

Exterior Ballistics Calculator

Version 4.01 BETA VERSION

Centerfire Rifle Flat Trajectory

I. CARTRIDGE DATA

Cartridge Name: .30-06 Springfield *A*
Bullet Type: SWIFT
Bullet Weight: 150 grains *A*
Ballistic Coefficient: 0.435000 (Given)
Given Velocity: 2,910 fps
Range for Velocity: Muzzle
Drag Factor: G1

II. ENVIRONMENTAL DATA

Temperature: 59° F
Atmospheric pressure: 29.53 inches of Hg

III. FIREARM DATA

Sight height: 1.5 inches above centerline of bore.
Sighting-in range: 100 yards *A*

IV. PREDICTED PERFORMANCE

| <u>Range (yards)</u> | <u>Remaining Velocity (feet/sec)</u> | <u>Remaining Energy (lb-feet)</u> | <u>Time of Flight (seconds)</u> | <u>Drop (inches)</u> | <u>Mid-Range Trajectory (inches)</u> | <u>Trajectory (inches)</u> | <u>Deflection 10-mph Wind (inches)</u> |
|--------------------------|--|---|---|--------------------------|--|--------------------------------|--|
| Muzzle | 2,910 | 2,820 | 0.0000 | 0.00 | 0.0 | -1.5 | 0.0 |
| 50 | 2,802 | 2,614 | 0.0525 | 0.54 | 0.1 | -0.2 | 0.2 |
| 100 | 2,696 | 2,421 | 0.1071 | 2.19 | 0.6 | 0.0 <i>A</i> | 0.7 |
| 150 | 2,593 | 2,239 | 0.1638 | 5.03 | 1.3 | -1.0 | 1.6 |
| 200 | 2,492 | 2,069 | 0.2228 | 9.17 | 2.4 | -3.3 | 2.9 |
| 250 | 2,394 | 1,908 | 0.2842 | 14.70 | 3.9 | -7.0 | 4.7 |
| 300 | 2,298 | 1,758 | 0.3482 | 21.76 | 5.8 | -12.2 | 6.8 |
| 350 | 2,203 | 1,617 | 0.4149 | 30.46 | 8.3 | -19.0 | 9.5 |
| 400 | 2,111 | 1,485 | 0.4844 | 40.94 | 11.3 | -27.7 | 12.7 |
| 450 | 2,022 | 1,361 | 0.5570 | 53.38 | 14.9 | -38.3 | 16.4 |
| 500 | 1,934 | 1,246 | 0.6328 | 67.95 | 19.3 | -51.0 | 20.7 |
| 550 | 1,849 | 1,139 | 0.7122 | 84.84 | 24.4 | -66.0 | 25.5 |
| 600 | 1,767 | 1,039 | 0.7952 | 104.27 | 30.4 | -83.6 | 31.1 |

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Centerfire Rifle Flat Trajectory

I. CARTRIDGE DATA

Cartridge Name: .338 Winchester *
Bullet Type: SWIFT
Bullet Weight: 225 grains *
Ballistic Coefficient: 0.337000 (Given)
Given Velocity: 2,785 fps
Range for Velocity: Muzzle
Drag Factor: G1

II. ENVIRONMENTAL DATA

Temperature: 59° F
Atmospheric pressure: 29.53 inches of Hg

III. FIREARM DATA

Sight height: 1.5 inches above centerline of bore.
Sighting-in range: 200 yards *

