

THE INFANTRY SCHOOL
Fort Benning, Georgia

STUDENT MONOGRAPH
Advanced Infantry Officers Course
Class #2
1953 - 54

TITLE

WHY THE RIFLE COMPANY SHOULD HAVE A PIONEER SQUAD.

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PREFACE

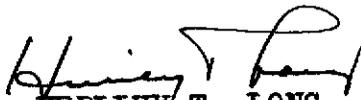
Being an Infantryman by profession, the author accepted the assignment to prepare a monograph not as a challenge to his literary ability but rather, to his ability to develop some aspect of warfare in such a way as to make the task of the "Queen of Battle" easier and in addition enable it to deliver a more potent punch when defeating any enemy encountered.

Appreciation is expressed to the many officers who patiently listened to the author expound on the theories expressed in this paper and so generously gave of their experiences, opinions and suggestions which led to the conclusions presented in this monograph.

Information included in this monograph is not classified. The materials included in the bibliography having security classifications were used only for study purposes and are not divulged in any way in the monograph.

Except as cited the views and opinions expressed or implied are those of the author and do not necessarily represent the official views or opinions of the Department of the Army or the Infantry School.

23 March 1954


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INTRODUCTION

Since World War II many changes have been made in the composition of the rifle company. New weapons have been added that have caused corresponding changes in the organization of the squads, sections and platoons. Undoubtedly changes will continue to occur as frequently as in the past, however, there appears to be little likelihood that the mission of the rifle company will change in the foreseeable future. In realization of this, it was decided that the subject of mine warfare could be effectively studied from the viewpoint of the rifle company commander.

In order to effect this study, consideration will first be given to the tactics and techniques employed by the Russian Army. The purpose of this phase of the discussion is to show the principles the Russians employ in their concept of mine warfare in order that we might realize how effective the use of mines can be and also to emphasize the degree to which we can expect to encounter mines if called on to combat their armies.

In consideration of this reasoning, it was decided that this monograph would have as its purpose to analyze the ability of an attacking rifle company to carry out its role in mine warfare against Russian tactics and techniques of employment of mines. This analysis will be conducted in two fields, training and composition of the company.

Before a study of the training and composition of the company can be made, it will be necessary to discuss the current mine warfare doctrine of our army in order to determine just what is expected of our rifle companies. Once this doctrine is understood, then the question of

training and composition can be effectively studied to determine whether or not the rifle company can carry out the mission assigned by the doctrine.

The analysis of training encompasses the training prescribed for rifle companies of the Infantry Regiment and the training prescribed for the replacements the rifle company will receive in combat. In the training programs currently in effect, we will find that the time allocated for training the rifle company and the replacements is inadequate to enable the company commander to assemble effective teams to overcome or emplace mine obstacles.

Following this, the closely associated question of composition of the company will be examined from the standpoint of the attacking rifle company. This discussion will encompass the needs of the company in this type action, both during the firefight and upon seizure of an objective, in order that we may have a clear understanding of those areas wherein the company is not properly composed to enable it to effectively deal with enemy mines during the attack and to emplace mines effectively upon seizure of an objective.

As a means of overcoming the weaknesses developed in this discussion, it will be shown that a pioneer squad organic to the rifle company is an effective means of providing the commander with the immediate support needed in offensive operations in order that he may cope with requirements for overcoming or emplacing mine obstacles. This squad will be discussed as to its advantages and disadvantages and a proposed squad will be shown in Appendix B.

It is hoped that those personnel having occasion to read this monograph will view it from the standpoint of a combat rifle company commander. In this way, it is felt that the problems that might ultimately confront the company commander will stimulate sufficient thought so that certain of the problems will be solved prior to another war.

DISCUSSION

Before a realistic analysis can be made of the training and composition of our rifle company and its ability to cope with mine warfare, it is first necessary to determine just what this rifle company will be measured against. It is felt that the Russian Army is a desirable element to be used in weighing the effectiveness of our mine warfare program due to the emphasis they placed on mine warfare. It is therefore essential that the reader have an understanding of the general principles employed by the Russian Army in its mine warfare program.

