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MBAT LESSONS

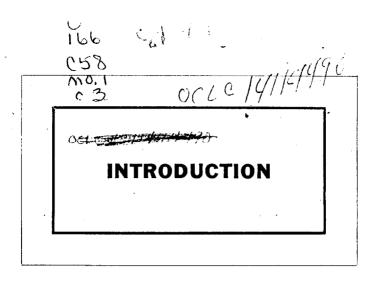
NUMBER

Rank and file in combat: What they're doing How they do it



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The purpose of "Combat Lessons" is to give to our officers and enlisted men the benefit of the battle experiences of others. To be of maximum benefit these lessons must be disseminated without delay. They do not necessarily represent the carefully considered views of the War Department: they do, however, reflect the actual experiences of combat and. therefore, merit careful reading. For this reason also no single issue can cover many of the phases of combat; lessons will be drawn from the reports as they are received from the theaters of operation and quickly disseminated so that others may apply them. The suggestions which are made or implied are not intended to change the tactical doctrine by which our Army has been trained but rather to elaborate Much of the subject matter has been covered in training literature, but the comments show that shortcomings continue to manifest themselves on the battlefield.

The paramount combat lesson learned from every operation is the vital importance of *leadership*. Our equipment, our supply, and, above all, our men, are splendid. Aggressive and determined leadership is the priceless factor which inspires a command and upon which all success in battle depends. It is responsible for success or failure.

Chief of Staff

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SECTION I

BATTLE LEADERSHIP

Again and again reports from the battlefields confirm the importance of leadership in every grade, whether it be Corporal or Colonel. Other combat lessons are important; the exercise of leadership in battle is vital. Leadership has often been defined in theory. Here are some instances of its application or its absence on the battlefield. These are but a few examples; there are many others.



Junior Officer in Battle Captain William T. Gordon, Infantry, Sicily: "Since November 8, I have had seventeen officers in my company, and I am the only

one who started out with it who is left in the fight. In Tunisia, from troops pinned down in the dark, I have heard enlisted men call out such things as 'Where is an officer to lead us?'—'We don't want to lie here—we want to attack—where is an officer?' . . . In each case an officer or officers have risen to the occasion, but this nevertheless shows beyond anything else the demand for battle leadership.

"A company officer must build a legend about himself. He must take calculated risks. He must, on the other hand, do what he expects his men to do: he must always dig in; always take cover. His men must know that when he ducks they must duck; on the other hand, they must not believe that when the officer ducks they must run away. The officer must come through every barrage and bombing with a sheepish grin and a wry remark. Masterly understatement of hardship and danger endured plus a grin always pays dividends.

Hate Your Enemy! "Our men do not ordinarily hate. They must hate. They are better soldiers when they hate. They must not fraternize with prisoners—must not give them cigarettes and food the moment they are taken. Hate can be taught men by meticulous example. The Rangers are so taught."



Leaders in Front Staff Sergeant Richard E. Deland, Infantry, Sicily: "We want our Captain out front; we don't care much about the position of our battalion commander."

Keep Them Moving! Operation Report, Seventh Army, Sicily: "During an attack officers and non-commissioned officers must never allow men to lie prone and passive under enemy fire. They must be required to move forward if this is at all possible. If movement is absolutely impossible, have the troops at least open fire. The act of firing induces self-confidence in attacking troops. The familiar expression 'Dig or Die' has been greatly overworked. Attacking troops must not be allowed to dig in until they have secured their final objective. If they dig in when momentarily stopped by enemy fire, it will take dynamite to blast them from their holes and resume the advance."



NCO Leadership Staff Sergeant Robert J. Kemp, Platoon Sergeant, Infantry, Sicily: "NCO leadership is important. Leaders, NCO's, and officers should be taken to an OP for terrain instruction and study before an attack. This has been possible in my outfit about one-fourth of the time. We have what is called an 'Orders Group,' which consists of that group of officers and NCO's that must be assembled for instruction before any tactical move."



Keep Your Mission in Mind! Lieutenant Colonel E. B. Thayer, Field Artillery, Observer With Fifth Army, Italy: "Difficulty was experienced in making patrol leaders realize the importance of bringing back information by a specified hour, in time to be of value. Patrols often returned, after encountering

resistance, without accomplishing their mission. Sending them back to accomplish their mission, despite their fatigue, seemed to be the most effective solution to the training problem involved, although the information required often arrived too late."



Lieutenant Colonel T. F. Bogart, Infantry, Observer With Fifth Army, Italy: "Greater emphasis must be placed on inculcating in junior officers and NCO's the will to accomplish assigned missions despite opposition. A few accounts of patrol actions illustrate this point:

"(1) A reconnaissance patrol consisting of a platoon was sent out at about 1900 one evening to determine the strength if any of the Germans in two small towns, the first about two miles away and the second about three miles farther on. The patrol reached the outskirts of the first town and met an Italian who told them there were no Germans in the town and then started to lead the patrol into town. A few hundred vards farther a German machine gun opened up, the Italian disappeared, three of the patrol were killed, and the others dispersed. They drifted back to our battalion during the night, and it was not until nearly daylight that the practically valueless report of the action was received. Not the slightest conception of the strength in the first town was obtained and no information of the second town. It was necessary to send out another patrol with the same mission.

- "(2) A patrol was sent out with the mission of determining the condition of a road, especially bridges, over a three-mile stretch to the front. When this patrol had covered about a mile it ran into a motorized German patrol. Two of the Americans were killed, and the platoon leader claimed six Germans. The patrol leader forgot his mission, returned to the battalion CP with the remainder of his patrol, and had to be sent out again with a great loss in time in getting the information desired.
- "(3) On several occasions patrols were sent out on reconnaissance missions with instructions to get certain information by a specific time. The hour would pass and sometimes several others without a word from the patrol. Sometimes it was due to difficulties encountered, sometimes to mistakes in computation of time and space factors, but in all cases there was no good reason why some information did not get back by the specified time."

COMMENT: The failure of patrols in these instances stems from a lack of appreciation on the part of NCO's and junior officers of their missions. In patrol actions, as in the operations of larger units, the mission must be kept uppermost in the minds of all ranks, and no action should be undertaken which does not contribute directly to the accomplishment of that mission. Conversely, no incidental or inadvertent contact with the enemy should deter or divert patrols from the complete

accomplishment of their missions, to include compliance with all instructions given, where humanly possible.

*

Team Up! Captain William T. Gordon, Infantry, Sicily: "I have found that men in position must fight in pairs; an order that 50 per cent stay awake is thus easily enforced; it bolsters morale and nerves.

