

An Introduction to Rifle Adjustments

Elevation And Distance



When the rifle is close to the target
the bullet hits the centre providing
the sights are correctly set to the
bore

Elevation And Distance

But:-



**further away, the bullet
drops due to gravity
and air resistance**

Elevation And Distance

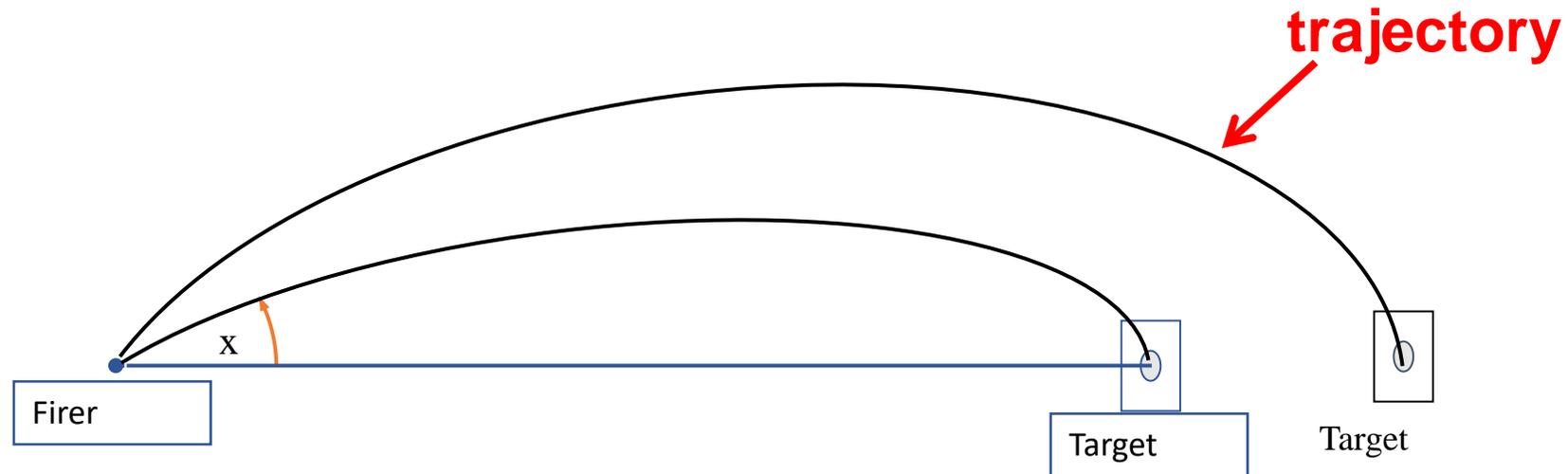
To hit the target the front of the barrel must be raised



The longer the range, the more the barrel must be raised

ELEVATION

- The further the distance from firer to target, the greater the angle 'x' has to be.



- 'x' is the angle measured on the sight.

ELEVATION

- Only a small change of angle is needed at the rifle end to make a big difference at the target end
- The angle is measured in MINUTES of angle - (one minute is $1/60$ of a degree)
- At 100 yards, changing the sight by 1 minute, changes the fall of shot on the target by 1 inch

Minutes Of Angle

A minute of angle is:

The adjustment of the REARSIGHT
that will cause the POINT OF IMPACT
to move 1 Inch per 100 yards

ELEVATION

- Therefore:

Distance

1 minute at the target is:

100yd

1"

200 yd

2"

300 yd

3"

etc.