Fortunately, there seems to be extensive agreement as to Russian methods of employing mines. A study of the types of mines and the principles of employment of mines by the Russians is effectively summarized in Engineer Intelligence Notes No. 14: "Except for greater emphasis in all phases of combat on the use of mines in general, and on the use of improvised mines and captured mines and fuses in particular, the Soviet doctrine of mine warfare closely parallels that of the U. S. Army".¹

This theory of employment by the Russians was very characteristic of the tactics they employed against the German Army in World War II. Throughout their operations against the Germans they very effectively utilized mines in both defensive and offensive operations. Many times special mine units as large as battalions were used to carry out their mine warfare operations against the German Army.

1. "Soviet Mine Warfare and Engineer Equipment", Engineer Intelligence Notes No. 14, February 1952, p. 2.

The effectiveness of this use of mines is pointed out in Engineer Intelligence Notes No. 20: "A study of Soviet tactics during World War II has shown that they displayed great ingenuity and mastery in all phases of mine warfare. The Germans acquired a healthy respect, often degenerating into terror, for Soviet mine warfare which slowed down their advance -- on some occasions even stopped them completely."²

In offensive operations there seems to be every likelihood that our attacking companies will be called on to move through mine fields. One of the principles of defense followed by the Russians encompasses immediate use of mines to strengthen the defense of positions which have been seized by assault. This principle of war employed by the Soviet Army is appropriately illustrated by Raymond L. Garthoff in his book on Soviet Military Doctrine. "The Soviets have a wide variety of mines and are adept at improvising others as well as booby traps of all descriptions. At Kursk, in 1943, 1700 antipersonnel and 2000 antitank mines per square kilometer were laid. At Kiev and Sevastopol, in 1941 and 1942, remote-control mines were detonated after the Germans had occupied the cities, razing entire blocks."³ There would appear then to be a need for a rifle company with the facilities and training necessary to cope with an enemy that uses mines extensively and in conjunction with all operations.

Having determined the probable extent to which we must be prepared to cope with mine warfare we should now examine our basic doctrine of mine warfare in order to determine if this

2. "Soviet Mine Warfare Doctrine, Tactics and Techniques", Engineer Intelligence Notes No. 20, November 1952, p. 20.

3. Raymond L. Garthoff, Soviet Military Doctrine, (Glencoe, Illinois, 1953), p. 319.

doctrine meets our needs. Training Circular 34 recognizes the need for all personnel to be trained in mine warfare and definitely outlines the requirement for all personnel to be properly trained in this subject. "All combat troops, as well as engineers and mine specialists, must be trained in the laying, marking, reporting, and breaching of minefields to include allied and enemy equipment and techniques. Combat troops must be trained in the use of mines in order to protect themselves without reliance on the availability of engineers or mine specialists."⁴

When this policy is broken down as it pertains to the rifle company we find that the company must be prepared, through training, to cope with all aspects of mine warfare. Further, the personnel to accomplish this task must come from the personnel in the company. This then places a rather large task on an already long list of subjects the infantryman must be trained in and required to perform. There doesn't seem to be any doubt that the infantryman, if properly trained, can cope with this or any other task assigned him. The problem, however, lies in two fields. These fields are training and composition of the company.

The training for the rifle company is outlined in Army Training Program 7-300. In this program, the training prescribed is divided into four phases. The first is the basic combat training for individuals phase. In this phase, which encompasses eight weeks of training, there is no

4. Department of the Army, 1952, Training Circular 34, "Land Mine Warfare", p. 2.

training prescribed in any phase of mine warfare.⁵ In the second phase of the training program, the advanced individual training phase, change 1 to ATP 7-300 prescribes that the individual soldier be given sixteen hours of training in mine warfare.⁶ The scope of this training is very broad and covers every aspect of mine warfare the soldier will encounter. This block of sixteen hours represents all the instruction that the individual soldier receives in the technical aspect of mine warfare. From this point on in his training, the mine warfare training is presented as a unit problem or as a part of a tactical exercise. In the third phase, basic unit training for rifle companies, Change 1 to ATP 7-300 prescribes sixteen hours of training to be devoted to tactical exercises in mine warfare.⁷ The scope of this training includes installing and removing a security minefield by the rifle platoon and installing and breaching a defensive minefield by the company. Appendix A is an extract from Change 1 to ATP 7-300 and gives the detailed scope of the training described above.⁸

