

THE US 88TH DIVISION IN WORLD WAR II; A CASE STUDY IN COMBAT PERFORMANCE EXCELLENCE

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How often do we read in our official literature and professional journals that in combat men are more important than equipment, and that this fact must be reflected in our preparations for war? How often do we read in our official literature and professional journals that by studying military history we can improve our readiness for war? And how often do we read—in that same official literature and those same professional journals—that well-trained men and the skills learned from studying military history are force multiplier (or combat multipliers) that can be used with other multipliers to enhance the combat capabilities of outnumbered forces?

The answer to all these questions is easy: very often indeed. But it leads to some other questions.

How often do the programs and priorities of our hardware-oriented armed forces reflect a realization of the superior importance of man over equipment or technology? How often do we see practical application of identified lessons learned from military history in our preparations for war? And how often do we see hard numerical coefficient values for the

Engagement Data Base

The Quantified Judgment Model (QJM), a combat simulation model developed by the Historical Evaluation and Research Organization (HERO), calculates the combat power of a unit in an engagement from data in the historical record of the engagement. This is done by multiplying the unit's aggregate firepower score (calculated in terms of an Operational Lethality Index (OLI) by the combined effects of all identifiable variable factors that represent the circumstances of the engagement. The product represents a combat power value for the unit in the engagement. The combat powers of the two opposing sides are then compared to each other in a ratio:

$$(1) P_r = \frac{W_r \cdot V_r}{P_b \cdot W_b \cdot V_b}$$

In this formula P is combat power, W is the aggregate of the OLIs or firepower, and V is the variable factors representing the circumstances of the engagement that can affect either the weapons or the performance of the forces. The subscripts r and b stand for two sides: the Red force and the Blue force. If P_r is greater than P_b , then the Red force should—on the basis of its combat power—have won the engagement; if P_b is greater than P_r , then the Blue side should have won.

Now, the above formula does not reflect any judgment regarding the relative quality of the troops. In this regard, it is instructive to read what Clausewitz wrote about the importance of troop quality in assessing the outcome of a battle. In chapter VII of book three of *On War*, he wrote:

"If we . . . strip the engagement of all variables arising from its purpose and circumstance, and disregard (or strip out) the fighting value of the troops involved (which is given quantity), we are left with the bare concept of the engagement . . . in which the only distinguishing factor is the number of troops on either side.

"These numbers, therefore, will determine victory (and are) the most important factor(s) in the outcome of an

force-multiplying effects of manpower quality and specific lessons from history?

Again, the answer is clear: almost never.

In other words we are devoting only lip service to the importance of manpower quality, to the importance of value derived from the study of military history, and to the practical application of force multipliers representing manpower quality and experience gleaned from history.

Who are we kidding with this lip service. Not our enemies. We are kidding ourselves.

Something can and should be done about this state of affairs. And if more of our military leaders (from O-1 on up) were familiar with the example of the US 88th Division in World War II, it might be that something eventually would be done about it!

Quantifying the Performance of Infantry Division

Why the 88th Division? What was so special about that division?

Those were questions which, in fact, we asked ourselves, a few years ago, when the results of some quantified analyses of World War II combat thrust the example of the 88th Division under our noses. We had completed quantified analyses of a total of 81 division engagements that took place in Europe in 1943 and 1944, making use of the Quantified Judgement Model (QJM) for these analyses. The consolidated results of the analyses are shown in Figure 1.

It will be seen that a total of 12 Allied divisions (7 American, 5 British) and 12 German divisions each participated in three or more of the 81 engagements. The first column lists the divisions, while the second column shows the number of engagements in the 81-engagement sample that the division participated in. The third column lists the average of the calculated relative combat effectiveness values (CEVs) of each division in each of its engagements.

engagement. . . .

"This . . . would hold true for Greeks and Persians, for Englishmen and Mahrattas, for Frenchmen and Germans." (Emphasis added.)

This statement can be expressed mathematically as follows:

$$(2) O = \frac{P_r}{P_b} = \frac{N_r \cdot V_r \cdot Q_r}{N_b \cdot V_b \cdot Q_b}$$

The new symbols in this formula are: O for battle outcome, N for numbers of troops, and Q for quality or value of troops ("which is a given quantity"). Note that the Clausewitz refers to numbers and not firepower, although presumably firepower is implicit in number of troops.

