

INFANTRY IN DEFENSE OF THE WEST

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FOREWORD

Three times since the turn of the century, in defense of the political ideals and systems of the freedom loving Nations of the West, American Infantrymen have laid down their lives by the tens of thousands. This fact constitutes one of the most puzzling and frustrating paradoxes of modern warfare, for the application of industrial skills to the art of combat seems to produce no reduction in the amount of manpower required to force the national will upon a mortal enemy, but rather tends to drain more and more human resources into the yawning maw of gigantic land battles. The one consistent strain of contemporary American military thought is that devoted to the evolution of means and methods of warfare which shall obviate the need for such battles and their attendant casualties. With General Billy Mitchell, Alexander de Seversky, Senator Robert Taft, and General Bonner Fellers pointing the way, the Nation moves as swiftly as its technology will permit toward a system of military security independent of large land armies.

There are at least two articulate groups in opposition to this movement. The first of these is composed of our European allies, and especially the French, who view with alarm the prospect of facing alone a Red Army which could deal a deadly blow to European civilization before the air might of the United States could be made effective against the Soviet's far flung industrial complex. The second is made up of the senior military leaders of this country who rightfully fear that "push-button warfare" has replaced the myth of militia as the American military ephemera. Recently the Secretary of Defense intimated that the time has come for the reduction of American ground forces in Europe and elsewhere, and for a shift of reliance to the prowess of our atomic arsenal.¹

1. "Eisenhower Weighs Cut in Army Forces Abroad," New York Herald Tribune, October 25, 1953, p.1.

These views, which found only a slightly distorted expression in papers all over the country, drew contrary statements almost immediately from the Army Chief of Staff, a storm of protest from the French, and expressions of concern from the British. The resultant controversy has placed the future of American Infantry before the forum of the world, and made it of paramount importance in discussions around the conference tables of Western diplomacy.

Fortunately, unlike many current debates which involve arms or methods of warfare, most of the facts germane to the issue have already been made public. It shall be the purpose of this paper to restate and collate these facts in order to suggest the mode in which Infantry may best be employed in defense of the free world. Beginning with a brief review of the historical role of infantry, an assessment will be made of Infantry's strategic means: weapons and tactics, up to and including the atomic bomb. Then the strategy which governs the present disposition of this Nation's Infantry, and its committent economic and political costs, will be discussed. These considerations, together with an appreciation of certain prevalent attitudes and prejudices which will affect the formulation and execution of future Infantry policies, will permit an analysis of the various courses of action open to Communism and to the West, the selection of the optimum Infantry program for the United States, and some concrete proposals for its implementation.

PART I

The Strategic Means: Tactics and Weapons

The battlefield capabilities and limitations of Infantry, themselves the function of weapons and tactics, have a direct and often determinant influence upon national strategy which the chair-borne strategist is prone to overlook. This tendency is natural but inexcusable, for despite the attempts of many Infantrymen to make it otherwise, the subject of man in combat, ^{-tactics-} has never been so technical that it could not be readily comprehended by the careful student of military history; and the effects of the most modern weapons are matters of degree rather than kind. Thus the strategic feats of Napoleon in his North Italy campaign appear in their true significance only if one appreciates the fact that he exacted from his Infantry a rate of march unheard of in Europe at that time;² similarly, the tremendous disparity of Infantry manpower between American and Chinese Communist Infantry in Korea is understandable only if one realizes that the enemy numerical advantage was offset principally by staggering amounts of artillery fire delivered with precision and amazing flexibility around and on top of U. S. Infantry positions. The proper starting point, then, for an inquiry into Infantry strategy or national policy is with tactics and weapons, and with the embattled human who makes them his lethal tools.

The Individual in Combat

From the dawn of history, since social man first fought his wars in concert he has made use of the foot soldier. The Greek hoplites were Infantrymen, and the Roman legio might properly be considered the antecedent of the modern

2. Count Yorck von Wartenburg, Napoleon As a General, 3 vols., London, Gilbert and Rivington, n.d., Vol. I, p. 79. He quotes for instance French soldiers as saying: "The Emperor has invented a new way of waging war; he makes use of our legs instead of our bayonets."

Infantry division. The name "Infantry" itself comes from the troop of the Infante, the Spanish prince, who selected from his soldiery the best and most able and formed a band of foot which became the terror of the Moors, and the nucleus of the "Spanish foot" which was later to dominate the continent in the time of Charles and Phillip II.^{2a} The Infantry of an armed populace, as distinguished from elite or mercenary formations, was first formalized by Machievelli, who not only wrote out a theory of war based on its use, and a program for recruiting and training villagers and townspeople for the defense of their city, but, ^{ALSO} became the first (and one of the last) of military theorists to put his ideas into action. Unfortunately for Machievelli, he was endowed with more insight than practical ability or good fortune; his armed rabble crumbled before a mercenary army striking at Florence, and their mentor, who seems to have held a position in that city roughly comparable to that of Charles E. Wilson in our Government, was exiled for his failures.³ Machievelli's concept of an armed citizenry was vastly more important than his first, abortive experiments indicated. The sweep of history dictated a new role for the common man in the affairs of the State, and he was not loathe to assume it. The Man on the Horse began to give way to the man afoot, and face of war changed. Out of the Renaissance confusion of mixed mercenary and noble, elite armies, a new dominant force emerged: Infantry.

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In Switzerland, the mountaineer learned that his pike and his endurance was sufficient to assure him independence from the many rulers who layed claim to his homeland. Gustavus Adolphus mastered a new technique for organizing his peasantry for battle, and led them to the conquest of the entire Baltic littoral. Frederick the Great discovered the power of national conscription

2a. "Infantry", The Infantry School Journal, Vol. 43, No. 2 (Oct. 1953), p. 13.

3. Edward M. Earle, Makers of Modern Strategy, Princeton, Princeton University Press, 1952, pp. 3-26.

and rigid discipline, created an army which was second to none in Europe, and brought Prussia to continental prominence far out of proportion to its natural resources. In the French and American Revolutions, citizen Infantry wrought new triumphs. The French Levee en masse at Valmy raised the battlecry "For Fatherland" for the first time, and Goethe standing on a distant hill, heard therein the doom of all kings.^{3a} Napoleon transformed the nation-at-arms into a nation of professional soldiers, and history was written for a generation by the bloody points of French bayonets. Only the stolid English yeomanry, arrayed in the Solid English Infantry formation, the Hollow Square, finally withstood the charge of the French foot, and rescued the balance of power for the British fleet. ?

Down through these last few centuries, the Infantryman has become in art, literature, music, and in the hearts of all peoples, the apotheosis of the common man, the personification of the demos. Tommy Atkins, with ruddy face and cockney flippancy, marches out of India's arid mountains, and Burma's lush wilderness with an Empire in hand; him we look to, remember; who was the Man on the Horse there? When the Allies sat behind the Maginot Line in 1939, a hopeful West looked to the French poilu to bear again, as did he in 1914, the awful burden of the first German onslaught. After that struggle began in earnest there were many heroes who captured the imagination of the world, but all of them had faces or names, were individuals--the fighter pilot, the submarine commander, the tanker--except the Infantryman, who never seemed to appear before the public except in his corporate identity: Tommy, GI Joe, Aussie, Anzac, Marine. Somehow the other heroes were godlike and admirable, men of a stature beyond the ken of the ordinary man, but the Infantryman was dirty and afraid, and thought and acted in his own environment exactly as Everyman acted in his; to the heroes he accorded due respect and even worship, to the Infantryman only

3a. Professor Sigmund Neumann, Lecture, Harvard, July 21, 1953.

a tolerant love, of which the cartoons of Bill Mauldin are the best expression.

In other countries of the world, this affection has scarce diminished. When the Russians publish pictures of their army, more often than not they will show Ivan Ivanovich and his machine-pistol, the backbone of the proletarian army. The French still carefully preserve the ancient elan, the deep pride in the foot soldier, that can send a column of bayonets dashing against a Chinese entrenchment in Korea as gallantly as it did against the Germans' at Verdun. The British still use pictures of Tommy Atkins, with besmirked face and tilted helmet, on their recruiting posters, and talk proudly of the magnificent histories of their old Infantry Regiments. Only here, in the United States, is there substantial departure from this uniform regard for the foot soldier.

In just the last ten years, perhaps because of the surfeit of publicity given to Mauldin's more contentious observations, or due to the pink literature about the Infantry which was prominent on the post-war market,⁴ to the over solicitous regard of Hollywood for the horrors of Infantry combat, or to public revulsion from the published disproportionate casualties of Infantry during the war,^{4a} GI Joe has lost his appeal to America and especially to its youth. Only the U. S. Marines seem to attract youngmen without dodging the issue that all they have to offer, in essence, is Infantry combat. Army recruiting campaigns must appeal to learning a trade, obtaining future education, becoming eligible for veterans benefits, or procuring assured security, and are forced to obscure

4. Specific reference is made here to Norman Mailer's The Naked and the Dead, and the writings of numerous fellow-travelers beating the drum for speedy disarmament, abolition of military officer privileges, democratization of the Army, and kindred projects, which paid the Soviet large dividends in power advantage a few years later.

4a. See, for example, article "War Casualties", Encyclopedia Americana, Vol. 29, Stratford Press, New York, 1949, p. 559 yy.

the combatant aspects of Army service. Korea⁵ with its high Infantry casualties has profoundly influenced recruitment and re-enlistment rates in the Infantry. More seriously, the problem of attracting competent Infantry leadership is now acute, for because of the prevalent conception of the Infantry as "bullet-bait," individuals with anything whatsoever to offer another service will go thither first, and Infantry is forced to accept the rejects.^{5a}

In a sense, all of these trends indicate a typically American regard for the inherent superiority of the machine over man, of the technician over his fellows. They demonstrate the impatience of a progressive industrial society with a means of warfare which is, ostensibly, fundamentally unaltered from the days of pikes and swords. The derisive name given by today's American soldier to his rifle--"Idiot Stick"--is in definite and significant contrast to the devotion of the Marine to his weapon, to the Tommy to his, or to the fetish like attachment of the soldiers of most other nations to their weapons. There is little in the mechanical simplicity of modern Infantry tools, or in the intense physical exertions exacted by the conditions of modern combat calculated to attract and hold the interest of a gadget-minded youth. His aspirations and admiration have turned skyward, or at least toward his lucky comrades whose duties involve the maintenance of complicated automotive or electronic

5. Total US casualties in Korea to date are 33,000 killed in action, 103,000 wounded in action. More Americans gave their lives for the independence of South Korea in the first year of the war alone, than were killed in defense of their country in the four wars of the Revolution, 1812, Mexican, and Spanish American. See US Congress, Senate, Committee on Armed Services and Committee on Foreign Relations (Joint Session), Hearings on the Military Situation in the Far East, August, 1951 (82d Congress, 1st Session), p. 3597. Over 80% of Korean casualties were Infantry.

5a Hanson W. Baldwin, "What's Wrong With the Regulars?" Saturday Evening Post, October 31, 1953, p.19: "To most of our young men the infantry, once a proud arm, is a service to be avoided as the plague; the doughboy is just "bullet bait." The re-enlistment rate for the Army--a good index of the number of experienced noncoms--has dropped from about 60% prior to World War II to about 6% in December, 1952."

equipment, or the handling of advanced ordnance, or whose time is spent in clerical or medical pursuits indicative of specialist skills of one kind or another.

The misconceptions extant in such attitudes would be relatively unimportant if they merely implied a passing of popular identification with the Infantryman, or even if they were peculiar only to disgruntled Infantry soldiers. But they evince the thinking of the entire American public, and entail therefore serious connotations for the men responsible for the Nation's strategic planning. The word "misconceptions" is entirely appropriate here, because such attitudes betray an ignorance of the problems of individuals in combat, and of the historical conflict of man versus the machine in battle, an appreciation of which is essential to any decisions regarding the present and future role of Infantry in national defense.

The fundamental purpose of military discipline is identical with that of any other of man's social efforts: to make men perform given tasks in concert and thereby enhance the power of the individual and the society. In battle, man soon discovered that by combining with his fellows and acting in unison with under one leader them, they could achieve victories quite beyond their separate efforts. Throughout the history of warfare, the superiority of organized forces over disorganized opponents has been repeatedly affirmed. The first aim of any military organization is then to weld its individuals into perfect instruments of its commander's will, and thereby reduce the unknowns in the equation of conflict to the mental agility of the leader and the speed of reaction of his troops. Napoleon's genius emerges in its true stature when one considers that most of his innovations in the art of war were not in the field of strategy itself, for there had been equally astute commanders before him, but in the methods and means of making his forces more responsive to his will, and swifter in the execution of its dictates.

However, the substitution of the commander's will for that of the individual cannot become effective until the individual or his organization meets and conquers his wholly natural impulse to preserve his life by taking it out of jeopardy. The normal shrinking of the flesh from the threat of death explicit in the roar of ordnance and the whine of missiles is the second of the problems with which battle discipline must cope, and the more difficult. Man in battle is not necessarily rational, and discipline must on occasion subvene rationality to prevent battle desertions.

These two problems are endemic to any and all forms of group combat, but they have always been and always will be the more difficult for Infantry because of the numbers involved, because of the ease with which control is lost over groups of men in rough terrain, and because of the harsh reality of battle death which swiftly pervades an exposed Infantry formation. Up until the time of the First World War, both problems were amenable to a common solution: close order. Men were lined up shoulder to shoulder, one behind another, and the commander placed himself in the van and led, while his assistants took the rear and prodded. Unless the individual in the ranks was willing to accept the disdain of his comrades to his right and left--and recent research shows that most men fight for the esteem of their comrades above all other reasons--⁶and was prepared to brave the ungentle correction administered by sergeants to his rear for any lagging or misdirected step, he could not desert his post, or do other than follow his leader. In fact, close order so completely substituted for the man's own inclinations, that to escape a formation once it was committed would require more rational thought than most men were capable of in the stress of combat.

6. S.L.A. Marshall, Men Against Fire, Morrow, New York, 1947, Chap. 10: "Why Men Fight." This chapter is by far the most profound study of the subject written on modern combat to date.

The third day of the Battle of Gettysburg⁷ provides an excellent example of close order combat. The principal action of the day--and the decisive one for Lee's invasion of the North--began in mid-afternoon, following an intensive Confederate bombardment of the Union position. As the smoke of answering Federal artillery cleared away, the blue-clad Infantry watched calmly while enemy Regiment after enemy Regiment came out of the trees a mile away, at the foot of the gentle slope of Cemetery Ridge. Unit by unit they emerged from the meager shelter of that foliage to form long ranks, standing patiently in the hot sun with their weapons at right shoulder as if on parade, while the shouts of their non-coms working to correct misalignments drifted dimly through the dancing heat and dust up to their waiting adversaries. Then General Armistead of Virginia rode out in front of them, placed his hat on the point of his sword, and with it waved them forward. On they came behind him, 15 thousand strong, the precision of their marching belieing the non-descript, ragged appearance of their mixed brown and grey uniforms. With forty-two of the most famous Rebel Regimental colors bright in the sun, they marched in step, pausing to reform after climbing the fences along the Emmitsburg Road, into the wheat field below the long stone wall behind which the Federal Infantry lay in disciplined silence. Then the Federal artillery began its dreadful work, renting the long ranks, blowing great holes in them, filling the wheat stubble with brown and grey obstacles over which the back ranks stumbled as they hurried forward to fill gaps. Closer to the stone wall they came, two hundred yards, then one hundred, and then weapon came off shoulder, the hideous Rebel yell went up, and the entire line ran forward to dash itself

7. Kenneth P. Williams, Lincoln Finds a General, 4 vols, Macmillan, New York, 1950, Vol. II, pp. 715-721. This action is known to posterity as Pickett's Charge, as the engaged Confederates were under the nominal command of General Pickett. The major units involved, however, were those of General Pettigrew.

to pieces against the wall of flame that suddenly obscured its stone goal. Only a handful surmounted the barrier. A short struggle, a partial withdrawal by the Federals, a few cannon in Rebel hands, then a concerted rush by a hastily formed blue line, and the wall was retaken, the surviving enemy overwhelmed. That night it rained, and lanterns of litter bearers winked and flickered in the wheat field, funereal candles at the pall of the Confederacy.

This account should be balanced w/ a description of a modern battle.

The fact that fifteen-thousand men were able to perform such maneuvers in full view of the arrayed ordnance of their enemy seems incredible to anyone accustomed to think in terms of modern war, but because of the lethal inefficiency of those weapons, there was no reason for another approach. At that time, no system of discipline more economical of manpower had been sought because battle casualties had not yet become intolerable, and it was definitely to the advantage of the military leaders of the Civil War, and indeed of all previous wars, to utilize an Infantry discipline that required a minimum of time and expense in training. All the soldier of the period had to be taught was his place in the unit formation, and the method of loading and firing his weapon. The absorption of large numbers of inept volunteers or conscripts into tactical units thus presented no great problem. In a few weeks, the most inexpert formation could, given cool officers and diligent sergeants, perform most creditably in battle. All soldiery accepted the precedent of close order tactics; lacking incentive for doing otherwise, they were content to leave them essentially as they had been handed down from the days of Gustavus Adolphus and Frederick the Great.

It remained for the technology of the industrial revolution to force a change by improving the lethal efficiency of ordnance. The First World War was fought in a quite different manner than soldiers on either side had planned or imagined it. It is a curious fact that most of the weapons and techniques

which effected this change were invented and tried during our Civil War, but went unnoticed by disdainful European soldiers, and forgotten by our own.

note Moltke

The death-blow to close order was dealt by the machine gun. A handful of these weapons at Gettysburg would have accomplished more than the 180 Federal cannon, could have stopped the Rebel charge before it got started. Yet in 1914 French Zouaves in red, white, and blue uniforms went charging into death-dealing German machine guns across the wheat fields of northern France in exactly the same manner that Pickett's ill-fated command crossed that other wheat field sixty-one years before; but sixty-one years was then almost the exact age of the machine gun.^{7a} The machine gun forced the Infantryman into the trenches of World War I. Another machine, the tank, forced him out of trenches and other fortifications in World War II, and since then still another innovation, the proximity fuse, has increased the lethal effect of the artillery shell so that now Infantry in the open in compact groups invite annihilation. Rooted out of shelter by the tank, and forced by artillery to adopt formations which are spread wider and wider, the Infantry soldier has been hard pressed to find a satisfactory substitute for his former close order solution to the problem of battle discipline. Much of that problem will have to be solved by the soldier working in his professional field.⁸ Two aspects of it, however, can only be dealt with by measures evolved under carefully coordinated political and military leadership. General Ridgway, in a speech delivered in Cleveland, Ohio, on November 10, 1953, remarked on these aspects of the problem as follows:

"One of the most significant tactical developments has been the consistently greater dispersion of troops on the battlefield.

7a. "Fire Power Plus", The Infantry School Quarterly, op. cit., p. 88.

8. These problems include unit esprit, personnel management, communication, leadership training, transportation, etc., some of which have lately been placed before the public by Hanson Baldwin and George Fielding Elliot. Contrary to the impression these writers convey, more unit discipline is created by a 30 mile march than six Regimental bands or two swords per officer. The solution of such difficulties can be handled by the service if the public will give it the man it needs, and lets it handle them in its own way.

and with it a steady decentralization of the responsibility for tactical decisions. The eighteenth-century sergeant's duties in combat revolved chiefly around the requirement to maintain alignment in his platoon, to see that men from the rear rank stepped forward to fill the gaps when men in the front rank fell. He would be utterly lost, if forced to fill the boots of the modern infantry noncommissioned officer.

