact. Then peel back the shield over the rubber insulation, exposing the conductors. Splice the conductors at staggered intervals of $\frac{1}{4}$ ", $\frac{1}{2}$ ", 1" and $1\frac{1}{4}$ ", using a soldered Western Union method. Cover the exposed area of the conductors with one layer of friction tape. This prevents the shield from cutting into the splice. Next, slip one side of the shield back over the insulation for the entire length of the splice and secure it by wrapping with seizing wire. The other side of the shield is then slipped over the spliced area in the same manner, thus giving it a double shield. Solder together the two layers of shields. Wrap two layers of black rubber vulcanizing tape over the splice and vulcanize for about thirty minutes.'--Sig O, XIX Corps.

V FRONT LINE COMMUNICATIONS FOR CORPS LIAISON OFFICERS.

"To give the corps ln Os coms from front line positions a system of radio cars using SCR 193s and SCR 506s has been set up by our sig bn. The use of simple remote control systems which the bn has developed makes it possible to operate the sets even from fox holes."--Sig O, XIX Corps.

VI AIR BURSTS ON CAPTURED PILLBOXES.

"Immediately upon the demolition of a captured pillbox by our engs the enemy invariably covers it with arty fire fuze for air bursts. The quickness and accuracy of these fires indicate that the fire data has been previously prepared."--CO, 47th Inf Regt.

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TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 63

11 OCT 1944

"Battle Experiences" are published regularly by this headquarters to enable units in training to profit from the latest combat experiences of our troops now fighting the Germans in Europe. Although the experiences of certain units at a particular location are not necessarily applicable to all units in all situations, the items published will be those based on practical experience and are recommended for careful consideration by units which may encounter similar problems. Reports of corroborative or contrary experiences are particularly desired in order that the validity of the indicated battle lesson may be determined.

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I INFANTRY-TANK-ENGINEER ACTION ON THE SIEGFRIED LINE

1. Source. Beginning on 17 Sep the 3rd Arm Group, composed of the 741st and 747th tk bns, was attached to the 28th Inf Div which used it as part of a task force having the mission of widening a gap which had been made in the Siegfried Line. The comments below are extracted from a report of the tk group commander to the CG First Army.

2. Composition, strength and organization. "The bulk of the force was composed of the tks with one inf co at greatly reduced strength supporting each tk bn. Each tk bn had about 35 medium tks. Each bn was organized into two composite cos. Tk dozers were attached to the assault cos and all available assault guns were placed in positions permitting direct fire support.

3. Plan and operation. "The general plan of attack was for the tks to assault a position, gain fire superiority and for the inf then to move in and occupy the position until a tk dozer had covered the embrasures and entrances to the pillbox. In four days of operation 49 pillboxes were buried and an additional eight were captured by the task force and destroyed by engineers.

4. Hostile counter measures. "After the second day of operations, the enemy modified his tactics to meet our methods with increasing effectiveness. He mined the ground in front of embrasures and entrances and stationed bazooka men in foxholes around the pillboxes and in some cases on top of the pillboxes.

5. No change our tactics. "Plans were then drawn up for a coordinated attack by two inf cos, a reinforced tk co and engs working in teams on a group of pillboxes about 2000 meters from the location of the previous attack.

6. Planning and operation. The teams were carefully briefed and rebriefed as to missions, routes, signals, etc. on large-scale maps, aerial photos and actually on the ground. These briefings were all at joint meetings which were held over a period of three days.

7. Deception. During the briefing and planning period, daily diversion attacks were made by tks in the area of principal operation. On the day the main attack was launched, another strong diversion was carried out by tks not included in the main attack and reinforced by morts and assault guns. This attack lasted from 0730 to 1130 and drew extremely heavy arty and mort fire.

8. The main attack. The main attack jumped off at 0930 and in the beginning drew almost no fire as a result, it is believed, of the deceptive methods employed. The assault teams were composed of a sqd of inf supported by two tks and sufficient engs to destroy the pillboxes when taken. In six hours eleven pillboxes were captured and 51 prisoners taken in a strongly defended area.

9. Conclusion. Where the enemy is relatively disorganized, attack by tks alone or attacks with a minimum of inf support, will accomplish results even against concrete emplacements, but when his defense begins to take on form and coordination, profitable results can be obtained only through carefully planned attacks of inf-tk-engr teams.

10. Miscellaneous observations. a. On fairly level ground, a tk dozer can effectively bury a pillbox in about 15 minutes.

b. Covering up pillboxes still occupied by the enemy has a psychological effect. A number of PWs stated that they surrendered because they preferred that to being buried alive.

c. Tks can blow openings in dragons teeth with direct fire from their cannon. About 50 rounds are required to blow an opening large enough to permit passage of a tk.

II AA TACTICS

A system of area AA defense was instituted in the ___ Div area, by an AAA AF Bn, to eliminate attaching AA elements to FA Bns. The purpose was to prevent the high concentration of AA which resulted from the bunching of FA units. AA guns were placed two in each 1000 meter grid square. This resulted in better positions being selected and permitted a higher percentage of fire units to remain in position at one time. It simplified coms and AAIS, and also gave relief from counterbattery fire as the rear guns always leap-frogged to the front of the sector on moving. --AA Bn After Action Report.

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I DIGGING IN PAXO OTH

Note: The value of properly organized and prepared defensive positions is emphasized in this account of a German counterattack against positions of a 1st Inf Div unit in the Siegfried line zone.

1. Artillery and mortar preparation. "On the night of 2 Oct 44, the Germans counterattacked positions of our Regt in an effort to seize an important road and ridge. The counterattack was preceded by the heaviest arty and mort preparation to which we had ever been subjected. The preparation began at 2300 hours and lasted until 0130 hours, an estimated 2000 to 3000 rounds falling during that period.
2. Low casualty rate. "The area covered by the barrage was approximately 1500 yds in width and 1000 yds in depth and was occupied by approximately 200 men. Only eight men were killed or wounded during the barrage and the counterattack that followed. The low casualty rate is attributed to thoroughly prepared defensive positions including deep and well covered foxholes. These positions had been continually improved during the few days we had occupied the defensive area.
3. The German counterattack. "Following the preparation the Germans attacked in two waves. First and last in the first wave to seize the pillboxes and last in the second wave to occupy them. Some of the first wave managed to reach our positions but the second wave was cut off and dispersed by our planned arty and mort fires. Of four SF assault guns that attempted to penetrate our positions, three were knocked out when they hit our mine fields and one was abandoned because of motor trouble.
4. Restoring our line. "During the antire operation about forty Germans were able to penetrate the position and seize one pillbox. All of these had been killed, captured or driven out when our line was restored at 0500 hours. Trip flares and 60mm mort flares were used effectively in this action."

II DETECTION OF PILLBOXES

"Some German pillboxes have been so well camouflaged that detection is not difficult. In a few instances we sprayed suspected areas with MG fire and located the pillboxes by the ricochets. We then used 75mm and 105mm Hs to clear off the camouflage and AP shells to penetrate the doors."--S-3, 16th Inf Regt.

III BATTLE CONDITIONING

Note: NCOs and privs of Co K, 11th Inf made the following comments:

"The best mental conditioning for offensive fighting is a gradual introduction to combat. Ten days of being in defensive combat at the beginning gave our outfit a chance to learn what it meant to be under fire, the value of our own fire power, how to tell the difference between Jerry ups and our own, how to keep out of sight, and whom we could depend on as our real ldrs. It took away the first tension of battle and gave us confidence. Also, very important, it gave us a good idea of the toughness and ability of the enemy. It was the best way to get experience."

IV WOODS FIGHTING

Note: Extracted from a 9th Inf Div memorandum on combat in woods, the following describes one technique of close terrain fighting.

1. Organization. "For woods fighting special task units are formed consisting of assault, support and reserve groups. The assault groups are organized for close combat with the enemy and the support groups for providing them with supporting fires and with protection for their flanks. The reserves are maneuver forces to exploit the areas where maximum progress is being made.

2. Assault and support groups. "Each rifle co is divided into two assault and two support units. The assault groups are armed with grenades, BARs and rifles and include a number of expert scouts capable of maintaining direction when advancing through dense woods. Within the co they move on parallel azimuths and are mutually supporting. The support groups have LMGs, 60mm morts and sufficient rifles for their immediate local protection. They follow the assault groups by bounds always ready to give close support and flank protection.

3. Concrete fortifications. "When a concrete fortification is encountered an assault group determines its type and size, drops off the minimum number of men to contain it, and after reporting this information to its next superior, continues on its mission. A specially organized and equipped task force then comes up and reduces the concrete fortification.

4. Emerging from woods. "Before arriving at the far edge of the woods timely arrangements are made for resuming normal combat formations upon breaking into the open."

V INFANTRY COMMUNICATION EXPEDIENT

"I have mounted an SCR 608 in my jeep and have com with everybody including my arty bn. I like it better than the SCR 284."--CO, 9th Inf Regt.

END

TWELFTH ARMY GROUP

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STREET FIGHTING IN BREST

Note: The following material, extracted from a memorandum of the 2d Inf Div concerning the experiences of that unit in large scale street fighting in Brest, is worthy of note as indicative of conditions likely to be encountered by units fighting in German cities. A discussion of this subject by the div comdr was published in Battle Experiences No. 50.

1. Many defense methods. a. "Streets were covered normally by grazing fire of automatic weapons located in pillboxes and in basements. Pillboxes were located frequently at street intersections.
- b. "Riflemen were placed both in upper stories and in basements to cover the automatic weapons positions. Riflemen were located also in many gutted buildings, small holes having been made in the remaining walls to enable fire to be placed in the corners of blocks.
- c. "Buildings within the interior of a block normally were not occupied as they did not afford fields of fire and were easily surrounded.
- d. "Direct fire weapons were kept at some distance and were used mainly to fire at upper stories, in many cases denying the use of upper stories to arty observers.
- e. "A large number of tunnels and underground installations were used as protective shelters, storerooms, or repair shops. Entrances to these shelters often were defended.
- f. "Buildings were set afire frequently in order to block the advance of attacking units. After the buildings had burned out the additional open space gave the defenders improved fields of fire.

2. Zones of action--Formations. a. "Widths of zones of action were reduced due to the height and depth of the area to be neutralized and captured. Co zones varied between one and two block fronts with each platoon assigned a row or block of buildings. A definite street or building was assigned to each assault squad and platoon.

b. "It was found desirable to attack two cos abreast, with the reserve co held much closer to the assault units than in open terrain. The reserve co could deal with local counterattacks rapidly and could prevent successful infiltration in rear of the assault units.

c. "To insure maintaining a continuous front, each sqd and plat coordinated with the next higher unit after securing an objective.

3. Method of advance. a. "Because the streets were so heavily defended, the buildings provided the routes of advance. Entry was gained by blasting holes through covered sides of walls. In some cases, demolition teams with prepared charges were attached to each assault plat; in other cases, engs prepared and furnished the charges and the inf executed the demolitions.

b. "After a hole had been blasted, a rifle sqd, or half-sqd made an assault through the hole before the enemy could recover from the shock. Once a building was entered, each floor had to be cleared in turn.

c. "Experience proved it was often best to enter a building from the roof or top floor and work down. Scaling ladders were invaluable in providing entrances through windows and ceilings.

d. "Smoke grenades were used to cover the units crossing streets and gaps between isolated buildings. Enemy AT sometimes could be located when they fired at the smoke.

4. Time of operations. a. "Experience showed that advances could be initiated any time after daylight, the hours of darkness being utilized to blast holes in initial objectives for the following day.

b. "Three or four hours sometimes were necessary for consolidation of positions for the night. This was found desirable to enable units to prepare positions to cover every enemy approach. Without this coordinated defense for the night, the enemy infiltrated rifleman behind advance elements and seriously hampered operations on the following morning.

5. Supporting artillery. a. "Close arty support from organic hows was of little value due to the varying heights of buildings and to the very close contact with the enemy.

b. "Arty rendered invaluable support in engaging targets some distance ahead of front line units and in placing an intense 24 hour program of harassing and interdiction fires on selected areas and targets in the enemy's rear.

c. "TD wpns and 155mm self-propelled guns proved extremely helpful in neutralizing or destroying heavy emplacements, pillboxes, heavily defended buildings and strong points. These wpns also were instrumental in providing avenues of advance for units by blasting walls of buildings. The following points are worthy of interest in the employment of these wpns:

(1) A ln O or NCO should remain with the rifle co comdr at all times to speed delivery of fire.

(2) Guides should be furnished to lead the wpns into positions and to point out targets.

(3) The wpns must be given protection against enemy AT wpns.

(4) Wpns should follow front line units by bounds when not employed.

(5) Mort or arty fire should be used to conceal the noise of wpns moving to positions.

(6) Normally one section of TDs was attached to each assault co. Subordinate and adjacent units should be informed when these wpns are to fire.

6. Chemical mortars. "The 4.2 cal mort was one of the most effective supporting wpm. It was able to shoot over high buildings and to render support within 100 yds of front line elements. Large amounts of WP were used to drive the enemy out of cellars and buildings into the range of rifles and automatic wpm.

7. Infantry weapons. a. "The most effective automatic arms employed were BARs, Thompson SMGs, and carbines modified for automatic fire.

b. "MTCs furnished little support due to limited fields of fire. They were normally used to cover streets leading into the flanks, and where possible, to fire down streets to the front to prevent the enemy from crossing streets and shifting positions.

c. "Rocket launchers were profitably employed when it was possible to advance within range. They were effective in clearing out MG positions in houses and pillboxes.

d. "57mm Air guns were held near street corners in ready positions, from which they could go into firing position rapidly, fire and withdraw.

e. "60mm mortars were used on close-in targets, and were effective in keeping enemy riflemen from roofs or top floors of buildings. They were of more value in residential districts than in solid blocks of high buildings, but in both cases were helpful in fixing the enemy and in preventing his movement to new firing positions.

f. "81mm mortars provided excellent support at ranges not to exceed 1500 yds. Displacement was normally by section as suitable areas for plat positions were rare. WP was used extensively for screening and for casualty effect, and M1 (both light and heavy) for destruction of buildings.

g. "Hand grenades (fragmentation and WP) were essential for clearing out basements, houses, and pillboxes.

h. "Flame throwers were used in several instances when direct fire wpm could not be employed and proved a great incentive to the enemy to surrender.

8. Ammunition supply. "Co sup dumps were maintained one block in rear of assault units, because front line units could not normally carry a full day's sup.

9. Communications. a. "SCR 536 radios proved to be of little value, because transmission and reception in buildings were not good.

b. "Com with plats was maintained by sound-powered telephones.

10. Map clearing. "Mine detecting personnel from com and pion plats and from combat engs followed the assault closely in order to clear routes of advance for Tn and AT wpm.

11. Engineers. "Eng troops were of invaluable assistance in the following roles:

a. Capping walls, floors or ceilings to permit inf units to advance.

b. Clearing routes and preparing positions for self-propelled wpm. This often was accomplished during hours of darkness with hand tools to avoid disclosing positions.

c. Filling craters, which were numerous, with rubble from destroyed buildings.

d. Filling numerous AT ditches by placing explosives inside walls of adjacent buildings in such a manner that the debris was blown into the ditches. This was found to be much faster than blowing in the shoulders of ditches, due to rock and hard surfaced roads.

e. Checking streets for mines. Some mines were found under regularly spaced removable concrete squares. These concrete blocks were not camouflaged and normally would be presumed to cover slots for holding steel roadblocks.

f. Cutting steel roadblocks with TNT. This was found to be the quickest and safest method.

11
12. Conclusions. "The following conclusions have been reached as a result of the operation:

- a. Greatly increased initiative is required of sqd and plat ldrs, because the capture of each city block and group of buildings is a distinct operation in itself.
- b. Narrow zones of action are imperative.
- c. Interiors of city blocks, rather than defended streets, provide best avenues of advance.
- d. Consolidation of positions prior to darkness is necessary to prevent enemy infiltration during the night.
- e. Close arty how support is normally impracticable.
- f. Direct fire arty, AT wpns, morts, grenades, flame throwers, and light automatic wpns are most effective.
- g. SCR 536 radios are unsatisfactory when used in buildings.
- h. Engr troops are invaluable in clearing routes and accomplishing demolitions."

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15 OCT 1947

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TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 60

8 OCT 1944

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I LEADERSHIP EPISODE

"During an attack against a fortified hill the co comdr of the reserve co brought his co into the line at 0700 hours. He personally led attacks with SA, hand grenades and bayonets until wounded in the arm at 1000 hours. Refusing to be evacuated he led another attack and was cut off. The Germans demanded his surrender and upon his refusal attacked. Standing up he killed four Germans, firing his carbine with his good hand. He continued to lead the attack until 1800 hours when most of the hill was clear, and then went to the OP and adjusted arty fire for two hours before he allowed himself to be evacuated."--Extracted from an 8th Inf document.

II OPERATIONS IN THE SIEGERIED LINE

1. Prior planning. "Using the mosaic supplied by corps, supplemented with oblique photos, each co in the bn constructed a sand table replica, to scale, of its zone of action. All Os and NCOs studied it until thoroughly familiar with every detail. Assault teams were also rehearsed on similar terrain in the rear. This training proved invaluable."--CO 1st Bn, 117th Inf.

2. River crossing. "In our area the WORM River has very steep banks 6 to 7 feet high and is about 3 1/2 feet deep and 10 to 15 feet wide. To facilitate crossing by troops several three-section foot bridges were constructed, 12 feet long and 2 feet wide. Two sections were placed at a slant, one on each bank, extending from the bottoms of the river to the top of the bank. The third section was placed as a bridge between the other two."--CO, 1st Bn, 117th Inf.

3. Breaching wire. "The only wire obstacle found along the German border consisted of two rows of double apron fence with concertina between the rows. We blew gaps in it with 4.2 mortars using 703 rounds of HE to make two gaps."--G-3, 30th Inf Div.

4. Trenches outside of pillboxes. "Most pillboxes had foxholes for MGs dug on the three sides not covered by an embrasure. Riflemen were found in most of those occupied -- our arty and mort fire apparently having prevented the MGs from being brought up."--G-3, 30th Inf Div.

5. Defensive fires. "I frequently have my arty bn CO prepare the fire plan for the employment of all wpns larger than the 81mm mort, to include the indirect fires of the 4.2 mort, AT co and TDS. This procedure saves duplication of effort and makes for better coordination of fires."--CO 9th Inf Regt.

III TANK-INFANTRY ASSAULT

"Regardless of the initial formation, it is not essential that tks and inf keep their respective positions in an assault. A tk must stop to fire effectively but that is the time for the inf to press on. The inf may be stopped by MG fire and if the enemy AT defenses are ineffective the tks should press on. Both arms must realize that the fact that one stops is not necessarily a reason for the other to stop."--Report of XIX Corps.

IV MISCELLANEOUS COMMENTS

1. Snipers rifle. "If effective use is to be made of this wpn the sniper must be considered a specialist -- not a front line rifleman. Snipers should be carefully selected and not allowed to trade their rifle for an M-1 because of its greater fire-power."--CO, 1st Bn, 26th Inf.

2. Successive enemy attacks. "If an enemy attack against a unit on my flank is repulsed, I always get out my am as he will usually hit my positions next. On one occasion when I was defending a large hill the enemy attacked successively every position on the hill."--CO, 1st Bn, 26th Inf.

3. M-1 rifle. "The Germans have a very healthy respect for this wpn. Marksmanship training should emphasize well-aimed shots, increased rate of fire, and the use of slings in combat. If you see a Jerry who does not see you, there is no reason for hasty unaimed fire."--CO, 1st Bn, 26th Inf.

4. Use of stealth. "A surprise attack by the inf without tks will often catch the enemy unaware -- especially when in close contact. The noise of the tks warming up warns him of the impending attack. On one occasion after a tk-inf attack had failed, I attacked the next morning in a slight ground haze without tks or arty and caught most of the enemy asleep."--CO, 1st Bn, 26th Inf.

5. Telephone lines. "We always cut a gap in the enemy wire. Usually we are able to pick up a prisoner who is sent out to repair the line."--CO, 1st Bn, 26th Inf.

6. Leadership. "The presence of high ranking Os -- bn, regtl and div comdrs -- well forward gives men confidence. They reason that 'if the old man is up this far, we should be further ahead'."--CO, 1st Bn, 36th Armd Regt.

7. German civilians. "It is SOP in this unit to send all male civilians to the PW cage for questioning. Recently I sent back two men who were passing through our lines and it turned out they were both German soldiers."--CO, 1st Bn, 36th Armd Regt.

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TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 59

5 OCT 1944

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I INFANTRY RIDING TANKS

1. "When a tank on which inf is riding is knocked out the inf should immediately mount another tank. No more than 4 men should ride on one tank. A greater number may prevent movement of the turret gun. When the attack is upon the machine gunners in the rear the most be careful to avoid hitting the men on the loading tank."--CO Co "B", 33d Arm Reg Bn.

2. "When carrying inf on the rear deck of your tank through towns be sure that the tank in rear do not fire their bow gun as the bullets will glance off buildings and inflict casualties among your own inf."--Lt, 31st Tk Bn.

II ARTILLERY SELECTION IN ARTILLERY SQUADS

1. "The effect of delay fuzes on prepared enemy positions was not appreciated until recently. Observers reported that when delay fuzes were used in a concentration it brought the enemy out in the open and enough ricochets were present for casualty effect. It is believed that in firing against dug in positions at least 50% delay should be used - especially in the medium and heavy calibers. The enemy dugouts with overhead cover could easily withstand the effect of time and impact bursts, but the delayed action bursts tore into the positions and brought the enemy out.

2. "A medium arty bn and a light bn teamed up on several occasions for greater casualty effect. After locating a bunker the medium bn would fire a volley of delay fuzes to drive the enemy into the open. The light bn would fire time shell into the area about 30 seconds later."--AGF Board Report from Italy.

III USE OF ALL AVAILABLE CALIBERS AVAILABLE

Every effort was made to have POC realize the availability and value of the varied caliber weapons within their sector. Precision adjustments of 8" hows were made, during panics in the attack, on pillboxes, bunkers, houses and other obstacles that would hold up the most advance of the inf. Light and medium arty would have little effect on such targets. At first corps seldom thought of or realized the availability of any guns except those of their own units. Later they called for a caliber to take care of the job to be done. The inf caught on too, and on several occasions requested fire by caliber. The use of heavy caliber arty in close supporting destruction missions is a big help in breaking down enemy resistance."--AGF Board report from Italy.

IV "NATURAL SMOKE"

1. "Arty and mort smoke are invaluable during daylight, but I am a firm believer in the use of "natural smoke", i.e., the periods of low visibility in early morning and late evening. The enemy fights stubbornly at longer ranges, but his will to fight quickly disappears at the bayonet point. The shortest way to get from MG range to bayonet range is by using the cover of darkness of early morning and late evening mist. I am not referring to a complicated night attack, but of the tactic of using periods of low visibility for approaching enemy positions. My bn cadres are enthusiastic over this system and find that it lessens the effect of the enemy's mutual supporting fires and prevents early dissipation of our striking force.

2. "In one instance I had two green rifle cos which needed a short, successful fight to weld them into combat units. I deliberately held them in reserve although their objective was obvious most of the day, because the open terrain through which they had to pass to reach that objective was commanded by the fire of a strong point in the zone of an adjoining regt. Late in the day this strong point had fallen, these two now cos quickly and cheaply passed through the open terrain under cover of limited visibility and took their objective like an experienced outfit. They are good rifle cos now--both they and I know."--CO, 121st Inf.

V MISCELLANEOUS COMMENTS

1. Machine gunners. "Most machine gunners fire too long bursts. This results in excessive smoke, dust, and sometimes steam, thereby disclosing the gunner's position. Such long bursts also result in wild firing unless followed by re-laying. The rate of fire should not be reduced, but bursts of not more than 5 rounds are more effective.

2. Notification of jump-off time. "Higher hq should always notify adjacent units if a certain unit does not jump off on time when making a coordinated attack. Failure to do this has resulted in near disaster to units which attack on time. Another mistake often made is that of attacking at the same hour every day for several days --Jerry soon gets wise and gets shot at that hour."--CO 1st Bn, 26th Inf, 1st Div.

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 58

5 OCT 1944

"Battle Experiences" are published regularly by this headquarters to enable units in training to profit from the latest combat experiences of our troops now fighting the Germans in Europe. Although the experiences of certain units at a particular location are not necessarily applicable to all units in all situations, the items published will be those based on practical experience and are recommended for careful consideration by units which may encounter similar problems. Reports of corroborative or contrary experiences are particularly desired in order that the validity of the indicated battle lesson may be determined.

By command of Lieutenant General BRADLEY:

C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

FIGHTING IN THE SIEGFRIED LINE

Note: This issue of "Battle Experiences" consists entirely of observations of Oa and men of the 28th Div in contact with the enemy in the Siegfried line since 11 Sept. The terrain in which they have been operating contains many steep hills, some as high as 515 meters, woods with thick underbrush, and streams. Consequently it is generally poor attack country. Pillboxes are of 3 types - some with one aperture, some with the MG emplacement and 2 apertures, and others used as troop shelters. Pillboxes are of a density of approximately one per 100 yds in width and depth and are mutually supporting. The enemy has had excellent observation and an abundance of arty and mort support.

I RIFLE COMPANIES (Comments of four Rifle Company Commanders)

1. Movement. "Most of the pillboxes seem to be sited for long range fire, and once you get fairly close there are quite a few dead spaces through which troops can filter. Routes should either be viewed the previous day from a good OP or a thorough map recon made. It is best to move across the open ground from ridge to ridge during the hour just before daylight. As an example, Co B fought all one day and gained only 100 yds due to extremely heavy mort and MG fire. In the hour before daylight the next morning they covered 1000 yds without losing a man and took 6 pillboxes without the aid of supporting weapons.

2. Supporting Weapons. "Tks or TDs are excellent supporting weapons for the attack of pillboxes. They must, however, be closely followed by inf. The bazooka is a good weapon and sometimes will penetrate the steel doors on a pillbox. The flame thrower is a heavy piece of equipment and only good for a short time. It only takes a short squirt to do the job. Conserve it and use it only when necessary. It may be needed on another pillbox further on.

3. Cooperation with mechanized support. "When tks or TDs are used, inf should be deployed in position to rise and advance with them as they pass through the inf position.

Inf must not be allowed to stop because of mort or arty fire for if they lose close contact with the tks they are more vulnerable and the demoralizing effect upon the enemy of an inf-tk assault is lost.

4. Assault teams. "We use a 12 to 16 man assault team. Each man must know his wpn and job, plus the wpn and job of everyone else in the team (flame thrower, demolition charge, rocket launcher, etc). We sometimes assign each rifle plat a fixed zone of responsibility. Each pillbox becomes a phase line for coordination and reorganization. In many instances one plat can cause 2 or 3 pillboxes to "button up" by firing at the embrasures, but the enemy often can continue to fire through small slits in the embrasure. Men must not forget that pillboxes are mutually supporting. Include in your plan fire on flanking pillboxes as well as on those to be assaulted.

5. Use of smoke. "Never forget that a blind man cannot shoot straight. Make use of the 81mm mort and arty for WP and smoke. Smoke can be used before the assault to save the lives of your men.

6. Infantry and direct supporting fires. "The supporting direct fire wpns (tks, etc) should cease fire on pillbox apertures without signal when the inf comes within 25 yds of the pillbox. The infantryman nearest the aperture must immediately take the aperture under fire to insure its being kept closed. Two flanking groups of 3 or 4 men each should take position in rear of the pillbox to cover the rear entrance and apertures. The support sqd must look for, and cover with fire, the embrasures in the pillboxes which are sited to support the pillbox being attacked. The rest of the co or plat should move past the pillbox and secure the ground beyond it to protect the assault team while it does its job.

7. Close up action. "A man should be worked in close to the pillbox to throw in a fragmentation or WP grenade. When there is a quiet moment he should shout, "Kamerad?" and "Wir schutzen nicht" (We won't shoot). If the enemy doesn't surrender, use rifle grenades or the bazooka against the steel doors or apertures. While all this is underway, other riflemen must cover all fire ports.

8. Digging them out. "If the enemy does not surrender, some men must work to the blind side of the pillbox and blow the embrasure with TNT. After this, it is best to work from the top to place a pole charge against the door. Never allow anyone to enter the excavated area to the rear of the pillbox as it is always covered by a small embrasure built especially for that purpose. Under no circumstance allow anyone to enter the pillbox to take prisoners; make them come to you. Sometimes they will claim to be injured, but we have found that after a second charge of TNT they somehow manage to walk out. When approaching these pillboxes all persons should be warned against 'ointment box' mines. They are very small, but very dangerous. (NOTE: This mine is a metal box 2" in diameter and 1" thick. It telescopes when stepped on, thus activating the 3 oz charge.)

9. Other methods of knocking them out. "If the above measures fail, a demolition charge can be used, tks can blast in the rear of the pillbox, or a tk dozer can cover the door and embrasures with dirt. The use of tk dozers may not prove successful in the future because the Jerries are planting mines, some of them activated by remote control, as a counter remedy. The flame thrower and pole charge method of attack proved quite successful the one time we used it. The combination started a fire in the interior of the pillbox among some of them and the resulting confusion made it easy to clean out.

10. The WP grenade. "Jerry will often remain in his hole after an embrasure has been blown out until persuaded to leave by a flame thrower or hand grenade. A hand grenade in the ventilator of a pillbox sometimes stuns the Boche but a WP grenade in the same air shaft is a great little reviver.

11. Precaution on surrender. "If the enemy surrenders do not forget to keep the pillbox covered and throw a grenade in each room before entering; there may be some men who didn't come out.

12. Make them useless. "Pillboxes should be demolished immediately after taking as they may be reoccupied. Six pillboxes in our portion of the line have had to be taken three times. Blowing of the aperture and doors does not make it untenable. The pillbox has to be completely destroyed, right down to the ground. Otherwise if one wall is left standing it leaves a place to fight from. Therefore, someone should follow close behind with the equipment to completely destroy these pillboxes.

13. Prepare for counterattack. "After the pillbox is taken everyone must deploy to the front and flank to guard against counterattack and be prepared for the rain of mort and arty fire that always follows. Don't bunch up around prisoners. Send most of them to the rear as quickly as possible, because we have had Jerry shoot his own men rather than let them be taken prisoners.

14. When to prepare. "Attacks should stop if possible at least one hour before darkness, even earlier if possible so a proper defense can be set up; the Jerries will push a strong counterattack just after dark and if you are not organized they will push you off your hard-won ground.

15. Where and how to prepare. "If you are to occupy the position dig your men in around and in between the pillboxes. Use the pillbox as a rest position to relieve your men from their fighting positions. Don't let the enemy counterattack and catch you bunched in a pillbox. Enemy combat patrols may send one or two men around your flank to knock out your MGs when they attack from the front. Do not become so interested in firing on the main attack that you neglect to watch your flanks and rear.

16. Smashing the counterattack. "German counterattacks have been made during darkness and preceded by a lot of screaming and talking. It is nerve-racking to troops that know they do not have a well organized position. If, however, the troops are in a strong position and experienced, it merely makes them alert and the attack usually suffers. 60mm illuminating shells are good against these attacks. Hold your fire until Jerry comes in close, then cut him down in your FPL. Use plenty of grenades, fragmentation and WP. When he retreats follow him with fire and your rifle fragmentation grenades."

17. General rules. The regt has found the following general rules applicable in our zone:

- a. Pole or satchel charges must contain at least 30 lbs TNT.
- b. Assault teams cannot be given just one pillbox but must be prepared to take whatever pillboxes are in their zones. This is because maps do not show all the pillboxes.
- c. SP TDs are especially valuable in firing on pillboxes farther away than those under immediate attack. Towed TDs and AT guns are of less use due to enemy arty and mort fire.
- d. Smoke is desirable only in some instances.
- e. Light arty fire has no effect on pillboxes, but time fire causes personnel around them to retire inside.
- f. The flame thrower is used very little. In most cases the men carrying it are not able to get within good firing distance.

g. Assault cos cannot take the time to destroy or occupy pillboxes; troops immediately in rear of the assault bn should mop up and occupy the ground.

