

## **17. I have often heard that “Velocity trumps BC”, but is it true?**

*The short answer is yes, ‘it can be’, but it depends entirely on what projectiles are being compared, and how great the discrepancies for BC and velocity are. The use of a competent ballistics program (such as the Lex Talus Field Firing Solutions, JBM, Applied Ballistics, etc.) can be useful for forecasting bullet performance comparisons, but the use of accurate BC data and equivalent conditions assumptions are absolutely essential.*

Ballistic Coefficient (BC) calculations, regardless of the scale used, are an expression of a bullet’s efficiency in flight, compared to a standard. The BC standard most often quoted is the G1 standard because it is the least efficient, and any comparison will appear most favourable. It is also a figure that is easily distorted. A G1 BC can be claimed to be almost anything, as this figure is heavily dependent on velocity and air pressures. If an assumption is made for a velocity of 5,000 fps at 2,000 ft in elevation, the figure may be theoretically correct, but it isn’t helpful if the assumptions aren’t declared. They seldom are. Actual BC’s from some manufacturers are known to be overstated by more than 5% when measured with a Doppler radar; and this possibility should be kept in mind when theoretical calculations are made.

All OEP calculations are based on air pressure at sea level standard (1013 mb at 15 degrees Celsius, which is the aviation industry standard). This standard is conservative for most ballistic application. All OEP measurements and test results are corrected against this benchmark.

For hunters shooting over the more conservative distances of 200 m or less, the question of BC is of little relevance. The difference in point of impact for bullets of similar weight and calibre at 100 m (assuming similar velocities) is generally so small (regardless of any significant variation in BC), as to be irrelevant to many hunters. The issue of BC vs velocity is really only of importance to those taking longer shots. The benefit of higher BC’s (if they are real) is reduced wind drift and shot dispersion, as well as shooting flatter. This is obviously important when ranges exceeding 600 m are contemplated.