"In the Army today there are 32 distinct career fields. Each of these is a major specialty in its own right. To cite a single example of the standard required, a soldier of average or above average intelligence should complete no less than 128 weeks--two and one-quarter years--of training before he is properly trained to perform the duties of an infantry squad leader, before he should be entrusted with the lives of others in battle. For a platoon sergeant the necessary training time is greater, and for higher ranks, greater still.

"Naturally, this is due in part to the increased complexity of weapons. But it is at least equally due to the increased degree to which tactical decisions must be made, effective leadership exercised, in even the smallest combat units. Thus, the soldier's capabilities have increased through the increased capabilities of his weapons, but the demands made upon his skill, his intelligence, and his character have likewise increased. These demands reach their peak in battle under conditions of maximum danger, fatigue, and confusion. The measure of the soldier's response is directly reflected in the casualty lists. The Army more than any other segment of our people wants those lists small."

The immediate effect of modern weapons, dispersion, greatly increases the amount of time requisite for the training of the individual. The two ends of military discipline--the creation of a unit from individuals, and the curbing of combat desertion--remain unaltered; dispersion only renders them the harder to attain. Where under close order the soldier was in almost tactile contact with his fellows, and physically prevented from taking leave of them, the tactics of dispersion admit only of subjective bonds between the soldier and his comrades. Therefore, in order to develop teamwork among the members of a

9. "US Army Hardest Hitting," Army-Navy-Air Force Register, November 14, 1953, p. 4.

unit, and to weld the unit into a perfect instrument of its leader's will, endless practice in simulated combat situations is necessary to impart to each man knowledge of his own and all other contributions to the combat efficiency of the unit, and to develop in him a confidence in the team and each of its members which will cause him to fight for it with his life in combat even when he cannot see or hear more than one or two other individuals. In essence he learns a self-reliance entirely foreign to Infantrymen of yesterday, but a self-reliance firmly seated in confidence in the ability and devotion of each of his comrades. This sort of attitude gives rise to a mutuality of effort which is most easily directed by a leader toward a common goal. The same devotion to the unit assists each individual to overcome his own human frailty, and will provide the extra-personal motive which will carry him forward despite the threat of death. Moreover, if during training he is well indoctrinated with the reasons for his service and sacrifices, an appreciation of such larger issues establishes another motive for binding his fortunes irrevocably to his unit. The acquisition of these attitudes, the creation of units from individuals, takes a long time, two years at least. This time element in the creation of Infantry force--and it is important to remember that it is not merely a matter of teaching technological skills--is of major strategic importance.

But if dispersion has had the effect of increasing the role of the individual soldier, so too it has thrown new responsibilities upon the junior leader--the sergeant, lieutenant, and captain--whose job it is to provide direction and control for small units spread over large distances. Their responsibility it is to adapt the unit to the ever changing conditions of the terrain and the enemy action, and, remote from their superiors, they are now called upon for decisions that would have taxed the ability of a colonel in the days of close

order. Upon their imagination, initiative, and integrity, hangs the fate of the commander's enterprize. The development of competent junior officers--especially the non-commissioned officer capable of discharging his responsibilities--is a challenge which the United States at least has yet to meet satisfactorily.

Political considerations have hampered solution of both of the aforementioned problems. In so far as training time is concerned, the public seems unwilling to accept Universal Military Training, or a reasonable substitute therefore, which would assure a constant flow of well trained personnel to the Army. Even more important perhaps is the refusal of the majority of our Atlantic allies to accept the facts of modern warfare by their persistent adherence to a traditional one year conscript training period.

In regard to the problem of leadership, the situation is more serious. Immediately after the conclusion of the Second World War, the services yielded to public pressure and convened the Doolittle Board to liberalize military discipline and correct many of the "inequities" and "undemocratic practices" which had rankled citizen soldiers during the war. That Doolittle Board probably killed more men in Korea than did the German 88 gun in Europe during World War II. While this last statement is figurative, the fact that the Board's only lasting achievement was the undermining of the position and prestige of the American non-commissioned officer,¹⁰ and the fact that the failure of the non-com in Korea was responsible for the loss of many positions, and hence lives, inject into the statement more truth than hyperbole.

10. Hanson Baldwin, op.cit., p. 107. "The postwar "Doolittle Board"... did more...to strike at discipline and undermine the military nature of our Army than any other one cause."

But the attack on military discipline and the traditional position of the junior leader did not end with the Doolittle Board. Indeed, each year the assault gains force, and alarmingly enough, seems to have the blessing and even the aid of the legal profession and much of the press. In 1951, the year ^{after} the war broke out in Korea, the services adopted, at the behest of pressure groups, the Universal Code of Military Justice. This code altered the juridical backing of military discipline to conform more closely with treasured American ideals of the dignity of the individual and the inviolability of his rights. Its immediate effect has been to ensnare all forms of disciplinary action, from the lightest punishment for a small infraction of regulations, to the prosecution of major crimes, in a complicated web of paper work, hearings, statements, trials, and appeals. This lawyer's delight is hardly appealing to a hard-pressed junior officer, and consequently more and more infractions of orders go unpunished simply because the execution of justice exacts too much of the responsible authority.^{10a} Even more important, the authors of the Universal Code in their solicitude for the rights of the individual, completely omitted any safeguards for the rights of the unit. Hence, today cowardice in battle is in practice legally condoned, because an officer or man caitiff to his responsibilities under fire has only to plead "temporary mental incompetence under the stress of battle," and conviction immediately becomes a remote possibility, the gravity of his actions in terms of the security of his unit notwithstanding.

This sorry state of affairs seems destined to get worse rather than better. Hardly a month goes by without some periodical featuring an article about the gross injustice of the military court, the evils of the military stockade prison, or some related subject.^{10b} These sentiments are symptomatic of the ancient and elusive desideratum of all free men: the Democratic Army, the army where the two ends of military discipline are achieved without forfeiture

10a. Ibid.

10b. See, for example, A. J. Keefe, "Drumhead Justice: A Look at our Military Courts", The Reader's Digest, No. 59, (Aug. 1951), pp. 39-44.

of rights by the individual, and where no one individual holds sway over another. The great fallacy in such thinking lies in the fact that the unit or group organization is durable in the stress of combat only to the degree to which its members have lost their separate identity, and devote their efforts, indeed their lives, to the survival of the corporate entity. Such surrender of individuality of course implies the abnegation of rights, including the right to withdraw the surrender. Any other basis for military discipline is by definition contradictory. Moreover, man's long experience in social organization, which term includes the military organization as a special case, has demonstrated that the only feasible system of control of a human group by one individual or one authority is through a network of subordinate controllers responsible in turn to their superior and for their subordinates. Any other solution to the problem of swift decision and group execution has failed, and will continue to fail so long as man is endowed with human frailty.

There has never been, nor will there ever be, a democratic army, and the reason therefore is quite simply that in every group no matter how small there will always be "democratic" dissent. More important, the democratic legal process provides no protection against the dissenter who persists in dissent after the group action is decided, except through time and trouble-consuming actions which are out of the question in combat, and ruinously difficult in training.

A system of military justice, such as the Uniform Code, which admits of unpunished cowardice in battle, or which subverts the authority of leaders, strikes at the very heart of military discipline, and hence combat efficiency. Discipline suffers because the integrity of the unit is insecure, and motivation of the individual is incomplete. In order for each soldier to give freely of his effort, it is necessary that he be convinced that unwilling comrades will

be coerced if need be to a like effort, or severely punished for their failure. Only then can complete interdependence and confidence be a reality. The leader, in turn, in order to procure instant reaction to his will in training and in combat, and to insure that each member of his unit meets exactly its standards of performance despite personal disinclinations, must be empowered to exact obedience if it is not given. In addition, to assure complete discipline, motivation of the individual, no matter how well conducted, lacks an essential element if it fails to convey the information that reasons for fighting important enough to die for, are important enough to warrant swift and severe punishment for failures to fight. The strictest interpretation should be placed on questions of mental competence and other legal loopholes for the malicious deserter.

Rather than the present attempt--extant in the Unified Code of Military Justice--to correlate military and civil justice, there should be recognition that the taking of the soldier's oath is an explicit juristic act, in which the individual forfeits all his rights under civil law, and thereafter until the day of his discharge submits himself wholly to the unit in which he serves. Such a course will invite abuses, but abuses are preferable to combat impotence, if number of lives involved be the criterion. There should be legal recognition of the fact that any military individual--soldier or officer--derives whatever rights he has only from his unit.

This discussion of abnegation of individual rights may seem incompatible with the previously asserted self-reliance demanded by the conditions of modern combat, but a moment's reflection should serve to establish that both serve the

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11. Imagine what would happen in civil life for instance if non-payment of Income Tax was legally easy to dodge, or if red-light violators went unpunished. It is doubtful that many people would be able to muster sufficient public spirit to pay their tax or obey the traffic law knowing that other citizens could ignore their obligations at will, and chaos would result.

same end: military discipline. At the risk of belaboring the point, a comparison between the tactics of dispersion and close order tactics might be helpful. In dispersion, self-reliance takes the place of the comrades at either shoulder and the General on horseback out front. Stiffened military legal authority not only takes the place of the sergeant to the rear, but also assists in the establishment of self-reliance by assuring the same standard of performance for all. From another point of view, that of the leader, troops who have had two years good training ease the difficulty of leading dispersed formations, and are facile in translating his schemes into action. Moreover, the better the legal position of his authority, the better he can bring into line those exceptional individuals who refuse to work with and for the unit.

These are hard, cold facts. They have somehow escaped the notice or are beyond the comprehension of our civilian leadership, and our military leaders have been derelict in bringing to light the omission. But they are surely pertinent to any discussion of future Infantry policy, and will therefore here be deferred for later consideration.

The Individual Foe

The reluctance to submit to the heavy casualties exacted by the weapons of modern technology, which has forced to nations of the West to adopt dispersion, despite the aforementioned problems which it presents, is significantly absent from warfare as it is waged by the Communist nations. While the West, responsive to a respect for the human life which precludes acceptance of heavy casualties in any committed unit, has developed tactics which exact of minimum toll of its combatants, Communism has uniformly adhered to close order discipline and tactics. Indeed, in order to prevent the dissolution of Infantry units

under the severe punishment meted out by contemporary ordnance, the East trains its soldiers to maneuver in tight groupings which would have been suicidal even at Gettysburg.

"In the twinkling of an eye the terrain in front of the German line teemed with Russian soldiers. They seemed to grow out of the earth, and nothing would stop their advance for a while. Gaps closed automatically, and the mass surged on until the supply of men was used up, and the wave, substantially thinned, receded again."^{11a}

So a German General described the tactics of the Red Army to his American captors. The similarity between this description and the events at Gettysburg is striking, and both bear an undeniable likeness to the now familiar newspaper accounts of Chinese Communist "human wave tactics" in Korea. Two examples of their method of battlefield control from the experience of the author are illuminating. The first demonstrates the advantage of rigid battle discipline, and the second its principal--and for the West, preclusive--disadvantage.

In July of 1952, near an obliterated village called Sangnokil an enemy patrol was trapped by a superior force of American Infantry carefully deployed and emplaced in ambush. As soon as the Chinese commander realized his situation, he blew a whistle, his group formed quickly into a column of twos, and ran at top speed in a compact mass through the American line. This reaction was so swift that an astonished American machine gunner allowed the group to pass within ten yards of the muzzle of his gun without firing a shot, but one burst would have wiped them out. As it happened, however, their solidarity and quickness saved their lives.

In October of the same year, on heights known to the American Infantry as Jane Russell Hill, Chinese were driven out of their trenches by an audacious and determined US assault. In a matter of minutes, enemy commanders rallied their forces, and launched an immediate counter-attack. In full view of distant American observation posts, as well as our forward Infantry units, the

11a. Department of the Army, Pamphlet 20-230, Russian Combat Methods in World War II. See note 13, p. 23.

Chinese formed up in ranks for this attack, and then proceeded toward our lines at a dog trot, carefully preserving their tight formation. One thousand yards away an American officer spoke into a telephone. In less than a minute, in the air above those distant, bobbing white figures, blossomed the deadly orange and black blooms of proximity fused 155 mm. shells, the "Chinese funeral flower". Great clouds of dust arose as the earth beneath the bursts was beaten by a lethal rain of steel fragments, and then settled slowly on still, white mounds that marked the remnants of fifty human lives.¹²

Enemy prisoners captured by US Infantry throughout the Korean fighting told repeatedly of whole enemy regiments decimated by American artillery fires even before they were able to launch their final assaults. In most of the actions of two years of war against Western troops employing the weapons of the Second World War--not the even more efficient modern weapons--the Chinese consistently demonstrated a willingness to sacrifice the lives of their assault units until the defender's weapons were glutted with targets, ran out of ammunition, burned themselves out, or were simply overwhelmed by onrushing waves of plodding human flesh.

Thus the military discipline of close order that was abandoned by the West in World War I is practiced yet by a people as contemptuous of life as political liberty. The only changes that have been made by the Communists involve more intense individual training, political indoctrination, and severe punishments for infractions, all of which make the fabled commissars with drawn

12. For other documented examples of Chinese tactics, see S. L. A. Marshall, The River and the Gauntlet, Morrow, New York, 1953. For example, p.203, "These were the terms of the fight...The Chinese kept walking into it, and with the armor and all infantry weapons firing, Easy continued killing...Out along the saddle and in the valley the men could see Chinese bodies lying in windrows."

pistols at the rear of attacking Communist formations quite unnecessary.

It is interesting to note that the individual armament of the Communist soldier is entirely consistent with the manner in which he is employed. In contrast to the superbly accurate rifle of the American Infantryman, which enables our soldiers to do precision killing at five hundred yards if need be, the basic arm of Communist Infantry is a reliable, rapid firing, but highly inaccurate, and short ranged machine-pistol. Possessing few weapons other than this, and hence unable to kill much beyond fifty yards, Communist attacks, like Pickett's, are characterized by a lack of Infantry fire until the distance to the enemy is reduced to a few yards, and close combat can carry the objective. Similarly, his Infantry defense is built around very short-range small-arms fires within throwing distance of his emplacements to take advantage of hand grenades, which are his only other numerically important weapon. Western tactics, on the other hand, are predicated on attempts to eliminate enemy resistance before closing with him in an attack, or on breaking up enemy attacks at long ranges before he can close to hand grenade range.

The foregoing commentary was not intended to imply any general combat inefficiency on the part of Communist Infantry. To the contrary, though its mode of combat is quite different from that of the West, its record has been at least as good. These successes are in the main attributable to staggering numbers of lives sacrificed without compunction for tactical advantage. No small part of the credit belongs, however, to the character of the Communist Infantryman himself. Speaking of him in his corporate identity, he is close to Nature, possessing the intimate knowledge of her that only the farmer or hunter can acquire. He is used to extremes of weather, and accustomed to exposure. Stolid and resourceful, he survives on what would be starvation

12a. Department of the Army, *op. cit.*, p. 25. "In the winter of 1941, the Russians cleared a German mine field south of Leningrad by chasing over it tightly closed columns of unarmed Russian soldiers shoulder to shoulder. Within a few minutes, they became victims of the mines and defensive fire..." Examples such as this, or familiar to the author's experience in Korea, are endless.

rations for an American. Endless toil has been his lot all his life, and he takes easily to military labors. He digs and camouflages superbly and incessantly; if left alone for a few hours, he, his equipment, and his weapons disappear into the ground. He has limitless patience, and little imagination, and therefore is well adapted to long vigils or painstaking maneuver in close proximity to his enemy. His phlegm stands between him and panic, although he sometimes yields to hopeless resignation. Coming as he does from peoples traditionally disdainful of death and suffering, he ignores all but the worst wounds, is undismayed by a comrade's death, and himself does not quail if assigned to the certain death of an assault unit; the fighting chance for life demanded by Western soldiers he probably cannot comprehend. He does not make a good mechanic, and a gadget, once broken, he would rather discard than mend, but he grasps the advantages of, and uses well, machinery. He works and fights at his best only when he is with his comrades; deprived of their comfort and close support, he swiftly becomes indecisive and confused. Despite the coercion and despotism which characterize the regime he serves, he is wholly loyal to it, and believes implicitly in anything and everything it tells him through his officers.¹³ By disposition and training, he is a perfect fighting machine, and quite literally all that he requires in the way of leadership is to be pointed in the right direction, for once started he will go forward until stopped. One of the prevalent theories regarding his capabilities concerns itself with a presumed unwillingness to fight and die for Communism

13. Department of the Army, Pamphlet 20-230, Russian Combat Methods in World War II, Washington, November 1950, Chapter 1. The observations in this excellent study, which was compiled from the statements of captured German Generals after World War II, agree in every way with the author's own experience with the Chinese Communist soldier. The above description fits the soldiers of either nationality to perfection.

on foreign soil, and many people still are convinced that the Red Infantry could never become an instrument of international aggression.¹⁴ One can answer such a sanguine speculation only with the observation that there is nothing in the known character of this soldier to suggest that he is anything but entirely submissive to the dictates of his regime, and therefore if he is told to fight abroad and given the usual plausible Communist explanations for so doing, his unswerving loyalty to his superiors, his fatalistic, unquestioning obedience, and his inability to decide major issues for himself will insure as dependable a performance as though he were fighting for survival in his homeland.

Communist discipline and close order tactics are in fact so well suited to the nature and temperament of this soldier as to suggest that he may be unable to fight well in tactical dispersion. While his present system of military discipline, entailing rigid obedience and cattle-herd action under fire, is no doubt only a simple step beyond his civilian existence of unquestioning subservience to dicta governing every aspect of his daily life, such an authoritarian background would ill-prepare him for fighting in the Western manner, which would require him to use initiative and independence in translating the intent of his leader into action, and to fight remote from ever watchful comrades and overseers. Moreover, the profusion of electronic and

14. For example, Maj. B.E.M. de Pue, "The Soviet Army", as translated for the Military Review, Command and General Staff College, Fort Leavenworth, November 1953, Vol XXXIII, No.8, p.78. "There is reason to believe that the Soviet soldier, far away from his homeland, will be a less formidable opponent when it is no longer a question of defending or retaking his own territory." This same author is also at variance with our estimate of the individual capability of the Soviet soldier: "When independent of the army machine, he is a skillful combatant..." The latter confusion develops from the fact that Maj. de Pue, a Belgian officer, fails to recognize that the partisan operations which prompt his observations were almost as highly organized by the Soviets as their formal military efforts.

and automotive equipment which is necessary to the Western style of Infantry combat may be beyond his technological capabilities. But surely should communism be forced toward dispersion, its problems in respect to the development of competent junior leaders, and in respect to the establishment and enforcement of military discipline in both its positive (implementation of the plan of the commander) and its negative (prevention of battlefield desertion) aspects, would be immensely more difficult than those of the West.

Even from this cursory examination of the capabilities and limitations of the individual foe and speculation on the feasibility of Communism adapting him to dispersed tactics in deference to modern firepower, it should be evident that Western Infantry strategy, in order to assure any future battle's being fought on terms to our best advantage, must be such as to admit of as much firepower support for Infantry as possible, and at the same time permit vigorous experimentation and research to develop more efficient and more dispersed tactical formations. The strategy adopted by the West must exploit to the maximum the convenient Communist propensity to present massed human targets, and be prepared, if conflict comes, to visit immediate annihilation on exposed tactical formations. It must, moreover, cope with the possibility that the prospect of staggering human loss may compel the East to revamp its tactics along Western lines, and be prepared in that event to maintain superiority in the techniques and technology of dispersion.