QJM is able to approach the Clausewitzian concept from another direction by means of a simple formula which reflects and quantifies the outcome of a battle, as follows:

$$(3) O = \frac{R_r}{R_b} = \frac{MF_r \cdot Es_r \cdot Ec_r}{MF_b \cdot Es_b \cdot Ec_b}$$

The new symbols here are R for result; MF value for each side for mission accomplishment; Es for space effectiveness (or the ability to gain or hold ground); and Ec means casualties and the starting strengths of both sides.

Once the outcome value has been calculated in this fashion, the QJM formula becomes virtually identical with Clausewitz's if we include troop quality in the calculation of the combat power ratio. Remember, in the QJM we have the symbol CEV for relative combat effectiveness, which is synonymous with force quality. The formula then is:

$$(4) O = \frac{R_r}{R_b} = \frac{W_r \cdot V_r \cdot CEV_r}{W_b \cdot V_b \cdot CEV_b} = \frac{P_r}{P_b}$$

If we calculate the combat power ratio without consideration of troop quality by means of equation (1), and the actual outcome value by means of equation (3), then by substitution in equation (4) we can get the value of the ratio CEV_r/CEV_b . This is how the CEVs (averaged in figure 1) were calculated for the 24 divisions examined.

It will be seen that 9 of the top 10 divisions were German, but the division ranked number 5—right in the middle of the best German divisions—is the US 88th Infantry Division.

Figure 1

Average Division Combat Effectiveness Values World War II, 81-Engagement Data Base¹

	No. of Engagements	Average CEVs	Normalized CEVs ²	Relative Rank ³		No. of Engagements	Average CEVs	Normalized CEVs ²	Relative Rank ³
UNITED STATES					GERMAN				
1st Armored	3	0.86	1.43	15	Herman Goering Pz	5	1.49	2.48	1
3d Infantry	4	0.86	1.43	14	Panzer Lehr	4	1.02	1.70	8
4th Armored	8	0.73	1.22	21	3d Pz Grenadier	17	1.17	1.95	4
34th Infantry	5	0.81	1.35	19	4th Parachute	5	0.93	1.55	13
45th Infantry	11	0.72	1.20	22	11th Panzer	4	1.31	2.18	3
85th Infantry	6	0.79	1.32	20	15th Pz Grenadier	11	1.12	1.87	6
88th Infantry	4	1.14	1.90	5	16th Panzer	7	1.07	1.78	7
Average		0.82	1.37		29th Panzer	3	0.82	1.37	18
BRITISH									
1st Infantry	8	0.82	1.37	17	65th Infantry	6	0.98	1.63	9
5th Infantry	3	0.61	1.02	23	94th Infantry	8	1.38	2.30	2
7th Armoured	3	0.83	1.38	16	361st Infantry	3	0.95	1.58	12
46th Infantry	6	0.96	1.60	11	362d Infantry	3	0.98	1.63	10
56th Infantry	9	0.60	1.00	24	Average		1.10	1.83	
Average		0.76	1.27						
Allied Average 0.80									

1. Divisions in 3 or more engagements
2. Normalized with respect to Brit 56 Inf Div.
3. Overall comparison. US. British. German

The 88th ID

When we first got these results, we had difficulty understanding them. Who had ever heard of the 88th ID? We carefully rechecked all of the figures and calculations. No change. The 88th ID was still number 5, the lone Allied division in the top 10. Then we learned that the British had considered the 56th Division to be their worst division in the Mediterranean Theater and they had even contemplated breaking it up. In addition, we learned from the War Diary of the German Tenth Army that the 88th ID was categorized by the enemy as "shock troops." The Germans shifted their reserves whenever the 88th ID was committed to the line, since they expected a main effort in its sector.

So, we were convinced that our results were reasonably good representations of the relative capabilities of at least 2 of the 24 divisions examined. We had no further reason to doubt the reliability of the overall comparison, at least for the battles analyzed. Figure 2 shows the relative effectiveness values of the divisions in graphic form. Note how the 88th ID stands out.

We had a reasonably good idea as to why the German divisions were, on the average, better than the Allied divisions. One of the authors of this article had written a book on the subject: *A Genius for War; The German Army and General Staff, 1807-1945*. In brief, this average German combat effectiveness superiority was a reflection of higher German military professionalism.

