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# Right for the Wrong Reasons: S. L. A. Marshall and the Ratio of Fire in Korea



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SINCE the time of the ancient Greeks, the Western way of war has always relied heavily on the strength of camaraderie to accomplish what is essentially an unnatural act. As long as Western warfare remained an issue of muscle-versus-muscle combat in close quarters, the proximity of soldiers in massed formation on the battlefield provided the basis for this camaraderie, since peers could observe one another during the fight. The introduction of gunpowder negated the decisiveness of muscle power in combat, and the advent of the rifled musket in the mid-nineteenth century began a century-long process of battlefield expansion, which likewise tended to diminish the possibilities of peer observation as a traditional source of comradeship and method of battlefield control.<sup>1</sup>

The decreasing power of surveillance in battle became even more apparent to combatants during World War I. Paddy Griffith provides us with an eloquent description of this phenomenon, identified by James J. Schneider as the “empty battlefield”<sup>2</sup>:

1. Col. Charles-Jean-Jacques-Joseph Ardant du Picq, describing the impact of technology on the battlefields of the late-nineteenth century, observed that “Since the invention of fire arms, the musket, the rifle, the cannon, the distances of mutual aid and support have increased among the different arms,” and battlefields “have become immense,” making supervision and surveillance more and more difficult. Ardant du Picq, *Battle Studies*, in *Roots of Strategy: Book 2* (Harrisburg, Pa.: Stackpole Books, 1987), 126–27. Ardant du Picq’s work appeared originally as *Etudes sur le combat* (Paris: Hachette et Dumaire, 1880); it was first translated into English in 1921 and published by Macmillan in London.

2. James J. Schneider, “The Theory of the Empty Battlefield,” *Journal of the Royal United Services Institute for Defence Studies* 132 (September 1987): 37.

These problems [of the First World War] are best summed up in the expression “the empty battlefield.” With improving firepower infantry would no longer be able to show itself within range of the enemy in heavy formations, since they would make too good a target. Instead, the troops would break down into loose chains or skirmish screens, and seek to use the terrain for cover. . . . Individual marksmanship would become much more important in a battle of this type.<sup>3</sup>

Soldiers like Dwight D. Eisenhower noticed the continued existence of this phenomenon during World War II, referring to it as “the nakedness of the battlefield.”<sup>4</sup>

One participant in World War I who was particularly interested in the empty-battlefield phenomenon set out to conduct a contemporary study of the behavior of soldiers in battle during World War II. This man, Samuel Lyman Atwood (S. L. A.) Marshall, used his training as a journalist and sports reporter to develop a method of analyzing the actions of infantrymen in battle at the lowest unit levels, squads and platoons. His observations further highlighted many of the characteristics associated with the empty battlefield. Known widely as “SLAM,” Marshall caught the attention of many veterans, especially in the wake of World War II, both because of the controversial nature of his findings and his methodology.

According to Marshall, only about 15 percent of U.S. infantry soldiers fired their weapons in combat during World War II, and in even the best of American units, this number never increased to much higher than 25 percent.<sup>5</sup> Continuing his study of American soldiers in battle

3. Paddy Griffith, *Forward into Battle: Fighting Tactics from Waterloo to the Near Future* (Novato, Calif.: Presidio Press, 1990), 52. Schneider is perhaps most responsible for bringing this phenomenon to the general public's attention. See Schneider, “The Theory of the Empty Battlefield,” 37–44.

4. According to Eisenhower, “There is an old expression, ‘the nakedness of the battlefield.’ It is descriptive and full of meaning for anyone who has seen a battle. Except for unusual concentration of tactical activity, such as at a river crossing or an amphibious assault, the feeling that pervades the forward areas is loneliness. There is little to be seen; friend and foe, as well as the engines of war, seem to disappear from sight when troops are deployed for a fight. Loss of control and cohesion are easy, because each man feels himself so much alone, and each is prey to the human fear and terror that to move or show himself may result in instant death. Here is where confidence in leaders, a feeling of comradeship with and trust in them, pays off.” Dwight D. Eisenhower, *Crusade in Europe* (1948; reprint, Garden City, N.Y.: Dolphin Books, 1961), 335.

5. Acknowledging the prowess of elite units, Marshall observed that at least one airborne infantry battalion produced a ratio of fire as high as 30 percent, but he still believed that even the performance of elite airborne units fell within the purview of his overall paradigm. S. L. A. Marshall, *Men Against Fire: The Problem of Battle Command in Future War* (1947; reprint, Gloucester, Mass.: Peter Smith, 1978), 50, 56–57, 72–74.

during the twentieth century, Marshall determined that the percentage of soldiers in contact who claimed to have actually fired their weapons in an engagement increased to 55 percent in the Korean War.<sup>6</sup> Incredibly, although this period was noted for its lax training and poor instructional methods, Marshall led readers to believe that this two- or three-fold increase came about as a result of training improvements.

While surprising enough on their own, Marshall's findings have become even more controversial over the last decade, when other veterans and scholars have investigated Marshall's methodology and found that his figures were based largely on unsubstantiated or nonexistent data. Despite his flawed historical methods, Marshall was a keen observer of human beings in battle, having watched soldiers fighting in at least five different wars across the globe. His studies comprise, with few exceptions, the entire body of work regarding the participation of soldiers in combat. If for no other reason, this suggests that they perhaps contain some information of value.

Instead of continuing what will likely remain an inconclusive debate over the accuracy and validity of Marshall's fundamental observations, this author suggests that it is Marshall's attempt to account for the differences in his observations regarding the behavior of soldiers in combat between World War II and the Korean War that warrants critical examination. Indeed, despite the tremendous amount of attention given to Marshall's works over the past decade, no one has yet addressed Marshall's explanation for the supposed increase in the ratio of fire from World War II to Korea.

The historical evidence suggests that the increase in the ratio of fire in the Korean War identified by Marshall was due not to innovative training methods, but to organizational changes made to the Army's smallest tactical elements in combat, the squad and platoon, during the period 1945–50. These changes gave these units additional machine guns, whose operators appeared to fire in almost every engagement; significantly increased the proportion of crew-served weapons to riflemen; and allowed these units to tap into powerful small-unit sociological forces by transforming the squad into a more effective "primary group." The enhanced ratio of crew-served weapons to riflemen brought about by the reduction in the size of the squad, and the addition of machine guns to the squads and platoons increased the number of soldiers who actually fired their weapons in combat by putting more soldiers into positions shown by experience to enhance their participation in battle. Concur-

6. Marshall, *Men Against Fire*, 5, 9–10. See also S. L. A. Marshall, *Commentary on Infantry Operations and Weapons Usage in Korea, Winter 1950–1951* (1951; reprint, Fleet Marine Force Reference Publication [FMFRP] 12–6, *Commentary on Infantry Operations and Weapons Usage in Korea* [Washington: Headquarters, United States Marine Corps, 1989], 4–5.)

rently, the increased effectiveness of the squad as a primary group reduced the isolation of the individual rifleman on the battlefield. Marshall's observations bear this out and suggest as well that the anticipated increase in the ratio of firing soldiers within a squad or platoon did occur almost exactly as expected as a result of the specific changes made to these two organizations, regardless of the training methods employed. Thus, while his data and methodology have largely been discredited, it appears that Marshall's observations about the increases in small unit ratios of fire during the Korean War were right for the wrong reasons.

### Historiography and Marshall's Korean War Observations

Marshall began his study of the performance of U.S. soldiers in combat in Europe and the Pacific during World War II and published his observations in his 1947 book, *Men Against Fire: The Problem of Battle Command in Future War*. Marshall's book was initially well received, but his assertions regarding the number of soldiers who claimed to have fired their weapons in combat became the subject of intense disagreement among combat veterans and military historians. Furthermore, writing a supplementary author's note to *Men Against Fire* that appeared in all versions published after 1961, Marshall, somewhat misleadingly, caused the reader to believe that the Army's new method of marksmanship instruction, known as "Train Fire," was responsible for the increase in the ratio of fire that he observed in Korea.<sup>7</sup> In an earlier work, Marshall attributed this increase in the ratio of fire in Korea even more directly to the effects of training.<sup>8</sup> Marshall also, somewhat immodestly, took credit for the development of much of that system, implying that he was largely responsible for doubling or tripling the ratio of fire for the entire U.S.

7. The Army did not formally adopt "Train Fire" as its approved method of teaching basic rifle marksmanship until summer 1957, four years after the signing of the Korean War cease-fire agreement, and fully six years after Marshall was in Korea and made his stunning observations regarding the increase in the ratio of fire from World War II. "Trainfire I Adopted," *Infantry* 47 (July 1957): 89. Tests developing "Train Fire I" did not even begin until 1953, and those tests occurred as a result of the poor marksmanship skills demonstrated by many Korean War-era soldiers. Howard H. McFann et al., *Trainfire I: A New Course in Basic Rifle Marksmanship*, Human Resources Research Office, Technical Report 22 (Washington: George Washington University, Human Resources Research Office, October 1955), 9, 54–63; "Trainfire: A New Approach to Rifle Marksmanship," *Infantry School Quarterly* 46 (January 1956): 47–48. The U.S. Army formally adopted the Train Fire course of marksmanship instruction during fiscal year 1958. F. D. G. Williams, *SLAM: The Influence of S. L. A. Marshall on the United States Army*, TRADOC Historical Monograph Series (Fort Monroe, Va.: Office of the Command Historian, U.S. Army Training and Doctrine Command, 1994), 74 n. 32.

