



Anti-Armor Attack and Range Factors
in the Dunnigan System

By Alan R. Arvold

Attack Factors

The Anti-Armor attack factors are probably the most controversial in the Dunnigan System. The problem is that the source materials that James Dunnigan and crew used to come up with the values in PanzerBlitz were rife with errors and misinformation, all thanks to the federal government's cold war mentality of the late 1960s and early 1970s. Thus some of the attack values will be off by one or two integers when using the more modern source materials, which are more accurate in their hard data. To make matters worse, when Randall Reed and his crew developed Panzer Leader, they decided to leave the German anti-armor attack factors just the way they were to save time so they could concentrate on the Allied ones.

The process in both games was started by first coming up with the base attack value for each type of gun. The value was directly based on the individual gun's performance in terms of armor penetration at a range of 500 meters, using an APCBC (armor piercing, capped, ballistic capped) round, which was the most commonly used type of armor piercing round in the Second

World War. The penetration value for that range (in millimeters) was divided by ten to get the base attack value for the gun (fractions were rounded to the nearest integer with 1/2 being rounded up). Using the penetration tables that were available in 1970 for PanzerBlitz, and in the early 1970s for Panzer Leader, the following base values were established for each type of gun used in the game. (Note that these also include guns from AFVs and weapons introduced in later variant articles in *The General* and *The Boardgamer* magazines.)

German:	
20mm	2
37mm (Czech)	4
37mm	5
47mm (Czech)	6
50mm/L42	6
50mm/L60	8
75mm/L48	14
75mm/L70	16
88mm/L56	15
88mm/L71	20
128mm/L55	22

Notes:

- The German Czech weapons stand for those guns mounted on Czech vehicles used by the Germans during the war.

- The German 75mm/L48 line also includes the 75mm/L46 and the 75mm/L43 guns.
- The German 88mm/L56 line includes the 88mm (Early War) ATG and the Tiger I units.

Russian:

20mm	2
45mm (Early War)	5
45mm (Late War)	7
57mm	9
76.2mm	8
85mm	11
100mm	13
122mm	14

Notes:

- The Russian 45mm (Early War) line represents the early form of the 45mm AT gun, first introduced on 1932. As an anti-tank gun it lasted the war but was superseded by the late war version starting in 1942. It was also the only 45mm gun that was mounted in Russian tanks before and during the war.
- The Russian 45mm (Late War) was modified version of the 45mm AT gun, introduced in 1942, with a longer barrel and more powerful ammunition. It was never mounted on any AFV.
- The Russian 76.2mm line includes both the 76.2mm /L30.5 and the 76.2mm/L41 guns.

American:

37mm	5
57mm	9
75mm	8
76.2mm	11
90mm	15

Notes:

- The American 76.2mm line includes all different versions of the 76.2mm and 3 inch AT guns mounted on tanks, tank destroyers, and the AT gun.

British:

2 Pdr	6
6 Pdr	9
75mm	8
17 Pdr	16
77mm	15

Notes:

- The British 77mm line represents a cut down version of the 17 Pdr AT Gun that was mounted on the Comet tank.

French (PL 1940):

25mm	4
37mm (Old)	3
37mm (Middle)	4
37mm (New)	5
47mm	6
75mm	6

Notes:

- The French 37mm (Old) line represents the one 37mm gun that was mounted on the FT-17 tank of World War One fame.
- The French 37mm (Middle) line represents an improved version of the old 37mm mounted on several French tank models in the 1930s.
- The French 37 (New) line represents the new 37mm gun that was mounted on a few of the later French tank models of the 1930s.
- The French 75mm line represents the Model 1897 75mm cannon of World War One fame used in an AT role.