Rally Point "In every company attack order a reserve force must be prescribed; I always do even though sometimes this force consists only of myself and my First Sergeant. Often a soldier who a moment before has run away is converted into a fighter by leadership. A reserve force gives him a rallying point."



Fear is Normal Colonel George Taylor, Infantry, Sicily: "Fear of being afraid is the greatest obstacle for the new man in battle to overcome. There is no reason for shame in being afraid. Men who have had excellent battle records freely admit they are scared stiff in battle. The important thing is that every soldier must be taught all he needs to know so well that battlefield thinking is reduced to a minimum; automatic, disciplined reactions to battlefield problems must be the rule.

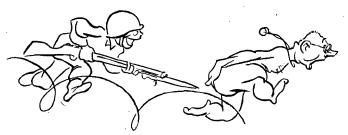
"In battle the worst element is mental and nervous exhaustion. There is no real rest under fire. The ability to withstand fire is more important than all the knowledge in the world."

SICILY—ITALY—ATTU

NIGHT ATTACK

Surprise Saves Lives Major John R. Patterson, Infantry, Sicily: "The mission of our battalion after landing south of Gela in Sicily was to capture the airport at Biscari. The battalion used the silent night attack. The three rifle companies were in line with the heavy-weapons company in reserve. To reach its line of departure, the battalion crossed two precipitous ridges using two control lines, then climbed the cliff at the airport to the line of departure. All this was done silently under cover of darkness.

"The attack was started with a hand grenade. We didn't fire until the Germans counterattacked.



We went in with bayonets and hand grenades and caught some of the Germans undressed and dressing. The MK IV tanks fired their guns but wouldn't close on us. The enemy knew their men were all about, so fired their machine guns and rifles mainly into the air.

"The first counterattack came in two hours, and there was one about each hour thereafter until 1600. They had all emplacements wired and fixed with trip-wire booby traps. We removed the traps and used the emplacements during counterattacks.

"We found a line of airplane bombs wired to blow up the area; we de-activated them. A German plane landed just as we were ready to leave the line of departure. Later, one of our men grenaded it.

"The battalion took no transportation. I had with me the S-3, one runner, and one 511 radio.* The wire came up thirty minutes later, but was not necessary.

"I estimate the enemy had a reinforced battalion. His tanks and self-propelled's came up later. Some of the enemy were air personnel, and there were about eleven AA guns set up for antipersonnel use.

"Our attack lasted thirty minutes. We had no casualties during the attack; two were killed during the counterattacks."



Hand-to-Hand Fighting Captain Jarrold, Infantry: "At BISCARI AIRPORT I used my trench knife twice. One of my men got three with his bayonet. He shot one, then another tried to grab his bayonet. He got this one with the bayonet. That got him started, so he got three in all before it was over.

 $^{^*\}Lambda$ twenty-pound, battery-operated, short-range transmitter-receiver.

Small Arms Against Armor "We found that caliber .30 AP pierces enemy armored half-tracks at close ranges."

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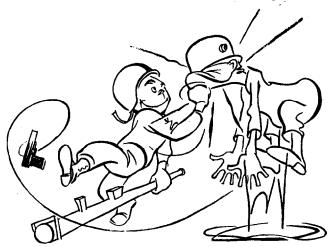
Platoon Action Lieutenant Hollerich, Infantry: "Company A, moving forward in darkness to participate in the BISCARI AIRPORT fight, ran right into the enemy position. Before the fight started, my platoon crossed the road just above a culvert and reached the south edge of the airport, but I was ordered to take it back to a position just east of the culvert. I wish I could have stayed where I was because it was a perfect place from which to envelop the resistance in front of my company.

"When the enemy machine guns opened up we threw grenades. The machine guns pulled back out of grenade fire. Then NCO's and Browning Automatic Riflemen went up over the embankment, through and beyond the initial enemy positions. Eventually we had a base of fire of about twenty men including the BAR's.

"During the enemy counterattacks we did pretty well with other fire, too. Lead was flying fast and furiously at twenty to thirty yards. We fire at flashes. In this kind of firing you learn to fire and roll to one side or they'll soon get you."

"One of the corporals sneaked up on a dug-in vehicle and got it with an '03 rifle grenade at 25 yards.

"The 'bazooka' man of my platoon heard 'Tanks to the right,' went around a bend in the road, and fired at about 35 yards. He got the first of a pair of vehicles. A German officer tried to capture him



with a pistol, but he gave the officer an uppercut and then killed him with his helmet. I don't know how the other vehicle was knocked out, but one of the BAR men got its driver.

COMMENT: In these accounts of a successful night attack by a small unit the application of the following principles is worthy of note:

- a. Close control during the approach by the use of control lines adjusted to difficult terrain features.
- b. Designation of a Line of Departure as close to the objective as possible and after all major

terrain obstacles had been passed. This is essential to assure proper organization of the unit immediately prior to the assault.

- c. Attainment of the vital element of surprise (Germans caught undressed and dressing, airplanes landing on the field).
- d. Use of the bayonet and hand grenades with no weapon firing permitted. It may often be advisable to prohibit the loading of rifles.
- e. Use of frontal attack only. Any attempt at envelopment tends to cause disorder and confusion. Note that one platoon which had advanced ahead of the general line was pulled back to conform.
- f. A definite and limited objective—capture of an airfield, in this case—in which the entire front could be covered by manpower rather than fire-power.

These are the major elements of a successful night attack brought out in the foregoing account. Others not mentioned but which were undoubtedly contributing factors in this operation are:

Careful planning in minute detail.

Precise, specific orders.

Careful arrangements for maintenance of direction.

Thorough daylight reconnaissance by as many of the leaders as possible.

Use of compact columns in the approach formation until the Line of Departure is reached.

KNOCKING OUT PILLBOXES

Colonel Rogers, Infantry, Sicily: "The neutralization and reduction of concrete pillboxes played an important part in the Sicilian campaign. In the initial landing phases alone, this regiment cleaned out over thirty of these pillboxes. They were located all over the place as we went inland.

"They were cleverly constructed and elaborately camouflaged. Many were covered with brush, grass, straw, or other natural stuff. Others had cane houses built over them to represent peasant outbuildings or huts. All those we encountered in and about villages and towns were covered over with some kind of house to conceal them. Most of these were cane or wood shacks, though some were actually covered with plaster or stucco to represent real houses. Many had dummy houses built right over the pillbox, and windows arranged to give full freedom of fire from the embrasures of the pillbox inside the shell of the building. In the open country a number were also built with hav ricks and straw stacks over them, all very natural and innocent looking.

