

WHAT ARE MUZZLE-LOADING ARTILLERY SAFETY ZONES AND WHY ARE THEY IMPORTANT?

By William Speir

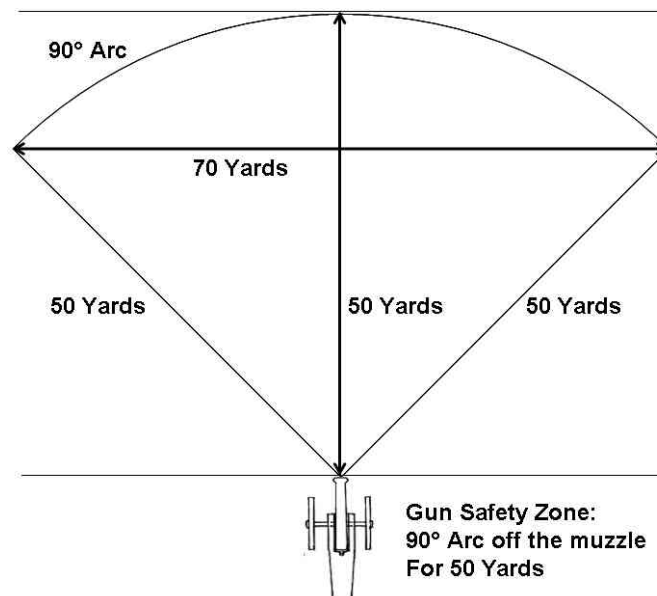
Loyal Train of Artillery Chapter of the United States Field Artillery Association

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Artillery safety zones are critical to ensure the safety of other reenactors or the general public when muzzle-loading artillery is being fired. According to the artillery schools of the Loyal Train of Artillery Chapter of the United States Field Artillery Association (LTAC-USFAA), the safety zones that must be preserved when firing Muzzle Loading Artillery pieces is based on the following rule: **Do not fire if anyone is within a 90 degree arc from the centre line of the tube or within 50 yards of the front of the muzzle.** A 12-pounder smoothbore cannon firing a 2 pound charge could easily knock someone off a horse within that distance, and the flame coming from the bore can easily reach out to 25 feet.

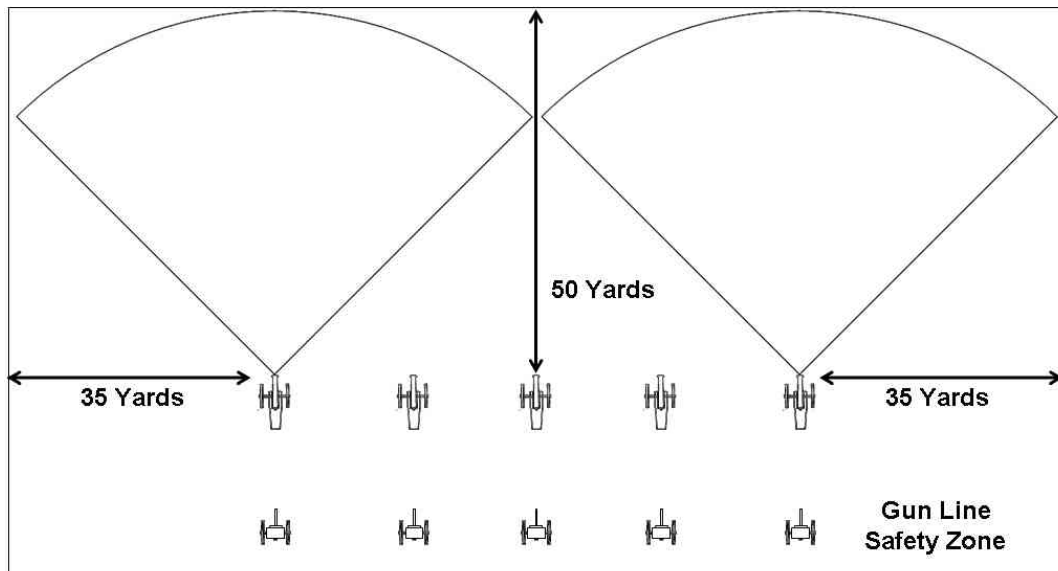
Single Cannon Fire Safety Zone:



The area shown in the diagram above is the minimum zone which must be clear of people, horses, tents, structures, etc., before the cannon may be safely fired with a blank charge (live fire of solid shot or other ordnance requires a clear zone of several miles due to the distance artillery ordnance travels in the air and along the ground). Each cannon crew is responsible for marking this zone carefully so all members of the crew can determine if the zone is clear before attempting to fire the cannon.

Note: As the cannon moves (forward, backward, or rotated side to side), the safety zone moves as well.

Cannon Line (Multiple Cannon) Fire Safety Zone:



When there are multiple cannons lined up together (section, battery, battalion, or other formation), the *minimum* area which must be clear of people, horses, tents, structures, etc., before the cannons may be safely fired with a **blank charge** is shown in the diagram above. The safety zone extends 50 yards to the front of the muzzles of the cannon line (which should all be lined up together in a straight line) and 35 yards to each side of the two end cannons in the formation. This zone should be kept clear at all times when the cannons are firing.

Each cannon has its own individual safety zone which determines when it is safe for that individual cannon to fire. It is possible that it may still be safe for some of the cannons on the cannon line to fire while other cannons on the same cannon line may not be fired due to people, horses, tents, structures, etc., inside their individual safety zone. However, if the

entire cannon line is to fire at the same time and there are people, horses, tents, structures, etc., inside the safety zone of at least one of the cannons, the cannon line may not fire until the safety zones of each individual cannon on the cannon line is clear.

Note: As any of the cannons on the cannon line move (forward, backward, or rotated side to side), the safety zone of the entire cannon line moves as well (e.g. should either of the end cannons rotate left or right, the width of the cannon line safety zone must expand).

Ready to learn more about muzzle-loading artillery safety taught by the LTAC-USFAA? Artillery safety is taught to all students who attend the Artillery Schools, and the manuals can be purchased online at <http://artillerypublications.com/>.