

WA Traditional

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Definition

WA rules, Book 4: 22.4

- Laminated riser including wooden laminates or made of one piece of wood.
- May be a take-down, may have factory-installed metal fittings for limb attachment, stabiliser bushings, etc.
- May have adjustable limbs for poundage and tiller adjustment.
- The bow shall be bare, except for an arrow rest, free from protrusions, sights or sighting marks, blemishes or other reference marks within the bow window area, which could be used for aiming.
- Weights inside the riser are permitted if installed during the manufacturing process and not post-construction. Any weights shall be completely invisible on the exterior of the riser and be covered by laminates applied during the initial construction with no visible holes, plugged holes, covers or caps, with the exception of the original manufacturer's inlay or logo.
- Limb dampeners and string silencers are allowed

Definition

WA rules, Book 4: 22.4

- Simple plastic self-adhesive arrow rest, or a feather rest as supplied by the manufacturer, or the athlete can use the bow shelf, no other type of rest is allowed
 - The shelf may be covered with any type of material (on the shelf only). The vertical part of the sight window may be protected by material which shall not raise more than 1 cm above the resting arrow or be thicker than 3 mm
- Tab must not have a shelf, or any archer added markings, finger splitter ok if shooting split finger
- No notes that could help improve a score are allowed (e.g. gaps)
- Face walking IS allowed, string walking is NOT allowed
- Can shoot 3 under or split finger, but cannot vary during a competition
- Index or middle finger must be within 3mm of the nock

When/where can you shoot it?

- It is an international bowstyle for WA 3D
- It is an accepted bowstyle for WA Field
- No category for Target shoots; need to shoot as barebow
- NFAS shoots; fits into their 'barebow' category
 - NFAS barebows cannot string walk, but are otherwise fairly similar to WA Barebow

Why shoot it?

- Its the simplest bowstyle that doesn't use wooden arrows!
- It's a real challenge to tune well, and shoot well
- High anchor suits some archers better than a low one
- Ollie Hicks doesn't shoot Trad :-)

What the top archers are using...

- Riser: Border is most common
 - Longer risers are more stable: 23" or 25"
- Limbs: Border or Uukha, between 34lb - 40lb
 - Shorter limbs are punchier (but less stable)
 - 23" riser with long limbs = 68" bow
 - 25" riser with medium or long limbs = 68"/70"
- Arrows: Victory 3DHVs are common
 - Lighter (gpi) arrows can be left longer and remain light
 - 100gn point typical, 31.5" long
- Rest: Hoyt super rest
- Tab: Personal preference

Tuning

- Limb alignment
 - As per recurve, but risers may not have adjustment
- Brace height
 - As per recurve
 - Uukha sweet-spot is the middle of their recommendations (218mm ~ 8.5")
 - Border limbs have low brace height; 6.5 - 7.5"
- Centre shot
 - Walk back tuning
 - Only adjustment is how many sticky pads you use
 - You can Cant the bow!

Tuning - Tiller

Adjust until both limbs are storing and releasing the same energy at the same time



- First picture, limbs were set “even tiller”
- Clearly this was not actually the case!
- Top limb needed to pull further (or bottom limb pull less)
- Bottom bolt was tightened and top one was loosened
- Barebow; same method, just do at mid crawl, or most common shooting position

Tuning - Arrows

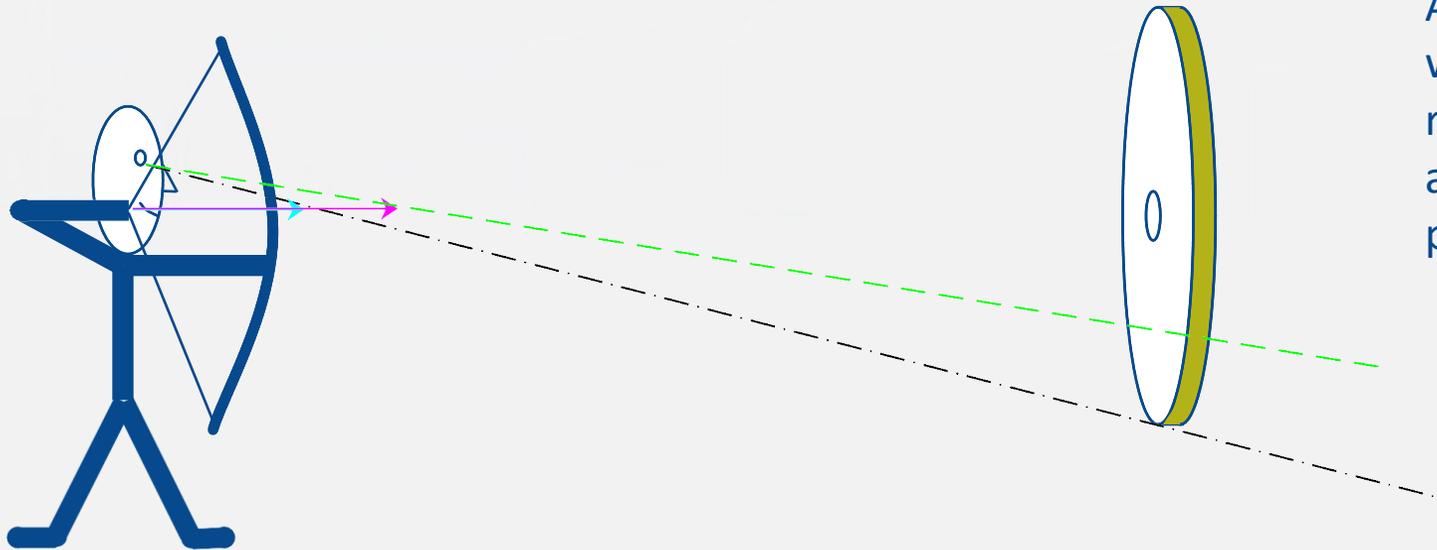
- Lighter = faster
 - A fast arrow will have a flatter trajectory, which will minimise errors made on distance estimation
 - You can carry more than one set of arrows
 - Minimise the weight at the back of the arrow, which allows for a lighter point, whilst maintaining a reasonable FoC value
- Length is important
 - Can “play” with arrow length to get desired gaps/crawls