"Reduction of these often proved very simple, and in many cases the enemy simply dug his own grave in his efforts at camouflage. When we learned not to be surprised by them and recognized them for what they were, we developed a very simple method of dealing with the ones concealed by straw, hay, cane, and other inflammable material. We

dosed them freely with white phosphorus, especially from the attached chemical mortars, and this did the work to perfection. We set the camouflage on fire, blinded the gunners inside, and choked them with the phosphorus and the smoke from the burning hay, straw, and other material. The fire and heat, too, made the interiors untenable, and the occupants would become terrified and come out and surrender in a bunch.

"In one place near Licata there were several of these straw- and hay-covered pillboxes, also some concealed with cane huts, arranged at key positions in country covered with wheat fields and terraced grain plantings. We simply set a first-class prairie fire with our white phosphorus, and burned out a position over 2,500 yards long. We waited until the wind was right and let them have it. Every pillbox was burned out. The more difficult pillboxes that wouldn't burn we attacked with massed fire from mortars of all types, AT guns, and heavy machine guns. In the case of very tough ones that were reinforced, we used 'bazooka' rockets and at times sent men up close under heavy covering fire and knocked them out with bangalore torpedoes."

COMMENT: The use of fire is, of course, dependent on favorable weather conditions. Careful coordination is also necessary to insure that the resulting smoke does not interfere with the operations and observation of adjacent units.

INDIVIDUAL INITIATIVE

The following cases of individual initiative and heroism during the Salerno landing were reported by the —th Infantry:

"Sergeant Manuel Gonzales, upon landing, discovered the position of a German '88' in the sand dunes near the beach. This gun was firing on the assault boats as they landed. The Sergeant crept around the position under machine-gun fire which set his pack on fire, and despite the hand grenades being thrown at him. He then calmly tossed several hand grenades into the gun emplacement, killing the crew and blowing up their ammunition.

"Near Paestum Sergeant John Y. McGill jumped on an enemy tank and dropped a hand grenade into the open turret, killing all the crew.

"Private Clayton I. Tallman, on Hill 424, observed that the enemy was attempting an envelopment of the left flank of his company. Taking up a better position, he killed an enemy machine-gun crew with three carefully aimed shots. In a few minutes he repeated the same action when another enemy machine-gun crew appeared. He alone protected the left flank of the company until the rest of the platoon arrived.

"Private Burrell B. Reitch discovered that he and a group of five men had been cut off from his company. He immediately organized them in a de-

fensive position on a small knoll. They repulsed three rushes by the enemy, who were attempting to establish machine-gun positions on the flank. Private Reitch was completely in command of the situation, giving fire orders and shouting encouragement.

"Staff Sergeant Quillian H. McMitchen was shot in the chest and shoulder before his assault boat reached the shore. When the boat beached, the landing ramp stuck and would not drop. The Sergeant, despite his wounds, kicked the ramp loose and then led his section ashore, continuing to direct their operations until he received a fatal shot from enemy gun fire.

"Our men steadily moved ahead in the face of the intense fire and cleared the beach as soon as possible. Lieutenant Carey, soon after reaching the shore, was fired upon by three Germans armed with machine pistols. He returned the fire, but his carbine jammed after killing one of his adversaries. He then grasped his weapon as a club and advancing in the face of their fire clubbed the second. He then physically tackled, subdued, and disarmed the third German, taking him prisoner."

COMMENT: The ability of the individual soldier to grasp the implications of the situation and take the necessary action should be fully exploited. The results of combat are the fruits of the combined efforts of individuals. Every soldier should be indoctrinated with the idea that his individual action may be the decisive factor in the final result.

ACTION ON ATTU

Operations report, Regimental Combat Team: "To fight the Japs in this country our troops must stick to the high ground and not only outflank but 'out-altitude' the enemy.

"Continuous movement is necessary to keep the spark in an attack. If a machine gun covers one point, then a group not at that point must continue to advance. When fire is shifted, the original group must move. If even a platoon is entirely halted by the fire of enemy guns, then the commitment of additional troops results, whereas by proper coordination some portion of the platoon can be kept moving and the force committed kept to a minimum.

"The tendency of lower commanders to commit reserves too early must be curbed.

"Security cannot be overemphasized. Any movement or group on the battlefield, even in rear areas, is subject to enemy action. In this connection, consideration must be given to the protection of medical installations. At present these are left unprotected, without even individual arms for their personnel. In the event of any enemy penetration through our front-line positions it is practically certain that these installations will be hit.

"Aggressive patrolling, particularly to maintain active contact, is of vital importance and can mean the difference between defeat and victory. However, mere numbers of patrols will not solve the problem. Special training in patrolling and organizing patrols

must be initiated. Commanders must plan to have reasonably fresh men available for night contact. It is vital to organize patrol activity carefully to insure that all lines are familiar with the routes of returning patrols so that the danger of mistaken identity in the darkness will be minimized."



Lieutenant General Simon B. Buckner, Commanding General, Alaskan Department: "It was apparent that the enemy was particularly vulnerable to attack by units of our infantry which pushed forward vigorously while the enemy was held down by artillery fire. Those units which had learned to advance closely behind their own artillery supporting fire had the greatest success.

"The Japs do not like our coordinated artillery fire nor do they like our attacks with the bayonet. When under fire from small arms they stay down in their holes and are easily approached. When attacking small groups of foxholes, our troops were able to keep the Japs down by fire from rifles and the Browning Automatic Rifle while some of our men approached and dropped hand grenades into their holes. This was our favorite mop-up method.

"When about to be run out of a position, the Japs seemed to feel it necessary to counterattack. These attacks were not well coordinated and were welcomed by our troops, who were able then to shoot down the enemy in great numbers. These Jap counterattacks were of a suicidal character and were pressed home regardless of losses until practically all of the counterattacking troops were exterminated.

"The enemy may believe that, in such terrain, he can hold up the advance of an entire battalion with three men and a light machine gun. In fact, however, he is critically vulnerable to intelligent action by officers and men who understand the necessity for immediate maneuver against small parties of the enemy seeking to hold them up. The fact was that small maneuvering patrols easily disposed of machine-gun positions on reverse slopes behind mountain spurs, whereas any tendency to lie down and call for artillery support would have resulted only in tremendous wastage of artillery fire in attempting to seek out targets which, in fact, were inaccessible to artillery fire.