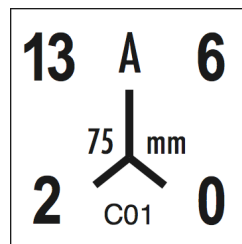
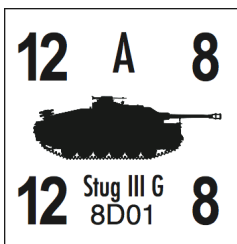
Modifiers

Once these base values were established, then they had to be applied to the ATG or AFV units in question. To do this, a series of modifiers was established to change the base value to get a final attack value that took into account both the mechanical limitations of the vehicles themselves and the particular tactics employed by the unit in question. Dunnigan established the modifiers for the German and Russian guns and AFVs, while Reed established the modifiers for the Allied guns and AFVs. The base assumption was that an attack value would not be modified if the gun it represented was mounted on a turreted vehicle or on a carriage (for ATGs) that allowed it to be quickly fired in any direction. For turreted vehicles, this meant that it was mounted in the turret. For ATGs, this meant that it was mounted on a carriage that allowed for 360 degree fire or on a carriage small enough that it could be easily manhandled by the gun crew to fire in any direction. In all other cases the attack factor would be adjusted using the following modifiers:

German:

Limited Traverse

- minus 1 for anti-tank guns
- minus 2 for tank destroyers and armored cars

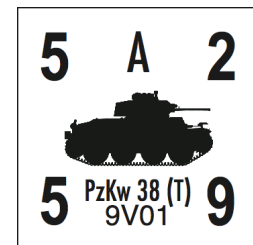
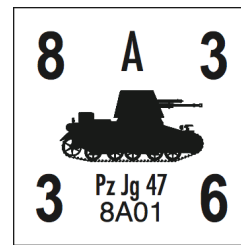


(Accounts for the limited traversing capability of vehicular hull mounted guns or guns on heavy carriages that were difficult for the gun crew to manhandle when turning around.)

Long Range

- cancels limited traverse modifier at ranges of 9 hexes or more

(Accounts for the ability to engage at longer ranges where limited traversing would not be a detriment.)



Offensive Tactics

- plus 1 for guns of the 37mm class
- plus 2 for guns of the 47mm and 50mm classes
- plus 3 for guns of the 75mm class
- plus 4 for guns of 88mm or greater class

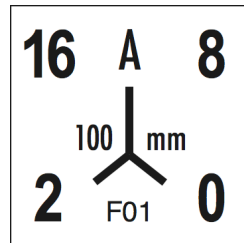
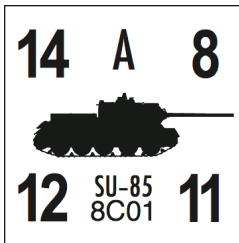
(Accounts for special tactics used by tanks and tank destroyers when engaging superior enemy armor. Emphasized maneuvering to get flank and rear shots and avoid frontal shots. This modifier was used for medium and heavy tanks only, plus some early war tank destroyers. Light tanks were not considered to be battle tanks. This modifier was used on early war tanks such as the Pz III and Pz 38t series and the Pz Jg 47 tank destroyer in both Panzer Leader 1940 and in PanzerBlitz 1941.)

Russian:

Limited Traverse

- minus 1 for both anti-tank guns and tank destroyers

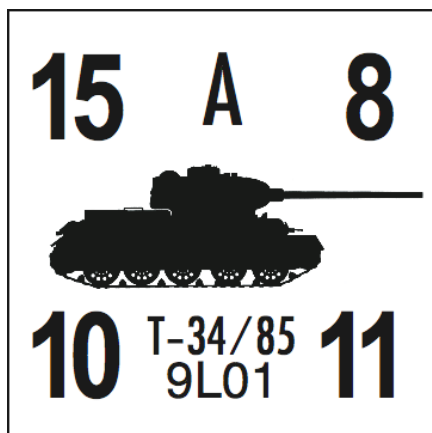
(Accounts for the limited traversing capability of vehicular hull mounted guns or guns on heavy carriages that were difficult for the gun crew to manhandle when turning around.)