ELEVATION

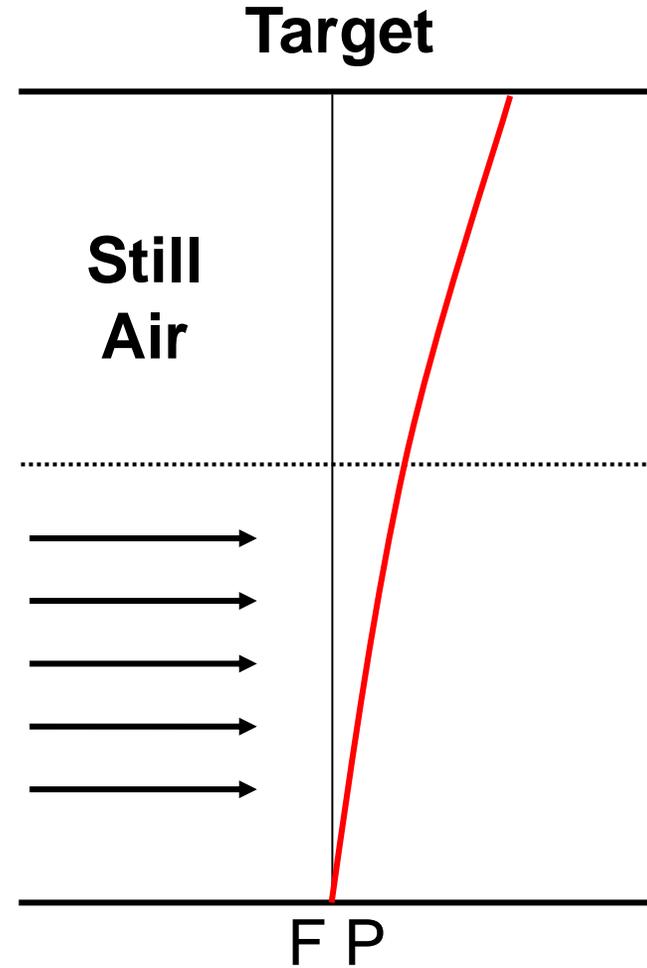
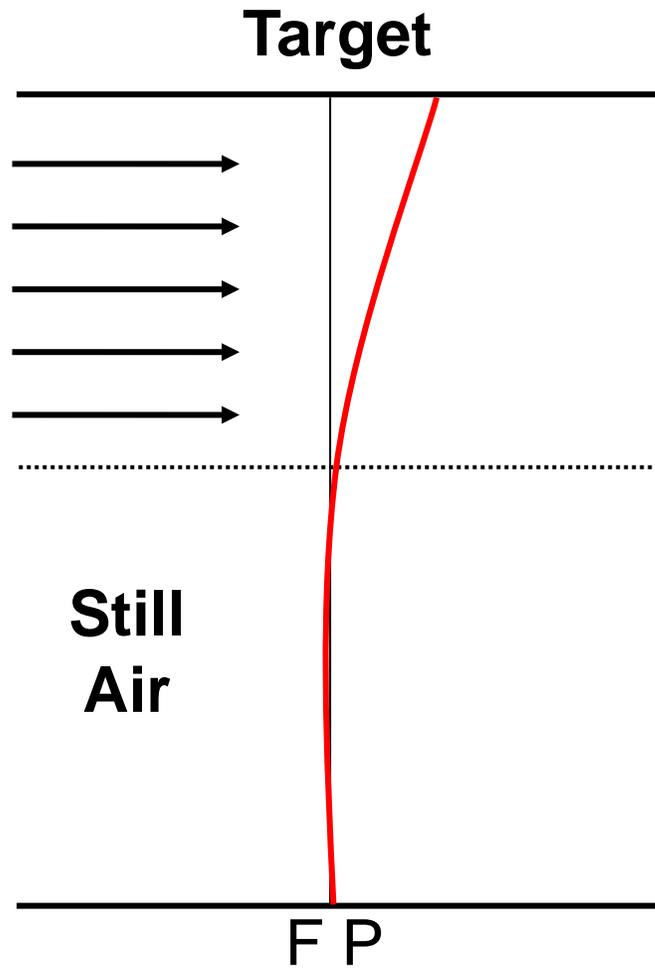


Elevation

This gives us the standard rises between ranges:

DISTANCE (yds)	RISE (mins)
200 – 300	2.5
300 – 500	6.5
500 – 600	4.0
600 – 900	16.0
900 – 1000	7.0

