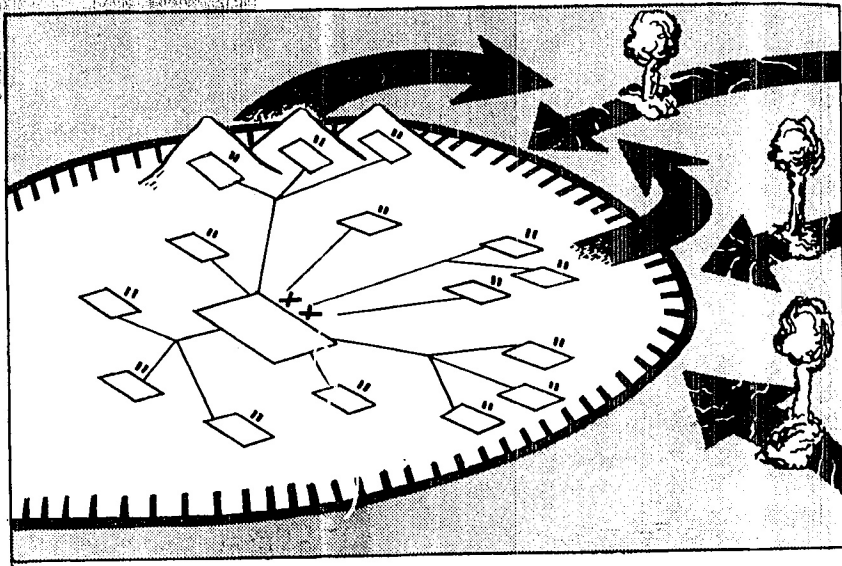


HAVE TACTICS BEEN INVADED BY THE ATOM?



Tactical concepts inherent to the art of war are fluid but the unchanging character of the individual soldier provides the basis of military strength

By LtCol J. M. Strawson, Queen's Own Hussars

♣ BATTLES ARE WON BY MEN. THEY are not won by machines, nor by weapons, nor by the elements, but by men. War changes but men do not. War changes in its methods rather than its principles, in its weapons and tactics rather than its strategy and its aims. But one thing does not change. It is always men who create the causes of war and the weapons of war, and it is they who wage it and win it. Sir Arthur Bryant, talking of the Revolutionary War, says "... the mechanical and tactical devices of war were utterly different from those of today the

human and strategic problems strangely similar. Weapons and methods of manufacture and transport change much in five generations. Human and national characteristics and the laws of war change little." Bryant wrote these sentences, however, before the advent of the atomic bomb. Does its coming repudiate the truth of his statements? I think not. For if it is true that Commonwealth strategy revolves still around command of the air, command of the seas, containing enemy forces on land and the defense of the United Kingdom, then atomic

weapons do not change the strategic problems, but aggravate them, particularly the first and the last. Whilst it is necessary to have a clear understanding of the strategic background, it is not primarily with such problems that this article is concerned but with tactical ones. For although atomic weapons may have first place in strategic employment, they clearly have tactical uses too, and it is their effect on tactical doctrine (whether it be defense against them or the offensive use of them in the defensive phase) which must be examined. It is therefore

necessary to define the tactical level at which the consequence of these weapons is to be discussed, from, of course, the military (not the naval or air) point of view. Strategy can be defined as the management of armies in a campaign, but tactics is rather the art of disposing military forces *in actual contact with the enemy*. So that the level at which the most profitable reasoning is likely to be advanced is the division, in particular the armored division, for here is a formation which combines a considerable variety of arms with a great diversity of roles.

The aim of this article is three-fold. First, to determine what effect the possession of atomic weapons by both ourselves and an enemy has on the tactical handling of the armored division. And here let us be clear about two things. Atomic weapons

land forces has forced upon the NATO planners the conception of defense on a wide front as far as the opening phase of a war in Europe is concerned. Whether it be based on a river line or divisional bastions occupying important ground does not matter. What does matter is that defense must be organized in depth, accepting that some penetration is inevitable and then subjecting the attackers to continuous opposition until slowed down and finally halted. But defense does not win wars. The aim of defense will

ground to insure that the effects of the explosion are severe. But what size of troop concentration will justify the use of so valuable a weapon which is almost certainly in short supply? An armored brigade might constitute such a target or a large gun area or a divisional headquarters. It is, however, by no means certain that such a target will exist in the armored divisional area, when the division is operating *in the particular role of defending a wide front*. The forward troops will probably be too close to the enemy's own



alone will not win battles. There is also the point that the power of nuclear fission is no longer the secret of one armed camp to the exclusion of the other. The second thing is that conventional and determined handling of ground forces are as important as ever. Thus, it is not sufficient to examine merely the effect on tactics of these weapons, but also their effect on the individual soldier and therefore on training. The third aim is to examine atomic weapons in relation to the principles of war and thus their relation to tactics in broader terms.