Offensive Tactics

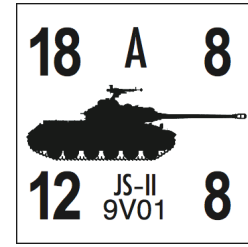
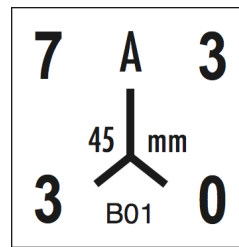
- plus 4 for guns of all classes

(Accounts for special tactics used by tanks and tank destroyers when engaging superior enemy armor. Emphasized maneuvering to get flank and rear shots and, in the Russians' case, seeking out overrun attacks at every opportunity. This modifier was used for medium and heavy tanks and for tank destroyers. Light tanks were not considered to be battle tanks, although in practice they were certainly used that way. Was used on every Russian vehicle in the above mentioned classes that was introduced in 1943-45.)



Defensive Tactics

- plus 4 for guns of all classes

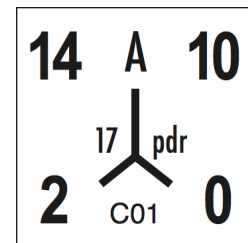
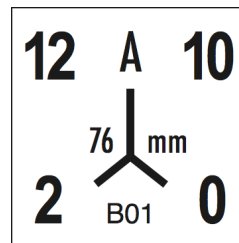


(Accounts for special tactics used by anti-tank guns when engaging enemy medium and heavy AFVs. Emphasized getting flank and rear shots and not engaging with frontal shots except in self-defense. Also accounts for the fact that Russian ATGs were the only weapons that received APCR rounds during the war, which were otherwise in short supply. These rounds had severe restrictions placed on their use, given their rarity. Was used on every Russian ATG of 76.2mm and above.)

Allied:

Limited Traverse

- minus 2 for both anti-tank guns and non-turreted tank destroyers



(Accounts for the limited traversing capability of vehicular hull mounted guns or guns on heavy carriages that were difficult for the gun crew to manhandle when turning around.)

Offensive Tactics

- plus 2 for guns of 57mm and 6 Pdr classes

- plus 3 for guns of the 75mm and 76.2mm classes

(Accounts for special tactics used by tanks and tank destroyers when engaging superior enemy armor. Emphasized maneuvering to get flank and rear shots at every opportunity. Modifier was used for tanks and tank destroyers mounting these guns.)

Increased APDS

- plus 1 for tanks mounting the 17 Pdr AT gun



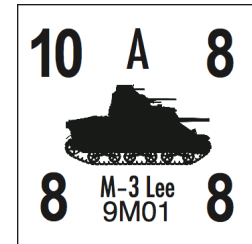
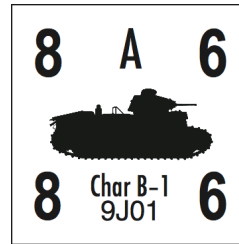
(Accounts for the increased amount of APDS in British tanks mounting that weapon carried. British tanks mounting the 17 Pdr ATG had up to 20 per cent of their AP rounds as special types, APCR, and starting in September 1944, APDS. This modifier is only applied to four vehicle tank platoons. In contrast, all other tanks would have up to 10 per cent of their AP rounds being special types such as APCR or Hyper-shot. Tank destroyers did not get this modifier as they had up to 50 per cent of their AP rounds being these special types.)

Okay, those were the modifiers that were used. When one applies these modifiers to the existing counters, most of the attack values make sense. However, players will notice some aberrations in counter factors when taken in context to the time of the war depicted. For example, the plus 4 modifier for Russian offensive tactics should not be given to the early war versions of the T-34 and the KV-1, especially in 1941 when such tactics were not in play, as they were clearly the superior tanks at that time. The same would apply to the Russian 45mm ATG that comes in the game as it was not introduced until 1942; a counter with the lesser value listed in the table above should have been substituted. However, Avalon Hill decided to keep them the way that they were for three reasons. One, it saved having to make new counters where they thought none were needed. Two, several German vehicle units had defense factors that were in excess of what the maximum adjusted armor thickness would warrant them having (the excess came for the tactics the vehicle units used at the time) and it was felt that the inflated defense factors would be countered by the opposing inflated attack factors for reasons of playability. And three, while a gun may change its anti-armor value due to a new type of AP round or a new type of gun being represented by the same counter, its anti-personnel values would not change (there is just so much high explosives you can pack into an HE round of a given size) so why penalize an earlier version of gun by reducing its anti-personnel value?