18. Example. The following example of a rifle co attack occurred on 15 Sept:

a. "We attacked a hill on which were 3 pillboxes. Due to heavy fog, our TDs could not fire but by 0730 we were within 50 yds of the pillboxes.

b. "We then moved close enough to the pillboxes to bring fire on the aperture, causing it to close. This took a BAR and a couple of riflemen. When the aperture was closed we moved around to the back of the pillbox. Those men not part of the assault section moved out beyond the pillboxes and secured the hill which was our objective. The assault teams were left to reduce the pillboxes. The teams then closed in on the pillboxes from the rear. We called for the Germans to surrender but they fired a few scattered shots in return. We then fired two bazooka rounds into the doors at the rear of the box. The bazooka and a couple of hand grenades thrown through the doors brought them out in the open. This happened to two of the pillboxes. We had four prisoners from one and six from the other.

c. "The third pillbox, however, presented a bit of a problem because the enemy refused to come out of it. A couple of bazooka rounds fired at the doors and a couple of hand grenades thrown through the door drove them from one room to another. Finally they were driven into the room where the aperture was and a short burst of the flame thrower brought them out. We left three men in the vicinity of the pillbox and the rest of the men moved up with their platoon."

II HEAVY WEAPONS COMPANIES (Comments of Heavy Weapons Company Commanders).

1. Tracers. "By using only a few tracers at the beginning of each belt we have found that the guns draw less arty and mort fire than by using the usual 4 and 1 load. Some NCOs believe we should eliminate tracer altogether.

2. Close supporting machine guns. "In the attack we have used a section of heavy MGs in support of each assault co. Their mission is to protect the flanks of the bn. When the attack succeeds they may come up closer to cover the reorganization on the objective. When the attack is resumed they drop back to carry out their flank security mission. If they get too close to the assault co they cannot accomplish this and they draw mort or arty fire on the assault troops. After reaching a final objective we like to draw the HMG sections into the center of the two forward cos and let the LMGs take the flanks.

3. Long range machine guns. "The other plat of HMGs should if possible follow the assault cos near or in front of the support co. They should be given the mission of long range and overhead fire. They must not fire unless they have a target; they must not use tracers; they must change position after a few bursts; they must put one section above the other when ground permits; the support co must protect them with a sqd from the support plat; the plat ldr must be given freedom of movement and decision by the co comdr, especially as to displacing forward.

4. Machine guns for support rifle company. "If the support co is committed we sometimes attach the long range and overhead plat or at least a section of it to this co. If one section goes with the support co the remaining section can continue the long range or overhead mission, or be shoved forward to the co delayed by the heaviest fire, or support it by fire from where it is.

5. Machine guns in defense. "When it has been necessary to defend we have found it quite difficult to establish final protective lines because of the hilly terrain. We have placed the MGs to protect the flanks and avenues of approach into our positions. A rear slope defense seems to be the most practical as extremely accurate arty fire makes a forward slope almost untenable.

6. Control of mortars. "Control of the 81mm mort plat is by SCR 300. Giving the plat ldr one of these sets permits each mort obsr with a rifle co comdr to call for fire direct, over the rifle co SCR 300. The hv wpns co comdr exercises any necessary control by using the SCR 300 of the bn comdr.

7. Displacement. "The mort plat ldr must be given great freedom of decision as to movement. He displaces wpns forward only when necessary to remain in close support as the movement of am is a difficult problem.

8. Mortars in reorganization. "Upon reorganization the 81mm plat moves up near the center of the bn zone and is immediately prepared to lay protective fires, or hit targets of opportunity. Smoke is ready if needed and rcn is made for further movement. If the final objective is reached, defensive fires are plotted and security - especially to the rear and flanks - is put out or requested.

9. Effectiveness of mortar fire. "We have found our HE heavy will not eliminate pillboxes. I have seen direct hits on them ineffective. However, a round or two of smoke around them with a few rounds of light right behind causes casualties among the enemy who seems to always place a gun or two or a few covering riflemen around a pillbox or an emplacement. Also we fire on terrain above or dominating a pillbox - the enemy will be found there also. It is also a good idea to throw some smoke on a haystack or clump of bushes on a ridge. We have located several enemy OPs in these harmless looking places.

10. Use of personnel. "In the attack we use the instrument cpls for ln. The plats do not send a runner to co. They need every man. We use the T cpls and drivers as carrying parties when needed."

III INFANTRY AT GUNS (Comments of Antitank Company Commander).

1. Targets. "The 57mm AT gun has been used to place fire on the ridge line to the rear of the attacking inf and on embrasures of pillboxes and targets of opportunity. Targets of opportunity included half-tracks, personnel, MGs, AA guns, mortars and AT wpns.

2. Preparation needed. "The towed AT gun has little chance of giving any close-in support to the attacking inf unless the amount of enemy fire from mortars, arty, AT guns, and AA guns can be greatly reduced by a thorough arty preparation and vigorous counter-battery fire.

3. HE needed. "Fire on targets of opportunity requires a continuous supply of HE. The use of AP for targets of this nature is wasteful and usually of little effect."

IV INFANTRY CANNON (Comments of Cannon Company Commander).

1. Selection of positions. "It must be remembered that when a position is selected it must be one that provides a wide sector of fire and allows delivery of close-in fire for the front line. In one instance a mask prevented us from firing close-in fires, making necessary a change in gun positions. We also select our positions so that in the event of a counterattack we can place fire on the position occupied by our troops. Alternate positions must be selected because if much night firing is done the enemy will soon locate your position.

2. Use of time fire. "We have fired a large amount of M54 time fuze. It is an excellent method of adjusting fire in woods and in the early morning, especially if the fog is thick. We have had to use the time fuze M54 due to the scarcity of WP smoke. Time fire is effective against open emplacements that surround almost every pillbox.

In one instance one of our FOs fired with M4 fuze with the plan in mind of causing a graze burst in front of the pillbox, causing the fragments to enter the aperture of the box. This has proved successful but demands a precision registration. Shell hunt will not crack the pillboxes in our sector.

3. Liaison. "It is most important to maintain constant in between the gun positions and the bns - especially at night. In the event of enemy activity at night the Cn Co Ln 0 can offer suggestions to the bn S-3 as to which concentrations can be fired with best effect. The Cn Co comdr should contact the bn S-3's each day and offer suggestions as to fires for the night and interdiction fires. He should also get the bn plan of patrols and other night activities.

4. Forward Observers. "FO's tend to get too far forward - with the foremost elements of the rifle cos. When pinned down the FO cannot observe and often cannot use the SCR 300 because the long antenna draws additional fire. We have used the method of leap-frogging from one point of observation to the other and have been able to direct fire on enemy opposition when it presents itself. We have adjusted fire through FO's exclusively since we arrived in France.

5. Fire control. "The SCR 300 is very satisfactory for com between obs and gun position. A relay station was necessary only when the radios were masked by gulleys or dense woods. We are experimenting with 610's, mounted in jeeps, as relay stations one 610 at the gun position and one near the bn CP as relay."

V PATROLLING AND INTELLIGENCE (Comments of Intelligence Officers)

1. Common mistakes. "We have found common patrolling errors to be:

- a. Returning without accomplishing mission.
- b. Engaging in a fire fight contrary to orders.
- c. Failure to send prompt reports of results to higher echelons.

2. Remedies. "To eliminate these difficulties, the regt assigned patrolling missions for each night - simple ones at first, gradually increasing in difficulty and importance. Schools were conducted behind the lines to train inexperienced men.

3. Help from prisoners. "We found it valuable to use the 1/25,000 map with the defense overprint to facilitate pin-pointing of positions by German prisoners. They could point out their pillboxes and those occupied by their comrades.

4. Observer information. "Our OP obs have watched Germans remain in pillboxes for several days, coming out only to get food from fields and farmhouses. The Germans will get careless if they do not know you are observing and will start fires in the pillboxes and woods. They occasionally shoot flares from the pillboxes to help them spot patrols."

VI AMMUNITION AND PIONEER PLATOON PRACTICES (Comments of Platoon Leader)

1. Battalion distributing points. "We keep each co's am loaded on their own wpm carriers. In this way we can establish a forward DP and a rear DP. The forward DP is usually close to the bn CP. The rear DP is some distance behind with the balance of the bn vehicles.

2. Carrying parties. "We tried pack boards but the men did not like them. The carrying parties can carry as much in both arms, and if it becomes necessary to fight, it is easy to drop their loads and take up the fight. Carrying parties have been formed from replacements going forward to the cos.

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3. Ammunition reserve. "Never let your reserve am get low on the bn. At one time the ASP was ninety miles from our position.

4. Division of duties. "We divided the am and pion plat into three groups. One sqd operates the mine detectors. One is used as an am sqd and the other is used for other pion duties. The Bn CO's vehicle and radio vehicle both carry a mine detector. The drivers have been trained in their use so they can check suspected areas."

VII SUPPLY PROCEDURES (Comments of Regimental S-4)

1. Supply sergeants. "We found it advisable to have supply sgts visit their co CP once daily regardless of the difficulty in getting back and forth.

2. Supply by carrying party. "The situation generally required carrying supplies from 400 to 1500 yds to the troops. A priority of supplies was set up as follows: ord, am, rations, PX rations, blankets and shelter halves, K-1 materials, new clothing, and water. Water was given low priority because of its weight. The water supply problem was solved by taking forward empty cans and a chlorinating solution. Cos filled these water cans from nearby streams and purified their water with the chlorinating solution. High losses in water cans was experienced as a result of shell fragments and MG fire.

3. Supply requests. "Requests for supplies by carrying party must be made 24 hours in advance; the individual making the request must be informed of the priorities so that he can properly proportion his requests.

4. Formation of carrying parties. "Normally carrying parties can be made up of separate co details but due to heavy casualties in one bn it was necessary to form a bn carrying party, consisting of drivers, stragglers, and even replacements. It was found by this bn that it took 60 men two trips nightly to resupply their unit. The idea of using replacements for carrying parties forward proved successful as it soon accustomed them to operating in the darkness and to front line conditions.

5. Carrying blanket rolls. "The practice of going into any initial phase of action without a one blanket roll at least, in this weather, proved a serious handicap. When it became necessary to move rolls forward under combat conditions it was found that the most efficient system was to roll as many blankets and miscellaneous sizes of shoes, if necessary, into a one-man load rather than single blanket rolls or sqd rolls. Personal articles must never be included in rolls since the rolls are frequently re-rolled by personnel other than the owner.

6. Protection for carrying parties. "Carrying parties should never be allowed to operate without riflemen for protection and these rifle guards should not be cargo bearers of any sort. One bn operated carrying parties successfully by organizing them forward and sending them to rear, rather than the reverse."

VIII MEDICAL DETACHMENT EXPERIENCES (Comments of Regimental Surgeon)

1. Aid station radios. "We have a radio in each bn aid station operating in their respective bn nets. This has enabled us to permit litter bearers to rest frequently and remain on call at the aid station instead of continuously searching the field for casualties. Each co is able to call for litter bearers as required. The litter bearers

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ride forward on the jeep as far as possible, then go on foot to the casualty and bring him to the jeep - which gets the casualty rapidly to the aid station. If there are many casualties the litter bearers establish a collecting point at a point accessible to the jeep, and the jeep ambulance then can quickly transport the patients to the aid station.

4. Evacuation. "Another of our practices is to establish the bn aid station where the ambulances can come to it. During periods of heavy casualties the litter bearers of the coll co are used ahead of the aid station to help clear the field. We believe it would be desirable to have regtl com to the supporting coll co. Such com would allow more accurate contact than the uncertain method of ambulance in which is not always satisfactory in rapid moves."

IX COMMUNICATION (Comments of Regimental Communication Officer)

Additional radios. "We issue two extra SCR 300s to each bn, one for the AT plat of the hq co and one for each bn aid station. When cn plats are atchd to bns each plat is given two 300s and they enter the bn net. This puts the cn plats within reach of all co comdrs as well as the bn comdr. We are going to give our regtl surg an SCR 284 to call the coll co for extra ambulances when needed."

X ENGINEER OPERATIONS (Comments of Division Engineer)

1. General. "The principles of assaulting fortified positions as taught at the Engineer School and at (Assault Training Center in the U.K. are sound) This was demonstrated when an attack, in which inf, arty, tks, SP guns, and engrs were well coordinated, succeeded beyond expectations. It differed from our assault training in two respects, the Jerries were there and the fortifications were more than pillboxes, they were forts.

2. Description of large pillbox. "In large pillboxes, walls and roofs are six to seven ft thick and the roofs are reinforced with 12" I-beams. There are usually four to seven rooms, with heavy connecting steel doors. Embrasure plates are 4 1/2" steel. A pole charge won't always drive the Jerries out. We blew one box from the inside, using 300 lbs of TNT placed in an inner room, and after the explosion a Jerry walked out.

3. Use of explosives. "The destruction of front line emplacements is slow, back-breaking work for the engrs. Explosives must be carried in, usually crawled in. We have used packboards borrowed from the inf, the haversack for demolition block M-1 - these are excellent - and sand bags slung in pairs over the shoulders."

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 57

4 OCT 1944

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By command of Lieutenant General BRADLEY:

C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

THE INFANTRY-TANK ARTILLERY TEAM IN A RAIDING OPERATION

NOTE: The following, extracted from the report of an O of a separate tk bn on an operation in the Italian theatre, contains an unusually detailed description of the mechanics of preparing and conducting a combined minor effort. The completeness of the planning and preparation is particularly noteworthy. The action involved a reinforced rifle co, a plat of medium tks, an engr det and nine bns of arty.

1. Action on receipt of orders. Upon receipt of orders for the operation, on D-4, I went immediately after dark to the CP of the inf bn CO who also had just been notified. We made a tentative outline of the plan of action and agreed upon a request to higher hq to change the time of attack from 1800 hours to dawn, in order to permit the approach to be made virtually under cover of darkness, but with sufficient light to permit the tankers to see the friendly inf in front of them. The recommendation was approved.

2. Planning and reconnaissance. At our first conference the inf bn CO and I discussed and agreed upon certain details connected with the following preliminary activities:

- a. Patrolling to determine the hostile strength, obstacles, mine fields and avenues of approach for both inf and tks.
- b. The preparation of gaps in obstacles and mine fields, both friendly and enemy, and marking lanes through them.
- c. Personal ren by comdrs to locate the prepared gaps, become familiar with the terrain and enemy positions and select tentative routes for the attack.
- d. Establishment of a com system between inf and tk comdrs.

- e. Arrangements for smoke cover for the withdrawal.
f. Selecting locations for spare tks to take the place of any which might be disabled during the action.
g. Preparing and distributing overlays of the fire support plan.
h. Fixing a time schedule for the movement from rear to forward assembly areas, so that the tks would not interfere with the marching inf.

3. Reconnaissance. On D-3 I went with the tk co cmdr, plat cmdr, each of his tk cmdrs and the tk ren 0, to the inf bn CP where tk and inf cmdrs discussed plans and operations. We all went together later in the evening to the position from which the inf would launch its attack. We there chose locations for the tk wire gap and for a dug-in tk position. Each tk cmdr was shown the objective, the suspected location of enemy gun positions and the approximate position each tk would take after passing through the wire. Each tk cmdr was impressed with the importance of keeping his fire in front of the advancing inf. The inf 0 who was to provide the tk guides worked with the tk ren 0 on their locations. We returned to the inf CP and discussed the attack further in the light of what we had learned.

4. Rehearsals. On D-2 rehearsals were held in a rear area on terrain very similar to that over which the attack was to be made. The second rehearsal was held at dusk in order to conduct it under light conditions generally similar to those which would prevail during the actual operation. All obtained a reasonably exact picture of the attack plan, to include the method of withdrawal. That night we all met again and discussed a number of questions that had arisen during the rehearsal, arriving at a satisfactory conclusion on all. After this discussion, my ren 0 took his guides over the route and actually placed them in the positions they were to take.

5. Checking Gaps. During the night of D-1 the gap was made in our wire. The tk ren 0 again went to the forward position to recheck the route and to make certain that the gaps were properly made.

6. Final Details. On the night before the attack my tk plat cmdr went to the inf bn CP and discussed last minute details with the inf co cmdr. Gaps in the mine fields were also made during this night and marked with white engr tape.

7. Control. The tk co cmdr went with the inf bn cmdr to the forward CP. From that point the inf co cmdr was in direct radio com with the bn and the tk co cmdr had direct radio contact with the plat cmdr.

8. Withdrawal. The entire operation worked smoothly and was successful. When the inf began its withdrawal the tks remained in position until notified that the withdrawal had been completed. One tk was hit during the withdrawal and immobilized. Since the mission of the operation had been accomplished, it was decided to destroy this tk, rather than attempt to retrieve it.

9. Assault Gun Support. My assault gun plat, organized into two firing btrys each of three 105mm hows and three medium tks in indirect firing positions fired under the direction of the div arty FDC until H-hour. It then reverted to the tk bn control and brought immediate prearranged concentrations in accordance with requests of the cmdrs transmitted through the tk bn cmdr. The assault guns as well as the tks aided in the withdrawal by firing smoke to fill any gaps that developed in the arty screen.

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No 56

4 OCT 1944

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By command of Lieutenant General BRADLEY:

C. R. Landon
C. R. Landon
Colonel, AGO
Adjutant General

I HARASSING FIRES BY TANK DESTROYERS

"Excellent success has been reported by the 813th and 607th TD Bn in delivering harassing fire on long straight roads. A platoon of TDs was placed in position in prolongation of the tangent. A sub platoon would conduct an adjustment daily at ranges between seven and twelve thousand yds, moving the platoon in for direction. A 24 hour harassing fire at odd intervals and varying ranges was fired with HT. After the road had been captured an examination disclosed that this fire had been very effective. Recently troops had caused air bursts; rounds striking the hard roadway had ricocheted causing heavy casualties to vehicles and personnel on the road."--CO 5th TD Group.

II FUEL POWER

"Many men do not realize the power of their own SA fire. Recently one of our outposts of 4 men, located about 200 yds in front of the MGR, saw a German night patrol of 8 men move across their front only about 30 yds away. Another group of 5 men went in the other direction. The outpost personnel said that they did not fire because they were out-numbered and firing would disclose their position. Both groups could have been eliminated by a few blasts from the BAR and with two or three grenades."--PFC M. T. Didot, Inf Rifle Co, 30th Div.

III FIGHTING IN OPEN COUNTRY

"After fighting in the hedgerows our units, back in open country, did not appreciate at first that the enemy could, by long range fire, catch the entire unit with one burst. Now it is necessary to have the scouts and flankers well out. In one action the Germans let the scouts get within 50 yds before firing. As the platoon was too close

it was pinned down while still in column and could not develop enough fire power to engage the enemy. If we had not had tks present the casualties would have been heavy."
--Inf Co Comdr, 30th Div.

IV CONFERENCE CIRCUITS IN BATTLE

"On one occasion during the recent operations, our three rifle cos were attacking the enemy position from three sides. Wire com was available and the command line to each co was put on a conference circuit. The bn comdr instructed the co comdrs that he would monitor the circuit and assist where possible, but that the show definitely belonged to the co comdrs. By use of the conference circuit the co comdrs were able to exchange information and coordinate their efforts. All comdrs concerned believe that this procedure greatly aided in the speedy reduction of the enemy position."--CO 2d Bn, 28th Inf.

V EMPLOYMENT OF TANK DESTROYERS

"Senior Os of units supported by TDs sometimes curtail the efficiency of their support by insisting upon prescribing details of the methods the TD shall use to accomplish their missions, even to the point of telling a section when to fire and when not to fire. The TD Os should know the capabilities and limitations of their own weapons and should be permitted to employ their own methods in carrying out assigned missions to the greatest extent practicable."--Report of 701st TD Bn.

VI MISCELLANEOUS COMMENTS

1. Replacements. "No matter how badly men are needed replacements should not be rushed into battle. They should be brought in during a rest period in order that they may learn their leaders. At one time we received replacements when we were engaged in heavy fighting. The new men became bewildered, froze in position and suffered heavy casualties."--Sgt Wolf, inf sqd leader, 30th Inf Div.

2. Use of Tank Destroyers as Tanks. "TDs should not be used as tks; they cannot fire while moving and do not have the MGs and maneuverability of tks."--Report of 701st TD Bn.

3. Bazooka Fire. "The bazooka is an excellent wpn against tks, houses and pill-boxes. Frequently enemy machine gunners located in houses will withdraw when bazooka fire is directed against them. Every man should be able to fire the bazooka in the event that the regular bazooka man becomes a casualty."--Sgt F. Singer, inf rifle co, 30th Inf Div.

4. Flanking Fire. "The Germans put their small AT guns directly to your front to draw your attention while his 88's hit your tks from the flank. We have fewer losses when the morts smoke our flanks as we jump off."--Lt, 31st Tk Bn.

5. Information to Reserve Unit. "Information must get back to the reserve unit in an attack. My plat was part of the reserve co in the attack on CHARTRES. When we were thrown in to plug the gap created by disorganization of another unit, my tks were stopped by the same AT ditch which had stopped it. I could have avoided this obstacle had I known of its presence."--Lt, 31st Tk Bn.

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 55

3 OCT 1944

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By command of Lieutenant General BRADLEY:

C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

CLASS II AND III SUPPLY IN COMBAT

Note: There is given below a summarization of reports regarding Class II and III supply in combat collected from a number of units over a period of from two to three weeks.

1. Class II Supply. a. - Weapons. (1) Practically all units reporting had adopted some system designed to speed up the replacement of wpns. In arm'd units the supporting ord heavy maint co gives considerable assistance along this line. The 773rd TD Bn reported that replacements generally were received in from two to three days. In the 3rd Arm'd Div, the Ord medium maint co is kept right up with the div and maintains a fair stock of available items, as does the div ord itself. The maint bn of the 6th Arm'd Div carries a small number of extra MGs, from which immediate replacement can be made.

(2) Inf units reported the adoption of various expedients to speed the process of wpn replacement. Some of them follow:

(a) In the 28th Div battle casualties of wpns are phoned in by regtl S-4s to the div ord co. When replacements are received the regt is notified by phone and picks the wpns up immediately.

(b) The 2nd Inf Div OO carries a small stock of wpns, including one 57mm gun and one 105mm how. Losses are reported by regtl S-4s direct to div ord supply O. If he does not have a replacement in stock he contacts the army ord supply O and arranges to get a replacement in time to deliver it to the regt the same day. When issues are made from stock, requisitions for replacement are submitted immediately.

(c) The 134th Inf has worked out a plan for the use of an over-strength agt and armorer-artificer of the service co to operate a wpn repair shop. The S-4 claims that this scheme saves the evacuation of a large number of wpns.

b. - Other Class II Items. The operation of the supply of other Class II items

these units work along normal lines and seems to function satisfactorily when the needed supplies are available and supply points close enough to the front. Certain special steps have been taken by some units as follows:

(1) The 13th Inf places heavy emphasis on supply discipline and believes that this has resulted in a large saving of equipment by reducing the amounts thrown away.

(2) The 121st Inf stresses the recovery of individual and organizational equipment from casualties by medical and graves registration personnel. In the 314th Inf the re-supply of shoes posed a serious problem for a time when a long period of operation on foot through mud and water resulted in excessive failures of shoes. Their solution, which was reasonably successful, was to pool all extra pairs and issue them to the men in greatest need.

(3) In the 314th Inf the En S-4s are required to make constant checks on salvages in the forward areas, assisted by members of the En A & P plat. Clothing salvaged is examined for serviceability and a small stock of unit-laundered items is kept on hand to meet emergencies.

2. Class III Supply. a. - In armored units. (1) The 6th Arm Div follows these methods of resupply of fuel and lubricants, according to the situation. When supply points available to the div are close, re-supply is effected by subordinate unit trucks on a can-exchange basis. In a moving situation the div establishes a Class III supply point in its div train area.

(2) In the 3rd Arm Div, div trucks usually bring forward the supplies from the ASP and deliver them to the using units about dark. The div fuel trucks then return to the supply point for a refill.

(3) In the 773d TD En the En fuel truck is sent forward on call from the cos. The truck is met by plat guides who load it to the plat CPs or to individual vehicles, if practicable. Normally the distribution is from plat CPs by hand-carry when the unit is engaged.

b. In inf units. (1) The 2nd Div QM draws supplies from a corps or ASP and establishes one or more div dps. The regts draw from these dps and establish regtl dps. Vehicles from lower units return to the regtl dp for refill or, on occasion, the needed supplies are sent forward on a light truck.

(2) Both the 13th Inf and the 314th Inf comment on the fact that no fuel truck is organically available to inf regts. Making one available for normal supply activities causes no special concern, but in fast moving situations, when two or three trucks are needed, considerable difficulty is encountered.

(3) The 134th Inf reports using 2 2 1/2 T trucks with trailers (not explaining where the trucks came from) to haul the supplies from the ASP to the regtl field En biv. En maint vehicles there exchange empty for full cans and all vehicles coming into the biv are directed to fill up to save transportation. The En usually have to ground some gasoline, in order to use the maint vehicles, but seldom very much.

End

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 54

2 OCT 1944

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By command of Lieutenant General BRADLEY:

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Colonel, AGD
Adjutant General

I DESTROYING PILLBOXES

a. The 112th Engr C Bn in pillbox demolitions on the Siegfried line has obtained good results by tamping with sandbags 40 lb charges of TNT against each end of 4° embrasure plates. Several boxes of captured 80mm mort shells, or two 150mm shells were used with the TNT charges in each case. With this arrangement the embrasure plate was either blown out or badly damaged and the concrete around the embrasure badly ruptured. Two 150mm shells standing on end at each end of the embrasure with 4 pounds of TNT fastened to them yielded good results without tamping against 12° concrete and 3/8° embrasure plate.

b. The Third Army has used 400 pound charges of TNT, captured ~~am~~ or explosives with the result that the doors are blown off and the roof shattered. The destruction is usually sufficient to render them unusable. Another method which requires only one pound of explosive is to lock or jam all openings from the inside and then lock the door and blow the handle off with a small charge. This is not foolproof as the charge sometimes blows the door open. A third method is to cover the pillbox with earth by using a bulldozer. This is satisfactory but is relatively slow.

Note: The Engr Sec. this hq considers the use of 400 pounds of explosive excessive and does not recommend it for general use.

II INDIRECT FIRING ON TANKS BY TANK DESTROYERS

"It is often impracticable for a TD to move forward to engage enemy tanks because of dug in AT guns. On such occasions the fire by an M-10 on a reverse slope has been directed by an observer on the crest holding up his hand in line between the TD and the target. The observer then moves right or left until a correct deflection is obtained. Sensing of over or short are relayed by voice until the tank is destroyed. If the observer is in or near a hedgerow only AP shells can be used as HE may explode in the hedgerow."--Col. L.E. Jacoby, CO, 5th TD Group.

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TWELFTH ARMY GROUP
BATTLE EXPERIENCES

No. 53

1 OCT 1944

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Adjutant General

I LEADERSHIP EPISODE NO. 7

The following account of the actions of a lt, a FA FO with the 3d Armd. Div, in action near Ranes, France, in mid-August, is extracted from an account given by his btry comdr. While the O was not exercising leadership at the time, he displayed a tireless zeal, initiative, resourcefulness and a calculated willingness to endanger his own life in order to promote the success of his unit, which appear to be worthy of emulation.

1. First situation. A part of the battle group to which the lt belonged was cut off from all friendly troops. The lt volunteered to accompany an inf patrol. This patrol located enemy inf and a column of nine trks. The patrol withdrew but the lt remained in obsn and called for arty fire. This fire destroyed four trks and forced the enemy troops to abandon the remainder. These troops took cover in the field from which the lt was observing, not more than 50 yds from him. Despite their closeness, he called for arty fire on them and obtained a direct hit in the middle of the group, killing 19 of the 20.

2. Second situation. Upon his return to the CP he was sent to an inf outpost to observe. Upon arrival there he learned that a patrol was about to leave the outpost and requested permission to accompany it. Enemy inf cut this patrol in two. The lt, who was with the leading half of the split patrol, moved far enough forward to observe details of an enemy road block and then worked his way back through the enemy to rejoin his unit. Upon his return he stated his belief that he could get back to a position

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from which he could direct observed fire on the road block. Accompanied by a ran sgt he made his way back and located two Mark V German tks commanding the road and approximately a plat of enemy inf armed with bazookas. He adjusted arty fire and immediately destroyed or dispersed the enemy inf. He obtained two direct hits on each tk, but without knocking them out. He then made his way back to the CP, reported the exact location of the tks and fired a round of red smoke to spot them for air attack. Dive bombers destroyed both tks.

II AN INFANTRY BATTALION COMMANDER WITH AN ARMORED DIVISION.

The comments below are extracted from an account given by Major Adams CO, 1st Bn, 26th Inf and members of his staff after a period of attachment to the 33d Armd Regt, 3d Armd Div.

1. Operation against pillboxes. We use the inf to determine what positions are manned and to clear the way so that tanks can be brought up to fire on them. We save the inf by using tank fire against suspected occupied positions.

2. Fighting in towns. In the street fighting in Liege, we had a point of foot inf precede the inf-tk team by about a half block. The leading tks followed with inf marching on the sidewalks. The tks covered the inf by firing MGs into the windows. The principal resistance encountered consisted of MGs and AT fires from the flanks at street crossings and junctions. We overcame this by maneuvering to their flanks and rear. AT grenades were used effectively in this fighting. Morts were not so effective because of poor obsn.

3. Securing captured critical points. When armd units spearhead an attack followed by inf, they should establish road blocks covered by fire at critical points to prevent re-entry by the enemy before the inf reaches the area. It is especially important that key bridges be so protected. At Liege one of my plats and a plat of light tks were left behind to guard an important bridge. The Germans also had left a plat to destroy it. While the Germans were drinking in a cafe, my plat seized the bridge and, with the assistance of Belgian white Army forces, held it for two days until the 9th Div arrived. A failure to hold the bridge would probably have resulted in a considerable delay.

4. Battle Sounds. The ability to identify and distinguish battle sounds is of supreme importance. The older men in my bn can readily tell by the sound of an arty or mort shell or burst from a MG if it is time to hit the ground or continue to advance. New men will usually take cover needlessly.

END

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TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 52

30 SEPT 1944

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I RECONNAISSANCE PLATOONS OF TANK DESTROYER BATTALIONS.

1. The two rcn plats provided by T/O for this bn are inadequate since all three gun cos are invariably committed and each needs a rcn plat.

2. We have organized a third plat, taking personnel from the maint, T and hq plats. The rcn O commands it. To equip it we robbed our rear echelon and CP of jeeps, radios, wpns, etc. We feel that the benefits have fully justified the effort.

3. Though the primary mission of the rcn plats is to locate enemy tks, we use them also to determine the location of our own front lines. They perform this task by the following methods. The rcn plat sends a sgt to each front line inf bn of the unit it is supporting. The rcn plat leader receives reports from these sgts at regtl hq and checks them against the regtl situation map. The information is then furnished the gun co comdr and relayed by him to bn where it is checked against the information received by the div.--Report of 823d TD Bn, 30th Inf Div.

II BAZOOKA TEAMS.

We find that it is a good idea to hold fresh bazooka teams in reserve, so that when tks are located the fresh men can be sent forward to engage them. Often the front line bazooka teams are not aggressive enough because of fatigue. We have lost several of these teams because they were too exhausted to use proper cover and movement tactics. The bazooka is definitely effective against the tk. Hit it on the side, do not shoot at the front. After it is stopped work around to the rear and let him have one, and the tk will normally catch fire.--Report of 1st Bn, 119th Inf to 30th Div.

III USE OF WIRE.

As an aid to control within plats, we have been laying wire to each gun position, providing the plat comdr with rapid sure com to each gun sgt. We find this more reliable than radio. Also a telephone can be operated from a foxhole. When we use radio we dismount an SCR-610 and place it in the foxhole with the operator.--Report of 823d TD Bn to 30th Inf Div.

IV MISCELLANEOUS COMMENTS.

1. Prepared Mortar Fires. Always arrange prepared mort fires, that can be fired without obsn. Send overlays to the front line cos so they can request those fires when necessary. In order that request for fires can be promptly acted upon, there should be com from the mort plat to the bn CP.--Report of Co D, 119th Inf to 30th Inf Div.