8. Marshall, *Commentary on Infantry in Korea*, 4–5.

Army.<sup>9</sup> In effect, Marshall was saying that the U.S. Army, with his help, had solved the perplexing problem of the empty battlefield in the modern era by developing an innovative new method of training.

A fundamental historiographical problem that the scholar confronts when examining this issue arises from Marshall's near total dominance within this field of study. Few works address specifically the ratio of fire issue, and those that do tend to rely almost exclusively on Marshall's own findings for their support. Furthermore, it is difficult to find any work, anecdotal or otherwise, that uses legitimately collected data to determine the number of soldiers who fired in a given engagement or from which one could develop enough evidence to draw valid overall conclusions. Finally, because of its pioneering nature and wide dissemination, one must always be cognizant of the potential influence that *Men Against Fire* had on any subsequent work. Whether positive or negative, Marshall and his works continue to have an important and discernible impact on the issue's current scholarship.

John Keegan, an influential contemporary historian who focuses on the soldier in combat, accepted Marshall's findings at face value in his masterful 1976 work, *The Face of Battle*.<sup>10</sup> Dave Grossman, a retired Army officer and psychologist, analyzes the role of the human heart and mind in the conduct of battle in his more recent book, *On Killing: The Psychological Cost of Learning to Kill in War and Society*. Like Keegan, Grossman does not dispute Marshall's findings; in fact, he goes out of his way to confirm Marshall's figures.<sup>11</sup> Grossman's most recent work, appearing in *The Oxford Companion to American Military History*, makes an even stronger case in support of Marshall's observations.<sup>12</sup> Thomas A. Horner, one of Marshall's greatest overall devotees, wrote a

9. Ibid.

10. John Keegan, *The Face of Battle* (1976; reprinted, New York: Barnes and Noble, 1993), 72–74.

11. Dave Grossman, *On Killing: The Psychological Cost of Learning to Kill in War and Society* (Boston: Little, Brown, and Company, 1995), xiii–xv, 3–4, 20–21, 35, 181, 189, 251, and 344.

12. According to Grossman, “Marshall's findings were and have remained controversial. Faced with scholarly concern about a researcher's methodology and conclusions, the scientific method involves replicating the research. *In Marshall's case, every available parallel, scholarly study validates his basic findings.* [These studies include, among others,] the British army's laser reenactments of historical battles, the FBI's studies of nonfiring rates among law enforcement officers in the 1950s and 1960s, and countless other individual and anecdotal observations, *all [of which] confirm Marshall's fundamental conclusion that human beings are not, by nature, killers.*” Dave Grossman, “Aggression and Violence,” *The Oxford Companion to American Military History*, ed. John Whiteclay Chambers, II (New York: Oxford University Press, 1999), 9–10. Emphasis added.

very sympathetic article in 1982.<sup>13</sup> Other supporters, in varying degrees, include Hugh M. Cole and John F. Guilmartin, Jr.<sup>14</sup>

A wide variety of other authors tend to corroborate Marshall's findings as well, including Ardant du Picq, Paddy Griffith, Gwynne Dyer, Richard Gabriel, and Richard Holmes.<sup>15</sup> Perhaps somewhat anecdotally, the observations of U.S. soldiers with twentieth-century combat experience, including World War I and II veteran Colonel Milton Mater; World War II General Lucian K. Truscott, Jr.; Korean War veterans Master Sergeant Nicholas Smith, Master Sergeant John S. Williams, and Sergeant First Class Thomas McGrath; and World War II and Vietnam veteran General William E. DePuy, also support Marshall's conclusions.<sup>16</sup>

This rather impressive collection of supporting works and individuals notwithstanding, Marshall has accumulated his fair share of critics in recent years. Roger J. Spiller's 1988 article in the *Royal United Service Institute (RUSI) Journal*, entitled "S. L. A. Marshall and the Ratio of Fire," and journalist Fredric Smoler's scathing 1989 *American Heritage* article began reexamining Marshall's methodology and findings and reignited the Marshall debate. F. D. G. Williams, who one may also number as one of Marshall's supporters, further challenged Marshall's

13. Thomas A. Horner, "Killer, Fillers, and Fodder," *Parameters* 12 (September 1982): 27–34.

14. See the following works: Hugh M. Cole, "S. L. A. Marshall (1900–1977): In Memoriam," *Parameters* 8 (March 1978): 2–7; John F. Guilmartin, Jr., *A Very Short War: The Mayaguez and the Battle of Koh Tang* (College Station: Texas A&M University Press, 1995), xviii–xix.

15. Grossman, *On Killing*, 3–4, 333, fn. 1; Du Picq, *Battle Studies*, 124; Paddy Griffith, *Battle Tactics of the Civil War* (New Haven, Conn.: Yale University Press, 1989), 83; Gwynne Dyer, *War* (New York: Crown Publishers, 1985), 117–28; Richard A. Gabriel, *No More Heroes: Madness and Psychiatry in War* (New York: Hill and Wang, 1987), 74–75; Richard Holmes, *Acts of War: The Behavior of Men in Battle* (New York: Free Press, 1985), 325–28. Grossman also cited these particular sources (except Dyer) for support in his article in *The Oxford Companion to American Military History*, referred to above.

16. For information on Mater, see Grossman, *On Killing*, 27–28. For information on Truscott, see Lucian K. Truscott, Jr., *Command Missions* (Novato, Calif.: Presidio Press, 1954), 534–35. For information on Master Sergeant John S. Williams, who won the Distinguished Service Cross in Korea, and Silver Star winners Master Sergeant John S. Williams and Sergeant First Class Thomas McGrath, see Bill Davidson, "Why Half of Our Combat Soldiers Fail to Shoot," *Colliers*, 8 November 1952, 17. SFC McGrath's statement that, "Of the nine men in my squad in Korea, I never could count on more than four or five to fire, even when it meant saving their own lives," conforms precisely to Marshall's 55 percent ratio of fire observations. For information on General William E. DePuy, see William E. DePuy, "Battle Participation and Leadership," *Military Review*, July 1989, 96–98; and Paul F. Gorman, *The Secret of Future Victories*, IDA Paper P-2653 (Fort Leavenworth, Kans.: Combat Studies Institute, U.S. Army Command and General Staff College, 1993), II-78.

methodology, as have Michael D. Doubler and Russell W. Glenn.<sup>17</sup> Perhaps the most damning indictment of Marshall's work came from Lieutenant General James M. Gavin, one of the premier U.S. fighting soldiers of the twentieth century, who put little faith in Marshall's expertise or findings.<sup>18</sup> In 1997, James M. McPherson asserted that Marshall "exaggerated the problem and plucked the figure of one-fourth out of thin air."<sup>19</sup> Most recently, John C. McManus went out of his way in his book, *The Deadly Brotherhood: The American Combat Soldier in World War II*, to discredit Marshall and his observations.<sup>20</sup>

In the end, it appears that scholars and soldiers alike remain divided over the legitimacy of Marshall's findings. Supporters have done little to verify the actual figures presented by Marshall. Thus, while current scholarship has largely discredited his methods and continues to question his findings in terms of numbers, most authors tend to support Marshall's overall observations about the conduct of soldiers in combat.

Marshall's Korean War conclusions came largely from his two visits to Korea, the first in winter 1950–51 and the second in spring 1953. He

17. Marshall's most vociferous detractor is World War II veteran and former infantry company commander Harold P. Leinbaugh, whose views were espoused by Fredric Smoler. Smoler gathered his information primarily from interviews with Dr. Roger J. Spiller, who was then the director of the U.S. Army's Combat Studies Institute. Encouraged by Leinbaugh, Spiller published an article on the subject. The scholarly community took notice when an historian of Spiller's caliber joined in the debate. While an overall supporter of Marshall, he also found fault with Marshall's research methods and data. Harold P. Leinbaugh and John D. Campbell, *The Men of Company K: The Autobiography of a World War II Rifle Company* (New York: William Morrow and Co., 1985); Fredric Smoler, "The Secret of the Soldiers Who Didn't Shoot," *American Heritage*, March 1989, 36–45; Roger J. Spiller, "S. L. A. Marshall and the Ratio of Fire," *RUSI Journal*, Winter 1988, 63–71; Williams, *SLAM, passim*; Michael Doubler, *Closing With the Enemy: How GIs Fought the War in Europe, 1944–1945* (Lawrence: University Press of Kansas, 1994), 8, 279, 322–24; Russell W. Glenn, "Reading Athena's Dance Card: The American Combat Soldier in Vietnam" (Ph.D. diss., University of Kansas, 1996; subsequently published as *Reading Athena's Dance Card: Men Against Fire in Vietnam* [Annapolis, Md.: United States Naval Institute Press, 2000]), iii–viii, 28–62. Besides Leinbaugh, Glenn is perhaps Marshall's greatest detractor.

18. Spiller, "S. L. A. Marshall and the Ratio of Fire," 67. Gavin's denunciation, while significant, was largely personal in nature, since Marshall chose to extol the virtues of "that other airborne division" (i.e., the 101st Airborne Division) instead of Gavin's beloved 82d Airborne Division. Just before he died, Gavin explained the reason for his dislike of Marshall and his findings to Spiller. I am indebted to Dr. Spiller for providing me with this information.

19. James M. McPherson, *For Cause and Comrades: Why Men Fought in the Civil War* (New York: Oxford University Press, 1997), 72.