Another factor that came up was those AFVs that mounted two different guns. The Dunnigan System did not address these types of AFVs and so the players who created counters for them (such as the French B-1, the Russian T-35, and the American M-3 Grant/Lee) developed their own systems to come up with the attack and range factors. There were many attempts in the 70s at these types of vehicles where independent authors would make counters with two different attack and range factors, one set for each type of gun. But Avalon Hill would not accept these types: there had to be one attack and one range factor on the counter. Yet no instructions were given on how to come up with them. Thus, each author had to use his own method. Each of the three types of vehicles that are represented in the Dunnigan System have their own separate method of coming up with those factors. As the T-35 has an H Class weapon, it will be described in a different article.

French B-1:

This counter was created by Ramiro Cruz for his Panzer Leader 1940 variant. What he did was add the attack factor of the 47mm turret-mounted gun, which was 6, to the attack factor of the hull-mounted 75mm gun, which was 2, coming up with a combined attack factor of 8. For the range he decided to use the 75mm's range factor, which was 6, as compared the 47mm's range factor, which was 3, in order to come up with a tank that had the best of both worlds. Besides he wanted to differentiate it from the other good French tank, the S-35.



M-3 Grant/Lee:

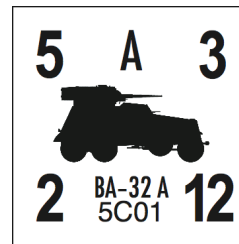
This counter was created by myself for my Prokhorovka scenarios in *The Boardgamer's Special PanzerBlitz Issue* and later included in my article "Lend Lease in PanzerBlitz". After seeing what Ramiro Cruz did with the French B-1, I did not want to do that for the Grant/Lee as it would create a counter whose attack factor would far exceed the actual AFV's capability. So I took the basic value of the main gun, that being the 75mm, which was 8, gave it the Offensive Tactics modifier which increased it to 11, then reduced it to 9 due to the Limited Traverse modifier. But I felt that I had to account for the turret-mounted 37mm in some way. So I took the 37mm gun's attack strength at half range, which is 10, and increased the overall attack value to that. This way it makes the Grant/Lee a little less powerful than the M-4 Sherman, as it should be. For the range factor I used the range of the 75mm gun, which was 8.

Still yet another factor that came up was that several guns had a number of different AP rounds that gave different penetration values at 500 meters. A good example of this was the 88mm ATG (Early War). This particular gun, an anti-aircraft gun used as an anti-tank gun, had three AP rounds. This first one, which was developed as a result of the Spanish Civil War of the late 1930s, had a penetration value of

112mm, which would have given the gun an attack factor of 11. This round was in use starting in 1939. The second round was developed in early 1942 in response to the thick armor of the Russian KV-1a tank, which even the 88mm using the old AP round had trouble penetrating except at close range. This second round had a penetration value of 132mm, which would give the gun an attack factor of 13. Unfortunately the Russians came out with the KV-1c in 1942, which had even thicker armor, and the Germans found themselves back in the same boat again. Thus work was done on third AP round which came out in late 1942. This round had a penetration value of 146mm, thus giving the old 88mm an attack factor of 15. Since all three of these rounds were used to the end of the war, which value would be the one to assign the old 88mm? Following the rationale given in the previous paragraph it was decided to use the highest value (15) for the counter and then use it in the early war scenarios both in PanzerBlitz and in Panzer Leader. This of course does not mandate the creation of counters with attack factors that reflect the current AP round being used. It should be remembered that a lot of compromises were made in order to maintain the easy-going playability of PanzerBlitz and Panzer Leader.

