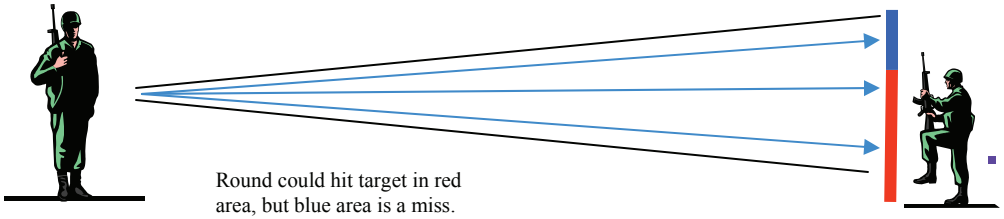
Ghost Recon Advanced Warfighter

Explanation of Chart Accuracy and Other Notes

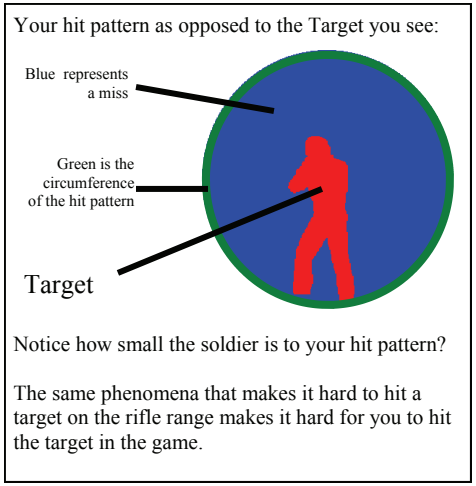
Basic Premise

Bullet travels down a conical area. Round will take any number of paths down the cone towards the target. The accuracies are calculated by comparing a rifles down-range hit pattern to the actual size of a soldier. Ghost Recon aiming system is very true to actual rifle characteristics. Wind, round imperfections, shooter habits, gravity, weapon characteristics, and a myriad of other factors means that even the best marksman cannot ALWAYS hit targets, especially far away. For an understanding of how Ghost Recon Aiming is different than other shooters, go HERE.

Long Range Shots...

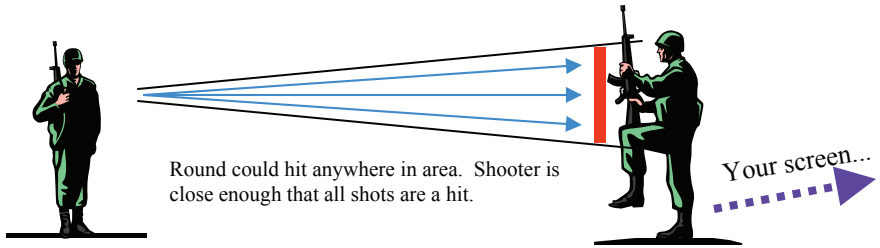


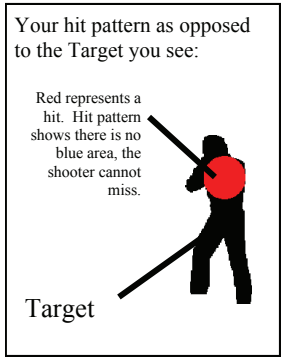
On your screen you see this...

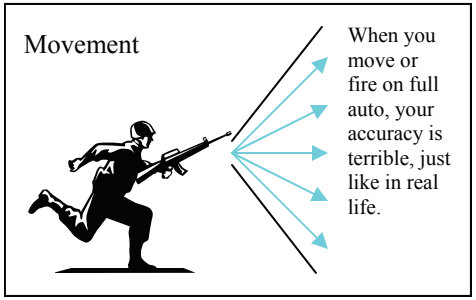


Careful calculations of the area of the green circle vs. the are of the red target results in my hit probability calculations.

Close combat...







From www.ick.bz

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Single Shot Tests

- Weapon is allowed to stabilize between shots (Except sustained single shot test).
- Soldier is standing for test (Remember going prone will increase accuracy)
- The class multiplier is turned on and the proper soldier class is used.
- Sustained single shot involves firing single shot as fast as possible.

