CSEC LRP Wind Drift Estimator 2.0 for 6mm (.243) Caliber

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This sheet demonstrates the use of the **CSEC LRP Wind Drift Estimator 2.0** for all 6mm (.243) calibers.

WD = (CW/K) x R

Base K_{LR}= 9
Base Alt = 0, sea level
Base MV = 2700fps for all calibers.
Base BW = 90gr

- **Altitude correction: .00006 times altitude feet, or .06 for every 1000'**
- **Bullet Weight correction: ±.01 per 1 grain above/below Base BW**
- **Muzzle Velocity correction: ±.001 per 1 fps above/below 2700 fps MV**

Scenario 1: You are target shooting at 2000' altitude with 6mm 108gr ELD-M bullet @ 2900 fps muzzle velocity, target is 1000 yds, 8mph crosswind right to left.
Calculate Corrections:

- Altitude Correction: .12, BW Correction: .18, MV Correction: .2
- **Total Correction: 0.5**

Calculate corrected K_{LR} = 9 x 1.5 = 13.5 ~ **14**

Calculate WD(1000)= (8/14) x 10 = 5.71 MOA_R, then add .5 MOA_L for spin drift and Total Wind = 5.2 MOA_R

Compare with Hornady 4DOF ballistic Calculator Total Wind Drift = 4.97 MOA_R

Scenario 2: You are now at CSEC LRP bragging about hitting the 1000 yard target a few days ago using a wind estimator. Someone asks, " *How about showing us*?" CSEC LRP Elevation is 5300 ft and the wind is 45º off direction of fire at 22 mph blowing left to right … a 'nice' day at Cameo … and a 7/10th value crosswind at 15 mph. You calculate corrections and your corrected **K_{LR}**:

- Altitude Correction: .32, BW Correction: .18, MV Correction: .2
- **Total Correction: 0.7**

Calculate corrected K_{LR} = Base **K_{LR}** x 1.7 = 9 x 1.7 = **15.3 ~ 15**

Calculate WD(1000) = (15mph/**K_{LR}**15mph) x 1000/100 = 1 x 10 = **10 MOA_L**
You set the windage turret to 10 MOA_L then add .5 MOA_L for spin drift, **Total Wind Drift = 10.5 MOA_L.**

Compare to Hornady 4DOF Total Wind = 9.44 MOA_L.
Compare to Bison Ballistic-calculator Total Wind = 10.2 MOA_L

Scenario 3: You draw a tag for Mule Deer and decide to use your 6mm Creedmoor with 103gr ELD-X bullet, muzzle velocity 3050 fps. Hunting will be at 5300'.
First calculate corrected K_{LR} for your load and altitude:

- Altitude Correction: .32, BW Correction: .13, Muzzle Velocity Correction: .35
- **Total Correction: .8**

Calculate corrected K_{LR} = Base K_{LR} x 1.8 = 9 x 1.8 = **16.2 ~ 16**
Calculate K_{HR} = K_{LR} x 1.4 = 16 x 1.4 = 22.4 ~ **22**

After several days you have located a nice buck, but it is a 500 yard LOS 33º downhill shot with an angle corrected laser reading of 420 yards. You set up for your shot and using parallax estimate the crosswind at 6 mph Right to Left. Using your K_{HR} value you could calculate:

WD = (6mph/K_{HR}22mph) x (500 yd x Cos(33)/100) = 1.14 MOA_R … but that would be too complicated in a hunting situation!

So you quickly round off the numbers using the angle corrected reading, and calculate in your head:
WD = (6/20 ~ 3/10 ~ .3) x 4 = 1.2 MOA_R

Compare to Hornady 4DOF 500 yd -33º angle Total Wind Drift = 1.18 MOA_R

Remembering 1 MOA is 1" every 100 yards and since your scope is Second Focal Plane with Duplex reticle, you hold off 5" right and fill your tag!