The Strategic Common Denominator: The Infantry Division

But strategy is not a matter of individuals nor yet of small units. Considerations of individual and group performance which are the concern of military discipline and tactical leadership are important to strategy only as the condition and shape the larger issues of national war. The leaders of the West in their Bermuda Conference of December 1953, must have dealt at length with problems of Infantry strategy, but unless the question of training time was raised, it is doubtful that they talked in any terms except numbers of Infantry divisions, for the division is the standard of measure for national Infantry strength to which all assessments of ground combat power must eventually be referred. Yet all too frequently even military analysts use the term glibly ignorant of the strength and equipment of the division, or its capabilities and limitations.

Gustavus Adolphus devised the first true division,¹⁴ a tactical grouping of units which included artillery as well as Infantry and gave its commander a task-force capable of handling almost all military problems. Gustavus' own command problem was then simplified to the extent that any of his divisions was essentially the same as any other, and each was as well qualified as the next to cope with a given exigency. The command flexibility which resulted provided his forces with a superiority that the rest of the nations of the world were quick to imitate, and the division organization is today universal. The modern division is the smallest unit which contains all the combat arms-- Infantry, Armor, Artillery, and Engineers--as well as signal units, ordnance

14. Oliver L. Spaulding and John W. Wright, Warfare, Infantry Journal Press, Washington, 1937, p. 478.

units, transportation units, medical units, and quartermaster units for their support, and administrative sections to pay them, to police, and to provide for their general welfare and morale. Such organization imparts to the Infantry Division great tactical flexibility, for there are at hand in the Division itself combat specialists capable of meeting any enemy threat or conquering any accident of terrain or weather. But just as important strategically are the organic administrative and logistical services which the Division itself provides for its fighting men. This combination of high combat potential and logistical self-sufficiency enables the Division to be employed anywhere in the world without drawing on external assistance other than replacement material and expendable supplies. As the smallest military community of such independence, the Division is then the lowest common denominator of ground force, the building block of land strategy.

There is some confusion evident in most strategic discussions over the qualifying labels attached to divisions, and it might be well here to clarify those distinctive terms. There are two basic types of divisions: the Infantry Division and the Armored Division. In the former the preponderant force is Infantry, and the Division takes on the mission and characteristics of an Infantry unit, all other organic arms being utilized for the support of the Infantry and the accomplishment of its mission. In the Armored Division on the other hand, the tank is the dominant weapon, and the divisional mission exploits the capabilities of armor, with organic Infantry and other arms being employed only to expedite its advance and to counter enemy anti-armor measures. The Soviets have been known to employ Artillery Divisions, but such a grouping is patently incapable of the flexibility peculiar to a true divisional organization. All other terms applied to the Division--Airborne Division, Mountain

Division, etc.--usually indicate an Infantry Division specially trained for a particular type of employment in addition to its usual broader duties. For reasons that will become apparent after a subsequent discussion of modern weapons, almost all of the ground strength of the West today is in Infantry Divisions, and hence the performance of the Infantry Division is the criterion for strategic estimates.

Usual inquiries into the characteristics of the Division are concerned with numbers of men. The present strength--the military term for manpower--of the American Division is approximately 19,000¹⁵ officers and men. Because the American people believe in providing their soldiers with environmental comforts commensurate with their civilian high standard of living, the number of our personnel whose duties are concerned primarily with the welfare of their fighting comrades is slightly higher than that of our Western allies, and several thousands higher than that of Eastern divisions. Nonetheless, the numbers of men in the fighting units of all Divisions--East or West--is essentially the same. There is no significant difference among their several combat efficiencies which can be attributed to variations in strength. In other words, if a Western Division can accomplish more than its Eastern counterpart, it owes its superior abilities to better equipment, techniques, and leadership rather than to numbers. Therefore, any strategic analysis which is based on numbers alone involves assumptions which the facts of relative combat capabilities do not warrant.

The easiest way to gain an appreciation of what an Infantry Division can or cannot do is by means of a diagram such as faces on page 29. In this

15. The Infantry School, Reference Data Infantry Regiment, Fort Benning, August 1950, Chap.1, Charts 1-4.

schematic picture the reader is looking down upon the division from above. The ground physically occupied by the various component tactical units of the Division is marked out by circles, one circle or blip for each unit. The size of these symbols varies with the amount of ground the unit covers, rather than the size of the unit. A large unit situated on a hill where broken ground prevents the effective employment of weapons and gives the enemy many natural entrances into the position, will be forced to place its personnel quite close together in order to assure its security, and hence its blip will be small. A numerically smaller unit might on the other hand be emplaced on flat ground ideal for its automatic weapons, which would permit it to emplace its soldiers far apart, using firepower to bind them together in mutual support, and that unit's circle or blip would be considerably larger than the stronger unit up on the hill.

It will be noticed that the smallest unit depicted is the battalion, a force of about 900 men.^{15a} The reason for this is that the battalion is the analogy in tactics of the division in strategy, being the smallest unit capable of individual combat action, for in the battalion is included medical, anti-tank, communications, staff, and heavy weapons support essential to the operations of its Infantry Rifle Companies, which are themselves composed only of soldiers armed with light weapons.

The whole Division derives its reason for being, its purpose from the mission of the Rifle Companies. As stated in the manuals of the American military, that mission is:

"to close with the enemy by fire and maneuver in order to capture or destroy him, and to repel his assault by fire and close combat."^{15b}

It should be obvious that in any one instance there will be limitations upon the ability of the Division or any of its subordinate units to execute that

15a. Ibid.

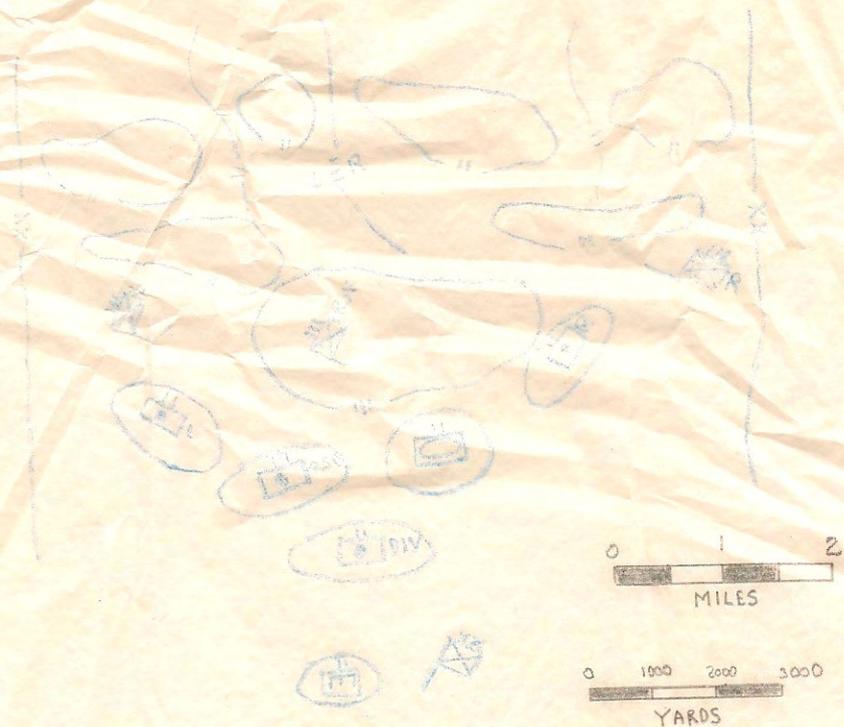
15b. Ibid.

mission-limitations such as the strength of the enemy, the accessibility of his position, the condition of the Division itself, and weather. It is impossible to convey, diagrammatically or otherwise, any exact description of divisional capabilities and limitations, for each situation will demand separate solution, and the combat efficacy of the Division on one day may be entirely different the next. It is possible, however, to utilize the now considerable recorded experience of American and other Infantry Divisions in combat to evolve generalizations on divisional deployments which represent averages, or usual cases. The diagrams¹⁶ used here are such generalizations, and they are useful not as dogmatic prescriptions but as standards which can impart an appreciation of the order of magnitude of the physical capabilities of the division, and of the spatial relationships involved in the tactical practices of Communism and the West.

Referring to figure 1, the most important strategic fact apparent in the diagram is the amount of ground this US Infantry Division is defending. The width of its defensive zone--military term: frontage--represents a reasonable estimate of its potential in average terrain. Here the frontage shown is 11,000 yards, or about six miles. It is conceivable that under circumstances favorable to the defender that frontage might be increased to two or even three times as much. In Korea, a division frontage of 13 miles for a US division was not uncommon. In order to understand what happens when frontage is increased or decreased, it is necessary to visualize the

16. G. C. Reinhardt and W. R. Kintner, Atomic Weapons In Land Combat, Military Service Publishing Co., Harrisburg, 1953, pp. 24-33. The writers were members of the faculty of the Command and General Staff College, and the diagrams and data used in this paper based on their book conform closely to C&GSC doctrine.

Figure 1



U. S. DIVISION DEFENSE

Legend:

- Division × ×
- Regiment III
- Battalion II
- Infantry [X]
- Artillery [A]
- Armor [A]
- Engineers [E]
- Command Post [C]
- Reserve RSV
- Left; Right L; R

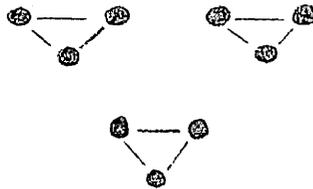
- U. S. Division has:
- 3 Regiments Infantry
 - 3 Battalions Artillery (1/Inf Regt)
 - 1 Battalion Division Artillery (Big Guns)
 - 1 Battalion Armor
 - 1 Battalion Engineers

interior of the battalion "blip". Along the actual front the rifle units will be deployed in a long line, perhaps in foxholes, perhaps in trenches. Behind them other reserve lines will be manned, and the command, medical and administrative installations emplaced. With a division frontage of 6 miles as shown, the density of men on the battalion line is about one per every fifteen yards of front. Extend the frontage to thirteen miles and the density will drop to about one man per thirty-five yards. Extend it beyond there and the density drops proportionately. The ultimate effect of extension is to inhibit the defensive capabilities of the unit, but the dissipation of efficiency proceeds at a more rapid rate than personnel dispersal. Imagine yourself alone in the front line of a division fighting on an extended frontage of 15 miles. In the black of night your nearest comrade is forty yards away. If an attack comes at you, he will not be able to throw a hand grenade in your defense, and if the assault be delivered in a swift and overwhelming rush, you may die without his even knowing. This tactical remoteness, if prolonged, eats like an acid at unit cohesiveness, for while training and discipline can accomplish prodigies in the way of holding men together in adversity, a defense of weeks under such conditions could hardly fail to break asunder any unit into badly frightened individuals.

This does not mean that an Infantry Division could not defend a front of fifteen miles if it had to, or that means could not be devised for defending frontages greatly in excess of that. It does mean, however, that the present system of tactical defense utilized by the West, diagrammed in Figure 1, imposes definite frontage limits upon the strategic potential of any number of Infantry Divisions, and renders improbable any assertion that the West could offer a continuously defended line from the Alps to the Baltic along 750 miles of West Germany's frontier with anything less than fifty divisions, and at that, accepting a frontage of fifteen miles per division, ideal conditions of air

supremacy, logistical support, and control of areas to the rear would have to obtain.

The present system of defense common to the Infantry of Western nations is by and large based on the experience of the First World War. Western defense is lineal, and is characterized by decreasing strength to the rear of the main line of resistance. It is true that our field manuals devote considerable space to the principles of defense in depth, and defense in perimeter, ⁱⁿ but defense as practiced--distinct from the way it is taught--the preceding observations hold. Within the regiment--the grouping of three battalions--two battalions will be emplaced forward and one to the rear. Within the division--which has three regiments--two regiments will be placed forward and one to the rear. This system, the triangular organization which the Army publicizes, should be apparent from study of the diagram. In essence, with the dots representing Infantry battalions, the division is disposed thus:



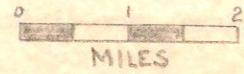
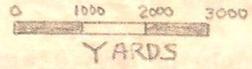
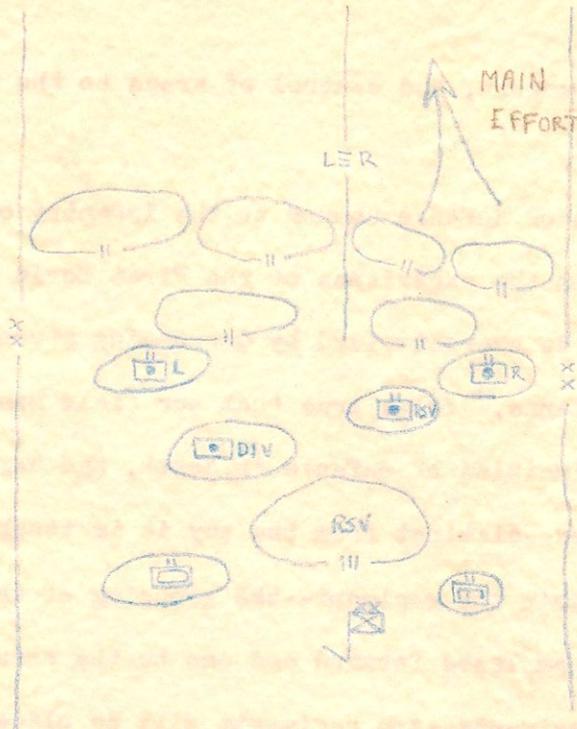
The other battalions shown in Figure 1 represent the Division's armor, engineer, and artillery battalions in appropriate positions. Note that the Western artillery organization is built on the battalion, one of which is provided for each three Infantry battalions (Regiment).

The triangular organization permits depth in the defense by the emplacement of rear, or reserve, unit in such a position that it can block a break-through of the main line of resistance, or attack such penetrations to eject the enemy therefrom. Obviously however, the units are disposed to exact the maximum

attrition of the enemy before he can reach the main line itself. This is accomplished primarily by the carefully emplaced defensive fire of the artillery and the automatic weapons of the front line Infantry, and is consistent with the aforementioned Western reluctance to accept the heavy casualties which are bound to be suffered by defenders who are willing to let the enemy within their battle position.

The US Infantry Division in the attack (Figure 2)  looks schematically similar to the defense, and indeed the triangular disposition of two Infantry units forward and one back remains unchanged. However, there are important differences. The first and most obvious is the narrower frontage, designed to permit concentration of firepower and troops at the point of attack. Also note the position of the artillery, much further forward than in the defense in order to be able to support the advancing assault without being forced to displace, and concentrated within range of the main effort. The frontage shown here is roughly four miles, which is about average. Closer concentration would hamper effective utilization of available troops by cramping their freedom of maneuver, and wider frontages would not admit of sufficient concentration of combat power at the point of attack. Such a disposition would be used against an enemy defending hastily dug positions, but were the enemy behind a well-prepared position, the attackers might have to concentrate their power even more; were the enemy confused and disorganized, defending no position to speak of, it is doubtful if the Division would deploy at all, and would instead push on through the light resistance in a column. The objective of all attack is to drive the enemy from prepared positions so that fast moving columns can exploit initial successes by moving through and to the rear of the retreating foe to surround him and finish him. Hence most successful attacks quickly devolve into divisional advance in one or more columns.

Figure 2

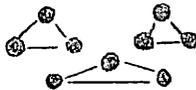


U. S. DIVISION ATTACK

The columnar nature of Western divisional attack, and the lineal nature of Western divisional ~~attack~~ ^{defense} are, as subsequent exposition shall demonstrate, directly contrasted with the divisional tactics of the Communist armies, which dictated lineal attack and columnar defense.

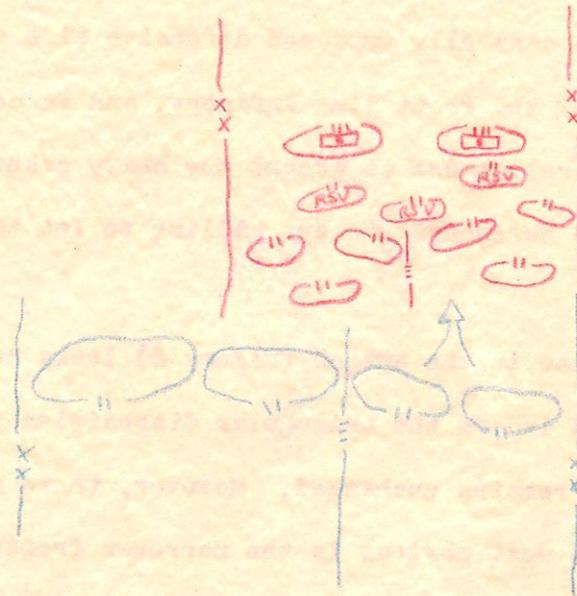
The Soviet Division

The diagram opposite (Figure 3) bears the same relationship to an actual situation as did the preceding diagram of the US Division defense. Again however, it provides considerable insight into the general characteristics of Soviet and hence Eastern divisional defense tactics.¹⁶ The narrow frontage is the salient difference between the two diagrams, and the contrast in depth and troop dispositions is also apparent. The Soviets are able to defend narrow fronts because in any conceivable situation they would probably have many more available divisions than the West. Certainly their experience with the Germans or the Chinese experience in Korea would hardly modify their views on this point. Their generally poor communications probably also contribute to their predilection for compressed defenses. This narrow-front defense almost necessitates their scheme of troop positions, which at battalion level is the inverse of the Western plan. The Infantry battalions are organized in the same triangular system as the West, but seem to be deployed with one forward and two back, so that the division looks like this:



16. The only diagrams the author has seen on this subject are in classified documents. However, the deployment pictured here is consistent with the unclassified information printed in DA Pamphlet 20-230, *op.cit.*, and closely conforms to Chinese practice in the Korean war, most familiar to the author.

Figure 3



0 1000 2000 3000
YARDS

0 1 2
MILES

SOVIET DIVISION DEFENSE

The action which must be conducted from such a defense, again in clear contrast to Western tactics, is based squarely on the principle of attrition. As the enemy penetrates the lightly held forward areas of the defensive position he encounters a progressively denser and deeper battle position, until finally, battling a close quarters overwhelming strength to his front, and harrassing forces on the flanks of his penetration, he must either be annihilated or withdraw. The previously emphasized willingness of Communism to sacrifice its forward units is seen again here, although such tactics are entirely consistent with the stubborn resistance of which small groups of Eastern soldiers are capable. Contrary to the practice of the West, the smaller units within the division are emplaced in circular positions, each a complete all-around defense in itself, generally located on the tops of hills or in other places difficult to approach. The areas in between these strongpoints are filled with the fire of artillery and mortars--a heavy Infantry weapon which throws an explosive shell short ranges with a high trajectory,-- a cheap, easily manufactured killer which is used in great numbers by Communists--and the strongpoints themselves defended mainly with grenades and machine-pistols. The capacity of the individual enemy for prodigies of field engineering in the construction of these fortified areas enhances their defensibility, and makes them difficult to destroy except by Infantry assault.