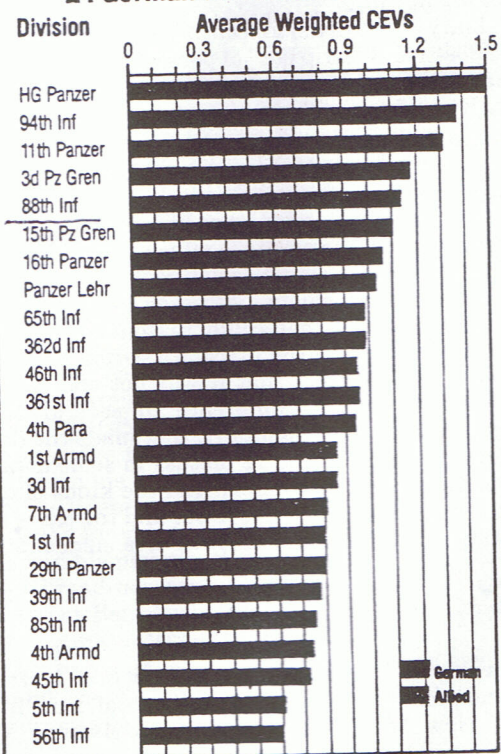
But why was the 88th ID so much better than the other Allied divisions in this sample and of a quality comparable to the best of the Germans?

We began a preliminary exploration to see what we could find out about the 88th ID in World War II. Our sources were official records of the unit and other divisions; the relevant volumes of the US Army's official history of World War II; unofficial division history and other secondary works; published memoirs of participants; correspondence with division veterans; and taped conversations with about 30 of the veterans.

The 88th ID was organized in July 1942, seven months after the outbreak of World War II, and after the mobilization

Figure 2

CEVs Compared 24 German and Allied Divisions



of all of the Regular Army, National Guard and Organized Reserve units of the Army. It was the eighth of the new Army, all-draftee divisions to be so established. The division was trained at Camp Gruber, near Muskogee, Oklahoma, for about one year. It then participated in post-training, corps-size maneuvers in Louisiana in the summer of 1943. Soon (Continued on next Page)

after this, it was shipped to a port of embarkation. In November, the 88th ID sailed for Italy, the first of the new divisions, to go overseas.

In 1 March 1944, after more training and preparation for combat in southern Italy, the division went into defensive positions about 50 miles south of Rome opposite the Gustav Line. It was the first of the new divisions to be committed to combat. The division was committed, on 11 May 1944, to its first offensive operation as part of the US II Corps in Operation Diadem to initiate the so-called Rome Campaign. The 88th ID, and its sister division, the 85th ID, also attacking as part of the II Corps, were the first two of the new Army divisions to go into offensive action. In the ensuing three weeks of combat, the 88th ID distinguished itself, and elements of the division were the first Allied troops to enter Rome on 4 June 1944.

The 88th ID engagements analyzed, which led to the CEV average in figure 1, were fought between 11 May and 4 June. However, the division continued to distinguish itself during the ensuing fall and winter opposite the Gothic Line, and in the final Allied offensive into and across the Po Valley in the spring of 1945.

Why So Good?

When we began the research, we anticipated that the answer to why the 88th ID was so good would lie in determining how it differed from other divisions with respect to one or more of the following seven postulated "component elements of division quality":

- Quality of manpower (manpower composing the bulk of the division at induction).
- Quality of cadre.
- Stability of the division (continuity of personnel service; relative absence of "strip out" of personnel during training to serve as replacements or cadres for other divisions).
- Quality of leadership.
- Length and quality of training.
- Amount of administrative support given the division by higher commands.
- Quality, training, and method of introduction of replacements (relevant for performance after the division had experienced combat and suffered casualties).

For each of these elements we posed as many hypotheses as we could think of that could reasonably have made a significant difference in the division's performance. We also considered the possibility that it was not one element, but rather small degrees of difference in several or all the elements, occurring coincidentally, that made the difference.

To show how we worked, we discuss in some detail two of the seven elements we examined and the kinds of questions we asked about them: raw manpower and the cadre. We then summarize our findings on the other five elements.