During the last phase of training, the advanced unit phase, the training is concerned with the tactical training of the infantry battalion and regiment. During this entire phase of training there is no requirement for mine warfare in any of the prescribed attack training. In the prescribed training in defensive and retrograde operations, there is

5. Army Training Program 7-300, Department of the Army, 1952, "Infantry Regiment".

6. Army Training Program 7-300, Department of the Army, 1952, "Infantry Regiment", Change 1 (March 1953), p. 51.

7. Ibid.

8. Ibid.

mention only of preparation of barrier plans and erection of obstacles during certain prescribed problems.⁹

This then is the picture of the training prescribed in order to accomplish the objectives set forth in the mine warfare doctrine as outlined in Training Circular 34 and previously discussed.¹⁰ It is now necessary to analyze this prescribed training and determine if it will fully enable the company to satisfy its needs regarding mine warfare requirements. In the advanced individual training, the soldier is first introduced to mine warfare. This training without question covers the subject insofar as scope is concerned, but the time allotted does not seem nearly adequate to prepare the soldier to go into the field and lay or breach minefields with the proficiency necessary. To obtain the degree of proficiency necessary to perform tactical missions involving use of mines, there should be sufficient training to insure that the individual is well versed in the more dangerous aspects of mine warfare. These are considered to include arming and disarming of mines, fuses and firing devices, drills for emplacement of anti-tank and anti-personnel mines, and mine detection and breaching techniques. The importance of this proficiency becomes apparent when it is considered that there must be no doubt as to the ability of the soldier to perform in these aspects of mine warfare in order that bad habits do not go undetected in training with the end result that these habits may, in combat, result in unnecessary casualties, inability of the unit to perform as

9. Army Training Program 7-300, op. cit.

10. Training Circular 34, op. cit., p. 2.

a team, and loss of confidence among the members of the company. It is realized that later training in the tactical exercises will add to the proficiency of the soldier, but we cannot devote too much time during the tactical exercise to mine warfare corrective training. It should only receive its proportionate share of time in this regard and secondly, there is as much need for technical mine warfare proficiency at this stage of training as there is for technical weapons proficiency.

As outlined, the tactical phase of training consists of sixteen hours of training time set aside for tactical training in mine warfare. This phase of training, like the individual phase of training, prescribes an adequate scope for training of the company but here again the time factor represents a serious deficiency in the training of the company. With the sixteen hours prescribed, it is probable that there will be two platoon problems and two company problems undertaken which are devoted in their entirety to tactical mine warfare training. This does not appear to be adequate to train the rifle company to the degree of proficiency that would enable it to support itself in combat as our doctrine outlines.

In outlining the training policy with respect to mine warfare, Training Circular 34 states: "Intimate knowledge of mine warfare requires thorough, up-to-date, realistic training and retraining. Knowledge must be kept active by a continuing use of mine warfare in unit exercises, maneuvers, and map exercises."¹¹

11. Training Circular 34, op. cit., p. 2.

In applying this statement to the training prescribed for our rifle company, there are two phases of this training concept that appear to be deficient. The first of these is in regard to thoroughness. It is felt that the sixteen hours of basic training in mine warfare does not provide the soldier with thorough training in this subject for reasons previously discussed. The second phase is in the field of retraining. It is believed that there should be reviews in the techniques of mine warfare conducted throughout the entire training program of the infantry rifle company. To understand this view, it is well to compare the mine with the rifle. After the initial technical training with the rifle, the soldier finds that retraining in the technical aspect of the rifle is unnecessary since he uses the rifle daily and through this use and the constant cleaning of the rifle, he does not have occasion to forget how the rifle operates or functions. In the mine, however, this is not true. After the initial technical training in the mine, the soldier is not exposed to the mine again until each time he is called on to participate in a tactical exercise involving mine warfare. It can readily be seen that the dangers involved in handling of mines are much greater than in the rifle or any of the other weapons that the soldier handles. In regard to the subject of mine warfare, we should remember that this is an accepted aspect of war and should be treated as such. Unlike war gases, where the use is uncertain, mines have been and will continue to be used and, as such, training programs should allow a commander to keep his personnel adequately

trained at all times.