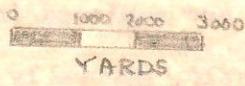
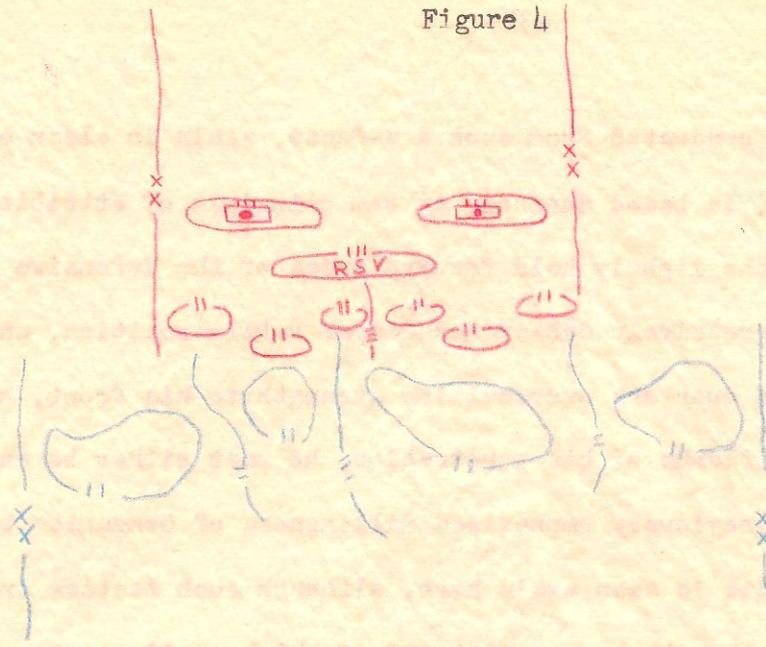
One feature of the Soviet defense worth additional comment is the artillery grouping into regiments instead of the Western battalion. Although paucity of communication and lack of adequate survey (to locate the guns in relation to potential targets), are probably the principal reason for this concentration, it should be noted that the Soviet employs with his forward divisions as much artillery as he can obtain, lining the guns up in great concentrations to counter an enemy thrust in a particularly vulnerable area.

Here again, mass is used in preference to real flexibility and control which distinguishes the well dispersed battalions of a Western Division, for though separated physically, excellent survey and communication permits their control from a central point, and the fires of any or all of the artillery tubes in the division can swiftly be brought to bear on a surprize target.

The Soviet Divisional attack tactics evince an even more callous disregard for casualties than do their defenses (Figure 4.). Again the abundance of enemy divisions permits him to mass his troops on a narrow front, and he will do so with all available forces to achieve man-densities in the forward areas often as much as ten times that of Western defenders opposite. These forces are backed by artillery regiments moved close to the line for the terrific bombardments which generally precede all Infantry attacks. The forward units of such formations face certain annihilation, but the masses rolling forward in lines behind them are expected to carry the objectives. It should be pointed out that the term "Human wave" applied to the attacks of Communist armies is not a wholly adequate description of their advance. Each battalion advances with one unit deployed forward, and two units following immediately behind. The idea is to punch a hole with the first unit through which two fresh units can pour, or failing that to engage the enemy with the first while the other two effect a double envelopment of the enemy position. But closely do these "reserves" follow the lead troops that the defender receives the impression of "waves" coming at him, and cannot appreciate the tactical planning and purpose of the "human sea" which covers the landscape before him. However, the fact remains that their manpower density in the attack is ruinously expensive under modern firepower.

Mention was made above of the massed artillery bombardments before attack.

Figure 4



SOVIET DIVISION ATTACK

The following comment by a German General who had fought against Soviet Infantry is illuminating:

Heavy preparatory fire, laid down broad and deep and lasting from one to two hours, was the initial phase; it rapidly mounted to murderous intensity. Once an attack was about to get underway, the Russians would suddenly lift their fire from very narrow lanes (about 80 to 100 yards wide), along which the infantry was to advance....Here again, one notes the same concept: human lives meant nothing at all. If defensive fire forced the Russians Infantry out of their narrow lanes, or if their own artillery was unable to maintain the lanes accurately--Nichevo!--those were operating expenses.¹⁷

Once initial success is achieved, the Soviet masses pour across into the breach. By and large however, the advance is maintained on a linear basis, units advancing abreast of one another, not only because Soviet Infantry is generally poorly mechanized in comparison with the West, and incapable of swift motor marches, but also because the Soviet artillery which must support the foot troops suffers from the same deficiencies. Moreover, the speed with which Western troops can re-establish positions in front of an enemy penetration has taught the East to advance prepared for a repetition of the original attack procedure.

There are other characteristics of the Soviet Division worth mentioning. In numbers, its strength is about 12,000 officers and men.¹⁸ Despite large numbers of mortars, its offensive and defensive fire power is less than that of the US Division.¹⁹ In general the Soviet Infantry is not motorized, although

17. DA Pamphlet 20-230, op.cit. p.20.

18. Maj. B.E.M. de Pue, op.cit., p. 80.

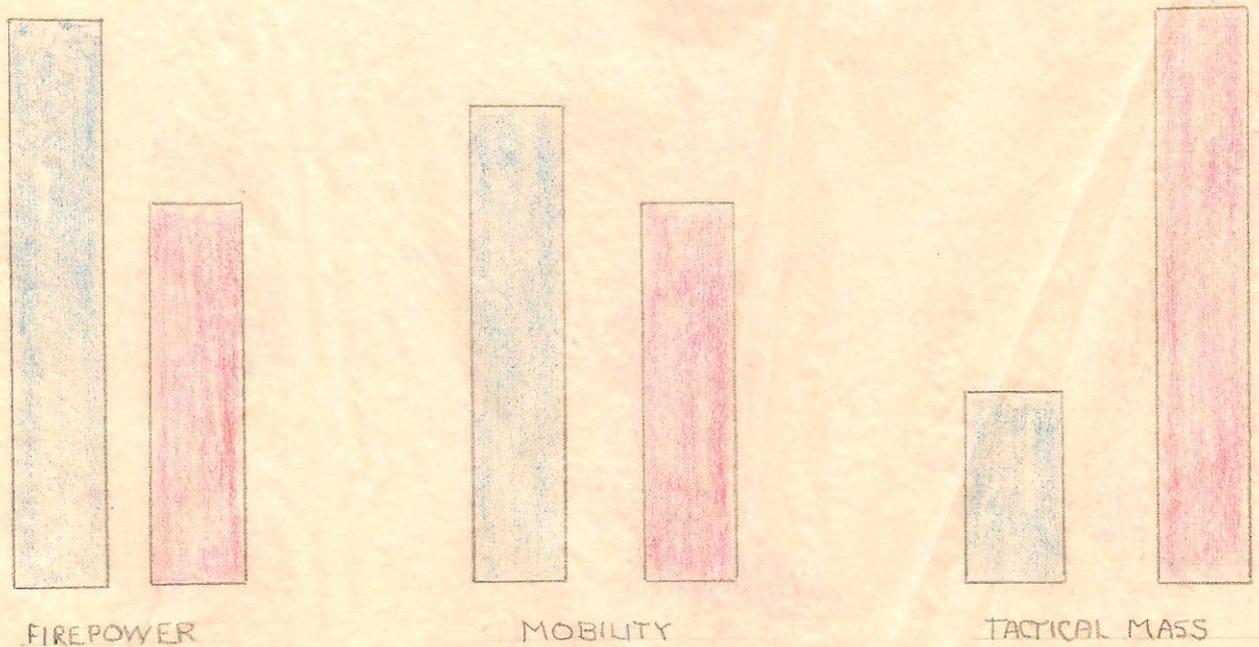
19. This is a subject which is hotly contested in military circles. Probably most of the quantitative differences among the debaters hinge on various estimates of the firepower contribution of the numerous machine-pistols in the Soviet Division. The author accepts the mandate of the Infantry School at Fort Benning; "the fire power of the US Infantry Division is $1\frac{1}{2}$ times that of the Soviet Division." See also Charles V. Murphy, "The War We May Fight", Life, (May 28, 1951), p. 84.

the USSR maintains more motorized or armored Infantry Divisions than the total number of US Divisions of all types. The mobility of all Eastern Divisions of whatever type is, however, below that of Western Divisions. Mobility is a state of mind, and even troops equipped with the best of automotive equipment are not mobile unless their command system is equal to the demands on communication, energy, and imagination which true mobility demands. The excellent radio equipment of the Western Division, taken together with the flexibility of command, and the initiative of leaders which the West ever strives to develop, assure the West of at least a temporary superiority in divisional mobility. In one respect though, the Communist Division enjoys a considerable advantage of its potential adversary, and that is in mass. Mass is the ability to achieve a local preponderance of combat power at the point critical to the successful prosecution of the battle, and the Eastern Division simply because there will nearly always be enough of its brother divisions on hand to permit narrow frontages, can theoretically out-mass the Western Division on defense or in the attack. The three-to-one numerical advantage of attacker over defender which the West considers necessary to assure tactical success seems within the Eastern grasp as a matter of course, and conversely, impossible to attain for the West. This analysis ignores, of course, the advantage that superior generalship may take of mobility to achieve local superiority for the West, or of the Korea-proven ability of firepower to offset advantages in mass ranging up to eight-to-one.²⁰

20. A-N-AF Register, op.cit. "It was the massed firepower of the American soldier which balanced the weight of massed manpower of the enemy's callous 'human sea' tactics." Estimate of odds the author's own; however, estimate jibes with Lt.Col. I.A. Edwardson Military Review, op.cit., p. 16.

Graphic Comparison, East and West

The graph below (Figure 5) illustrates the relative divisional capabilities of the Western Infantry Division and its Communist counterpart. This comparison, taken together with an appreciation for the relative manpower density used in the two systems of tactics, should be sufficient background for an examination of other types of Divisions, and of the weapons of present and future which shall dictate which kind of Division, and how many of each shall be employed in Infantry strategy.



The Airborne and the Armored Division

Any discussion of divisional capabilities in this day would be incomplete without mention of the other types of divisions employed by both the East and the West. The Airborne Division is an Infantry Division lightened enough to permit the unit to be parachuted into combat with all weapons, equipment, and supplies essential for the unit's immediate effectiveness. Much of the experimentation with the capabilities of Infantry units within the last decade has centered around Airborne forces. Most of the large maneuvers conducted by the Army in this country in the same period have involved a parachute operation at some phase of the war games. General Ridgway, General Taylor, General Gavin, and numerous other high ranking Army officers are parachutists. Within the American Infantry at least the specialist skills of parachuting are becoming common to large numbers of officers and men. Much of the publicity given to the Infantry today goes to parachute units. All of these facts contribute to a public impression that the military considers the Airborne Division the Division of the future, the white hope of ground strategy.²¹

It would be fine were this so. The techniques of air-landing a parachute unit are now advanced far beyond the practices of World War II, and there is every expectation that the progress made thus far will be continued. But military planners are well aware of the fact that it is not yet possible to parachute tanks, large numbers of trucks, heavy engineer equipment, or big guns. Because of this restriction, Airborne Divisions are poorly equipped for sustained combat, or maneuver once on the ground. Such equipment is indeed assigned to the Division, but present planning envisages delivery of it subsequent to the parachute drop itself. Generally it would rejoin its parent unit

21. Brig. Gen. P.M. Robinett, "Ground Force Mobility", Military Review, Vol. XXXII, No. 12 (March 1953), p.9.

via a land route, but might be air landed by large transports after the parachutists had seized an "airhead." Airborne divisions, then, are strategically mobile, but tactically immobile, until this link up between the parachutists and their heavy equipment is made. This fact curtails the strategic range of Airborne Divisions to the effective range of the land or air link-up operation.²² But if the heavy equipment of the parachute units has to be moved into the "airhead," then Infantry Divisions could be moved in the same manner, by land or by air, to assume the tactical mission for which the "airhead" was originally intended. Thus the importance of the Airborne Division is mainly that it is able to secure such "airheads" to the rear of the enemy lines, in strategically vital areas. The possession of one or two Airborne Divisions means, then, much strategically to a Theater Commander, but there is no reason for so organizing all his Infantry, and in fact the expense of training all Infantry formations for parachute operations would be far beyond the small advantage gained thereby. Indeed, recent developments in the aircraft industry indicate that there might be available within the near future flying machines capable of airlanding ordinary Infantry units onto small unprepared fields, thereby eliminating the need for the parachutist altogether.

Fundamental to airborne operations of any sort-parachute or air landed would be air supremacy, and if a strategy calls for airborne operations it also entails complete control of the air at least in the locality of the proposed operation. This brings the question of relative air strength into the picture, and complicates it beyond the purview of this paper. However, one other aspect of the subject of Airborne forces is pertinent, and that is the fact that in

22. Maj. Gen. James M. Gavin, Airborne Warfare, Infantry Journal Press, Washington, 1947, pp. 166-169.

the Soviet Union there is, along with a juvenile club whose primary activity is learning how to throw grenades, a government sponsored social group of parachute jumpers.²³ Presumably there are, therefore, large numbers of parachutists available to the Soviet, although it is curious that they were never used during World War II. Conceivably, any Soviet move on a grand scale could now be accompanied by wholesale landings behind Western lines for harrasing or guerilla operations, although such operations would present great problems of supply for the attackers.

The Armored Divisinn, in contrast to the Airborne Division, is not an Infantry Division at all. By the end of World War II, it had become a key strategic weapon in both Western and the Soviet armies. As the name implies, its component units are all mechanized, and its fighting units armored. Utilizing the firepower, shock-action, and great mobility inherent in its equipment, it could plow through an enemy line and range about the enemy rear as far as its logistical support would permit. It is a favorite arm of the Soviet armies, although to date none of their satellite nations seem to have been provided with enough armor to permit the equipment of Divisions. The Soviets by the end of their German operations were employing large tank formations both in conjunction with Infantry attacks to procure a breakthrough of the German front, and independently to exploit them.²⁴ Soviet tanks are now probably the world's best, their tankers fair. Their tank communications

23. Taylor Cole, ed, European Political Systems, Knopf, New York, 1953, p. 138. This organization is called the "Osaviakhim," membership in 1945; 13 million.

24. DA Pamphlet 20-230, op. cit., pp. 21-22, 49-57.

inadequate.²⁵ The same tendency to use mass to overcome deficiencies in quality was evident in their tank fighting against the Germans,²⁶ and no doubt exists yet.

Of Western tanks and tankers, it can only be said that the future of armor, and Divisions built around it, hinges on a race between weapons and armor which weapons seem at present to be winning. In other words, the present strategy of the West takes cognizance of the present superiority of firepower over the tank, and the present number of Armored Divisions in Western armies is very low. The design of new armored equipment goes apace, but until new developments in armor reassert its supremacy over the Infantryman, the Armored Division probably will not figure in the strategic planning of Western ground power to any great extent, despite continued Soviet faith in large armored formations.

The New Weapons

What are the recent developments in weapons which has lead the West to abandon the reliance on the Armored Division which the lessons of World War II seemed to dictate? By and large they can be described as improvements in the Infantryman's weapons which enhance their armor penetrative power. These new devices are merely logical evolutions of weapons which were used during World War II, but their development is analogous to the evolution of the English long-bow from its stubby ancestor, for as the long-bow at Crecy enabled the unarmored English yeoman to conquer the heavily armored and mounted French knight,²⁶

25. B.E.M. de Pue, op. cit., p. 79

26. Spaulding and Wright, op. cit., pp. 372-379

so these new weapons seem able to provide the Infantryman with the means of defeating his mechanized adversary, no matter how strong his armor protection may be.

The most familiar of these new "Crecy" arms is the bazooka, the pipe like affair that shoots a rocket capable of knocking out any known tank at three hundred yards. Improved a great deal over its ancestor that first began destroying German armor in North Africa, it is now issued to all Infantry units, down to the smallest. But there are even more spectacular improvements in old weapons. The rifle-grenade, a small explosive charge which could be affixed to the muzzle of the ordinary Infantryman's rifle and fired by means of a blank cartridge for distances up to 300 yards,²⁷ has been altered by the application of the shape charge principle and some other technical advances to the point that any soldier, who happens to have with him an ENERGA rifle grenade--as the new grenade is called--is the equal of any known tank, so great is the penetrative power of the charge.

The recoilless rifle was developed and used late in the War, but already there have been major improvements in it, particularly in its tank-killing ability. Essentially this weapon is a cannon that shoots out of both ends at once; one side of the explosive force is harnessed to propel a projectile, the other being allowed to dissipate harmlessly in the air. Because the recoil force is thereby canceled out, the guns can be made of very light metal, and do not need the heavy recoil mechanisms of conventional artillery. So light are they that a gun which was hauled by a truck during the last war--the 57mm gun--can now be fired from the shoulder and carried around by one man; another recoilless rifle, the 105mm fires a shell as large as that of the standard

27. Capt. W.S. Smith, "Energa: Tank Killer," The Infantry School Quarterly, Vol. 40, No. 1 (January 1952), p.80.

artillery piece in the US Army--the 105mm. howitzer, which weighs over a ton--yet can be carried by four men, and is mounted on a jeep like a machine gun would be. Through such weapons, artillery has moved into the foxhole with the Infantryman. Most important to him, however, is the very recent development of ammunition for this artillery which can stop any known tank at ranges up to as far as he could normally see to shoot.²⁸

All these new weapons add up to extremely bad news for armor.²⁹ Capitalizing on these developments, a determined Infantry unit should be able to stand its ground against any number of tanks, fighting them on better than even terms, for with ammunition that costs a few dollars a round, each round of which is equal to a half-million dollar tank, the Infantry supply of ammunition is bound to be better than the enemy's supply of tanks. Of course, if we have these weapons, it would be most foolish to assume that the East did not. Given the prospect of having to rely on the offensive prowess of an Armored Division against a massed foe consisting of countless tenacious Infantrymen all armed with anti-tank rifle grenades, of the ENERGA type, the West would be in a serious strategic position indeed.

But this is not the end of the more recent innovations. Mention has already been made of the Proximity Fuse. This device is a small radar set which fits onto the end of an artillery shell. After the shell is fired, the radar set "watches" out ahead of the shell and detonates it as soon as the shell gets near some solid object. Against Infantry, the shell is fired to detonate when it approaches the ground on which they stand. The burst takes place in the air over their heads, and showers the area below with

28. Hanson W. Baldwin, "Infantry Adjusts Role," New York Times, November 23, 1953, p. 11.

29. Gavin, op.cit., p.174. "The conventional type steel and cast-iron earth bound tank cannot in its present form win the battle with air-transported shaped-charge weapons. In its present form it is extinct as the elephants of Zama, and the heavily armed knights of Agincourt."

fragments. This method of detonation increases the killing potential of a shell many times, and because the operation of the radar set is entirely automatic, requiring no presetting or computations, a battery can fire a salvo of such shells on a moments notice. The effect on massed personnel is appalling. In Korea American personnel were instructed to remain in their bunkers if attacked by Chinese, and the American artillery would actually shell their own comrades. Protected by their bunkers, our troops would be unharmed, but the attacking Chinese swarming over their position would suffer terribly. Foxholes offer scant protection against the plunging death dealt by this device, and troops in the open are helpless unless they can discover an object under which they can hide.

Perhaps even more important than all the other advances in military technology are the great strides taken in adapting electronics to the problems of communication and combat intelligence. Radios for Infantry become lighter and at the same time more powerful and dependable. Radar, and other electronic marvels have been put to work to aim and fire guns automatically, ferret out enemy guns, warn of the approach of enemy, and guide missiles. Even the field telephone system is changed, with major links now being filled by micro-wave radio sets. For the tactics of dispersion, superb communications and maximum manpower efficiency is an absolute necessity. Electronics have gone far in both directions.

Besides these innovations, mention might be made of flamethrowers, napalm bombs, techniques for guiding high altitude bombers in for "saturation" attacks close to friendly Infantry, night vision devices which deprive the night of a good deal of its menace to Infantry, new mines and booby traps which defy ordinary means of detection, incredibly deadly gasses, and numerous other testimonials to the marvels of contemporary science perverted for the purposes

of battle. However, none of these latter weapons influence strategy to any great extent, and hence they are properly omitted. There remains to be discussed only the newest and most terrible of all man's battle inventions, the atomic bomb and the other "unconventional" weapons which have been derived from it.