Barebows: Don't waste your button by using it to tune your arrows 😊

Equipment - Arrows (unsighted)

"We need to cut your arrows down for you, they are way too long"

- Archer sights down arrow
 - Short arrow, place tip on bottom of target
 - Longer arrow, tip is placed 1/4 way up the target
 - Reduces gaps AND crawls



Arrow length can be “played with” to get “nice” gaps, remembering that longer arrows are heavier and slower and perhaps harder to tune.

Tuning - Arrows

- Its a juggling act!
 - Bare shaft tuning
 - Paper tuning
- If you've decided to go as long as possible, you need the correct spined arrow for that length
- Then you can adjust
 - Limb bolts
 - length, point weight, nocks/fletchings
 - 5mm cut makes more difference than point weight

Recurve/Barebows: Don't waste your button by using it to tune your arrows! 😊

Tuning - Rest & Nocking point

- Now, lets detune!
- I deliberately detune my bow by raising the nocking point until my 5-10m gap-on-the-riser is accurate.
 - This means my bare shaft shoots low
- Some archers like to shoot deliberately weak arrows
 - Changes in draw length tend to weaken the shot...
- Some archers trim the tip off the rest
 - To gain a gap mark

Shooting!

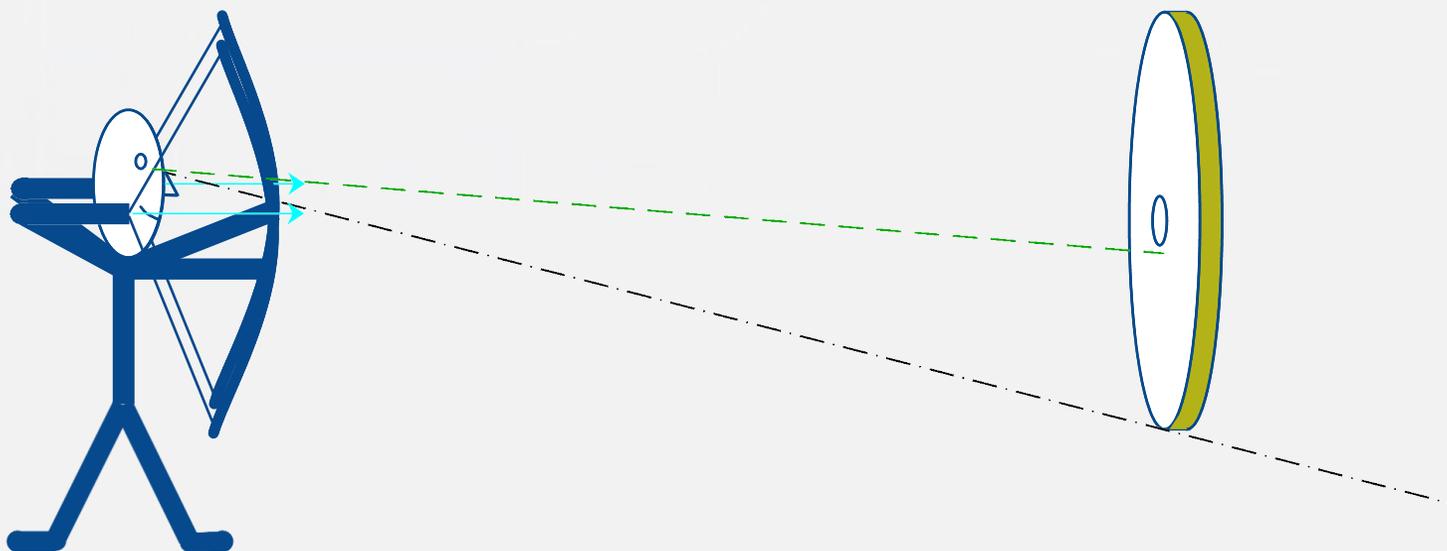
- No forgiveness; stabilisers, weights, pressure button
- Stance, alignment, maintaining T all important
- Tendency to cant bow needs to be watched
- Anchor point
 - A higher anchor point brings gaps onto the target

