

RM QUIZ POINT OF AIM / IMPACTS AND HOLDS

1. What is point of aim?
2. What is the desired point of impact?
3. What does a hold represent?
4. The aim of the weapon is typically applied to the largest, most lethal area of any target presented. Sights can be placed on target by using battlesight zero (BZ), center of visible mass (CoVM). What is center of visible mass?
5. What are the two forms of hold determinations?
6. What are immediate holds based on? What are immediate holds meant for?
7. What are deliberate hold points of aim derived from?
8. Moving targets are those threats that appear to have a consistent pace and direction. Targets on any battlefield will not remain stationary for long periods of time, particularly once a firefight begins. Why is it important for soldiers to be able to accurately engage moving targets?
9. What is the immediate hold for moving targets?
10. What are threats that are moving diagonally toward or away from the shooter called?
11. What should soldiers adjust their hold based on?

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12. What is the most common variable and has the greatest effect on projectiles?

13. What are the elements of wind effects?

14. How does wind affect the flight path of bullets?

Intellectual Infantryman

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1. What is point of aim?
 - a. The point on the target that is the continuation of the line created by sight alignment. The point of aim is a point of reference used to calculate any hold the Soldier deems necessary to achieve the desired results of the round's impact. For engagements against stationary targets, under 300 meters, with negligible wind, and a weapon that has a 200 meter or 300 meter confirmed zero, the point of aim should be the center of visible mass of the target. The point of aim does not include ANY hold-off or lead changes necessary.
2. What is the desired point of impact?
 - a. The desired point of impact is the location where the Soldier wants the projectile to strike the target. Typically, this is the center of visible mass. At any range different from the weapon's zero distance, the Soldier's desired point of impact and their point of aim will not align. This requires the Soldier to determine the necessary hold-off to achieve the desired point of impact.
3. What does a hold represent?
 - a. A refinement or alteration of the center of visible mass point of aim at the target to counteract certain conditions during a complex engagement. The Soldier will apply the appropriate aim (hold) based on the firing instances presented. All Soldiers must be familiar with the immediate hold determination methods. They should be naturally applied when the engagement conditions require. These determinations are provided in "target form" measurements, based on a standard E-type silhouette dimension, approximately 20 inches wide by 40 inches tall.
4. The aim of the weapon is typically applied to the largest, most lethal area of any target presented. Sights can be placed on target by using battlesight zero (BZ), center of visible mass (CoVM). What is center of visible mass?
 - a. The center of visible mass is the initial point of aim on a target of what can be seen by the Soldier. It does not include what the target size is expected or anticipated to be. For example, a target located behind a car exposes its head. The center of visible mass is in the center of the head, not the estimated location of the center of the overall target behind the car.
5. What are the two forms of hold determinations?
 - a. Immediate and deliberate.
6. What are immediate holds based on? What are immediate holds meant for?
 - a. Immediate holds are based on the values of a "target form," where the increments shown are sufficient for rapid target hits without ballistic computations. The immediate hold determinations are not as accurate as the deliberate method, and are used for complex target engagements at less than 300 meters.
7. What are deliberate hold points of aim derived from?
 - a. Applying the appropriate ballistic math computation. Deliberate hold determinations are required for precise shots beyond 300 meters for wind, extended range, moving, oblique, or evasive targets.
 - b. Soldiers must consider several aspects of the target to apply the proper point of aim on the target.

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8. Moving targets are those threats that appear to have a consistent pace and direction. Targets on any battlefield will not remain stationary for long periods of time, particularly once a firefight begins. Why is it important for soldiers to be able to accurately engage moving targets?
 - a. Soldiers must have the ability to deliver lethal fires at a variety of moving target types and be comfortable and confident in the engagement techniques. There are two methods for defeating moving targets; tracking and trapping.
9. What is the immediate hold for moving targets?
 - a. The immediate hold for moving targets includes an estimation of the speed of the moving target and an estimation of the range to that target. The immediate holds for all moving targets are shown below.
10. What are threats that are moving diagonally toward or away from the shooter called?
 - a. Oblique targets. They offer a unique problem set to shooters where the target may be moving at a steady pace and direction; however, their oblique direction of travel makes them appear to move slower.
11. What should soldiers adjust their hold based on?
 - a. The angle of the target's movement from the gun-target line.
12. What is the most common variable and has the greatest effect on projectiles?
 - a. Wind affects ballistic trajectories, where it physically pushes the projectile during flight off the desired trajectory (see appendix B of this publication). The effects of wind can be compensated for by the shooter provided they understand how wind effects the projectile and the terminal point of impact.
13. What are the elements of wind effects?
 - a. The time the projectile is exposed to the wind (range).
 - b. The direction from which the wind is blowing.
 - c. The velocity of the wind on the projectile during flight.
14. How does wind affect the flight path of bullets?
 - a. Winds from the left blow the projectile to the right, and winds from the right blow the projectile to the left. The amount of the effect depends on the time of (projectile's exposure) the wind speed and direction. To compensate for the wind, the firer must first determine the wind's direction and value.