The Threat and the Counter

Weapons with atomic warheads carried in a guided missile or a near-sonic jet bomber make frontiers meaningless. But in the land battle, frontiers may still have a meaning and, if so, perhaps England's frontiers are still on the Rhine. In any event, the defense of a river like the Rhine will serve as a tactical setting with which to illustrate the threat of atomic weapons. The shortage of

always be to kill as many of the enemy as possible before resuming the offensive. What then, within this tactical framework, is the atomic threat?

The first threat is the one from the air. Enemy air superiority must be assumed, so that the enemy will be free to drop an atomic bomb where he chooses. Now comes the question of targets. A conventional atomic bomb can neutralize troops and equipment in an area of 4 square miles provided they are sufficiently in the open and above

forward troops; there will be a considerable degree of dispersion between the defended localities, whose infantry will in any case be deeply dug in. The armor is likely to be broken up into small battle groups of squadron size. The gun areas will be well dispersed with numerous alternative positions. What reserves there are will not consist of more than a regiment and will be dispersed; the administrative units are likely to be spread over a large area and will carry out replenishment only during the hours of darkness.



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It is true that divisional headquarters will be fairly concentrated, but will, if time and other circumstances permit, be in deep shelters. Everything will be concealed with the utmost vigilance to counter the conventional air threat and to conform to the normal requirements of deception and secrecy. The skillful use of dummy positions will add to the difficulty of target identification. The division as a whole may be deployed over an area as great as 100 square miles, and in that area there is unlikely to be a target of sufficient importance to justify the enemy's use of an atomic missile against it. And even if there were, there are still the problems of finding it and then pin-pointing it and finally hitting it.

There may come a time, however, when it is tactically necessary to reconcentrate the division, or a part of it, to undertake a counterattack task. And at once it is clear that here is the dangerous moment. For by doing this, you may create the very target which the enemy is seeking. In a similar way the armored division which is held in reserve for the counter penetration or counter-attack role may be vulnerable to atomic assault from the air. The problems here will be how to balance control and dispersion, and how to achieve concentration rapidly from a secure measure of dispersion. The solution will lie in rigid observance of the rule that there must be no concentration unless it is essential, in the perfection of digging, concealment and deception, and in the study and practice of night movement and night fighting. Night, however, offers no protection from the guided missile with an atomic warhead, nor from the atomic gun, and it must be assumed in tactical thinking that the enemy is as advanced as we are in this field. Here is the second threat — the one from the ground. It is not materially different from the air threat except that the *active* defense against it is even more difficult. The passive defense measures are similar to those already explained with the subtraction of night as a means of defense in itself. One of these measures, dispersion, can be easily spoken of, but cannot be lightly executed. It has been forced upon us by lack of troops and although it may suit the

means to counter an atomic threat, it is not in itself desirable. For the tactical need for concentration is a real one and must not be arbitrarily dismissed. Dismiss it, and the enemy's ground forces may be able to win the battle without resort to atomic weapons. So, then, the timing and methods and duration of such concentration become matters of first importance. In this connection there is also the question of *our* offensive use of atomic weapons during the defense battle. A prerequisite of their use is to compel the enemy to concentrate sufficiently to offer a suitable target. And this will not be done without a defensive structure strong enough to resist the assault of mobile armored forces in open formation.