"The Attu action likewise indicated that standard Japanese infiltration tactics can be offset by a system of 'anti-termite' patrols organized behind our lines, protecting our artillery, command posts, and supply lines. Wherever troops know that these friendly patrols are behind them, fire in their rear will mean to them simply that our patrols are exterminating the infiltrating Japs. This feeling was well expressed by General Nathan Bedford Forrest [Confederate cavalry commander, Civil War], when one of his staff officers approached him in great excitement and said, 'General, the enemy is in our rear.' Forrest calmly replied: 'If they're in our'n, we must be in their'n.'"

THE SOUTH PACIFIC

SECURITY IN THE JUNGLE

In Bivouac Report of Commanding General, 43d Division, New Georgia Campaign: "Security in bivouac was a big problem in this New Georgia operation. The Japs conducted harassing raids against our bivouac areas with some success for a period of about a week. Our initial plan had been adopted on the advice of other units experienced in jungle warfare. It called for complete immobility at night, with grenades and bayonets as the only defense weapons. Gun crews were directed to fire only in the event of a major attack. However, we found that small parties of Japs were able to filter into the battle areas and cause some casualties without being seriously opposed.

"This situation was effectively corrected by using a close perimeter defense. Men occupying these perimeter lines were ordered to fire at known targets. Machine guns were so laid that final protective lines covered the perimeter. The nature of the terrain and the type of night tactics employed by the Japanese made the establishment of outposts for security purposes inadvisable as visibility was limited to a few feet from any given outpost. Two men occupied each foxhole, one remaining awake and alert to all activity in his vicinity. Within the perimeter, machetes were used from the foxholes against any enemy raiders who were able to penetrate. This system effectively discouraged night raids.

On the March "March security adhered to established doctrine except that distances between the elements of the column were greatly reduced. Extremely limited visibility and the difficulty of moving through the jungle off the trails nearly always prevented close-in security detachments."

*

JUNGLE NOTES

Aggressive Action, Flexible Plans Report of 43d Division, New Georgia: "Aggressive action is necessary. Never relax the pressure. Maneuver of small units at the risk of temporary loss of communications is important. Plans and orders must be so flexible as to permit prompt maneuver change.

Feeding the Troops "The serving of any hot meals in jungle fighting is often impracticable. A hot drink or hot soup serves the same purpose and is much more within the realm of possibility.

"An issue of two canteens per man relieves the water problem a lot in jungle operations."



canal: "Due to the amount of vital information we had taken from captured Japanese message centers we decided at once that we wouldn't make the same mistake. Command post installations were usually in the foxhole of the unit commander. Papers of possible value to the enemy were destroyed or sent to the rear."

SCOUTING AND PATROLLING

Patrolling in the Jungle An officer with considerable experience in jungle patrolling gives this advice:

"Patrols are most likely to give away their presence in an area by their footprints.

"Shine from the smallest metal surface, such as a belt buckle, or a watch, must be avoided. A luminous watch constitutes a real danger.

"A white skin is most conspicuous, and the practice of some patrol members marching stripped to the waist is inviting trouble.

"Dark clothing is essential.

"Any noise, such as talking, coughing, spitting, etc., has to be treated as the greatest of all dangers.

"A man on patrol must learn to move silently, making every possible use of natural cover."



Don't Forget the "Where"! Colonel Liversedge, U. S. Marine Corps, New Georgia: In many cases patrol leaders were able to report what they saw, but not where it was seen. In general, such information was valueless as locations could not be plotted on a map or aerial photo. This should be emphasized in training programs and is worth a special directive."



—or the "What"! Seventh Army Report, Sicily: "Men must be taught to recognize what they see when they are scanning the landscape. Unless

properly trained they will not recognize enemy gun emplacements, strong points, and machine-gun nests."



Patrol Tips Staff Sergeant Richard E. Deland, Infantry, Sicily: "I was not taught to observe properly nor how to use the message blank.

"Position and camouflage are more important than I learned in the States. In training bear down on cover and concealment; bear down on the avoidance of the blundering approach, on patrols, on fire and maneuver—which are equally important.

"Battles move slowly; patrols can't dash about.
"My battalion, instead of using 'Scouts Out,' used a full squad in wedge formation to do the job."



Size of Patrols Lieutenant Colonel W. A. Walker, Tank Destroyer Battalion Commander, Tunisia: "Many men were lost in Tunisia by using squad patrols. The Germans used stronger patrols and just gobbled them up. A patrol should be either a sneak patrol, small enough to escape detection, or a combat patrol, large enough to fight its way out of difficulty. Never allow one man to go out alone.

Say It With Pictures! "The value of hasty sketches illustrating reconnaissance reports was proved many times during this campaign, but it is difficult to get such sketches out of untrained personnel. All reconnaisance personnel should receive sketching training."

INFANTRY WEAPONS

IN JUNGLE WARFARE

The following comments on the use and effectiveness of infantry weapons in jungle warfare appear in the report of the 43d Division on the Munda Campaign—New Georgia:

Basic Weapons "The M1 rifle is doubtless the best all-around weapon possessed by our troops. Its serviceability under existing campaign conditions is excellent. Ammunition supply was adequate, since the rifle was normally fired only at observed targets. The Japs possessed a number of our M1 rifles, apparently considering them a superior weapon to their own.

"The fragmentation grenade was used frequently against suspected areas of heavy jungle growth and on some occasions for the destruction of booby traps around perimeter defenses. Its effect when used as a booby trap is questionable because of the long fuze time. The Japs used our grenades extensively in their night harassing raids against our bivouacs. Rifle grenades were used on some occasions with success against enemy pillboxes.

"In spite of its handicap of sounding like a Jap .25-caliber light machine gun, the Thompson submachine gun proved very satisfactory for specialized personnel such as linemen, artillery forward observers, vehicle drivers, and reconnaissance person-

nel. Its limited range made it especially useful in combat in rear areas.

"The Browning auto rifle gave excellent service. This weapon has high jungle mobility and provides excellent fire power for the short-range targets frequently encountered. It has been used many times to reinforce the final protective lines at night, to establish trail blocks, to cover patrol advances, and to destroy snipers.

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"The light machine gun proved very effective in the night security of bivouacs. At other times, it was used to cover the advance of attacking echelons by placing heavy fire in the direction of suspected pillboxes. Since fields of fire and visibility were so limited the effectiveness of such support was questionable.