2. Harassing Fire. The Germans often fire harassing arty fire on a time schedule. Check your watch often to determine if this is taking place. It will let you know when to get low. However, do not depend upon it too much as Jerry will often change his time schedule.--Report of Co D, 119th Inf to 30th Inf Div.

3. Hip Shooting. "We need training in firing from the hip. In shooting this way I found that my tendency was to shoot too high."--Rifleman of 119th Inf, 30th Inf Div.

4. Clean Ammunition. "Have the riflemen check the am they have carried for days. We have had many jams caused by rusty cartridges. This always happens at the critical time."--Sgt R.A. Hawes, 119th Inf, 30th Inf Div.

5. Bazooka Teams. "When stalking tks bazooka teams should be well covered by fire. The teams should be kept together near the co hq so they can be moved to the point of need readily."--Os of 3d Bn, 119th Inf, 30th Inf Div.

6. Counter Mortar Fire. "60mm morts should be atchd to the plat and should move well forward for obsn. After firing for effect the morts should change position by at least 100 yds for the enemy will usually return the mort fire."--Os of 3d Bn, 119th Inf, 30th Inf Div.

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 51

29 SEPT 1944

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I RESUPPLY OF 4.2 MORTAR BATTALIONS

"We have established dps for 4.2 mort, when atchd, due to the difficulty the cmc cos have in resupplying themselves. They have only $\frac{1}{2}$ -ton trks and trailers and to send these back for am would be an uneconomical use of T. We use div T to bring am from the ASP for these wpns and establish a DP close to the regtl field tn of the regt to which the morts are atchd."--Maj. T.M. Andrews, G-4, 40th Inf Div.

II MAINTENANCE

"I have my own maint unit which has functioned very efficiently. I have only lost one vehicle. All others hit have been returned to action within 24 hours. The more maint done by forward units the greater the number of vehicles that can be kept in action."--Lt Col. Dunnington, CO 486th AAA Bn.

III PROTECTIVE SANDBAGS FOR TANKS

Personnel of the 749th Tk Bn, including tk crews, think that sandbags are worth while even at the expense of the added weight.

1. On 20 Sept a tk of Co "A" received a direct hit from a large cal AT wpn on the front of the tk between the driver's and assistant driver's bulges. The sandbags seemingly deflected or retarded the projectile. The armor plate was cracked and a sizeable "well" was made but only minor injuries were sustained. The same tk received a direct hit on the right sponson a month ago and in that case also the projectile glanced off causing no injuries because of the sandbags.

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2. On the same day a tk of Co "B" received a direct hit on the front slop plate to the right and slightly above the assistant driver's bulge. The projectile was deflected though it gouged out a large furrow. In the same action Co "B" received AT gun hits on the turret of another tk which was not roadbagged. The projectile penetrated the turret, killing the gunner and loader and injuring the tk comdr.

IV INFANTRY TANK COOPERATION

Some tk bn comdrs have reported that the inf units to which they are attached do not get maximum effectiveness from the tks because they do not include the tk comdr in staff conferences and planning. Use of a tk comdr as an advisor of the inf comdr can often prevent committing the to unsuitable tasks and other errors which may cause casualties of trained personnel and a lack of mutual confidence between inf and armor, in the opinion of these tk comdrs. Lack of accuracy and dependability of information as to the positions of our own troops and of the ground the enemy is holding, have sometimes handicapped the tk units, they report.--CO, 7th Arm'd Group.

V MISCELLANEOUS COMMENTS

1. M-10 Tank Destroyer. "The high roar of the M-10 motor can be considerably silenced when operating in close proximity to the enemy by using second gear with RPM of 800. This is hard on the motor, but almost silent operation is obtained."
--Col. L.E. Jacoby, CO 5th TD Group.

2. Bazooka Batteries. Batteries for the bazooka have not always been available, but we have ample flashlight batteries. By enlarging the hole in the stock to hold flashlight batteries and rearranging the connections to fit we can use them.--S-3, 120th Inf.

Note: The following comments are extracted from a report of battle experiences of the 823d TD Bn.

1. The Right Weapon. Choose the wpn for the job. Too often MG positions are disclosed by firing on targets more suitable for rifle fire.

2. Reconnaissance by Fire. During an inf attack against gun positions use your MGs to fire at any suspected locality. In other words reconnoiter by fire. If hit, the enemy will scream and disclose his location.

3. Use your Artillery. Remember, if you cannot reach a target, arty may be able to do so; get your plat comdrs arty conscious. The arty has helped us a lot.

4. Defending Towns. Defend a town from the outside, not from within. The enemy will infiltrate into buildings over-looking your gun positions and knock out your personnel.

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TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 50

28 SEPT 1944

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Adjutant General

I FIGHTING IN THE CITY OF BREST

Note: The following is extracted from comments of Maj Gen Walter M. Robertson, CG, 2d Inf Div. on the fighting within the city of Brest.

1. Street Fighting. a. The term "street fighting" is a misnomer, for the street was the one place we could not go. Streets were completely covered by pillboxes and rapid-fire 40mm guns, with each street corner swept by at least four pillboxes. Our procedure was to go from house to house blasting holes through the walls with satchel charges.
- b. The biggest problem was in reducing fortified apartment houses six to seven stories high; in a number of cases we built fires and smoked the enemy out. Another problem was to cross streets and get into the next block. If possible we found a blind alley or a defiladed access. If not, the TD's fired at point blank range and knocked a hole in the wall across the street. We then covered the pillboxes with MG fire and infiltrated across, preferably under cover of darkness.
- c. The Boche adopted a clever expedient that slowed us down the last three or four days. If they saw us about to break into a house, they set it afire and delayed us from six to twelve hours while the house burned out. This delayed us more than any other single thing they did. When a house was burned, a sunken pit was left, in the basement, and it was necessary to fill it with rubble before TD's could be taken into the next block - another time-consuming operation.
- d. A most surprising thing to me in the house-to-house phase in the Brest operation was our extensive use of direct fire guns including 155mm (SP) guns fired at ranges as close as 500 to 600 yds.
- e. Another interesting sidelight on city fighting - I tried initially to keep fairly uniform progress along the line to cover the flanks, but found that it made little difference in the city. Unequal progress did offer opportunities for outflanking - just as it does anywhere else - without the same jeopardy to our flanks.

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2. Assault of Walled City. a. Another interesting feature was that when we got against the wall itself - an old fortification with modern pillboxes surmounted by shrubs and turf - we had to do a lot of shooting to uncover the pillboxes before we could knock them out. We called it "agricultural shooting". In the final assault of the walled city, it was the direct fire wpns rather than the normal arty which suppressed enemy fire on the wall. I had the place ringed with direct fire wpns which completely dominated the pillboxes.

b. Before the assault, I kept a slow concentration of arty and mort fire going within the city for 60 hours. It was a light concentration. The result was that internal coms, hence, the enemy command set-up was absolutely knocked out and normal supply could not be effected. In other words, we ran them into deep pillboxes and tunnels and kept them there. When the assault was made, there was no change in the tempo of arty fire except to lift it at the point of penetration.

c. The actual results were better than I had hoped for. We effected the penetration, finding the soft spots for which I was searching, and pushed a whole bn through before the Boche, except those in the immediate locality, were aware of it. We knocked out a pillbox and piled right on through without meeting real resistance until we reached the center of the city.

d. This assault was made at dusk, and we moved in under cover of darkness. This was one of four separate assaults. The Boche expected an assault from the east rather than the north, and we had their attention diverted.

3. Summary. I feel that the div came out of the Brest operation far better trained than it went in, particularly because of the house-to-house fighting, which was essentially a squad leader's battle. To illustrate - at night when we "buttoned up" frequently it would take the co comdr from three to four hours to locate all points occupied by his squads in apartments, basements, etc. Leadership of NCO's was developed to an astonishing degree. I found the Brest operation an intensely interesting one, and I think that the men did too, because they were able to supply effectively a superiority of fire power and see the immediate results.

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TV:ELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 49

26 SEPT 1944

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By command of Lieutenant General BRADLEY:

C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

I REPORT FROM V CORPS

1. Reduction of pillboxes. "In attempting to enlarge some pillbox embrasures, the enemy have weakened the embrasure sides so that 105mm and 3" guns can pierce the concrete with AP am and 155's with ordinary am. Since we made this discovery pillboxes have been dealt with effectively by maneuvering SP wpns to get a direct shot at the embrasure. Others have been neutralized by arty or air. The inf then works up and puts a satchel charge through the embrasure. When a pillbox is captured to prevent its reoccupation by the enemy, it must be sealed or demolished, or a guard left.

2. Hostile personnel. "It is becoming increasingly apparent that every available man is being used in the defense. Elite SS troops have been encountered as well as men only recently released from hospitals after being seriously wounded. The intelligence of many is quite low and the percentage of over-age men is high. A hastily organized bn of 0 candidates also has been encountered.

3. Air against artillery. "The close air support of the inf divs has produced excellent results against heavy enemy arty which has been definitely located.

4. Taking out dragon's teeth. "These tk obstacles have been demolished by fixed charges placed by inf or engs under cover of fire or darkness. Charges dislodge the obstacles which are then pushed aside by tk dozers.--Os of V Corps.

II CIVILIAN RESISTANCE

1. The 3d Armd Div reported that on 17 Sept their attack received stubborn resistance from enemy civilians and soldiers."

III REPORT FROM 26TH DIVISION

1. Weak resistance. "When we reached the Siegfried line, 10 Sept, our patrols walked

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through without opposition. By 12 Sept the enemy had collected enough troops to occupy the bunkers dominating the roads--relying on our tendency to be roadbound. Since then enough troops have arrived to occupy a majority of the pillboxes. However, resistance has been weak in most cases and the garrison will usually surrender if vigorously attacked.

2. Poorly organized personnel. "The two units facing us have been reinforced by groups of stragglers collected as they became available. Some soldiers and Os have no knowledge of the orgn above them and sometimes cannot identify the next higher command. As they are assembled, a guide takes them to a location and orders them to occupy the pillboxes in the area and defend them to the death. Sometimes wpns are carried in, other times they are found in the positions. The resulting garrison is a hodgepodge of mixed units. Counterattacks, however (some of which are only raids of strong patrols) are generally staged by good troops -- all SS and from the same unit. The same state of disorganization did not seem to exist in the arty.--G-2, 28th Div.

IV REPORT FROM 60TH INFANTRY REGIMENT

1. Locating gaps. "We avoid the strong defenses of dragon's teeth, steel gates, mines and other prepared defenses by using recon patrols to locate the lanes through such defenses occasioned by terrain features such as streams and ravines. Through finding such gaps, building bridges, and preparing fords, we were able to get through with little interference from enemy fire.

2. Enemy strong points. "Our map overprints show only part of the pillboxes actually present. Strong points are generally located so as to cover roads, trails and fire breaks in forests. A strong point usually consists of a pillbox, 88mm guns and entrenched infantrymen equipped with automatic wpns and rifles. The pill box is used principally as a shelter from our fires. Most enemy fire is delivered from surrounding dug in positions. The Germans fear being trapped in pillboxes and do not like to fire from them. One German O surrendered his group of 20 men, stating that they became hysterical in the pillbox under shell fire.

3. Methods of attack. "We maneuver to a flank of a line of pillboxes and throw all the lead we can. We use arty for tree bursts over dug in positions around pillboxes wherever possible. In general a bn attacks with two cos abreast and one in support mopping up. If a unit is pinned down, a base of fire is established while another sqd or plat maneuvers to the rear of the enemy position. We move entirely across country, behind our own arty fires, staying away from roads, trails and fire breaks. Our fires usually drive the enemy into the pillboxes. If they fail to surrender we bring up tks, TDs, AT guns, bazookas and 155mm (SP) guns and open fire at embrasures. This usually brings them out but if it does not we use tk dozers to seal the doors and embrasures with dirt.

4. New German weapon. "We have captured a new German 88mm piece that can be man-handled and which has only a 2 foot silhouette above ground when its carriage wheels are removed. We have found 2 of these in the vicinity of one pillbox.

5. Use of pillboxes. "The Jerries use pillboxes for mort and arty QPs. It is a mistake to use the pillboxes for our CPs or QPs, as Jerry knows exactly where they are.

6. German beliefs. "German prisoners say we have two doctrines of warfare upon which they can rely: 'Americans never attack at night' and 'Americans fight along roads'.

7. Use of German civilians. "We have had definite indications of civilians behind our lines supplying military information to enemy units."--CO and G-3, 60th Inf.

TWELFTH ARMY GROUP

BATTLE EXPERIENCES RECEIVED

G-2, A.G.F.

25 SEPT 1944

No. 48

"Battle Experiences" are published regularly by this headquarters to enable units in training to profit from the latest combat experiences of our troops now fighting the Germans in Europe. Although the experiences of certain units at a particular location are not necessarily applicable to all units in all situations, the items published will be those based on practical experience and are recommended for careful consideration by units which may encounter similar problems. Reports of corroborative or contrary experiences are particularly desired in order that the validity of the indicated battle lesson may be determined.

By command of Lieutenant General BRADLEY:

C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

WHAT THE GI WANTS IN HIS LEADERS

1. Sources of Material. An observer from this hq recently questioned a number of co Os and EM of a bn of an inf regt engaged in combat regarding their ideas as to the essential qualities of leadership. The resultant composite picture is given below.

2. Qualities Desired. The recurrence of demands for certain qualities in their leaders make these qualities appear to be of outstanding importance. They are as follows: self-confidence and decision; a sure knowledge of his job; fairness, self-control; attention to the safety and welfare of his subordinates; exemplary conduct; a rather vague something which can best be called "personality". A number also stressed the importance of a leader keeping his men continually informed of the situation. The succeeding paragraphs deal with each of these qualities, in the language of the men who were questioned.

3. Self-confidence and decision. He must be able to make quick decisions. He must be calm and confident in his decisions when the going is rough. He must make his own decisions without hesitation. He must issue orders with an appearance of confidence in his own judgment.

4. Knowledge. He must have a thorough knowledge of his job. He must know his tactics. He must have something which causes him to be automatically accepted by his men as best fitted to guide them. He must know his job to a "T".

5. Fairness. He must rotate duties and missions. He must show no partiality. He must be fair minded. He must have a sense of fairness. He must be human but not allow personal emotions to affect the performance of his duties.

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6. Self-control. He must show a cheerful front under the most trying conditions. He must never get excited. He must not show his real feelings at the end of a hard day. He must be able to keep from blowing his top if something goes wrong. He must have the utmost control of his personal emotions. He must be clear thinking.

7. Care of his men. He must make the men feel that he is doing his best to help them. He must speak up (another one said "stick up") for his men. He must take interested care of his men.

8. Conduct. He must comply with his own rules and regulations. He must never ask his men to carry out a mission he would not be willing to undertake himself. He must be able to carry out any task he assigns his men. He must be with the men at all times in combat. He must not expose himself unnecessarily or permit his men to do so. He need not expose himself foolishly but must be in the fight with his men. He must have courage and sometimes purposely display it as an example.

9. Personality. He must have the confidence and friendship of his men through sharing their common lot. We like to feel that he is one of us. He must know his men personally. He must understand the job of every man under him. If the men do not feel free to come to him, he is not a leader. He must not complain or belittle or attack his superiors to his men. He must encourage, rather than nag.

10. Keeping men informed. He should orient the men as to the situation and mission. One of the best platoon leaders we ever had always told us everything he knew about what was going on.

END

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TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 47

24 SEPT 1944

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C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

CLASS I SUPPLY IN COMBAT

1. Sources. During the past two weeks detailed reports on the operation of combat supply within the div have been received from a number of units in combat. Among those furnishing information are the following: G-4 3rd Armd Div; G-4 2d Inf Div; G-4 1st Inf Div; G-4 30th Inf Div; Asst G-4 9th Inf Div; Asst G-4 6th Armd Div; CO 102d Cav Gp Mecz; S-4 134th Inf; S-4 314th Inf; S-4 121st Inf; S-4 119th Inf; S-4 13th Inf; S-4 28th Inf.

2. Treatment. A summary of the information obtained with respect to Class I supply is given in succeeding paragraphs. A more or less typical description of the general methods of operation is followed by a description of certain expedients or methods adopted to minimize a difficulty in the system or otherwise to improve the service to the combat troops. Other classes of supply will be discussed in future issues of "Battle Experiences".

3. Method. Some units attempt to feed 2 hot meals daily, as advised in current WD manuals. Some, however, habitually feed only K rations while in combat. A few of the latter have obtained sufficient one-burner cooking outfits to permit practically all men to heat these rations before they are eaten. Rations are issued by the div QM to regtl S-4 by unit distribution from the div truckhead and in turn by the regtl S-4 to co kis under regtl control, by the regtl train bivouac. Both of these issues are normally made in daylight. The regtl S-4 then determines, from his knowledge of the situation whether the morning and evening meals will be served in daylight or under cover of darkness. Sometime between breakfast and early afternoon, the bn S-4s report to the regtl S-4 their feeding plans, based upon the situation of their units. This information is passed on to the kis which place the meals in containers according to requirements. Some regts send one 2½T trk per bn to the bn motor pool or other selected release point. The meals are there picked up by co jeeps and transported to

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a point from which they are hand-carried for final distribution. This method requires about one to one and one-half hours. Other units have the co jeeps with trailers go to the regtl ki biv at a prescribed time. Using this system, the time from ki to troops is said to be only about 30 minutes. Where the C ration is prepared in the ki, most units preheat the cans and place them in similarly preheated marmite cans to be transported forward. The time for feeding after arrival at the troop area varies from 40 minutes to one and one-half hours. Water usually is sent forward with the meals.

4. Unit Reserves. A number of units report the practice of maintaining a rolling reserve, usually of one of the more desirable types of ration. The principal object of this is to permit taking advantage of unexpected opportunities to serve one of the better types of ration. In the 30th Div, the div QM train carries a reserve of B and K rations and can adjust on short notice to give a unit the best type it can use. The 314th Inf, which normally serves K rations when in combat, carries a 10-in-1 ration in reserve. In addition, each of its bns keeps a field ki with the bn train. This ki has sufficient cooking units and personnel to cook a hot meal for a unit which has the opportunity to use it. The 134th Inf keeps on hand one C ration, one K and one 10-in-1.

5. Feeding Isolated Groups. In the 28th Inf, small isolated groups, such as outposts or guards for road blocks, are given one day's uncooked ration and prepare their own hot food on small individual burners.

6. Cleaning of Mess Kits. In general, the cleaning of mess kits seems to be working satisfactorily. These two methods are in use in the 8th Div. First, hot water or a sterilizing solution is carried forward with the meals and a mess kit cleaning line is formed in the co area; second, the mess kits are kept at the co ki, sent forward with the meal and issued indiscriminately. They are collected after the meal and taken back to the ki for washing. The first of the two methods described is somewhat noisy and involves a danger of drawing hostile fire. The 13th Inf of the 8th Div, on those occasions when hot water or a cleaning solution cannot be sent forward, furnishes the men with napkins from the 10-in-1 rations to place in their mess kits. The 6th Armd Div requires its co Os to supervise closely the cleaning of mess kits and also requires a daily spot check by a bn medical O.

7. Extras. A number of units during the long days issued an extra K ration to the men in the morning to be eaten in the late afternoon and tide over the gap between the noon meal and a supper which they might not receive until almost midnight. Still other units try to economize on or arrange for extra fresh bread and coffee to permit serving hot coffee and sandwiches late at night, on the theory that almost all men in front line units are awake during much of every night.

End.

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 46

22 SEPT 1944

"Battle Experiences" are published regularly by this headquarters to enable units in training to profit from the latest combat experiences of our troops now fighting the Germans in Europe. Although the experiences of certain units at a particular location are not necessarily applicable to all units in all situations, the items published will be those based on practical experience and are recommended for careful consideration by units which may encounter similar problems. Reports of corroborative or contrary experiences are particularly desired in order that the validity of the indicated battle lesson may be determined.

By command of Lieutenant General BRADLEY:

C. R. Landon

C. R. LANDON
Colonel, AGD
Adjutant General

I WIRE COMMUNICATION IN FAST MOVING SITUATIONS.

"The recent 15 to 75 mile daily advances made by the div presented a situation in which it was beyond the capabilities of the div personnel and equipment to maintain continuous wire communication with field wire. Extensive reconnaissance was carried out prior to the movement of the CP so that a wire net could be quickly laid. All available French commercial wire and power lines were used; in one instance a net of 70 miles of operating circuits was installed in 5 hour with only 12 miles of field wire. It was found best to dead-end circuits at each end of a village and lay field wire through the town. This eliminated the need of cutting numerous lead-ins to buildings."--Reports from units of 9th Inf Div.

II TDs WITH AIR OP.

"Each TD has a channel on the arty air-ground net. Each TD co comdr has this channel monitored during hours of daylight. When the Air OP spots a TD target he calls "Hello 99" giving the coordinates. The TD co comdr nearest the target answers and notifies the plat concerned. The plat comdr checks in on the air-ground net and has his /1 TDs listen in. The plat then reverses the identification panels on their vehicles for identification by the air OP and engages the target. The air OP keeps the plat informed of the movements of the target."--Reports from units of 9th Div.

III COORDINATION OF CLOSE SUPPORT MORTAR FIRES.

"When we fire a preparation with mortars the last round from each wpn is smoke. When the inf see the smoke they advance. Even if the enemy catches on to this system we have the jump for he can never be sure that the fire has lifted."--Lt Col. J.E. Golden, Exec O, 12th Inf, 4th Div.

IV COORDINATION OF RCN TROOP AND I & R PLAT WITH ARTY.

"The regtl I & R plats and the div rcn trp are trained to adjust arty fire. When a plat of the rcn trp is working with a combat team it leaves an M-8 with radio at the CP. If the remainder of the plat is stopped by enemy resistance it radios back the location of the target and that it will adjust fire. Dependent upon the range either the cn co or the arty bn may be used. In this way opposition is often cleared out prior to the arrival of the foot troops."--Col Kramer Thomas, C/S, 79th Div.

V MISCELLANEOUS COMMENTS.

1. Tanks. "The best thing a soldier can see on the front is his own tks. We want the tks right on a line with us, not 150 yards to our rear."--Men of Co I, 10th Inf, 5th Div.

2. Keep Moving. "When crossing open terrain under small arms fire keep moving forward. If one hits the ground he becomes a still target for small arms, mortar and arty fire. This co marched 2 miles across open ground at La Chapelle firing from an upright position. We kept Jerry down by constant fire and did not have a single casualty."--Men of Co I, 10th Inf, 5th Div.

3. Prisoners of War. "Do not separate prisoners and the documents they carry. Many times we get marked maps and documents that we need the prisoners to explain."--Lt Col. Murray, G-2, 7th Armd Div.

4. Staggering Meal Hours. "In a defensive position near Belleroy we had our ki about 600 yards from the front line. Hot meals were served at 0600, 1200 and 1700 hours. As a result we were shelled daily at those hours. Meal hours near the front should be staggered."--S/Sgt Trainor, Mess Sgt, Co I, 10th Inf, 5th Div.

5. Tank Destroyers in Support of Field Artillery. "When supporting the arty we improvised an FDC from the co hq. The arty furnished survey and obsn."--Lt Col Cole, CO 629th TD Bn.

6. Improvvised Antennae for SCR-300. "Replacements being scarce we improvised an aerial for the SCR-300 by soldering to the original base of the AN-130-A a length of French transmission wire, guage 8 or 10, equal to the original antenna. To support the transmission wire in the base, seizing wire was wound 2 inches above and below the joint and then soldered."--Reports from units of 9th Inf Div.

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 45

16 SEPT 1944

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H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I. MAINTENANCE IN AN ARMORED UNIT.

1. Saving Spark Plugs. By increasing the normal idling rate of about 400 rpm to about 1000 rpm carbonization of spark plugs is greatly reduced. Since replacements are difficult to obtain, this greatly reduced a trying problem. It is doubtful if this practice wastes gas in the long run, since fouled engines consume fuel at an excessive rate.

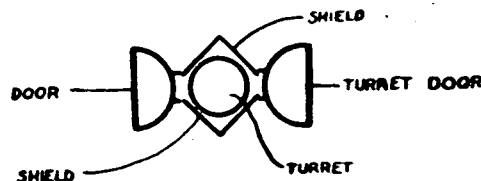
II. EVACUATION OF TANK WOUNDED.

1. In every action to date we have had tks attached to our bns. A total of 15 tankers have been wounded. We have had attached one tk med aid man and one half-track ambulance. These were not needed. The half-track drew fire despite its Red Cross markings.

2. The principal problem has been the removal of wounded and treatment of very severe burns. We had our aid men practice these two operations before our inf went into action. This training has proved effective and invaluable. The wounded tankers were given first-aid by our rifle co aid men. They were moved from the point of injury by a litter bearer squad made up of men from the regtl section, plus a few men from the bn section. From the aid station they are evacuated by normal methods.

III. PROTECTION FOR TANK COMDR.

We do not "button up" our drivers and asst drivers except under heavy arty fire. The tk comdr's turret stays open. To give him some protection we devised a Y shaped shield which was welded around his station. (see sketch)



The shield is made of 3/8 or 1/2 inch steel. Slits 1/2 inch wide and 6 to 8 inches long permit vision. This device provides good protection against SA fire and has greatly reduced the number of sniper victims.--Lt Col C.O. Parker, CO 1st Bn, 66th Armd Regt.

IV AIR COVER.

Our air cover has been excellent and has helped us out of many tight spots. At El Boeuf they knocked out 8 German Mark V and Mark VI tanks that were giving us a great deal of trouble. They also helped us at Tesay-sur-vire by knocking out tanks. They are on call by any unit down to a plat, calling through co and bn, and giving the location of the target. Then the ASPO contacts the air cover and gets a strike within a matter of minutes. I have seen the air strike within 3 minutes after the call was made. We like to know the air is there. We want it all the time.--Lt Col C.O. Parker, CO 1st Bn, 66th Armd Regt; concurred in by Lt Col L.C. Harkness, CO 2nd Bn and Maj R. O'Farrell, CO 3d Bn.

Our arty FO, who follows the leading plat, maintains com with our cab plane while it is in the air, and while we are moving. He thus gains valuable information of hostile elements which might hinder our movements.--Maj R. O'Farrell, CO 3d Bn, 66th Armd Regt.

V MISCELLANEOUS COMMENT.

1. Forward Observers with Armored Units. The inf and tks should each have an FO. The FO's should work separately but be in constant com with each other. In this way fire can be placed promptly on targets picked up by either tks or inf. The tk FO must be well forward.

2. Road Blocks. When you halt prepare road blocks. Dig 2 holes about 15 yds apart, one on each side of the road, and put 3 or more men in each hole. String mines on a rope and on the approach of hostile vehicles draw the mines in front of them.

3. Evacuation of Armd Wounded. In combat it is often impossible for the medics to evacuate wounded in the normal way. In such cases we put a stretcher on the back of a light tk and evacuate wounded by that means. The entire regt uses this system. --Lt Col C.O. Parker, CO 1st Bn, 66th Armd Regt.

4. Forward Observation Vehicle. To secure obsn for my assault guns and morts, the assault gun plat leader is mounted in a light tk instead of the assigned half-track. Using the light tank he can go wherever tks go and perform efficiently the duties of an FO, which he cannot do in a half-track.--Lt Col L.C. Harkness, CO 2d Bn, 66th Armd Regt.

5. Targets on Boundaries. Speedy placing of fire on targets located on div boundaries is a problem. Clearance must be obtained from the adjacent div. The Germans seem usually to have important targets on or near div boundaries.--Col R. R. Raymond, Jr, Arty Exec, 8th Inf Div.

END

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TWELFTH ARMY GROUP

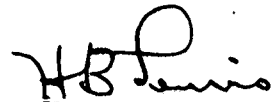
BATTLE EXPERIENCES

No. 44

16 SEPT 1944

"Battle Experiences" are published regularly by this headquarters to enable units in training to profit from the latest combat experiences of our troops now fighting the Germans in Europe. Although the experiences of certain units at a particular location are not necessarily applicable to all units in all situations, the items published will be those based on practical experience and are recommended for careful consideration by units which may encounter similar problems. Reports of corroborative or contrary experiences are particularly desired in order that the validity of the indicated battle lesson may be determined.

By command of Lieutenant General BRADLEY:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I LEADERSHIP EPISODES NOS. 3, 4 and 5.

(NOTE: The facts and opinions given below were obtained by personal interview with Lt. Col. J. E. Rudder, CO 2d Ranger Bn, immediately after that Bn has completed 17 days of combat as a part of a task force of the 29th Div assigned to the reduction of Le Conquet peninsula - the southwest portion of the Brest peninsula. During that period the following were captured: The main battery east of Locrist containing four 280 mm and three 75 mm guns; an AA battery at Ploumoguier; a 75 mm battery at pt. de Corsen; 75 mm battery at pt. de St. Mathieu; a battery at Kervillou with four 20 mm AA guns and two 75 mm coastal guns; and 1213 prisoners. The Bn lost eight killed during the entire period. These facts, together with the incidental disclosure, through his interview, of the things that Lt. Col. Rudder thinks about as Bn Comdr, appear to entitle him to a respectful hearing when he discusses the subject of Leadership.)

1. Leadership Fundamental. In my opinion, leadership requires that bn, co and plat comdrs constantly keep up with the men in the line and encourage them by example. The weak leader must be promptly replaced or the reaction will go on down to the last man and the unit will not move. Leadership is a question of life or death to the man in the ranks.

2. An Example. One night the Germans opened with two 280 mms on our personnel. The 280 has very large shell fragments and is not an antipersonnel weapon, but the blast is terrific. The Germans made no direct hits. We had no serious casualties but two men were buried in their foxholes and had to be dug out. Morale was severely strained. However, the men stood to their foxholes; less well trained men might have retired.

3. Another Example. Lt. Edlin provided what I consider a good example of leadership. He led a patrol of 10 men into the 280 mm ("Graf Spee") battery near Locrist. He entered the CP of the German btry comdr with a hand grenade in his hand and demanded surrender. The German called Colonel Furst, in command of the Germans on the peninsula, then offered to arbitrate. Edlin insisted upon immediate surrender. I had arrived in the meantime and Colonel Furst requested we come to his CP, 3000 yds away. I moved troops around Furst's CP then took Edlin's patrol in with me. Furst surrendered the fort and we took about 500 prisoners.

4. How to Save Infantry. a.- Inf sometimes takes heavy losses when a line is built up too strongly and the enemy attacks with arty and morts. We should keep moving and flanking out positions. If I cannot find a flank, I hold tight and build up in another place by stealth or under cover of darkness.

b.- In one case where we were built up strongly, we suffered 30 casualties among 240 men in two hours - more than our casualties for any other two days. The next day we flanked the position and gained 2000 yds with only 21 casualties.

c.- When working with tks we should use minimum numbers of inf around the tks - only enough to protect the tks from bazooka fire from both flanks. If we place a lot of inf around the tks, they take casualties from arty and mort fire aimed at the tks.

5. Another Example. Lt. Kuminiski ran onto a German outpost. He had light tks hit it from the front. He and ten men then went around and behind the position and wiped it out while the Germans were concerned with the tks to their front.

6. Dealing with German Patrols. The Germans set up their patrols as we do, with some men intended to get back with information as to the position from which the patrol received fire. They then put arty and mort fire on the position. If a member of a hostile patrol gets away after contacting one of our positions, the position should be moved immediately several hundred yards. The best procedure is to let the whole patrol get inside our position and then surround it, to insure that none escapes.

II METHOD OF PLOTTING FRONT LINES

"Front lines can be plotted quite well if panels are displayed at specified times and observed from the ln plane by either the arty obsr or ln O flying for the purpose. Flights of 1000, 1200, 1400, and 1600 hours were standardized. The obsr plotted his obsns on a photo map."--Lt Col O'Connell, CO, 2d Bn, 137th Inf, 35th Inf Div.

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 43

13 SEPT 1944

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H. B. Lewis

H. B. LEWIS

Brigadier General, USA

Adjutant General

SUPPLY WITHIN THE DIVISION. (Note: The following discussion of the operation in combat of supply in divisions and lower units is extracted from a number of reports on the subject.)