An armored division does not win its battles by being concealed and dispersed and dug in. It wins them by shooting and by moving. And there is no reason to believe that the threat of atomic weapons will alter the basic methods of handling the three major fighting parts of the armored division — armor, infantry and artillery. Armored units will still employ aggressive fire and movement together with the maximum possible degree of concentration. There is, of course, the bonus of the stabilizer, which, if stationary shooting is to be avoided, will enable its handlers to shoot while moving. But this is not a requirement peculiar to the atomic threat. In general, nuclear weapons will make the tank more and not less important, for the best antitank weapon is still the tank and it also provides protection from radioactivity. Infantry units will still need to assault and defend areas by conventional means, with always the aim of killing the enemy. The guns of the artillery will still be required to provide normal fire support. But *nuclear* artillery will not be a supporting arm like conventional artillery. Instead armor and infantry are likely to be the supporting and exploiting arms for nuclear attack. What again may also differ are the time and speed of concentration for an operation, the measure of digging both before and after, and the desperate need for concealment and security. Above all the need for night fighting will be felt. It is well

known that infantry and artillery can fight at night. What is not so generally accepted is that tanks can too. They can and must. They do, of course, need special training and certain aids. Practice in navigation, control and shooting are essential. Artificial illumination, route marking, simplicity of plan and reliable communications will also be needed. In addition, infantry and tanks must develop a high standard of co-operation which will make possible rapid deployment for battle and smooth partnership in the battle itself. The use of tanks at night in the El Duda and Bardia battles, to say nothing of later operations in Tunisia and Normandy, has proved the point. Infantry and armor must be organized and integrated so that they give the maximum possible flexibility and can quickly be grouped in whatever proportion is required. The whole question of organization will be affected by atomic weapons, and constant trials in maneuvers must determine which organization is best. The artillery may have a particular problem if it is to produce and go on producing the concentrated fire which will be needed, for the gun areas will not long go unnoticed. With the self propelled guns of the armored division, it may be possible to devise a well-concealed gun pit *underground* from which the gun moves forward along ramps to the surface in order to fire, and to which it can return if necessary.

It is now possible to say that the possession of atomic weapons by an enemy does not have far-reaching effects on the tactical handling of the armored division *in the defensive role*. It is true that digging must be deeper and concealment must be perfected, but the need for these has already been made clear in countering conventional attack in Korea. Similarly, the requirement for night operations and more extensive deception measures cannot be regarded as peculiar to the atomic threat. Perhaps the problem most worthy of study is that of the conflicting demands of concentration and dispersion. The key to its solution will lie in skillful timing. It is this problem which is also most relevant in the consideration of the tactical requirements for the offensive use of

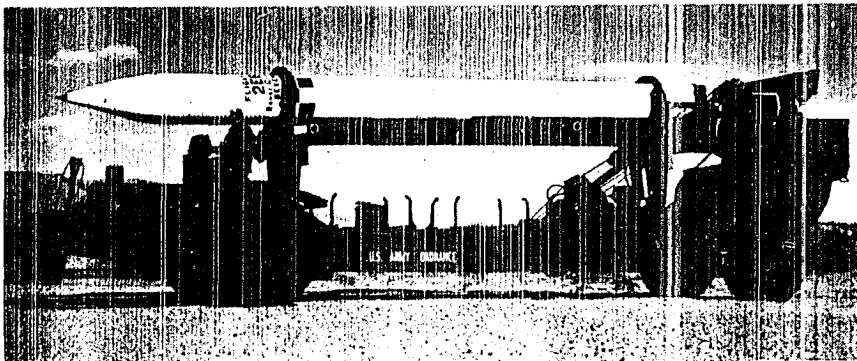
atomic weapons in the defensive phase. As to the other phases of war, withdrawal—always the most difficult—will bring the particular problem of protecting bridges, which may be sufficiently important to justify enemy atomic attack. But in general the withdrawal phase, when the division is employed in the *couverture* battle, will not offer sufficient concentrations to either side. The armored division is primarily designed for offensive operations. Assumption of the offensive presupposes air superiority which may largely do away with the enemy bomber threat, but does not counter the guided missile or atomic shell. There is little danger of such weapons being used against an armored division operating in open formation in the encounter battle, but if concentrated for a deliberate attack, then the danger would be present. Once more the counter will be the same: dispersion until the last moment, rapid concentration, concealment, deception and thus surprise.