Recurve/Barebows: Don't waste your button by using it to tune your arrows! 😊

Anchor point

“You should anchor at the corner of your mouth”

- Raising your anchor point reduces gaps and crawls far more than arrow length
 - Raising anchor by 1cm can half your maximum gap
 - (Increasing arrow length by 1cm might take 5% off gaps)



Shot control!

- Worth a mention as many top level archers are using “closed loop” techniques
 - “Open loop”: No conscious correction during the shot, process (certainly release) is largely unconscious
 - “Closed loop”: The archer is conscious of each part of the shot process, and is using and providing feedback at all times
 - A “sear” maybe used to trigger the release, so that the release is “a surprise”
 - Grip, Tab, Feather, Mouth

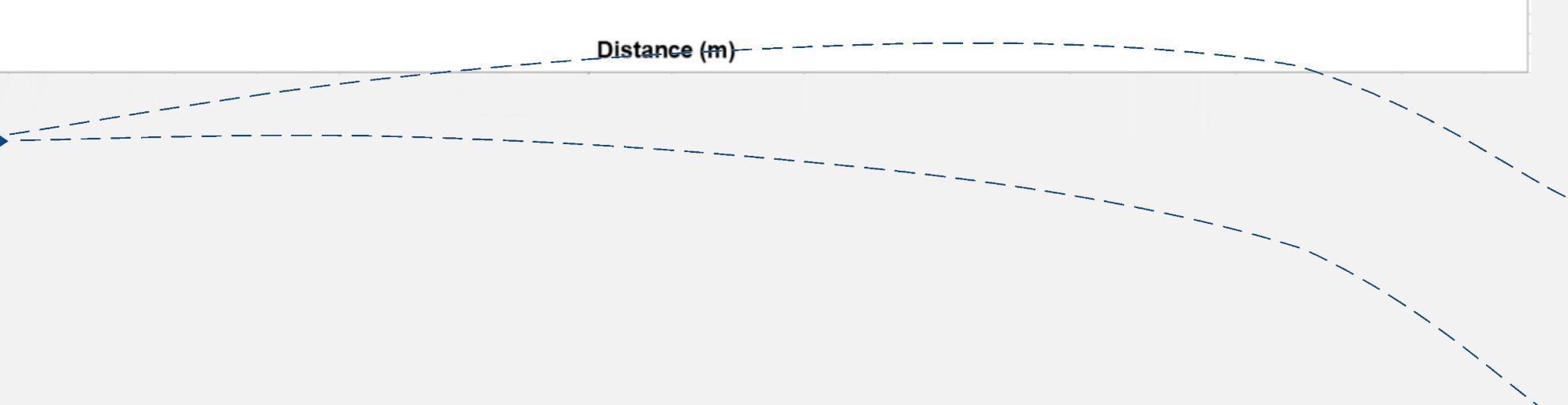
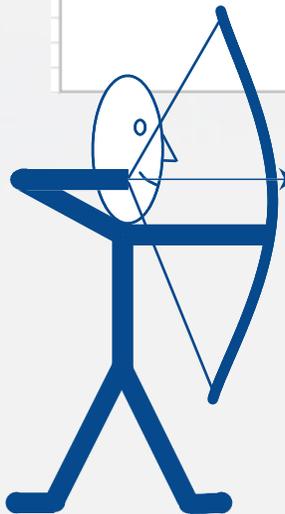
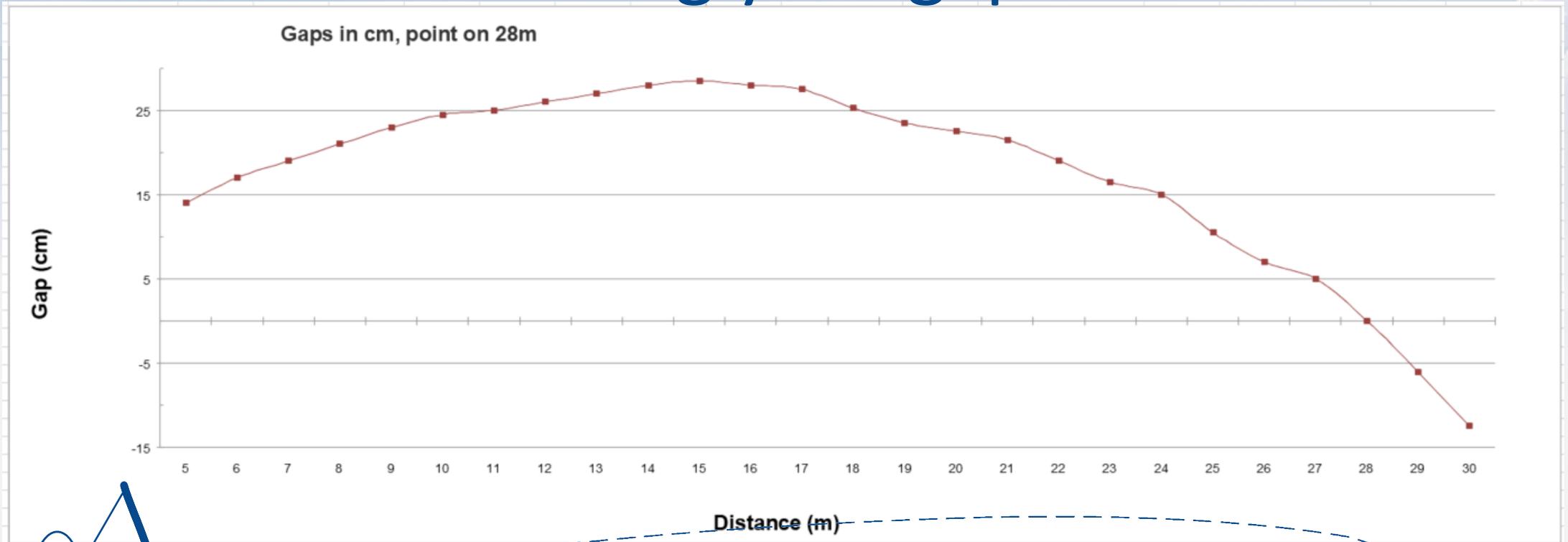
Aiming methods