"We did not use the heavy machine gun to any extent in the attack in the jungle. This was mainly due to its weight and to its heavy ammunition supply requirements. It was used primarily for the defense of beachheads and water passageways, also to some extent in the defense of regimental and battalion command posts.

"The 60mm mortar was not effective against enemy pillboxes, although it unquestionably contributed by its demoralizing effect on the enemy. After we reached the outer taxiways of the airfield, we had excellent visibility from ideally situated OP's, and the disorganized enemy presented many profitable targets for this weapon. The exceptional accuracy of the weapon made it very valuable in close support, and

its use during the assault on the revetments and shell craters at Munda Field and Kokengolo Hill is credited with saving many lives.

"The 81mm mortar proved to be one of the most important single weapons contributing to the success of this offensive. Because of the difficulty of supply only two mortars were taken forward with each heavy-weapons company, the balance of the personnel being used as ammunition carriers. Troops fre-



quently remarked that if given the choice of rations or 81mm mortar ammunition, they would gladly take the latter.

"While the 37mm AT gun is admittedly a weapon of opportunity in jungle warfare, there were two occasions on which it served us handsomely. The Nips had a field piece located where it could interdict our beachhead at Laiana. Scouts located the gun, but our mortar fire couldn't silence it. We disassembled a 37mm gun and carried it forward under cover of the dense foliage. The gun was then assembled under cover and moved rapidly to a point in the open

from where it could command the target. Three accurately aimed rounds destroyed the gun and killed its crew.

"On another occasion we picked up an enemy occupied pillbox about 600 yards from one of our OP's. The 37mm gun was manhandled to a position on the forward slope in only partial concealment. It placed accurate and intense fire on the pillbox and completely destroyed it.

"The value of the 37mm gun was also proved by two episodes when the enemy attempted to make night landings. First, one enemy barge was fired on as it neared a landing on Bomboe Peninsula. Both HE and AP ammunition were used, and the barge was heard to limp away, sputtering badly. On another night a group of Japs approached the north coast of Sagekarasas Island in an assault boat. Antitank gunners held their fire until the boat was nearly ashore, then fired several rounds of canister. The boat was seen to sink and several bodies floated ashore the next day.

4.2" Chemical Mortar "The 4.2-inch chemical mortar company was placed under the control of the Division Artillery and the fires of the chemical mortars coordinated with artillery fires. These mortars, employing a 25-pound high-explosive shell, were used successfully with the artillery in firing preparations prior to an attack and in firing prearranged fires such as area barrages to block enemy routes and to disrupt barge traffic near Western Sagekarasas Island. One prisoner stated that the mortar barrages were

more feared by them than artillery. The only criticism of the weapon is that the shell has no delayed fuze; consequently, a great many tree bursts result from its use."



IN SICILY

Advance Guard Captain Reed, Infantry: "We have had considerable success in using a platoon of heavy machine guns with each advance or assault company. You need this increase of fire power right up there in front. With the advance guard we put a platoon of machine guns right up in the forward support. We also put a section of 37mm AT guns right behind the advance party. The remaining section of AT guns is placed behind the support of the advance guard. We place the 57mm's and the cannon company in the center of the main body."



Pyrotechnics Staff Sergeant Robert J. Kemp, Infantry: "We want lots of pyrotechnics for use in all kinds of situations to include bedeviling the enemy. Sometimes Jerry puts on a pyrotechnic show that just scares hell out of us; it would work on him too."



Miscellaneous Comment Various Small Infantry Unit Commanders: "S1mm mortar: A perfect weapon. I like to use the alternate traversing method.

"60mm mortar: We kept them right up in front and used them often.

"Bazooka: We have had no trouble with our bazookas. Have gotten several tanks with them.

"37mm AT gun: Very mobile. It's artillery; good against anything—vehicles, pillboxes, personnel, houses. Gets in faster than the mortar. If I had to throw away any heavy weapons, the '37' would be the last to go.

"75mm self-propelled cannon: Excellent for coordinated attack—perfect. Too vulnerable to get very close initially."



AT SALERNO

The "Bazooka" Worked Operations report, _th Infantry: "Several tank attacks occurred which the Infantry fought off with their 'bazookas.' It became more and more apparent that this was really an effective weapon. During this one day it destroyed seven enemy tanks."

COMMENT: Numerous reports indicate the effectiveness of the "Bazooka" when used by trained personnel. It has been used successfully against pillboxes, machine-gun nests, and personnel.

INFANTRY-ARTILLERY TEAM

Artillery "Close" Support Lieutenant Colonel McCormick, Field Artillery, New Georgia: "Our infantry, finding themselves with a mobile enemy on three sides and a swamp on the fourth, called for defensive fires. A horseshoe of concentration fires was laid down around them. Infantry commanders stated their willingness to accept responsibility for any casualties resulting from these fires, which were adjusted so close to the defensive positions that fragments were received within the perimeter. The fires were continued throughout the night with no casualties to friendly troops. This fire was credited with probably saving the force from disaster. For some time 'Concentration 110' became a by-word with all infantrymen."



—and How It Worked Report of Operations, Munda Campaign, New Georgia: "The best cure for the whistle-blowing, howling night attack was a closely adjusted system of night fires placed around our troops. The all-night firing of single batteries and sometimes a single gun discouraged these attacks. What few were attempted after this system was inaugurated were quickly stopped by short bursts of fire at maximum rate in the vicinity of the unit being attacked and along the front of adjacent units."

Massed Fires Lieutenant Colonel James, Infantry, Sicily: "Our division artillery was never out of support for more than five minutes throughout the whole campaign. We've got a wonderful set of



battalions in our division artillery, and we have worked so closely together that they are as much a part of our outfit as our own battalions. They keep right up on our heels all the time, and that is just what we have got to have. I don't know what

we could have done without them. They leap-frogged their batteries continually and went into some of the damndest positions I have ever seen, and delivered the goods. We just can't praise them too much. They were always right there when you needed them.

"In one place where we just couldn't get forward because the Heinies were on superior ground and had us pinned down with rifle, machine-gun, and mortar fire, the division artillery massed nine batteries on them and plastered them with 1,500 rounds in less than thirty minutes. We then walked through that position without a scratch, and the German dead were all over the place."

