



## Coachtech biathlon shooting variables, definitions

- **Aiming point movement**
  - **dist** (mm) → pts?
    - Shot distance from the center → points?
  - **DevX / DevY** (mm, 0-0.6 s)
    - Horizontal (DevX) and vertical (DevY) movement of the aiming point
  - **MV** (mm/s, 0-0.6 s)
    - Mean velocity of the aiming point
  - **COG** (mm, 0-0.6 s)
    - Distance of the aiming point center of gravity (mean location) from the center
  - **ATV** (mm, 0-0.2 s)
    - Distance travelled by the aiming point right before triggering
  - **HT** (% , 0-0.6 s)
    - Percentage value of how long the aiming point was within 2/3 of the radius of the hit area from the center
  - **TIRE<sub>6</sub>** (index, 0-0.6 s)
    - Timing of triggering: time sector with the smallest distance  
1 = -0.6...-0.5 s, 2 = -0.5...-0.4 s, 3 = -0.4...-0.3 s,  
4 = -0.3...-0.2 s, 5 = -0.2...-0.1 s, 6 = -0.1...0.0 s
- **Postural balance**
  - **SDX / SDY** (mm, 0-0.6 s)
    - Standard deviation of the body center of pressure movement in cross-shooting (SDX) and in shooting line (SDY)
  - **ROMX / ROMY** (mm, 0-0.6 s)
    - Range of motion of the body center of pressure in cross-shooting (SDX) and in shooting line (SDY)
  - **\*\_F / \*\_R** (mm, 0-0.6 s)
    - The above-mentioned variables for front (\_F) and rear (\_R) leg
  - **Weight distribution**
    - **L / R** (%) – prone
      - Weight distribution under the left (L) and the right (R) elbow
    - **F / R** (%) – standing
      - Weight distribution under the front (F) and the rear (R) leg
  - **Trigger force**
    - **-1.0, -0.6, -0.2, 0.2** (%)
      - % of triggering force at time points 1.0, 0.6 and 0.2 s before triggering and 0.2 s after triggering
    - **t<sub>80</sub>** (ms)
      - Time to 80 % of triggering force after finger is in the trigger