Manpower

Who were the original draftees? The first increment to arrive, and probably the majority of the total, were from New England, New York, New Jersey and Delaware. Veterans have estimated that 60 to 65 percent of the men who trained at Camp Gruber came from the Northeast. About three months after the first group, a second increment came in, largely men from the Midwest and Southwest. This group seems to have included many who were older and physically unfit. (Men up to 35 years of age were drafted in the first months after US entry into the war.) Also, in the second increment came some of the divisions's best soldiers by all accounts—ranchmen, Mexican-Americans and some Navaho Indians.

The Mexican-Americans are universally praised by other division veterans as superb soldiers. It is hard to tell just what percentage of the division they comprised. Most were in the rifle companies. One company commander told us, "My company was filled up with them." Another company had 12 of 200, another had even fewer.

The older and unfit men were mostly eliminated, although some veterans said that the older men who stayed with the division were an asset and among the most loyal. Some who could have gone home because of age when the division went into combat chose to stay.

One veteran suggested that the division was fortunate in the order in which the draftees arrived. The first men were from the East. Many of them had clerical and administrative skills that helped get the division organized and functioning smoothly. The westerners who arrived later made excellent additions to the combat ranks.

There were, of course, replacements before the division shipped out. By the time it went into combat, it had at least a few soldiers from almost every state in the union. So the raw material of the division was a cross section of American manhood, although it may be that the makeup of the two increments and the order in which they arrived gave it some advantages.

How did the 88th ID's original men compare with those of other divisions? It is impossible to say. Certainly, we can say that the division was not elite in its raw material as was, for example, the 10th Mountain Division, which was made up to a large extent of skiers and had a high proportion of college graduates. The 88th ID did not have the strong regional identification of a National Guard division.

It would be interesting to be able to compare mean aptitude test scores of the division's draftees with other divisions, but this is probably impossible. World War II personnel records were largely destroyed by fire in 1973. Further complicating any such research is the requirement that permission to examine surviving records must be obtained from each subject or his next of kin. Such comparisons as could be made from the evidence available did not indicate that the initial enlisted manpower of the 88th ID was superior to that of other all-draftee divisions, or in any substantial way, different.

Most of the original junior officers came from two successive graduating classes at the Officer Candidate School of Fort Benning, Georgia. This was also true of other divisions activated at this time.

We looked for links among the senior officers that might have existed before the division was activated. We wondered whether there was a network of old friends, West Point classmates or groups who had served together. There was not. The officers were assigned to the division arbitrarily. The commanding general, Major General John E. Sloan, requested several officers, but only one was assigned and he stayed with the division only a short time.

Cadre

We asked whether the 88th ID cadre came from a superior division, better than the one that supplied, for instance, the cadre for the 85th ID.

The 88th ID cadre came from the 9th ID, a Regular Army division that has been rated (on the basis of military judgment, not on a systematic quantitative basis) by some historians as one of the five best divisions in northwest Europe, and probably best after the 1st ID. (Veterans of the 9th ID might challenge that assessment.) A number of the cadremen, though not all by any means, were Regular Army men.

The most striking thing about the men from the 9th ID was that Sloan sent his assistant division commander and a team

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of officers to Fort Bragg, North Carolina, to interview everyone assigned to the cadre. Those who did not impress the interviewer as competent were rejected. This was a very unusual procedure.

There was no way we could be certain that the procedure was not carried out by any other division commander but it is certainly not mentioned in the 85th ID history. No one we spoke with who had appropriate World War II experience had heard of such a procedure for any other new division.

We tentatively concluded that the 88th ID's cadre was probably above average, in part because of this quality control action on the part of the commander.

Other Elements

The division had less "strip out" for replacements than many later divisions, but apparently not less than the 85th ID. Both gave up one cadre, plus a few dribbles of other replacements.

Training, as far as content and duration were concerned, was the same for all new Army divisions. The program was worked out by the Army Ground Forces under General Lesley J. McNair and his deputy, General Mark W. Clark.

We explored every lead we could on the matter of special attention from above for the 88th ID. Was it given special attention because it was the first draft division sent overseas? No, it seems clear it was the first sent overseas because it was judged to be the best draft division, an assessment confirmed by its performance in the Louisiana Maneuvers.

After the division arrived in Italy, did Fifth Army commander, Clark, do the division any favors because of his friendship with Sloan, who had been his tactics instructor at the US Army Command and General Staff College (USACGSC), Fort Leavenworth, Kansas? When he was still McNair's deputy, Clark seems to have been at least partly responsible for the division's being given to Sloan, who was older than the Army high command's ideal for division commanders. That was all.