I. CLASS I SUPPLY.

1. Flexibility. a. - Since rations reach the using unit 48 hours after requisition, it is manifestly impracticable to seize unexpected opportunities to serve a better type ration, such as may result from a 2-day relief from the line of a certain unit. Our G-4 tries to keep on hand a 10-in-1 or B ration for this purpose. In addition, we try to meet the desires and special situations of subordinate units. Frequently we issue two-thirds of a C ration and one-third of a K ration, or vice-versa, for a single day. -Officers of the 137th Inf, 35th Inf. Div.

b. - We maintain a reserve. If an unexpected opportunity arises for a unit to use a B or 10-in-1 ration and they have drawn another kind, we exchange with them and adjust by the use of our reserve. -Lt. Col. Van Notten - GMC - 30th Inf. Div.

2. Preparation. a. - When we serve either the C or the 10-in-1 ration, they are first heated in the kitchens. We usually serve them hot for breakfast and supper. At noon the men eat a cold K ration. -Lt. Col. Rymer, G-4 1st Div.

b. We work this system to serve hot C rations. The rations, still in cans, are heated in boiling water. They are then put into marmite cans, also preheated in boiling water. They reach the troops hot. -Officers of the 137th Inf, 35th Inf. Div.

3. Movement Forward. a. - KI Tns are always released to units. They are moved well forward before dark. Rations usually are issued between 0600 and 1200 - not during hours of darkness. - Lt. Col. Rymer, G-4 1st Div.

b. Rations are moved forward in 2½ ton trucks to bn am dps, where co jeeps pick them up and take them as close to the lines as practicable - seldom more than 500 yards away. Plat carrying parties take them the rest of the way. The average time from kitchens to troops is about two hours. - Officers of the 137th Inf.

II. CLASS II.

1. Weapons. a. - We have a medium ord co in direct support of the div. We obtain weapon replacements through this co, direct from ASPs. - Lt. Col. Rymer, G-4 1st Div.

b. For a while we reported weapon repair and replacement needs each night through S-4. Normal time of replacement was two days. Later we detailed a salvage officer with several men with the duty of handling this work. Much improvement has been noted. It is believed a small stock of weapons and spare parts in the service co would be a great help. - Lt. Col. O'Connell, CO, 2nd Bn S-3 137 Inf.

c. Clothing. Principal difficulties in the resupply of clothing were due to the rapid advance and the shortage of transportation. Some COs of the 137th Inf. suggested maintenance of a small stock of clothing in the serv co also.

d. Vehicles. Vehicle replacements have been obtained in the time necessary to send to the ASP and return them. Most of the vehicles lost are jeeps. If the div were authorized to stock a few of these vehicles for immediate replacement, I think the system would be improved. - Major Huff, Asst G-4, 9th Div.

III. CLASS III.

1. a. - Each regt and sep bn and co draws direct from the army class III truckhead. Formerly this was 6 to 15 miles back. Now it is as much as 150 to 175 miles. The div carries a reserve of 4000 gallons of gasoline. To save the lower units the long haul, we issue the div res and then refill it. - Maj R. M. Denny, Rx O - 30th Inf Div, QM.

b. - The Div QM transports Class III supplies from ASPs to Div dps, where they are picked up by using units. Recently we have allotted an entire truck company to moving forward these supplies, but they are keeping up only with difficulty. - Major Huff, Asst G-4, 9th Div.

IV. CLASS IV.

1. All reports indicate that Class IV supply services have operated well and are well stocked. In some cases, they have fallen too far behind.

V. CLASS V.

1. None of the units of this div have established am dps. They move with basic loads. No am is carried on div ord trucks. For resupply, unit transportation passes back through the div am dp, where they obtain orders on the ASP. - Lt. Col. Rymer, G-4, 1st Div.

2. Our regiments rarely dump am and bns dump as little as possible. Am is usually transferred from bn am tn vehicles to co jeeps and trailers. Bn A and P plats break open chests of sa am, including the liners, in order to save time for the combat cos. - Lt. Col. O'Connell, CO, 2nd Bn and Major Frink, S-3, 137th Inf. 35th Div.

3. Am is transported direct from ASPs to using units. We use no dumps.

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 42

12 SEPT 1944

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By command of Lieutenant General BRADLEY:

H. B. LEWIS
Brigadier General, USA
Adjutant General

I TANKERS CRITIQUE.

During a recent pause in operations of the 7th Armd Div near Verdun, Major General Lindsay M.D. Silvester, the div commander, called a meeting of certain commanders and staff officers at which the operations of the div were discussed. Certain comments are summarized below as they indicate the phases of those operations which impressed themselves most clearly on the minds of the participants.

1. Tactics in Advance. a. "In the early stages the div often halted in a column extending more than 40 miles. I do not think we fan out fast enough. I like combat commands to move in multiple columns."--A general officer.

b. "Do not stand on the road 2 or 3 hours while some one tries to get in touch with his senior. Make up your mind and do something. When a column stops find out what is stopping it."--A general officer.

c. "I agree about using multiple columns, even though it does complicate the supply situation and reports."--Division G-4.

d. "Our difficulty is having enough reconnaissance in front of us. We went straight down the road and frequently the first 2 or 3 vehicles were knocked out. If we have to keep going down roads and through towns, we will use advanced guards of inf and a plat of tanks to find out the situation."--Lt Col of a combat command.

e. "The armor should go around cities and the inf follow up and go in and take them. The main thing I want to impress on you is -- keep moving forward."-- A general officer.

2. Advance Planning. "The greatest trouble I had is getting commanders to think ahead of what they will do when they run into trouble. The advance guard especially must have some plan for immediate action when fired on."--A general officer.

3. Use of Artillery. a. "Always have one battery close to the front. Arty on the road is no good. As soon as resistance is met the battery commander should put his guns

in position so they can be used."--Lt Col., Field Artillery.

b. "Your best weapon against AT guns is arty. Do not try to attack them directly. Get arty fire on them and then run your tanks around, come in behind, and overrun them. It is SOP and I know it works."--An armored force col.

II AIR-GROUND TEAM.

Members of the staff of the 7th Armd Div and of the 9th Air Force who have been operating with that div summarize some of the mutual obligations between air and ground forces as follows:

1. Reports. The air should report immediately on all troop movements, both friendly and enemy, regardless of the size of the elements involved. The reports should include time observed, location, strength, composition and direction of movement.

2. Panels. When ground elements dismount they must display panels to insure against getting strafed by friendly planes.

3. Routes of Movement. The air must be kept informed of the missions and routes of all ground elements. With this knowledge they can furnish appropriate information without specific request. This was exemplified at the seizure of the bridgehead at Chateau Thierry. The air did not know that the bridgehead was to be secured and made no report regarding the bridges over the Marne and Aisne until it was called for.

III MISCELLANEOUS COMMENTS.

1. Location of Radios. "Stories of Germans spotting our radios are untrue. In our first campaign we did not use the radio; now we would not go without it. We keep our CP close enough to use the telephone or the SCR-300 with telephone connections to cos in the line. The SCR-284 is used only from the regt back. The radio also permits constant control of foot or motor columns."--Col. J. P. Jeter, CO, 121st Inf.

2. German Infantry Organization. A captured document from the German 275th Inf Div gives a new div organization. It is streamlined to meet the existing shortage of personnel and material. Inf cos are reduced to 90 men and 2 officers. Armament is 11 light MGs and one heavy MG per co. All excess equipment and personnel are to be turned over to a div reserve depot.

3. Civilian Cooperation. "If civilians were informed as to the closeness of succeeding echelons they would cooperate more freely with advanced elements, such as armored units. On several occasions the Germans have returned to town after armored spearheads had passed through and 'severely handled' those who openly assisted us."--Lt Jones, 746th Tank Bn.

4. Mines. "PWs state that mines are being laid hurriedly on the inside and outside of curves in the roads. The theory being that tanks and armd vehicles rounding the curves hug the side to get a good view in an effort to spot enemy positions and vehicles and do not watch for mines."--G-2 Report, 30th Inf Div.

5. Use of German Mines in blocking a road. "PWs say that T-35 mines have been used to block roads as follows: A trench about 10 inches deep is dug across the road. Three or 4 mines are placed in it. A steel connecting bar is bolted across the pressure plate of the mines. A flat iron plate is then placed on top of the connecting bar. Pressure at any point will detonate all mines."--G-2 Report, 83rd Inf Div.

BATTLE EXPERIENCES

No 41

11 SEPT 1944

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By command of Lieutenant General BRADLEY:



H. B. LEWIS

Brigadier General, USA
Adjutant General

I NEW GERMAN MINEFIELD MARKINGS.

"Recently planted minefields in various areas have been marked by two rows of warning boards, the outer row painted black with white lettering, and the inner row painted white with black lettering. The space between the rows is free from mines. In other areas the presence of mines is reported to be indicated by lengths of barbed wire wound around the wooden posts of the boundary fences. Anti-personnel mines are indicated by a length of wire projecting about three inches from the top of the post while two hoops of wire forming a dome on top of the post indicate antitank mines."--MIS, WD Bulletin.

II USE OF THE 105 HOWITZER, M-3.

"We tried echeloning one 105 inf how up to a defiladed position behind the inf front lines to fire at enemy concrete pill boxes. The cannon co commander fired with excellent results using forward observation methods and very small corrections. We found that HE armor piercing shell is more effective against pill boxes than concrete piercing shell."--S-3, 115th Inf, 29th Div.

III DISPOSITION OF SALVAGE.

1. "In this div all salvage clothing and individual equipment is carefully sorted by the QM. That which is serviceable is then cleaned, resized, reclassified and reissued. This procedure not only saves time, labor and material, but utilizes the facilities of the corps QM laundry at times when it is not otherwise busy. About 70 per cent of the salvage is serviceable and reissued to the troops.

2. "Salvaged blankets are also cleaned and supplied to the clearing station, which uses a very large number of blankets, thus eliminating necessity for clearing station to obtain blankets from medical supply."--Executive O, 30th Div QM.

IV ATTACK OF HILL 154. VICINITY OF BREST.

Note: The bn attack described below resulted in the capture of an important and well protected German position. Its success was attributed by the Div G-3 to initiative, aggressiveness, and leadership which achieved the ideal tactical employment of inf.

1. German Defenses: Hill 154 was a dominating terrain feature which had been highly organized by the Germans with strong forward and reverse slope positions on a North-South line. Enemy positions included 8 concrete, steel-reinforced, pill boxes and a complete network of circular trenches around the crest connected by a network of intercommunication trenches and protected by an outer defense ring of single apron barbed wire. The terrain was rocky with a minimum of cover and concealment. The defenses were garrisoned by an estimated 500 enemy troops.

2. The Attack: Cos I and L were the assault cos, I on the right, and Co K was in reserve. The assault cos, each with a section of heavy MGs attached, advanced in column of plats. Co I advanced under fire over the north slope of the hill, dropping its heavy MG section at the crest to assist Co L, and reached positions 200 yards down the reverse slope where it stopped. Co L's advance was pinned down by heavy fire on the eastern slope of the hill until dark. A gap of some 600 yards existed between Cos I and L. Under the cover of darkness Co K was moved into the gap. Early in the morning Co L resumed the advance, the first plat frontally, the second plat maneuvering to the south. One squad of the first plat was committed on the right front to infiltrate into the enemy lines. This squad succeeded in penetrating the enemy position unobserved and began attacking the resistance with grenade, automatic weapon and rifle fire. At 0645 the enemy counter-attacked the supposed gap between Cos I and L in co strength. Co K killed or captured the entire counterattacking force and then moved up on the left flank of Co I and opened fire on enemy positions on top of the hill. Under cover of the attack made by the squad from the first plat and the fire from Co K the remainder of Co L moved up and the bn captured the hill by 1600.

3. Result of Operation: Enemy casualties: 154 PWs, 100 known dead, an estimated 300 killed or wounded. Our casualties: 7 killed, 28 wounded.

V AAA EMPLOYED AS FA.

1. Paragraph 4 Section II BE 15 c.s. this Hq stated that an AA Gun Bn with the VIII Corps while being used as field artillery obtained its fire data from the FA FDC. The following statement of the methods actually used has been received from the CO, 119th AAA Gun Bn (M) which was the unit involved.

"No firing data was furnished the unit from outside. All computations were made in the unit FDC. All that any other FDC furnished us was air observation for registration and some ground and flash observation for registration and missions. One battery of the unit stood by as an alternate FDC, in case the Bn Hq got shelled out. FA units assisted in position surveys."

2. The importance of siting AAA was also stressed by the same officer as follows:

"When used in a ground role, priority in siting artillery must be given to flat trajectory weapons. They cannot just sit down anywhere. There is only one propelling charge for these guns. Reconnaissance for suitable positions is a long drawn-out job especially if other types of weapons have arrived ahead of the 90's."

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 40

8 SEPT 1944

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By command of Lieutenant General BRADLEY:

H B Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I FLEXIBILITY OF 4.2 MORTARS.

NOTE: On 14 July, the 92nd Cml Bn was attached to the 35th Inf Div for the drive south toward St. Lo. The following description by the battalion commander of the operations of the mortar bn demonstrates various possibilities for the employment of this weapon:

1. "In the late afternoon of 14 July, the bn moved into position to fire a controlled barrage in support of the 134th Inf Regt which was to make the initial push on the div left flank. Registration of one mortar was accomplished by our own observer in the div arty observation plane.
2. "Fire mission began at 0600 hours 15 July, with all cos firing preparatory fire and continued with a controlled rolling barrage in front of the advancing inf until 2000 hours--a fourteen hour continuous shoot expending 6953 rounds of ammunition. During the whole time fire was controlled by the assaulting inf. They called through their arty who had direct communication to the mortar bn FDC which in turn controlled the fire of the three cos. Throughout the day, rate of fire, rate of advance, and changes of direction were made whenever desired by the assaulting inf. At one period fire was held on a line for four hours with the rate of fire determined by the reorganizing inf.
3. "On 16 July, the attack of the 134th Inf having been successful, the mortar cos were attached to the various regiments for independent direct support missions. Co C continued in support of the 134th; Co B was assigned to the 137th and Co A to the 320th. During this period each co sent forward FO parties with the leading elements of the inf and fired missions desired by the bn commander on targets of opportunity. Co C, for example, accounted for four machine guns with an expenditure of 26 rounds. The time lapse from 'target sighted' until 'mission accomplished' was eleven minutes.

4. "At all time during these independent missions, each co had at least two platoons in firing position. Although platoons were normally assigned to support the assault bns the fire of all platoons was controlled through the Co FDC and the co could always mass fire on the regimental front. Normal defensive fires were assigned each night with mortars laid and ammunition prepared. The attachment to regiments for direct support lasted 2 days and all cos reverted to bn control at 1800 hours 17 July.

5. "The complete operation gives a clear picture of the flexibility of 4.2 mortars. In the first phase, the bn of 36 mortars moved into position to give maximum concentrated fire support for the first punch; in the second phase, the supported regiment having broken through, the mortar cos left bn control and were attached to the regiments for independent missions. In the latter phase mortar platoons were 'leaped-frogged' forward to maintain continuous support for assault bns."

II ANTITANK GUN USE.

1. "I have learned not to place my 57-mm AT guns too close together. On 26 August east and north of FONTENAY ST PIERRE, we were attacked by tanks. I had two 57-mm AT guns about fifty yards apart with an observer in a straw stack. The enemy set the stack on fire and jockeyed his tanks so that he kept his heavily armored front towards both guns so that neither could get a shot into the flank. One gun was put out of action before a hit through the tread and front sprocket immobilized the tank."--CO, 1st Bn, 314th Inf

2. "In a counterattack by enemy inf, 26 August, AT guns assisted in breaking up the attack by use of HE shells in 57-mm guns. The ground was soft from rain and shells would not explode on impact. There was a hard surface road that the enemy had to cross, so we fired at that, causing considerable casualties. Another time, the enemy employed a house as a strong point. We wrecked the walls with armor piercing shells and then used HE causing about twenty casualties out of about thirty Germans using the buildings."--CO, AT Co, 314th Inf.

III ARTILLERY OBSERVERS.

1. "Young officers should be taught to fire precision adjustments. Forward observation methods are not as effective as precision methods in firing at enemy concrete gun emplacements. Most young officers cannot fire precision adjustments.

2. "OP's should be constantly manned and observers taught to be patient and always on the alert to attack enemy guns while actually firing. Otherwise, the enemy is safely underground when we fire."--Arty Executive, VIII Corps.

IV BASIC TRAINING.

"One of the greatest training needs is in night scouting and patrolling -- especially in the maintenance of contact with the enemy: Around Vire contact was not maintained at night and the enemy succeeded in withdrawing. We must also stress and re-stress fire and movement in all training."--CO, 116th Inf, 29th Div.

END

- 2 -

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 39

6 SEPT 1944

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By command of Lieutenant General BRADLEY:

H B Lewis

H. B. LEWIS
Brigadier General, USA
Adjutant General

I KEEPING WEAPONS IN ACTION.

"Crew served weapons, particularly the BAR's and the bazookas, have not been kept in action as they should by members of the crew when the gunner becomes a casualty, or when the weapon has been slightly damaged. Many enlisted men have not been taught that supply in combat consists to a large degree of repair or the issue of repaired items. Crews must keep weapons in action as long as there is a man left, or if the weapon is damaged, the crew must initiate repairs or replacement personally or by reporting the location. Weapons replacement became satisfactory in one unit only after a salvage officer and detail were set up to recover the combat losses. This crew either made minor repairs or evacuated the weapon through the usual channels."--0's of the 134 Inf.

II MISCELLANEOUS COMMENTS.

1. Batteries. "Daily issue of radio batteries with rations was found to be the best means to insure keeping radios in action.
2. Time for reconnaissance and orders. "Time for reconnaissance and issuing of orders still is not provided by higher echelons. Thus, when the units in turn attempt to take it, the lower units have no opportunity either for proper planning or the orientation of the troops.
3. Radio Interception. "Radio interception, both for security and location, is considered impracticable for the enemy insofar as small units are concerned if simple prearranged codes are used. Good judgment as to how fast the information becomes obsolete determines the necessity for using various types of codes.

61

~~SECRET~~

4. Motor Pool Communication. "When the situation does not permit the motor pool to be forward, an SCR 300 gives prompt vehicle service."--O's of the 134 Inf.

III CLEARING STATIONS AND FIELD HOSPITALS.

1. Hospitals. "I am convinced that the field hospital, set up by platoons in the vicinity of clearing stations, is the best place for effective surgery. These units, however, must be well forward. The less the distance between the place of injury and the field hospital for all non-transportable cases, the greater the incidence of recovery. We have received several severely wounded men whom we were able to save by prompt surgery and by administering plasma and penicillin within an hour and a half from time of injury. These cases could not have been saved had the time lag been four or five hours. If we can always stay within five miles of the front, the death rate can be much reduced.

2. Clearing Stations. "Some divisions keep their clearing stations entirely too far to the rear. On one occasion we were forced to remain fifteen miles behind the lines or set up forward of the clearing stations.

3. Red Cross Respected. "Some medical units are reluctant to keep well forward because of artillery fire and bombing. My experience has been that the Germans have carefully respected hospital installations in their actions. We have avoided locations near main highways and bridges."--CO, 2nd Plat, 51st Field Hospital.

IV PATROLLING.

1. "In the early operations there was a tendency to make patrols too large. Once a patrol of three squads was sent out to obtain information. It was too big for secrecy and too small for a raid. It suffered many casualties and obtained little information. It is believed this error will often occur with green troops and green commanders.

2. "Initially, patrols were not given sufficient detailed information and instructions regarding the mission. In one instance, a patrol leader was not notified until 2100 hours that he would lead a patrol during the night, although it was known much earlier in the day that this patrol was to be dispatched. Patrols now are generally well briefed and well supplied with maps.

3. "The mechanized cavalry should receive more training in dismounted scouting and patrolling."--G-2, XIX Corps.

V GERMAN GUN POSITIONS.

"We have found that the Germans place SP and light AA guns to cover long, straight stretches of main roads to enfilade troops and transport. Where roads are lined with trees the enemy fires into these and into hedges for air bursts. To meet this we stay off these long stretches and detour our leading elements around them. Method of reducing these threats is to advance on a broad front so as to outflank road blocks."--Brig Gen A. D. Warnock, Asst Div Comdr, 5th Div.

VI TELEPHONES TYPE KE-8A AND KE-8B.

"Some telephone users have a tendency to turn the switch to CB (common battery). This causes generator to turn hard and the opposite party phone will not ring. Telephones have been sent to us for repair when there was nothing wrong except the switch was turned to CB. Keep switch turned to LB."--CO, 69th Sig Bn.

BATTLE EXPERIENCES

No. 38

3 SEPT 1944

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By command of Lieutenant General BRADLEY:

H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I AIR SUPPORT OF ARMORED COLUMNS.

NOTE: The following is extracted from an account of very successful air support of Combat Command A of the 2d Armd Div, given by Lt Col James L. Zimmerman, who was air support party 0 with the Combat Command. The div had three air support parties--one with the div commander, and one with each combat command column.

1. "I was mounted in an M-4 tank. All of the tank crew except the tank commander were air force personnel. The tank commander communicated with the column commander by means of an SCR 528. I had an SCR 522 to communicate with the planes. I had changes made in the interior of the tank so that I occupied the assistant driver's station, from which I had outside vision and could work my radio.

2. "Column cover of four fighter bombers to each column was maintained whenever we moved in daylight. The flights were relieved at about 30 minute intervals. The leader of each flight contacted me as he approached, giving his call sign.

3. "The planes worked quite close to us, generally with excellent results. For example, on 27 July we were held up by hostile resistance. I directed the planes against it, and they dived so close that they made me nervous. However, not a bullet hit our tanks, and the resistance was knocked out. During the entire period, 25 July to 6 August, there were only two instances of bombs falling near our troops. In one of these instances the bomb was dropped by a single plane from some other area. I kept in constant contact with the cover and kept them notified of the location of the head of our column. The planes located my tank by a yellow panel which I had placed across it at the extreme rear. They always checked in with me before attacking doubtful targets.

4. "Our best air rcn information came from the column cover. On occasions G-2 asked me for specific information, and I asked the planes to get it. In most cases the pilots furnished information to me without request, especially that of enemy motor movements. Before leaving, the flight leader would report to me on likely prospective targets, and I would pass the information on to the incoming flight commander.

5. "On one occasion we made an unexpected move for which no air cover had been provided. Information was received of a group of hostile tanks in some woods three or four miles away. I called direct to a plane operating in the zone of another corps and asked him to relay a request to fighter control center for some fighters. Within 15 minutes about 12 planes reported in to me. I located my tank for the plane commander by telling him of the yellow panel, then vectored him on to the woods where the enemy was reported. When he seemed to be over the target, I told him to circle and check the woods under him. He located the tanks, and they were attacked successfully.

6. "I think the air support party O with armd columns should perform for the air much the same function as the FO performs for arty. He should be in a tank and must have outside vision and control of his own radio. Assigning a tank for this purpose does not reduce the tank strength of the armd unit. Our tank was habitually immediately in rear of the attacking wave of tanks, and in many cases we actually took part in the fight."

II ARTILLERY AIR OP'S.

1. "We handle air OP's by coordinating levels used by div and corps planes. For example div planes fly to 1000 feet and corps above 1500. This procedure is essential in attack of a small area. We also limit the number of planes in the air at any one time by having FA Group planes patrol on a time schedule.

2. "We back up cav rcn with air OP patrols. At one time we organized a tactical rcn for the corps commander to report on traffic and bridge conditions, location of leading elements and to cover exposed flanks, etc. G-3's sole data at one stage came from air OP's. We also reported location of enemy tanks to our own tank elements, who then deployed and surrounded the enemy.

3. "We ran a counter-flak program over Brest with air OP's observing arty fire on hostile AA guns, especially during bombing attacks.

4. "Corps arty planes have had only one fatality--that through collision in the air. Flying technique on short fields should be stressed. Green pilots arriving have not had enough of this type training. We send pilots back to the rear to re-practice in order to avoid laxness in flying and hold down the accident rate.

5. "New pilots and observers are weak on communications--they fail to think out what they must transmit to give the FDC complete information for rapid attack of targets.

6. "More tactical training, especially on operations in this war, should be given young O's so that they may observe more intelligently.

7. "Replacement pilots should be attached to corps for training pending assignment."
--VIII Corps Arty Air O.

End

TWELFTH ARMY GROUP

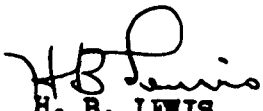
BATTLE EXPERIENCES

No. 37

1 SEPT 1944

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By command of Lieutenant General BRADLEY:


H. B. LEWIS
Brigadier General, USA
Adjutant General

LEADERSHIP EPISODE NO. 2.

NOTE: All of the comments given below were made to an observer from this headquarters by a courageous young lieutenant of the 5th Div only a few hours after he had lost both legs in combat. In spite of this fact, he not only was able to give these constructive and connected comments upon timely military subjects, but he also informed the observer that he had already made plans to complete his studies and resume his chosen career in civil life. He also told the observer that he always tried to do his best as a plat leader, because his plat was composed of a cross section of the finest type of American youth who inspired and were entitled to the highest type of leadership.

1. Bayonet Assault. "The old fire and movement doctrine ending with a bayonet assault is most effective against the enemy in the present phase of operations. In one attack of my plat in which I placed heavy fire on his positions with BARs and rifles and followed with a bayonet assault, we counted 306 Germans dead while losing only eight men killed. This action occurred in the Angers sector."
2. Distrust of the Enemy. "My men have learned, because of various ruses and tricks, not to trust the Germans. In some instances the Germans have hidden to avoid our fighting echelons and then surrendered to rear echelons, who are inclined to treat them more kindly. Front line troops deplore the attitude towards prisoners displayed by rear echelons, such as giving them cigarettes, candy bars, and other familiarities. Our soldiers must be endowed with a hatred and distrust of the enemy in order to successfully pursue the war."
3. Leadership. "Our officers have to be leaders. Discipline in combat depends largely upon the knowledge by the men that the O leading them knows his business and is not reluctant to take risks."

4. Infantry-Tank Coordination. "In infantry-tank coordination, I use an NCO to direct each tank by means of a telephone attached to each tank. The target designations follows this sequence: "Target (description)"--"Three o'clock"--"Watch my tracer". The infantryman fires the tracer and then the tank immediately opens fire with WP followed by HE. This system has worked very effectively against enemy positions."

5. Booby Traps. "I have had no casualties from booby traps in my plat due to the fact that I do not permit my men to pick up enemy weapons, watches, and other articles from enemy killed by action."

6. French Collaboration. "The maquis have been most helpful and cooperative since we broke out of the Normandy peninsula. In the Angers sector, the maquis supplied each of our plat leaders with accurate and helpful maps showing detailed enemy positions, including snipers, MG emplacements, and other positions."

7. Medics. "The medics are doing a wonderful job in this war. They have shown great courage and exercise a high degree of training and skill in the performance of their duties often under heavy enemy fire. I owe my life to the courage and skill of a co aid man, who ran to me under heavy mortar fire and, together with one of my squad leaders, applied tourniquets to my legs and then carried me to comparative safety in a ditch some 75 yards to the rear."

8. Miscellaneous Comments. a. "The Germans invariably attempt to get on your flank with small groups of men with machine guns.

b. "Plat scouts must be very thorough in scouting an area, or the enemy will lie low until you get on top of them before they open fire.

c. "Men should be trained to pay little attention to the machine pistol or "burp" gun, but to listen carefully for the firing of mortars.

d. "Recently, approximately one-third of the German snipers have been officers. They no longer trust leaving enlisted men behind, as they will soon abandon their position and follow the retreating forces.

e. "In hedgerow fighting always deny the enemy the use of the next hedgerow in rear by laying mortar fire on it.

f. "I generally use two squads in attack and one in support. I attempt to find from which flank he is advancing his maneuvering force, then attack that flank. It is most important to maintain contact with adjacent units and to keep flanks well protected.

g. "The enemy does most of his patrolling in the early morning. He will fire his "burp" gun in the air in an effort to make us reveal our position. We have learned to disregard this, and if he gets close enough, we throw a few grenades at him.

h. "I have used 60 mm mortars both in battery and attached to plat. When attached to plat, I generally use it without base plate.

i. "Units on line should be given relief--as prolonged periods in combat cause men to become careless, largely through fatigue.

j. "I have fired the mortar shell from the rifle, but I do not think it is worth the extra weight of ammunition. Two fragmentation hand grenades will obtain about the same results when fired by the rifle launcher."

End

BATTLE EXPERIENCES

No. 36

31. AUC 1944

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By command of Lieutenant General BRADLEY:

H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I ONE WAY OF FIXING SNIPERS.

1. The following is from a British publication;

"Snipers in haystacks were more effectively engaged by setting fire to the haystack with tracers and then shooting the sniper as he ran out.

II MISCELLANEOUS COMMENTS.

1. Rcn. "There is an absolute necessity for personal rcn. As an example, I got lost on a cow path one day and nearly got captured. The next day my knowledge of the cow path enabled me to work a co to the enemy's rear, whereupon the entire enemy position surrendered.

2. Use of Personnel. "There is a tendency over here to employ too many people to do a job. Once I cut the number of men attacking a certain position from a plat to a squad, and they went and captured it anyway."--CO, 22d Inf.

III DIVISION TRUCKHEADS.

The G-4 of the 2d Armd Div finds that supply is facilitated by the establishment of a div truckhead for each combat command instead of one for the div. They are established far enough forward so that the using troops will not have to haul their gasoline and ammunition more than five or six miles. The combat commands report the system of considerable help.

IV TANK TO PLANE.

"Cooperation between our combat command and the supporting air has been excellent. Our ASP O and our S-3, Air, ride together in a tank in the leading echelon. This tank has the VHF equipment for communication to planes and also has a crypton light to permit the pilot to identify the tank to which he is talking. We have one tank per bn

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listen on the air frequency and give the information obtained to the CO. We also use colored panels to identify our tanks for the planes, but we have to change the color frequently, as the Germans sometimes use the same color. The planes furnish us excellent intelligence and rcn information, as well as protection."--S-3, Combat Command, 2d Armd Div.

V SLIDEX.

"We had trouble using slidex when we depended upon one person to operate it. There were so many mistakes that it was a definite hindrance. We remedied this fault by having two persons--one to check the other. This has eliminated mistakes, and we now consider slidex our best code."--Troop Commander, 6th Cav.

VI AUXILIARY CHARGER ON CAR, M-8.

"We have found that operation of the radio in the armd car M-8 requires such a heavy output from the battery that it is difficult to keep the battery charged. We remedied this by mounting a "Tiny Tim" charger between the rear wheels to keep the battery up and save running the car engine while using the radio."--Troop Commander, 6th Cav.

VII REMOTE CONTROL FROM MOBILE CP.

"We have set up a mobile CP in a one-ton trailer. In front of the fender on each side we have placed a reel of heavy cable wire for remote radio control. This permits dispersal, and one operator can operate two radios from inside."--Troop Commander, 6th Cav.

VIII ANTI-TANK POSITIONS.

"AT and TD units are still inclined to sight their guns down roads. Positions on flanks generally afford more concealment and produce more effective fire against flanks and rear of advancing tanks."--Bn CO, 1st Div.

IX QUICK PUNCH.

"I have organized a force composed of two rifle squads, one IMG squad, and one 60 mm mortar squad, to use where a quick hard punch is needed. This provisional plat is composed of selected personnel and is assigned to Hq directly under my control, so that I can employ it on short notice. During a march this plat acts as a point of the advance guard."--Bn CO, 1st Div.

X INFORMATION FROM PWs.

"It has been found that PWs will not point out their CPs on an American map due to their inability to read these maps, but generally will readily indicate troop locations, etc. on a German map. We have furnished all our intelligence sections with copies of German maps which have been reproduced by our corps. This has greatly facilitated the transmission of information in addition to aiding in interrogation."--Report by XIX Corps.

XI GERMAN RUSE.