No tactical conception, however,

finest weapons nor the cleverest tactical theories will avail unless the handling of those weapons and the execution of those theories is by soldiers who are fighting with dauntless courage, unbreakable spirit and inspired skill. It is interesting that in the past many statesmen and soldiers have put their faith in the wrong things: in economic strength rather than military preparedness, in their allies rather than in themselves, in weapons rather than in men. Can it be that a similar mistake is now to be made, and that the solution to all problems will glibly be the power of the atom? It must not be, and on the military level there is no indication that it is likely to be. Although we may have weapons of unbelievable power and ingenuity, we do not reduce our armies. On the contrary, we have a larger standing army than ever before. Moreover, conscription has come to stay. It is on men that we rely. For the ingenuity of the British scientist has never equalled the determination of the British soldier.

are the result of human achievement and not the cause. Strategically, they may avail when directed against economic bases like ports and factories. But can they win battles? Is it not likely that if atomic weapons are used on the battlefield, they will merely be a prelude to conventional operations? If so, what is important is that atomic assault does not prevent the individual soldiers from carrying out their fighting mission after the explosion, to counter the conventional attack when it comes. This can only be done by training, by the anticipation and rehearsal of every such contingency of battle. In a similar way we must not expect our own use of atomic weapons to win the battle for us. Do not forget Montgomery's irrefutable point: "Man will still be the first weapon of war." How then is man first to combat the atomic assault, and second to harness it to the conventional military machine?

The answer lies in one word—training. But one word is not enough. Its implications must be examined. The aim of training is to achieve success in battle. What you train are men. You do not train weapons. You train men to use them. But more important than this, you train men to be soldiers. They must, before anything else, have the qualities of courage, endurance, comradeship and sacrifice. On top of this they must be fit and tough, alert and well disciplined and be trained to fight and kill. They must have physical and mental robustness. These things have no relation to weapons. They are fundamental. What comes next is training the man to use his weapons until he is a master of them. For just as it is paramount that the soldier has confidence in his leaders, so is it that he has confidence in his weapons. Do not forget, however, that it is not the weapon itself which gives him confidence, but *his own ability to use it*. Atomic weapons are clever things, too clever perhaps. As Napoleon said, "Cleverness is not needed in war. What is needed is accuracy, simplicity and character." More than anything character, for in character lie the basic ingredients of the good soldier. All training is ultimately designed to produce a man who can withstand the shocks



There is no reason to believe new weapons will alter basic methods

is of any value unless the individual soldier fights with courage, skill, endurance and determination. Consider then, the effect of atomic weapons, not on tactical doctrine, but on the man!

Atomic Weapons and the Soldier

When you are talking of new weapons and studying their use in a particular tactical setting, it is very easy to forget the soldier. But you must not do this. For if you do, all that you say will be valueless. In time of war, no matter how modern or effective the weapons, victory depends in the end on the soldier. It is astonishing how many statesmen have overlooked this point. Not the

Bryant is relevant again here when he points out that no economic considerations can outweigh purely military ones. Talking of Pitt and his contemporaries in *The Years of Endurance*, he says: "Such statesmen . . . put their trust in a victory based on financial resources. They forgot that the symbols of past commercial activity could not avail on the battlefield. Economic like military strength is not the cause of human achievement but the result. It is not weapons which decide wars in the end but men, for it is men who make the weapons and then marshal and use them." To draw a parallel, can atomic weapons in fact avail on the battlefield? They, too,

of war. The renown of atomic weapons perhaps makes their psychological danger greater than their actual. For the well-disciplined soldier the first danger will be overcome by continuous explanation and demonstration. Familiarity will breed respect, and potential panic will be dispelled. For the respect will spring from knowledge, and knowledge always counters the fear which comes from ignorance. As to the actual dangers, the remedies of concealment, digging and dispersion have already been dealt with. The trained soldier will be confident that he can not only withstand atomic assault, but can also withstand and defeat the subsequent conventional attack. He will also be confident of following up an atomic attack by his own side. In this case, the problems of the time and place of our own atomic attack are problems for the higher commander, who will require that degree of local air superiority over the battle area necessary to find the target. The opportunity will be fleeting, and the decision to employ atomic weapons, while perhaps not decentralized as low as the divisional commander, will be strongly influenced by him. For it is he who will be able to judge the appropriate moment, and he who will be required to exploit the dividend. All this, too, can be studied and practiced during training.