We could no longer avoid the element that we suspected from the beginning was probably the key to the difference in the 88th ID's performance and that of other divisions. Researchers with military experience believe that leadership usually made the difference between mediocre and superior unit performance in combat, especially if the leader in question had trained the unit as well as led it in combat. Once we had established that neither raw manpower, cadre, training programs, or special attention from above were very different from that of other divisions, logic urged us to look hard at the commander of the 88th ID.

Sloan was born in Greenville, South Carolina, in 1887. He graduated from the United States Naval Academy in 1910 and transferred to the Army. He commanded an artillery regiment during World War I, but the war ended before he could take the unit overseas. In the mid-1930s, Sloan was an instructor at the USACGSC, where he earned the respect of fellow faculty members and students as an outstanding military thinker and teacher.

As division commander, Sloan was able to impress on his principal subordinates and, through them, all of the officers, and noncommissioned officers of the division, the importance of demanding, and expecting, perfection in the performance of duties. He insisted upon the highest standards of discipline. Soldiers and junior officers had to salute officers senior to them punctiliously and smartly. And seniors were expected to return those salutes with equal punctiliousness and smartness.

Uniform buttons had to be buttoned, hair had to be cut to regulation length, caps had to be worn properly, shoes had to be shined and so on. Some of Sloan's officers wondered whether his small physical stature and his "outsider" status

as an Annapolis graduate helped make him such a hard-driving commander. In any case, they agreed that the discipline was "unbelievably strict."

Sloan's repeatedly affirmed motivation for the meticulous discipline was "we've got to be ready for combat." His strict attention to "the book" on training—the carefully developed Army Ground Forces training program—and his refusal to make any exceptions or accept any excuses were always directed toward combat readiness.

Sloan was obviously a believer in the importance of *esprit de corps* in creating an effective combat division. He made unabashedly patriotic speeches to the troops; used whatever traditions of the division's past he could summon up to build additional pride; and tried several times to create a more aggressive nickname than the "Clover Leaf," the nickname the division had inherited from its World War I existence. ("Axis Sally" finally came through with "Blue Devils" after the division went into combat.)

It was concluded, on the basis of discussions with veterans, that the chief basis for the strong *esprit de corps* that developed was not any of these factors, but rather pride in the unit's competence and accomplishments. It was the division's performance in the post-training Louisiana Maneuvers that solidified the *esprit de corps* and led to the division's being the first all-draftee division sent overseas.

Veterans of the 88th ID remember that before they went overseas they considered Sloan to be a strict, over-demanding, stubborn martinet. He was nicknamed "Johnny Eager" by his men, and their informal division motto was "Grunt and groan with General Sloan." Yet they could not help respecting his soldierly qualities and his tireless devotion to duty. Most of those veterans who earlier thought Sloan to be "chicken"—contemporary slang for a particularly demanding martinet—are now loyal to the memory of a beloved commander and believe they survived the war because he made them alert, obedient, disciplined soldiers.

After the division was in Italy, Sloan was constantly on the move, visiting all of his units, whether they were fighting, resting or training when not on the line. Veterans recall that his example was followed by subordinate commanders, who tried to emulate Sloan in performance and professionalism.

Sloan became ill after three months of combat and was forced to give up command and return to the United States. He was replaced by the assistant division commander, Brigadier General Paul W. "Bull" Kendall, who was promoted to major general and commanded the division during the remaining nine months of combat.

Kendall was a very different kind of man from Sloan in personal appearance and style. He was massive physically and radiated courage and aggressiveness. As he himself acknowledged, he did not have Sloan's intellectual power, and veterans judge that he did not have Sloan's skill as a tactician. But, in his way, he too was a "soldier's soldier." As a young second lieutenant, fresh from West Point, he had won a Distinguished Service Cross in Siberia in 1919. He earned it when he and his platoon, sleeping in a presumably secure area in a railroad box car on the Trans-Siberian Railway, were attacked by Bolsheviks in an armored train. Kendall led his men in a counterattack to capture the train.