An additional consideration of the training program followed in training personnel in mine warfare is necessary in the field of training of the replacement that the rifle company will receive in combat. The training of these replacements is governed by ATP 21-114 and ATP 7-600. Under ATP 21-114, the soldier receives eight hours of training in mine warfare.¹² After completion of this phase of training, the soldier undergoes four additional hours of mine warfare training prescribed by ATP 7-600 while being specifically trained as a replacement for the rifle company.¹³ These twelve hours of training then, represent all the training received by this replacement prior to his being assigned to the rifle company. In combat, it can be seen that the replacement received by the rifle company will not have the skill necessary to perform many of the tasks that our doctrine outlines for the company.

Finally, in consideration of the importance in training for mine warfare, it is well to consider a principal the German Commanders adopted in their Russian Campaign. This principal is pointed out in Intelligence Notes No. 20. "The Germans finally learned to cope with the Soviet mine laying tactics in general. It took much training, at first with dummy mines, then with live ones. This resulted not only in speeding up the advance of troops, but also reducing to a

12. Army Training Program 21-114, Office Chief Army Field Forces, 1954, "Branch Immaterial", p. 9 (as modified by letter, Office Chief Army Field Forces, Subject, Reduction of Training Time, 8 February 1954, Incl 1, p. 1.)

13. Army Training Program 7-600, Office Chief Army Field Forces, 1953, "Light Weapons Infantryman", p. 6.

minimum their casualties from mines."¹⁴

It is not anticipated that our troops will be trained with live mines, but the necessity for thorough and realistic training appears to be well grounded. Further, the dividends experienced by the Germans from their training program can be expected to be experienced by our own Army.

The second area in which a careful study must be made in order to determine the capability of the rifle company in coping with mine warfare lies in the composition of company. To illustrate this point, let us assume that we have a company approximately full strength and properly trained in mine warfare. Then assume that this company is moving forward in the attack when suddenly it hits an enemy minefield as it would be very apt to do if combating the Russians. Speed in breaching this minefield is essential at this point since the company has moved out of its protected position and is stopped in an exposed position. The company must continue to move forward or must exercise a degree of fire superiority over the enemy until the minefield has been breached, otherwise the company will be pinned down in this exposed position and suffer heavy casualties. Certainly the minefield must be breached in order to insure the forward movement of the company. Therefore, the company must neutralize the enemy's fire until the minefield has been breached. It is not feasible that the minefield can be breached unless the movement of the breaching party is screened from the enemy.

14. Intelligence Notes No. 20, op. cit., p. 21.

Knowing that minefields are tied in with defensive fire plans, there should be more than screening of enemy observation of the activities of the breaching party, there should be a degree of neutralization of the enemy's fire. It is therefore going to be essential that all the automatic weapons in the company be employed against the enemy's position.

At this point then, the first test of composition of the company is made. In analyzing the four platoons of the company, we find that after taking away the leaders, weapons crews, and automatic riflemen, there are only five men left in each rifle squad. Of these five men in each squad, two are concerned with carrying ammunition for the BAR and two are appropriately armed with grenade launchers. The problem that now arises is who would be expected to furnish the leadership and personnel to breach the minefield. It does not seem feasible that personnel from the weapons and automatic weapons teams could leave their crew served weapons in order to assist in the breaching of the minefield without the company losing much valuable fire power. Similarly, it is not desirable to take the rifle grenadiers and riflemen from the squads. Even if we could, there would be a problem of taking a man from here and one from there and assembling them into an effective breaching party. Leadership of these personnel alone would be a problem since it would be necessary to take an NCO or officer from a squad or platoon in order to accomplish this task. The leader of this unit would have to be an extremely well qualified person in order that the effective leadership required in dealing with a minefield would be present.

Zhukov of the Russian Army to General Eisenhower and reported in the book Soviet Military Doctrine: "When we come to a minefield our infantry attacks exactly as if it were not there. The losses we get from personnel mines we consider only equal to those we would have gotten from machine guns and artillery if the Germans had chosen to defend that particular area with strong bodies of troops instead of with mine fields."¹⁶ The commander that takes advantage of this disregard for our minefields by the Russians will certainly inflict far more casualties on his attacking echelons than would be possible without the use of the mine. Equally important will be the ability of this commander to make use of material means of defense in preference to the use of personnel.