IV. PREDICTED PERFORMANCE

| Range (yards) | Remaining Velocity (feet/sec) | Remaining Energy (lb-feet) | Time of Flight (seconds) | Drop (inches) | Mid-Range Trajectory (inches) | Trajectory (inches) | Deflection 10-mph Wind (inches) |
|------------------|-------------------------------------|----------------------------------|--------------------------------|------------------|-------------------------------------|------------------------|---------------------------------------|
| Muzzle | 2,785 | 3,874 | 0.0000 | 0.00 | 0.0 | -1.5 | 0.0 |
| 50 | 2,650 | 3,507 | 0.0552 | 0.58 | 0.1 | 0.9 | 0.2 |
| 100 | 2,518 | 3,168 | 0.1133 | 2.40 | 0.6 | 2.0 | 1.0 |
| 150 | 2,391 | 2,856 | 0.1745 | 5.59 | 1.5 | 1.8 | 2.3 |
| 200 | 2,267 | 2,568 | 0.2388 | 10.31 | 2.8 | 0.0 * | 4.1 |
| 250 | 2,147 | 2,302 | 0.3068 | 16.71 | 4.5 | -3.5 | 6.6 |
| 300 | 2,030 | 2,059 | 0.3787 | 25.00 | 6.9 | -8.8 | 9.8 |
| 350 | 1,918 | 1,837 | 0.4547 | 35.40 | 10.0 | -16.2 | 13.7 |
| 400 | 1,812 | 1,641 | 0.5327 | 47.44 | 13.4 | -25.3 | 17.9 |
| 450 | 1,705 | 1,452 | 0.6207 | 63.60 | 18.5 | -38.5 | 23.9 |
| 500 | 1,605 | 1,287 | 0.7113 | 82.02 | 24.3 | -54.0 | 30.4 |
| 550 | 1,511 | 1,141 | 0.8077 | 103.81 | 31.3 | -72.8 | 37.9 |
| 600 | 1,423 | 1,012 | 0.9100 | 129.41 | 39.7 | -95.5 | 46.4 |
| 650 | 1,341 | 899 | 1.0186 | 159.31 | 49.7 | -122.4 | 56.0 |
| 700 | 1,267 | 802 | 1.1337 | 194.04 | 61.6 | -154.2 | 66.8 |
| 750 | 1,201 | 720 | 1.2554 | 234.18 | 75.6 | -191.4 | 78.8 |
| 800 | 1,144 | 653 | 1.3834 | 280.36 | 92.7 | -234.6 | 91.8 |
| 850 | 1,095 | 599 | 1.5176 | 333.20 | 111.1 | -284.5 | 105.9 |
| 900 | 1,054 | 554 | 1.6573 | 393.26 | 133.0 | -341.6 | 121.1 |
| 950 | 1,018 | 518 | 1.8022 | 461.13 | 158.2 | -406.6 | 137.1 |
| 1,000 | 988 | 487 | 1.9518 | 537.43 | 186.7 | -479.9 | 153.9 |

Exterior Ballistics Calculator

Version 4.01 BETA VERSION

Centerfire Rifle Flat Trajectory

I. CARTRIDGE DATA

Cartridge Name: 30-378 WEATHERBY MAGNUM
Bullet Type: BST
Bullet Weight: 180 grains *
Ballistic Coefficient: 0.507000 (Given)
Given Velocity: 3,420 fps
Range for Velocity: Muzzle
Drag Factor: G1

II. ENVIRONMENTAL DATA

Temperature: 59° F
Atmospheric pressure: 29.53 inches of Hg

III. FIREARM DATA

Sight height: 1.5 inches above centerline of bore.
Sighting-in range: 200 yards

IV. PREDICTED PERFORMANCE

| Range (yards) | Remaining Velocity (feet/sec) | Remaining Energy (lb-feet) | Time of Flight (seconds) | Drop (inches) | Mid-Range Trajectory (inches) | Trajectory (inches) | Deflection 10-mph Wind (inches) |
|------------------|-------------------------------------|----------------------------------|--------------------------------|------------------|-------------------------------------|------------------------|---------------------------------------|
| Muzzle | 3,420 | 4,674 | 0.0000 | 0.00 | 0.0 | -1.5 | 0.0 |
| 50 | 3,315 | 4,392 | 0.0446 | 0.39 | 0.1 | 0.1 | 0.1 |
| 100 | 3,213 | 4,126 | 0.0905 | 1.57 | 0.4 | 0.9 | 0.5 |
| 150 | 3,113 | 3,874 | 0.1379 | 3.59 | 0.9 | 0.9 | 1.1 |
| 200 | 3,016 | 3,635 | 0.1869 | 6.51 | 1.7 | 0.0 * | 2.0 |
| 250 | 2,921 | 3,409 | 0.2374 | 10.38 | 2.7 | -1.9 | 3.2 |
| 300 | 2,828 | 3,195 | 0.2896 | 15.27 | 4.0 | -4.8 | 4.7 |
| 350 | 2,736 | 2,992 | 0.3436 | 21.25 | 5.7 | -8.7 | 6.4 |
| 400 | 2,647 | 2,800 | 0.3993 | 28.39 | 7.7 | -13.9 | 8.5 |
| 450 | 2,559 | 2,618 | 0.4569 | 36.77 | 10.1 | -20.3 | 10.9 |
| 500 | 2,473 | 2,445 | 0.5165 | 46.47 | 12.9 | -28.0 | 13.7 |
| 550 | 2,389 | 2,281 | 0.5782 | 57.60 | 16.1 | -37.1 | 16.9 |
| 600 | 2,306 | 2,126 | 0.6421 | 70.25 | 19.9 | -47.7 | 20.4 |
| 650 | 2,225 | 1,979 | 0.7084 | 84.53 | 24.1 | -60.0 | 24.3 |
| 700 | 2,146 | 1,840 | 0.7770 | 100.57 | 29.0 | -74.1 | 28.7 |
| 750 | 2,068 | 1,709 | 0.8482 | 118.50 | 34.6 | -90.0 | 33.5 |
| 800 | 1,992 | 1,585 | 0.9221 | 138.46 | 40.8 | -107.9 | 38.8 |
| 850 | 1,917 | 1,469 | 0.9989 | 160.61 | 47.9 | -128.1 | 44.6 |
| 900 | 1,845 | 1,360 | 1.0787 | 185.12 | 55.8 | -150.6 | 50.9 |
| 950 | 1,774 | 1,257 | 1.1615 | 212.19 | 64.6 | -175.7 | 57.8 |
| 1,000 | 1,705 | 1,162 | 1.2478 | 242.02 | 74.5 | -203.5 | 65.2 |