The Atomic Bomb

Contrary to popular supposition, much unclassified information about the performance of the atomic bomb is available, enough in fact, to permit an analysis at least sufficient to indicate the general trends that ground strategy will take as a result of the application of its explosive force to modern combat. For instance, the mortality experience of the Japanese at Hiroshima and Nagasaki have been published in detail. From this data alone some very valuable conclusions can be drawn. The bomb there used had the explosive power of 20,000 tons of TNT, and the fatalities in the area under the burst came from three main causes, radiation, blast and heat. The effective range of these three effects differed; the danger area of radiation was a circle of radius 4,000 feet from the ground beneath the point of detonation, of blast, 6,500 feet, and heat, 8,800 feet.³⁰ Beyond that distance there were other "secondary" casualties, caused by burning houses, falling objects, ruptured water mains, flying glass, and so on, but within the areas mentioned humans died of the bomb itself, from any one or a combination of its direct effects. Since those blasts there have been several test bombs exploded under carefully controlled conditions in order to provide scientists with more precise data on what would happen on

30. Reinhardt and Kitner, p. 13.

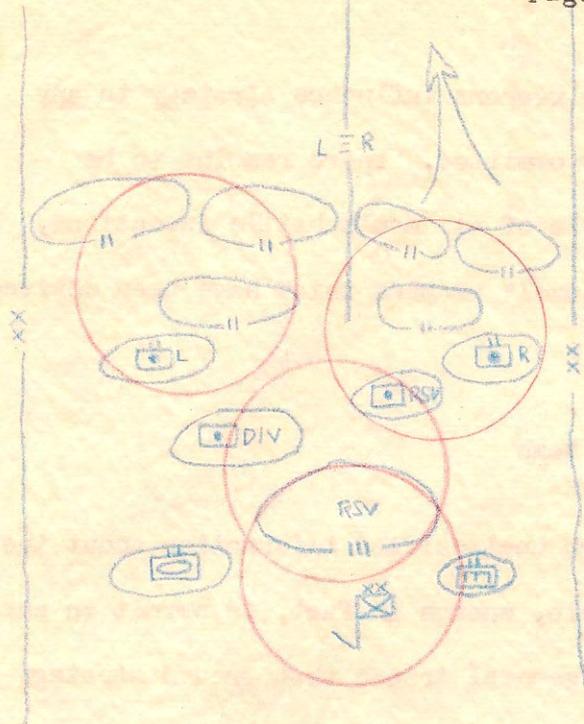
an open area such as most battlefields are. Certain of their findings have been made known in guarded statements by the Atomic Energy Commission, and by the various observers of these tests. The tests revealed that foxholes or other cover for the soldier greatly increased his chances of survival over those of the citizens of an attacked metropolitan area, that armored vehicles did provide great protection for their occupants, that electronic equipment of all kinds was particularly vulnerable, and so on. Without exploring these facts at length here, let us accept the generalization offered by two military experts on the subject, made on the basis of a carefully reasoned combination of our published test data and the Japanese experience, and assume that all unprotected personnel within a one mile radius of the center of detonation of a bomb would be almost certain casualties.³¹ Soldiers under shelter or in tanks on the fringes of that area would be safe, but it is fairly positive that because of the numbers of other casualties and the damage to radio antennae, wires, roads, and other communication facilities, survivors and their equipment within that area would be ineffective as a military unit.

Now let us take the diagrams of the US Infantry Division, and "drop bombs" on it. In Figure 6, the Division deployed for a typical defense and for attack is shown, the circles indicating the lethal radii of enemy atomic bombs of the 20,000 ton (of TNT) size. It is readily apparent that any enemy who had available four bombs per US Division engaged could pretty well write off the US Field Army, provided he could deliver the bombs precisely as shown.

The problem of delivery is more difficult than it might appear in the light of recent revelations that the US, and therefore no doubt its potential enemies,

31. Ibid., p. 14.

Figure 6



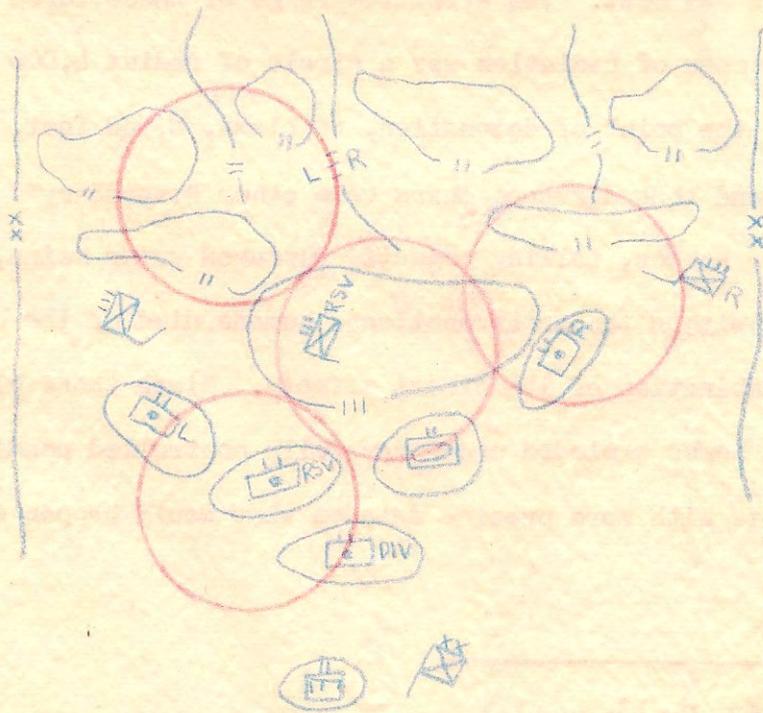
U. S. Division Attack



U. S. DIVISION UNDER



ATOMIC ATTACK



U. S. Division Defense

possessed or would possess in the near future in Europe squadrons of pilotless bombers, and heavy artillery capable of firing an atomic shell.³² These methods of delivery would augment the Japan-tested aircraft bombing, and would probably greatly increase the precision with which a bomb could be placed on a selected point target.³³ The great difficulty would arise from the fact that seldom in battle is the exact location of enemy reserves and other units behind the front known well enough to admit of selection of the optimum detonation points shown in the diagram. Combat intelligence analysis is constantly improving however, and if the enemy had two more bombs per division he could be assured of covering the area to the Division rear completely.

The very existence of atomic artillery mentioned above implies a control over the size and lethal radius of the bomb which must be rather precise; size because obviously the bomb has to be fitted inside the 280mm shell³⁴ which the piece fires, and lethal radius because artillery which fired a shell whose burst was unknown or variable would certainly not be practical enough to warrant the issuance of atomic cannon to a Field Army, where the danger to friendly troops would be prohibitive. The four members of the Joint Congressional Committee who witnessed one of the atomic tests in Nevada put it this way: "We were impressed with the finite (limited) nature of a single atomic blast."³⁵ And Gordon Dean, Chairman of the Atomic Energy Commission, said this of the control over the bomb: "...it also leaves us in a position where we can with

32. "Pilotless Bombers to Go Overseas Early in 1954," New York Times, November 29, 1953, p.1.

33. Op.cit., p.23.

34. Ibid.

35. Ibid., p.8.

complete justification treat the tactical atom--divested of the awesome cloak of destruction which surrounds it in its strategic role--in the same manner that other weapons are treated."³⁶

This control over the bomb means that the threat implicit to the Infantry Division which uses the manner of fighting peculiar to the United States--and that includes most of the Divisions of the West--must be reckoned with in all strategic planning from now on, and must certainly become of paramount importance in tactical planning and training. Quite obviously, the immediate effect of any application of the tactical atomic bomb would force our Divisions to adopt tactical dispersion much greater than that now used. Within the small unit itself men are spread now by the threat of conventional artillery to about the maximum distance that human faculties--voice control, hand signals, and so forth--can control and direct. Perhaps electronically we can control men spread even wider, but at least we still can go a long way toward dispersing the units themselves, so that the number of units within any one mile radius circle would be drastically reduced. Such dispersion would throw tremendous burdens upon the present electronic communication system, and upon transportation, for if dispersed, units would have to be able to concentrate quickly or move forward rapidly to offset the lack of physical concentration of combat power.

What would be the overall casualty effect of tactical atomic weapons? The answer to that question is statistically evident, provided that such weapons do cause increased tactical dispersion. Under the influence of machine-enforced dispersion, casualty experience per number of men engaged has steadily declined

36. Ibid., p.9.

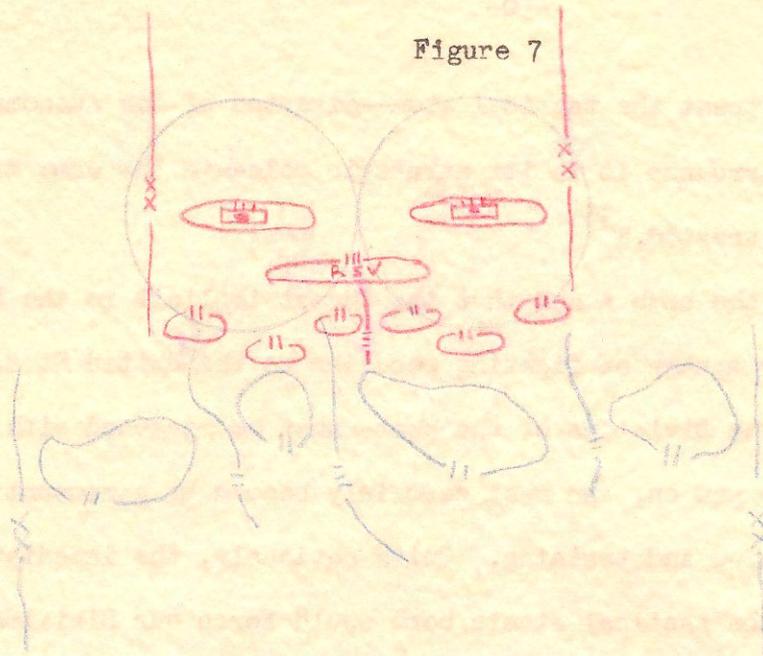
over the last century. For instance, on the afternoon of Pickett's Charge at Gettysburg, the forces engaged suffered almost exactly 20%³⁷ casualties. The experience on all battlefields and in all theaters of that war was 12.43%. In World War I the casualty experience declined to 2.4%, and in World War II, to 0.3%.³⁸ These figures suggest that further tactical dispersion will cut casualties, rather than increase them, although the extreme efficiency of the atomic weapon might reverse the statistical trend.

If the tactical atomic bomb poses such a threat to the Western Division, its influence over the combat methods of the East should be even more profound. Figure 7 shows a Soviet Division under atomic attack. A Division massed in this manner presents a prime target, and the destruction wrought on a US Division by four bombs could be accomplished by one or two. At any rate, the expenditure of four bombs in a Soviet Division area would ensure destruction not only of exposed personnel, but men in armored vehicles, bunkers, and any other kind of shelter. Any decision by the United States and the West to employ the tactical atomic weapon in numbers would render the tactical employment of massed human beings or machines as currently practiced by the nations

37. Williams, p.720.

38. These figures might be misleading. They represent the number of casualties (Killed, wounded and missing) per number of men engaged in a given battle. Naturally, the warfare peculiar to the period around 1860, which featured battles of short duration, cannot be accurately compared with the gigantic battles of the World Wars, when the embattled hosts remained in contact, exacting constant attrition of each other's forces for years at a time, except in this, the limited tactical sense. In other words, battle is now more costly overall because it lasts longer and involves more men; but the individual unit takes less punishment from a day's fighting today, owing to its dispersed tactics, than did a similar unit 90 years ago. The Civil War and World War I figures come from Quincy Wright, A Study of War, 2 vols., U. of Chicago Press, Chicago, 1942, I, p.662, Table 55. The World War II experience is reported in an Army Ground Forces Historical Study entitled "Battle Casualties," condensed by the Infantry Journal in Vol. IXV, No. 3 (Sept. 1949), p. 19. Experience of other major countries as reported in Wright confirms the US statistics.

Figure 7

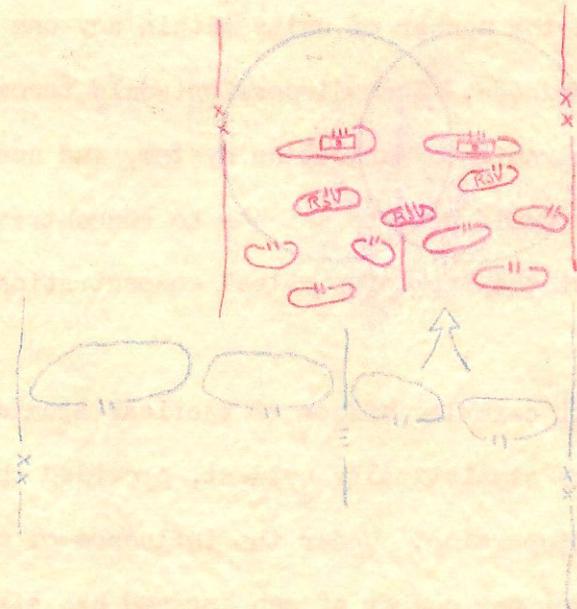


Soviet Division Attack

0 1000 2000 3000
 YARDS

0 1 2
 MILES

SOVIET DIVISION UNDER
ATOMIC ATTACK



Soviet Division Defense

of the East suicidically costly. A combat method which demands large man-
densities would be impossible. That decision lies in the realm of strategy,
and will therefore be discussed later in connection with other strategic
factors, but the tactical implications should be kept in mind at all times:
should the East be forced by the bomb to abandon their traditional system of
mass, then all the problems with which the West had been dealing in dispersion
will be theirs also and the previously mentioned weaknesses of their system
in terms of lack of individual independence, imaginative lower level leadership,
and a discipline applicable to dispersion, would militate against their achieving
even so acceptable a solution as the West's.

It is not necessary to carry this discussion of the atomic weapon further,
and indeed paucity of unclassified material renders it impossible to do so with-
out evasive statement or unbridled speculation. However, it need only be said
that there is on hand vastly more efficient engines of destruction than the
20,000 ton bomb of a decade ago,³⁹ and there is every reason to believe, if
only from the terror of the Chinese Communist at the imagined threat thereof,
that bacterial agents, atomic dust, or other lethal agents of the radioactive
type, are in existence and might be as well adapted to tactical warfare as
has the bomb. Gordon Dean stated implied as much when he said, in 1951, "We
have reached the stage where we can begin (with atomic weapons) to meet the
tactical needs of the armed services while still retaining our immense capacity
for strategic retaliation....We are entering an era where our power to wage

39. General Eisenhower before the United Nations on 8 December 1953 stated
that the US possessed atomic bombs 25 times as powerful as the Hiroshima
bomb, and implied the existence of hydrogen bombs 10 times the strength
of the latest atomic bombs. See "Atom Pool Offer," New York Herald
Tribune, December 13, 1953, Section 2, p.1.

warfare with atomic devices is so great, even in comparison with the recent past, that our fundamental concepts of what atomic warfare is and what it might mean to us must undergo revolutionary change.

"In the past most of us have thought of atomic warfare in terms of intercontinental bombers striking at the great cities and industrial hearts of an enemy nation....This concept of atomic warfare, while still true, is now no longer the whole truth."⁴⁰

Before passing to the strategic questions that all these foregoing tactical considerations evoke, it might be well to summarize the present status of Infantry tactics and weapons as discussed above.

40. Reinhardt and Kintner, p. 17.

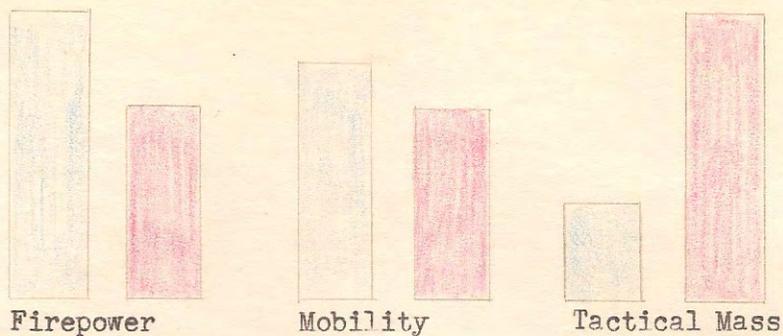
Tactics and Weapons: Summary

The means to any strategic end are weapons and the tactics of their employment. Therefore, he who is to comprehend strategy must understand the latest developments in the lethal machines and methods of warfare. The principal realities with which Infantry strategy has to deal today are as follows:

1. the machine is now highly efficient in killing Infantry in battle, and therefore
 - a. the West, to conserve human life, has adopted tactics of dispersion, and made maximum use of machine substitutes for Infantry, emphasizing quality and flexibility above numbers.
 - b. the East, oblivious to human losses, counters machine power by reliance on human mass, and on quantity rather than quality of arms; the East fights in close order.
2. the tactics of dispersion have posed two important problems for the West, because to develop requisite leadership and individual proficiency, the West must
 - a. train its Infantrymen for a minimum of two years.
 - b. work out a system of military justice which serves the ends of military discipline rather than democratic ideals, and yet permits the large number of soldiers demanded by the current situation to assume a respectable, constructive position in democratic society.
3. the US Division contains 19,000 officers and men, as against 12,000 for its Soviet counterpart, but the fighting capabilities, numerically speaking, are roughly the same. The significant differences between the two Divisions are
 - a. a $1\frac{1}{2}$ to 1 ratio of US firepower to Soviet firepower in the Division.

- b. an advantage for the US in mobility due to better electronic communication, motorization, and leadership.
 - c. an advantage for the East in tactical mass, if any future conflict approximates the last war, owing to its potential for maintaining enormous concentrations of men and arms on extended fronts.
4. the Infantry Division, fighting in the manner of the last war, is limited to frontages of about 10 miles in defense. Armored Division, because of the recent development of greatly superior Infantry anti-tank weapons, has lost much of its tactical and strategic importance.
 5. latest developments in conventional weapons have increased the fire-power of the foot soldier immensely, but conversely the proximity fuse has given artillery new advantages over Infantry. Both these developments point toward more dispersion for the West, closer order for the East.
 6. atomic arms are now tactical weapons. The probable effect of these weapons will be to increase Western dispersion, and to render Eastern mass too costly to maintain. If the East is forced to disperse under atomic threat, the West will enjoy new advantages over an adversary poorly prepared for fighting battles of distance and rapid movement.

The present differences between the Divisions of the East and the West might be summarized diagrammatically with two simple bar graphs of relative fire power, mobility, and tactical mass. The first graph shows how a Western Division (blue) stacks up against an Eastern Division in battle fought on terms similar to those of World War II and Korea, with "conventional" weapons only:



The second graph depicts the same comparison assuming that tactical atomic weapons, and other "unconventional" arms from the modern arsenal are employed. Assuming also that the West is able to adapt itself without difficulty to the dispersed warfare which would then ensue, and that the East either does not, or finds it impossible to, adopt similar tactics, the picture would change radically to look like this:



In the first case, the slight advantages enjoyed by the West in fire-power and mobility are offset by the East's capability for tactical mass. In the second case, however, the Western Division's greater flexibility of firepower with its usual weapons, combined with the great additional firepower

of the numerous nuclear weapons available to the United States, plus its inherent superiority in mobility and the tactics of dispersion, all exerted against an enemy denied tactical mass by the threat of annihilation, promises an immediate assured supremacy for the Infantry of the West. How many times more effective a Western Division might be than an Eastern Division under such circumstances is a question the answer to which lies in the realm of pure speculation, but beyond a doubt, even if new weapons force the Communists to fight spread at twice the distances it now employs, with half the man densities it now uses, the factor of Western advantage is bound to be more than two until Red leadership and technology adequately meet the standards of our own.