Here then, we realize that there is a need for plans for the employment of mines to be made upon reaching an objective if the probability of counterattack is apparent. As in the attack, we will normally have a rifle company that is not properly organized to furnish its own support in this task without taking personnel from the weapons teams and the rifle squads who are sorely needed in their primary jobs in the initial stage of the reorganization and preparation of the newly won objective against counterattack.

This does not in any way complete the problem that exists in the company if it is to fulfill its obligation as outlined in Training Circular 34 toward furnishing its own personnel in coping with mine warfare. Further consideration of this problem is necessary. In rifle companies there is a need to

16. Garthoff, op. cit., p. 237.

put the most capable men in the positions of responsibility. For example, in the rifle squad the best man should be the squad leader, the next best the assistant squad leader, and then the tendency seems to be toward placing the next best man as the automatic rifleman and so on down the line. The result of this is that the personnel designated as the riflemen will generally be less skilled than the other members of the squad. Those riflemen that do have much ability can be expected to move up the ladder rapidly to replace rotational and combat losses and as such, the riflemen can normally be expected to be the greenest men in the squad in regard to combat experience. This all adds up to the fact that if a company is going to furnish personnel and leadership to accomplish its own mine warfare requirements, it is going to have to assemble the best qualified available personnel from the unit and these personnel are going to be found in key positions such as gunners and squad leaders. It does not appear feasible that in the middle of an attack when a minefield is hit that the company commander can begin to adjust his personnel in order that he can assemble an effective breaching party to insure that his company can continue forward.

If we could assume that all personnel could be taught to cope with mines, then this might be feasible since any personnel from the reserve unit could be used. There should be, however, some consideration given to the skill required to deal with mines which have been placed by an enemy. It would seem that if it is necessary for a soldier to spend weeks and weeks in learning his own weapon and how to use it and that certain soldiers are more proficient in some weapons than others,

the same principle would apply to such a weapon as a mine. Unlike the rifle, machine gun, and the hand grenade where there are very basic considerations to be followed in rendering them harmless, there is a need for great care and skill in coping with enemy mines. Whether we can obtain this degree of skill in the ordinary soldier is a matter of conjecture but there appears to be little doubt that a training program for a rifle company will ever contain sufficient mine warfare training time to adequately train all personnel in this subject.

In consideration of this problem, we should realize that any attempt to cope with a minefield with personnel who do not possess the skill necessary would result in many casualties and more importantly, would cause a decrease in the confidence of the unit to accomplish its missions. When personnel are sent out to deal with a minefield, there should be a feeling of mutual confidence among the team. To feel that any member of the team is not completely capable of performing his portion of the task would be similar to sending out a patrol with an incompetent member who would necessarily add to the danger already facing the patrol. We must also consider that the rifleman from the rifle squad is consistently being burdened with a requirement for being able to operate new weapons, understand new and more complicated items of equipment, being able to cope with new aspects of warfare such as atomic weapons, new gases, etc. These are all being required of an individual who is essentially the same in mental and physical capacities as the soldier of past wars. There certainly has been no new

criteria established to improve the caliber of personnel assigned to the rifle company.

In the above discussion, two main points have been brought out that indicate definite weaknesses in the present rifle company that should be corrected if the rifle company is to fulfill the role assigned it in mine warfare. The first is the weakness in the training program and the second in composition. It is felt that the most feasible solution to this problem would be in the establishment of a pioneer squad in the company. This squad would furnish the basis for all the company's mine warfare activities. If the company were called on to breach an enemy minefield it is this squad, held under control of the company commander, that would be immediately available to move forward in order to begin work on the minefield. It is recognized that immediately the point is raised that one squad would not always be enough to furnish the company all the support necessary. In this connection, a squad of the size that could furnish two teams - one to each attacking platoon - would be able to give each attacking platoon the basic element necessary to insure that they could cope with the minefield. That element is technical ability and supervision. Certainly all the work connected with this operation does not require a high state of training, however, a half squad should be able to effectively breach a path in a minefield large enough for the platoon to move through.