The Effects Of Wind On The Bullet



Range Flags/Wind Speeds



Light

2 mph



Gentle

4 mph



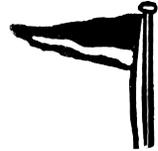
Moderate

8 mph



Fresh

12 mph



Strong

16 mph

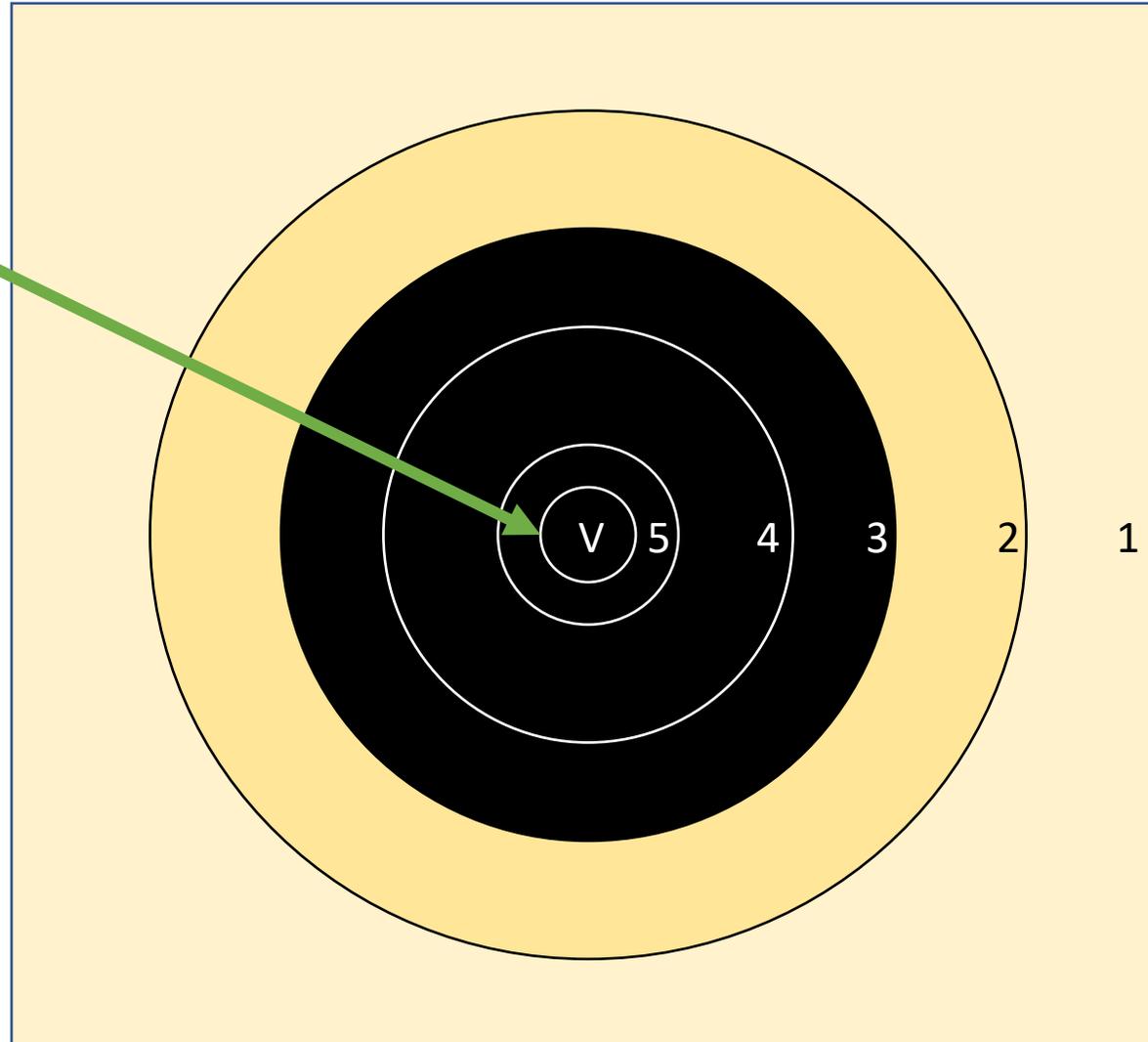


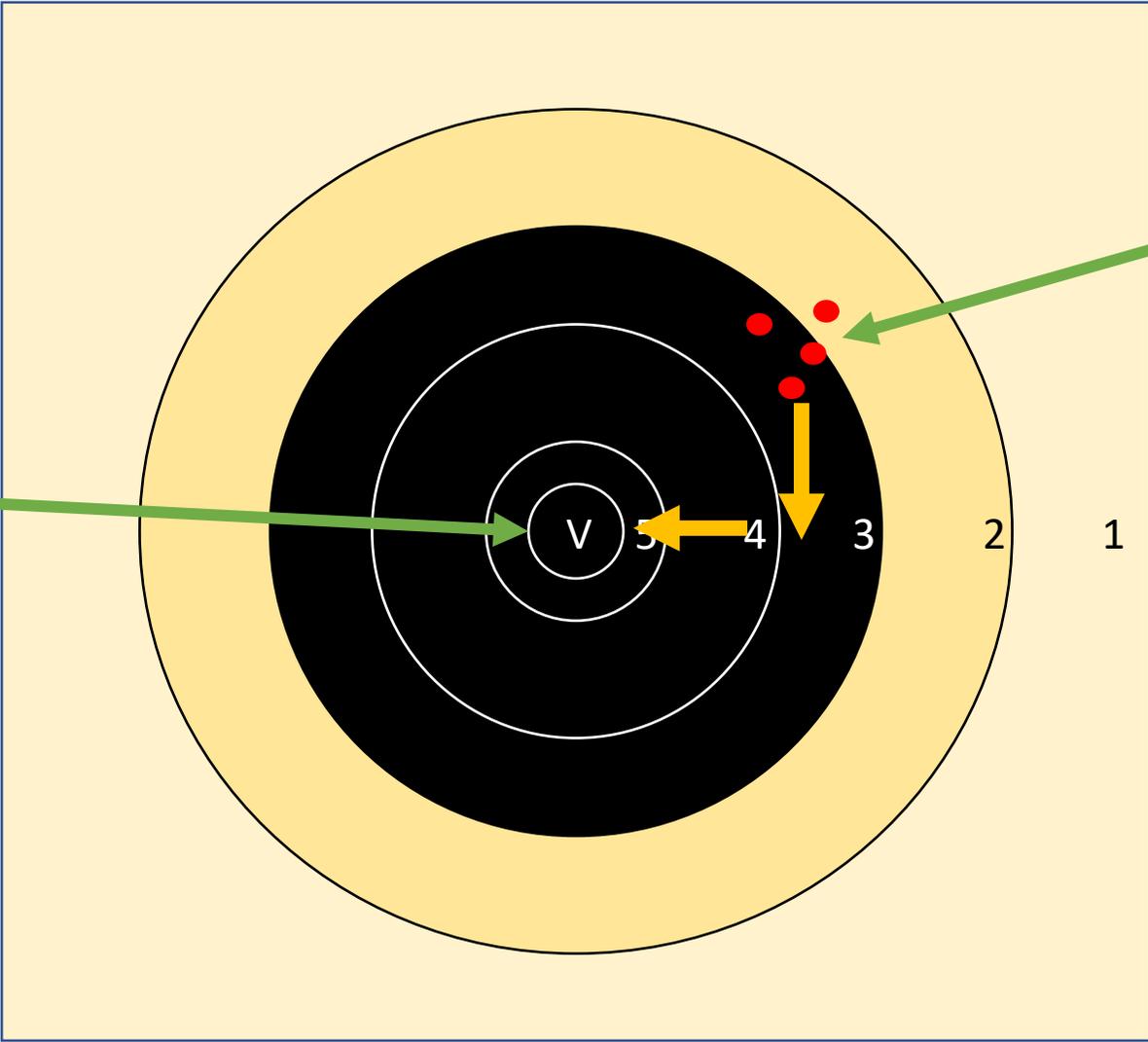
Very Strong

20 mph

This is there we want to hit

If we aren't aligned with the target properly and adjust our sights to the centre of the target we wont score as best we can





An Excellent group,
but in the wrong
place

Improper adjustment
will mean we group
outside the 'bull'

We have to adjust
this group down
and left to get the
best score

Your job as a shooter

- Be Safe
- Do the best you can

- Hold the rifle as steady as possible
- Focus on your breathing and shooting
- Trust your coach to adjust your sights
- Tell the coach what you think after each shot

- Have fun!