20. John C. McManus, *The Deadly Brotherhood: The American Combat Soldier in World War II* (Novato, Calif.: Presidio Press, 1998), 99–103.

first went to Korea at the behest of the Army's Operations Research Office (ORO) as an operations analyst to help evaluate the actual combat performance of U.S. soldiers in Korea; his second sojourn was as a war correspondent. During both visits, Marshall used the "group interview" technique that he had pioneered in the Second World War to study the conduct of U.S. soldiers in battle.<sup>21</sup> Although Marshall was not a trained historian and one may legitimately question his historical methods,<sup>22</sup> his basic observation that fewer soldiers fired their weapons in combat during World War II than most people had thought continues to ring true for many veterans and scholars.<sup>23</sup>

Marshall submitted a number of official reports during his 1950–51 visit, but his major work was a manuscript ultimately entitled "Commentary on Infantry Operations and Weapons Usage in Korea, Winter 1950–51," which the ORO printed on 27 October 1951.<sup>24</sup> It was in this document that Marshall first publicized his observations regarding the dramatic increase in the ratio of fire in Korea. Marshall knew that an exact accounting of the actual numbers of soldiers firing in any given engagement would be difficult to determine. As an astute observer of the human condition, he readily acknowledged that some soldiers may have been lying about or exaggerating their performance.<sup>25</sup> Furthermore, Marshall presented his observations as an "overall estimate" of the soldiers' conduct in battle, as opposed to the "scientific data" supposedly contained in *Men Against Fire*. Marshall's exact description of his findings is worth reviewing. He prefaced his observations as follows:

Because of the high incidence of panic firing among the unseasoned men during night defense, it was not possible in the Korean critiques, even when full attention was given to detail, to determine the total circumstances in which each man used his weapon, or even to

21. After researching a given battle and securing permission to conduct an interview, Marshall would gather a platoon- or company-sized unit together as quickly as the situation permitted after the completion of a combat action and conduct a group interview with as many participants as possible. He would begin the interview by discussing the unit's first actions and continue in chronological order until they had reviewed the entire episode. Throughout the process, Marshall encouraged equal participation and discussion among all unit members, regardless of rank, and he would ask specific questions to ensure that the soldiers addressed all aspects of the battle. These interviews lasted between four and eight hours, and Marshall tried to conduct them as close as possible to the battlefield on which they occurred. Marshall provides the best description of his historical method in *Island Victory* (Washington: Zenger Publishing, 1982), 108–15; see also Williams, *SLAM*, 20–31, 99–108.

22. Many historians have questioned Marshall's methods over the years. Williams, *SLAM*, 30–31.

23. Especially supportive is Horner, "Killer, Fillers, and Fodder," 27–34.

24. Marshall, *Commentary on Infantry in Korea*.

25. *Ibid.*, 61.



be sure that he had been an active firer. That could not be finally ascertained even by those junior leaders who made a check of weapons and personal ammunition supply following engagement. There is considerable weapons-switching in the confusions of a strenuous night engagement; moreover, junior leaders cannot always determine, in the darkness whether each of their men is taking an aggressive part. Hence the data on personal action is not always obtainable and verifiable, and it must be recognized that, when some of the actors are dead or missing, and all of the witnesses have been shaken, there is a considerable margin of error which may apply either way.<sup>26</sup>

Despite these qualifications, Marshall felt sure enough about the veracity of his data to synthesize the results and offer what he believed to be a reliable estimate of the average proportion of soldiers who routinely participate in battle. Marshall's specific observations were as follows:

In the average infantry company in Korea, between 12 and 20 percent of the men not only participate actively in the firing, but exercise varying degrees of initiative in on-the-spot leading and taking personal action of a type that betters the unit position and induces cohesion.

In addition to this control force, there are between 25 and 35 percent of the men who take some part in the fire action, with varying degrees of consistency, but without otherwise giving marked impulse to the course of events.

It is believed that this showing is a substantial improvement over the participation averages among World War II troops.<sup>27</sup>

It is also worth noting that while Marshall enjoyed a virtual monopoly in this area, at least one other ORO report, prepared using data legitimately collected and completely separate from Marshall's own sources, corroborated Marshall's essential belief that, as compared to World War II, a higher percentage of soldiers in Korea were firing their weapons in combat.<sup>28</sup> Combined with the anecdotal evidence mentioned earlier, one can conclude that Marshall's essential observation that more soldiers

26. Ibid.

27. Ibid.

28. While this conclusion was based on the opinions of six officers who also had combat experience in World War II, it is nonetheless significant because, according to my own exhaustive search, it is the only such study in existence based on legitimately collected data, which could stand up to scholarly scrutiny. Specifically, asked if they believed that a higher number of soldiers were firing their weapons in Korea than in World War II, all six officers agreed that there was an increase. "Two [officers] said all men now fired, 2 said some were still not firing but would not venture a percentage, one said 45 percent now fired, the other said 35 percent now fired." G. N. Donovan, *Use of Infantry Weapons and Equipment in Korea*, Technical Memorandum ORO-T-18 (FEC) (Baltimore: Johns Hopkins University, 13 May 1952), 75.

fired their weapons in combat in Korea than in World War II is essentially valid.

Marshall attributed the increase in the ratio of fire to the circumstances under which engagements took place in Korea (i.e., a constant threat of envelopment during the 1950 portion of his initial visit) and to the training received by soldiers and leaders in preparation for combat in Korea. Marshall felt that the training had increased the movement of unit leaders and the communication among unit members in combat, and had also exposed soldiers to his observations about the World War II ratio of fire. Thus Marshall posited that much of the explanation for the increase in the ratio of fire in Korea was training.<sup>29</sup>

Part of the reason for Marshall's inclination to support the impact of training in bringing about this change stemmed from his failure to consider adequately the impact of the Korean terrain and the tactics of the North Koreans and Chinese Communists on the participation of men in combat. This omission remains one of the most significant weaknesses of his analysis and, according to many of his detractors, renders his observations largely invalid.<sup>30</sup> While this judgment is perhaps too extreme, one wonders why an experienced combat observer like Marshall failed to address this aspect directly. His exclusion of the impact of Korea's terrain and the enemy's tactics is all the more difficult to understand considering the wide variety of situations in which Marshall observed combat during World War II, in both the European Theater of Operations (ETO) and the Pacific, and in Korea. The reasons for Marshall's omission of this issue notwithstanding, what did occur is that after spending five years incorporating World War II's battle-proven lessons into its doctrine, the Army quickly adopted many new and unproven techniques based on the fighting conditions that faced the soldiers in Korea.

During the latter half of 1944 and throughout 1945, many units in the ETO used a technique known as "marching fire" to engage the enemy. Popularized by General George S. Patton, Jr., the concept of marching fire was to attack across open ground by deploying infantry platoons in skirmish lines with their Browning Automatic Rifles (BARs) and light machine guns intermixed among the advancing soldiers.<sup>31</sup> In this formation, the soldiers would put up a wall of lead ahead of their

29. Marshall, *Commentary on Infantry in Korea*, 4–5.

30. For example, see Smoler, "The Secret of the Soldiers Who Didn't Shoot," 43; and Spiller, "S. L. A. Marshall and the Ratio of Fire," 68–69.

31. According to one experienced officer, marching fire was a World War I innovation that had been neglected between the wars because it was inaccurate and wasted ammunition. Edwin B. Crabill, "Marching Fire," *Army* 6 (April 1956): 28. For most soldiers, however, General George S. Patton was largely responsible for bringing this technique to their attention. George S. Patton, Jr., *War as I Knew It* (Boston: Houghton Mifflin, 1947), 339–40.

advance as they kept moving and firing.<sup>32</sup> Patton felt that each soldier should fire a round every two or three steps and, above all, keep moving.<sup>33</sup> While a very popular and effective technique in Europe during World War II, and one that the Army incorporated into its doctrine between the wars, this method was not appropriate for the Korean battlefield.

The advantages afforded the enemy by the terrain and their own tactics, which differed significantly from German tactics in the ETO, rendered marching fire far less effective in Korea, mostly because “the enemy could retaliate with grenades at close range with relative security.”<sup>34</sup> According to one authority:

The Korean War was more dispersed than World War II had been. The mountainous terrain required the rifle squad to fight more frequently as a separate unit. Companies often had to advance along knife-edged ridges with a narrow front of only a squad or a half squad, and platoons deployed on small knobs often as separate squads defending separate slopes of the same hill.<sup>35</sup>

The terrain in Korea was perhaps most akin to that of Italy, in the Mediterranean Theater of Operations during World War II, but that did not mean that the fighting was necessarily the same. The pattern of fighting over hills in Italy and Korea did have some similarities. For the most part, “From the view-point of the infantryman, fighting in Korea [was] identical to that in Italy. Hills [were] the principal objectives. They [had to] be taken and held by foot-soldiers.”<sup>36</sup> Like their German counterparts, “Communist soldiers dug secure foxholes on the steep ridges, often simply staying out of sight in their holes and tossing grenades at their attackers,” or perhaps constructing “reverse-slope defenses” on the backside of hills.<sup>37</sup> Tactics like these rendered the techniques of marching fire largely ineffective and forced squads to adopt different methods that allowed them to fire and maneuver and concentrate their fires on specific positions before moving on to the next position.

32. Doubler, *Closing With the Enemy*, 279–80.

33. Patton, *War as I Knew It*, 339–40.

34. Robert DuPree and Horace E. Homesley, Jr., *A History of United States Army Squads and Platoons, 1935–1967*, DA-04-495-AMC-845(X), Final Report (Washington: Booz, Allen Applied Research, Inc., 1 September 1967), 46–47.

35. *Ibid.*, 46.