Still, the tactical use of nuclear killers, while feasible, may not be compatible with the strategic, political, economic or moral requirements of the future, and its lethal potential may remain untapped in the same manner that the tactical use of poison gas has been unexploited in modern warfare. To the consideration of these requirements we shall now direct our attention, and thereby attempt to delineate the proper strategic role for the more recent tactical developments in Infantry warfare.

PART II

Infantry Strategy: East and West

Relative Strength

As the present solutions to the problems of tactics predetermine the capabilities and limitations of the individual division, so the relative Infantry strength of the East and the West limits the strategic potential of each. The exact number of Divisions available to Communism is not known exactly, although there seems to be some unanimity on the numbers of troops available to the Soviet and her European satellites. The Soviet Union has 4 million men under arms, organized into 175 battle-ready divisions--"the most effective land army in the world," according to General Gruenther.⁴¹ Of this number, 100 are believed to be Infantry Divisions, 30 armored or mechanized, and the remainder the so-called artillery divisions.⁴² In addition to this force, Communism can muster 70 divisions from the satellites in Europe,⁴³ and uncounted millions of veteran Infantry troops from the endless manpower resources of Communist China.

Against this formidable array of land power, the West could field about 75 divisions in varying conditions of battle-readiness. The United States has 2 divisions in Japan, 6 in Korea, 6 in the United States, and the equivalent of 6 in Europe. The latter, under SHAPE, the field headquarters for NATO, stand with 19 other divisions on the Western border of Communism. This total of 25 battle-ready divisions in West Europe is backed by 25 reserve divisions now partially mobilized and trained, 20 divisions of Turks, and 9 divisions of Greeks.⁴⁴

41. Ernest O. Hauser, "The Army's Biggest Brain," Saturday Evening Post, October 31, 1953, p. 165.

42. B. E. M. de Pue, Military Review.

43. Ibid.

44. C. J. V. Murphy, Life, May 28, 1951, p. 82.

Strategy

The use which might be made of the Infantry power of the East or the West is the subject of their respective strategies. Undoubtedly the determinant influence of Infantry force in the last World War profoundly influences the thinking of the planners on both sides. Not until there was an actual or threatened Infantry operation against the homeland of each of the Axis powers did it succumb--heavy strategic bombings, submarine warfare, and other attempts to break its will to resist notwithstanding. This observation is particularly true in so far as the Soviet is concerned, for her efforts against Germany were remarkable for their lack of any attempt to extend the war into Germany in advance of the creeping Red Army. Significantly enough, the one exception, if exception it be, was the United States' victory over Japan by means of the atom bomb, but it should be mentioned that the A-bomb in itself might not have been conclusive were invasion by the US Eighth Army, then staging at Okinawa, not imminent.

The Soviet experience of success with land power exclusively is probably reinforced conveniently by the teachings of Marx and Engels, by Lenin's, Trotsky's and especially Stalin's interpretation thereof, which envisaged conflicts as "patriotic" struggles in which the masses would deal personally with the threat to their nation's existence.⁴⁵ It may be true that the strategy which Russia adopted in 1941--the scorched-earth, attrition strategy which would eventually weaken the enemy to the point that the Red Army could deliver an overwhelming blow--may have been forced upon her by the circumstances of the time, but there has been no recent development which might point to an abandonment of strategy based on the use of mass and attrition as the key elements in land warfare. The relentless pressure exerted by the Red Army on the Germans in Russia in 1941-45 was aptly termed "blitzgrinding" by General Sokolovsky;⁴⁶ the GI term for battle in Korea is a more

45. Makers of Modern Strategy, p. 155 ff, p. 322 ff.

46, Ibid., p. 363

picturesque but interestingly similar "meatgrinder".

No doubt, too, the teachings of the geopoliticians, from Mackinder through Haushofer, must sound most attractive and convincing to a nation with such tremendous land power; they looked for "an oversetting of the balance of power in favor of the pivot state", the eventual emergence of the Heartland Power (Russia) as the pivot through the merging of her vast land power with the sea power of the "marginal crescent", the sea bordering nations of Europe and Asia.⁴⁷ It is impossible to say exactly how much of this Victorian prattle has lodged in the conceptual brains of the Soviet Union. It could, however, be more dangerous there than it was in the mind of Haushofer. The recent Soviet efforts to dominate and industrialize China, to woo India away from the West, and to extend Soviet power to the Mediterranean, might easily be interpreted as Geopolitics in Action, an effort to gain the sea ports and maritime populations which will endow the Red Army with the world mobility it lacks to capitalize on its pivotal position.

Probably, however, the Soviet strategy is not amenable to so convenient an interpretation. No doubt the traditional insecurity of the Communist state, which lives in constant fear of capitalistic aggression, prompts much of the enormous Red expenditures on military force. No doubt, too, the world wide revolutionary aims set for Communism by Lenin, which admit of the use of force if necessary, figure prominently in the strong military posture of the Soviet Union.

....Socialism...cannot reject in principle wars carried on in the interest of the majority of the population. By annexations we understand merely the taking possession of a country against the will of its inhabitants; in other words, the idea of annexation is intimately bound up with that of the right of

47. Ibid., p. 389 ff.

self-determination of a nation. ...Every true Socialist is...bound to demand immediately and unconditionally the liberation and independence of colonies and of peoples which are suffering oppression at the hands of their own country.If the Great Powers are thoroughly exhausted by this war, or if the Revolution is victorious in Russia, national wars, even successful ones, are entirely possiblethey are even inevitable, and both progressive and revolutionary in character.⁴⁸

Again, the Infantry Divisions of the East might be construed as the counter of Communism to the atomic threat of the West, the only effective military power within the present potential of the East which might prevent a "prophylactic" war. However, whatever may be the real intent of Communism, it seems clear that should war break out tomorrow, the Red Army and its allies would unleash on the nations around its borders an Infantry horde whose numbers would be without precedent in history, and whose tactics and strategy would be predicated upon the inundation of the West in a systematic, irresistible, advance which would consume insatiably whatever Western land power could be mustered against it.

The West, on the other hand, evinces no definite strategic plan for the employment of its Infantry force. Obviously its present strength would be capable of little more than a delaying action against the advancing enemy, and offensive operations on land, at least for some months after the inception of a war, a remote possibility. The goals established for the NATO powers at the Lisbon Conference in 1952--97 divisions, to be available by 1954--⁴⁹are now out of the question. The French--key European land power in NATO--are even talking about the reduction of present forces,⁵⁰ and yet screaming loudly when an irresponsible Pentagon official suggested that recent developments in the field of weapons would permit the reduction of

48. Valeriu Marcu, Lenin, Macmillan, New York, 1928, p. 204.
Quoting Lenin.

49. Ernest O. Hauser, Saturday Evening Post, op. cit.

50. Don Cook, "NATO Meeting Again as Solid Organization", New York Herald Tribune, December 13, 1953, Section 2, p. 3.

US Army strength in Europe.⁵¹ Is there a coherent strategy underlying the conflicting statements which have provided editorial fodder on both sides of the Atlantic in recent months?

The military planners of the West, responsible for strategic coherence--the heads of NATO, the Joint Chiefs of Staff, and similar bodies--undoubtedly undertake their work with one basic strategic directive from their Governments: avoid war if possible. Accordingly, the fundamental concept of NATO, the Rio Pact, the proposed EDC, and other mutual security agencies in being or contemplated which are the cornerstones of recent foreign policy, is patently that of the Deterrent, the creation of force in any given area which will make war too expensive an undertaking there for any potential aggressor. The lax attitude of this Nation toward its military security during the Secretary Johnson "economy minded defense" period could only have been prompted by a firm belief that Russia would be loathe to initiate hostilities so long as we possessed a monopoly on the terrible power of the atomic bomb. Even now, after the Korean War demonstrated that the existence of atomic superiority was no effective deterrent to localized warfare by Russian satellites, and after our monopoly admittedly no longer existed, the word "retaliation" inevitably figures prominently in any discussion of Western strategy. The existence of a hydrogen bomb big enough to blow Moscow out of existence and the means of delivering it for its deadly work is then the underlying fact of all Western strategy, the fact upon which it principally rests its hopes for deterring the Soviet Union from further overt aggression.

The policy of Containment which receives much attention from strategic analysts is the implementation of the concept of the Deterrent. By means of it the West has drawn a well-defined line around the perimeter of Communism

51. E. L. Dale, New York Herald Tribune, October 25, 1953, p. 1.

across which aggressor Reds may not come without swift and sure counterattack from Western coalitions. Giving meaning to that policy is the most important strategic role presently envisaged for the land power of the West, for whether the enemy attack comes in the form of a "limited" Korean-like expedition, or in the form of total intercontinental warfare, the Infantry will have an important, if not decisive, part to play in the Western counterstroke.

In the former case, if the West possesses the capability for intercontinental strategic bombing, so too must the East. With present nucleonic weapons, and with imperfect defenses, he who initiates such warfare must accept the fact that he thereby imperils his own national existence, for the resultant holocaust may well be as expensive for the victor as the vanquished, the costs for both amounting to virtual national obliteration. In the face of such enormous risks, no nation may dare voluntarily initiate intercontinental nuclear warfare. Yet, with the initiative clearly in the hands of the East, the West must face the possibility that Communism may continue its expansionist policy of creeping aggression, gambling that the United States and the whole West may be reluctant to stake survival against the independence of a South Korea or the retention of dubiously important places like Formosa. The Infantry power of the West, provided it were strong enough to threaten the security of thrusting Red armies in such areas, could insure them against aggression without restricting its strategic choice to either forfeit of the area or total war. The Secretary of the Navy, Robert B. Anderson, stated on September 19, 1953:

"...I submit to you that we are nearing the time when the possession by each side of such (atomic) weapons will raise the realistic question of total mutual destruction, to no effective purpose. Through it we can lose our way of life, and our enemy can lose the objectives of his aggressive policies...

"Should the super-weapons thus cancel themselves out--and I suggest to you that eventuality is entirely possible--then the emphasis would immediately be restored to the

capabilities of conventional weapons as the basis for military decision...." 52

In case war takes on the latter, total aspect, then Infantry may be less determinant, but still important. If the Infantry strength of the West is great, and commensurate with the ground power available to the East, then it will be the more reluctant to engage. The following statements by our military leadership are indicative of their conception of Infantry contribution to future strategy:⁵³

Admiral Robert B. Carney, before the NATO Defense College, December 8, 1951:

I am not one who believes that such a struggle could be won by sea-air power alone, or air power alone, or even the two in conjunction. There seems to be little likelihood that any force can relieve the foot soldier of his great and deciding role.

General Matthew B. Ridgway, Chief of Staff, USA, on November 10, 1953:

The ultimate stake in wars is the control of bits of this earth's surface and of the people who inhabit them. It may be that at some distant date this control can be exercised by a threat from sea or sky alone. Yet it would be a dangerous, perhaps even fatal fallacy, to conclude in 1953 that this date has arrived.

General Alfred M. Greunther, Supreme Commander, NATO, on October 8, 1953:

Our concept for the defense of Europe is based on the maintenance of highly trained covering land forces, backed by reserve units which would be brought into action immediately after the outbreak of hostilities. That shield, supported by the hard-hitting air forces, should give us the necessary cushion of time to permit us to mobilize our reserves. Meanwhile, allied long range air forces would conduct powerful retaliatory attacks deep into enemy territory against industrial and other vital targets.

In the opinion of military experts, Infantry is vital to the West at least in the foreseeable future. Its immediate problem is, then, to obtain the right kind of Infantry and enough Infantry to implement its strategy.

52. "Use of Nucleonics in Waging War", Army-Navy-Air Force Register, December 26, 1953, p. 19.

53. Ibid.

The problems of adequate training time, of an adequate conscript system, of a cogent military discipline, and of tactics, firepower and mobility, obtrude into this area of strategic consideration.

The Hearst-syndicated columnist, George Sokolsky, on November 14, 1953, looked for "a reduction of the size of the foot army, and a revision of views concerning conscription". This viewpoint evolved from a typically profound analysis which went as follows: the A-bomb is the weapon which will win or lose the next war. The A-bomb is delivered by airplanes and guided missiles, and

"...if the principal weapons the bombs, are deliverable principally by air, what purpose is served by huge armies on foot, ranging into millions of men...Of what value is universal military service, involving marching, drilling, and boot camp training, if wars are to be fought by scientists, electronists, and fliers?!".....⁵⁴

Here is an apologist for push-button warfare stating his case in utmost simplicity. It is interesting to note that the above quoted comments of our military leaders answer his questions directly, and were in fact included in the report of the National Security Training Commission submitted to President Eisenhower on December 14, 1953.⁵⁵

Strategically we need Infantry in order to provide us with flexibility which we must have if we predetermine that we shall not initiate war, and thereby concede the enemy the initiative. Without strategic flexibility, we may be forced to launch the total war we strive to avoid in order to cope with a situation which a more diversified distribution of national strength might have solved or prevented short of total war. Reliance on the efficacy of air-transported nuclear weapons cannot solve all our strategic problems, for in effect such reliance would pervert our strategy to subordination to the weapons. No action would be possible without use of the weapons, and the

54. G. E. Sokolsky, "Infantry Status in A-bomb War", Boston American, November 14, 1953, p. 27.

55. Army-Navy-Air Force Register, December 19, 1953, p. 1.

horrible results of their use to wielder and victim alike could inhibit action in all save the most desperate of national emergencies. In the words of the NSTC report,

...It is clear that we should not permit our strategy to become a slave to any weapon. Strategy should be the master, the weapon should be subservient. ...New power weapons initially achieve fantastic results, but when defensive measures are devised, and defensive weapons perfected, they settle beside other and older more prosaic weapons. Through it all, men with courage and imagination have survived....⁵⁶

The diversification of national strength which would provide Infantry power commensurate with the strategic tasks set for it by the West was alluded to by General Bradley in his often quoted words:⁵⁷

....American armed strength is only as strong as the combat capabilities of its weakest service. Overemphasis on one or the other will obscure our compelling need--not for air-power, sea-power, or land-power--but for American military power commensurate to our tasks in the world.

It is the last sentence which is key to an understanding of our recent military budgeting--in which all three services received an almost equal portion of the Defense appropriation--and to our recent efforts to augment the power of the West through a series of localized mutual security agreements. Many of the various service partisans, eager to strike a blow for the existence of their arm or branch allegedly threatened by the advent of atomic warfare, have misconstrued General Bradley as saying that all services should always receive an equitable distribution of available funds, and that all services should be "balanced" in size. Such an interpretation is at variance with General Bradley's demonstrated strategic insight. He clearly meant that the allotment of power should be made on the basis of a well-reasoned estimate of the strategic tasks before the United States, that wholesale reliance on any one arm or one weapon could never accomplish all those tasks, and that quite naturally

56. Ibid.

57. Vannevar Bush, Modern Arms and Free Men, Simon and Schuster, New York, 1949, p. 27.

the enemy would capitalize upon any weakness we evinced for his encroachments. Now, plainly, the military leaders of this nation have determined that the strategic plans to which the United States is party can be implemented by a reduction of the Army and the Navy, and an augmentation of the Air Force.

....the long term military policy--or "New Look"--intended to re-assess our strategic concepts, integrate new weapons into our armed forces and "streamline" the services in order to reduce costs and provide forces for the "long pull" has been hammered into at least rough shape. It contemplates continued reduction of the Army, Navy, and Marine Corps, an increase in the Air Force, and increasing reliance upon atomic weapons of all types--including as a principal deterrent and retaliatory force, massive atomic and hydrogen attack upon cities.⁵⁸

These recent developments must seem at least a step in the right direction to button-pusher advocates like Mr. Sokolsky, and will probably be hailed by many more profound analysts, such as General Bonner Fellers, Brig. Gen., USA, Ret., who has scant patience for "the luxury of pretending that the three main elements of defense--air, sea, and land--can each play an equal role."⁵⁹ General Fellers would have the United States adopt an alleged official British war plan--purportedly signed by Field Marshal Sir William J. Slim, one of the world's most renowned Infantrymen--which, because the "free world is physically incapable of containing the vast frontiers of China, Russia, and the European satellites," would "substitute for the containment concept the use of superior weapons," namely, strategic bombers carrying hydrogen bombs, and scrap the "antiquated NATO program of ground defense" along with the rest of Western strategic planning which entails Infantry force.⁶⁰

Testifying at the Senate's "MacArthur Hearings," Lt. General A. C.

Wedemeyer made a similar recommendation:

58. Hanson Baldwin, "New Look of the U. S. Armed Forces is Emerging at the Pentagon," New York Times, December 13, 1953, p. E5.

59. General Bonner Fellers, "Britain Turns to Air Power," condensed in the Reader's Digest, September, 1953, pp. 58-60, from an article in Freeman, July 27, 1953.

60. Ibid.

Senator SALTONSTALL. And just a final question. You believe as some of the other witnesses have testified, that we should concentrate a greater strength on our Air Force than we are now doing?

General WEDEMEYER. Senator Saltonstall, I would tell you gentlemen anything you can do to insure that our country has undisputed control of the air would bring us the greatest security that anything you can do. The Navy ought to be directed to protect our sea lanes, and it ought to work on the submarine menace.

The Air Force ought to insure that we have tactical and strategic air control, and undisputed control. I just can't emphasize it too strongly. In my judgment, that's it. The Army would just be required to seize, maintain, and control bases from which we can with increasing effectiveness operate these other two services.

In other words, sir, I would not become embroiled in a large land-locked battle in Europe, nor would I visualize again in a future war controlling, as we have controlled the Germans and the Japanese postwar, controlling Russia.⁶¹

However, General Ridgway made it clear in a speech October 24, 1953, that in his opinion such advice was advocated folly, that the nation cannot gamble with its safety by rushing a substitution of new and untested weapons for its foot soldiers. He placed manpower at the top of the list of NATO needs, and cited the danger of cutting NATO costs by a weapons-for-manpower switch.⁶² Yet, even if he, as a senior military adviser to the President, were to embrace the concept of one-service (Air), one-weapon (nuclear) defense to implement our strategic plans of deterring the Soviet, it is extremely doubtful if this nation could find it politically expedient to adopt a military policy which did not provide for the defense of France, which left open the possibility that the center of Western civilization-- Western Europe--might be ravaged by the Red Infantry before our air offensive could be made effective. Mr. Dennis Healy, a Labor M. P., and a Staff member of the Transport House Foreign Policy Programming Committee, speaking

61. "Military Situation in the Far East," Senate Hearings, op. cit., Part 3, pp. 2397-2398.

62. "Eisenhower Weighs Cut," New York Herald Tribune, op. cit.

at Harvard 19 October 1953, stated emphatically that without a strategy which provided for the retention of territory well into Germany, Britain would be deprived of the advance warning radar stations without which defense of the British Isle against transonic atomic aircraft and missiles would be impossible.⁶³ The strategic plan of the United States, then, must contribute to the land defense of Western Europe as far into the East as possible, both to protect France and Western Germany as long as possible from the Red Army, and to defend Britain from the Red Air Force. Moreover, our Korean experience demonstrates that even with absolute air superiority, ground supremacy is still requisite for defeat or deterrent of Red troops, and that preponderant air power is no guarantee at all against limited aggression.

