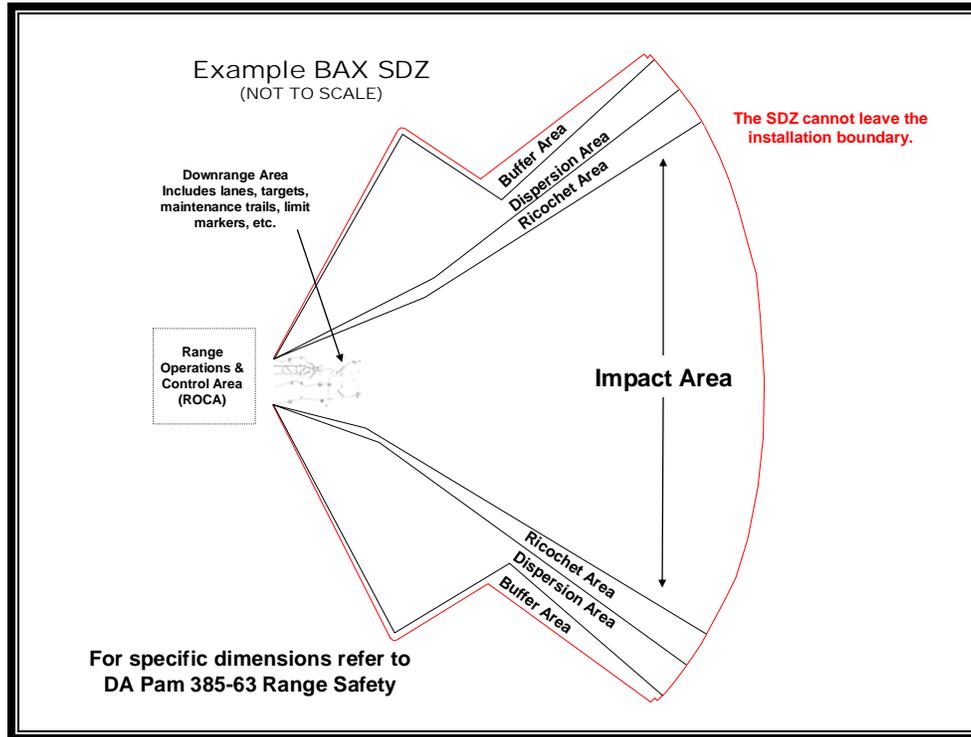


BATTLE AREA COMPLEX (BAX) SURFACE DANGER ZONES (SDZ)



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 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 that provide a contained area for all fragments resulting from the caliber of weapons fired. These dimensions are found in DA PAM 385-63.

While this area is not considered part of the range design, it is one of the deciding factors considered when determining the location of the range facility and the orientation of its lanes and targets. Typically, a composite SDZ is generated to encompass all firing points resulting from 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 of different ranges may overlap, but no SDZ can be located on a part of another range where soldiers are training, unless an adjusted SDZ is authorized by the installation. See the Deviation Authorization paragraph.

General: The Battle Area Complex (BAX) has constructed maneuver lanes and free maneuver areas. The constructed lanes allow for Stryker Brigade Combat Teams (SBCT)

crews and vehicle gunnery training and qualification. The free maneuver area has target objectives to conduct fire and maneuver training. The placement of these objectives is dependant on the terrain and the installations training objectives. The SDZ for the BAX will be based on where the targets are located, where the vehicles and soldiers will be allowed to fire from as they maneuver through the course and administrative fire control measures, e.g. a range limit marker.

The length and width of the SDZ will be determined by the SDZs of the weapons fired from all the individual firing points throughout the maneuver corridor and then building a composite SDZ based on the individual SDZs.

A key item in the calculation of the SDZ is the terrain that the BAX will be constructed on. Although terrain does not reduce the numbers used in the calculations, it will determine where projectiles will impact the earth. Installations can use the terrain to reduce the size of the SDZ through the “Deviation to SDZ” procedure.

In the example the SDZ is constructed for training to start at the baseline of the course. This SDZ is an example of the composite SDZ that is generated from the individual SDZs of the authorized engagements.

The authorized ammunitions for this range are 105mm, 25mm, 40mm, .50cal ball/tracers, 7.62mm ball/tracers, 5.56mm ball/tracers, 9mm ball/tracer, Inert TOW, and 2.75” inert rockets.

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.

Deviation Authorization. In some circumstances, installations may wish to pursue a deviation to particular SDZ criteria. In these cases, an installation will use an adjusted SDZ. *Deviation Authorization* is solely an installation decision and is based on having a certain mitigating factor, such as a mountain to block projectile travel.