"A German prisoner of war was found wearing civilian clothes under his uniform. He reported that when observing for mortar fire in forward areas, he would remove his uniform and move about in civilian clothes."--After Action Report of 4th Div.

End

- 2 -

TWELFTH ARMY GROUP

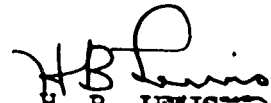
BATTLE EXPERIENCES

No. 35

31 AUG 1944

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By command of Lieutenant General BRADLEY:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I SANDBAGS AS ADDITIONAL ARMOR.

"Sandbags have proved an acceptable substitute for additional or spaced armor in some TD units. One bn reports an M-10, so protected, received a direct hit from an 88 mm without damage. Another TD unit reports the bags effectively protected an M-10 against hostile rocket projectiles. Both these units have added rocks to hold the sandbags in place. In placing bags on the turret, care is taken to avoid interference with efficient operation."--WD Observer's Report.

(NOTE: Some units have expressed the belief that sandbags assist penetration by preventing ricochet.)

II MODIFICATION OF .50 CALIBER MG MOUNT.

"One TD unit has modified its .50 caliber MG mount by placing it low on the right front of the turret, lowering the handles, ammunition box, and trigger, and aiming with a standard prism. This makes it possible to defend the destroyer against inf fire and bazookas, which have been used very effectively by the enemy in close terrain."--WD Observer's Report.

III AGGRESSIVENESS AT DUSK AND BEFORE DAWN.

1. "It was discovered that the Germans, when being attacked at dusk, withdrew their main defense about three hedgerows, leaving only light covering forces. By continuing the pressure at this time, an appreciable gain would be made with little loss.

2. "PW accounts indicated that the Germans always expected an attack to follow an arty preparation. If there was sufficient time for daylight rcn, attacks were arranged

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to take place one hour before daylight, using no preparation and no small arms fire, but leaving the ID with fixed bayonets, and upon meeting opposition, using hand grenades freely. On three successive occasions, this method proved effective, and the troops had great confidence in it. During the hour of semi-darkness, a limited objective advance was made of about three fields, and at daylight our troops were on the enemy main position."--From After Combat Report of the 29th Div.

IV MISCELLANEOUS COMMENTS.

1. Destruction of Tanks. "Our experience has been that one tank will not attack another that is in position waiting for it. Our bazooka men immobilize the Tigers and Panthers by firing at the tracks and wheels. Then our infantrymen surround them and the crews always surrender. The AT rifle grenade is almost as good as the bazooka.

2. Marking Front Lines. "The best method of marking front lines for the air is to cut up the red fluorescent panels into small panels. This has worked time and again and is better than colored smoke."--CG, 29th Inf Div.

V WP GRENADES.

"Our men like WP grenades a great deal because they get the Heinies out of their holes. If you hold your rifle at about 30 degrees, you can get air bursts by using the grenade projection adapters. Our men have learned to burst these grenades over the Heinies holes, and PWs say they really hate it."--G-3, 29th Div.

VI COMMENTS OF CO, 22D INF.

1. More about Tank Riding Infantrymen. "We ride eight men on a medium tank and six on a light tank, all on the rear deck. It only takes ten minutes to train them. We first send out a wave of tanks buttoned up, put time fire from the arty on them, and follow with the tanks carrying the men. The arty observer rides with the leading wave and controls the fire, setting his fuses a little high. To insure control by the inf CO and the tank CO, I put them both in the same tank. The inf CO hangs his SCR 300 radio on the outside of the tank and works directly with that part of his bn which follows, in trucks or on foot. Inf co commanders can talk to tank plat commanders by telephones hung on the back of the tanks. We fought this way for eight days and nights, and the foot soldiers love the scheme. It does, however, have one disadvantage, in that it does not capitalize on the full strength of the inf regt, since it fails to use most of the crew-served weapons. We are going to try to utilize the heavy weapons co by riding it on tanks.

2. Patrols. "We have another scheme that works well. We call them raiders and night hawks. Eight men are selected from each rifle plat for their endurance, initiative, night vision, and ability to read maps. They do no fighting during the day and no KP, guard, fatigue, etc. They are specially trained night fighters only. They have a two-fold mission; first, to go to a specific place and accomplish a specific thing; second, having accomplished their mission, to harass the enemy as much as possible, even shooting captured German burp guns (Schmeisser pistols) at them. When this happens, the Germans come running out yelling and afraid to shoot their own men. As an example, last night four radio patrols of five men each brought back 33 German prisoners."

END

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TWELFTH ARMY GROUP


BATTLE EXPERIENCES

No. 34

31 AUG 1944

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By command of Lieutenant General BRADLEY:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I TROOPS WANT THE "PICTURE".

"Troops and lower headquarters desire a situation map and glimpse of the big picture more than anything except mail from home. It seems that special distribution of such information, limited as necessary for security, could be rapidly disseminated to divisions or regiments for reproduction."-- Bn CO, 35th Division.

Note: The XIX Corps G-2 Section has provided excellent "big picture" G-2 reports for distribution to each company in the Corps.

II ANOTHER USE FOR THE LIAISON PLANES.

The successful, though unplanned, use of an artillery liaison plane as part of an advance guard for foot troops was described by a company commander of the 83rd Infantry Division as follows: "Our company was the advance guard for our battalion, when the point suddenly made contact with a group of enemy riflemen. Two squads and a BAR team from the advance party dealt with this resistance. Then an artillery liaison pilot flew over, cut his motor, and told us the "Jerries" were starting to retreat 500 yards to our front. We at once resumed the advance, thus preventing a delay of the main body. As we moved forward, the liaison plane continued to keep us informed regarding the enemy."

III RHINO SAVES INFANTRY.

"The rhino devices solved a tank problem in hedgerow country. The trouble with demolitions was that they gave away our positions and the infantry would receive mortar fire. With the rhino in use we need only one tank dozer per company, instead of one per platoon."--CO, 747th Tank Battalion.

IV CP SE CTION.

"Some divisions have had a lot of trouble with bombs lately. That brings out the importance of selecting proper CP sites. Stay out of those big villas. The Germans have used them all and have them plotted; also stay out of open fields because they are difficult to camouflage and soon wheel tracks will give you away. The best place for a CP is in these little peasant farmhouses and barns. There the CP can operate much more efficiently. We simply sandbag the doors and windows."--G-3, 4th Division.

V PANELS.

"Be careful that only the front lines display panels. Once our own planes started strafing our CP's and everybody started putting out panels. The air never did know where the front lines were. If you have to use smoke, red smoke is best."--G-3, 4th Div

VI THE BATTALION COMMANDER.

"The key to the whole show is good battalion commanders. Just think of the number of things he has to do. He has his artillery officer, tank officer, tank destroyer officer, S-2, S-3, communication officer, transportation officer, heavy weapons officer, and liaison officers, all along with him in his party. He must know how to use all his weapons and to call for their supporting fires. He is the most important commander in the business. Battalions fight as a small combat team, and we need more stress on this type of training. Battalion commanders must know and appreciate the difference between a simple envelopment and a wide envelopment. The Heinies simply will not fight any longer when you get behind them."--Ass't Division Commander, 9th Division.

VII SCREENING FORCE.

"In a fast moving situation, when we do not have armored or cavalry units in front, we have organized a regimental task force to act as a screening force. This force is composed of one motorized rifle company (mounted on half-tracks), one platoon of medium tanks, one platoon of M-10 tank destroyers, one platoon of the cannon company, and two or three reconnaissance vehicles. This force is able to neutralize or fix enemy resistance encountered, thereby permitting the advance of our foot troops without fear of unexpected attack from the front. This force serves as our advance guard, while division reconnaissance units protect any exposed flank."--Regtl Exec O, 1st Division.

VIII SPECIAL USE OF THE 60MM MORTAR.

"We use the 60mm mortar without base plate, especially on patrols, up to eight hundred yards. One man carries the tube and two rounds of ammunition. This use of the mortar is limited to highly experienced personnel."--Regtl Exec O, 1st Division.

IX MARKING TARGETS WITH SMOKE.

"Due to the uncertainty as to the exact time of arrival of aircraft over a target, preplanned target marking by smoke is not practicable and smoke must be placed after VHF radio communication between the ASP Officer and the aircraft. Only as a last resort and upon failure of the VHF radio should smoke be placed when the planes are seen to arrive in the target area."--G-3 Air, 4th Division.

End.
-2-

TWELFTH ARMY GROUP

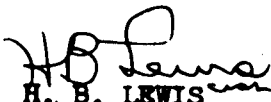
BATTLE EXPERIENCES

No. 33

31 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I LEADERSHIP EPISODE NO. 1.

Note: In an effort to build up specific answers to the question of what constitutes good leadership, it is planned to include in this publication a series of specific instances, giving in detail actions or words of an individual which have been considered to constitute good leadership in a specific situation. The first of these, extracted from an 8th Infantry document, is given below.

1. On 24 June, the lieutenant commanding Company E led his company against strongly fortified German positions consisting of a maze of tunnels, dug-outs and gun emplacements. The company was pinned down by devastating artillery, machine gun and small arms fire about 150 yards from the position. Heavy casualties forced it to withdraw.

2. When supporting tanks arrived, the company commander, under terrific fire from the German strong point, rallied his 51 remaining men who were disorganized and reluctant. The company commander mounted one of the tanks and calmly stood beside the turret as it advanced. The men followed. As the battle became hand-to-hand, the company commander dismounted from the tank and fought beside his men with rifle and bayonet--literally carving his way into the German stronghold.

II USE OF LIGHT TANKS FOR MOPPING UP.

1. The After Action Report of the 741st Tank Battalion for July 1944 describes the effective use of its light tank company as a mopping up unit in connection with the attack in support of elements of the 2nd Division in the area northeast of St. Lo.

2. Company D of the tank battalion was not committed until 28 July, two days after the opening of the offensive. With reference to its action, the report makes this

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statement: "The light tanks proved to be excellent in this situation, where the main resistance had been broken and the operation was essentially one of mopping up. They were able, also to keep up with the advancing infantry, even through difficult terrain. They used 37 mm canister very effectively against hostile infantry."

III ANTI-AIRCRAFT FIRE.

Recent observation by a War Department observer of the action of antiaircraft units against an attack by approximately 75 German planes, has led him to make the following comments:

1. "Searchlights went into action but were wholly ineffective as the planes were above the clouds and at no time visible from the ground. They might well have remained out of action entirely, as they served only to disclose ground installations.
2. "Although the attacking planes could not be seen, automatic weapons units were delivering barrage fire. It appeared that the attacking planes were well outside the range of automatic weapons. In this instance, automatic weapons batteries could have determined that the target was not in range from the data of adjoining gun batteries, and fire should have been held.
3. "All commanders with whom the matter was discussed were unanimous in their opinion that the need for searchlight illumination for guns no longer exists, and that they should be used only with spread beam for AW, as beacon lights, and for the illumination of air strips.
4. "The rules of when and when not to open fire should be brought home with greater emphasis to section leaders in training. It is a great mistake and a waste of ammunition for a gun commander to open fire before a target is within range."

IV GERMAN TRICK.

German "S" mines have been found six to eight inches apart with one igniter above ground but with a three-prong igniter buried some distance away. A mine detector operator can easily detect this set-up by the double warbling on the sound indicator.-- From After Action Report, 4th Infantry Division.

V EMPLOYMENT OF 4.2 MORTARS.

"We feel that the 4.2 mortar has a definite mission of its own and does not take the place of artillery. It is most effective for quick fire upon targets of opportunity, including personnel, vehicles and buildings. It is not an effective weapon for "blasting out" missions. We can bring fire on a target more quickly than can artillery. Our greatest service is instantaneous fire on quickly appearing targets."--Lt Col H. H. Batt, CO, 57th Cml Battalion.

End

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TWELFTH ARMY GROUP

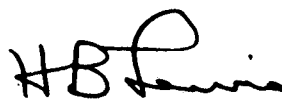
BATTLE EXPERIENCES

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By command of the Army Group Commander:


H. B. LEWIS.
Brigadier General, USA
Adjutant General

I USE OF CUB PLANES FOR PHOTO MISSIONS:

1. "We improvised a photo laboratory and dark room by making plywood sides and top for a 1-ton trailer. In this laboratory we do the entire processing including enlargements and can normally deliver about 20 photos two hours after request for a photo mission. All photos are oblique and are taken from liaison planes with the regular K-20 camera.

2. "In addition to the usual use of these facilities for artillery purposes it is possible to reproduce sufficient copies for delivery to and use of infantry battalions as a means of supplementing maps or in the absence of maps. Concentrations can be figured, plotted, and numbered on regular maps, transposed to the photos, and used by any infantry officer to call for specific fire when required. They may also be used for general orientation. Of course more time is required to turn out such large quantities, the facilities of the improvised laboratory being quite limited, but the supply necessary for a division can be produced in less than 24 hours. Such photos were supplied for the 29th Division for their attack on Hill 192 at St. Lo.

3. "An enlarged (10 x 14) photo which shows the locations of any suspected "set" hostile artillery is used by Cub Observer while in the air. Should the enemy open fire, upon radio call of observer, our fire is delivered on the suspected location nearest to the point indicated by the observer. This point is usually within a few hundred yards of a suspected location. Often the fire so delivered has been right on the hostile artillery.

4. "Some information as to the effect of our fire is also obtained from oblique photos taken by our cub planes thereby supplementing data later obtained from Air Force reconnaissance sorties." -- Major W. M. Smith, Counterbattery Officer and Lt. D.J. Gray. Asst. S-2, XIX Corps Artillery.

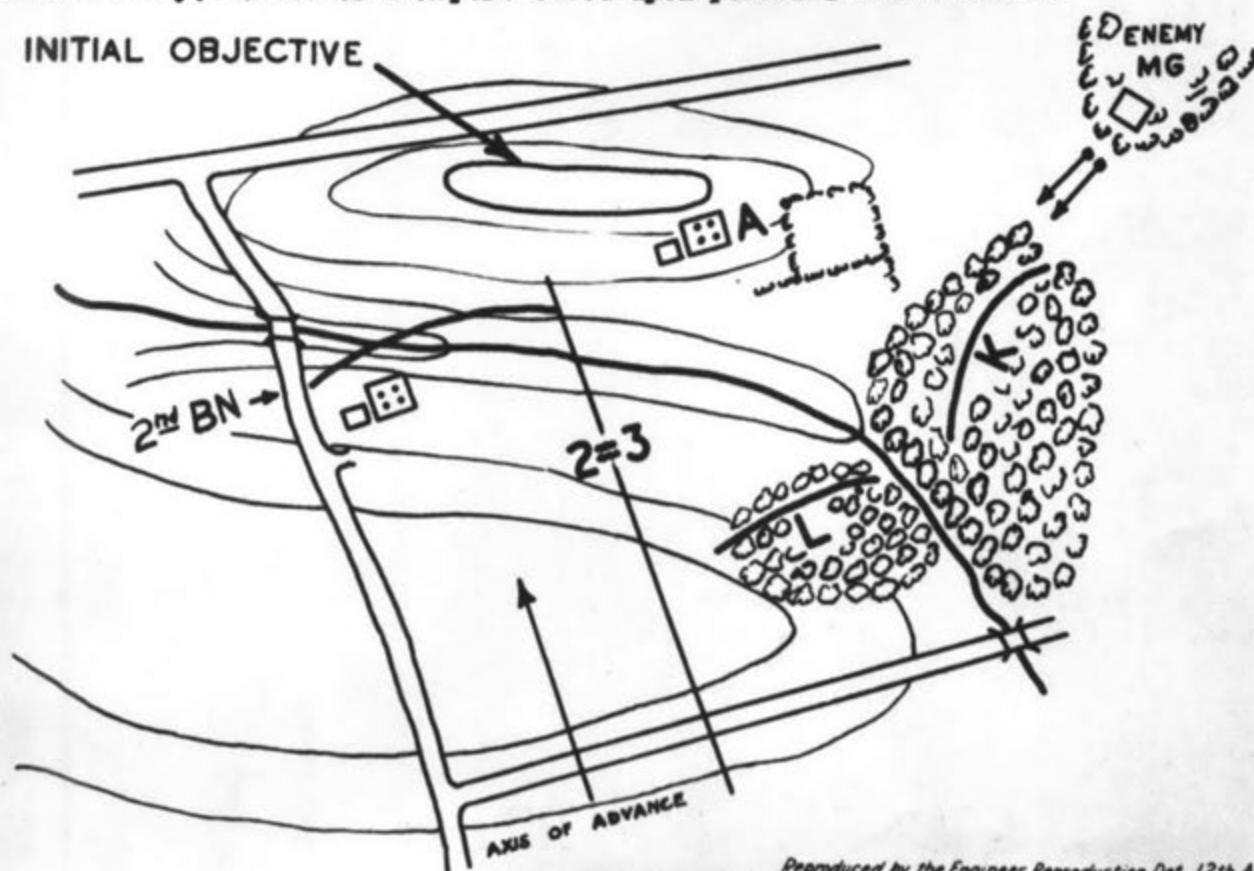
II ARTILLERY COMMUNICATIONS

"In this Corps we lay a direct line to Group Headquarters and Division Artillery Headquarters from our fire direction center, in addition to the normal lines from Corps Artillery to those headquarters. This direct line is also connected to our normal lines through their switchboard and by remote control may be plugged into the Radio net. Group and Division Artillery Headquarters also have similar direct lines, in addition to the normal lines, to each of their subordinate headquarters. This system makes it possible for Corps Artillery to exercise immediate control over all its subordinate units and to bring in fire of any or all elements in an absolute minimum of time. Wire is much faster and better than radio."--Major W. M. Smith, Counterbattery Officer and Lt. D. J. Gray, Asst. S-2, XIX Corps Artillery.

III LUCK WAS WITH THEM

On the morning of 7 August an infantry regiment belonging to the XIX Corps started an advance. At 1000 hours the situation was as shown on the accompanying sketch. For two hours the 3rd battalion made no attempt to move forward. They were being fired upon by machine guns from the right but these could have been outflanked by a small force with little trouble. One reason for the inactivity was that negotiations were under way to bring about the surrender of the German forces. Even the movement of German forces which could be observed was not fired upon. The regimental commander finally ordered the battalion forward preceded by an artillery preparation, and Company K sent a platoon to outflank the machine guns. These tactics resulted in taking the positions without difficulty, but our units in the draw were extremely fortunate in escaping the hostile mortar and artillery fire which is usually brought down during such a delay.--Observer's Report based upon personal observations.

INITIAL OBJECTIVE



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TWELFTH ARMY GROUP


BATTLE EXPERIENCES

No. 31

31 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I ARTILLERY TECHNIQUE.

The following observations are extracted from a recent report of the War Department Observer Board to the Commanding General, Army Ground Forces.

1. Location of Direct support Artillery. "Direct support artillery battalions should not be closer than 3000 or 4000 yards to the front lines. If they are up as close as 1500 or 2000 yards, a strong counterattack with tanks and armor will overrun the position, and the heart of your communication is lost, as is liaison with supported regiments. Attached battalions may and often should be closer than 3000 or 4000 yards to the front without this risk, as all communication is cleared through the direct support. Direct support battalions must know where our infantry is at all times. Safety of fires is cleared through them."--Brigadier General Reese M. Howell, Artillery Officer, 9th Division.

2. Conduct of Forward Observers. "Artillery forward observers have been going too far forward in many cases. They cannot tag along with the company commander. If they do, they are pinned to the ground and cannot see what is going on except in a very small sector. Often they can see nothing at all and are unable to perform their missions. I know of one forward observer who went along with the point of the advance, where he should never have been. The liaison officer and not the assault commander must handle the forward observer."--Brigadier General Reese M. Howell, Artillery Officer, 9th Division.

3. Cub Planes on Air Alert. "We always keep a Cub plane up on patrol even during quiet periods when no missions are being fired. Yesterday (7 August) our patrol observed a German tank parked on the edge of a small patch of woods. He called for a battery (6 guns) and fired on the lone tank. When the first rounds landed, the observer spotted six more tanks bunched up in the same area. He then called for the

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battalion. We got five of the seven tanks. At the conclusion of this mission, which didn't last long, the same observer spotted a German motor column on a nearby road, which was immediately taken under fire. By actual count we got 25 vehicles. In all we got five tanks and 25 motor vehicles very quickly, which shows what an alert observer can do in a Cub plane."--Captain James B. Gregory, Air Officer, 4th Division Artillery.

II TECHNIQUE OF MOTOR MOVEMENT WITH AIR SUPPORT.

NOTE: Observers from this headquarters have been directed to transmit information regarding coordination of air, armored and other ground forces in fast moving operations in as much detail and as rapidly as possible. The information given below is contained in the first report on this subject. Other reports will be disseminated as promptly as possible after receipt.

1. Situation. In a recent motorized advance, the 79th Infantry Division used the following methods for maintaining control and close air support. A cavalry group was protecting the division's front and right flank, and an armored division was marching on the left flank.

2. Communication. The 79th Division moved in two columns with sections of the division reconnaissance group attached to the heads of each column and to the armored division, so that contact could be maintained through the SCR 506. The SCR 508 in the M-8 armored cars of the sections were set to the frequency of the artillery liaison planes which covered the columns. In some instances these planes determined the method of advance to the columns.

3. Control. The CT commanders were in direct contact with the division commanders through the SCR 193. Combat teams moved from point to point on order of higher authority, usually the division commander with one column and the assistant division commander with the other.

4. Infantry Movement. Truck companies and trucks from the division and attached artillery were utilized to move the infantry. In some instances the motorized infantry moved so rapidly that there was an intermingling of columns with the armored division on the flank, and at other times they had to halt and wait for the cavalry to regain its distance ahead. The division chief of staff recommends that the cavalry in such a situation be given an ample head start, e.g. cavalry starting at daylight, infantry at 1300.

5. Air support. The air support party usually remained with division headquarters, although it occasionally moved to the unit where the greatest difficulty was expected. CT commanders or the reconnaissance troop could get air support almost immediately by radio request to the armed reconnaissance flights which were covering the advancing columns. Requests often went from the cavalry group to our reconnaissance troop to the division air support party to the planes. The armed reconnaissance flights also covered areas as requested by corps and division air support parties. The missions usually were flown by four or eight aircraft carrying 500 pound general purpose bombs and .50 caliber machine guns.

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TWELFTH ARMY GROUP

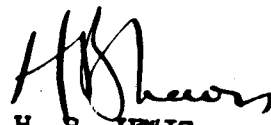
BATTLE EXPERIENCES

No. 30

30 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

NOTE: The following paragraphs are all extracted from reports and comments of battalion commanders of the 22nd Infantry Regiment.

I DISCIPLINE.

"More emphasis in training should be placed on discipline. In my battalion, company commanders who had well disciplined companies moved faster in attack and incurred fewer casualties than those in whose companies discipline was lax. We are incurring heavy casualties among our officers and noncommissioned officers, partly because they have to literally lead the men by the hand to insure accomplishment of their mission."

II HOLDING GROUND.

1. "Fully 75 percent of my casualties since D-Day have been incurred while holding ground in static or defensive operations. To avoid these casualties, I have used the following methods to good advantage:
 - a. During the day I place my automatic weapons in defilade on the high ground, and then move the rest of the battalion behind the high ground.
 - b. At night I establish well-manned platoon outposts and move the rest of the platoons back about 400 yards. I permit the outposts to fire. If their fire draws enemy artillery fire, the main body of the unit is not subjected to it.
 - c. Other nights I have moved my entire battalion a short distance to the flank after dark. The Germans, on several occasions, shelled the vacated area throughout the night, while my men slept peacefully in the new area."

NOTE: Similar methods have been used successfully against the Japanese in the Pacific.

III COMBAT WARNINGS.

1.. Hold Your Fire. "Do not fire on enemy patrols. It discloses the location of your flanks so that artillery fire can be brought down on your position."

2. Watch for WP. "The only time I have seen the Germans use white phosphorus shells is when they were determining range. You can always look for an artillery concentration to follow either a white phosphorus shell or a time-fire burst."

3. Use HE and Move. "I have effectively used my 57 mm antitank guns with HE shells on direct fire missions. It is best to fire not more than ten rounds and then get out."

IV SUCCESSFUL INFANTRY-TANK COOPERATION.

NOTE: The attack described below was a successful operation demonstrating the effectiveness of close infantry-artillery-tank teamwork made possible through prior planning, excellent timing, and capable leadership.

1. "The 22nd Infantry, advancing north, had reached their objective in the vicinity of _____. The regiment on the right had been unable to take their objective, a hill, due to heavy fire from that hill, of what was estimated to be one infantry company. It was decided to have a force of the 22nd Infantry assist in the capture of the hill by attacking from the north with one rifle company and one tank company. A map reconnaissance was made and an artillery fire plan prepared by the commanders concerned the night before the attack. The time of attack was set for 0835 and an LD selected about 1600 yards from the objective. During the day before the attack, the force commander (the Infantry Battalion CO), the rifle company commander, and the tank company commander, made a ground reconnaissance up to the LD where they were stopped by machine gun fire.

2. "The attack jumped off on time with one platoon of riflemen riding on the tanks of each tank platoon and on reinforcing tank destroyer vehicles. A 45-minute artillery barrage was placed in front of the attacking force, beginning at H-hour and moving forward at 15-minute intervals. The objective was taken at 1015. The attacking force incurred only two casualties, captured 40 prisoners, and either killed or forced the withdrawal of the remaining elements which had been occupying the hill."

END

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TWELFTH ARMY GROUP


BATTLE EXPERIENCES

No. 29

29 AUG 1944

"Battle Experiences" are published regularly by this headquarters to enable units in training to profit from the latest combat experiences of our troops now fighting the Germans in France. Although the experiences of certain units at a particular location are not necessarily applicable to all units in all situations, the items published will be those based on practical experience and are recommended for careful consideration by units which may encounter similar problems. Reports of corroborative or contrary experiences are particularly desired in order that the validity of the indicated battle lesson may be determined.

By command of the Army Group Commander;


H. B. LEWIS
Brigadier General, USA
Adjutant General

I EMPLOYMENT OF TANK DESTROYERS.

1. "Great care must be exercised in committing towed tank destroyers to insure that routes are available for easy entrance to and exit from positions, particularly when there is no tank threat.
2. "In present operations most reconnaissance should be done in small vehicles and on foot unless an actual tank threat has been established. The M-8's of the reconnaissance platoon draw hostile artillery fire.
3. "The secondary mission of TD's should be exploited to the fullest. One company may have an indirect fire mission, while the remaining two are on direct fire missions. By using the reserve company on the secondary mission, a fire effect comparable to that of a field artillery battalion can be obtained. Another advantage is that fire may be called for to support the companies engaged in their primary mission during a tank attack.
4. "Care must be taken that units whose mission is antitank defense receive complete tank warnings based on facts. False alerts tend to make gun crews skeptical. Some infantry units report any track vehicle as a tank, thus destroying the efficiency of the antitank warning system."--After Action Report of 821st TD Battalion.

II ARTILLERY AIR OP DEFENSIVE TACTICS.

"The Germans have apparently studied the current evasive tactics of the OP planes, and they try to bracket them with time fire. The Air OP's have adopted the policy of avoiding crossroads and permanent land marks, because it is evident that the Germans zero in on these points, then raise the bursts when a plane is over."--29th Division Artillery Report.

III ORDNANCE MAINTENANCE TEAM.

"The Division Ordnance Officer devised a system of assigning maintenance teams to each regiment as it is placed in reserve or otherwise becomes available, in order to supplement the maintenance of ordnance equipment and make necessary replacements."-- Report of G-4, 30th Division.

IV COMMUNICATIONS.

(The following comments are extracted from the After Action Report of the signal officer of the 30th Division.)

1. "A direct wire from G-3 to the Division Artillery S-3 speeds up shell reports and other communications and relieves switchboard operators.
2. "A teletypewriter has been moved to the G-2 tent and the convenience this affords has been largely responsible for a 200 percent increase in teletype traffic.
3. "Facsimile equipment has been used on several occasions to transmit line route maps to higher headquarters.
4. "Inasmuch as the majority of trouble on field wire lines results from opens, a standard trouble card has been introduced, and the wire chief uses an KE-65-B test set to take a capacity reading. This is entered on a card, and the wire chief also interprets it into distance to the trouble and gives this information to the trouble team when it is dispatched. The card becomes a permanent record for a particular line, and if repeated trouble occurs in any vicinity, the wire chief refers the trouble to the construction officer, who investigates to see whether the line should be re-policed or re-routed.
5. "It is SOP for adjacent regiments in different divisions to monitor channel 33 of SCR 300 to provide prompt correction in case of firing on one another."

V BRITISH PATROLLING HINT.

A British publication states: "In training for patrolling, it is rarely realized that, once contact has been made, caution and concealment must be cast aside, and every man must act boldly and speedily. Noise, properly controlled, is a powerful moral weapon for the attackers."

VI INFANTRY-TANK COOPERATION.

"When tanks are ordered to move at night, after a bivouac has been established, the commanding officers of infantry units in the vicinity should be notified, as the sound of the movement of the tanks will normally draw artillery and mortar fire."-- Report of 709th Tank Battalion.

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TWELFTH ARMY GROUP

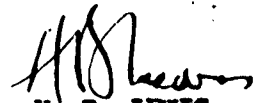
BATTLE EXPERIENCES

No. 28

28 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I TANK RIDING DOUGHBOYS.

1. Infantrymen rode tanks into combat and both infantry and tank personnel were enthusiastic about the results achieved by the 22nd Infantry Regiment and the 66th Armored Regiment in the recent breakthrough. The Commanding Officer of the 22nd Infantry makes the following comments regarding this type of action.

2. "Tactical Advantages."

- a. The infantry are above enemy machine gun fire which is generally set at grazing level.
- b. The infantry becomes a more fleeting target for enemy automatic weapons. It is difficult for the enemy to traverse and elevate a machine gun from a dug in hedge-row position to bring accurate fire on a tank moving from eight to ten miles per hour.
- c. The tank turret also provides some protection against small arms fire.
- d. The infantrymen on tanks are in a good position to toss grenades into fox holes.
- e. The infantrymen are able to provide excellent protection for the tanks from enemy bazooka and antitank grenade fire.
- f. The infantrymen help to provide observation for the tank crews.
- g. This practice undermines the German tactical doctrine of shooting the infantry following the tanks. When German doctrine is undermined, the efficiency of their operations is greatly reduced.
- h. When the advance is retarded by AT guns, infantry can dismount, deploy and bring automatic fire on enemy gun positions.

3. "Problems which Arise."

- a. Command and staff organization and coordination.
- b. Transportation for infantry supporting weapons in order to make them readily available for holding the objective.

4. "The infantry and armor are not organized to work together, and careful and thorough planning are, therefore, essential for such an operation. The command problem was partially solved by having the infantry battalion commanders ride in tanks

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with tank battalion commanders--directing the attack by [redacted] 10."

II G-4 (S-4) PERIODIC REPORTS.

1. G-4 of the V Corps reports that it has become unnecessary to require a G-4 (S-4) periodic report daily and has made it a weekly report. However, reports of battle losses of equipment are required daily from the Division's Ordnance Officer based on the Ordnance Material Loss Report each day.

III EVACUATION OF CIVILIANS.

1. The following security procedure was developed in the V Corps for a use in a static situation;

a. Divisions evacuated civilians from the area within approximately two kilometers of the front lines, fixed in place those in the next two to four kilometers, and established a line in rear of which circulation for an announced distance up to six kilometers was permitted. All other circulation required a pass from the Civil Affairs Section.

b. Patrol of these lines, which created three zones, was maintained by military personnel in the forward areas, and combined military and civilian patrols, plus a joint MP--Gendarme-CIC-motorized patrol in the rear areas.

c. The evacuation of civilians was accomplished by Division Civil Affairs Officers and Civil Affairs Detachments, using division refugee control points and Corps transit areas, to Army assembly centers.

2. This system became inoperative as divisions moved rapidly forward in the attack. Only a single security line became necessary, forward of which civilians were evacuated and in rear of which the presence of civilians was desired so as to provide potential places for refugees.

IV ENEMY MORTAR LOCATION BY FIELD ARTILLERY OBSERVATION BATTALIONS.