36. R. D. Connolly, “The War Terrain is Familiar,” *The Stars and Stripes*, Tokyo, 23 September 1950, in Herbert Mitgang, ed., *Civilians Under Arms: The Stars and Stripes, Civil War to Korea* (Carbondale: Southern Illinois University Press, 1996; originally published in 1959), 201.

37. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935–1967*, 46.

Despite the similarities mentioned above, some significant differences in the methods of fighting did exist between Italy and Korea. According to one observer, "While the Korean terrain is rugged and mountainous, it does not have the cover which marked the Italian terrain, thus making it less possible for an attacking force to reach enemy positions without being detected."<sup>38</sup> This meant that, while soldiers in each situation had to attack up steep mountains, the troops in Korea had to do so without the benefit of the concealment offered by the Italian foliage. This situation made assaults far more costly, in terms of casualties, and required soldiers to attack at night more often to take advantage of the only type of concealment available to them: darkness. In addition, besides the unpopular rifle grenade, the squad's only effective weapon against soldiers in prepared fighting positions at long range was the Browning Automatic Rifle or BAR.<sup>39</sup> As a result, while the battlefield situation provided soldiers in the Korean War with targets that were perhaps more discernible, they were also more difficult to engage. To succeed in Korea, leaders had to exercise more control over their units, and squads and platoons needed superb teamwork to destroy these targets.

Thus, in terms of terrain, tactics, missions, and the nature of combat itself, the Korean War experience was far different from that of the ETO during World War II. As in Italy, significantly an area not visited by Marshall during World War II, marching fire was not the best method for infantrymen to use to assault and capture important terrain features in Korea. The different terrain and tactical situation suggested that better fire discipline and the ability to get soldiers to fire when the circumstances demanded it and to the best effect were perhaps better goals in Korea.<sup>40</sup> Taken in aggregate, one can also conclude that Marshall's belief that more fire was better, a perception developed as a result of his World

38. Connolly, "The War Terrain is Familiar," 201.

39. According to a 1952 survey, while rifle-launched grenades had much greater range than hand grenades, over 60 percent of soldiers never used rifle grenades in an engagement. They preferred to use other weapons because the rifle grenades were inaccurate; they were a nuisance and heavy to carry; neither the shells nor the adapters needed to fire the shells were regularly available to the soldiers; and the apparatus required to fire the shells (the M7A1 rifle grenade launcher) was too complicated to assemble. Reflecting the soldiers' disdain for this weapon, the Army reduced the number of grenade launchers issued to rifle squads from four to three in May 1952. Soldiers did make great use of fragmentation and white phosphorus hand grenades, but their limited range, no more than thirty meters on level ground, required soldiers to move much closer to the enemy's positions in order to employ them. Donovan, *Use of Infantry Weapons and Equipment in Korea*, 5, 22, 56. For rifle grenade reduction information, see DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935-1967*, 38, 52.

40. I am indebted to Dr. Spiller for suggesting that I explore this distinction.

War I observations and reinforced during the combat he witnessed in World War II, was much less relevant to the situation in Korea.

While one can legitimately question the premises of many of Marshall's observations, they remain valuable if for no other reason than for the attention they focused on the conduct of soldiers in combat and the continuing debate that has raged regarding their validity over the past ten years. Nevertheless, his explanation for the increase in the ratio of fire between World War II and the Korean War remains particularly suspect. Although some training improvements during the 1945–50 period contributed partially to this dramatic increase in the ratio of fire, perhaps the primary cause for this phenomenon lies within organizational changes made to the Army's lowest tactical units and their effects on the soldiers assigned to those units, changes for which Marshall himself lobbied, but which he failed to take into account in explaining the fire-ratio improvement.

### Organizational Changes and Units' Ratios of Fire

The Army did not significantly alter its training methods or improve its technology during the period between the end of World War II and the beginning of the Korean War, thus ruling out these areas as possible contributors to the higher ratio of fire in Korea identified by Marshall.<sup>41</sup> What did change significantly was the assignment of the weapons within squads and platoons and the organization of those elements, suggesting that these areas warrant further investigation. To assess the possibility of organizational changes increasing a unit's ratio of fire, one must first examine the primary units that Marshall studied in each war to determine how much they changed between World War II and Korea.

The World War II infantry rifle squad and platoon had gone through many iterations before they assumed their final form in 1943, which Marshall studied. What the Army Ground Forces (AGF) finally concluded was that a twelve-soldier squad and a forty-one-soldier platoon would give these units the optimum mixture of firepower, maneuver, and leadership (Figure 1). The AGF's squad included a squad leader, an assistant squad leader, one two-soldier BAR team consisting of a BAR man and a BAR assistant gunner, two scouts, one ammunition bearer, four riflemen (armed with M-1 Garand rifles), and one sniper (armed with an M1903 Springfield sniper rifle). In accordance with the "triangularity" movement within the Army during the interwar period and World War II,

41. Although some training changes did occur in the Army during the 1945–50 period, primarily with respect to improving leaders' control over their units by increased movement and communication among unit members, no measurable or significant training system like Train Fire appeared until well after the Korean War.

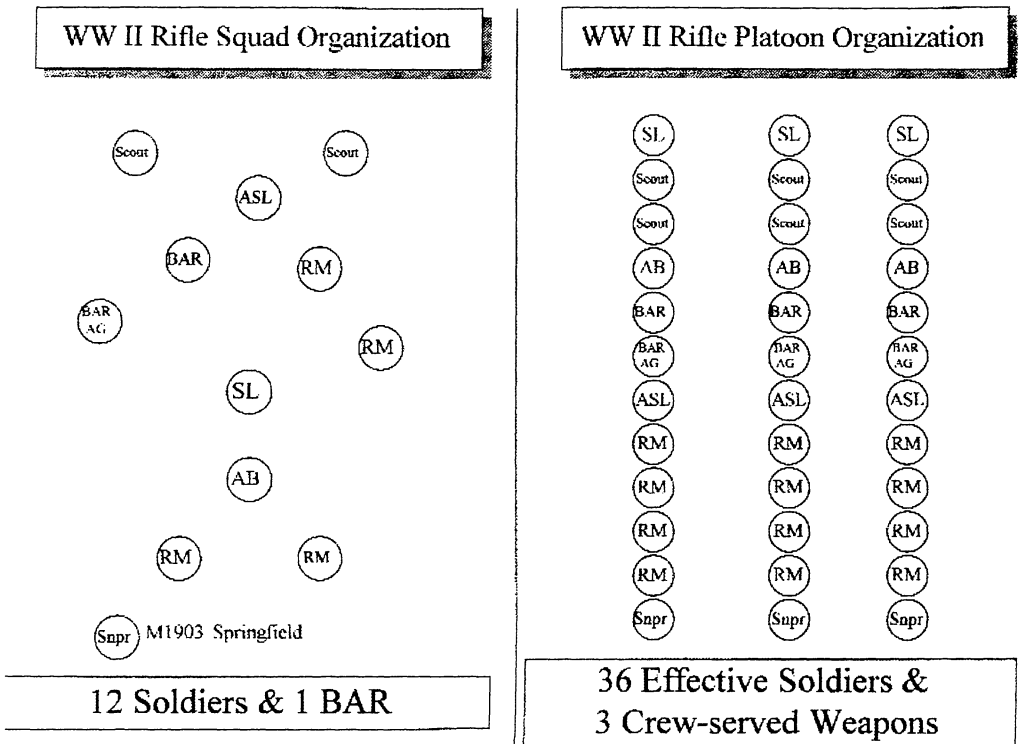


Figure 1

the infantry platoon during the war consisted of three of these identical squads, plus a platoon headquarters of five soldiers.<sup>42</sup> This meant that a World War II infantry platoon had an effective strength of thirty-six soldiers, discounting the platoon headquarters element.<sup>43</sup>

Using Marshall’s own observations that no more than 25 percent of any group of soldiers fired their weapons in combat, and that the crew-served weapons operators usually fired their weapons, one can deduce that the BAR man and two other soldiers were the only troops in the squad who regularly fired their weapons in combat during World War II<sup>44</sup> (Figure 2). For purposes of continuity, I have selected the assistant squad leader and one rifleman to represent the second and third firing mem-

42. The platoon headquarters consisted of one officer, a platoon sergeant, an assistant platoon sergeant, and two messengers. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935–1967*, 30.

43. John K. Mahon and Romana Danysh, *Infantry, Part I: Regular Army*, Army Lineage Series (Washington: U.S. Army Center of Military History, 1972), 73; see also Robert B. Rigg, “Whither the Squad?,” *Army*, February 1960, 38–39.