On the question of training a great deal has been written and spoken. What matters in training is that theory should be moderated by realism, and enthusiasm (of first importance) should be tempered with common sense. Methods of training should be governed by 4 very simple rules. These are: 1) concentrate on essentials; 2) produce physical and mental robustness; 3) master weapons; 4) develop character. Make the soldier realize that it is on him that the success of battle depends, and then you can rely on him. Then atomic weapons will be to him not a mystery, not a terror, but merely weapons either to be resisted or exploited. And he will know that his will and determination are stronger than any weapon. Cultivate this will and determination during every day of the soldier's life, and your efforts will not be wasted. You will have something which is intangible

yet invincible.

Remember the principles of training: maintenance of the aim of success in battle; clarity; objectivity; offensive spirit and the cultivation of alertness and initiative; practicality; thoroughness. These principles are not changed by the advent of atomic weapons. What of the principles of war themselves? Are these changed?

Atomic Weapons and the Principles of War

I have said that war changes in its weapons and tactics but not in its aims and its strategy, in its methods but not in its principles. It is clear that a sound tactical plan will normally conform to the principles of war. Thus it is possible to say that if atomic weapons do not change the principles of war, then these weapons are unlikely to have far-reaching effects on the tactical handling of military formations in the field and since all tactical discussion *on paper* must be hypothetical in some degree, examination of this particular point may well yield conclusions of greater value than consideration of particular tactical problems, which are best answered on particular pieces of ground. If the progress of modern weapons changed the principles of war, then there might be a case for their influence and reliance on them to assume first importance. But they do not. The principles of war are concerned essentially with personal, human factors. It is clear that such principles as offensive action, surprise and concentration of force depend in their application on weapons, but the true observance of these principles relies not on the weapons themselves but on their employment. And they are employed by men. If three principles of war are more important than any others, these are the *selection and maintenance of the aim*, the *maintenance of morale* and the *concentration of force*. Consideration of these will serve initially to illustrate their relationship to atomic weapons.

Singleness of aim was one of the primary concepts of Napoleon. This is an easy thing to say. It is not easy to pursue. Too many commanders have slipped into the fatal error of losing sight of the aim, of

becoming inextricably involved in minor and irrelevant successes, and forgetting the main issue. Even Napoleon, when his judgment became warped by too much success, failed in this regard. For when his air lost its singleness, the united effort was gone. He doubled his purpose and halved his army. And here is the point. Singleness of aim, which is closely allied to concentration of forces, is a matter of the mind, not of weapons. If pursuit or maintenance of the aim is difficult, how much more so is its selection. What a stumbling block this has been to many. If the aim is not right, nothing will be. Everything else in battle is related to it. This is why it is called the master principle. Do not forget that it is essentially mental. How interesting it is to see that during the course of a campaign, the aim changes. Northwest Europe gives us the classic instance. After the establishment of the bridgehead, the aim was to destroy the German forces, and for a time this was the right aim. But it changed. Some saw that it had changed to the capture of the political capitals of Eastern Europe, others did not. The others won and the result is well known. I make this point to illustrate that atomic weapons do not influence this, the master principle of war. It is, however, true to say that the aim of a particular operation might well be to create an atomic target, destroy an atomic launching site, or exploit an atomic burst.

At first sight, concentration of force might be thought to imply nothing more than a mass of soldiers and weapons. But to be successful, concentrated force must comprise moral as well as material superiority. There are also the all-important questions of timing and placing. These are what make concentration decisive. Atomic weapons have a curious effect on the requirement of concentration. On the one hand, if we are to employ atomic weapons, we need to concentrate in order to make the enemy do the same and thus present us with an atomic target. On the other hand, if we are to avoid presenting such a target ourselves, we must be wary of the timing, duration and security of our own concentration. But none of

these considerations alter the fundamental need for concentration of force in battle if decisive results are to be won. The most important thing to remember is that concentration is a matter of time rather than of space. The atomic weapon does not change the principle. The weapon provides only the means to kill. It does not provide the will to kill. This is provided by morale.

