



Notes from the Bunker

Cover and Concealment

by Rich Redman

"I never walk into a place I don't know how to walk out of."

-- Sam (Robert DeNiro), in *Ronin* (MGM, 1998)

Welcome to my bunker. As one of the designers of the **d20 Modern Roleplaying Game**, and a veteran of real-world modern combat (having served as a tank platoon leader in Operation: Desert Storm), I'm in a unique position to offer insights into the game.

This month's topic is cover and concealment. These combat options, both carried over from the **Dungeons & Dragons** game, provide certain modifiers in combat, but the effects are quite different.

What's the Difference?

The military emphasizes the importance of cover and concealment with the aphorism, "If you can see, you can be seen. If you can be seen, you can be shot." The basic difference is that cover can stop a bullet; concealment can't. If you, as the GM, have to decide which category a particular object falls into, just ask yourself whether it can stop a bullet. If it can, it provides cover; otherwise it offers concealment. For example, a sheet of mirrored glass can provide concealment, but not cover.

Why It's Significant

If you *think* you know about all about cover and concealment from the **D&D** game, you may tend to avoid using them. Either cover or concealment can interfere with the use of melee weapons, the primary form of **D&D** combat, so most **D&D** players don't explore their benefits at all. But if you want your heroes to stay alive in a **d20 Modern** game, you have to be constantly alert to their surroundings and make use of any cover and concealment available. Stay alert and stay alive, because combat in the **d20 Modern** game is different than combat in the **D&D** game.

Two factors contribute to that difference. The first is the availability of firearms. Obviously players of modern games want their characters to have modern weapons -- in other words, guns. Firearms present the psychological advantage of allowing your character to harm an opponent that cannot strike back. If the opponent has a firearm too, then you just have to hope your character is a better shot. The firearms presented in Chapter 4: Equipment in the **d20 Modern Roleplaying Game** average between 7 and 13 points of damage. Doubling the damage for a critical hit raises the average to between 14 and 26 points of damage -- not including the benefits of automatic fire or the effects of feats such as Burst Fire, Double Tap, or Point-Blank Shot.

The second factor is the low massive damage threshold in the **d20 Modern** game. When the Heroic reality level (see the Reality Level sidebar in Chapter 7: Gamemastering) is in use, the massive damage threshold is a character's current Constitution score. As you can see from the average damage range above, a

critical hit with a firearm forces a typical character to succeed at a Fortitude save (DC 15) or immediately drop to -1 hit point. Suddenly the Unbreakable talent tree of the Tough Hero looks a lot more attractive!

Benefits

"There is no protection there! We'll be like fish in a barrel!"

-- Sam (Robert DeNiro), in Ronin

In the **d20 Modern** game, not every hero has to waddle about in heavy armor and choose the same feats. My experience while playtesting the **d20 Modern** game made it clear that the alternatives -- cover and concealment -- are often overlooked, at least at first. This past year, at a mini-con run by Gwendolyn Kestrel and Andy Collins, I played an event run by Ed Stark in which the heroes investigated a government lab built into a crashed UFO. I made a point of having my hero take cover at every opportunity. As a result, he took considerably less damage than most others in the group.

Cover and concealment are rated the same way in the **d20 Modern** game as they are in the **D&D** game -- one-quarter, one-half, three-quarters, nine-tenths, or total. Let's examine the math using a couple of low-level characters -- a police officer (Strong Ordinary/Dedicated Ordinary, found in Chapter 8: Friends and Foes) and a gang member (Fast Ordinary/Tough Ordinary, found in the same place) -- named Sam and Butch. Sam has a +2 ranged attack bonus with his Beretta M3P shotgun, a massive damage threshold of 13, and Defense 17. Butch has a +2 ranged attack bonus with his Colt M1911 pistol, a massive damage threshold of 14, and Defense 17. Thus, either can shoot the other with a roll of 15 or better on a d20, which means they hit 30% of the time. Of those hits, 1 in 6 (a natural 20) threatens a critical hit. Of those threats, 30% become criticals. An average critical with either weapon deals enough damage (18 points with the shotgun or 14 points with the pistol) to match the target's massive damage threshold and force a Fortitude save.

Let's assume Butch is shooting at Sam. The following numbers come from Chapter 5: Combat (specifically Table 5-6: Cover and Table 5-7: Concealment). Following his training, Sam takes cover and benefits as follows:

| Degree of Cover | Sam's Defense | Chance for Butch to Hit |
|-----------------|---------------|-------------------------|
| One-quarter | 19 | 20% (17-20) |
| One-half | 21 | 10% (19-20) |
| Three-quarters | 24 | 5% (natural 20 only) |
| Nine-tenths | 27 | 5% (natural 20 only) |

The benefits are obvious and considerable. In fact, Sam is better off staying in his patrol car, since most automobiles provide three-quarters cover to the occupants (see Vehicles in Chapter 4: Equipment). The benefits are worthwhile even if his GM rules that he must use his pistol rather than his shotgun while within a vehicle.

