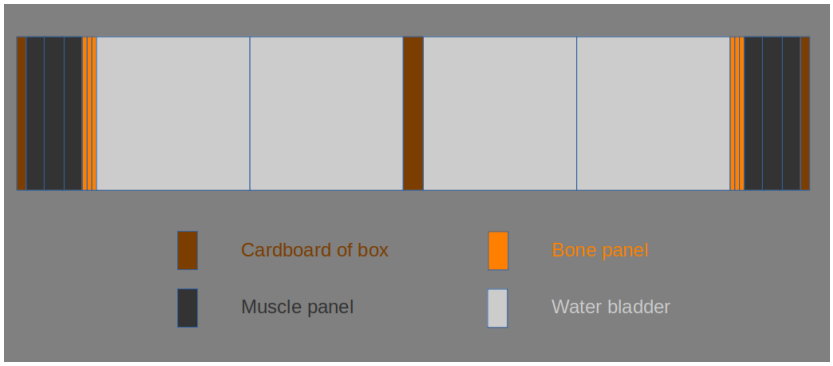
This document describes testing results for 480 Ruger loads shooting a simulated cape buffalo target. The test subject is a combination of several parts from the inside of Intruder in a Box targets. Intruder in a Box simulates a human torso and is made up of clothing, muscle, bone and internal organ simulants. The simulants are matched to the biologic materials in stiffness and specific gravity.

The buffalo box is composed of two Uline 13x13x13 boxes lined up behind each other. Inside each box are three panels of muscle simulant, 3 panels of bone simulant and 4 water bladders (internal organs) to simulate a shot through the shoulders of a cape buffalo. The muscle panels are a total of 1.58 inches thick, and the bone panels are a total 0.378 inches thick. The water bladders are approximately 6 inches thick so double that to get the distance the bullet would need to penetrate to simulate a shoulder shot. The figure below shows the cross section of the box for a shot.



Pictures above show the testing setup and the inside of the box after testing with water bladders removed.

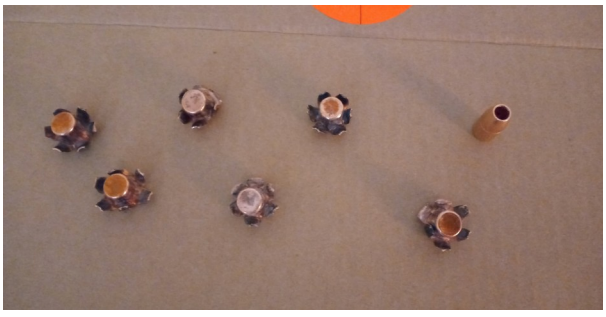
During initial sessions, Buffalo Bore 340 grain +P+ .44 Magnum loads, 480 Ruger loads with Hunters Supply 412g hard cast lead bullets (1170fps avg) and Cutting Edge 340 grain bullets, one 375 JDJ round using a Hornady DGX bullet (1950fps) and one 454 Casull round using a Barnes 265g X bullet were tested. The 454 load was from a buddy who was at the range on that testing day so there are no specs for it. All CE loads were from Cutting Edge using ballistics software and were on the mild side. In those previous tests, the only rounds that penetrated both boxes were the 375 JDJ and the 454 Casull. All other loads penetrated into the 1st or 2nd bone panel on the offside box. The recovered Hunters Supply hard cast bullets retained 74.0% of their weight.

On May 15th, final testing was completed. All rounds were fired at the simulated buffalo approximately 15 ft from the muzzle of my Ruger Super Redhawk in 480 Ruger. The temperature was 90°. 3 rounds of 340 grain Cutting Edge bullets at the max charge of Winchester 296 powder for Lehigh 330 grain bullets were fired into the buffalo box. Next 3 rounds of the Barnes X 275 grain bullet using a 95% max charge of AA # 9 powder were fired into the buffalo box. Finally 3 rounds of the Barnes X 275 grain bullet using a max charge of AA # 9 powder were fired

into the buffalo box.

The average velocity of the CE 340 grain load was 1415 fps. All three rounds of the CE 340 grain load stopped between the first and second layer of the muscle panels on the back side of the target representing a bullet penetrating and stopping in the muscle on the off side shoulder of a cape buffalo. The projectiles retained 99.9% of their weight.

The average velocity of the Barnes X 275 grain bullet with the 95% charge was 1504 fps and the average velocity with the max charge was 1564 fps. All 6 rounds stopped in the 4th water bladder. The projectiles retained 99.8% of their weight. The average diameter of the projectiles was 0.873in or 1.84x increase in diameter.



This is a photo of the muscle-bone panels from the front box showing the exit damage of the bullets from the 05152025 testing.

Below are the groupings from testing. The picture on the left is from groupings at 50 yds of several of the loads mentioned (340g CE, 412g HS). The picture on the right is from groupings at 100 yds of the max 340g CE load (marked) and the submax 275g Barnes X load.There was 30-40 mph wind on both testing days.