44. Marshall, *Men Against Fire*, 57.

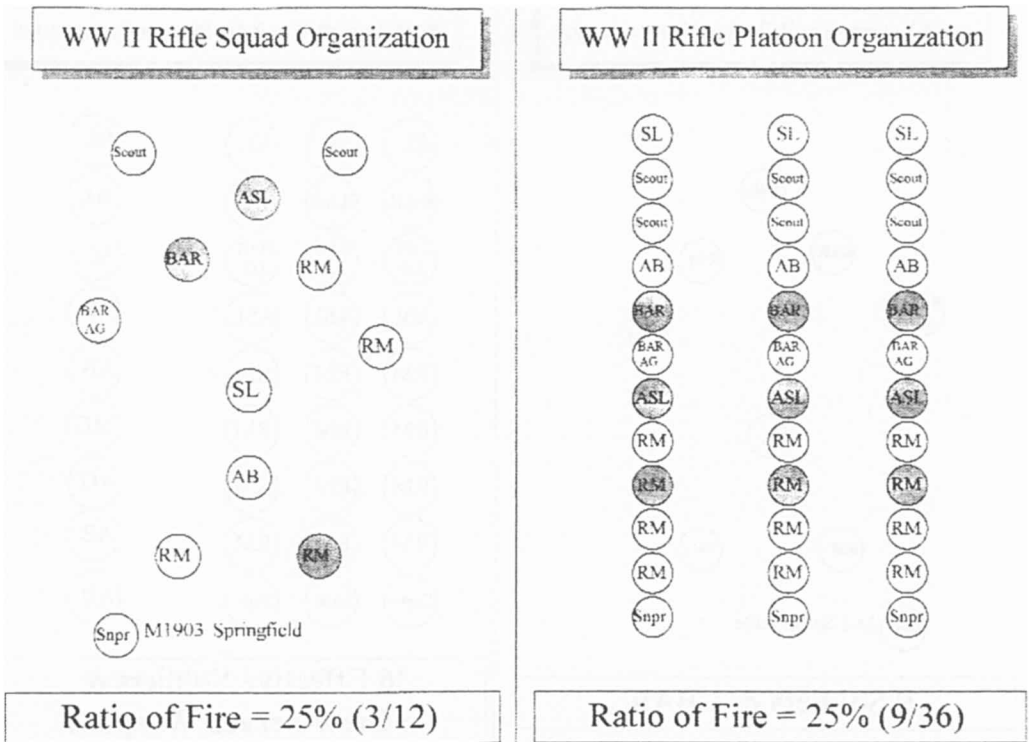


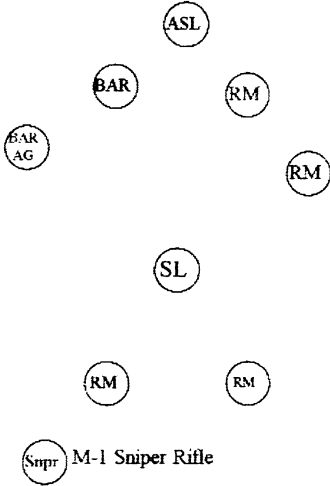
Figure 2

bers of an average World War II squad in combat. Using these assumptions, one arrives at Marshall's 25 percent figures for both the infantry rifle squad and platoon.

During the period 1945–50, the Army dramatically reorganized the infantry rifle squad and platoon as a result of, among other things, Marshall's observations and the recommendations of the officers and non-commissioned officers who commanded those units in World War II. Most agreed that the twelve-soldier squad was too unwieldy for effective control by the squad leader. Most further contended that the platoon's organic firepower needed to be increased by assigning some of the company's bazookas and .30 caliber light machine guns to the platoon in accordance with what was common practice in most units in combat.<sup>45</sup> As a result of these changes, the infantry rifle squad and platoon on the

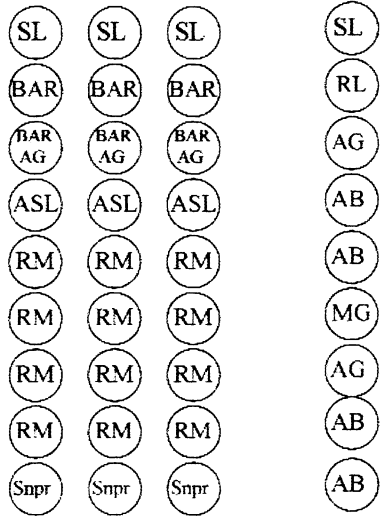
45. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935–1967*, 31–43; and Mahon and Danysh, *Infantry*, 73.

Initial Korean War Rifle Squad Organization



9 Soldiers & 1 BAR

Initial Korean War Rifle Platoon Organization



36 Effective Soldiers &  
5 Crew-Served Weapons

Figure 3

eve of the Korean War were substantially different from their World War II predecessors.

Like its World War II counterpart, the initial Korean War infantry platoon had an effective strength of thirty-six soldiers (Figure 3). The Korean War infantry squad, however, consisted of nine soldiers: a squad leader, an assistant squad leader, one two-soldier BAR team consisting of a BAR man and a BAR assistant gunner, four riflemen (armed with M-1 Garand rifles), and one sniper (armed with an M-1 Garand sniper rifle).<sup>46</sup> The two scouts and one ammunition bearer of the World War II squad had been eliminated.<sup>47</sup> On its own, this change improved the squad's

46. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935-1967*, 38-39.

47. Marshall would not have expected any of these soldiers to fire their weapons in combat, since their assignments would have placed them in positions in which they would be somewhat isolated from the unit even before entering combat, so one may assume that the number of potential firing soldiers in a squad remained constant during World War II and the Korean War. Marshall, *Men Against Fire*, 47-49.



ratio of crew-served weapons to squad members, increasing it from 1:12 to 1:9.

The initial Korean War infantry platoon consisted of three of these nine-soldier squads and contained an additional weapons squad of nine soldiers, as well as a platoon headquarters identical to that of the World War II platoon. The weapons squad consisted of a squad leader, one four-soldier rocket launcher team armed with a bazooka, and one four-soldier machine gun team armed with the light .30 caliber machine gun.<sup>48</sup> As with the squad reorganization, this change also increased the platoon's ratio of crew-served weapons to platoon members from 3:41 to 5:41.

After two years of fighting, additional changes to the squad and platoon organization further increased the platoon's assigned crew-served weapons. By May 1952, the Korean War infantry squad had acquired an additional BAR while remaining a nine-soldier unit, giving the organization a squad leader, an assistant squad leader, two two-soldier BAR teams consisting of a BAR man and a BAR assistant gunner, two riflemen (armed with M-1 Garand rifles), and one sniper (armed with an M-1 Garand sniper rifle).<sup>49</sup> This change added three additional crew-served weapons to the platoon's arsenal. The altered weapons squad consisted of a squad leader and two four-man light machine gun crews, adding yet another crew-served weapon to the platoon's authorized equipment list. Reflecting a desire to retain a rocket launcher at the platoon level, the platoon's headquarters grew to become a nine-soldier unit as well, gaining a four-man rocket team. These changes expanded the size of the platoon from forty-one to forty-five, raised the platoon's effective strength from thirty-six to forty, and dramatically increased the ratio of crew-served weapons to platoon members, increasing it from 5:41 to 9:45 (Figure 4).

In the wake of World War II, Marshall wondered whether it was possible to increase the fighting power of the infantry squad without adding men to the organization. His query resulted from his observations regarding the marked influence of the BAR's firing and lulls in firing on the squad's overall firing. Marshall observed that

In infantry operations in Korea, it is conspicuous that rifle fire builds up strongly around the BAR. It is therefore reasonable to believe that an increase in ratio of BARs to rifles would stimulate stronger [rifle] fire within the squad unit. In every engagement there are pivotal influences—fire builds up because one man is doing a particular thing with his weapon and others move to support him. BAR action

48. Mahon and Danysh, *Infantry*, 73.

49. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935–1967*, 45, 50–51.

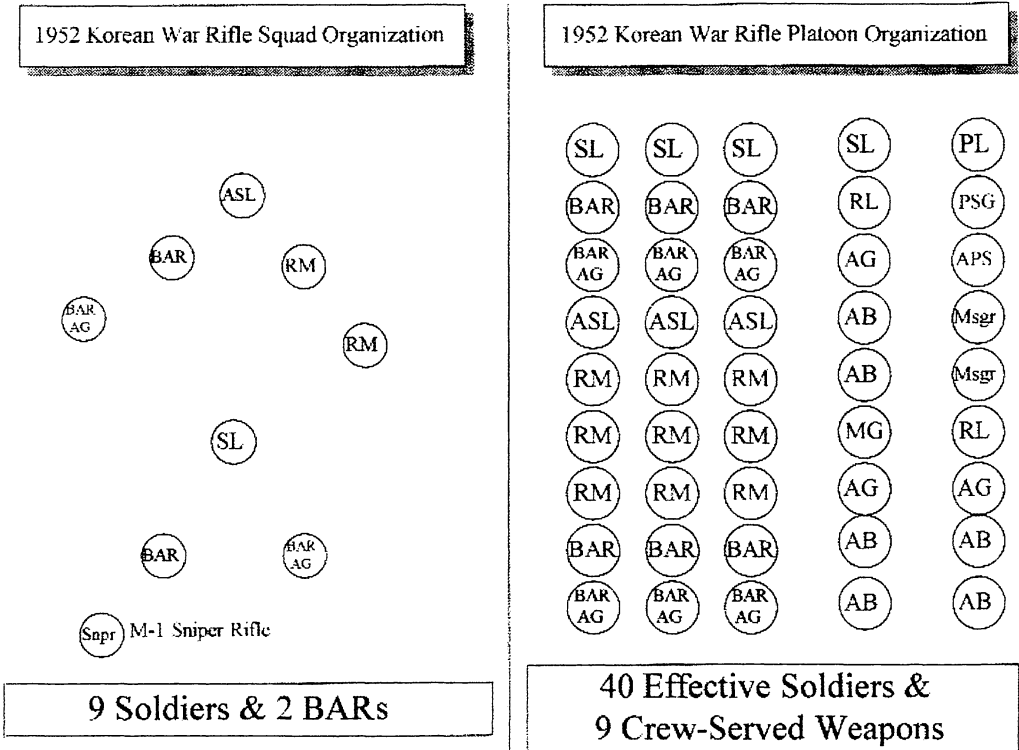


Figure 4

is most frequently the moving force because of the high mobility of the weapon and its solid fire effects.<sup>50</sup>

Marshall suspected that by increasing the ratio of BARs to riflemen in a squad, one could possibly double the useful fire from the squad as a whole.<sup>51</sup> Writing in early 1951, he suggested that the Army assign two BARs to each infantry squad. Marshall also recommended that the Army replace all M-1 carbines assigned to a squad with regular M-1 Garands. Other than these two changes, Marshall did not see the need for any additional alterations to the infantry company armament or organizational structure.<sup>52</sup>

Subsequent battlefield experience validated Marshall's recommendation regarding the addition of one BAR to each infantry squad. According to one observer, "Squad leaders begged, borrowed, and stole BARs to

50. Marshall, *Commentary on Infantry in Korea*, 54–55.

51. *Ibid.*, 53, 63.