If no cover is available, Sam can look for concealment and benefit as follows:

| Degree of Concealment | Miss Chance | Chance for Butch to Hit |
|-----------------------|-------------|-------------------------|
| One-quarter | 10% | 27% |
| One-half | 20% | 24% |
| Three-quarters | 30% | 21% |
| Nine-tenths | 40% | 18% |
| Total | 50% | 15% |

Concealment provides substantial benefits, but it isn't as favorable as cover. Since concealment won't stop a bullet, reduced benefits are perfectly reasonable. In general, a combatant seeks concealment because cover isn't available and because the converse of that military aphorism is also true: If you can't be seen, the enemy is less likely to shoot. In fact, one of the greatest hurdles the U.S. Army had to overcome when training soldiers for World War II was getting them to "lay down a base of fire" (that is, keep shooting) when they couldn't see a target. It's natural to conserve ammunition when there's no target visible, and clever heroes can make that work for them by using concealment.

Finding Cover or Concealment

"Whenever there is any doubt, there is no doubt. That's the first thing they teach you."

-- Sam (Robert DeNiro)

"Who taught you?"

-- Vincent (Jean Reno)

"I don't remember. That's the second thing they teach you."

-- Sam (Robert DeNiro) in Ronin.

Players quickly tire of their heroes getting shot and start demanding opportunities for cover or concealment once they have become accustomed to using them. A GM who hasn't specified these elements of a location can go around the table and ask each player to suggest one or two items that might commonly appear in such an area. The GM has final say on which objects are actually present and in what quantities, whether each one provides cover or concealment, and which ones might constitute improvised weapons.

The GM should never have to guess whether a hero is taking cover or using concealment. Players must state explicitly what their heroes are doing. It is not enough to simply move a miniature so that some object is between the hero and an opponent; the player must state that the hero wants to use the object for cover or concealment, as appropriate. Of course, some situations make the use of cover or concealment obvious. If a hero tosses a smoke grenade between herself and her opponents, she automatically benefits from the smoke's concealment. If the heroes are sneaking across a creepy mansion's gardens in the middle of the night, they gain the benefit of concealment from the darkness -- unless, of course, the opponents have night-vision equipment.

Additionally, other people may provide either cover or concealment. As with inanimate objects, a player

must state that her hero is trying to use people as cover. (See Striking the Cover Instead of a Missed Target in Chapter 5: Combat for rules on determining who takes damage in such a situation.) A clever hero may use opponents as cover, just as a nefarious opponent may use innocent bystanders.

It is possible in *d20 Modern* to grapple one opponent and shoot another. Once a character establishes a grapple, he or she can maintain it simply by moving into the opponent's square (Starting a Grapple, step 4, in Chapter 5: Combat) on the subsequent turn. A character who is grappling but not pinned can attack with a light weapon. For Medium-size characters, a light weapon is a Small or smaller pistol. Nothing in the rules says that such an attack must be against the other character involved in the grapple. Therefore, a hero can grapple a living, mobile opponent and use that creature as cover while firing a pistol at other foes. This tactic provokes an attack of opportunity, but a grappled opponent that lacks a light melee weapon and doesn't have the Combat Martial Arts feat is unarmed and cannot make an attack of opportunity. When a hero follows this course of action, do not roll randomly to see which grappling character is hit by return fire; use the rules cited above for Striking the Cover Instead of a Missed Target.

Summary

The rules for cover and concealment are easy to implement and highly favorable to heroes. The key points are summarized below.

- If you have to decide whether an object provides cover or concealment, just ask yourself whether it can stop a bullet. If it can, it provides cover; otherwise it offers concealment.
- Always tell your players which objects provide cover and which provide concealment, and how much benefit each item provides. You can wait until their heroes try to use the items before giving out details.
- Players must do more than just move their miniatures behind terrain features that they hope will provide protection. They must tell the GM explicitly that their heroes are taking cover or seeking concealment.
- As GM, you can ask players to help describe locations, creating opportunities for cover, concealment, or possibly even improvised weapons. Yours is the final decision, of course.
- Other characters may provide cover or concealment, just as objects can.
- A character may grapple an opponent, use that opponent for cover, and still fire a light weapon.

About the Author

Before [Rich Redman](#) came to Wizards of the Coast RPG R&D department, he had been an Army officer, a door-to-door salesman, the manager of a computer store, a fundraiser for a veterans' assistance group, and the manager of Wizards of the Coast's Customer Service department. Rich is a prolific game designer, having worked on the **Dungeons & Dragons** game, the *d20 Modern Roleplaying Game*, the *Marvel Super Heroes Adventure Game*, and **Dark*Matter**. When he's not working as vice president of [The Game Mechanics](#), a d20 design studio, Rich does freelance game design, cooks, and performs yoga.

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