Still, the announced changes in Defense Department policy are indeed a step in the direction of air-power defense. They are, nonetheless, only a step, and it is important to understand that that step is by no means inconsistent with previous military or political strategy and policy. The United States will continue to maintain the Infantry power necessary to place a prohibitive price on localized war, and to shield Europe in an all-out conflict. However, recent advances in the field of weapons and tactics have brought about a new trend in U. S. Defense planning for the execution of this strategy, a trend toward the greater use of air power of all kinds--strategic, tactical, and defensive--and toward the greater use of atomic and other new weapons.

But:

....It would be a mistake to say that this trend has reached the point where it can be described as dependence solely on the "one-weapon, one-service concept." In the past three months all the services have been thinking with far more emphasis than ever before in terms of atom weapons, to be used both tactically and strategically....⁶⁴

63. Mr. Healy addressed a Seminar of Professor Eliot's course in Foreign Policy Administration, School of Public Administration.

64. Hanson Baldwin, New York Times, op. cit.

Yet even if the Pentagon's new policies mollify the air-power, atomic-power protagonists, they have evoked anew the condemnation of a large, vociferous, and more influential segment of public opinion, that of those who oppose the use of atomic weapons for ethical or moral reasons.

The Moral Argument

The phantasm of international disarmament is once again before the eyes of the world, placed there through the leadership of the United States, and whether the political leaders of this nation intended that their efforts for disarmament be construed as attempts to "outlaw" atomic weapons, there are many who see them as such. It is in the argument between the latter--those who morally oppose the use of the atomic weapon in any form--and our military leadership who feel that we are constrained to do so by economic, political, and military exigencies, that the crux of the problem of future Infantry strategy lies.

On one hand the moralists assert that:

....much more thought should be devoted to the question before any decision is made to concentrate almost exclusively on atomic weapons. From the military point of view, the wisdom of such concentration is at least questionable. This nation is committed to a policy of limiting as far as possible the conflicts that develop, with the idea of preventing a worldwide third war. For local emergencies like Korea, Trieste, Indochina, and the like, it is hard to see how atomic weapons can take the place of troops on the spot with tanks and rifles. An incident that has grown big enough for the atom bomb is already too big for safety.

Even more important than such problems--real as they are--is the entire question of using atomic weapons at all. A war with conventional weapons is horrible enough. Atomic warfare would be indescribably more so. Since effective international control of the atomic bomb has not been possible, this nation has to continue its efforts in this field, and there is little doubt that our ability to deliver severe retaliation is itself a strong deterrent to Soviet attack on this country. But our goal should always be the outlawing of atomic bombs by all nations, backed by workable methods of enforcement. The United States can hardly press for a ban on the use of atom bombs if we ourselves build our whole military system around such weapons...⁶⁵

65. "The Shift in Emphasis," Commonweal, Vol. LIX, No. 6, November 13, 1953, p. 131.

Without questioning the authority of this publication to speak "from the military point of view," it should be emphasized first that many points made above are entirely correct. The atomic weapon cannot, at least now or in the foreseeable future, take the place of troops on the spot with rifles and tanks. We do desire to prevent a "worldwide third world war," and if necessary, to limit conflicts which develop in preference to the larger conflagration. Effective international control of the bomb is indeed a legitimate and laudable objective of our foreign policy.

But there are important misunderstandings extant in that paragraph which color most similar arguments, which should be corrected as follows: First of all, the ultimate aim of our Infantry strategy is to render even limited wars too costly for an aggressor, so that we can avoid using the soldier, rifle, and tank in combat of any kind. Second, if our Infantry strategy does dictate the use of atomic weapons, they will play only a secondary, adjuvant role in our plans and tactics, for while they cannot replace the foot soldier and his weapons, they can render him more effective. Third, any ban upon atomic weapons undertaken now, without a workable guarantee that the Communist enemy would abrogate likewise his present superiority in conventional armament, would be sheer folly, because we would thereby forfeit the one "strong deterrent to Soviet attack on this country," and invite conquest by the Red Army and the Red Air Force exercising their vastly preponderant advantage in numbers of non-atomic weapons. With the same justification that the Commonweal uses to comment from the military point of view, one might raise here a serious moral question as to which is the greater evil: battle with the atom, or battle with a Red Army which observes all the admirable moral restraint which has characterized the operations of Oriental armies from Ghenghis Khan and Atilla down to the sacking of Berlin by Marshall Zukhov's troops in 1945 and the Korean campaign of General Kim in 1950-53. Disarmament, if it comes, must come, in the words of the Under Secretary of Defense, Frank

Nash, "across the board,"⁶⁶ must involve all armament and not just the atomic bomb. If warfare is now morally intolerable, then all warfare must go and not just atomic warfare. No other solution is feasible.

The fourth error evident in the above argument involves the curious paradox which has distinguished all such polemics since the advent of Christianity, that of ethical evaluation of methods of killing. In the Middle Ages, the crossbow was condemned by several Popes as an immoral means of warfare;⁶⁷ yet, presumeably it was moral then to lop off the head of an antagonist with a pole-ax. As a matter of fact, clergymen of the period jibed their warlike activity with the Bible admonition "he that taketh the sword shall perish by the sword" by taking instead the mace, a delicate instrument of destruction which could scatter a man's brains about his skull without so much as a drop of blood being shed externally, thereby also observing the maxim that "the Church abhors bloodshed."⁶⁸ During World War II, the nations of the world commonly regarded the use of chemicals in battle as morally reprehensible, so odious that there was not a single instance of its use, even by the most desperate armies of either side, at any stage of the war, although no doubt there were numerous occasions when it might have been decisive, as in the Normandy invasion. Yet, if a man could not be poisoned in battle, he could be cut in half with machine-gun fire, burned to black ash with napalm, or blown to shreds with a shu mine. More recently, world opinion has recoiled against the use of the atomic bomb to destroy Chinese regiments in Korea-- witness the furor which followed President Truman's announcement late in

66. In informal remarks at Harvard, November 16, 1953. Mr. Nash is familiar with the subject in his post as Secretary of Defense for International Security Affairs, but prior to his present appointment served as U. S. representative on the United Nations' Commission for Disarmament. See also "Eisenhower Weighs Cut...", Herald Tribune, p. 58.

67. Lynn Montross, War Through the Ages, Harper, New York, 1946, p. 134.

68. Spaulding and Nickerson, op. cit., p. 304.

1950 that the use there of the A-bomb was being considered--but few protested the destruction of such regiments under VT fused artillery. Why it should be more immoral to kill a man with an atomic bomb than with a bullet, a bayonet, or gasoline-jelly fire is rather obscure. Of course, "war with conventional weapons is horrible enough," but why should "atomic warfare be indescribably more so"? If the moral consideration at issue is the numbers of fatalities involved, then tactical atomic warfare may be more moral than conventional warfare, for we have shown that battle casualties tend to decrease with dispersion, and that tactical atomic weapons if used would obviate tactical mass and enforce dispersion. If the moral consideration is the manner of killing, then further argument is manifestly absurd.

But to dismiss summarily, as above, the moral position is to court disaster. Surely morality should figure prominently in the strategic decisions concerning our Infantry and its weapons, but there is grave danger of a false and delusive morality staying the power which can preserve the very moral values we hold so dearly. A soldier wrote recently:

The horrible fear in the minds of all men of good will is the thought of...their own loved ones and other noncombatants suffering the impact of...a war fought with modern weapons. Using less than our maximum strength will not prevent this tragedy. Any war is a tragedy. The death of a 21-year old soldier has all the import of any other death. If we would prevent modern war, we must prevent all war. If we are forced to war, we must fight it with all weapons--fight to win. We would be fighting to decide whether any kindness, love, or charity is to be permitted to remain in the hearts of men.⁶⁹

If we are forced to war, our Infantry, as well as our strategic air forces, should have at its disposal the battle power of the atomic weapon, or else it must surely succumb to the enemy. Moreover, if the threat and counter-threat, attack and defense in the strategic air war, produces a stalemate or stand-off as our military experts think it might, then our Infantry must

69. Col. William S. Hutchinson, "The Ethics of War," Military Review, Volume XXXIII, Number 10, January, 1954, p. 8.

have available the atomic tools which will enable it to execute alone the strategic desiderata of the nation.

But might there not be another solution? Might not an Infantry war with conventional weapons be preferable to an Infantry war with atomic weapons, particularly if the main contribution of Infantry to the total national strategy is to deter minor aggressions, or to stave off the advance of the Red Army in Europe until our retaliatory bombers could do their work? Might not the moral gain be worth the power loss? How much can we afford to spend on "conventional" arms for "conventional" Infantry to buy ground protection without atomic weapons? How much would such "conventional" protection cost? The moralists offer as proof that the United States, at least, could furnish the necessary Infantry force without having to use the nuclear weapons, the report of the National Planning Association which emerged in November of this year.

.....A non-political organization devoted to public understanding of the issues of the day, the NPA made no attempt to evaluate in military terms the dimensions of the threat posed by Soviet aggressiveness. What its report did say is that the United States can afford additional programs for national defense, far beyond what is now being spent, without undermining our economy or passing the danger mark on the tax rate. The businessmen and economists who carried on the study...leave the decision on the necessity for such spending to those responsible for national security....(This) report is of great importance. It indicates that the nation is not confronted with an either/or choice, with atomic weapons on one side and conventional methods of warfare on the other....⁷⁰

Our national leaders have apparently made their choice, but in order to appreciate some of the factors involved in their decision, and to answer the questions above, which they must have considered, we shall have to undertake a brief survey of the economic and political costs of conventional Infantry warfare. Before doing so, however, a summary of the principal strategic objectives for Infantry established by current national policy:

70. Commonweal, op. cit.

Infantry Strategy: A Summary

The present strategic strengths of the West and the East are as follows:

<u>WEST</u> ⁷¹	14 U. S. Divisions (outside of NATO)
	6 U. S. Divisions (under NATO)
	19 British, French, Dutch, Belgian, Norwegian, Italian Divisions
	20 Turk Divisions
	9 Greek Divisions
	68 battle-ready divisions
	+ partially trained reserve units
	-75 divisions (approximate)
<u>EAST</u>	100 Soviet Infantry Divisions
	30 Soviet Armored Divisions
	70 European satellite divisions
	n Chinese Communist Divisions
	200 /n Divisions, battle-ready

The present strategy of Communism reflects:

- a. Geopolitical leanings, a conception of Russia emergent as world pivot through exploitation of land power.
- b. a desire to defend the holdings of Communism from Western aggression, for which purpose land power seems the best answer to Western atomic supremacy.
- c. a willingness to expand the domain of Communism by means of the Red Army, the Army of the Proletariat, if revolution will not suffice.

The present strategy of the West reflects:

- a. a desire to avoid a third World War, and all war if possible.
- b. an attempt to deter Communism from expansionist moves by direct threat of atomic reprisal.
- c. unwillingness to allow Communism to advance by force beyond the presently drawn line of containment.
- d. recognition of the threat of the Red Army to Western European civilization, and a desire to meet it.

71. These figures exclude Chinese Nationalist and Republic of Korea Infantry because of their unknown and dubious strategic mobility.

In case total war does come:

- a. Communism will unleash hordes of Infantry to overwhelm Western defenders, and seize strategic threats such as heavy industrial plants, advance warning radar stations, and air bases.
- b. the West will attempt to stave off Infantry conquest until the strategic weight of its air attacks can be felt, and the enemy's will to fight is broken.

In case limited war develops:

- a. Communism will utilize massed Infantry force, probably from a satellite nation, to annex new peoples to the Russian Empire.
- b. the West will utilize Infantry force to punish severely any transgressors of the line of containment, refraining from carrying the war direct to Russia--thereby making it total--unless the aggressor is the Soviet itself.

Nuclear air power alone cannot deter limited aggression. Therefore, the ultimate objective of Western Infantry force is to lend flexibility to Western military power so that it at once deters the East from total war, and from limited aggression.

To implement its strategic planning, the United States has embarked upon a program of mutual security organizations, and undertaken a conversion of its Infantry to a force which can exploit to best advantage the destructive power of nuclear weapons. Because this move seems to be a step toward the reduction of Infantry strength and an augmentation of air-power, some analysts feel that the Defense Department has at last recognized the facts of modern war. On the other hand, critics who feel that any use of atomic killers is immoral, are dismayed by the policy. They argue that the atomic bomb applied to Infantry war would make it intolerably horrible, and that there is no compelling economic or military need for the tactical use of atomic weapons. Their moral position in the former regard is suspect, because indications

are that atomic weapons will cause a decrease in battle casualties; and any moral preference for method of killing is not debatable. Their position in the latter instance cannot be judged without prior examination of the costs of conventional Infantry warfare.

To that subject we shall now proceed.

PART III

The Costs of Infantry Warfare

The "Conventional" Alternative

In Part I of this paper it was demonstrated that the differences between the Infantry Divisions of the East and the West, with their current organization and tactics, are not great. Certainly what difference in quality in favor of the West there may be is more than offset by the Eastern advantage in numbers. Their numerical superiority in numbers of Divisions is at least four to one, and is very probably much greater. In as much as we have given the enemy the strategic initiative, and in as much as that enemy enjoys the advantage of interior, overland lines of communication, his superiority in so far as Infantry force is concerned is more than sufficient for his strategic ends, as dealt with in Part II. It is impossible for the West, with forces now available, both to defend Europe, and to deter effectively local aggressions. In so far as the United States is concerned, fully two thirds of its available Infantry force is already committed in NATO and in Korea, leaving only three or four Infantry and Marine Divisions as the striking force against a transgressor of the line of containment,⁷² and those divisions constitute the principal Infantry strategic reserve available to the West for immediate commitment. It could hardly be said that they constitute a very effective deterrent. Likewise, assuming a total conflict waged along World War II-Korea lines, NATO resistance would probably represent a few weeks easy fighting for the Red Army.

Supposing, however, the numerical inequity between the East and the West were rectified by the creation of additional American Infantry Divisions. Supposing that U. S. Infantry embraced the concept of conventional armament

72. "New Look", New York Times, op. cit.

only, and prepared to execute its strategic missions without any change in its tactics and weapons. Let us say, for the sake of argument, that the West should have a reserve capable of coping with two Korean type local wars, and an Infantry force capable of defending the German frontier. (Korea required the equivalent of about 9 Western Infantry Divisions, in addition to the ROK Army.) An 18 division reserve would then be needed. To defend Germany, at least 25 more divisions would have to be activated and assigned to NATO.

But our Western European allies are already groaning under the weight of the armaments we have already urged upon them. The goals established for NATO at the Lisbon Conference are at least 25 divisions short of being accomplished. Practically, Western Europe is incapable of much more effort. Would the United States then be willing to furnish the additional 40 odd Infantry Divisions needed for adequate security? Let us even assume that Canada, Australia, and other non-European nations agree to furnish 10 of the desired 40, and that the U. S. need call up only 30 Divisions. What would 30 U. S. Divisions cost?

The Price Tag

Thirty Infantry Divisions staffed and equipped for conventional warfare, together with the necessary supply personnel for their support, and the costs of caring for their dependents would cost, at present prices, about 24 billion dollars per annum.⁷³ Together with the 20 divisions now in existence, the American people would spend 40 billion dollars per year on Infantry force alone. At present levels, the Navy and Air Force cost the nation about 27 billion dollars per year. Assuming that it would be desirable to maintain these services at their present strength in the future, the total

73. Ibid. Twenty U. S. Divisions now cost around 16 billion per year. Subtracting fixed costs which would not increase, and adding the \$15,000 that it takes to train each Infantry recruit (See "Solutions?", Time, Volume LXII, No. 14, October 5, 1953, p. 26), 30 more divisions should cost a proportionate 24 billions.

annual cost of Defense for the United States in future years would be 67 billion dollars.

According to the report of the National Planning Association referred to above, a Defense expenditure of that magnitude would be only 8 billions shy of the 75 billion dollar defense budget which

...would leave enough resources only for small increases in investments and in the standard of living. It would require an increase in taxes. This program brings us close to the issue of 'guns or butter'--the point where taxes might no longer be adequate to prevent inflation, and therefore, where comprehensive controls of materials, prices and wages might be necessary.....⁷⁴

It is to be noted that such an augmented Infantry program does nothing to remedy the deficiencies in our strategic air power which General Wedemeyer and others deem critical. If an alternative to large expenditures for accomplishment of our Infantry programs exists, then the additional funds which the Government can spend without straining the economy could be put to use in building up the air offensive and defensive power of the Nation. It is highly improbable, furthermore, that any Administration would be so politically unwise as to proffer so costly a program in the face of current public discontent over high tax rates, provided that reasonable military security could be obtained through some alternative means. If that means exists in the use of tactical nuclear weapons to make present Divisions more effective so that expenditures for additional divisions are unnecessary, then such measures seem economically justified. The case for "unconventional" Infantry does not end here, however.

Infantry force is fundamentally manpower. The more divisions under arms, the more money must be spent for direct compensation to soldiers and their dependents, and maintenance of facilities for their care. Over 66% of all money currently being appropriated to the Army in any fiscal

74. "The \$75 Billion Question," Time, Vol. LXII, No. 18, November 2, 1953, p. 21.

year goes toward such expenses.⁷⁵ If the Army continues to operate conventionally, the present ratio of overhead costs to purchased security will continue. However, the return on nuclear adaptation is clear: double the fighting power of the present Division, and twice the defense per dollar expended will be the direct result.

Our Infantry strategy dictates the land defense of Europe. Regardless of whether the necessary divisions come from the U. S. directly, or whether they are created by other countries with MDAP funds, America will in the long run pay the price. Which is the more efficient system? We have already mentioned the fact that the non-combatant overhead within the American Division is higher than that of any other country in the world. That fact alone would indicate that the American Division is a comparatively expensive weapon. Yet even with that realization, the figures on the discrepancy between the costs of U. S. and European units are still startling. To begin with, the U. S. soldier is individually the best paid in the world, and conversely, dollar for dollar, he is the most expensive to maintain.

The following table shows the average costs per soldier to some of the various NATO countries for one year:⁷⁶

Military personnel costs of some NATO countries for 1 year

United States	\$3,038	France	\$1,097
Canada	\$2,633	Netherlands	\$ 894
United Kingdom	\$1,211	Denmark	\$ 883
Belgium	\$1,183	Italy	\$ 744
Norway	\$1,108	Portugal	\$ 374

But even more impressive than this comparison are these figures which

75. "Department of Defense Appropriation Bill, 1954," House of Representatives, 83rd Congress, 1st Session, Report No. 680, p. 61. Total appropriation for DA is \$12,858,900,000. Appropriation for military personnel, maintenance and operations of facilities, and Reserve personnel requirements is \$9,433,400,000. % appropriation is in excess of 70%.

76. G. A. Lincoln and Associates, Economics of National Security, Draft Edition, West Point, N. Y., 1953, p. 135, Table I.

show the cost in dollars for one Infantry Division maintained by each of the noted powers in Germany:⁷⁷

Annual Costs per Infantry Division in Germany (approximate)

France	\$ 40 million
United Kingdom	\$ 72 million
United States	\$300 million

Naturally, the difference evident here reflects the long distance that all supplies have to be hauled for the U. S. troops, and the transportation, housing and feeding of dependents necessary for the morale of our soldiers, as well as differences in standards of living and equipment.