The advantages of this squad can be readily set forth by restating the weaknesses that exist under the present

conditions. The first of these is in training. In the basic and advanced unit stage of training, more realistic training could be accomplished by using the pioneer squad to prepare mine obstacles just as the enemy could be expected to prepare them and similarly the squad could be used in conjunction with all other phases of unit training up to and including the regimental phase. The important thing to remember here is that the commander would have a unit available to him that he would have to prescribe a mission for in each days training and that this would make the commander and all subordinate leaders more conscious of the need for continuous thought in the employment of mine warfare by our own forces or of the necessity for having a plan to cope with enemy mine warfare as it is encountered in training or in combat operations.

Another advantage of the pioneer squad lies in the weakness that now exists in the company from the composition viewpoint. With a unit organic to the company charged with the mission of furnishing the necessary support for mine warfare operations, there would be no necessity for the company commander to cripple any of his weapons teams or to take away his riflemen from the rifle squads. With the pioneer squad ever ready to move forward whenever and wherever needed, there would be no delay experienced by the company that could result in additional casualties while the company is disposed in exposed positions in front of the enemy position.

It has already been pointed out that effectiveness in mine warfare requires thorough, up-to-date, realistic training and retraining. In this field, there will be a marked advantage

in having a pioneer squad in the company. By nature of its mission, this unit would be able to constantly conduct training in, and study of, the latest types and methods of employment of mines used by the enemy. This study and training could be conducted during training and combat operations.

An equally important advantage of the pioneer squad could be detected in the added confidence that would be apparent in the company whenever a minefield were encountered. The knowledge that the company had the ability to cope with this obstacle would certainly add to the spirit of the company.

With advantages, there normally will be accompanying disadvantages and the formation of this squad does present certain disadvantages. The principle one is in regard to the added manpower requirement created. This, however, begins to lessen as a disadvantage if it is remembered that this unit is contributing to the accomplishment of the mission of the unit and that movement of these personnel to a forward company is in no way detracting from the firepower that is ultimately brought to bear on the enemy, but to the contrary, brings more direct effort against the enemy.

Creation of this squad also causes an increase in the needs of the regiment with respect to pioneer replacements. This replacement problem could, however, be solved by furnishing pioneer replacements to the rifle company from the same channel as the regimental anti-tank mine platoon replacements flow.

As a final consideration in the formation of this squad,

it is well to remember that this squad would not be relegated to the sole task of dealing with breaching of mine fields or in supervising the laying of minefields. The squad would be further used in a variety of related tasks. An important use would be in mine field reconnaissance undertaken in the preparatory stage of the attack. The personnel from the squad would at all times furnish the commander with personnel adequately trained in the use and operation of flame throwers. Whenever the need arose for preparation of demolition charges, the personnel necessary to perform this task would be immediately available to the commander. Another important field in which the commander would make use of these personnel would be in the preparation of defensive positions by using the squad for such tasks as the erection of barbed wire obstacles and emplacement of minefields. It is in the field of emplacement of minefields that one of the major problems our mine warfare program is confronted with would begin to lose some of its vastness. This is in the need for accurate marking and reporting of minefields. To have a thoroughly trained mine unit in the company would insure that reporting and marking procedures would become increasingly accurate and effective.

An immediate argument that many would make against this squad is that it would require specialists. This is not only true but proper. In the company today, every soldier is a specialist. We have mortar specialists, machine gun specialists, and rocket launcher specialists, all of whom have weapons far less dangerous and certainly no more complicated than such a device as an enemy mine. If we can justify any soldier

being a mine specialist, we should consider only that anyone dealing with live mines should be a specialist.

It is realized that there are many minor points regarding such things as composition of the squad, grade of its members, equipment to be furnished the squad and its location within the company that are worthy of much consideration. These points, however, can be worked out by trial of various sizes and types of units until the optimum unit is obtained. A proposed squad is outlined in Appendix B. The important feature that we are immediately concerned with is to give the rifle company commander a means whereby he can insure that he can effectively follow and carry out the mine warfare doctrine of our army and more importantly, insure that his company can proceed to an objective with a minimum of lost time and personnel if the company encounters an enemy minefield.