Armored cars presented a particular problem. Armored cars with A Class weapons of 25mm and above almost never have the full attack value of the weapon in question. This is due to several factors. One was that armored cars were designed for reconnaissance

purposes, not to engage enemy armor in combat, although that did happen in real life. As a result their supply of AP rounds was rather limited as most of their ammo supply was devoted to high explosive or anti-personnel rounds. And even then, their AP rounds were basically for light armored targets, not battle tanks. Not only that, some armored cars had turrets that traversed rather slowly due to the weight of the gun that they mounted and the fact that they had manual traverse only turrets. Thus the standard modifier for armored cars is minus 2 from the basic attack factor of the weapon in question. However, there are several exceptions to this.



Russian BA-32a:

This armored car, which I created, was designed to be an anti-tank vehicle as well as a recon vehicle. It had a fully functional tank turret mounting a 45mm gun with a good supply of AP rounds, thus it had no modifier applied to it.

German Sd Kfz 234/4:

This armored car was specifically designed to be an anti-tank vehicle. It was basically a 75mm AT gun mounted on a limited traverse turret in the armored car. Dunnigan, who created this counter, essentially gave it the attack and range factors of the 75mm ATG, with no further modification.

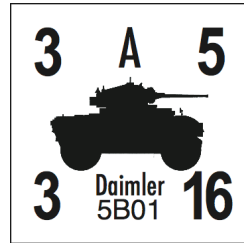
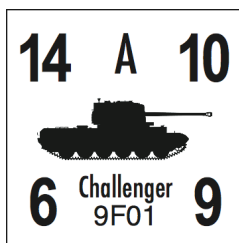


British AEC 75mm:

This vehicle, which I created, was designed to be a support armored car, much in the same vein as the German Sd Kfz 233 and 234/3. However it mounted the same 75mm gun as on the British battle tanks of the time, thus it was an A Class weapon. In order to insure that it had an attack factor of 5 against non-armored targets, much the same as a 75mm H class would have in direct fire mode, I gave it an attack factor of 10. Yes, it kind of over-inflates what the attack factor should be (6), but then such are the sacrifices we make.

British Daimler:

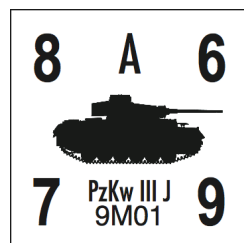
This vehicle, which was designed by Reed and crew, should have an attack factor of 4, not 3, if we follow the standard modifier listed above. However Reed reasoned that since the 2 Pdr was a pure AT weapon, with no anti-personnel rounds of any kind, that it should be penalized further by cutting its attack factor in half, from 6 to 3. I do not know what the rationale behind this reasoning was, but since it came in the original game, the counter is canonical.

**Four Vehicle Tank Platoons**

Normally, the number of vehicles or guns that a counter represents is irrelevant in determining the attack factor. In PanzerBlitz the counters usually represent 5 vehicles in a tank platoon, 6 vehicles in a tank destroyer platoon, and 7 vehicles in an armored car platoon for the Germans, and 10 vehicles per counter for the Russians no matter what class it is. For AT guns there were 3 to 6 guns per counter, depending on the counter in question. In Panzer Leader, the same rules were followed except in the tank platoons. Randall Reed felt that he had to differentiate between the five and four vehicle tank platoons that existed in both sides of that game. To do this he started off with the basic counter value for the tanks in question as if they were five vehicle platoons.

