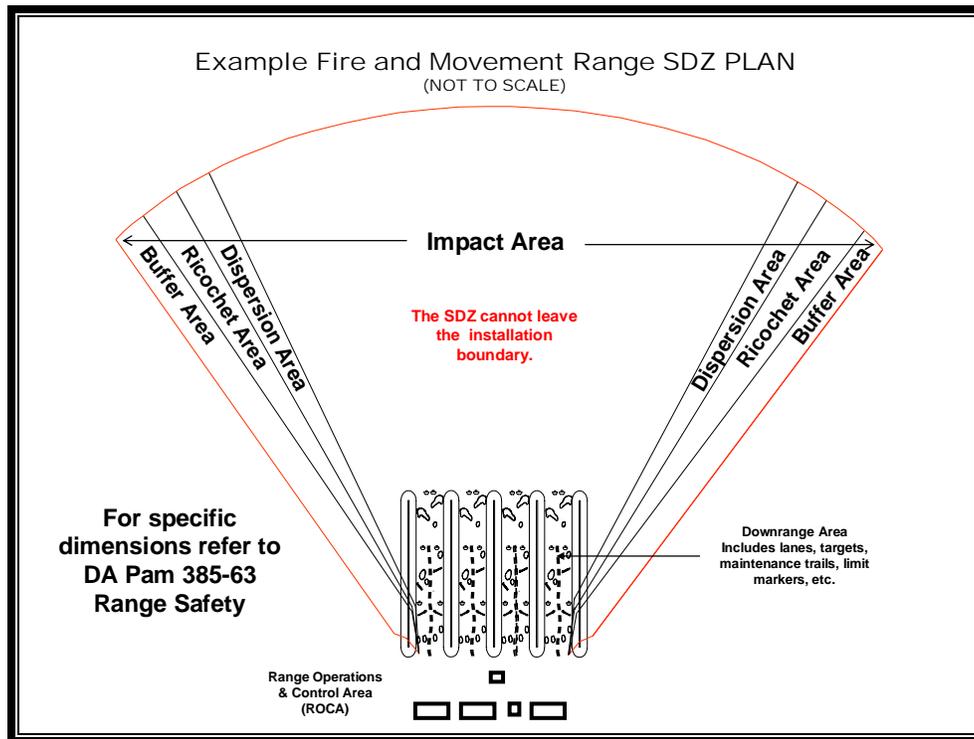


FIRE AND MOVEMENT RANGE SURFACE DANGER ZONES (SDZ)



Definition per DA PAM 385-63: The ground and airspace designated within the training complex (to include associated safety areas) for vertical and lateral containment of projectiles, fragments, debris, and components resulting from the firing, launching, or detonation of weapon systems to include explosives and demolitions.

The Surface Danger Zone (SDZ) is a depiction of the mathematically predicted area a projectile will impact upon return to earth, either by direct fire or ricochet. The SDZ is the area extending from a firing point to a distance downrange based on the projectiles fired. This area has specific dimensions for the expected caliber of the weapon(s) being fired so that all projectile fragments will be contained in this area. These dimensions are found in DA PAM 385-63 - Range Safety.

While this area is not considered part of the range design, it is one of the deciding factors as to the location upon which the range facility can be built and the orientation of the lanes and targets. Typically, a composite SDZ is generated to encompass all firing points and the firing of several different caliber weapons. It encompasses all weapons within the largest SDZ footprint. No part of the SDZ may leave the installation property. SDZs from different ranges may overlap, but no SDZ will fall on a part of another range where soldiers are training.

General: The target array on the Fire and Movement range extends from 50m to 150m downrange from the baseline line. The movement lane consists of natural covered and

concealed fighting positions for soldiers to fire from. Each firing position within the movement lane has a defined sector to provide covering fire for the soldiers as they maneuver through the lane.

The example SDZ is a composite SDZ drawn from the individual SDZs of the 4 movement lanes and the possible firing points within those lanes. The SDZ is based on firing 5.56mm M855 ball ammunition from the M16/M4 rifle. The hazard distance for M855 ball ammunition is 3,437m. The SDZ will be drawn for the largest weapon/ammunition authorized by the installation to be fired on this range.

When using other weapons/ammunitions, refer to DA Pam 385-63 for the specific SDZ dimensions.

Note: The SDZ depicted is an example only. The facility diagram is a generic layout from TC 25-8. The SDZ will differ from an actual SDZ based on a constructed facility.

Note: For proper handling, transportation, and storage of ammunitions and explosives please refer to DA Pam 385-64 Ammunition and Explosives Safety Standards.

Deviations: In some circumstances, installations may pursue a deviation for some SDZ criteria and use an adjusted SDZ. This is solely an installation decision and is based on having mitigating factors, such as a mountain or the protective berms on either side of the movement lanes to block projectile travel. If truncating the SDZ is necessary to the success of the project, the designer may consider adding baffles to the range. Properly designed and constructed baffles will limit the range of fire and the area the projectile travels. Contact the RTLTP MCX for details on baffle design.