CONCLUSIONS

There is an obvious emphasis placed on mine warfare in the Russian Army and for this reason, our rifle company should be prepared to cope with this phase of warfare. Our Army has recognized this problem and has published a new mine warfare doctrine that clearly spells out the responsibility of the company to be well trained in all phases of mine warfare. It is felt that this is a sound and thorough doctrine. In offensive operations, there is a need by the company commander for immediate support when mine fields are encountered. Following capture of the objective, there is a similar need for the ability to employ mines in the defense of this position from expected counterattacks. In both of these instances, the key to this needed mine warfare support is speed and effectiveness. These factors would undoubtedly have an important bearing on the success attained in offensive operations against the Russian Army.

When consideration of the mine warfare training prescribed for the rifle company is analyzed, we find a definite weakness. The training prescribed is very adequate in the scope outlined and in the requirement to integrate this training in certain field exercises, however, the time devoted to this important subject is inadequate to prepare the company to perform the mission outlined in the mine warfare doctrine. The training program should be as thorough and detailed as that prescribed for any weapon in the company. It specifically should provide for retraining in mine warfare. Also to be considered in the field of training is the meager training

given to the personnel that are designated as rifle company replacements. This training in no way prepares these personnel to perform in minefields under combat conditions.

A further analysis of the rifle company's ability to carry out our mine warfare doctrine encompasses the field of composition of the company. In studying the company, we find that after we exclude the personnel directly employed with crew served weapons or the automatic rifles, there is very little to choose from when attempting to assemble a team to perform a mine warfare task. This is an extremely important consideration in the attack. It does not appear feasible to assemble a team in the midst of a fire fight, nor does it appear sound to take personnel from the crew served weapons in order to make up these teams.

In consideration of these factors, it is felt that our mine warfare doctrine should remain unchanged. It is also felt that the training prescribed in the ATPs discussed adequately prepares the soldier to understand mines and their employment, thus creating confidence rather than fear of this subject with the end result that casualties caused by ignorance of mine warfare will be lessened. There is need, however, to give the company commander a trained team that he can employ in operations that include any aspect of mine warfare. This team, adequately trained and equipped, would give him the immediate support necessary and would eliminate guess work and chance involved in assembly of personnel assigned principle duties with other weapons for employment in minefields.

Finally, the company commander would have at his disposal personnel trained in related fields such as mine fields reconnaissance, operation of flame throwers, preparation of demolitions and erection of obstacles.

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APPENDIX A

Extract of Training Prescribed by ATP 7-300 for Elements
of the Infantry Regiment¹

1. Advanced Individual Training:

<u>HOURS</u>	<u>SCOPE</u>
16	Functioning, arming and disarming of U.S. mines, fuzes, and firing devices; familiarization with allied and enemy mines and material; tactical employment of land mines to include types of minefields, siting of mine strips, marking, recording and reporting; drills for emplacement of anti-tank and anti-personnel mines; mine detection and breaching techniques; familiarization with booby traps.

2. Basic Unit Training:

- a. Rifle Platoon tactical exercises - Installation and removal of security minefield for a platoon defensive position.

<u>HOURS</u>	<u>SCOPE</u>
8	Selection of security minefield sites for a platoon defensive position; laying and arming of mines; marking, recording and reporting procedures; disarming and removal of mines.

- b. Rifle company tactical exercises - Installation and breaching of a defensive minefield.

<u>HOURS</u>	<u>SCOPE</u>
8	Selection of defensive minefield sites; laying and arming of mines, activation of minimum of five percent of the anti-tank mines; marking, recording and reporting procedures; breaching and marking of assault lanes through the minefield.

1. Army Training Program 7-300, Department of the Army, 1952, "Infantry Regiment".

APPENDIX B

Proposed Pioneer Squad for the Rifle Company

1. Composition:

1 SFC - Squadleader	R
2 Cpl's - Recorders	C
4 Cpl's - Pioneers	R
2 PFC's - Pioneers	R
1 Sgt - Asst Squadleader	R

2. Equipment:

- a. Necessary equipment for breaching a minefield.
- b. Necessary tools and equipment for installing minefields.

