



Infantry Factors in the Dunnigan System

By Alan R. Arvold

Figuring out the infantry factors for both PanzerBlitz and Panzer Leader, using the Dunnigan system, was probably the hardest thing to do because there so few notes on their original creation. The biggest problem is that figuring out the factors depends less on tangibles such as the actual weapons and hardware and more on intangibles such as tactics and doctrine. Thus the infantry factors are more subjective than the other factors which are more objective. With that in mind, here they are.

Attack Factors

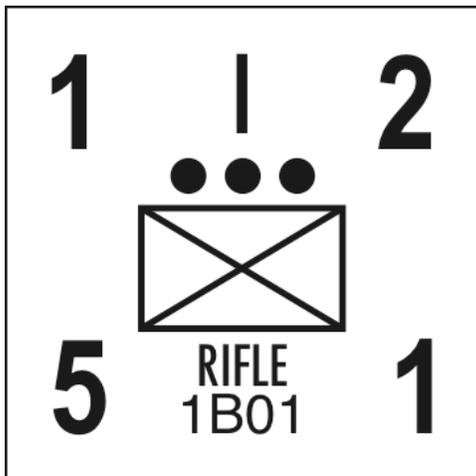
Because, in the PanzerBlitz series of games, armored warfare was emphasized and infantry warfare was not, the Attack Factors were based on the individual unit's anti-armor capability. Thus, the infantry units were robbed of their true anti-personnel effectiveness. Among the factors used to get the ratings was the number of anti-weapons in the unit, the unit's tactical doctrine towards AFVs, and the unit's primary purpose or mission.

The main weapons that were used by the infantry during the early part of the war were Anti-Tank Rifles, Anti-Tank Hand and Rifle Grenades. However

infantrymen, being an innovative bunch, quickly came up with substitutes such as Anti-Tank Mines - both the magnetic type that you could attach to a tank, and the regular type which was normally buried, but which, when wedged into a vulnerable part of tank, could cause a lot of damage. Other substitutes such as Molotov Cocktails were used. Even regular hand grenades were quite devastating when used against open top vehicles. In the case of tanks, dropping a live grenade down the barrel of the main gun was also effective because when it exploded, it would usually rupture the barrel, rendering the gun useless. (The old dropping a hand grenade into a tank through an open hatch trick was not as common as movies and comics would have us believe.) Throw in the engineers and now you have satchel charges and flamethrowers added to the infantryman's arsenal. In the latter part of the war, various nations developed HEAT round projectors for the infantry, the Americans with their Bazookas and the British with their PIATs. But the Germans came out on top in the weapons race for a better infantry anti-tank when they introduced the Panzerfaust and the Panzerschreck in the late summer of 1943.

All these weapons had one problem, you needed to use close assault tactics in order to use them effectively. This is why infantry can only attack armored targets by close assault tactics in the game.

I have broken down the anti-tank categories into the various infantry attack factors followed by what the factors represent in terms of anti-armor capability. Each category will have two sets of attack factors, the first being the main one used by the Germans for both games and Western Allies in Panzer Leader, the second being a range of Russian attack factors that fit in that category. (The Russian have a different range of attack factors because they are company size units.) The names of the categories are my own creation, I do not know what names Dunnigan and crew gave them.



AF 1 (Russian AF 1, 2, and 3)

MINIMAL AT CAPABILITY:

Unit has little or no anti-tank training and few if any anti-tank weapons. This was a common trait of early war infantry units in many of the Major and Minor Powers who relied on the tanks and anti-tank

artillery to handle the enemy armor. This factor can also apply to units whose missions preclude anti-tank combat except in extreme self defense situations. The Western Allied Early War Rifle (PL 1940), Scout, POW, and (American) Engineer units as well as the Russian Recon and Engineer units fall into this category. (One can make an argument that the American and Russian Engineers do not belong here, but these units were primarily trained in engineer functions with little infantry training and needed the infantry to bring their full close assault advantages to bear.)