Panther	16-A-12-12-10
Pz IVh	14-A-8-8-8
Pz IIIj	10-A-6-8-9
Challenger	16-A-10-7-9
Cromwell	11-A-8-9-12
Comet	15-A-10-10-10
Sherman	11-A-8-9-8
Firefly	16-A-10-10-8
Churchill 6 Pdr	11-A-5-11-5
Churchill 75mm	11-A-8-12-5
Centurion	16-A-10-13-7

Note that five of these tanks were created by myself well after Panzer Leader came out, but I included them to make this section complete. Also note that the defense factor for the German Pz IIIj does not exactly match the one for the Pz IIIj in PanzerBlitz. In truth the Pz IIIj in Panzer Leader has been up-armored to the Pz III tank's



standards which had a defense factor of 8. Most of the surviving J's had been up-armored by 1944, whereas the J model in PanzerBlitz represents it as it was in 1942. Another thing to note is that the Tiger I and Tiger II were not included in this list, even though they are listed as five tank platoon in PanzerBlitz and a four tank platoon in Panzer Leader. In truth, the Tiger tanks were always in four tank platoons and Randall felt that they did not have to be changed.

Now Randall came up with a formula to convert the five tank platoon to a four tank platoon. In essence, the range and movement factor remain the same, the attack factor is reduced by 20 per cent (fractions rounded to the nearest whole integer), and the defense factor has 1 subtracted from it. The results were as follows:

Panther	13-A-12-11-10
Pz IVh	11-A-8-7-8
Pz IIIj	8-A-6-7-9
Challenger	13-A-10-6-9
Cromwell	9-A-8-8-12
Comet	12-A-10-9-10
Sherman	9-A-8-8-8
Firefly	13-A-10-9-8
Churchill 6 Pdr	9-A-5-10-5
Churchill 75mm	9-A-8-11-5
Centurion	13-A-10-12-7

Most of the tanks were now set, but those tanks armed with the 17 Pdr now had the Increased APDS modifier applied to them. Note that the Comet did not qualify for this modifier:

Challenger	14-A-10-6-9
Firefly	14-A-10-9-8
Centurion	14-A-10-12-7

Having established the counter values for the four tank platoons, Reed now created the mixed British Sherman platoon with three M-4 Shermans and one Firefly. To do this he set the movement factor at the slowest vehicle type in the platoon, which in this case was 8, and he set the range factor at the shortest range among the vehicles in the platoon, which in this case was 8. The attack and defense factors were arrived at by adding up the attack and defense factors respectively of three Shermans and one Firefly together, then dividing each total by four and rounding any fractions to the nearest whole integer.

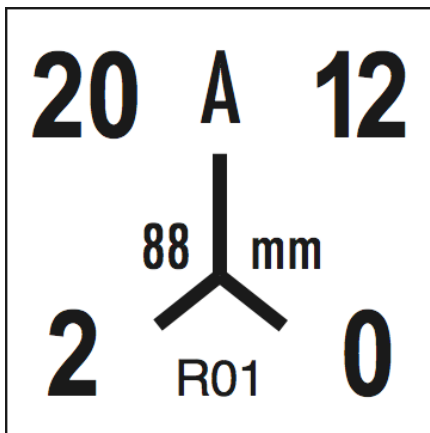
- Attack Factor: $14+9+9+9=41$, divided by 4 gives us 10.25, which is rounded down to 10.
- Defense Factor: $9+8+8+8=33$, divided by 4 gives us 8.25, which is rounded down to 8.

By mixing up the tanks in one platoon, Reed robbed the Firefly of its true potential. This is why when I created the Challenger I did not mix it up in platoons with the Cromwell, as happened in real life. To do so would have robbed the Challenger of its better attack and range factors and the Cromwell of its better movement factor. And this is why I separated the Sherman and the Firefly into separate counters, to give each tank its proper due. To his credit, Reed did not extend this vehicle counting system to tank destroyers, AT guns, and armored cars. In Panzer Leader there has been lot of discussion as to why the German tank destroyers, which have six vehicles per counter, and the Allied tank destroyers, which have four vehicles per counter,

are treated as if they are five vehicle platoons. Well, on the one hand, since the German tank destroyers all have hull mounted guns, either in them or on top of them, this is going to put them at a bit of a disadvantage. The Allied tank destroyers on the other hand all have up to 50 per cent of their AP ammo loads as either APCR or APDS rounds, thus making them as effective as a five tank platoon. At least that is how Reed saw it.