3. Assignment:

a. The squad should be assigned to the weapons platoon since it is a tactical unit and should be held under central control by the company commander.

b. With the weapons platoon leader and platoon sergeant not being specifically committed during operations, the company commander could rely on either or both for assistance in the employment of this squad.

c. It is visualized that this squad can be broken down into two five man teams so that each attacking platoon could be furnished with a pioneer team if the need arose.

LESSON PLAN

Title of Lesson: Why the Rifle Company Should Have a Pioneer Squad.

ESSENTIAL INFORMATION

Day and Date: _____ Hour: _____
Place : _____ Class: _____
Instructor : Captain H. T. Long Assistants: None
Uniform & Equipment: A (Instructor) Faculty
Reference: Student Monograph Monograph
Advisor: Lt. Col.
Witherspoon
Training Aids: Blackboard, eraser, chalk

Lesson Objective: To acquaint the class with the present mine warfare doctrine of our army as it pertains to the rifle company and to emphasize the importance of this doctrine by showing the emphasis placed on mine warfare by the Russians. To examine the present training program for the rifle company to determine its adequacy to enable the company to fulfill the mine warfare role assigned it and to analyze the composition of the rifle company from the standpoint of its ability to cope with mine warfare in the attack and after capture of an objective. To show that a pioneer squad is an effective means of solving all the weaknesses that are developed in the discussion.

1. Introduction: (3 min)
- a. Need for the commanders of the infantry units to understand mine warfare.
- (1) New policy.
 - (2) Not an improbable type of warfare.
- b. To accomplish this will examine:
- (1) Importance by looking at the Russian Concept of Mine Warfare.
 - (2) Our own doctrine as it pertains to the rifle company.
 - (3) Our training program as it prescribes mine training for rifle companies.
 - (4) The ability of the attacking company to cope with and employ mine warfare from a composition standpoint.

c. As a means of overcoming the weaknesses developed, show that a pioneer squad organic to the company is an effective means of insuring that our companies not only can overcome mines but can employ them to protect themselves.

2. Discussion:

(14 min)

a. Elaboration on Russian tactics and techniques of employment of mines.

- (1) Need to understand.
- (2) Techniques of employment.
- (3) Tactics of employment.

b. Discussion of the U. S. Army mine warfare doctrine as it applies to the rifle company.

- (1) Requirement for all personnel to be trained in mine warfare.
- (2) Need to provide own personnel for breaching and laying minefields.

c. Discussion of the present training doctrine for training rifle companies with respect to mine warfare.

- (1) As outlined in Department of the Army publications for training of the unit.
- (2) As outlined in Department of the Army publications for training of rifle company replacements.
- (3) Weaknesses of this program as compared to the requirements set forth in Training Circular 34.

d. Analysis of the composition of the rifle company with respect to its ability to cope with Russian mine warfare tactics when the company is engaged in offensive operations.

- (1) Need for immediate action in breaching minefield encountered while engaged in the offense.
- (2) Need for immediate action in employment of mines when an armored counterattack is expected after an objective has been seized.
- (3) Discussion of the composition of the company to show that company is composed almost entirely of weapons teams.
- (4) Need to gather the most capable personnel in the company to accomplish or supervise the company activities with respect to mine warfare, thus crippling some of these teams.

e. The pioneer squad in the weapons platoon as the solution to the needs of the rifle company in mine warfare tactics.

(1) Advantages.

(2) Disadvantages.

(3) As an answer to the needs of the company commander in related fields such as mine field reconnaissance, operation of flame throwers, preparation of demolition charges, erection of other obstacles such as barbed wire entanglements, etc.

(4) As an answer to a realistic training program in training the entire company in mine warfare.

3. Conclusions:

(3 min)

a. Mine warfare is here to stay.

b. Russian emphasis on use of mines dictates our being thoroughly trained in the subject.

c. Our doctrine is thorough and proper.

d. Rifle companies unable to fulfill their mine warfare role due to:

(1) Insufficient training time.

(2) Composition.

e. Pioneer squad solves all these difficulties.

f. If we fight wars based on the ability of the rifle company to move forward and destroy the enemy, we must give the commander the time for training and the personnel and facilities to do the job.