AF 2 (Russian AF 4, 5, and 6)

DEFENSIVE AT CAPABILITY:

Unit has sufficient anti-tank weapons to engage armor but their tactics and training is primarily defensive in nature. In other words, they know how to deal with armor that attacks *them* but when attacking armor units they are somewhat at a disadvantage. The German Early War Rifle (PL 1940), Security, the Allied Rifle and Machine Gun, and the Russian Rifle and Guards units fall into this category.

AF 3 (Russian AF 7, 8, and 9)

DEFENSIVE/OFFENSIVE AT CAPABILITY:

Unit has sufficient anti-tank weapons and its training includes both defensive and offensive anti-tank tactics, although it is in defensive tactics that this unit excels. In other words, this unit is good in most combat situations. German Rifle, Engineer, and early war Paratroop, Allied Ranger and (British) Engineer, and Russian SMG units fall into this category. (German and British Engineers were trained in infantry tactics as well as their primary engineer functions.)

AF 4 (Russian AF 10, 11, and 12)

OFFENSIVE/DEFENSIVE AT CAPABILITY:
 Unit has sufficient anti-tank weapons and its training includes both defensive and offensive anti-tank tactics but it excels in offensive tactics. Again, this unit is usually good in most combat situations. Allied Armored Infantry, Paratroop and Commando units fall into this category

AF 5 (No Russian equivalent)

OFFENSIVE AT CAPABILITY:
 Unit has sufficient anti-tank weapons but its training involves only offensive anti-tank tactics. These are infantry units specifically organized to attack armor using close assault. This unit is only good on the attack. There are presently no units in either game that fall into this category, although a good historical example of such a unit would be the late war Japanese tank killer platoons. (This is a category of my own creation to fill the gap between AFs 4 and 6. It should be used sparingly and with units with low defense factors as these units took very high casualties.)

AF 6 (No Russian equivalent)

PANZERSCHRECK/PANZERFAUST AT CAPABILITY:
 This is a special category that applies to the Germans only. Units in this category are armed with either Panzerschreck or Panzerfaust anti-tank weapons or both, in addition to their other AT weapons. These units are already in the Defensive/Offensive category but the addition of these two weapons make them twice

as effective towards armor. This category also applies to units that are organized and equipped for special close assault operations in the early war years, prior to the introduction of these weapons. The German SMG units fall into this category.

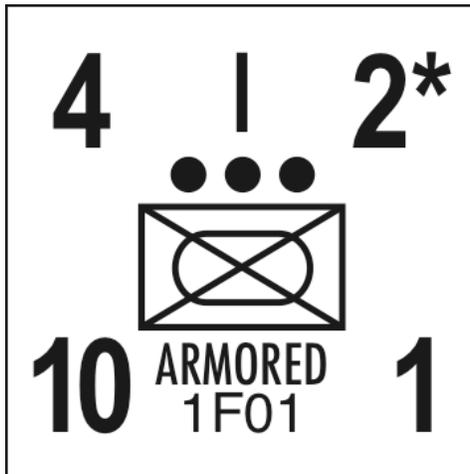
Range Factors

The range factors were based on a mix of the predominant weapons in and the tactical doctrine of the unit in question. Although machine guns and sub-machine guns were the primary weapons considered when determining range, sometimes for the shorter

ranges the rifles were also considered. A note on machine guns: in the unit composition charts where it lists the total number of machine guns, it does not differentiate between light, medium, and heavy. This can be confusing as the Russians had distinctly different light and

medium machine guns, the Americans had automatic rifles which they counted as light machine guns of sorts, and the Germans had two machine guns (the MG34 and the MG42) which could be used in any of the three modes, light, medium, or heavy. For example, in a Russian Rifle or Guards unit, 18 of the machine guns in their inventory were light.