Exterior Ballistics Calculator

Version 4.01 BETA VERSION

Centerfire Rifle Flat Trajectory

I. CARTRIDGE DATA

Cartridge Name: 270 WEATHERBY MAGNUM *
Bullet Type: SP
Bullet Weight: 130 grains *
Ballistic Coefficient: 0.409000 (Given)
Given Velocity: 3,375 fps
Range for Velocity: Muzzle
Drag Factor: G1

II. ENVIRONMENTAL DATA

Temperature: 59° F
Atmospheric pressure: 29.53 inches of Hg

III. FIREARM DATA

Sight height: 1.5 inches above centerline of bore.
Sighting-in range: 200 yards

IV. PREDICTED PERFORMANCE

| Range (yards) | Remaining Velocity (feet/sec) | Remaining Energy (lb-feet) | Time of Flight (seconds) | Drop (inches) | Mid-Range Trajectory (inches) | Trajectory (inches) | Deflection 10-mph Wind (inches) |
|------------------|-------------------------------------|----------------------------------|--------------------------------|------------------|-------------------------------------|------------------------|---------------------------------------|
| Muzzle | 3,375 | 3,287 | 0.0000 | 0.00 | 0.0 | -1.5 | 0.0 |
| 50 | 3,247 | 3,043 | 0.0453 | 0.40 | 0.1 | 0.2 | 0.2 |
| 100 | 3,123 | 2,814 | 0.0924 | 1.62 | 0.4 | 1.0 | 0.6 |
| 150 | 3,002 | 2,601 | 0.1414 | 3.74 | 1.0 | 1.0 | 1.4 |
| 200 | 2,885 | 2,402 | 0.1924 | 6.82 | 1.8 | 0.0 * | 2.6 |
| 250 | 2,770 | 2,215 | 0.2455 | 10.94 | 2.9 | -2.0 | 4.1 |
| 300 | 2,659 | 2,041 | 0.3008 | 16.20 | 4.4 | -5.2 | 6.0 |
| 350 | 2,550 | 1,877 | 0.3583 | 22.69 | 6.2 | -9.6 | 8.3 |
| 400 | 2,444 | 1,724 | 0.4184 | 30.51 | 8.4 | -15.4 | 11.1 |
| 450 | 2,341 | 1,581 | 0.4811 | 39.79 | 11.1 | -22.6 | 14.3 |
| 500 | 2,240 | 1,448 | 0.5466 | 50.66 | 14.4 | -31.4 | 18.0 |
| 550 | 2,141 | 1,323 | 0.6151 | 63.26 | 18.2 | -41.9 | 22.2 |
| 600 | 2,045 | 1,207 | 0.6868 | 77.75 | 22.7 | -54.3 | 27.0 |
| 650 | 1,951 | 1,099 | 0.7619 | 94.33 | 27.9 | -68.8 | 32.4 |
| 700 | 1,860 | 999 | 0.8407 | 113.18 | 33.9 | -85.6 | 38.4 |
| 750 | 1,772 | 907 | 0.9233 | 134.56 | 40.9 | -104.9 | 45.2 |
| 800 | 1,687 | 822 | 1.0100 | 158.70 | 48.8 | -126.9 | 52.6 |
| 850 | 1,606 | 744 | 1.1011 | 185.89 | 58.0 | -152.0 | 60.8 |
| 900 | 1,528 | 674 | 1.1969 | 216.46 | 68.4 | -180.5 | 69.9 |
| 950 | 1,454 | 610 | 1.2976 | 250.75 | 80.4 | -212.7 | 79.7 |
| 1,000 | 1,384 | 553 | 1.4033 | 289.15 | 93.9 | -249.0 | 90.5 |