52. *Ibid.*, 54–55, 74.

increase the firepower of their squads, and gunners were happy to carry the additional weight.”<sup>53</sup> As mentioned previously, the nature of the fighting in Korea and the fact that the BAR was the squad’s preferred weapon for reducing enemy fortified positions further increased its importance in combat and helps explain the squad leaders’ desires to acquire as many of these weapons as possible for their units.<sup>54</sup> Corroborating Marshall’s other major observation regarding the effect of the BAR in combat, the author of a report for the U.S. Army Infantry School also concluded that firing tended to be heaviest among riflemen gathered around the squad’s BARs.<sup>55</sup> As a result of the soldiers’ common experiences in Korea, rifle squads were fighting with two or more BARs by the fall of 1952.<sup>56</sup> Marshall’s observations regarding the usefulness and impact of the BAR in battle were quite correct, but their use was not tied to his influence.

The reorganization of the squad and platoon resulted from the suggestions of World War II leaders and men like Marshall, but they were not really tested until the outbreak of the Korean War. Marshall’s observations from World War II held that men operating crew-served weapons usually fired their weapons in combat, so the addition of five crew-served weapons at the platoon level would lead one to expect a corresponding level of increase in the ratio of fire from such a unit. This is in fact what occurred.

Using Marshall’s own observations that the ratio of fire in Korea was 55 percent, and that the crew-served weapons operators usually fired their weapons, one can deduce that at the squad level, as in World War II, the BAR men and two other soldiers were the only troops who regularly fired their weapons in combat during the Korean War (Figure 5). As in the World War II analysis, I have again selected the assistant squad leader and another rifleman to represent the second and third firing

53. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935–1967*, 47. The authors cited this evidence from an article by John D. Miley, “Fire Power and Confusion,” *Combat Forces Journal*, February 1952, 45.

54. The number of BARs assigned to the infantry squad, both officially and unofficially, increased steadily over the course of the Korean War. A sample of the number of BARs assigned to each infantry squad in the six U.S. Army divisions fighting in Korea indicated that, while most squads had two BARs assigned to them, some squads had three, four, and, in one instance, even five BARs assigned to them. Donovan, *Use of Infantry Weapons and Equipment in Korea*, 61.

55. James M. Gibson, *Organization of the Rifle Squad*, U.S. Army Infantry School Staff Study (Fort Benning, Ga.: U.S. Army Infantry School, 15 February 1954), 10. While Major Gibson was almost certainly influenced by Marshall’s works, he appears to have derived most of his evidence from the battlefield experiences of soldiers in combat during the Korean War.

56. DuPree and Homesley, *A History of United States Army Squads and Platoons, 1935–1967*, 50.

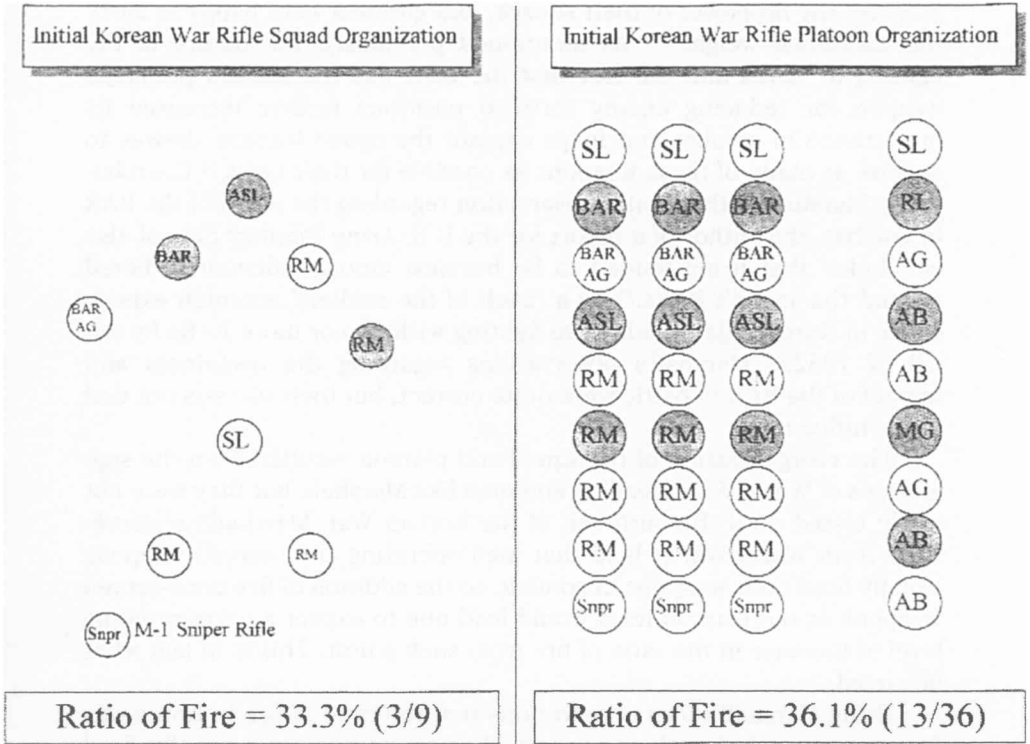


Figure 5

members of any Korean War squad in combat. Using Marshall's own observations, this assumption equates to a squad ratio of fire of three out of nine soldiers, or 33.3 percent. Extending this analysis to the platoon level, one encounters a similar situation. Since the platoon's weapons squad was not present in World War II, it was obviously not subject to Marshall's observations. Taking into account the changes in the Korean War platoon organization, and, again, using Marshall's own assumption that crew-served weapons operators usually fired their weapons in combat, one can deduce that at the platoon level, as in World War II, the rocket launcher and machine gun operators and two other soldiers assigned to the platoon's weapons squad also fired their weapons in combat. Using the exact same assumptions employed for the World War II analysis and without the addition of any more riflemen as firers in combat, one arrives at a platoon ratio of fire of 36.1 percent.

Adding the 1952 changes into this calculation produces even more significant results. Relying again on Marshall's own observations that the crew-served weapons operators usually fired their weapons, one can

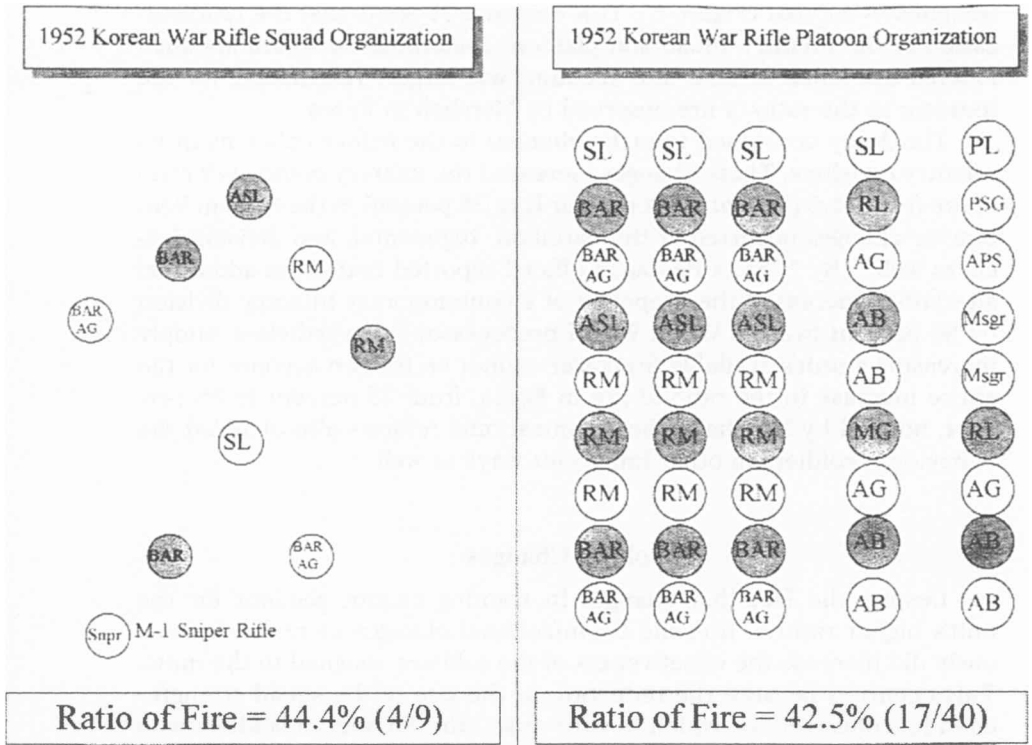


Figure 6

deduce that at the squad level, as a result of doubling the number of assigned BARs, the two BAR men and two other soldiers were the only troops who regularly fired their weapons in combat during the Korean War. As for the World War II analysis, I have again selected the assistant squad leader and another rifleman to represent the second and third firing members of any Korean War squad in combat. Using Marshall's own observations, this assumption equates to a squad ratio of fire of four out of nine soldiers, or 44.4 percent. Incorporating the platoon's improved weapons squad and headquarters in this analysis produces similar results. Using Marshall's own assumption that crew-served weapons operators usually fired their weapons in combat, one can deduce that at the platoon level, as in World War II, the two machine gun operators and two other soldiers assigned to the platoon's weapons squad, as well as the rocket launcher operator assigned to the platoon headquarters, were the only soldiers who fired their weapons in combat. Remaining consistent to the study's previous assumptions, one arrives at a platoon ratio of fire of 42.5 percent, based upon seventeen out of forty soldiers firing their

weapons in combat (Figure 6). This evidence suggests that the reorganization of the infantry squad and platoon, something for which Marshall lobbied but failed to take into account, was largely responsible for the increase in the ratio of fire observed by Marshall in Korea.