"This battalion has demonstrated that mortars can be located with our present equipment under special conditions. In this instance the base was across the valley and at a slightly higher elevation than the mortars. It was noted that mortars did not fire directly to the front, but at an oblique to the front, which placed them close to our lines. This apparently is a common practice of the enemy. To use our present equipment the base must be exactly surveyed in, as close to the front lines as possible, preferably within 1200 to 1500 meters, and the sound outpost located with and protected by front line infantry elements. Due to the mobility of mortars, fire should be brought down on mortars immediately after they are located. A direct telephone line between the mortar base sound detachment CP and nearby artillery will facilitate this. Experiments should begin immediately, using captured mortars and ammunition to determine the possibilities of our present equipment in the location of enemy mortars."--Report of 8th FA Observation Battalion.

V HANDLING OF PW'S BY DIVISION MP'S.

"Three enlisted men of the Division MP Company are assigned to each infantry regiment as ESCORT GUARDS. Prisoners are taken from regimental CP's, and in many cases battalion CP's, escorted to the prisoner of war inclosure, and there in conjunction with various interrogation teams are searched, interrogated, and evacuated to the Army prisoner of war inclosure."--Report of Provost Marshal, 2nd Inf Div.

TWELFTH ARMY GROUP


BATTLE EXPERIENCES

No. 27

27 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I COMMENTS OF AN INFANTRY REGIMENTAL COMMANDER.

1. Fire and Maneuver. "The more favorable terrain and the nature of German defense areas encountered during recent operations have made possible more effective use of maneuver. In their withdrawals, the Germans normally organize a terrain feature with a small group of infantry and a few well emplaced and camouflaged tanks. I have found that by using one unit to contain the enemy and another unit of about similar strength to exploit the enemy's flank and rear, we are able to force the enemy to surrender or withdraw. We have also found that the terrain is becoming more favorable for the employment of heavy machine guns in support of rifle units by overhead fire.

2. Assignment of Objectives. "In assigning an objective to a subordinate unit, more attention, including ground reconnaissance wherever possible, should be given to routes of approach and axes of communication. Recently my regiment was given an objective that could be reached by my tanks and half-tracks only after two companies of engineers had worked a day and a night to clear their route.

3. Employment of 81 mm Mortars. "We are now employing our mortars farther back than we did in the early stages of the campaign. This is due to the reduction in the number of snipers and isolated groups that had forced the selection of forward mortar positions for security reasons. We have found the fire of the 81 mm mortar to be more effective against dug-in positions than that of 105 mm artillery.

4. Snipers. "Enemy sniper activities, in my opinion, have been greatly exaggerated. Most of the bullets alleged to have been fired by snipers, actually were ricochets from the front lines, from individuals who had been by-passed, or from the weapons of some of our "trigger-happy" individuals. During the fast moving phase of this operation, the snipers, if any, are retreating as rapidly as the delaying forces.

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X 5. German Positions. "A new type of enemy machine gun emplacement has been observed recently. It consists of a cave in a hedgerow large enough for a machine gun, ammunition, several days of food supply, and two men. The only opening is on the forward side of the hedgerow. This discourages withdrawal and forces men to fight until they are killed or have to surrender. We have found the fire from these positions to be inaccurate--possibly unaimed. On one occasion an entire company incurred only seven casualties while crossing an opening within the field of such a position.

6. Use of Smoke. "We have used smoke effectively, both offensively and defensively. One especially effective use of smoke occurred when a company was cut off from the remainder of its battalion by fire of enemy tanks. On request of the battalion commander, our artillery quickly placed smoke on the position. The company was able to rejoin the battalion and suffered only a few casualties.

7. German Marking of their Front Line. "One of the few occasions that our positions have been bombed by enemy aircraft, the enemy ground troops fired green flares to mark their positions.

8. Enemy Wearing American Uniforms. "The Germans are now attempting to confuse us by wearing captured American helmets and field jackets. A unit the size of a platoon was seen marching along the road dressed in this manner. They will also use the ruse of exposing themselves to view in our clothing, and yelling to our men in an effort to entice them to show themselves."--Regimental Commander, 12th Infantry.

II COMMENTS OF AN INFANTRY BATTALION COMMANDER.

X 1. Machine Guns. "I am using light machine guns in my heavy weapons company, because I can get them farther forward with greater speed while sustaining fewer losses. The light machine gun is just as effective for the shorter ranges encountered in this type of terrain. I keep my heavies on my jeep trailers so they can be readily moved up if accurate long range fire is desired.

2. Tommy Guns. "My scouts are equipped with tommy guns for use in spraying hedgerow positions. The additional ammunition supply has presented no serious problem. I have one jeep and trailer loaded with ammunition with each rifle company, and one with each heavy weapons platoon.

3. 60 mm Mortars. "I have used my 60 mm mortars very effectively against automatic weapons. When moving against intermittent resistance, one mortar is attached to a rifle platoon. When strong resistance is encountered, the mortars revert to the weapons platoon and are fired from positions 75 to 100 yards in rear of the leading elements.

4. Enemy Dispositions. "Contrary to some reports concerning enemy dispositions, I have always encountered enemy riflemen and automatic weapons in positions one or two hedgerows forward of their tanks."--Battalion Commander, 22nd Infantry.

END

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 26

26 AUG 1944

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By command of the Army Group Commander:

H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I FIGHTING THE GERMAN TANK AND INFANTRY TEAM.

1. An officer of the XIX Corps on July 28/29 had an excellent opportunity to observe German armor and infantry attacking us. The tactics employed by the Germans will probably be repeated. His notes, which follow, are based on close observation over a 36 hour period.

2. "The ease and rapidity with which this small attacking force made its penetration, achieved and sat on the objective, denied the East-West road and interfered with traffic on the North-South road, plus the probable similar employment of smaller groups on identical missions make this analysis of what they did and how they did it of more than ordinary interest; it likewise points to certain remedial equipment, training practices, and techniques that can easily stop such penetrations in the future.

3. "The Germans advanced westward in three parallel columns, each consisting of tanks accompanied by infantry. The center column moved down the main road shooting rapidly and moving at a fast rate. It went from hill to hill with the accompanying infantry spread only one field out on both sides dogtrotting through the fields and over the hedgerows. The center column totaled only approximately eight track-laying vehicles. At least three of these were tanks, one or two were probably self-propelled guns and the others probably half-track troop carriers. Total forces sent to capture and hold the main crossroad consisted of two companies of infantry and probably not more than ten tanks. The number observed by this officer included only the track-laying vehicles named above and possibly a platoon of infantry.

4. "Throughout the night, the Germans reacted forcefully by fire and limited movement to any approach. Their tanks moved slowly and comparatively silently. Immediately after firing, each moved to a new position 25 to 50 yards away from the point used in firing. The noise discipline of the tank crews and accompanying infantry was superior. No talking, shouting, or any sound, except machine gun and cannon

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fire and starting of motors, carried over 100 yards. The Germans always eased their tanks forward, travelled at low speed and were remarkably quiet in all operations except firing. They used long bursts of their rapid firing machine guns to discourage guests. If pressed at all, they shot flares which brought down their own artillery and mortars on their flanks. Their handling of their tanks was bold and sure. They acted as if they knew exactly where they wanted to go and how, and then went there with vigor and determination.

5. "A similar disruption by a comparable German effort can, I believe, be prevented in future by augmenting present AT practices by some of the following:

a. Equip numerous vehicles with a smoke grenade that could be lashed to some well-known, widely disseminated, and readily accessible spot on the vehicle--possibly the steering column. Upon the approach of an enemy tank, use of the grenade in the normal canalized route of tank approach will probably slow up the tank. The Germans fear our use of gas, and no tank normally will advance into the unknown hazards of a smoke screen.

b. Give any unit sent out along the main road down which enemy units may come a supply of standard mines. If these are, as a matter of practice, tied together with a light cord previously laid across the road, they can be pulled out on the road from a concealed position as the tank approaches.

c. The liberal spraying of the hedgerow with tank machine gun fire completely discourages riflemen or bazooka firers from aiming over or around a hedgerow. For this purpose slots should be dug through the hedgerow at such angles and levels that fire from the tank's position on the road cannot go through the slot, but so sited as to permit a rifle grenade or a bazooka to be aimed and fired when the tank reaches some already selected point. The firer must have cover from the tank spray while he is aiming and firing. When the first tank is immobilized, and perhaps burning, the fight becomes a standard infantry fight with standard techniques working as effectively as ever."

II SOME BRITISH PATROLLING METHODS. /

1. A report from the Italian theater describes special organization and methods adopted by a British battalion during a period when its primary mission was patrolling.

a. The battalion commander designated a field officer as battalion patrolling officer. The patrolling officer established a patrolling headquarters and a patrolling OP in the battalion area. The headquarters included a briefing officer, certain intelligence personnel and operators for the OP. The commanding officer laid down general policies and the patrolling officer handled all details.

b. One patrol, with a mission of liquidating an enemy outpost, established a base within radio range of patrolling headquarters and from that base moved out on the mission. This base, with its communication facilities, permitted continual communication with the battalion and would have constituted a sure rallying point if it had been needed. It also assisted in the evacuation of casualties.

2. Another patrol, with the mission of determining whether a certain position was occupied by the enemy, advanced unobserved to within about 600 yards of the position. The artillery then laid smoke on the suspected position, following this with a five minute HE concentration. When the artillery concentration was finished, the patrol opened fire with four Bren guns searching suspected areas. Observers posted at vantage points in rear waited for return fire. The Germans opened with three guns from the suspected positions and these were easily and accurately located by the observers. The patrol withdrew without a casualty.

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 25

20 AUG 1944

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By command of the Army Group Commander:

H. B. Lewis

H. B. LEWIS
Brigadier General, USA
Adjutant General

I PROTECTION OF WIRE.

From the report of an AGF observer:

"Since communications directly affect the battle efficiency of a unit, every soldier must be taught to protect wires from damage. I have seen many instances where lines had fallen down and were being destroyed by passing vehicles in the presence of other soldiers who failed to take even the simplest step to correct the situation.

"It is recommended that all branches stress the fact that wire lines must be protected from harm by all soldiers regardless of their branch or rank. All Signal Corps units and others concerned with wire lines must be taught not to leave loose wires on the roads even if this wire is of no further value. The sight of wire being run over and further destroyed cannot help but create in the mind of a soldier the impression that wire is not important."

II USE OF RADIOS IN FORWARD AREAS.

Inexperienced troops are often led to believe that use of low-powered infantry radio sets will draw fire as a result of being located by German direction finding equipment. Carelessness in providing necessary camouflage and in radio security is the real reason these radio sets are subjected to enemy fire. Exposure of a man or vehicle carrying a radio or reference in the clear to a nearby landmark will provide the enemy with a good target, but direction finding equipment will not. Direction finding equipment of a sufficient accuracy to provide information for artillery fire is relatively immobile and must be set up some miles in rear of the enemy lines. The low-powered infantry radio sets do not furnish sufficient signal for this direction finding equipment to obtain accurate information. Location by direction finding becomes a possibility only when done in conjunction with poor camouflage or poor radio security.

III SCOUTING AND PATROLLING.

1. A corps Commander in Italy makes the following comments:

a. "It should be emphasized that ground once gained cheaply should be held. Time after time a patrol is sent out to determine the enemy strength on some hill and finds that the hill is unoccupied. Almost invariably the entire patrol comes back to report. Then some unit is ordered forward to occupy the hill. It moves forward and finds the hill alive with Germans who smother them with fire from machine pistols, light machine guns, and mortars.

b. "The same thing holds true at bridges. Several times a patrol has found a bridge not blown and the entire patrol has come back to report. Before some other unit can get up to seize the bridge, the Germans have blown it."

2. A battalion executive in Italy recommends: "At night, don't use bird calls as signals. There are no birds in the battle area--they all leave. However, cats and dogs stick around, so dog barks and cat howls are all right if well done. The Germans use cat howls a lot. If a German uses a cat howl, lie down and answer him the same way. He will then come toward you and you can get him with your bayonet."

IV BRITISH COUNTER-MORTAR ORGANIZATION

The following is extracted from a British War Office publication dealing with counter-mortar organization effected by some units in Italy:

1. "A division found it necessary to set up a counter-mortar organization on the lines of a counter-battery organization. One division had a counter-mortar officer with an assistant, together with an assistant counter-mortar officer in each brigade. These were assisted by an adequate staff and provided with necessary transport. In general, all personnel were from the divisional artillery.

a. "The most successful methods of engaging located hostile mortars were in the following order: 4.2 mortars, 3.7 air burst, guns fired at extraordinary elevation.

b. "Enemy mortars were plotted and listed by the divisional counter-mortar officer.

c. "Communication was provided from the divisional counter-mortar officer to each of the brigade assistant counter-mortar officers, to divisional artillery Hqs and to the divisional counter-battery officers. Communication was also provided from the assistant counter-mortar officer to each 4.2 mortar company, to each mortar OP and to appropriate divisional artillery units.

2. a. "Another unit set up two counter-mortar OPs in each battalion and sited them at least 500 yards apart. These were manned by either officers or senior NCOs. Battalion OP parties were given instruction on the characteristics of mortar fire to help them in listening for and in identifying mortars.

b. "OPs made a 'mortrep' report which included time, the code sign of the OP and the grid bearing. If this 'mortrep' gave an intersection or pointed to a known position, the unit counter-mortar officer arranged for immediate counter-mortar fire."

End

TWELFTH ARMY GROUP

BATTLE EXPERIENCES

No. 24

18 AUG 1944

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H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I 29th DIVISION BATTLE NOTES

(From an after combat report of the 29th Infantry Division for July)

1. Infantry against Armor.

"Our experience has been that properly trained, aggressive infantry can knock out enemy self-propelled guns and armor in close country where our offensive armor cannot operate effectively. Maneuver should always be employed to get the enemy vehicle in the flank with the bazooka or rifle grenade. It was proved in one battle that German Panzer outfits without heavy infantry support were unable to cope with aggressive infantry tactics."

2. Battle Drills.

"We have found that when battalions and larger units are out of the line, they should conduct training to emphasize smartness and precision and simple battle drills to inculcate swiftness of movement in combat. Those used in this division are:

a. The movement of a squad from hedgerow to hedgerow at full speed with at least ten yards interval between men. All move forward on command.

b. Coming under simulated artillery fire, the squad breaks for the nearest cover to the front and then continues to advance during lulls in the fire.

c. Coming under simulated rifle or machine gun fire, individuals use cover available, open fire, and the bulk of the squad maneuvers rapidly under the leader to outflank the fire."

3. Motorized Reinforcements.

"During the past month, the division's experience has shown that reinforcing mechanized cavalry, armor, artillery, etc., fail to employ proper methods for approach to combat. The move up is too hurried and in too large a mass, resulting in the clogging of roads and complete disruption of wire communications. A sufficient force should be employed to feel out the opposition while staging the main body forward by bounds from covered position to covered position. When a weak spot is

discovered, and not until then, the full strength of the column should be developed."

4. Chin Straps.

"It has been found that chin straps should be worn fastened tight. If not fastened when going over hedgerows and when hitting the ground fast, the helmet must be held on with one hand or it will be lost. The practice of not wearing the chin strap arose as a result of blast from heavy air bombs and heavy artillery fire, which are not present in this theater. However, a man without a helmet is liable to head injuries from small arms fire and shell splinters."

II EFFECTIVE ARTILLERY USE.

"In my opinion the enemy has habitually tucked himself in close to our front line elements in order to prevent us from bringing our mortar and artillery fires down on him. We habitually have had to place some artillery preparation on the enemy front lines. The most effective use of artillery I have found has been to bring time fire down for about 20 minutes preceding the infantry assault and under cover of this fire to make a tank sortie (tanks with rhino attachments) to a depth of about 300 to 400 yards. The time fire prevents the enemy from using bazookas against the tanks, pins him to the ground, and causes heavy casualties among those who attempt to evade the tanks or to shift their positions." -- Major Gen. W. M. Robertson, Commanding 2nd Inf.

III GERMAN DEFENSES AND SUGGESTIONS FOR USE OF 4.2 MORTAR

1. A corps chemical officer recently inspected a German position, captured with the help of a rolling barrage fired by 4.2 mortars. The mortar fired HE exclusively and increased the range 200 yards at specified time intervals. Some of the facts and conclusions of the chemical officer's report follow:

2. The mortar fire was quite accurate as to range but was not always evenly distributed along the line of impact. Each band of fire was about 25 yards wide.

3. All of the hedgerows occupied by the Germans had paths in rear of them. (Whether these paths were made by the Germans or whether the hedgerows were selected for occupation because of the paths, was not indicated.) Sunken roads were used, either as positions or for communications.

4. To increase the effectiveness of mortar fire, the observer thought, fire data (by platoons, if necessary) should be calculated to place the lines of impact on sunken roads and on or just back of hedgerows, instead of firing a regular pattern on a measurement basis. Planning of the barrage can be improved if aerial photos are available for examination for possible positions. Forward movement of the barrage should be on call of the infantry, rather than on a time schedule. White phosphorous will cause about the same number of casualties as HE on troops in the open and will cause more casualties on troops dug in, if they do not have overhead cover. Its psychological effect also is believed to be greater. The 4.2 mortar is considered better adapted for firing WP than the 105mm howitzer, partly because of the greater percentage of WP ammunition allowed (50% compared with 2%).

End


BATTLE EXPERIENCES

No. 23

16 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I COMMUNICATION NOTES.

The following items are extracted from Training Memorandum dated 8 July 1944, of one of our Corps in Italy:

1. Airplane Relay. An SCR 300 radio on the regimental channel in a liaison plane is invaluable for relay.

2. Geographic Code. In a fast moving situation when radio is the only feasible means of communication, a simple, pre-arranged geographic code is valuable to coordinate supporting fires of adjacent units and to facilitate the execution of flank movements in each others' zones.

3. Movement of Command Posts. a. The CP reconnaissance must be made by an officer who has authority to make the final selection at the time. Once communication facilities have been committed, only major considerations should cause a change.

b. The establishment of advance switching centrals at the next selected location of the CP greatly increases speed and flexibility.

c. Corps headquarters should be notified at least six hours prior to movement of a division CP if the new location is to be near a Corps axis along which wire has already been laid, and 24 hours in advance if a change of axis is involved.

d. Service troops that require wire communications must be moved with the CP's and bivouacked near them. Long lines to supporting units located far to the rear cause a drain on facilities which results in reduced communication for combat troops.

e. One division employs the procedure of leaving the Chief of Staff at the old location until the Commanding General or a staff member telephones him from the new location to come forward. This is the best possible method of displacement. In some units when wire was not complete to the new location, an assistant staff member with

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insufficient knowledge of the situation and no authority to make decisions was left at the old location, which was an unsatisfactory solution to the problem.

4. Command Responsibility. It is the responsibility of commanders to get information back to higher headquarters whether wire is in or not. As long as a commander has one runner with him, he is not "out of communication".

II USE OF GERMAN THREE INCH MORTAR.

1. "Captured German three inch mortars are being used extensively by the heavy weapon companies of this division. Our ammunition is interchangeable with ammunition of German three inch mortars, and we usually use it as we have had prematures with captured German ammunition. The German mortar has a range of 4500 yards, and an excellent sight which has a reversible collimator and mirror that permits placing aiming stakes in rear of the mortar.

2. "The range table for the German mortar with our ammunition is the same as our 81 mm range table except that a 'mils' column must be added because the German mortar sight is graduated in 'mils'. For ranges between 3290 and 4500 yards additional increments are used."--Ordnance Officer, ___ Division.

III TIME OF ATTACK.

"When practicable I like to initiate the attack thirty minutes prior to dawn. We have caught the Boche off guard at this time, and he does not like night fighting. In one instance we captured, with such an attack, a German position that I do not believe we could have taken if we had waited until dawn to attack. The most careful daylight reconnaissance must be made prior to such an attack."--Infantry Regimental Commander, ___ Division.

IV AAA AS FIELD ARTILLERY.

(Views of an assistant Corps Artillery Commander and the Commander of an AAA Gun Group who have employed an AAA Gun Battalion as field artillery and have credited it with destruction of an ammunition dump, a field artillery battery and other targets.)

1. "One excellent use for these weapons was execution of "time-on-target" fires. Surprise and demoralizing effect was achieved by synchronization, so that all initial rounds from the battalion arrived at the target together. The high velocity and rapid rate of fire of the 90 mm gun are desirable characteristics for this type fire. Normal targets were bivouac areas, command post areas, and known concentrations of personnel.

2. "Destruction fire on protected targets is not effective using present available ammunition. It is felt that two-thirds point detonating and one-third white phosphorous would be an excellent ammunition ratio for use of the gun as field artillery."

End

TWELFTH ARMY GROUP


BATTLE EXPERIENCES

No. 22

16 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I ARMORED DIVISION ACTION.

(NOTE: The following comments were made by the Commanding General of an Armored Division regarding recent offensive action by his unit.)

1. Fighting in hedgerow country. a. "We got into trouble when we advanced too rapidly into an open area which had been used as a landing field. It was too small for our tanks to maneuver in but large enough for the enemy to coordinate their fire in. They let us advance about 500 yards into it before they opened up. What we should have done was to send a couple of tanks and some infantry across ahead.

b. "One of our battalions which was most successful stayed well away from the hedgerows. This battalion advanced rapidly and suffered almost no losses from bazooka fire. Another thing this battalion did was to spray every tree in sight before advancing into the open. This took a lot of ammunition, but it also got rid of a lot of mortar observers.

c. "On one occasion, one of our task forces suffered heavily from mortar tree bursts while concealed in a woods. The losses stopped when the force was moved into an open field. The mortars were registered on the woods but had no observation of the field.

2. Reconnaissance. a. "Our reconnaissance elements worked very closely to us-- just ahead. They were always accompanied by medium tanks. Their work was very effective, as they could push aside minor resistance and furnish us quick and detailed information.

b. "Slow thinking on one occasion caused us considerable loss of time. The reconnaissance unit sent to reconnoiter for a river crossing advanced to a bridge through a narrow gorge which prevented the vehicles from leaving the road. They found a span out of the bridge but located a nearby ford. They remained in place to guard both bridge and ford. When the engineer equipment tried to come forward to work, it could not get past the reconnaissance vehicles. The reconnaissance party should have left personnel and weapons off the road as a guard. It should also have prevented other vehicles entering ahead of the engineer equipment.

3. Speed of advance. a. "The commander of an armored unit must be alert to take every advantage of opportunities to use the roads, but he must be equally alert to know when they cannot be used. I do not know any way to tell how this can be done-- it must just be sensed. A commander who can do it can make a lot of time with relatively few losses.

b. "On one occasion one of my combat commands encountered strong opposition. It left an infantry force to watch the hostile opposition and went clear around it to reach its objective.

4. Air-Tank Team. "As our advance became more rapid, four dive bombers accompanied each of our columns all the time. An Air Force officer was with each column. I think the planes saved us severe losses on a number of occasions. Once we were threatened by a large number of German tanks. One of the bombers disappeared for a few minutes but soon came back with 15 or 20 other planes. When rapid movement is possible, this tank-dive bomber combination simply cannot be beaten. The knowledge that the planes are with them greatly increases the confidence of the armor. They know they will receive warning of a threat and are willing to move ahead boldly. I think this team should always be used under such conditions."

II IMPORTANCE OF SHELLREPORTS.

1. The importance of complete and immediate reports of hostile shelling should be emphasized in training. These reports should be made to the nearest artillery unit in the quickest manner possible. They should include everything which may furnish the artillery with any information about the hostile battery or batteries, including the designation and location, by coordinates, of the point from which the observation was made, the direction from which the shells arrive, estimated distance to the hostile gun, time during which the shelling occurred, number and type of guns firing, number and caliber of shells and nature of the fire--whether harrassing, interdiction, etc.

2. Shell fragments, particularly those which show the shape and scoring of the rotating band recess, or which show the original curvature of the shell, should be sent to the artillery with, or immediately following, the report.

3. While these reports do not always give the artillery sufficient information to bring down counter-battery on the hostile guns at once, they frequently do so and even where they do not, either by themselves or considered in connection with other information, furnish valuable indications of hostile artillery habits of routine.-- Report from V Corps.

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BATTLE EXPERIENCES

No. 21

15 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I COMBAT WARNINGS. (From a Company Commander, 1st Division.)

1. "Men should be required to dig fox holes instead of slit trenches. Even though they may not be overrun by tanks, they are much better protected against enemy shell fire and strafing. Covers over fox holes are essential to protect against tree bursts of artillery shells and butterfly bombs. Recently there has been a noticeable laxity or carelessness toward digging in, due to the fast moving situation. Numerous casualties have resulted, especially in the vicinity of platoon and company command posts that were not dug in when it was known they would be there only for a short time.

2. "Stricter adherence to tactical principles pertaining to movement of troops by motors should be emphasized. This applies to distances between vehicles and selection of entrucking and detrucking areas. Departure from established principles of motor movement has no doubt been caused by our overwhelming air superiority and poor ground observation due to heavy vegetation and comparatively flat terrain. As we have moved south, we find the terrain to be more rolling or hilly, offering better observation for the enemy. He is also flying more air missions during daylight hours. On one occasion, one unit was loaded on trucks on the forward slope of a hill in view of enemy ground observation. As soon as the trucks were loaded and about to move out, Jerry opened up with his artillery, causing casualties and damage to vehicles.

3. "When truck columns are moving with tanks, tanks should be dispersed along the column. Unless this is done, the enemy will let the tanks at the head pass by and open fire on the trucks in the rear.

4. "Field jackets, especially at night, reflect light, thereby increasing discovery by the enemy. We have smeared ours with green dye to increase camouflage."

II FIELD ARTILLERY COMMUNICATION.

(From a Field Artillery Information Bulletin from the North African Theater)

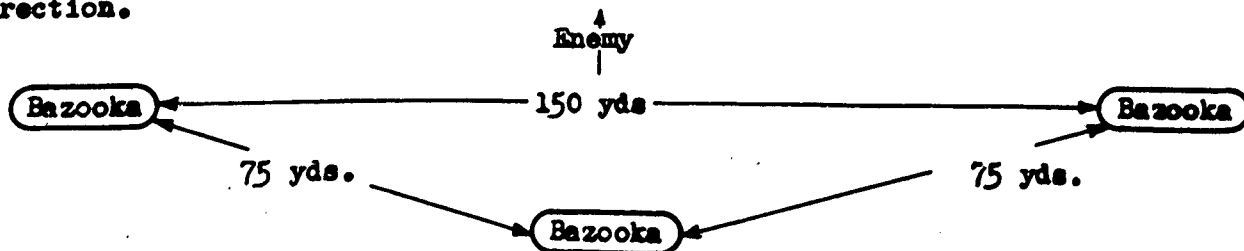
1. "It has been found that on long OP lines, the practice of establishing test stations, permanently manned, at the base of the OP has been advantageous. On these lines the breaks are caused mainly by shell fire, and it is necessary to repair the lines several times a day. The use of the forward test stations enables crews to start at both ends of the line simultaneously, find the breaks and put the line back in service with minimum delay.
2. "Owing to the large number of circuits that follow the same routes, units should devise some method of distinct tag marking of circuits, e. g., large wooden tags stenciled with unit code name.
3. "Wire crews soon learn the little tricks that simplify the whole communication problem. They service a line properly and carefully during installation so that breaks will be minimized, thus allowing them to get a normal amount of sleep. When wire does go out, repair crewmen, instead of running up and down a line with test clips, check the location of enemy shelling and proceed to the scene of the shelled area, usually finding their trouble right there."

III TACTICS OF GERMAN INFANTRY ANTITANK DEFENSES.

(Note: The substance of the following description of the antitank methods of German infantry units is extracted from a British source.)

1. The defense plans of German infantry companies usually assign to bazooka sections the role of defending narrow tank lanes and defilated approaches. Open areas are covered by A. T. guns.

2. The bazooka is regarded as relatively static, to be fired from a prepared position. The grenade discharger is treated as a mobile reserve weapon and held back at antitank Company Hq. Bazooka sections are usually allotted to the infantry companies against which a tank attack is considered most likely. Bazookas usually work in groups of three, sited in a "V" formation as indicated in the schematic diagram below. From this formation at least two weapons can engage a tank approaching from any direction.



3. The emplacement for the bazooka is usually a "V" shaped pit, with the prongs toward the enemy. The weapon is fired from the most suitable prong, according to the direction of approach of the hostile tank. After loading the weapon, the loader takes shelter from the back-blast in the opposite arm. The loader, armed with a sub-machine gun, is responsible for protection of the position against ground troops.

TWELFTH ARMY GROUP

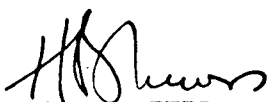
BATTLE EXPERIENCES

No. 20

14 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I WARNING TO PATROLS.

"The Germans will let a patrol get erroneous information in order to waylay the troops that try to use the information. On several occasions they have allowed our small patrols to enter villages and wander around unmolested; when a combat patrol came to take over the village, it encountered strong resistance."--Memorandum of _____ Corps, 24 June 1944.

II ARTILLERY SUPPORT.

The method of having each direct support battalion reinforced by a general support battalion proved superior. It gets quick reinforcing fires on any target holding up the infantry advance (if of sufficient importance to justify use of general support Bns). It also permits planning for reinforced defensive fires in case of counter-attack. The third advantage is to give each infantry battalion continuous support during displacement, since forward observers can fire either battalion while the other is displacing.-- Unit Report of the 1st Infantry Division.

III SPOTTING OF 88 MM GUNS

It has been found particularly easy for our air OP's to spot 88 mm guns when they are firing at high angles against our aircraft. When close air support missions are flown in the V Corps Zone, additional air OP's are usually employed to take advantage of this situation. These are usually furnished flak maps in advance by the air force intelligence to direct their attention to suspected AAA locations.--Report from V Corps.

IV CHARACTERISTICS OF GERMAN GUN POSITIONS.

A systematic study of German gun positions so far located in the zone of the U S V Corps indicates that the batteries are usually placed in open fields with open fields all around. They are never found in woods and rarely in hedgerows. Frequently they are close to a farmhouse which the personnel use for housing. Fire positions for SP guns are frequently found about 300 yards apart on side roads. These guns usually move after firing a few rounds.-- Report from V Corps.

V COMBAT WARNINGS.

Comments of Rifle Company Commander, 9th Division:

1. "It is mandatory that alternate mortar positions be selected two or three hedgerows over and two or three hedgerows in rear of the primary position. Failure to make use of alternate positions cost me five men of my mortar platoon.

2. "The American soldier is too careless in unduly exposing himself when in view of the enemy. Individually he feels that some other "Joe" will get shot and not he. Until this condition is corrected, the best camouflage is of little value."

VI COMMENTS OF AN ARTILLERYMAN.

1. "In a recent mission against tanks WP shells were used, but the smoke produced by the burning phosphorous screened the withdrawal of some of the enemy tanks.

2. "Artillerymen need more physical conditioning acquired by digging--as artillery positions require considerable digging in."--Captain, FA, 1st Division.

VII BEATING THE SNIPER.

"Snipers have not been as numerous during the recent fast moving phase of the attack as when the situation was more static. They usually band together in small groups ranging from five to fifty men. Our means of dealing with snipers is to sweep the area as cleanly as possible as we advance, spraying suspected sniper positions with BAR fire. Movements of personnel in areas in the immediate rear of front lines should be in groups consisting of several men rather than groups of two or three, or individuals. Snipers will not fire on large groups but will attempt to pick off individuals and groups of two or three. All men near the front should be required to remain in fox holes during brief rest periods or overnight. Some tend to leave their fox holes and wander around over the area. They not only subject themselves to sniper fire, but invite artillery concentrations on their positions."-- Company Commander, 1st Division.

