Arrows: Speed and Distance

This chart shows an arrow traveling 270 f.p.s. compared to the speed of projectiles of other hunting methods.

The hand-drawn, hand-held and handreleased bow and arrow is a low velocity, high-trajectory, short-range system.

An arrow traveling 270 f.p.s. = 184 mph.

A bullet traveling 2,700 f.p.s. = 1,840 mph.

Tests show that, depending on total arrow weight, on average, the reduction of 4 to 6 grains of arrow weight will produce an increase of one foot per second in arrow velocity.

Arrow Trajectory
How far do arrows travel?

This graph shows bullet trajectory of the modern rifle and arrow trajectory of the modern bow. The bullet will travel to 100 yards with very little drop in trajectory. Even a very fast arrow has a pronounced trajectory arc, therefore yardage estimation is very critical to archery.

The graph above compares the trajectory of an arrow and a bullet. Note the arrow dropped 114" at 50 - 60 yards.

The information on this page came from Martin Archery, Inc. in conjunction with Norb Mullaney, Professional Engineer & Director of Bow Testing.