The Army continued to make changes to the higher echelons in its infantry divisions. These changes increased the infantry company's ratio of fire from 24.6 percent in World War II to 35 percent in the Korean War. Similar changes occurred at the battalion, regimental, and division levels as well.<sup>57</sup> By 1955, a Pentagon official reported that these additional alterations increased the firepower of a contemporary infantry division by 80 percent over its World War II predecessor.<sup>58</sup> Nevertheless, simply increasing a unit's available firepower cannot on its own account for the entire increase in the ratio of fire in Korea, from 25 percent to 55 percent, noticed by Marshall. The organizational reforms also changed the behavior of soldiers in other important ways as well.

### Soldier Changes

Despite the fact that changes in training cannot account for the unit's higher ratio of fire, the organizational changes mentioned previously did increase the effectiveness of the soldiers assigned to the units. This occurred because the reduction in the size of the squad strengthened its cohesiveness, which in turn raised the number of soldiers who fired in each unit, thus increasing the unit's overall ratio of fire.

In the late nineteenth century, Ardant du Picq noted that, "Four brave men who do not know each other will not dare attack a lion. Four less brave, but knowing each other well, sure of their reliability and consequently of mutual aid, will attack resolutely."<sup>59</sup> Studies by Nora Kinzer Stewart corroborate Ardant du Picq's observation. According to Stewart,

Over and over, research in military psychology and sociology in the United States and other Allied nations reaffirms the interrelationship of small-group ties, loyalty, bonding, esprit, and combat performance. Yet the majority of U.S. Army planners continue to emphasize training, tactics, firepower, and weapons systems and, if not ignore, at least downplay the issue of the sociopsychological effect of cohesion on high performance in battle.<sup>60</sup>

57. For a discussion of these changes, see Mahon and Danysh, *Infantry*, 73–76; and Robert A. Doughty, *The Evolution of U.S. Army Tactical Doctrine, 1946–76*, Leavenworth Paper No. 1 (Fort Leavenworth, Kans.: Combat Studies Institute, U.S. Army Command and General Staff College, 1979), 2–7.

58. *Military Review* 35 (May 1955): 67.

59. Ardant du Picq, *Battle Studies*, 136.

60. Nora Kinzer Stewart, *Mates and Muchachos: Unit Cohesion in the Falklands/Malvinas War* (New York: Brassey's, 1991), 15.

Perhaps uncharacteristically, the Army reforms of the 1945–50 period conformed almost exactly to those recommended by Stewart.

As early as the first century B.C., Wu Ch'i, a contemporary of Sun Tzu, identified the optimal size of the squad as five soldiers and advocated grouping two squads of five together into a section of ten soldiers.<sup>61</sup> Since that time, soldiers and leaders from all over the world have come to agree with Wu Ch'i. As Richard Holmes observed, "For centuries an army's basic unit, like the Roman legion's ten-man *contubernium* or the Prussian army's seven-man *Kameradschaft*, was essentially a living and messing group rather than a tactical entity, and gained much of its cohesion from close contact in daily life."<sup>62</sup>

The crux of the power of a small group comes from what is now described as "primary group cohesion," defined by sociologist Charles H. Cooley as a number of individuals whose interaction is "characterized by intimate face-to-face association and cooperation."<sup>63</sup> Sociologist Richard T. LaPiere determined that the degree of control that a primary group can exert upon its members is inversely proportional to the size of the unit, which means that as the primary group increases in size, its cohesion decreases.<sup>64</sup>

This evidence indicates that the reduction of the squad organization from twelve to nine members had at least two significant sociological impacts on the soldiers assigned to these units: it brought the squad closer to the primary group's optimal size of five, and it increased the cohesiveness of the Korean War squad vis-à-vis the World War II squad. Army tests further revealed that as the size of the squad decreased, the squad's fire efficiency, which is a measure of the number of hits and the effect of its suppressive fires, increased.<sup>65</sup> Couple this with Stewart's

61. Wu Ch'i, "Art of War," Chapter 3, "The Control of Troops," Section 3, Part 2, appearing in Sun Tzu, *The Art of War*, trans. Samuel B. Griffith (New York: Oxford University Press, 1971), 160.

62. Holmes, *Acts Of War*, 128.

63. Coined in 1920, the term "primary group cohesion" came into vogue in the years following World War II, with much research conducted to determine the parameters of this group. Modern sociologists discovered that the best size of a primary group is five members, something that Wu Ch'i had observed several centuries before. Researchers also studied the impact of varying the size of primary groups. Alexander L. George, "Primary Groups, Organization, and Military Performance," in *Handbook of Military Institutions*, ed. Roger Little (Beverly Hills, Calif.: Sage Publications, 1971), 297.

64. Richard T. LaPiere, *A Theory of Social Control* (New York: McGraw-Hill, 1954). This work, though highly technical, is a classic sociological work that provides a widely accepted theoretical explanation for many military activities. Cited in John H. Johns, *Cohesion in the US Military: Defense Management Study Group on Group Cohesion* (Washington: National Defense University Press, 1984), 32, 101.

65. Gorman, *The Secret of Future Victories*, III–21.

statement that the higher the cohesion of a military unit, the more soldiers will fire their weapons in combat, and one can conclude that the reduction of the size of the infantry squad from twelve to nine soldiers made the unit more cohesive and its soldiers more apt to fire more of their weapons.<sup>66</sup>

Marshall himself provides the best-known description of this phenomenon.

I hold it to be one of the simplest truths of war that the thing which enables an infantry soldier to keep going with his weapons is the near presence or the presumed presence of a comrade. The warmth which derives from human companionship is as essential to his employment of the arms with which he fights as is the finger with which he pulls a trigger or the eye with which he aligns his sights. . . . It is that way with any fighting man. He is sustained by his fellows primarily and by his weapons secondarily. Having to make a choice in the face of the enemy, he would rather be unarmed and with his comrades around him than altogether alone, though possessing the most perfect of quick-firing weapons.<sup>67</sup>

Based upon his own observations, Marshall also felt that there was “a strong implication that the idea [had] become ingrained in the infantry line that fire participation [was] an obligation of honor, and the obligation [was] felt by the average soldier.”<sup>68</sup>

If one assumes that at least one more soldier in a unit will fire as a result of the unit’s increased cohesiveness, one observes the following changes: the number of squad members one would expect to fire their weapons in combat increases from four of nine to five of nine, thus raising the squad’s ratio of fire to 55.6 percent, or almost exactly the figure on which Marshall settled. Similarly, the strengthened primary group cohesion of the squads assigned to a platoon improved the platoon’s combat participation to twenty of thirty-six, which also increased the platoon’s ratio of fire to 55.6 percent, again mirroring almost exactly the figures offered by Marshall (Figure 7).

These figures hold essentially true as well for the changed weapons squad and platoon organizations of 1952, which Marshall was not able to observe in combat until after he published his initial findings (Figure 8). Applied to the 1952 organizations, one could expect twenty-one of the platoon’s forty effective members to fire their weapons in combat, yielding a platoon ratio of fire of 52.5 percent which conforms almost exactly to Marshall’s published findings. That the organizational changes made by the Army in Marshall’s absence continued to mirror his observations

66. Stewart, *Mates and Muchachos*, 21, 28.

67. Marshall, *Men Against Fire*, 42–43.

68. *Ibid.*; Marshall, *Commentary on Infantry in Korea*, 61.