INFANTRY-TANK TEAM

Opportunity Lost Captain Putnam, Infantry. "The infantry should be given practical Sicilu: training in cooperation with tanks. I don't mean the armored infantry—they're part of the armored division and work with them all the time. I mean ordinary infantry like us. I know our regiment didn't have any training with tanks in preparation for combat. At Branieri we just didn't know how to work with the attached tank unit. When our tanks came up to support us after we had broken up the German attack, we did not follow up the tanks properly as they went forward. Had we done so we could have cleaned out almost a battalion of Germans. We had not been trained to work with tanks, and we remained in position after they went forward. If we had known how to go forward with them we could have done a much better job and could have gotten all of the Germans' vehicles and matériel. After this experience, we strongly recommend that all infantry be given practical training in cooperation with tanks in action. Get the infantrymen used to tanks and how to fight together with them."

Lesson Learned First Marine Division, Guadalcanal: "The initial assault by our five tanks across the field east of our 3d Battalion lines at the 'Battle of Bloody Ridge' on Guadalcanal was entirely successful. They caused much havoc among the enemy and returned unharmed. Within an hour, they

attacked again over the same terrain. Meanwhile, the Japs had had time to move 37mm AT guns into position along the edge of the woods at the eastern side of the field. These guns knocked out three of our tanks during the second assault. It thus proved extremely unwise to launch a second attack over the same route and terrain. This is especially true if there is sufficient elapsed time for the enemy to move AT guns into position."



Infantry-Tank Attack Lieutenant Colonel Perkins, Tank Battalion Commander, Italy: "Shortly after landing at Salerno we attacked a hill south of the town of Oliveto. The attack was up a winding road. The medium tanks moved down into the bottoms at the foot of the hill into a covered position and covered the light tanks as they went up. As the light tanks went up the hill both the lights and mediums fired on the enemy infantry. When they spotted enemy soldiers going into buildings the mediums took care of the buildings, leaving the light tanks to take care of the infantry and the machine guns. Both the lights and mediums stayed until the infantry took over.

"The 'rush-to-battle' idea is wrong. Here we creep up. Each tank should overwatch another tank; each section should overwatch another section; each platoon another platoon."

RANGER TRAINING

Buddy System Lieutenant Colonel William O. Darby, Commanding Officer of Rangers, Italy: "In our work we use the 'Buddy' system—the men always work in pairs. They live in pairs, eat in pairs, do guard in pairs—even do KP in pairs. Confidence in each other is developed. They can pick their own buddy from within their platoon.

Realism "In our training we never do anything without battle noises and effects. We always use live ammunition. We use mines, barbed wire, and protective bands of machine-gun fire extensively. If the problem is to capture a machine-gun nest, there is always a machine-gun nest there with a machine gun firing in a fixed direction. The men very quickly get accustomed to having live ammunition flying around them.

"Captured Italian and German machine guns and machine pistols are used by the 'enemy' in our problems. Our men quickly learn to distinguish between the fire of our own weapons and that of enemy weapons. Also the 'enemy' makes constant use of flares.

"We always carry our normal load of ammunition with weapons loaded. If a man knows his weapon is loaded he will be more careful in handling it. Accidental discharge of a weapon automatically means a fine and immediate reduction to the grade of private. In our work, we must take drastic measures to guard against accidental discharge of weap-

ons. We learned our lesson in Tunisia, where the accidental discharge of a rifle queered a raid and caused a 24-hour delay in operations. [See comment on this subject following "Night Attack."]

Recognition "We use colored flashlights with the light dimmed down for recognition purposes in night work. Different colors are used, and we usually have a certain light signal for recognition; for instance, 'A'—which would be a dot, dash. It gives a man great comfort and confidence when working at night, especially in towns, to receive a recognition signal when he needs one.

Formations "We use a column formation for approach and assault movement at night. From experience, I believe it is the best formation to use at night. We do not attempt to use prominent terrain features to keep direction. We use pacing, compass bearing, and stars. Usually in advancing to attack at night we halt to check position every 1,000 yards. We start moving again by radio signal over the SCR 536* or by runner.

"It is necessary to arrange for collecting your men together again after the raid is over. To do this I have men stationed along a line through which men will pass at intervals in their withdrawal. The sentinels on this line stop and collect the men into groups as they withdraw.

^{*}A 5½-pound "Handy-talkie" transmitter-receiver.

Cooking I prefer to have men cook their own meals with their mess kits. We did not have kitchens in Sicily, and we have been here a month without them. Even though the kitchens are available I always have men individually cook at least one meal a day.

Physical Conditioning "One of our best means of physical conditioning is speed marching, finally reaching a point where we march ten miles at a rate of six miles an hour. To keep in condition we use calisthenics and a daily five-mile speed march.

Discipline "Disciplinary drills are all important. We have a retreat formation daily, conditions permitting. At this formation men are inspected and some manual of arms performed, followed by retreat. Every Sunday morning there is a review, followed by inspection in ranks, and then inspection of camp or quarters. We have at least four periods a week of close-order drill and manual of arms, and one period every week is devoted to military courtesy.

"Infractions of discipline, military courtesy, and uniform regulations are dealt with quickly and severely. The officers must bear down on these things. The Army in general has not stressed strict discipline enough. Without it you are lost."

"Long Tom" in Action

SECTION II FIELD ARTILLERY

ARTILLERY IN THE JUNGLE

Antipersonnel Fire Report of Operations, Arundel Island: "It was apparent that the Japs were concentrating their forces on STIMA PENINSULA. . . . The area was divided by coordinates and assigned to various artillery and mortar elements. Heavy fires were placed on them throughout the night. . . . During the advance down the peninsula the next day numerous enemy dead were noted, verifying the effectiveness of the previous night's concentrations."



Dealing with Tree Snipers Report of Operations, 43d Division, New Georgia: "We effectively cured the Jap of his liking for sniping from trees by the command, 'Fire Mission. All Battalions. . . .

Fuze Quick. Three Volleys,' The quick fuze resulted in bursts in the tree tops. After a week of this treatment the Jap sniper moved from the trees to the ground.



Adjustment of Fire "All close support adjustments were made by 'sound and fragment' method until the latter part of the campaign, when ground observation was obtained. Forward observers were always in the most forward position possible—in some cases in advance of the lines. Adjustments were time-consuming, starting at a range surely over friendly troops and working gradually closer to our front lines. Some smoke was used but not very successfully in the jungle. Tree tops were not used for observation because of the limited view and the fact that our troops were suspicious of all activity in trees. Prisoners of war inquired about our 'automatic artillery.'

Morale Effect "The incessant firing of our artillery during the six-week period produced contrasting effects on the nerves of our own troops and on those of the enemy. Our infantry often stated that having those rounds continually landing in front of them was one of their best morale builders, especially at night. In the Jap, on the other hand, it produced severe cases of war neurosis. He couldn't sleep at night because he never knew when or where the next round was going to land. He couldn't sleep in the daytime because when our infantry wasn't attacking him our artillery was giving him hell.