In addition to his native personal courage and aggressiveness, Kendall had an inherent understanding of leadership and had learned much from Sloan. He had seen the successful building of an extraordinarily good division. Without changing his personal style, he followed the example and policies of his predecessor. It was judged that the *esprit de corps* created under Sloan's leadership played an important role in easing the command transition, maintaining unit identity and, later, integrating the numerous replacements required by the casualties of the heavy fighting in the northern Apennines. The division remained "shock troops" in the eyes of the enemy despite changes in command and front-line soldiers.

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There are still a number of questions about the 88th ID and its performance in 1944 and 1945 that can only be answered with much more detailed research, including comparison with one or more of its sister new Army divisions. But we do have the answers to some very fundamental questions, questions and answers of immediate relevance to the US Army.

The narrative record confirms that the single most important aspect of the 88th ID's performance was the leadership provided by the division commander. The exceptional training and disciplinary standards of the division do much to explain why it was able—at all levels of leadership—to match the professionalism of the best German divisions. Obviously, Sloan was largely responsible for this, but it is noteworthy that the standards of professionalism he instilled persisted for nearly a year of combat after he left the division.

The record and the quantitative analyses show that Sloan and his leadership team created a division that was 44 percent better than the average of a random sample of 12 Allied divisions of World War II. This 44 percent figure is significant.

In other research, the QJM has been used to demonstrate that Napoleon was not quite accurate when he said that “the moral (behavioral) is to the physical as three is to one.” The research suggests that the real relationship is “the moral is the equivalent of the physical squared.”*

In Europe today, the United States and its NATO allies are faced by an enemy that has approximately a two-to-one superiority in manpower, tanks, artillery pieces and aircraft. Our political leaders have made it clear that they will not double the size of our forces. It has been convincingly demonstrated in the Middle East wars that we cannot make weapons twice as effective as those of the enemy. What, then, can we do to match an enemy twice as strong?

If the moral is the equivalent of the physical squared, Sloan demonstrated not only what we need to do, but what we can do. Sloan was able to raise the quality of an average cross section of American citizen soldiers by a factor of 1.44 over the average value of other Allied divisions. If he could do it, so can we. If our findings on the relationship of the physical to the behavioral are correct, all we need to do is to raise the quality of our divisions by a factor of 1.41 over the average quality of Soviet divisions. The square of 1.41 is 2.00. What does this mean in practical terms to issues of the utmost importance to the US Army today?

In the first place, we must change our way of thinking, so we can truly put manpower quality into the military equation and not just talk about it. This discussion of the 88th ID shows that we can do much more than hand waving and lip service. There can be measurable results from continued and unceasing emphasis on military fundamentals, particularly on training and discipline as the basic components of unit quality. Heretofore, we have not had any way to calculate whether or not there really was a payoff from such things. Sloan's accomplishments, and their measurement by the QJM, show that there is such a payoff.

Related to this is the necessity of changing the whole orientation of the Army's combat simulation effort from one that is almost totally hardware oriented to one that is responsible to personnel quality difference. Not only does theory tell us that emphasis on people has a greater payoff than emphasis on things, but Napoleon also told us this. Sloan's 88th ID—via the quantified analysis by the QJM—has demonstrated it convincingly. Obviously, we cannot neglect physical things, such as hardware, technology, material. But we must redress the current gross imbalance in the analytic procedures that drive our planning and our preparations for war.

Next is the demonstration that there is practical value to be derived from the study of military history. J. F. C. Fuller once wrote that military history “is but a bloody romance,”

unless we use it to improve ourselves as we prepare for the next war. Of course, an American citizen—and particularly an American soldier—is proud to read about the glorious record of the 88th ID. It's exciting, it's entertaining and it's inspirational. We are inspired by specific example to do the practical things that bring big payoffs in battle!

Finally, the 88th ID's example shows us that there can be true meaning in the hitherto vague concept of force multipliers. The term is meaningless and worthless unless we can give concrete numerical values to those things that affect the outcome of battle: the multipliers and the force values being multiplied. By giving hard numbers to such force multipliers as terrain, weather, defensive posture, mobility, surprise and the like, the QJM analyses of 24 combat divisions in 8 engagements were able to produce still another force multiplier: the factor of 1.44 to describe the effectiveness of the 88th ID in comparison with 11 other Allied divisions. And—as the German Tenth Army War Diary ruefully admits—this was a force multiplier that worked on the battlefield.

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