Montgomery has described morale as the most important single factor in war. Morale is, however, closely allied to weapons. One military pamphlet *The Conduct of War* explains this point very clearly. "Morale in modern war depends increasingly on equipment, especially on weapons. Yet all soldiers must at times expect to find themselves at a disadvantage in this respect either compared with the enemy or against conditions of climate and terrain. The effect of this on morale can be minimized if the troops can be convinced that everything humanly possible is being done by everyone concerned to redress the balance. Once convinced of this they will take a fierce pride in overcoming the handicaps of inadequate equipment." The alliance between morale and weapons is a curious one therefore. Given the best and latest weapons, including atomic ones, a soldier whose morale is already high, will by his confidence in those weapons, develop even higher morale. Yet by a strange contrariness of character, the British soldier, when denied the best of weapons or the defensive measures against enemy weapons, will if his morale has in other respects been properly cultivated, rise to even greater heights of endurance and courage. This is perhaps the true test of morale. The lesson here is that although atomic weapons may influence morale to a great degree they (that is to say possession of them or of the counter to them) are not indispensable to it. For morale is a state of mind. At the same time we must not lose sight of the importance of such weapons. They in their way are as vital to success in battle as morale. But they are worthless unless in the hands of determined soldiers. It is the coalition of the two which is required.

It is clear, therefore, that atomic weapons may change in some measure the application of these three

principles, but not their observance. There are two other principles whose observance may be exploited to the full by use of such weapons. These are economy of effort and surprise. If ever a weapon existed, whose use offers a decisive tactical victory with a minimum of effort (although not expense), that weapon is the atomic missile. In a similar way an atomic weapon may, if employed with secrecy, originality, audacity and rapidity, contain the very acme of surprise. But in either case the atomic weapon cannot by itself win the decisive victory. The conventional counterattack or assault must still deal the final blow. Examination of the other principles of war will also show that in the final count, they are not affected by weapons, but are things of the mind. Offensive action finds expression in the will to wrest the initiative from the enemy, to break his will by aggressive action, never to give him a moment's respite — these are what the offensive demands, and these depend on the personal qualities of commanders and soldiers. Co-operation is based essentially on team spirit; flexibility means more than anything flexibility of mind. The whole thing is mental from beginning to end. Napoleon confirms the point when he says: "In war all is mental."

Here then, remembering that tactics are subordinate to the principles of war, is a further indication that atomic weapons are unlikely to cause any fundamental change in current tactical doctrine.

Conclusion

The first and third aims of this article were to examine the effect of atomic weapons on tactics, the one particular, the other general. It is, I think, clear in both cases that *tactics have not been invaded by the atom*. But they will have to adjust themselves to the employment of atomic weapons, just as organizations must do so. In particular the problems of concentration and dispersion, concealment and deception, digging, alertness and night fighting must be studied. Even so, the basic tactical principles involved in handling the armored division, or for that matter any formation, are not changed. For atomic weapons in no

way remove the need for hard, cunning, ruthless, aggressive and determined fighting. And this will only be done by the man. Training will see to it that the man has the will and the fighting determination and the skill which are required of him.

The second aim was to show that too much reliance should not be placed on the possession of atomic weapons, but rather on the fighting determination of the individual soldier. You will be told of future developments which will revolutionize war. You will be told of machines which will outdate the Western World as they have already outdated the Eastern. You will be told of weapons which will cross oceans and destroy masses. These things do not matter. What does matter are human qualities and human principles, moral causes and the determination of the individual. For war is an art not a science. Let us abjure forever the fallacy that weapons are more important than man. They are not. Never be deceived by the offer of a weapon if it is accompanied by the allegation that it will do away with the need for large armies and determined soldiers. You can be sure that the allegation is false. For machines and weapons are governed by the slide-rule, but the laws of war are subordinate to the rule of human nature. People will tell you that science is progressing so fast that our present conception of armies and weapons and even war itself, is subject to change. Listen to them certainly, but remember this. In a modern army change is inevitable, and the question is, not whether you should rely on what is outdated and has been succeeded by scientific progress, but whether you should rely on what has proved its worth over centuries of war. The very fact that weapons change and that what could be effective yesterday, cannot be effective today, confirms once more that it is the unchanging character of the individual soldier, which is the fountain of military strength. For what good are weapons, even atomic ones, without the men to man them, the commanders to direct them and the fighting determination to make that combination irresistible? Echo Montgomery when he says: "Man will still be the first weapon of war."

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