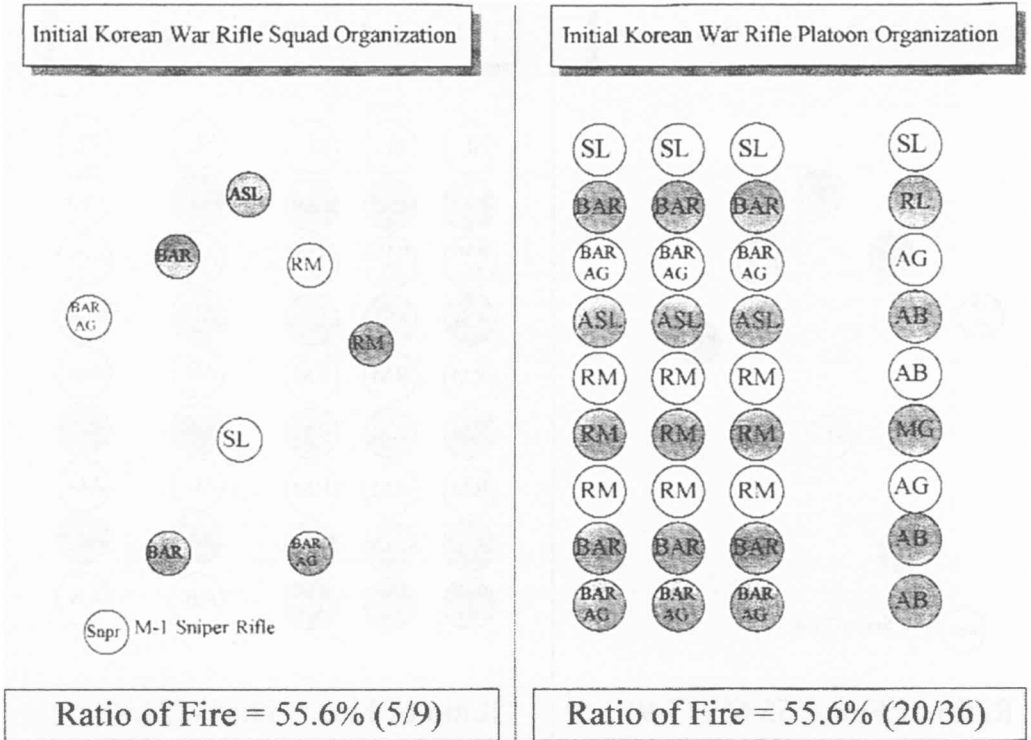


Figure 7

suggests that, whether he derived them from legitimate means or not, Marshall's beliefs had some intrinsic validity on their own.

Nevertheless, primary group cohesion alone cannot account for the dramatic increase in the ratio of fire observed by Marshall. Phillip D'Alton observes that one must be careful to avoid categorical statements regarding the power of small unit cohesion. He states that, "While the grouping of men into small physically-close, segmented task operations offers a better chance for action, it cannot be taken as an absolute." He cites the flight of German antitank gunners (who functioned as members of crews) in 1940 in the face of advancing British tanks as evidence to support his observation. Still, D'Alton concludes by saying that positive action (i.e., remaining steadfast in combat) by small units remains the norm rather than the exception.<sup>69</sup>

69. Phillip D'Alton, "Men in Combat: A Sociological Examination of the British, American, and German Armies in the Second World War" (Ph.D. diss., University of New South Wales, 1974), 258-59.

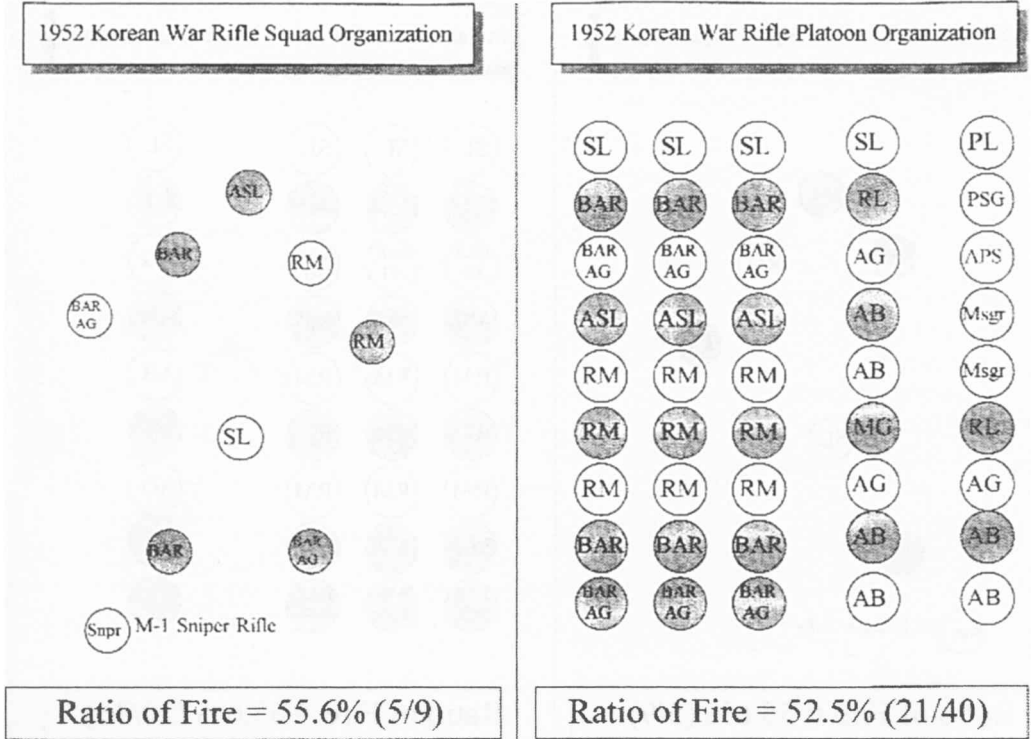


Figure 8

Despite the relative persuasiveness of the argument presented above, one could consider much of it specious if Marshall's ratio of fire figures for World War II and Korea are not valid. Rather than confirm Marshall's figures conclusively, the intent of this examination is to demonstrate that, from an organizational and sociological perspective, Marshall's fundamental observation that more soldiers fired their weapons in combat in the Korean War than during World War II appears to have been correct. Thus, while the figures of 15 percent for World War II and 55 percent for the Korean War are convenient to use, the values themselves are not essential to the argument. Rather, the use of Marshall's own figures simply suggests that the ratio of fire increased significantly from World War II to the Korean War and that this increase did not necessarily result from improved training methods.<sup>70</sup>

Regardless of the validity of Marshall's specific figures, a certain synergy appears to have existed between organizational and social changes,

70. I am indebted to Russell W. Glenn for identifying the logical weakness of basing an argument on figures which may well be invalid themselves.

which helps explain much of the increase noted by Marshall. The organizational changes enhanced small unit cohesion, which in turn probably raised the number of soldiers who fired their weapons in combat. Thus, one may conclude that the *combined effects* of the squad's reduction in size and the reorganization of the squad and platoon are most responsible for the increase in the ratio of fire observed by Marshall in the Korean War.

I suspect that Marshall would agree that the behavioral changes that accompanied the organizational reforms of the period would provide a better explanation for the increase of the ratio of fire in Korea than training improvements. In *Men Against Fire*, Marshall wrote that "the increasing of fire volume must be considered primarily a *psychological matter*."<sup>71</sup> Writing in *The Armed Forces Officer*, Marshall also stated that "the best tactical results [come] from those dispositions and methods that link the power of one man to that of another."<sup>72</sup> Certainly training was important to Marshall; however, he correctly pointed out that the psychological forces among soldiers within a unit were significantly more powerful than the effects of training. Given his views on the relative importance of soldier interactions and training, perhaps Marshall's intent for his 1961 author's preface to *Men Against Fire* was to highlight the innovations of the newly adopted "Train Fire" system, and possibly to take credit for them and not to provide a satisfactory explanation for the dramatic increase in the ratio of fire between World War II and the Korean War.<sup>73</sup> Regardless of his motives, Marshall's most apparent explanation for this change is unsatisfactory.

### Conclusion

As the argument presented above demonstrates, an explanation does exist that helps account for the dramatic increase in the ratio of fire between World War II and Korea. That explanation is rooted in the substantial reorganization of infantry squads and platoons that occurred during this period. Using Marshall's own assumptions, one can see that by increasing the proportion of crew-served weapons to unit members at

71. Marshall, *Men Against Fire*, 70.

72. Marshall was always a proponent of encouraging American soldiers to "talk it up" in battle to "keep nerves steady and to generate confidence." He believed in this technique so strongly that he specifically mentioned it in *The Armed Forces Officer*, the Department of Defense pamphlet he wrote in 1950. Marshall, *The Armed Forces Officer* (Washington: Office of Armed Forces Information and Education, 1950; republished periodically through 1988), 237, 241–42.

73. Martin Blumenson, among others, believed that Marshall was somewhat self-serving. Martin Blumenson, "Did 'Slam' Guess at Fire Ratios? Probably: A Legend Remembered," *Army*, June 1989, 16–20.

the squad and platoon levels, one would expect to encounter an increase in the ratio of fire very similar to the figures put forward by Marshall in his observations. In addition, these organizational reforms increased the cohesiveness of the squads, which produced a corresponding increase in the number of soldiers who fired their weapons in combat. One may also surmise that the synergistic effect of these changes also allowed squad leaders to develop better fire discipline in their units and to make it easier to get their soldiers to fire when the circumstances demanded it and to the best effect in Korea. Thus, it was the Army's organizational reforms of the infantry rifle squad and platoon during the 1945–50 period, with the corresponding increases in the firepower and cohesiveness of these units, rather than improvements in training, that increased the ratio of fire in Korea.

What this analysis suggests is that, despite the continuing controversy surrounding the accuracy and validity of his work, perhaps Marshall's observations, while not based soundly upon carefully collected data or even scrupulously examined, were indeed correct. Furthermore, it appears that Marshall, using his instinctive feel for soldiers in combat, was able to corroborate a change that the Army had hoped to bring about as a result of World War II experiences and subsequent organizational reforms. Marshall, however, was ready to take more of the credit than was his due during this period, a claim that was perhaps more legitimate in the interval between the Korean War and the Vietnam War.<sup>74</sup> Nevertheless, while Marshall's figures and methodology may be subject to criticism, his observations seem to confirm a change for which Army planners strove, suggesting that, in the end, he was right for the wrong reasons.

74. Williams states: "That Marshall had a direct impact on Army training, based on his observations in Korea and after cannot be denied, though he was not a trainer in his own right." Williams, *SLAM*, 86.