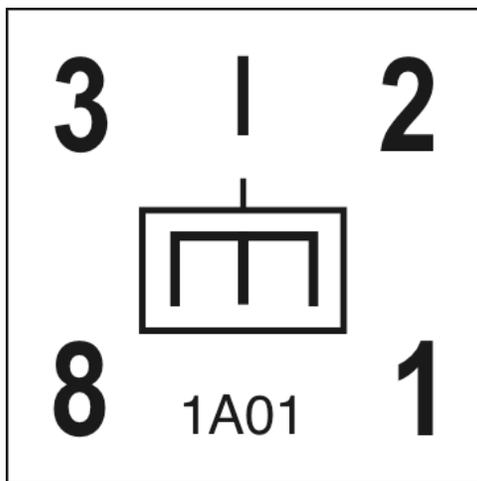
When using machine guns to determine the range factor of the unit in PanzerBlitz, keep in mind it is not enough to have a machine gun that



can reach that range, one must have enough machine guns to adequately cover the area around the unit out to the maximum range of the counter. Having one heavy machine gun won't give you a range factor of 6, at best it will supplement the other machine guns that are giving the range factor of the counter. But having six heavy machine guns would give a range factor of 6 as this would be enough to adequately cover the area around the counter out to 6 hexes.

RF 1

This is the range for a unit that is solely armed with sub-machine guns. It is also the range for a unit who may only be armed with rifles and SMGs and its unit mission precludes it from setting up any real defense so its weapons are for self-defense only. The Russian Recon and SMG units fall into this category.



RF 2

This is the range of a unit whose main weapons are rifles. It may have some SMGs and machine guns for support but not enough to extend the effective range out beyond two hexes. The Russian Engineer unit falls into this category.

RF 3

This is the range for a unit whose main long range weapon is the light machine gun. There might be a few medium machine guns in the unit, but these only supplement the light machine guns, not surpass them. The German SMG unit falls into this category.

RF 4

This is the range of a unit whose main long range weapon is the medium machine gun. For the Germans about 4 of their machine guns in medium mode will give this range factor. For the Russians about 5 or 6 of their medium machine guns will give their units this range factor. The German Engineer and Security units and the Russian Rifle unit fall into this category.

RF 5

Again this is the range of unit with medium machine guns. For the Germans, about 5 of their machine guns in medium mode will do the job. For the Russians, about 7 or more of their medium machine guns will do the job, plus this is about the maximum range one can get out of a medium machine gun anyway. The Russian Guards unit falls into this category.

RF 6

This is the range for a unit with heavy machine guns as their main long range weapon. For the Russian, this is the range of their MG unit, which isn't even an infantry unit, but an artillery unit instead. For the German, about six or more of their machine guns in heavy mode will do the job. The German Rifle unit falls into this category.

In Panzer Leader the range factor was handled a little differently. First, the extreme ranges of 5 and 6 hexes were dropped from consideration. This was due to the fact that in the Western Front (desert terrain not included) the vegetation of the various terrains in France, Belgium, Sicily, Italy, and Germany largely precluded units ever reaching out to those ranges with their machine guns. (One may think of the bocage of Normandy and the thick forests of the German border areas such as the Ardennes.) Second, it was felt that a unit's firepower became severely reduced once you got past 500 meters (two hexes) as the unit's rifles had reached their maximum effective ranges. Beyond this range it was the machine guns that counted. (Yes the light mortars in a unit could reach out past 500 meters but their ammunition was limited and they were only used against point type targets.) Of course the further out you go, the less effective the machine guns become as they have to cover a greater area. This is why the attack factor becomes halved once you go beyond two hexes. This is regardless of whether the machine guns are of the medium or heavy variety.

