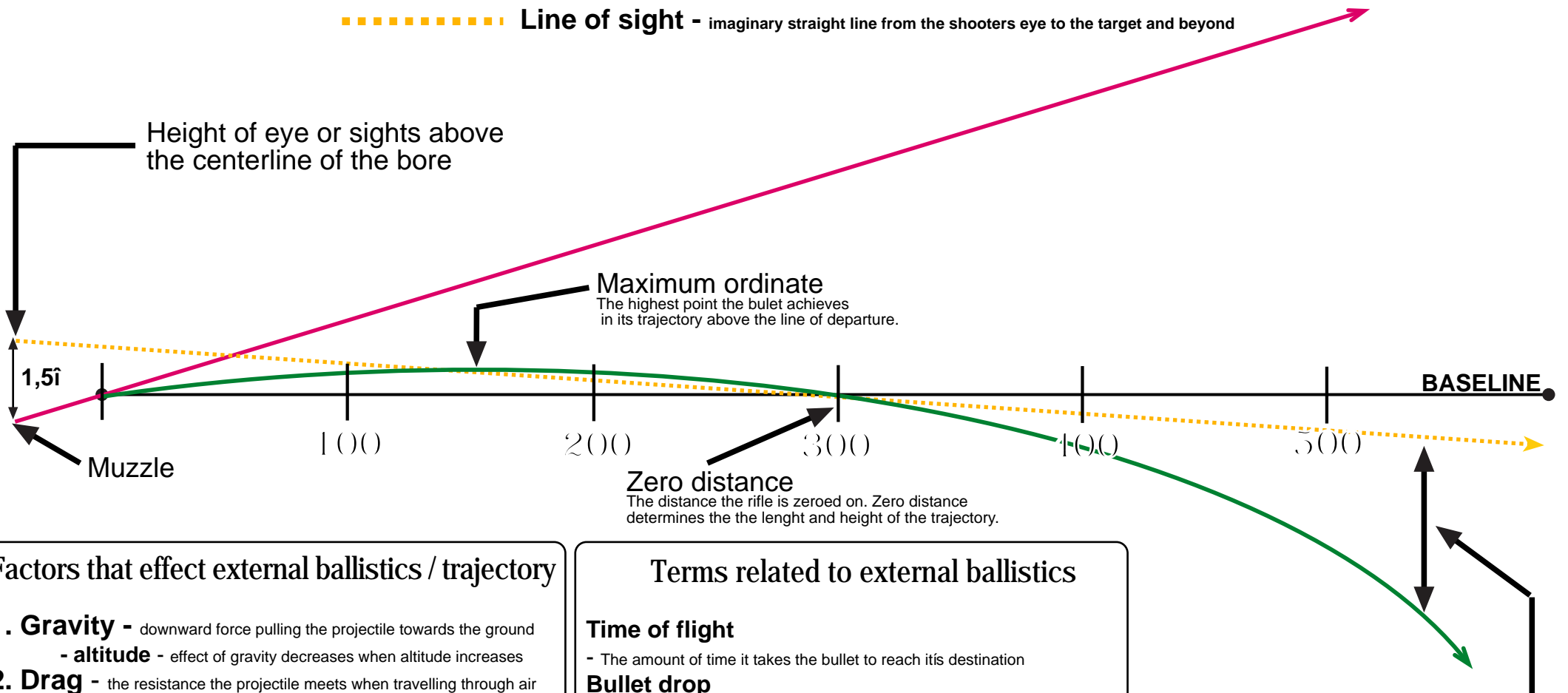


TRAJECTORY TERMS

- **Line of departure** - The direction and path the bullet would take without gravity
- **Bullet path** - The actual path of the bullet
- - - **Line of sight** - imaginary straight line from the shooters eye to the target and beyond



Factors that effect external ballistics / trajectory

- 1. Gravity** - downward force pulling the projectile towards the ground
 - **altitude** - effect of gravity decreases when altitude increases
- 2. Drag** - the resistance the projectile meets when travelling through air
 - (A) Air Density**
 - **Altitude** - at higher altitudes air density is lower and vice versa
 - **Air pressure** - related to humidity and temperature
 - **Temperature** - affects air density, the cooler the air the higher the air density and vice versa
 - **Humidity** - affects air density, the dryer the air is the higher the air density and vice versa
 - (B) Bullet Efficiency**
 - **Ballistic coefficient**
 - **Muzzle velocity**

Terms related to external ballistics

- Time of flight**
 - The amount of time it takes the bullet to reach it's destination
- Bullet drop**
 - The amount the bullet drops towards the ground after leaving the barrel
- Muzzle velocity**
 - The speed the bullet leaves the barrel of the gun.
- Ballistic coefficient**
 - The aerodynamic efficiency of the bullet. It takes into account the shape, weight and cross sectional area of the bullet.
- Remaining velocity**
 - Bullet's velocity after initial muzzle velocity at a specific distance.