Notes:

- Not sure why SA-80 and MR-C is more accurate with left trigger zoom vs. the scope zoom, but there it is.
- Using a zoom seriously restricts your movement and panning speed.
- Automatic Rifleman weapons not tested on single shot as consistent results are difficult to replicate.
- The chart assumes you fire at an enemy with no cover and in ideal conditions. Combat will yield different results.

Burst Fire Tests

- The first round in a burst of fire follows the single fire accuracy.
- After the first round the second and succeeding rounds have this hit probability.
- Weapon is NOT allowed to stabilize between burst fire salvos.
- Soldier is standing for test (Remember going prone will increase accuracy)
- The class multiplier is turned on and the proper soldier class is used.

Notes:

I find burst fire is just like full auto with four differences:

- Your rate of fire is very low compared to full auto.
- Your hit pattern will be much tighter
- You will probably not burn through so much ammo.
- Burst fire can be accomplished by pumping the trigger of a full auto weapon.

There is no compelling reason to seek out burst fire when it can be replicated by pumping a full auto weapon. That is how I see it anyhow.

The chart assumes you fire at an enemy with no cover and in ideal conditions. Combat will yield different results.

Full Auto Tests

- Weapon put on burst or full auto and let her rip. Generally 150 shots or more used to determine hit pattern. Whatever quantity results in an identifiable pattern.
- The first round in full auto fire follows the single fire accuracy rules.
- After the first round the second and succeeding rounds have this hit probability.
- Soldier is standing for test (Remember going prone will increase accuracy)
- The class multiplier is turned on and the proper soldier class is used.

Notes:

- The chart assumes you fire at an enemy with no cover and in ideal conditions. Combat will yield different results.

Here is an in-game photo from Advanced Warfighter

For purposes of our discussion let us assume that his "pips" equal she size of the blue circle, his hit pattern for that weapon.

This represents the area where his round will go.

If we project that area over the closer target, we can see that he will likely hit the target.
If we project that area over the further target, we can see that he only has a 20% hit probability and will likely miss. He will need to fire additional rounds to eliminate the target.

In most other first person shooters on the market, both of these would be hits. What if this was an actual soldier in true combat? The soldier would have a much harder time hitting the further target, obviously. This is a key element in Ghost Recon games..

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Other Chart Notes

---No Kit Menu Order - The order the weapons appear when selecting your options (when no kit restrictions are in force).

---Reload Time in Seconds - The amount of time it takes to reload a weapon. Measured the # or times ten reloads take and divide by 10.

NOTE: It takes 2.0 Seconds to reload the primary weapon.

This does not account for the time between the last bullet fired and the beginning of reload, nor end of reload and first bullet fired.

---Max ROF Shots per Minute - how many rounds can be fired in 1 minute. Measured by shooting for at least one minute, (subtracting reload time)

---Laser Dot - Certain weapons have a laser dot in the center of the reticule.

---Stabilization Times - All weapons were recorded on video (directly, not pointing at screen). Counted number of frames before stable. Accurate to 1/30 second.

---Recoil Stabilization Time - Seconds required to Stabilize the weapon (become the most accurate) after a shot.

---Open Run Stabilization Time - Seconds required to Stabilize weapon (become most accurate) after moving at a full run, straight ahead Weapon is NOT zoomed.

---Stopping Power - Average number of shots to destroy objects.

---The map grid does NOT represent a consistent distance. Each map has a different distance for the grid. See the yellow chart to the right.

---It takes 2.0 Seconds to switch from the primary weapon to the pistol.

NOT SURE IF THIS STILL APPLIES

Stopping Power Table, torso hits:

Probability that:	Probability
first round will kill	80%
first or second round will kill	94% to 98%
third round or greater will kill	6% to 2%

Striking a target in the head or limb changes these results significantly. Head hits have something like a 98% first round kill. Limb hits reduce kill factor by approximately 25%, but there is still a decent probability that one shot will still take out a target.

Pistols have roughly the same probability to kill in 2 shots as they do in 7 shots.