Range Factors

The range factors were based on maximum effective range of the guns in question. Normally this would depend on the gun sights of the particular weapon. However, all gun sights had range markings in excess of the maximum effective range for long range shots. These types of shots were rarely taken as a plentiful supply of ammunition would have to be available in order to make the effort worthwhile. Even at the maximum effective ranges where hits were usually scored firing HE rounds at soft targets, one would never waste an AP round at those ranges as the penetration value would be so reduced that it would not pierce its intended target. Of course there



were exceptions. The wonderful 88mm ATG, in all of its incarnations, had a stereoscopic rangefinder as part of its standard equipment. It was not mounted on the gun but was ground mounted instead; the range information from it was transmitted to the gun crews who then ranged in using their mounted telescopic sights. This is why the 88mm ATG has such a long range. (The Nashorn unit had stereoscopic sights also. Like the 88mm ATG, the sights were ground mounted and the information relayed to the guncrews on the vehicles.) I think that the 88mm/L71 was the only gun that could fire an AP round out to its maximum effective range on a regular basis because it was such a damn powerful gun, at the maximum effective range it could still penetrate most Allied and Russian tanks, despite the loss of penetration value at such great ranges.

Russian guns of comparative size had a lesser maximum effective range because of the poorer quality optics that they used in their sights and range finders, a situation that was not remedied until well after the war. But at medium and close ranges they were still adequate and so it was at these ranges that the Russians preferred to fight.

Allied guns were sort of in the middle, their optics were better than the Russians, but not quite up to the German standards. This is why some of their longer ranged guns (like the 76.2mm and the 17 Pdr) have a few more hexes of range over the Russian ones, but fall a few hexes short of the German ones.

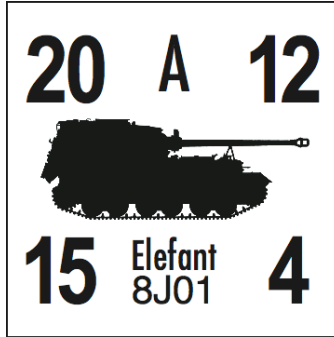
The ranges on the ATGs were pretty strange. The smallest ones had the same ranges as their tank mounted counterparts. The largest ones, usually 85mm and above, also had the same, or in two cases a larger, range than their tank mounted counterparts. But the ones that are in the middle, the 50 to 76.2mm types, seem to lose a hex or two of range compared to their tank mounted counterparts. The reason for this is because the gunsights on the ATGs are closer to the ground than they would be on a tank. This reduces the distance they can see through their sight. For the small ATGs this does not matter as their ranges are short anyway. On the large ATGs their sights are up high enough to be comparable to those on an AFV, thus they can see as far. But the middle ones are not given their proper range by the game system.

Odd AFVs

Lastly, we come to the odd vehicles which, for one reason or another, did not perfectly fit the Dunnigan system of counter value creation with their attack or range factors.

German Elefant/Ferdinand:

This vehicle has two different sets of values. The first one, the Elefant (20-A-12-15-4), was created by myself and introduced in *The General 28-3*. The counter values in this one were correctly arrived at using the Dunnigan system. The second one, the Ferdinand (18-A-14-10-6) was

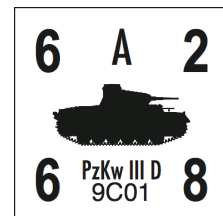


created by F. Pierce Eichelburger and introduced in *The General 31-6*. Now granted, these were training vehicles; the scenario occurs far in the German rear near one of their training bases, which accounts for the better range (due to better sights). But the attack

factor was where Eichelburger messed up. While he did subtract 2 from the attack factor to account for the limited traverse, he forgot that the long range entitled him to the long range modifier which canceled out the limited traverse modifier. Unfortunately Avalon Hill did not correct the mistake and published the counter as is, thus making it canonical in *Panzer Leader*.