"The following statements made by prisoners are interesting:

"'Between Biblo Hill and the airport we had many guns of all sizes before this campaign, but now many of them are goneknocked out by artillery. It has completely demoralized many units, reduced many units in strength, and has made many men go crazy. We were awakened at night by the slightest noise, because of the bad state of nerves. At night three men stayed in one foxhole; two smoked while one slept. During the day we also tried to get some sleep by alternating, but the continual artillery fire kept us on edge and we got no rest.'

"'Even in the two-story dugouts many men were killed just by concussion. A direct hit would kill all the men inside.'

"'The artillery is the one thing that is universally feared by all our ground troops. It continues over such long periods of time and the rounds come so fast.'

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"'Except for the artillery we could continue our defense.'"



Ammunition and Fuzes First Marine Division, Guadalcanal: "The super-quick fuze is more effective than the delay fuze against troops in wide areas, particularly in the cocoanut groves of the tropics. A report from prisoners indicated that in one unit of approximately 100 men, all but six were casualties as a result of one artillery concentration. The 37mm canister proved to be a devastating type of ammunition.

Disposition "In jungle warfare the artillery of the defensive set-up should not be placed too close to the infantry line. The added range thus obtained is of no value unless observation of the terrain permits its use, which will very seldom be the case. Artillery too close to the infantry is not only needlessly exposed, but is actually less effective because of the limits imposed by minimum-range considerations, and, in the case of 105mm howitzers, because of the impossibility of using high-angle fire at ranges less than 2,000 yards.

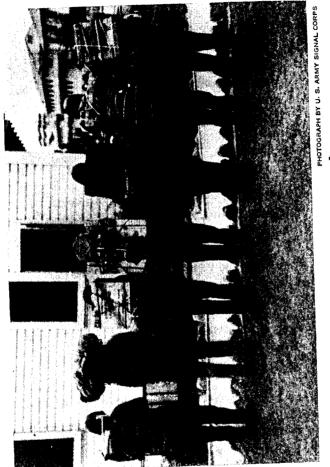
Liaison "The liaison officers with infantry regiment should be officers with as much experience as possible, preferably of the rank of captain or above. When possible, either the artillery battalion commander or his executive officer should be sent to the infantry regimental CP at first sign of enemy activity."

IDEAS FROM ITALY

Reinforcing Fire Lieutenant Colonel R. D. Funk, Field Artillery, Battalion Commander: "If I can spare the radios I am going to send one to the artillery battalion that reinforces me the next time we are in direct support. Then when one of our observers calls in a fire mission we can simply tell the radio at the other battalion to take the mission direct from the observer. This will eliminate a relay through our Fire Direction Center and speed things up considerably.

Transportation "We keep only seven 2½-ton trucks with each howitzer battery. The three spares stay in the Service Battery ready to replace damaged ones in any howitzer battery. This also allows the maintenance section to have vehicles available for 6,000-mile checks. When one is finished they send it out to replace another that is due for check.

Fire Direction Center "We are using two ¾-ton trucks for the CP section of Headquarters Battery. Each has a tent and a fire direction group. When we move the CP we send out one truck with the S-3. He takes over the operation of the Fire Direction Center when he gets set up, and the rear CP can then close down and move."



Uses of the Pack Board

Pack Boards for Observers "We use pack boards* for forward observers and liaison parties. They are a wonderful help in hilly or mountainous country when these parties have to leave their vehicles and hoof it. Two for each party adds up to six per howitzer battery and six in Battalion Headquarters Battery."

^{*}Rectangular frames with canvas centers to which supplies or gear may be lashed and carried as a pack. See illustration.

Patrol of the 25th Division, New Georgia Campaign

SECTION III MISCELLANEOUS

Booby Traps Seventh Army Report, Sicily: "A German Luger pistol was 'booby trapped' on a table. A new replacement picked it up. Two were killed and fourteen wounded in the resulting explosion."



First Division Report, Tunisia: "A Luger pistol was found lying on the ground. An American infantry lieutenant carefully tied a long cord to it and then, getting into a hole, pulled it to him and put it in his pocket. Later in the day while examining the pistol he attempted to remove the magazine. The explosion killed the lieutenant and two other men and wounded six soldiers."



Timeliness of Orders Major Kinney, Infantry, Sicily: "Our chief difficulty throughout the cam-

paign was the lack of time given for the execution of orders. Frequently we received operations orders which did not allow enough time for proper preparation and execution. At SAN FRATELLO, we received an order after 11 PM to attack at 6 AM the next morning. The battalions were in assembly areas some five or six miles from the line of departure. The terrain over which they had to move to get in position in the dark was the roughest, most rugged mountain country you could imagine, and all the ammunition, weapons, and supplies had to be taken by hand and by mule pack. Although it might seem that from 11 PM to 6 AM was sufficient time, the actual conditions were such that it was less than half enough, because of the terrain, darkness, and transport difficulties. Also, the men had just completed marches over mountain trails of nine to fourteen miles and were not fresh for the new movement."



Maps Seventh Army Report, Sicily: "Instill in all personnel an appreciation of the value of maps. The supply of maps will never be adequate to the demand. Training in the care and preservation of maps is as important as training in the care and preservation of matériel.

AA Fire "It was found necessary to issue instructions that ground troops, with the exception of AA units, would not fire at airplanes unless the planes attacked them or were close enough to be identified beyond a possible doubt."

Security 1st Division G-2 Report, Sicily: "Interrogation report of a captured German pilot includes the following: 'About the end of June, 1943, German air crews were shown a report and given a lecture on the tactical and technical details of the P-47 Thunderbolt, alleged to be based upon the statements made by a captured U. S. Army Air Force captain.'"

COMMENT: The moral of this story is obvious. Hammer home the necessity for saying absolutely nothing but, "My name is.....; my rank is.....; my serial number is......"



Strafing Aircraft Fifth Army Report, Salerno: "During landing operations at Salerno, many members of the—th Division would stand up to fire their rifles, carbines, and even pistols at strafing and bombing German aircraft. This resulted in many unnecessary casualties."

COMMENT: Personnel not assigned to a definite AA mission should disperse and take cover, firing their individual weapons from such cover at attacking aircraft only, and even then only when these come within the effective ranges of their weapons.