RF 1

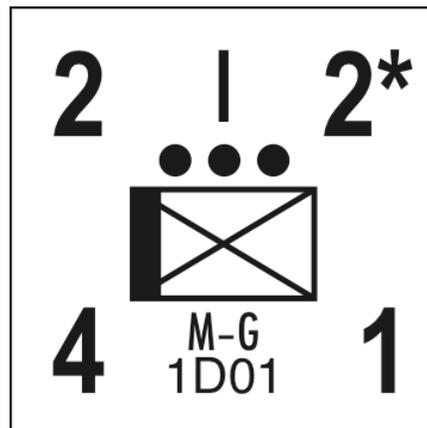
This is the range for units armed solely with SMGs or for units with a mix of rifles and SMGs but their mission precludes setting up an organized defense except for self-defensive purposes. The units that fall into this category are the German SMG and the Allied (US) Engineer and POW units.

RF 2

This is the range for units armed with rifles and light machine guns. There may be some SMGs and perhaps a medium machine gun or two in the unit but it is not enough to really extend the effective range out past 2 hexes. The German units that fall into this category are the Engineer, Security, Early War Rifle (PL 1940), and Early War Paratroop units. The Allied units that fall into this category are the (Brit) Engineer, Scout, Ranger, Commando, Paratroop, and Early War Rifle (PL 1940).

RF 2*

This is the range for units armed with rifles, light machine guns, and most importantly, at least 4 medium or heavy machine guns. These machines may be organic to the platoon or distributed to them from machine gun platoons, (which do not exist in the game except on the Allied side). Once one gets past a range of 2 hexes, the rifles fall away in effectiveness and the light machine gun start to lose their effectiveness as you go further out. But it is the medium or heavy machine gun that can consistently reach out to 4 hexes. The only German unit that falls into this category is the Rifle. The Allied units that fall into this category are the Rifle, MG, and Armored Infantry.



Defense Factors

The defense factors are based on several things. First, the size of the unit is a factor. Second is the tactical dispersion of the individuals within the unit. Third is the unit doctrine of how individuals work with each other within that unit's chain of command. (Units where the soldiers are encouraged to display greater initiative tend to operate more spread out as the leaders do not have to keep close tabs on everybody.) The German and Allied units appear to have been evaluated separately from the Russian units. The Germans and Allies were evaluated with the tactical dispersion of the individual troops being the primary consideration. The wider the troops are apart, the less chance there is of incurring multiple casualties from a single hit. The Russians on the other hand were evaluated with the unit size being the primary consideration. Since they are company sized units, they have more troops with which they can take casualties without losing unit effectiveness.

The following factor categories will have two sets of defense factors listed, the first one covering the Germans and Allies, and the second the Russians. The definitions that follow are pretty subjective and represent what Dunnigan in PanzerBlitz, and later Reed in Panzer Leader, were thinking when

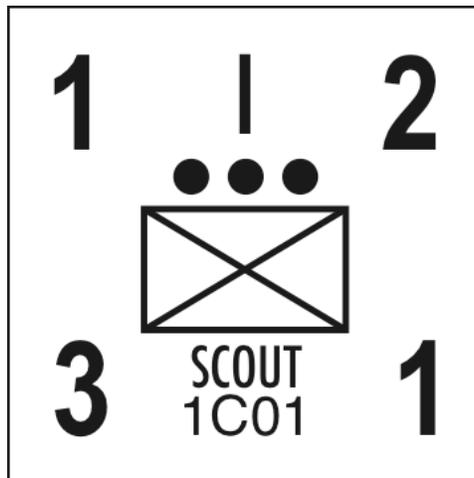
they assigned the respective defense factors to the infantry units. (At least, so I was told.)

DF 1 (Russian DF 1 and 2)

This is the defense factor for very small units like OPs or very large units whose missions preclude defense on their own and must rely on other units to defend them such as Command Posts and Supply Depots. The German and Russian CP units fall into this category.

DF 2 (Russian DF 3 and 4)

These are the defense factors for small units which tend to operate subdivided into large groups. Thus a well placed hit could take out a group, thereby reducing the overall unit's effectiveness by a substantial margin. The Allied POW and Russian Recon units fall into this category.