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BATTLE EXPERIENCES

No. 19

13 AUG 1944

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By command of the Army Group Commander;


H. B. LEWIS
Brigadier General, USA
Adjutant General

I COMBAT WARNINGS. (From infantry platoon leaders of the 9th Division)

1. Move. "One of the fatal mistakes made by infantry replacements is to hit the ground and freeze when fired upon. Once I ordered a squad to advance from one hedgerow to another. During the movement one man was shot by a sniper firing one round. The entire squad hit the ground and froze. They were picked off, one by one, by the same sniper.
2. Don't Move. "Men should be taught to play 'dead'--that is, remain perfectly still--if wounded by sniper fire. If they move, the sniper will fire again.
3. Follow Barrages. "There is a tendency, especially among new men, to become overconfident when the attack follows a heavy bombardment such as that of 25 July 1944. Many of them thought all the Germans in the area would be either killed or wounded, and all they had to do was to take over the ground. In training it should be constantly stressed that air bombardment and artillery barrages do not destroy the enemy but only drive them under ground and temporarily disorganize them, thereby making them, for a short time, more vulnerable to infantrymen following close behind the barrages.
4. Know the BAR. "I believe there is a need for more intensive training with the BAR. I have recently lost three men who claimed they were expert BAR men and were so classified on their Form 20's. These men were killed because they were not sufficiently trained in the operation of this weapon. The BAR is a most effective weapon in hedgerow fighting and should have highly trained personnel to operate it.
5. Be Alert. "On one occasion, the failure of two new replacements to realize the value of constant watchfulness and alertness resulted in the loss of two of my noncommissioned officers. The men on the listening post moved back to report Germans using

the Japanese trick of calling out in English. During their absence, two Germans slipped into our area and killed two of my noncommissioned officers before they were discovered.

II AGGRESSIVENESS OF ARMORED UNITS.

1. The following comments are summarized from statements made by the CG, Armored Division and members of his staff, based upon successful operations commencing 25 July 1944:

a. "Teachings on armored principles and tactics are sound. Aggressiveness cannot be overemphasized. Success in our recent engagement is believed to have been chiefly due to the fact that units were ordered not to stop but to keep driving. On one occasion a unit reported it was held up by enemy mine fields. It was ordered to push through and take the losses. When the leading tank drew fire, the other tanks deployed and pushed on through, overrunning and knocking out enemy resistance on the move. In most cases the Germans would fire a few rounds and either retreat or surrender. We are convinced that such aggressiveness means fewer losses in both men and equipment. Had we stopped and attempted to maneuver, the Germans would have brought artillery and other fires upon us. To delay or stop is playing into the enemy's hands.

b. "Our advance was continued even when one battalion was completely cut off for about 36 hours. This battalion continued to fight its way forward. The battalion in rear also pushed ahead and the result was eventual reestablishment of contact between all units."

III LOCATION OF DIVISION ARTILLERY CP.

The artillery commander of the 1st Infantry Division broke precedent during recent operations by locating his CP approximately 6000 yards in front of the Division CP. His explanation was: "I like my CP to be in the middle of my battalions. The communications are shortened, and I can keep up better with what's going on. I visited the division commander at least twice each day and kept a liaison officer at the division CP at all times."

IV EMPLOYMENT OF 4.2 MORTARS.

The Corps Artillery Commander reported the following plan for using a Chemical Mortar Battalion:

"The three companies of the Corps chemical battalion were armed with 12 mortars each. The fourth was divided into a service company and a headquarters company. A fire direction center was organized and trained in each company. The companies (three platoons of four mortars each) were trained under artillery direction to lay and fire the mortars like any other artillery weapon. All 36 of these mortars were used in the fire plan of the Division when that unit jumped off on 7 July. Ten minutes after the artillery preparation was completed, the mortar fire was brought down. By this time the Germans had come out of their fox holes and many were killed by these mortars as shown by examination of their bodies. The mortars were used later to reinforce the fires of the direct support artillery and did excellent work. To be used effectively the mortar crews must be trained as artillerymen."


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BATTLE EXPERIENCES

No. 18

12 AUG 1944

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By command of the Army Group Commander:


H. B. LEWIS
Brigadier General, USA
Adjutant General

I LAUNCHING OF BAILEY BRIDGE BY TANKS.

The following incident of the Italian campaign is extracted from a publication of the British War Office:

"Another idea developed during the training was the launching of a Bailey bridge by tanks. To carry out this task, two tanks were employed, both especially fitted, and one having the turret and gun removed. The task was actually executed most successfully during the assault, and the bridge was safely launched in the face of enemy opposition on the far bank. At that point it would have been impossible to have built a Bailey bridge in the normal way. This bridge was one of the only two available during the first day of the crossing."

II BREACHING HEDGEROWS.

"We are successfully using bangalore torpedoes to blow openings in hedgerows for tanks. We place two or three torpedoes, depending on the height and growth of the hedge, about four feet apart and about one-third the height of the mound from its base. We have the tanks push the torpedoes through the hedge."--Captain, ___ Engr Combat Bn.

III MEDIUM ARTILLERY.

1. "More men in a battery should be trained as computers. I have trained my telephone operators, and, although they may not be used as computers, I find that they can do a much better job as telephone operators by having had this training.

2. "In order to increase our angle of traverse, we reverse the trail spade making it flush with the ground to facilitate rapid movement.

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3. "Time fire, unless observed, results in an excessive number of duds. There is need for a percussion fuse similar to that used by light artillery."--Major, ___ Artillery Battalion (medium).

IV TIPS FOR TANKERS. (Comments of a lieutenant in the ___ Armored Division)

1. "In training tank crews, too much practice in acquiring speed in gun manipulation cannot be given.
2. "We make it SOP to fire into all tall buildings, as they invariably contain snipers and machine gunners. We also cut communication lines as we advance.
3. "On the recent break-through we moved our tanks in column along the roads until the leading tank was fired on, then we deployed or pushed by, depending on the nature of the terrain. If we were not able to knock out the enemy tank or antitank gun from a flank, we by-passed it.
4. "The enemy uses .30 caliber weapons against tanks to determine the range. A tank that receives .30 caliber fire is very likely to get a shell in a short time.
5. "For protection against butterfly bombs we dig a large trench and park a tank over it, leaving a small entrance hole on one end.
6. "Casualties among crews of our tanks that have been set on fire are surprisingly low, usually only one or two. The small arms fire directed at crews, abandoning tanks is very inaccurate.
7. "No inflammable materials should ever be kept inside a tank.
8. "Continue to fire at an enemy tank until it catches fire to prevent its repair and immediate use as a pillbox.
9. "Enemy weapons are usually aimed at the final drive housing of our tanks.
10. "Tank crews should wear steel helmets over their tank helmets.
11. "Tanks should advance through the center of a field instead of close to the hedgerows, in order to avoid bazooka fire."

V EVACUATION OF WOUNDED.

1. "Successful and rapid evacuation of wounded depends upon:
 - a. Aggressiveness of unit surgeons--that is, keeping personnel and installations well forward.
 - b. Close coordination and contact between division surgeon and surgeons of subordinate units.
 - c. Establishing ambulance loading points along axis of advance."--Surgeon, Armored Division.
2. "A more efficient ambulance route marking system from the front to clearing stations is needed. Many ambulance drivers lose their way and much time is lost in reaching the clearing station."--Captain, 1st Infantry Division.

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BATTLE EXPERIENCES

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11 AUG 1944

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By command of the Army Group Commander:

H. B. LEWIS
Brigadier General, USA
Adjutant General

(NOTE: The following material is extracted from a document prepared by the Chief of the Armored Section, Twelfth Army Group, after a visit to three separate tank battalions which had participated in combat. These extracts appear to have so much value for all tank units, and for many units of other arms, that they are reproduced in this form to permit wider distribution.)

I TANK-INFANTRY TELEPHONE COMMUNICATION.

1. All three battalions were enthusiastic about the telephones mounted on the backs of tanks for communication with infantry leaders. They feel, however, that full advantage is not taken of this equipment for the following reasons:
 - a. To make the idea completely effective, all tanks should be so equipped. This has not been done.
 - b. Many opportunities to obtain tank fire support have been missed because all of the infantry were not informed that the telephones had been installed.

II TRAINING OF TANK REPLACEMENTS.

1. The need is felt for training courses for both commissioned and enlisted tank replacements. Such courses, if well planned, would result in increased efficiency and mutual confidence. Recommendations are for a two-weeks course for each group, all other training to be suspended during the period. Recommended subjects are as follows:
 - a. For Officers: A refresher course of two weeks concentrated on radio procedure and radio presence to give confidence in talking over the radio, platoon maneuvering, map reading, slidex, first echelon tank maintenance (crew maintenance), tank weapons and tank driving.

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b. For enlisted men; Intensive training in driving; gunnery; radio; crew maintenance; use of sights, binoculars and other tank equipment. These subjects are recommended because replacements most required are of tank commanders, drivers and gunners.

III SUGGESTIONS FOR SPECIAL TACTICS AND TECHNIQUE.

1. Use of artillery. a. Artillery preparation should be concentrated on improved roads perpendicular to the axis of advance. It has been found that enemy tanks and AT weapons frequently amplace themselves on these roads.

b. Artillery fire on hedgerows which do not contain a road should be secondary. Fire on fields is not particularly effective.

2. Suggestions for infantry. a. Infantry accompanying tanks should avoid using an opening that a tank has just used. The enemy frequently lays on these openings immediately the passage of the tank is observed.

b. White phosphorous grenades have been very successfully used by infantry to point out targets to the tanks.

c. Infantry supplies such as grenades and ammunition, and even rations and water, can be carried in boxes on the rear of tanks. This plan has been used and has been both successful and convenient.

IV RELIEF OF TANKS FOR REPLENISHMENT.

After being in action for a considerable time, tank platoons must withdraw to replenish ammunition and fuel. When the infantry observes this withdrawal, they feel they are being deserted and tend to withdraw themselves. This has been avoided by the following method: One tank platoon completely fueled and with ammunition is kept in the rear. This platoon relieves a platoon on the line by infiltration, one tank at a time. When the relieved platoon is assembled, it proceeds to the company dump, replenishes its fuel and ammunition, and returns to a position in the rear of the line and relieves the next platoon by the same method. The infantryman seeing a tank move forward at the same time a tank moves back realizes that his support has not diminished.

V INFANTRY-ARTILLERY COORDINATION. (Observations made by the officers indicated.)

1. Additional FO's. "In this country observation is limited, and a forward observer at battalions isn't enough. We have, therefore, placed an additional forward observer with each front line company, usually about six on the division front. The company forward observer is assisted by one sergeant and a radio operator-driver. He has wire line to the liaison officer at the infantry battalion and an SCR 610. As soon as more open country is reached, these company observers will not be needed. However, at present they live with the infantry wherever they go."--Executive Officer, 2nd Division Artillery.

2. German action under artillery fire. "We have had to have our infantry withdraw two to four hundred yards before starting a preparation before an attack in this country. I think the Germans get as close as possible to our front lines to gain some protection from our artillery. That seems to be a characteristic of their tactics here. They will not take what Leavenworth would call a good defense position. No matter how fast they are retreating, if you stop and dig in, they will infiltrate right back to the next hedgerow."--Artillery Commander, 2nd Division.

TWELTH ARMY GROUP

BATTLE EXPERIENCES

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10 AUG 1944

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By command of the Army Group Commander:

H. B. LEWIS
Brigadier General, USA
Adjutant General

I TRAINING OF INTELLIGENCE PERSONNEL.

1. The following is from CO, I & R Platoon, _____ Inf, 9th Division:
 - a. Training in booby traps, mines and demolitions should be given to all I & R personnel. The platoon should be authorized mine detectors for this work.
 - b. More emphasis in training should be placed on identification of enemy armor, branches of service, rank or grade, and organization and employment of enemy units.
 - c. Sufficient marksmanship training should be given men armed with the tommy gun to enable them to fire from any position.
 - d. First aid kits should be authorized for I & R jeeps and more thorough training in first aid should be given I & R personnel.
2. The following is from S-2, _____ Inf, 9th Division:
 - a. We should have in our intelligence platoon a number of men who can speak French and/or German. Each assault battalion should have at least one interrogator who can speak the language of the country and of the enemy.
 - b. Trained intelligence personnel should be among the first to enter a captured fortified position, command post, or other installations that may contain documents or equipment of military intelligence value.

II INSTRUCTION OF REPLACEMENTS WITHIN THE DIVISION.

1. Purposes and results. The 83rd Division has initiated, and values highly, a course of instruction for replacements. Its purpose is to "debunk" many of the ideas

that these men had picked up prior to arrival, and to instruct them in special fighting techniques and the use of certain weapons. The apprehension of new men has been reduced and their self-confidence and morale greatly benefited by the course.

2. Description. The course lasts two and one-half days and is conducted by battle experienced personnel. During the instruction the men are trained in groups of 12 and are assigned to subordinate units by those groups. This reduces the strangeness of the new organization. The subjects stressed during the course are:

- a. How to live in a fox hole. This includes construction of the fox hole and means of preserving health and bodily cleanliness under such conditions.
- b. The spirit of the offensive. Emphasis is placed on the danger of allowing themselves to become pinned down and subjected to mortar and artillery fire.
- c. The use and effectiveness of the fragmentation grenade, antitank grenade and the bazooka. About 25 percent fire the antitank grenade and the bazooka and all observe their effectiveness.
- d. Some tactics and technique of hedgerow fighting.

III FIELD IMPROVISATIONS.

1. Uses of the SCR 300. A battalion commander in the 83rd Division has used the SCR 300 effectively for communication with the battalion ammunition DP to direct the movement or resupply quickly wherever needed. He also recommends placing an SCR 300, when available, at the battalion aid station to aid in the evacuation of wounded. In general he has found the set one of the most dependable means of communication within the battalion.

2. Improvised mounts for IMG. The 2nd Division Ordnance Officer reports the use of the following expedients for direct machine gun fire at ranges of 100 yards and less. They are generally used only for firing short bursts with the light machine guns. One or more of the various types are supplied to each machine gun squad.

a. Installation of a BAR bipod on trunnion of the IMG. An improvised stock similar in shape to that of the German MG 42, made from sheet metal, reinforced with wood, is attached by four screws to the pistol grip. This, in effect, converts the 1919A4 to a 1919A6.

b. Attachment of two metal rods from the 105 mm clover leaf ammunition pack, bent into rocker shape. They are attached lengthways on each side, one end to the trunnion and the other to the elevation lug. The shoulder stock described in a above is used.

c. Attachment of a spike, 12 to 15 inches long and 1/2 to 3/4 of an inch in diameter, sharpened at one end and fitted with a simple yoke at the other. The yoke is attached to the trunnion with a bolt. A flange, three inches in diameter, is attached to the stock about four inches from the point. When attached, the spike swings from the trunnion. The shoulder stock may be used or the gun fired with just the pistol grip.

d. In emergency the gun is sometimes fired with no mount at all. The barrel is laid on a hedgerow or any convenient object, and fired in short bursts. Asbestos gloves are sometimes used by the gunner.

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By command of the Army Group Commander:

H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I EVACUATION OF WOUNDED PERSONNEL.

1. These comments on evacuation of wounded personnel are from the Surgeon, XIX Corps;

a. Evacuation by Tank Battalions. "Each Tank Battalion has three medical half tracks and one litter bearer. This provides one half track per company to evacuate casualties to the battalion aid station. Where necessary, litter jeeps from the medical company with each combat command can reinforce the battalion half tracks. Each medical company has 20 cross-country ambulances and 24 litter bearers to evacuate casualties from the battalion aid station. The medical half tracks of the tank battalions follow right behind the tank companies and so far the problem of evacuation has been simple.

b. Infantry-Tank Evacuation. "The method of employment of the tank-infantry team has resulted in the necessity for using armored medical sections and the armored infantry medical section like those of the non-armored infantry. They are not set up for this type of operation. A task force consisting of a battalion of tanks and a battalion of armored infantry is broken down into platoon groupings and the two medical sections support an area of operation. This area is also infiltrated with supporting infantry from an infantry division. All available litter bearers are sent up by the litter platoons of the medical company and these are reinforced by litter bearers from platoons of the corps litter bearers.

c. Unnecessary Destruction of Clothing. "Clothing is unnecessarily destroyed in clearing stations by routine cutting where it could, in many cases, be rolled up just as easily.

d. Training in First Aid. "It has been observed that few wounded men apply their own aid dressings, but wait until the aid men arrive. The individual line soldier's responsibility for first aid must be indoctrinated continually."

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~~CONFIDENTIAL~~

ARMORED DIVISION

2. These comments are from the Surgeon, 2nd Armored Division:

a. Tank Units. "Jeeps with litter-racks work well forward of the battalion aid station along the axis of advance. When a tank is hit, the medical officer in the jeep immediately radios for a half track ambulance which removes the wounded to the aid station. The aid station is fairly mobile and is located near the battalion CP. Two medical officers are assigned to each battalion in action.

b. Infantry Units. "Litter bearers remove the wounded from hedgerows and other isolated places, to the half tracks or jeeps. The T/O does not provide aid men for infantry companies. We obtain these from other sources and train them for their duties.

c. Artillery Units. "Evacuation to the battalion aid station is similar to that described for tank units in a above.

d. In rear of Battalion Aid Station. "From aid stations the wounded are transported to ambulance loading points located on the axis of advance. Field ambulances are often used for this purpose. Ambulances collect the wounded from these loading points and remove them to clearing stations. Army ambulances evacuate them further to the rear as required.

e. General. "Successful and rapid evacuation of wounded depends upon the following:

(1) Aggressiveness of unit surgeons in keeping personnel and unit installations well forward.

(2) Close coordination and contact between the division surgeon and surgeons of subordinate units.

(3) The establishment of ambulance loading points along the axis of advance.

II USE OF AA GUN BATTALION AS ARTILLERY.

The following summarized report from a statement by the CO of an AAA group with the VIII Corps describes some of the methods used in that Corps when this type of unit is employed on its secondary mission.

1. The AA gun battalion conducts no AA fire from its field artillery location.

2. The AA battalion is located to a flank, but near the field artillery, thereby, eliminating the hazards incident to overhead fire, low trajectory of its weapons, and the type of ammunition used.

3. The AA battalion is located as a battalion and not dispersed by batteries. This facilitates administration and does not detract from its tactical use.

4. The field artillery, FDC furnishes firing data for the AA unit and controls its fires. However, each AA battery must be prepared to compute its own data.

5. Positions for AA fire are always selected and AA fire control equipment is set up at those positions.

6. Normal ammunition supply of the AA battalion is not suitable for performance of its secondary mission. Apparent desirable changes are supply of WP shell and a larger percentage of point detonating shells.

BATTLE EXPERIENCES

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8 AUGUST 1944

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By command of the Army Group Commander:

H. B. Lewis
H. B. LEWIS
Brigadier General, USA
Adjutant General

I DEFECTS IN TRAINING.

An analysis of training defects observed during command of the VIII Corps in combat has been made by Major General Troy H. Middleton, U S Army. Following is a summarization of the defects he lists and some of his comments.

1. Failure to follow our own artillery fire closely enough.
2. Failure to make use of their own fire to help them forward. There should and must be more rarching fire.
3. Adding to their own losses by permitting themselves to be pinned down by hostile fire.
4. Bunching up.
5. Failure to take advantage of fog and darkness to cross open areas.
6. Lack of training for night operation. Fearing loss of control and disorganization, officers are reluctant to move troops at night.
7. Failure of commanders to provide sufficient depth in combat formations. This leads to over emphasis on lateral contact. A commander hesitates to advance for fear of exposing his flank. If his formation had depth, his flank would be secure.
8. Emphasis on seeing a specific target. Even when no target is visible, the enemy is known to be in front, the infantrymen should shoot in the area in which they believe him to be.

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9. Carelessness when exposed to fire. Men walk when they should creep or crawl; look over a hedgerow when they should look through it; smoke, move, or make a noise, thereby disclosing the location of their position.

10. Failure to dig in properly when not advancing.

11. Failure to properly secure and defend when not advancing. On occasions when the enemy has covered such a position with fire and followed the fire he has been in or around our position without being discovered.

12. Placing of too much reliance by infantry on artillery.

13. Insufficient infantry-tank training. This team is weak and is learning the hard way. Much emphasis should be placed on this training in the U S.

14. Lack of defensive training of armored units. Armored infantry, and perhaps also the tanks, must know how to defend as well as to attack. There will be cases when these troops capture and must hold a terrain feature. I feel that much of their training has been spent on the offensive. I believe that offensive action will culminate in a defensive operation until they can be relieved by other troops.

II IMPROVEMENT IN ACCURACY OF CLOSE SUPPORT AIR BOMBING.

The Commanding General, 30th Infantry Division, believes that the following steps will tend to minimize the danger to our own front line troops in the execution of close support air bombing missions;

1. Require the planes to parallel the front lines. Then shorts, which entail the greatest danger if the planes cross the front line, will fall in enemy territory.

2. Provide ground observers with radio communication to the planes for immediate notification of errors.

3. Provide special planes manned by personnel specially instructed as to the target, to mark the target in the air for the bombers and make immediate report of inaccuracies.

BATTLE EXPERIENCES

1 AUG 1944

OMAR N. BRADLEY
Lt Gen, USA
Commanding

3. Channels of Infantry-Tank Communication. - The use of command channels for giving instructions from infantry to tank commanders is not always feasible. Frequently it does not provide sufficiently close liaison. A means of direct communication between the infantry and tanks is required. The following have been tried with some success: a microphone or telephone on the outside of certain tanks connected with the intercommunication system of the tank; prearranged pyrotechnics, or smoke grenades, to designate targets; tracer ammunition for the same purpose and infantry hand

and arm signals. Since the infantry hand and arm signals are not exactly the same as those normally used by the tanks, pre-arrangement is necessary and practice is advisable. The following have been used by the 1st Division and are recommended:

a. Target Designation. Basic infantry hand signals for direction, commence firing, and cease firing. The squad or platoon leader who is directing the progress of the tanks should be equipped with a weapon which fires tracer ammunition in order to pin-point the target quickly.

b. Types of Ammunition. For 75mm HE, the arm extended pointing with all fingers extended. For WP smoke, the same as for HE followed by covering the eyes with the hand. Normally the tank will use machine-gun fire unless the signal for HE or WP is given. AP will be used only when the target is seen by the tank commander.

c. Movement. The standard vehicular arm signals are used to control tank movement.

II. CLOSE AIR SUPPORT OF GROUND ACTION.

There are given below substantial extracts from some of the conclusions reached by a board of officers which recently completed a study of certain operations involving close co-operation between ground and air forces.

1. Use of Air Within Artillery Range. There is a definite need for air support in many cases, even where the targets are within range of friendly artillery. The main reason for this is the tremendous effect of 500-lb and heavier bombs against highly organized defenses and casemated positions. Large bombs, by their blast, will damage fire control equipment and stun or kill the crews. Casemates are tipped off level by near hits which also sometimes put the gun out of action by piling dirt in front of the ports. The guns will always be neutralized during the air attack. The accuracy of the bombing will determine the duration of the period of neutralization. The nature of the objective, not the ability of the artillery to reach it, should determine whether aircraft is to be used.

2. Planning. a. Ground forces must furnish the air forces detailed and complete information regarding the air objectives, including a statement of the effect desired.

b. Timing of the air attack must be carefully and completely coordinated with the ground forces plans, including the over-all fire plan.

c. A good example of successful co-ordination based on good planning is furnished by a plan frequently employed by one U.S. division. Plan follows: Before the planes arrive the artillery smothers the target with fire, thereby reducing the loss from flak. Just before the planes arrive, the artillery marks the target with red smoke. The artillery then withholds its fire until the bombing is finished. As the bombing ends, the artillery resumes fire, covering the advance of the infantry, which has been held outside of the danger area during the bombing.

BATTLE EXPERIENCES

No. 12 .

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OMAR N. BRADLEY
Lt. Gen., U.S.A.
Commanding

I. PARATROOPERS' IMPRESSIONS OF HEDGEROW FIGHTING.

(Note: The following comments are extracted from interviews published by the VIII Corps immediately after the Normandy invasion. Comments were all obtained from officers and enlisted men of parachute units which took part in the fighting.)

1. "Keep Moving if you want to live."-The outstanding impression seems to have been of the importance of aggressive action and continuous, energetic forward movement against the type of opposition offered by the Germans. Examples follow:

a. "In fighting the Germans I think if we keep pushing them hard enough we will have a lot less casualties than if we just sit tight."-Lt Col T.J.V. Shenley.

b. "Success in hedgerow fighting is due partly to automatic weapons fire, but principally to aggressiveness."-Lt. Doerfler.

c. "Move forward aggressively. The German is a poor marksman under the best conditions. In the face of heavy fire and an aggressive enemy his fire becomes highly ineffective. A heavy artillery barrage before the jump-off will provide initial impetus. The advance should then never be allowed to lose its momentum. Display of courage and leadership by officers and NCOs is imperative. An officer who 'hits the ground' furnishes an example to his men and holds up movement."-1st Lt. Karl Lillge.

d. "It is essential to keep moving forward aggressively as long as the resistance is spotty; otherwise the artillery will range in on you. Also, when you move through the hedgerows fast the Jerry will often abandon his guns and equipment. Move right in on him. Follow right after your artillery and you will invariably catch him disorganized."-Capt. Ray Creek.

e. "We have learned to keep moving forward. If there is anything the Germans hate it is close fighting. If he pins you down with sniper or machine gun fire he will zero in on you with mortar and 88 and then you had better

g. German snipers hardly ever open up on a large body of men. You have to be constantly on the alert for them but do not ever let them make you hit the dirt. Keep moving if you want to live."-1st Sgt. Asa E. Ricks.

f. "I think snipers should never hold up the advance of a unit. Dispatch one or more men to hunt him out and forget about him. Snipers could never create as many casualties as they cause by pinning you down until artillery zeroes in on you."-Capt. Ray Creek.

g. "When caught in the open by hostile artillery fire, get down fast but stay only as long as necessary. Do not bog down under artillery fire."-1st Lt. Rex G. Combs.

2. Effect of 60mm mortar.

The value of the 60mm mortar was repeatedly stressed, particularly because it was claimed the Germans stay under cover when mortars are fired. Following are some of the comments:

a. "The 60mm mortar is of great value because the Germans will stay in their fox holes when it starts firing."-1st Lt. Rex G. Combs.

b. "Our rifle squad should use a 60mm mortar in close support, as the Germans stay in their fox holes when mortar fire starts."-1st Lt. Gerald P. Guillet.

c. "In the face of heavy automatic and mortar fire and an aggressive enemy, German fire becomes highly ineffective. He is a poor marksman at best."-1st Lt. Carl J. Lillge.

d. "Tree bursts with 60mm mortar are very effective."-C.O. 2nd Bn Pcht Inf.

3. Bazooka and A. T. Grenade.

a. "The bazooka and the rifle grenade are very effective against enemy dug in along a tree line. A hit above the emplacement on a tree trunk is highly effective."-C.O. 2nd Bn Pcht Inf.

b. "Bazookas should follow the automatic weapons of each squad. They are very effective against machine gun positions."-1st Lt. Gerald P. Guillet.

4. "Crack and Thump"

"The German machine pistol has caused our men a lot of trouble. The passage of the bullet makes a vicious 'crack' behind you. This is followed by a less noticeable 'thump' from the front. I have seen entire squads take cover, thinking they were fired on from behind, when actually the enemy was some distance to the front. The place to look for the man firing is toward the 'thump' and not toward the 'crack'."-1st Lt. Rex G. Combs.

5. Deceptive Method.

"Germans sometimes employ their machine guns this way: one man will fire tracer ammunition high and wild and at the same time another will be laying down pretty effective fire with ball ammunition. They use the tracers to make you think their fire is wild, when it is not."-1st Sgt. Asa E. Ricks.

FIRST U.S. ARMY GROUP

BATTLE EXPERIENCES

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OMAR N. BRADLEY
Lt Gen, USA
Commanding

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I. GERMAN INFANTRY-TANK DEFENSE.

The VIII Corps reports two different types of German infantry-tank defenses as described below:

1. One of the types is based on the movement and fire of tanks protected by infantry. Such a defense is frequently found set up at an important cross-roads or road junction. Infantry digs in along the hedges and at other suitable locations in the immediate vicinity. The tanks move out to varying distances up to several yards to the front and flank and occupy mutually supporting firing positions. After firing from one of these positions they immediately move to another.

2. The other type of defense is based on simulated movement and deception. Tanks spaced about 100 yards apart and well camouflaged are dug in behind a hedgerow to be defended. The infantry digs in along the hedgerow between the tanks. In executing the defense the Mark IV tanks fire but do not move. The company commander, in a Mark V, periodically moves up and down the road adding to the fire of the fixed defenses.

II. GERMAN DEMOLITIONS, MINES AND BOOBY TRAPS.

1. Demolition of Artillery Pieces. Units of the VII Corps report finding various sizes of prepared demolition kits made to fit into the barrels of the different types of German artillery pieces. These are packaged complete with detonators and igniters and appear to be standard equipment in German artillery units. They require only a few minutes to connect.

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2. Magnetic Antitank Mines. Magnetic antitank mines with the detonators and igniters inserted have been found in areas captured from the Germans. Some of these mines are armed without delay pellets making them particularly hazardous to handle.

3. Grenade Booby Traps. German grenades packed in the original boxes have been found in Normandy with one or more of the grenades rigged as a booby trap.

4. "S" Mines in Shell Craters. German "S" mines have been encountered concealed in shell craters in Normandy.

III. TROOP MOVEMENT HANDLED BY G-4.

The VII Corps and its subordinate units have employed experimentally a system whereby responsibility for planning and conduct of troop movements is assumed by the G-4 Section instead of G-3. The G-4 of the Corps recommends the system. He states that it relieves G-3 of movement responsibility, avoids duplication of effort, and lessens confusion and chances of error. G-3's sole responsibility is to notify G-4 what is to be moved, from and to where and when.

IV. CONSERVATION OF EQUIPMENT.

Supply Officers of the VII Corps feel the need of more emphasis in training on the conservation of unit and individual equipment. The lack of accountability and responsibility for property in battle areas, they say, is causing excessive carelessness which sometimes results in critical shortages of items most in demand.

V. EMPLOYMENT OF TANK BOW GUN.

Caution comes from the VII U S Corps that when tanks are working closely with infantry great care must be exercised in using the tank's bow gun. Its low position and other characteristics make it a serious hazard to infantry who may be in front of the tank.

FIRST U.S. ARMY GROUP

BATTLE EXPERIENCES

No. 10

29 JULY 1944

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OMAR N. BRADLEY
Lt. Gen., U.S.A.
Commanding

I. WHAT THE MAN IN THE FOX HOLE THINKS

Some of the U.S. soldiers' own thoughts about his training, in the light of battle experience, were obtained by Dr. Kimball Young through interviews with a number of wounded in general hospitals on 10-11 July, 1944. They are given in substantial extracts from Dr. Young's report below.

2. Sniping. - a. Our men seemed to be taken by surprise by the amount of sniping from trees and hedgerows. They adapted themselves quickly, however, and learned to proceed cautiously and to ferret out the snipers.

b. The sniper-hunting resulted in firing at some of our own artillery observers posted in trees. To prevent this, some units adopted the practice of marking trunks of trees being used by our personnel.

c. The men found that if they kept on the move it was more difficult for snipers to pick them off.

3. Hedgerow hazards. - Particular precautions regarding hedgerows were specified by various men as follows:

a. They readily conceal all sorts of booby traps; keep out of them at night.

b. Existing openings may contain trip-wire mines or may be zeroed in by hostile weapons; avoid them. Make your own hole.

4. Dispersion. - Men tended to keep close together under fire - to fall into ditches or slit trenches in bunches. This was more apparent with men new to battle.

5. Movement. - The importance of keeping on the move and of walking or running in a crouching position was stressed. Stopping to look around gave the enemy a stationary and easier target.

6. Weapon recognition. - Several men wished they had received training in recognizing the sound of German weapons.

II. USE OF 60 MM MORTAR SHELL AS RIFLE GRENADE

Equipment. - The 9th Infantry Regiment has found that the 60 mm mortar shell HE may be fired from the M-1 rifle by means of the grenade launcher M-7 and the fragmentation grenade adapter M-1. Six inches of wire per shell and a pair of pliers are the only additional materials needed.