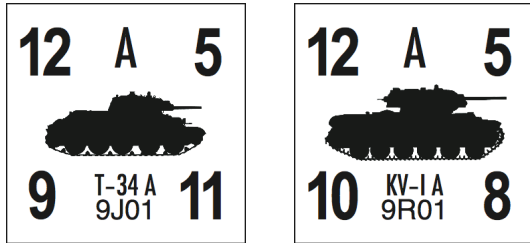
German Pz IIId:

This tank was created by Ramiro Cruz. However he had two different versions of it. The first which appeared in the article "PanzerBlitz 1941" in *The General 13-3*, had an attack factor of 5. The second version, which appeared in the article "Panzer Leader 1940" in *The General 15-2*, had an attack factor of 6. The second one is correct; obviously in the first attempt, Cruz forgot to apply the Offensive Tactics modifier to the attack factor.



German Sd Kfz 251/10 and 250/10:

These platoon and company command halftracks mounted a 37mm AT gun on a pedestal which provided for a pretty wide angle of traversing. Thus they did not qualify for the limited traverse modifier.

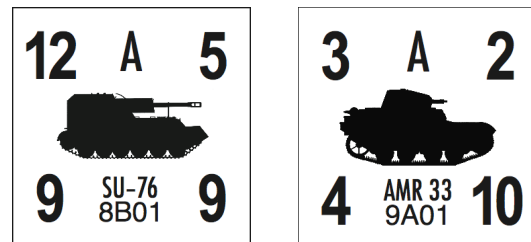
Russian T-34a/KV-1a:

Both of these tanks, which I created, have an incorrect attack factor, at least as far as the Dunnigan system goes. However, Avalon Hill did not see it that way. Back in the General 13-3, Ramiro Cruz in his article "PanzerBlitz 1941" said that the T-34c can be used back in 1941 as is. Then to top this he made a generic KV-1 tank counter, of which four were in the counter set, that could be used at any time during the war. Both of these vehicles have the 76.2mm/L41 guns. However, back in 1941 both tanks were armed with the 76.2/L30.5 gun. I had determined that the basic gunnery factor for this gun was 6. Thus both vehicles should have an attack factor of 10. But Avalon Hill went with what Ramiro Cruz said so the attack factor of 12 remained. I was able to get a compromise though, as I had the range factor lowered to 5 which was about right for the 76.2mm/L30.5. Ironically, Cruz on his BT-8 counter had a value of 10-A-5 for attack, Weapon Class, and range factors because he thought that the tank was armed with the 76.2mm/L30.5 gun, which was subsequently proven wrong. So if he had the right values for the gun, why did he not put them on the T-34a and the KV-1a? I really do not know. Anyway, both of these tanks have become canonical now. Besides, in 1941 later production runs of these tanks were armed with the 76.2mm/L41 gun, but because of their limited numbers, were usually

reserved of the tank company commander and his platoon leaders, so these counters could be expected to have a mix of tanks armed with both guns and so the attack factor is not as inflated as one would think it is.

Russian SU-76:

The SU-76 is one of the original counters and was designed by Dunnigan himself. By the Dunnigan system, it should have an attack factor of 11 and a range factor of 6. So why does it have an attack and range factor of 12 and 5? Well Dunnigan figured that since the SU-76 was nothing more than a 76.2mm AT Gun mounted in an open compartment on top of a T-70 chassis, he would treat it the same as he did the German Sd Kfz 234/4 armored car. He just put the attack and range factor for the 76.2mm AT gun on the counter and left it like that with no further modifications.

French AMR-33:

This reconnaissance tank mounted a 25mm AT gun. By all rights its attack factor should have been 4. But Ramiro Cruz, who created it, gave it an attack factor of 3. His reasoning was that since it was a recon vehicle, it would not have its full attack factor, just like armored cars, so he deducted 1 from the attack factor in recognition of this.