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"Gas!" Colonel M. E. Barker, Chemical Warfare Service, Salerno: "On the third day of the operation we had a big gas scare. A German airplane came in and released two or three radio-controlled bombs, which gave off considerable smoke when released and

while on the way down. Several men on the beaches saw this smoke and concluded that an air gas attack was being started. At the same time some vehicles climbing the sand dunes from the beach to the dewaterproofing area had become so hot that their gas-indicator paint turned red. The two incidents together convinced everybody on the beach that a gas attack was being launched. By this time, of course, there were plenty of battlefield smells, including that always-present smell of rotting animal and human flesh. The gas alarm ran up and down the beaches and the roads inland.

"There was no panic. Everybody simply put on his gas mask and carried on. The MP's stopped all personnel going into the area who didn't have gas masks. Those individuals who had 'misplaced' their gas masks were really troubled for a while. Both Colonel Guild and I investigated and then gave the 'all clear' signal. I think we would have carried on in exactly the same way without much loss of time or efficiency if gas had actually been present."



Counterattack Foiled Lieutenant Colonel Taylor, Infantry, Italy: "We had just relieved the —th Infantry after it had had numerous casualties from an enemy tank attack against our beachhead at Salerno. We were occupying a defensive, wired-in position. The Germans counterattacked with tanks, but because we were occupying a different position from that used by the preceding unit the enemy first

started across our front, apparently believing that we were in the old position. So it was duck soup. We knocked out eight tanks with our 37's, 57's, TD's, and tanks."



Room for Improvement The following comments, indicating weaknesses which must be corrected, were made by the Commanding General, —th Division, Italy: "Sometimes units failed to dispose themselves properly for all-around defense when halted on an objective or when placed in a position for defense.

"In the attack, riflemen frequently failed to provide fire that would cover the movement of adjacent units, merely because they were not able to 'pinpoint' definitely the location of the enemy rifle and machine-gun elements firing on our troops.

"Some small unit commanders selected positions apparently with cover and concealment as the primary objective rather than positions from which effective fire could be brought to bear on the enemy.

"Due to the enormous division frontage in the second phase of the landing at Salerno some commanders attempted to stretch their units excessively, and as a result permitted faulty dispositions."



SECTION IV NOTES ON THE NIPS

Japanese Pillboxes Lieutenant Colonel McCormick, Field Artillery, New Georgia: "In most cases pillboxes were built in two decks to permit the occupants to drop through a trap door during heavy shelling. They were used for heavy-weapons firing and had communication trenches which concealed light machine guns protecting the pillboxes. All were mutually supporting and very well concealed."



Superman Myth Exploded Operations Report, 43d Division, New Georgia: "Our troops here came to regard the Superman stories about the Japanese as ridiculous. The Jap is tricky but not so tricky as many have been led to believe. He is not nearly so ingenious or adaptable as the average American, and the truth of the matter is he's afraid of us, of our

artillery, and of our sea and air power. Our troops must learn this and never forget it.

Jap Trap "We soon learned that the Japanese permitted small leading elements of the column to proceed past their effectively camouflaged fortifications and would not open fire until our main body came along."

Defensive Action Operation Report, 43d Division, Arundel Island: "Our first contact with the enemy was made by patrols, which encountered small groups of Japs equipped with automatic weapons. Their resistance consisted of a fluid delaying action and, during the early phases, could not be effectively fixed. After a short skirmish the Japs would withdraw several hundred yards and re-establish their temporary defense. The denseness of the jungle made such a defense quite effective in delaying our progress."



Vine Entanglements Colonel Liversedge, U. S. Marine Corps, New Georgia: "The Japanese used a prickly native vine for entanglements. The vines were interwoven and used to protect defensive positions in lieu of barbed wire. Results were effective and impeded attack. Vines had to be cut before progress could be made.

"Our own troops should be instructed in the use of these vines as a means of improvisation when wire is not available."

SECTION V HINTS ON THE HEINIE

Reverse Slope Tactics Second Lieutenant S. W. Malkin, Infantry, Platoon Leader, Sicily: "Enemy machine guns, mortars, and automatic rifles were located on the reverse side of the hills so as to catch our advancing infantry as they came over the skyline."



Don't Gawk! Private George Scott, Infantry, Sicily: "Several times German planes pretended that they were involved in a dog-fight to secure the attention of the ground troops. Then they swooped down in a strafing run."



Traps and Mines Private First Class Edward Borycz, Infantry, Sicily: "The enemy abandoned

his tanks with motor running. When we tried to stop the motors they blew up.

"The Germans would put a mine in a road with another mine a sufficient depth under it so that it would not be seen if the top mine were removed. For a while our sappers did not run the mine detector over the area again where the first mine had been found. But after the dirt became packed down sufficiently by traffic, the second mine would go off."



Minor Tactics Staff Sergeants Richard E. Deland and Robert J. Kemp, Infantry, Sicily: "Never let an apparently lone machine gun suck you into a trap. The Germans will usually not fire on the individual but will wait, watch where he goes, and get a whole flock.

"Germans always approach their positions from the end and under cover so as not to give them away.

"In the counterattack the Jerry machine gun is always well forward. German weapons are faster but are less accurate than ours; they scare you more than they hurt you. The German 81mm mortar is the worst goat-grabber; it gives you no notice when it is coming in.

"Germans use tanks to maneuver and fire from a distance in attack. When the going gets hot they pull the tanks in and, after a minute, bring them out again." Typical Attack and Withdrawal Lieutenant Colonel P. H. Perkins, Tank Battalion Commander, Italy: "The standard German attack here consists of three or four tanks in line in the lead. They are followed by infantry in trucks at four to five hundred yards. The rest of the tanks follow the infantry. When fire is drawn the infantry dismounts. The leading tanks mill about, fire, and withdraw. We have never seen the reserve tanks committed.

"In their withdrawals the Germans use tanks to good advantage. They do not have to contend with mines and blown bridges. Their tanks fire a few shots and withdraw, then move up again, fire a few more shots and withdraw, and so on."



Rearguard Action Lieutenant Colonel Taylor, Infantry, Battalion Commander, Italy: "My experience has been that we first meet two armored vehicles which open fire for a few minutes with everything they have on the first man of ours they see; they then withdraw rapidly down the road.

"Next we hit their outpost, which, I estimate, consists of about two squads. This outpost, protecting the road, has groups on the sides of the mountains on the flanks. It takes four to six hours to drive this outpost in due to its fine observation over us and the difficulties of maneuver."

COMMENT: It should be remembered that this is the experience of one battalion commander in one theater.