2. Preparation. - The preparation is as follows:

a. Remove increments from mortar shell.

b. Bend outward the finger of the grenade adapter designed to receive the fragmentation grenade handle.

c. Insert the ~~base of the~~ mortar shell into the fingers of the grenade adapter. The shell normally is fired with the adapter down as far as it will go on the launcher.

d. Tie a piece of wire around the tips of the fingers of the grenade adapter, thus securing shell to the adapter.

3. Method. - The rifle normally is fired from the kneeling position with the butt resting on the ground. An angle of 45° will give a maximum range of 100 to 110 yards; 60° will give 85 yards range; 70° will give 60 yards range. Low angle fire can also be used and is often fired into thick hedgerow foliage to produce tree bursts.

Note: Caution grenadier to pull safety pin before firing.

4. Duds. - Due to the relatively low force exerted by the rifle grenade cartridge, the fuse will sometimes not arm and the shell will be a dud. This is especially true of low-angle fire which will produce about 25% duds.

5. Sight. - Accuracy has been improved by use of a sight improvised by the Division ordnance company. It is attached to the stacking swivel and establishes the angle of elevation. Direction is obtained by sighting over the barrel.

III. TRAINING OF RADIO OPERATORS

"Radio operator replacements are not trained in the use of the single call sign procedure used here. They are being trained in the use of the Army, and the combined Army and Navy procedure." - Communication Officer, 9th Division.

BATTLE EXPERIENCES

No 9

28 JULY 1944

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OMAR N. BRADLEY
Lt. Gen., U.S.A.
Commanding

I. REPORTS FROM A BRITISH OBSERVER

(Note: The items below are extracted from a report by a British observer after a brief period with the XXX British Corps in action.)

1. Infantry benefits in hedgerow country. - a. The hedgerow terrain of Normandy has been found to give infantry certain special advantages. One of the greatest of these is its increased power against tanks. This is due to the ease with which the infantryman can conceal himself to come within effective range of the tanks with his short-range weapons, either by his own movement or by letting the tanks approach him.
b. It follows that the need of infantry support and protection for friendly tanks is increased.

2. Artillery fire for local security. - Normally, artillery positions will be protected by infantry. The artillery must realize, however, that they sometimes must provide their own local security. On one occasion a British artillery unit accomplished this by firing a burst at a range of less than 500 yards to repel advancing hostile infantry. The fire was described as "extremely effective".

3. Control of anti-sniper activity. Talk about snipers - some of it exaggerated - is having some bad results. One of these is unjustified and indiscriminate fire at imaginary targets. Such fire, especially in the early morning, frequently causes sympathetic fire by other troops, with disturbing and sometimes dangerous results. Snipers should be countered by other snipers or by some other directed and definite plan - not by an indiscriminate burst of small arms fire. (Note: This comment is felt to apply particularly to situations where the troops are stationary. It should not be interpreted to discourage the spraying of suspected sniper locations with automatic fire during an advance.)

II. HEDGEROW FIGHTING

(Note: on 27-28 June 1944 experiments were conducted designed to increase the coordination between tanks and infantry in hedgerow fighting. Certain extracts from a U. S. divisional memo regarding these experiments are given below.)

1. Breaching of hedgerows. - It was found that tanks equipped with dozer blades were not always able to effect breaches. The following supplementary procedure was adopted:

a. Three demolition men were attached to each squad. These came from the support platoon. The demolition charges were prepared in advance and placed in sandbags for convenience.

b. Each charge consists of 29 half-pound blocks of TNT. To the center TNT block about five feet of primacord is attached by a clove hitch. The charge is then placed in the bag, leaving about four feet of the cord outside. Detonation is effected by a primer consisting of one 1/2-pound block of TNT with about two feet of primacord connected to it by a clove hitch, a No. 8 non-electric cap, eight inches of safety fuse, and a fuse lighter. (Note: FUSAG engineers consider it unnecessary to use the 1/2-pound block of TNT as described. They say the No. 8 cap (teteryl) is sufficient to insure detonation if the primacord is doubled or folded around it to insure maximum contact between cap and primacord.)

c. Two holes are dug about six feet apart and about one-third of the way down the embankment. These holes are two feet deep and set at a forty-five degree angle with the horizontal. The charges are placed in the holes. The ends of the primacord from the charges are joined with a square knot. A primer is then placed on top of each charge and the spoil replaced and tamped.

d. This method causes a breach wide enough for any vehicles to drive through.

(Note: Reports from another division which has made similar tests state that two charges of fifty pounds each, placed eight feet apart, have been found necessary to insure creating a gap wide enough for tanks.)

III. EQUIPMENT

1. Gloves. - Leather gloves are desirable to protect hands of men going through hedges from scratches and infections.

2. Suspenders. - Suspenders are needed for BAR ammunition belts and are being improvised from officers' web suspenders.

3. Spare parts. - One unit recommends that a small spare parts roll for the BAR and M-1 rifles be carried by the platoon guide or other designated man in the platoon to provide immediate replacements for parts damaged in battle.

FIRST U. S. ARMY GROUP

BATTLE EXPERIENCES

No. 8

27 JULY 1944

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OMAR N. BRADLEY
Lt Gen., U.S.A.
Commanding

I. INFANTRY-TANK-ENGINEER COORDINATION IN HEDGEROW FIGHTING. (THEORY)

The 2nd U. S. Infantry Division has prescribed, in substance, the following procedure for infantry-tank attacks in hedgerow country:

1. Use of Tank Weapons. Indiscriminate firing by tank weapons in an endeavor to blanket all hedgerows and corners to front and flanks, is prohibited. The limited ammunition carried by tanks and the safety of infantry elements advancing through adjacent fields require that close support tanks use only machine gun fire to the front until actual targets are located. This limitation in no way acts to prevent firing of all tank weapons at located enemy positions or targets of opportunity.

2. Special Tank Equipment. In addition to their normal equipment, tanks carry:
a. Nine sets of prepared demolition charges (caps in separate container) for use in breaching hedges.
b. One telephone instrument mounted on rear of tank and connected to inter-phone circuit in order to provide voice communication between infantry and tank commanders.

3. Team Formation. The leading tank of each close support tank column operates as a member of a team consisting of one rifle squad, one engineer demolition detachment of four men and one tank. The engineer demolition detachment accompanies the tank throughout the operation to assist its advance by breaching hedges with demolition charges and to provide a measure of local protection against AT grenades and rocket launchers. The infantry squad does not limit its rate of advance to that of the tank, but continues the attack when the tank is stopped or delayed for any reason.

4. Operation. Elements of the team move from one hedgerow to the next, usually in the following sequence: infantry scouts, covered by the fire of the other infantry and tanks; the infantry automatic weapons; the remainder of the infantry squad, accompanied by two engineers who select a firing position at the new hedge for the tank and signal it

forward. The new tank position should be near, but not in, an existing gap, or at a planned gap which will afford observation and a field of fire and also facilitate the tank's further movement forward. The tank, accompanied by the two remaining engineers is the last element to move forward.

5. Light Tanks. The light tank company of a medium tank battalion normally will be in reserve.

II. INFANTRY-TANK COORDINATION IN HEDGEROW FIGHTING. (PRACTICE)

On 11 July elements of the 2nd Division attacked and captured hill 192. The technique prescribed in the above paragraphs was used and credited with being responsible for the success of the attack with very few casualties. Four previous attacks in the same area had failed. Officers and enlisted men who took part in the attack brought out the following points:

1. Engineers accompanying the leading tank in each team carried mine detectors, and a lane was swept through each field.
2. Two riflemen per squad were assigned the job of tank protectors. They moved to the flank and rear of the leading tank as a defense against individual enemy in spider holes.
3. One half the support squad of each platoon operated in each assault squad zone, usually from one to three hedgerows behind the assault squad, for the purpose of cleaning out snipers. A battalion CO stated that no casualties were caused by snipers during this attack; whereas, in a previous advance made without use of this technique, snipers caused more than one half of the casualties.
4. The battalion commander had a wire line (W-130) to each company during the attack. Communication between infantry and tanks was maintained effectively through use of a EE8 telephone mounted on the rear of the tank. Extra telephones must be issued for this purpose. Either a longer cord, or plug connectors are needed to avoid breaking the hand set cord if the tank moves suddenly.
5. To facilitate control, each field was assigned a number and progress was reported by the serial number of the field in which the reported element was located. Thus the location of the front line was always known with certainty.
6. Each hedgerow must be a phase line - otherwise, a leading squad may be exposed to flanking fire.
7. One round from the tank cannon should be fired into each corner of the field to be covered in the next bound before any advance is attempted. Any suspected automatic weapons positions should also be shelled. Delay fuses should be used. (Both tank and infantry commanders were positive about this.)
8. Artillery support must be placed as called for because the rate of advance cannot be predicted.

HQ FUSAG, APO 655

BATTLE EXPERIENCES

No. 7

26 JULY 1944

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OMAR N. BRADLEY
Lt Gen, USA
Commanding

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I INFANTRY-TANK-ARTILLERY ACTION.

1. General. A recent report of the VII Corps in France describes a successful action on 1 July 1944 involving excellent coordination of infantry, tanks and artillery. While the methods used conform to those prescribed in current training manuals, the facts are published to emphasize that conformance with the prescribed methods, which does not too frequently occur, brought success.

2. Preliminary Action. The tank battalion commander received the alert order for the attack shortly after 1300, 30 June. He immediately initiated route reconnaissance to the area of the impending attack. By about 1400 he and certain members of his staff were at the headquarters of the infantry battalion to confer with that battalion commander, his staff and company commanders.

3. Orders. Plans were coordinated and the orders issued at this time. The orders provided:

- a. H-hour was 0930, 1 July.
- b. One company of six tanks would support each of the two infantry assault companies and one would be in general support.
- c. Artillery preparation would precede the jump-off and when this preparation lifted the tank mortars would fire from positions in rear of the LD at suspected AT positions.
- d. All tanks would be held about 300 yards in rear of the LD and the direct support tank units would move forward in time to cross the LD with the infantry at H-hour

- 2 -

e. The infantry battalion commander would be furnished a tank radio to permit continuous contact with the tank commander.

4. Action.

a. The attack began on time. The tanks moved forward slowly on both sides of hedges parallel to the direction of advance, avoiding roads. As they advanced, they sprayed the hedges with machine gun fire. Tanks, tank mortars, and artillery shelled crossroads and other suspected AT gun locations, using WP and HE. Artillery forward observers accompanied the leading wave of tanks.

b. The infantry kept abreast of the tanks and protected them from hostile infantry armed with AT grenades or rifles. The infantry also mopped up and, in the absence of other targets, fired at the most likely enemy cover in sight. When AT guns were encountered, infantry mortar and automatic fire was brought to bear on them in addition to the shelling, and the infantry moved in to outflank the positions.

c. The supporting tank company and the infantry reserve company advanced slowly behind the leading wave, mopping up bypassed resistance and prepared to meet counter-attack.

5. Results. The attack gained 2,000 yards through determined resistance, well organized with open and concrete replacements. The objective was seized at 1500 and secured at 1600.

6. Highlights. These are some of the points credited by VII Corps with the success of the operation:

a. Timely consultation and careful coordination.

b. Ample time for the tanks to make daylight preparations. Three hours is considered essential for a tank company; 5 hours for a tank battalion.

c. Tanks were held well behind the LD until H-hour.

d. Quick mutual support was insured by continual liaison and close proximity of infantry and tank elements and artillery forward observers. Each did the job for which it was best suited.

III. WOODS FIGHTING.

British report tells of methods adopted by a group of about 30 paratroopers to clear a small patch of woods of hostile resistance. The group advanced in two waves, the leading wave armed with Stens, the second with grenades. The second wave (evidently at greatly reduced distance) would throw a volley of grenades over the heads of the leading wave into the thick undergrowth ahead. As the grenades exploded, the leading wave rushed forward about 10 yards, firing their Stens. This process was repeated until the woods were cleared. Nineteen Germans were killed and one captured.

HQ FUSAG, APO 655

BATTLE EXPERIENCES

No. 6

20 JULY 1944

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OMAR N. BRADLEY
Lt Gen, USA
Commanding

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I EMPLOYMENT OF INFANTRY AND ARTILLERY WITH CLOSE AIR SUPPORT.

1. "Immediately upon cessation of the air bombardment, we found it best for medium artillery to shell the target, with light artillery closer to the troops covering their advance from the bomb line. The fire can then be lifted on call from forward observers, or on prearranged time, as the infantry closes in. Marking of targets with artillery smoke is good."--Regtl CO, 4th Div.

2. NOTE: A slightly different technique of artillery employment in a similar situation is indicated in the following report of the Commanding General, 9th Division:

"Best results were obtained when air bombardment took place when the assaulting troops were not more than 1000 yards from the target, and when they moved in rapidly as soon as the bombardment was over. Since even this limited advance required valuable time, it was found best to cover the target with light artillery fire until the attackers had advanced to a point not more than 400 yards from the target, at which time the heavy artillery concentration could be delivered, followed immediately by a rapid advance of the infantry. When such tactics were employed, success invariably followed. If, on the other hand, air bombardment took place at too great a distance from the attacking troops, it was found habitually that the defenders had an opportunity to recover and to man their positions before the attackers could arrive. In the final assault, tank destroyers and 57 mm guns, if they could be spared from their primary role, were found most useful in firing at the apertures of strong points to cover the advance of demolition parties."

HQ FUSAG, APO 655

BATTLE EXPERIENCES

No. 5

15 JULY 1944

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NOTE: The items below have been reported by our troops in Italy. The report from which these extracts were made did not identify sources.

I SCOUTING AND PATROLLING.

1. General. It was SOP in our division that all combat patrols be led by an officer. Reconnaissance patrols were of three or four men only. They were often used to locate the enemy, return, and lead a combat patrol to the location. Combat patrols consisted of 10 to 30 men. Each battalion had to send out at least one combat patrol each night.

2. Night Patrolling. a. Night patrols should fire their rifles only when their target is clearly defined and their sights are visible, otherwise fire is inaccurate. Hand grenades are better weapons at night. Rifle fire always discloses the patrol's position.

b. Only one mission should be given to a night patrol. Orders should reach all members in time to allow complete daylight preparation, including study of terrain.

c. Inexperienced men should not be sent on regular patrols, as they jeopardize the entire patrol. Training should be accomplished by sending new patrols under an experienced leader two or three hundred yards beyond our lines, and gradually increasing the difficulty of their mission. It is important that a company commander know the capabilities of the personnel he intends to use on patrol missions.

II TRAINING.

1. One infantry battalion commander said small disciplinary matters caused the

most difficulty in operations. He cited these instances: Radio operators having no extra batteries, NCO's going on patrol without wire cutters, soldiers in difficult terrain throwing away hand grenades and ammunition and later running out of ammunition. He believes NCO's are not given enough responsibility during training.

III INFANTRY-ARTILLERY COOPERATION.

1. Artillery observers must be able to get direct hits, to knock out prepared defenses. In several instances one artillery piece, precision adjusted on a defense emplacement, has been effective where area fire of a battalion has failed.

2. Units receiving shell-fire must learn to report it promptly, giving data as to number of rounds, caliber, time, approximate azimuth to enemy guns as indicated by shell furrows, etc. Shell fragments, especially those containing portions of rotating bands, are particularly desired. This will aid in bringing quick counter-battery fire to stop the shelling.

IV GERMAN HILL DEFENSE AND A CUPE.

1. The enemy will occupy the forward slope of a hill with skeleton forces armed with automatic weapons. The majority of the defending troops will be on the reverse slope. As the attackers approach, these occupy prepared positions on the forward slope.

2. To counter these methods our artillery must fire on the forward positions and the undefiladed area just in rear of them until the last possible moment to prevent reinforcements moving over the crest.

V COMMUNICATIONS.

1. It was reported that one battalion in advancing had each company lay two lines forward. If one line remained intact when the objective was reached, the battalion commander considered himself lucky.

2. A zero board was found to be invaluable in larger units. It was located up to 500 yards from the main switchboard and all circuit testing was done from there.

3. When possible keep radios in a defiladed position. The Germans have accurate interceptors and will bring fire on a radio position. Relay messages by use of power phone or messenger. Do not place radios close to troops. If sending messages by radio from a car, run the car up and down the road and send from different locations.

VI ENGINEER OPERATIONS.

Bulldozer operators must be trained to construct by-passes at night. The operator must be able to feel the working of the blade without seeing it.

VII ORGANIZATION OF DEFENSE.

1. Junior officers and NCO's should try to assign the location of each fox hole. Otherwise they will have no tactical value but will merely protect the individual,

2. Men should be placed in pairs with two yards between individuals. Pairs should be so emplaced that front, flanks and rear are defended. All individuals must know this principle and must know where the other members of the squad are. That knowledge will increase the confidence in the unit's ability to defend.

VIII LOCATING GERMAN MG's BY THEIR TRACERS.

X Look about 30 feet beyond where the tracers begin to burn in order to locate the weapon.

[REDACTED]

HQ, FUSAG AFJ 655

BATTLE EXPERIENCES

No. 4

15 July 1944

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Lt Gen, USA
Commanding

I TIME OF ATTACK.

The following conclusions of the Commanding General, 4th Infantry Division, are a result of his experiences during the drive on Cherbourg:

1. "Troops engaged in a sustained attack over several days or weeks should halt at least an hour before dark on favorable ground in order to permit reorganization and establishment of security and anticounterattack measures before dark. Local counterattacks usually strike about an hour before dark and unless the above measures have been taken, the attacking troops are caught in their most disadvantageous situation of the day if they are still pressing the attack. Of course, there are always exceptions, when the attack should be pressed home regardless of disorganization or possible counterattack.

2. "The attack should be resumed not earlier than two hours after daylight. Although the advance may have been halted an hour before dark, there is not time for proper reconnaissance, reorganization for renewing the attack, proper coordination or redistribution of supporting fires, and other vital coordination, all of which are necessary to insure that the morning jump-off be thoroughly coordinated and effective. At least two hours are required in the morning for these purposes.

3. "It has been my experience, repeatedly, that when the above procedure was followed, I gained more ground, more rapidly in the long run than I would when I attacked until dark and jumped off again at daylight. The opinion is unanimously and strongly shared by all my combat team and infantry battalion commanders, based on their recent successful experiences."

II INTELLIGENT FIRE DISCIPLINE.

(Note: Be smart about your fire--and don't forget your fire discipline. Twelve British and an unknown number of German casualties, described below, could tell you how they learned that the hard way--if they could tell you. Here are the stories from a British report.)

1. A counterattacking British parachute platoon near Le Plain suffered 12 casualties and had to withdraw. The battalion commander blamed the result partly on failure of a detachment to grenade an embankment known to be occupied by the enemy before trying to rush it.

2. A unit of the same parachute battalion later watched half a company of Germans leave some woods and begin to dig in. Fire was held until the entire group was busy digging. Then machine gun fire wiped out practically the entire half-company.

3. Still later a hostile party, improperly secured, advanced on a platoon of the same battalion, well concealed in a ditch. Fire was held until the enemy was only 10 yards away. Only a few of the enemy escaped. Some of those killed actually fell into the ditch occupied by the British platoon.

III HOUSE FIGHTING.

The following is from a British report:

When searching a house, the top rooms must be cleared before or immediately after entry. A battalion recently sent out a fighting patrol to clear a house reported to be occupied by a six-man enemy listening patrol. They were covered by a LMG and a PIAT. They found the bottom rooms empty and went into a courtyard at the back of the house. The officer and one man were killed by grenades dropped from above.

IV INFANTRY-TANK COOPERATION.

On 17 June 1944 a British infantry battalion, reinforced by tanks and other elements attacked a French town. The terrain was close. The advance was made with tanks in column along the flanks of the infantry units, protecting them. No infantry protected the flanks of the tanks. The attack succeeded, but the British considered the loss of seven tanks unnecessarily heavy. A British comment stated in substance: "In this type of country the infantry must beat the blind country to prevent the tanks being shot up at close range."

BATTLE EXPERIENCES

No. 3

13 JULY 1944

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I INFANTRY-TANK HEDGEROW TACTICS.

The following material is extracted from Memorandum No. 1, "Armored Notes", published 19 June 1944 by Hq, FUSA:

1. Terrain in Normandy is low, rolling, and in some places flat and marshy. The usable tank terrain is cut by many hedgerows and occasional woods. Hedgerows grow on earth embankments with ditches alongside. Often the hedge is interspersed with stout trees. Roads are narrow, sunken and numerous. Observation is difficult. There are frequent towns and groups of buildings. The German defend the hedgerows and towns. He uses small arms, machine guns, mortars, bazookas, antitank grenades, bombs, mines, obstacles, and a few antitank guns to cover main routes.

2. A successful combination adopted by our troops has been to put a company of M-4 tanks with an infantry battalion. Infantry battalion and company commanders are provided with SCR 609 radios. These are fixed on infantry pack boards and provide effective communication between infantry and tank commanders.

3. Some of the tanks move along the hedgerows running in the direction of attack, using the bow gun and coaxial machine gun to flush out the Germans who are dug in. These tanks are followed closely (sometimes ridden) by the infantry which mop up.

4. Other tanks, supported by infantry heavy weapons, cover the hedgerows crossing the direction of advance. As the tanks reach each cross row, the infantry mops up and occupies the hedge and protects the further advance of the tanks from attack by hostile bazooka and grenade men.

BATTLE EXPERIENCES NO. 3, HQ FUSAG, (continued)

5. Tank dozers are used to open passages in the hedges for the tanks. Some tanks must watch the other hedges while this passage is being made, and infantry must protect dozers and tanks from hostile foot elements.
6. Crossroads and road junctions are shelled by artillery or mortars and tank fire to eliminate antitank guns, before tanks advance toward them.
7. Some of the infantry must be constantly alert to shoot snipers who hide in trees and buildings. Tank cannon fire against buildings usually clears them rapidly.
8. The rate of advance is slow. Infantry and tanks must stay close together to permit mutual support.
9. Blitz action by tanks has proved generally unsuccessful. If tanks advance too fast, they have to return to mop up and relieve the pressure on infantry pinned down by pockets of resistance overlooked in a hasty advance.

II BATTLE FIELD RECOVERY OF TANKS.

The ____ Tank Battalion used the following procedure to effectively recover a tank under fire. The tank was 200 yards from the German line.

"Our infantry platoon concealed itself in the hedgerow facing the German line and covering the disabled tank. An 81 mm mortar, with an officer in charge, was emplaced on the right flank. The mortar silenced the machine gun. As the recovery vehicle reached the tank, the Germans opened fire and started infiltrating forward. Our infantry took them under heavy fire and the mortar laid down a concentration on them. The recovery vehicle hooked on to the tank and dragged it to safety without further difficulty."

III USE OF WP BY TANKS.

Lt Col. Nichols, ____ Tank Battalion, stated, "We have had excellent results with WP fired from the 75 mm tank gun. It is very effective in the attack of villages, as it sets fire to houses and drives the Germans out more quickly than HE. Its use against enemy armor is giving excellent results, tending to blind the hostile tank crew and allowing our tanks to maneuver."

HQ FUSAG, APO 655

BATTLE EXPERIENCES

No. 2

13 JULY 1944

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OMAR N. BRADLEY
Lt Gen, USA
Commanding

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I THE 4.2 MORTAR AND ITS USE WITH INFANTRY.

Here are some facts and suggestions regarding the 4.2 mortar, extracted from a report by the commander of a CW Bn with the VII Corps.

1. The weapon and its ammunition.
 - a. The mortar is most effective at ranges of 1500-3000 yards. Its minimum range is 800 and maximum 3500-4000, but firing at extreme range damages the piece.
 - b. The mortar fires both HE and WP ammunition. HE is highly effective against personnel, light emplacements and for harassing and interdiction. WP may be used to screen or for casualty effect. It has a tremendous psychological effect.
 - c. Ammunition supply is always difficult. Harassing and interdiction fires should, therefore, be well spaced. Heavy concentrations should be reserved for unusual opportunities, preferably when fire can be observed.
 - d. The mortar has a conspicuous muzzle flash and night firing should be the exception. When it must be done, alternate positions should be used and the mortars should be moved upon completing the mission.

2. Organization.

- a. Mortar companies have been reorganized into two companies of four mortars each. (Note: No other corps has reported a similar reorganization). Attachment of one company to a battalion permits the support of each assault infantry company by one mortar platoon.

b. A mortar company cannot effectively support a front wider than 1500 yards.

3. Emplacement and Displacement.

a. Mortars should not be closer to the supported troops than their minimum range of 800 yards. They should displace forward when the supported troops are about 2500 yards distant.

b. The infantry commander should designate the general position areas for the mortars, but the mortar commander should select the specific positions.

c. The personnel of mortar units is insufficient to permit them to provide their own local security. They should be ordered only into positions adequately protected by other troops.

d. Mortar units require time for daylight reconnaissance. This must be considered when missions are assigned.

4. Observation and Control of Fire.

a. Each mortar platoon has a forward observer party which accompanies the supported unit. Control is normally by SCR 300 radio. The observer party must move frequently to obtain the best obtainable OP. It must, therefore, guard against losing its mobility by becoming involved in a fire fight.

b. Coordination with FA observers has often proved profitable, and on occasion the artillery liaison plane has adjusted mortar fire when this did not interfere with its artillery mission.

5. Supply.

Mortar companies are responsible for their own Class I, III, and V supply. They frequently operate under difficult conditions which cause them to require assistance and this should be given to the fullest practicable extent by divisional and regimental supply agencies.

6. Miscellaneous.

a. Mortar units are in great demand and their equipment requires considerable maintenance. They should, therefore, be relieved from attachment and returned to battalion control as soon as the situation permits.

b. Personnel of mortar units should not be diverted from their primary duties by commanders of units to which they are attached.

II USE OF TD's, SP ARTILLERY, AND TANKS AS ASSAULT GUNS.

1. "The tank destroyers should remain in rear of the assault battalion areas. When a suitable target is found, the platoon leader or gun commander should reconnoiter for gun positions and routes thereto before bringing the gun forward. When the target is reduced, the TD should withdraw behind the infantry until a new target is found. Under no circumstances should the guns advance until the infantry has located targets. A very effective weapon when thus properly employed."—CG, 9th Infantry Division.

2. "Tank destroyers and SP artillery as assault guns were only good when you could observe the fortification at 800 to 1000 yards. Tanks with closed turrets were almost necessary, as snipers and hand grenade men would knock out any weapons with an open turret. Tanks with infantry could push up to within 50 to 100 yards of the pill

box and fire point blank. Most fortifications hold their fire until you get within 200 yards, and they are hard to locate until you push in close. Then your infantry gets pinned down by their automatic weapons unless you have tanks."--Bn Commander, 4th Division.

3. "TD's or SP artillery were not used as assault guns due to unfavorable terrain. Tanks with 75 mm guns were used effectively as assault guns. Sometimes, however, tanks were used in too large numbers. Four tanks per battalion were usually ample, due to the unfavorable terrain."--CO, ____ Inf, 4th Division.

BATTLE EXPERIENCES

No. I

12 JULY 1944

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I. HEDGEROW TACTICS.

1. General. German methods of defense in the Normandy hedgerow country and some of our methods of attack which have been successful are discussed below.

2. German Methods.

a. "The enemy digs good firing positions in the hedgerows parallel and perpendicular to the front. Positions contain machine guns and machine pistols, and are supported by mortar fire in most cases. Often additional support is provided by artillery. The stronger hedgerow positions are usually protected by small groups of machine guns, which are in turn closely protected by numerous snipers in trees, buildings, and on the ground."--CO, _____ Infantry, 4th Division.

b. "In hedgerow terrain, we find that the enemy often employs very few troops with a large number of automatic weapons. Along the hedgerows he will dig fire-trenches in which one man will move to several points, firing successive bursts in order to simulate a large number of men. Four or five machine guns employed in this fashion can pin down a lot of men."--CO, 3rd Bn, _____ Infantry, 4th Division.

c. "Scouts should be especially watchful of corners, as the enemy usually has positions there to command two or more compartments. Fire from mortars, grenades and automatic weapons should be directed against the hedges, and especially the hedge corners, whether or not the enemy is definitely located. Success depends upon maximum initiative by individuals and small groups."--Report by Commanding General, 9th Division.

3. Methods of Attack.

a. The most effective method of attack is by the combined action of tanks and infantry, some of the tanks equipped with dozer blades. This will be discussed in detail in a later issue.

b. Infantry regimental commanders of the 4th Division have the following to say:

X (1) "It is best to build a base of fire with automatic rifles or light machine guns. Heavy machine guns are not as much help since they can't be set up as rapidly and cannot move as fast as the riflemen. One solution was to use the light machine gun tripod with the heavy machine gun."

(2) "In this terrain the scouts often operated too close--they should try to keep one hedgerow ahead of the rest of the squad. Normal rifle company formation was a box formation with two assault platoons in the lead followed by the support platoon and the weapons platoon. 60 mm mortars are always effective and should be kept close behind the assault elements to bring fire against automatic weapons; usually these mortars fired on machine guns, determining position only by sound. Because of the numerous hedgerows, companies and battalions attacked on a much narrower front than normal. Frontage should be assigned according to definite fields and hedgerows instead of by yardage.

(3) "Direction is best maintained by giving a unit a road to guide on. Roads and houses should be included in a battalion zone and not used as a boundary, since roads were always used for counterattacks and houses are always suitable places for snipers."

(4) "Heavy automatic fire, especially of BAR's, is most useful in flushing them out of hedgerows, but all commanders agree that there is no substitute for tanks for this type of fighting since tanks can flush the hedgerows and also deliver point-blank artillery fire. When tanks were employed, it was often only a few minutes until the enemy is driven out. Half-tracks with .30 caliber and .50 caliber machine guns can sometimes be employed to augment other fires, but are very vulnerable to antitank fire. Tanks and half-tracks must not become roadbound. Infantry must be employed in depth with the leading elements moving right behind the tanks. The enemy will hide underground as the tanks pass, and the leading infantry must pass right through the enemy. Closely following units must deal with the enemy as he attempts to come up and open fire."

c. Rifle and heavy weapons company commanders of the 9th division make the following comments:

X (1) "Distances and intervals between rifle squads and platoons should be small. Squads and platoons advance along hedges--never in the open. Skirmish lines and wedge formations can be used only when attacking fortified positions. Heavy machine guns are usually attached to rifle companies. Riflemen protecting machine guns should be amply supplied with hand grenades."

(2) "Proper distribution of fire over their sector of the target should be emphasized in training riflemen."

(3) "Riflemen must leave first aid assistance to the medics. Four replacements were killed and eight wounded in this company through attempting to render first aid to a fallen comrade."

II. IMPREGNATED CLOTHING.

1. Warm. "The impregnated fatigue clothes proved to be a great thing for our men in the front line. The impregnation makes the clothes warmer and somewhat waterproof. The cold nights and the heavy morning dew here cause much discomfort, and the men have found that the impregnated suits help a great deal toward keeping them warm." Regt. S-3, 4th Division.

2. Tough. "Impregnated clothing has turned out to be a blessing to those men who first wanted to throw it away. It is not only warmer and dryer than ordinary clothing but it is also tough and resists the thorny hedges, giving better protection to the wearer. Also, it seems to stand up well under rough usage." Chemical Warfare Officer.

III. BOOBY TRAPS.

More booby traps are being encountered now that the Germans have had more time to prepare them. Charges concealed in Mauser rifles and Luger pistols have sent some of our men to the hospital. Village pumps have been reported as favorite locations for the traps.

IV. RIFLE AND MACHINE GUN FIRE DISTRIBUTION.

Recent reports from other theaters agree with comments of company commanders in France that riflemen must be encouraged during an advance to keep up steady fire on a suspected target instead of waiting for the appearance of a definite target. Well distributed fire will keep the Germans down, but too often all men fire at a single spot when a target does appear, instead of keeping distributed fire over all the suspected target area. Fire distribution is important.

V. GERMAN TRICKS.

1. The Germans have employed the following ruses: One of a defending group would rise with arms up-raised as if to surrender. If this action put our troops off guard, or if anyone exposed himself, the upright man would dive sideways and his companions would spray our troops with automatic fire.

2. German strongpoints are sometimes re-occupied by enemy who have hidden in hedges or otherwise avoided detection as the front line infantry passed through the enemy position. Disruption is caused unless mop-up parties follow closely and prevent resumption of activity in the strong points.