Nonetheless, these figures strongly suggest that the maintenance of strong U. S. Infantry force in overseas areas is an uneconomical project, for the expenditure of money on mutual aid will produce more divisions per dollar than expenditure on American troops. Low cost foreign personnel with U. S. equipment and arms would be the most economical conventional Infantry available. Again, however, our allies have been most reluctant about creating additional ground force, even with our financial aid. The obvious move for the U. S. then is to augment the striking power of existent foreign divisions by adaptation of U. S. weapons, including the atomic killers, to their tactics, and spending Infantry appropriated dollars on better hardware for their cheaper personnel. The economically logical role for the Infantry formations of the United States is the strategic reserve, an Infantry force capable of rapid deployment at any spot around the long perimeter of Communism. Divisions based in the United States cost less than similar divisions stationed overseas and represent a greater overall deterrent to local aggression, especially with atomic arms, because of their greater strategic mobility.

But in a larger sense, discussion of monetary costs of Infantry warfare

77. Secretary Nash, op. cit. These figures exclude the costs of line of communication personnel for the U. S. division, but include all costs attendant to training, housing, and maintaining the equipment, as well as caring for dependents of the Division personnel.

as it is conducted with conventional weapons, ignores the real expense, the real price of strategy. Strategy is the art of bringing the enemy to battle on terms most favorable to oneself. If the U. S. strategy elects to bring the enemy to battle, limited or total, on the same terms as the Nation fought its Infantry campaigns of World War II and Korea, then it must be prepared to pay again, as it did then, the tremendous human price which such warfare exacts of participants.

The Human Costs of Conventional Infantry

In April, 1946, the Commanding General of the Army Ground Forces made public a survey of American battle casualties in World War II. That survey showed that Infantry troops comprised only 20% of the total numbers of American men sent overseas to carry the battle to the enemy. Yet that mere 20% of our forces absorbed 70% of all our casualties. Of 945,904 men killed, missing, and wounded, over 660,000 of them were Infantrymen. Three Infantry Divisions alone--the 3rd, 45th, and 36th Infantry Division--had almost 100,000 casualties among their personnel during the European campaign, and some subordinate units within those Divisions had casualty rates of 4 or 5 times the unit strength.⁷⁸ Those units must have taken in replacements and spewed out casualties with the regularity of a machine. These figures strongly suggest that "conventional" Infantry warfare is anything but a judicious use of military manpower.

The losses of Infantry in battle have been the subject of exhaustive studies, the results of which deserve serious consideration in any discussion of the terms on which this Nation will battle the predominantly Infantry force of militant Communism. Here, for instance, are some figures worth pondering:⁷⁹

78. Encyclopedia Americana, op. cit.

79. "Battle Casualties", Infantry Journal, op. cit. Basic data from the article, table and computations original.

<u>Type Personnel</u>	<u>% Div. Inf. Strength</u>	<u>% Div. Battle Casualties</u>	<u>Ratio</u>
Inf Plat Ldr	0.54	2.7	5.0
Inf Sqd Ldr	2.2	3.0	3.6
Auto Riflemen	1.6	3.9	2.5
Riflemen	24.0	37.9	1.5

These statistics are most significant. They state in cold figures the deadly premium which "conventional" Infantry warfare places upon leadership today. While it is true that in the aggregate the common soldier will take most of the casualties, the chances of one emerging unscathed from battle is $1\frac{1}{2}$ times as good as the man selected to bear the vital automatic rifle in his squad, over twice as good as his sergeant squad leader, and three times as good as his lieutenant platoon leader. There is much that can be done to reverse this statistical trend. Fighting in dispersion places great demands on the junior leader. When a dispersed unit is stopped under fire --when it suddenly disintegrates into frightened individuals each hiding behind his own boulder, clump of ground, or shell hole-- then it is the sergeant or lieutenant who must rise, resume the advance, or circulate among his men until he can restore collective awareness and redirect group action. But if the unit be well trained, then it is less easily stopped, and seldom disintegrated. As the ancient Chinese military philosopher defined discipline, "it is impossible either for the brave to advance alone, or for the cowardly to retreat alone."^{79a}

If the United States persists in a policy which precludes adequate training and discipline, yet adheres to a strategy which accepts conventional battle with Communist hordes, then it must stand prepared to pay a heavy price in terms of the leadership of the coming generation, the young men who will tomorrow be responsible for the direction of the Nation's political, economic, and social life. England and France know well the costs in leadership occasioned by violent Infantry warfare with ill-trained conscript masses. Professor Sigmund Neumann calls their plight the "problem of generation," and speculates, as do the English

79a. The Roots of Strategy, TR Phillips, ed., Telegraph Press, Harrisburg, 1950, p. 39. From the works of Sun Tzu, 500 B.C.

and French, on what shape the world might have taken if the "best of young men" had not been sacrificed on the battle field in 1914-18. He tells, for instance, of whole classes from the better British public schools being enscribed on the Memorial Tablets to the War Dead at those institutions.⁸⁰ Nonetheless, though leadership would still pay heavily in "unconventional" war, its overall loss, due to overall lower casualties, would be less.

In World War II the United States got off rather lightly in casualties as compared with its allies and with the enemy.⁸¹ Against American Infantry the German was never able to present anywhere near an equal Infantry strength, despite his skilled and determined resistance, because most of his Infantry force was engaged by the Russians. The Japanese Infantry was defeated largely by being starved into submission in long strategic sweeps to the rear of its island strongholds, but even in pitched battle it never evinced the firepower and skill of the German. Against today's Communist enemy, however, the United States Infantry would face, on conventional terms, an enemy superior in numbers and only slightly inferior in firepower and mobility. The European satellites of Communist Russia alone have available for employment almost immediately, as many Infantry Divisions as the United States was able to train, equip, and send overseas throughout the entire four years of World War II. Any U. S. strategy which accepts battle with the Infantry forces of Communism must also accept casualties on a scale unprecedented in American history.

80. Lecture at Harvard, op. cit.

81. "Approximate Casualties Suffered by Major Participants in World War II", The War in Western Europe, Part 2, Department of Military Art and Engineering, U. S. Military Academy, West Point, 1949, Appendix 7, p. 157. By % of 1940 population (KIA and MIA only):

U.S.	0.20
U.K.	0.67
U.S.S.R.	4.54
Germany	4.00
Japan	2.17

The Choice

It is clear that any strategic decision made in an attempt to avoid the deadly loss which conventional warfare would demand of the Nation's youth would be a decision morally laudable, and economically, politically and socially justifiable. The alternative to conventional Infantry war does exist. It consists of the systematic application of the weapons of the nuclear age to Infantry tactics so as to offset the Soviet advantage in mass, and render a battle decision on the terms of yesterday's war impossible for Communism to attain. If that strategic choice be made, then the power of the Western Infantry Division will be increased manifold. Warfare, for the man afoot, will be fought at the fast pace and great distances in which only the advanced, industrialized modern society of the West could excel. If, on the other hand, the United States accepts the pseudo-moral restraint imposed by an abhorrence of nuclear weapons, and chooses to fight future Infantry battles without the aid of tactical atomic power, then it must burden its economy with vastly increased expenditures, drain man-power from its labor force, and burden its allies with increased levies for troops. The creaking alliances of the West--NATO barely able to arrive at a decision on who shall command where, EDC almost at political disaster in France--could ill afford additional stress. Indeed, the strain upon the political and economic ties of the West might well destroy the Community of Freedom, and deliver up Western Europe to the Soviet orbit without a move by the Red Army.

Summary of Costs of Infantry Warfare

The creation of United States Infantry Divisions of the conventional type adequate for the strategic needs of the Nation would require annual defense expenditures nearly equal to the whole current Federal budget. This type of protection is not politically or economically feasible.

It costs the United States 4 times as much to maintain a Division in Germany as it does the United Kingdom, over 7 times as much as France.

The United States soldier is the most expensive in the West. Therefore, dollars expended for Infantry force for the West are better invested in foreign troops. The economically efficient use of U. S. Infantry is in a strategic reserve, as deterrent against local aggression, leaving European troops the task of defending Europe.

Infantry suffered 70% of all casualties in recent conventional warfare, though it represented only about 20% of the Nation's overseas strength. Within Infantry formations, junior leaders suffer 3-4 times as many casualties proportionally as do private soldiers. The casualty premium on leadership has serious connotations for the national future, for conventional Infantry warfare deals a heavy blow to tomorrow's Great Men.

The choice before the United States in the matter of the tactical use of atomic weapons is clear: we must adapt them to our strategy or else face an intolerably expensive future: expensive in dollars, expensive politically because we may thereby forfeit European allies, expensive in men and future leadership if American Infantry is ever forced to fight another conventional war.

We have thus far considered the weapons and tactics of today's Infantry, the strategy which dictates its employment, and the economic facts basic to that strategy. It remains for us now to bind these separate discussions into a coherent whole, and to draw conclusions on the optimum Infantry program for the United States, and for the West.

PART IV

Conclusion: Infantry in Defense of the West

Strategy, Political and Military

There may be they who, having read this far, will have looked in vain for comment upon the origins of the Infantry strategy of the West. If so, these lack an understanding of one of the vital truths underlying the coordination of military and political strategy: military strategy is subordinate to and is derived from political strategy. If it is politic for the West to rely upon armed strength to stave off aggressive Soviet Communism, and if it is politic for the United States, as the strongest Nation of the West, to defend Europe and to confine the areas of totalitarian contamination to their present size, then military strategy must devise the ways and means for accomplishing these political ends. Neither politically desirable goal can be achieved at present without Infantry force. Therefore the subject of Infantry strategy revolves around the twofold given political objective of the defense of Europe, and the remainder of the perimeter of the unSovietized-world.

Each of the two undertakings presents a different problem for military planners, and hence must not be confused with the other. In the first case, that of Europe, the primary defense is the Deterrent itself; that is, there the best defense possible is the direct threat which the military might of the West poses for the Soviet Union itself, for if that threat is strong enough, Russia will not dare attack in Europe knowing that she thereby will suffer devastating retaliation against the Soviet Motherland. On the other hand, a desperate Soviet, after improving its defense against strategic air bombardment, or after its own counterthreat is great enough to warrant a confidence that the West would not dare strike into Russia for fear of reprisal, might be tempted to seek military conquest of Europe with the Red Army alone. Clearly then, the West must maintain its present advantage in

strategic airpower by augmenting both its offensive and defensive capabilities. Still, Communism may be capable of miscalculation, may call the West's strategic hand, and gamble on winning with ground power after an expected aerial stand-off. To meet that threat, the West must be prepared for an Infantry defense of Europe for a sufficient period of time to assure its being immune from the ravages of Eastern warfare while it seeks a decision over the Russian homeland. If the Western ground power in Europe is also strong enough to pose an offensive as well as defensive threat, then it in itself will become an added strong deterrent.

For the policy of Containment, a different sort of force is required. Ground power is needed, for the thrust across the Red perimeter will come on land, but it cannot be "conventional" Infantry power. Reliance on the mode of warfare practiced by the last generation would doom the West to a rash of widespread Koreas, would drain the land potential of the West into such small, but voracious "meatgrinders". Only an Infantry force capable of great strategic and tactical mobility, with tremendous firepower, can match the Eastern advantage in interior lines and superior numbers.

The most important tactical tool available to Western Infantry for the strategic tasks before it is the atomic weapon. In that sense it is the most important element in the necessary coordination of military and political strategy of the West. Our political planners must accept the application of atomic power to Infantry war--indeed, demand it--or else their strategic desiderata are beyond the capabilities of the West, for the military alternatives are either abandonment of present strategy, or submission to the high costs of "conventional" Infantry protection in terms of the manpower, economic stability, and political cohesiveness of the Western Community.

It is apparent that the decision has already been made; it remains now for the West to prosecute unhesitatingly the application of atomic power to its Infantry, and to assure effective utilization by soldiers of its tremendous potential. Yet, neither the soldier nor the politician must look for

revolution in warfare; both should preserve the caution and reserve evident in General Ridgway's attitude when he speaks of looking for "evolution."⁸² Soldiers and military thinkers in general have long searched for some weapon, some technique which would solve once and for all the historical fluctuation between ascendancy for the attack or for the defense, or attempted to project into national strategies unwarranted conclusions that such a technique has been found. Thus the Maginot strategy of France was based on an assumption that fortifications assured supremacy for the defense, and was reinforced by a British strategy adherent to the ideas of men like B. H. Liddel Hart who thought that a small, well trained armored force operating in conjunction with massive lines of fortifications would lend all the flexibility to the defense necessary to match the improvements in mechanical equipment like the airplane and the tank during the decades between the Great Wars.⁸³ That argument about the attack and the defense has no place in discussions of national strategy; it is a purely tactical consideration, and is in essence a moot point, for if history has proved one military principle, it has shown time and time again that the only effective defense is an effective offense.

There is grave danger, however, that the soldier and politician alike may come to see in the atomic weapon the ephemeral technique which will assure defensive victory, which will place in the hands of the Free World the last answer to aggression, and the means whereby the methods of warfare in the past can be wholly discarded. Under such a misapprehension, this Nation and the West may be committed to a fallacious reliance on that weapon and that weapon alone. This propensity is helped little by a public opinion conditioned by wild speculation on the guarded references made by the President and high leaders to terrifying advances in weapons.

82. See p. 12

83. E. M. Earle, op. cit., Chapter 15, p. 322 ff.

There is arising today a sort of "idolatry" of the "absolute weapon" for which the "push button" warfare writers are only too happy to serve as High Priests. The warning of Professor Toynbee, in his description of a very similar idolatry accorded by the Carthaginians to their obvious supremacy over the Romans in naval warfare--owing to Carthage-discovered techniques in navigation and naval tactics--is most appropriate to the subject of Infantry in the future of the West. The Romans countered the absolute weapon of Carthage by making their Infantry, in which they were superior, sea-borne by devising for their ships a platform-like arrangement with grappling hooks which would allow Roman soldiers to board the vessels of their adversaries and conquer them using "land-warfare-at-sea." As Professor Toynbee puts it, "If there is any truth in this story, it brings out the connection between breakdown and idolatry very clearly; for in this instance we see an intrinsically superior technique which has been idolized by its adepts being defeated by an intrinsically inferior technique which has no point in its favor except that it has not yet had time to be idolized, because it is an innovation; and this strange speculation suggests very forcibly that it is the act of idolization that does the mischief, and not any intrinsic quality in the object."⁸⁴

The
5-Banked
Galley

Fortunately, the responsible leaders of this Nation seem so far to have resisted both public clamor and the propaganda of the air power enthusiasts. Their attitude has been consistently one of expectation for an evolutionary, rather than revolutionary, change in war. Their attitude, and the following factors guarantee that unless a global war develops to stimulate radical departures, alterations in weapons and techniques will come slowly:

1. The number of precedents in military history counseling caution. The defense has usually found a way to meet the attack, and vice versa--but at a geometrically increasing cost in destruction and resources.
2. There is an element of uncertainty about any weapon or technique, short of an actual test against a strong opponent.

84. Arnold J. Toynbee, War and Civilization, Oxford Press, New York, 1950, p. 129.

3. The strategy of communism calls for limited war --at least until the time of decision for total war --and meanwhile a continuous threat of total war. The arsenals of weapons and techniques for the two types of war may be, and may remain, different but overlapping.
4. Disclosure of revolutionary machines and techniques, in any but a global war for survival, may give the future opponent an advantage harmful to us. For example, just as the proximity fuze was long withheld from use over land for fear it might fall into the enemy's hands, we might be reluctant to use air-launched homing missiles over hostile territory in a "limited" conflict.
5. There are political and moral judgments of a type not likely to be made long in advance, as well as military and technical ones, involved in using some revolutionary new weapons or techniques-- particularly of the "absolute" type--if any such come into existence.⁸⁵
6. There are entrenched interests, in the armed services, industry and other places, adversely affected by rapid change.⁸⁶ ✓

The Infantry of the United States

These considerations, in militating against revolution in warfare, also tend to inhibit evolution. The application of atomic weapons to Infantry is as logical and evolutionary an adaptation as the machine gun. Neither the impatience of those who seek revolution, nor the hesitancy of conservatives, must block that evolution. Political programs or strategies which fall into either category must be reconciled with the overall strategy. Specifically, in the light of all that has been said in the foregoing, the Infantry program of the United States, in order to best serve the strategic interests of this Nation and of the West, should do the following:

Create in Europe a strong and effective Infantry force. This can most economically be accomplished by modernization of existent Infantry Divisions

85. The tactical atomic weapon is most certainly not in this category.

86. G. A. Lincoln, et. al., op. cit., p. 489.

available to NATO, and the incorporation into the NATO forces, at the earliest possible date, of Infantry formations from Germany, Spain, and Yugoslavia. Quite clearly our commitment for the defense of Europe must be made explicit by the maintainance of U. S. Divisions as an integral part of NATO, but world strategy is better served by U. S. Infantry being based at home.

Convert the present U. S. Infantry Divisions outside of NATO into a powerful, highly mobile force capable of rapid deployment any place in the world and possessed of crushing battle prowess. This force will furnish the Deterrent against limited wars in those areas of the world where Russian satellite Infantry can engage the West without direct involvement of the Soviet Union.

Serve both these ends by research and experiment in tactical applications for atomic weapons, and make available such weapons and techniques to all Western Infantry as well as its own. Emphasize in research and development devices and methods calculated to permit greater dispersion and increased mobility for tactical units.

Insure that Western Infantry is prepared for modern war by adequate periods of training--two years at least--which will insure the development of junior leaders and experienced men skilled in the tactics and techniques of dispersion.

Realize that the high state of military discipline which modern Infantry must have to operate in battle cannot be reconciled both with democracy and with battle efficiency. Rewrite the Code of Military Justice to provide firm juridical backing without which the leaders and trainers of dispersed Infantry formations cannot hold together their units under the conditions of today's battles. Give the unit legal identity.

The Prospect of the Future

Last year a soldier, writing at the United States Military Academy, took a long look forward at the future of conflict between Nations. This is what he wrote:

...It is even conceivable that the economic cost might cease its rapid upward climb. If missiles of the near future bring down a high proportion of planes, the man-driven flying machine weapon system becomes obsolete. (It may be replaced by missiles which can't be shot down--made at increased cost!) If the tank becomes easily vulnerable to a weapon available in every squad, another increment of decrease in armament cost might occur. The rocket and guided missile may do part or all of the job of the combat plane. Atomic explosions may replace the armored breakthrough. Battle casualties, per number of men engaged, have tended to level off or decrease during this century, due to the enforced dispersion on the battlefield resulting from the advance of technology. Perhaps the same advance will make massed use of machines unacceptably costly and return the infantry to an undisputed position as 'queen of battle,' although neither the infantry nor the battle would likely resemble World War II models. Not that revolutionary changes, of the type suggested, would materially change the importance of military force in the struggle between freedom and communism. 87.

Whether the professional Infantryman will, in adapting the power of the atom to his trade, eliminate his position in society, or whether he will find himself a handservant of the "Queen of Battle", his immediate challenge is great. How he shall meet that challenge is difficult to say. Certainly the Infantry Division as we know it is not likely long to endure. The Division of tomorrow will be immensely more mobile, have vastly increased firepower, be lighter, better equipped, and better trained than the Division of today. Its contribution to the peace of the world, if the present state of tension persists, will be far greater. The West, defended by a mighty navy, an invincible air force, and a matchless Infantry, can afford to wait patiently, ever augmenting its own standard of living, until the totalitarian regimes behind the Iron Curtain are forced, by their own oppressive natures, to abandon forever their cherished scheme for world domination and accommodate, once and for all, their political way of life with that of the Free World.

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