DF 3 (Russian DF 5 and 6)

These are the defense factors for small units which tend to operate subdivided into not so large groups. Thus it would take a couple of hits to take out a group in order to reduce the unit's overall effectiveness by a substantial margin. The Allied Scout unit falls into this category.

DF 4 (Russian DF 7 and 8)

These are the defense factors for units which tend to operate subdivided into small groups. Thus a well placed hit may take out a group but will not reduce the unit's effectiveness that much. The Allied MG and Russian Engineer units fall into this category.

DF 5 (Russian DF 9 and 10)

These are the defense factors for units whose individual troops start to spread out, but not by much. Most infantry units have this defense factor early in the war as they are still using the tactics that were formulated during the First World War. The German Security unit and Allied Commando and Early War Rifle (PL 1940) units fall into this category.

DF 6 (Russian DF 11 and 12)

These are the defense factors for units in which the individual troops are spreading out more but are still close enough for leaders to maintain control. This is also the best defense factor that offensive close assault units are going to get in this system. The German SMG unit; the Allied Rifle, (US) Engineer, and Ranger units; and the Russian SMG units all fall into this category.

DF 7 (Russian DF 13 and 14)

These are the defense factors for units in which the individual troops are starting to spread out to the point where not all of them are directly under the leader supervision, but have a moderate degree of training to where they do not have to be. Presently there are no units in this category.

DF 8 (Russian DF 15 and 16)

These are the defense factors for units where the men are well spread out, yet because of a high degree of training they can be expected to do operate without the direct supervision of a leader. 15 and 16 are also the defense factors of large Russian units that can take substantial casualties and still be able to function. The German Rifle (both regular and early war) and early War Paratroop units, the Allied Paratroop

units, and the Russian Rifle units fall into this category.

DF 9 (Russian DF 17 and 18)

This is the same as the previous category except that the unit has more men. The Russian Guards unit falls into this category.

DF 10 (Russian DF 19 and 20)

This is the same as DF 8 only the unit has much more men. The German Engineer units, and the Allied (Brit) Engineer and Armored Infantry units fall into this category.

Movement Factors

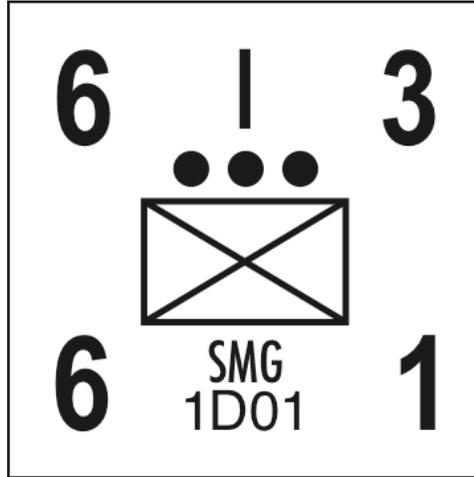
Well, being dismounted leg units, all of the infantry units get a movement factor of 1. However, the CP units get a movement factor of 0 due to their being stationary, whether as an Observation Post, an actual Command Post, or a Supply Depot, depending on the scenario that they are in.

Swing UnitsGerman SMG Unit:

There were not such things as SMG platoons in the German Armed Forces. The initials SMG were used as a term of convenience by Dunnigan for more heavily armed infantry platoons in the latter part of the war. Besides having the Panzerfaust and Panzerschreck anti-tank weapons as noted above, these platoons also had more hand-held automatic weapons such as SMGs at first, and later assault rifles. These units were to be gradually introduced into an infantry battalion's order of battle to show the ever increasing rise in firepower by its bigger attack factor, while at the same time showing the

ever decreasing staying power by its smaller defense factor.

