Calculate How Different Arrows Will Change Your Sight Marks

Ever wonder what effect new arrows would have on your sight marks? Here is the basic mathematical formula developed by Harjinder Singh Obhi for Archery Focus magazine.

Yardage(New Arrow) = Yardage(Old Arrow) x (Weight of Old Arrow/ Weight of New Arrow)

The "="means "approximately equals." Say your current (old) arrows for which you have sight marks each weigh 400 grains including point, nock and fletching. All you needs now is the weight of the new arrow. If this is 350 grains including point, nock and fletching, then you can work out what effect the new arrow would have on a sight mark for say 100 yards, as follows:

Yardage(New Arrow) = 100 yards x 400 / 350 = 114 yards

The physics of flight predicts that if you shoot a 400 grain arrow with your old sight mark for 100 yards using a new 350 grain arrow, you would overshoot by about 14 yards. In other words, in order to be on target at 100 yards with a new 350 grain arrow, you would have to raise your sight approximately to your sight mark for 86 yards. You can use this formula for each range distance. Neat, huh?