However Dunnigan failed to incorporate it into the Unit Organization Chart in Panzer-Blitz and it was up to Randall Reed and crew to incorporate it into the German Unit Organization Chart in Panzer Leader. This he did by presenting different Rifle to SMG



unit ratios for each different type of infantry battalion (and regiment). This generally occurred during the 1944–45 period. However, SMG units can be used earlier in the war to represent specially trained and equipped close assault units to attack fortified areas, generally during the 1942–43 period. Before then the Germans just had to rely on the good old Rifle units, reinforced by the occasional Engineer unit, to do their infantry work. In the latter half of 1943, SMG units would start to appear in an infantry battalion's order of battle on an irregular basis to represent the introduction of the new anti-tank weapons into the units. This should serve as a guide to the use of the German SMG in DYO scenarios.

Russian Recon Unit:

The Russian Recon unit is a strange bird. In the Unit Composition Chart it is given the strength of about 40 men, a large platoon by Soviet standards. Yet it has the unit symbol of a company. Now real a Russian recon company had the personnel strength of about

120 men. So what's the story about the

Recon counter? Well it was com-promise unit intended to be used for several different units. For example, its attack factor is about right for a full strength recon company while its defense factor is about right for an actual platoon. Thus it could be used as either a recon platoon or company at the

designer's option. Also its counter factors are about right for a SMG platoon. These were used in SU regiments for infantry support and protection in 1943 (it was not until 1944 that the SU regiments got SMG companies). Also these units have been used to represent partisan units, such as in Situation 15. (As partisan units are usually of irregular sizes, this unit could represent anything from a well armed platoon size to a poorly armed company size partisan unit.) Not only that, the Recon unit has been used to represent CP defense forces, like those of Situation 14. In other words, the Russian Recon unit can represent any small infantry type unit that is not defined by the other Russian infantry types.

German Security & Allied Scout Units:

These units can be used to represent any second line infantry units or rear area units that are thrust into front line infantry duties. An example would be MPs for both sides, bicycle infantry for the Germans, and rear area security forces such as the German unit implies.

Odd Units

Allied POW Units:

This unit, which was introduced in the General Vol. 31, no. 6, should really be a generic unit as it can be used for POW units of any side. It was given an attack factor of 1 because it would have minimal AT capability. The unit is assumed to have minimal weapons of any kind, presumably obtained from the prisoners' former guards. The defense factor would seem to be small for a unit of its size but it must be remembered that this is a mob of men just released from confinement, not a formally organized unit, and would presumably act like a mob for the duration of the scenario.

Allied Ranger and Commando Units:

I created these units for Panzer Leader to introduce some Special Forces into the game. Although one would assume that they would be the same in counter factors, this is not the case. While both would normally rate a 3 for the attack factor, I gave the Commando unit an attack factor of 4 due to the fact that they carried three PIATs in their T.O. & E.



as compared to one bazooka in the Ranger unit. The range factor was pretty straightforward as these units would at best be carrying light machine guns in their units. The defense factors caused some questions. The Ranger platoon was slightly smaller than the Rifle platoon but still big enough to rate

a defense factor of 6. The Commando was even smaller so its defense factor fell to 5. One would wonder, if these were elite units, why they would have defense factors less than or equal to the Rifle platoons. Well, these units just could not sustain very many casualties and remain effective. Remember they were meant for special missions, not to fight in the front lines.

Paratroops:

These units were introduced in the General Vol. 20, no. 2. They were elite infantry and their factors reflect this. Their attack factors reflect their use of more offensive oriented tactics rather than extra weapons in their T.O.& E.s. (Although as rule, British and American paratroops seemed to always have more PIATs and Bazookas than the line infantry, which I guess is why they got a 4 for the attack factor.) Their defense

factors reflect their better training and discipline as compared to their line infantry counterparts, although for the Germans this was not evident as their early War Rifle units were just as well trained, especially when compared to the Allied Rifle units that they had to fight. By

the late war the German paratroops had really lost their paratroop status and are portrayed as regular Rifle units from 1944 on.