- Gapping
 - On target; use a location on the target
 - On bow; use a location on the bow
- Split vision
 - Set the gap, focus on the target
- Gap-stinctive
 - Instinctive aiming, but noting where the gap is
- Instinctive
 - Not “aware” of their gaps



Recurve/Barebows: Don't waste your button by using it to tune your arrows! 😊

Plotting your gaps



Trajectory Analysis

- “Point on distance” - distance where arrow hits the centre of the target when the arrow is ‘aimed’ at it (28m)
 - Anything shorter than that, aim below
 - Anything longer than that, aim above
- Initial linear rise: 0 - 10m
 - Something on the riser will give you the gap for all these distances!!
- Flat part of the trajectory: 10m - 19m, gaps all within 5cm
 - Can use the same gap, more or less
- Initial drop off: 19m - 25m, gaps change by 13cm
 - Tricky zone! Need to get distance as accurate as possible, learn the range of gaps
- Final drop off - beyond PO; another 12cm
 - Again, learn the gap range
- Longer distances for field - up to 50m
 - Learn a gap for each 5m increment

Strategic aiming



- Estimate: 28-29m (~PO)
 - Could be 25m (gap 10cm below)
 - Could be 30m (gap 12cm above)
- Aim for the 11
 - Its 28m: An 11
 - Its 30m: A low 5
 - Its 25m: A mid 8
- Think a bit more; there is plenty of 8 above the 11, not much below it
 - Use top of the 10 as aim point
 - Its 28m: A high 10
 - Its 30m: A low 10, maybe 11
 - Its 25m: A high 8

Compound/Recurve
12mm sight 75cm from eye
14mm sight 87.5cm from eye

Cheat systems

Barebow/Trad/AFB/Longbow
12mm object 60cm from eye
14mm object 70cm from eye

- Systems are based on ratio below
 - To calculate the distance to the target, you simply need to know the distance that your sight covers; which can be done by counting the rings.

Sighted: Max unmarked distance is 55m

- Stand at 50m, set sight to cover 10 rings on an 80cm face
- Stand at 25m, set sight to cover 10 rings on a 40cm face

To calculate distance, count the rings, and multiply depending on face size:

- 80cm = rings x 5
- 60cm = rings x 3.75 or... rings x 4 then subtract 2 !!
- 40cm = rings x 2.5

Un sighted: Max unmarked distance is 45m

- Stand at 40m, set sight to cover 10 rings on an 80cm face
- Stand at 20m, set sight to cover 10 rings on a 40cm face

To calculate distance, count the rings, and multiply depending on face size:

- 80cm = rings x 4
- 60cm = rings x 3
- 40cm = rings x 2

Eye \Rightarrow sight / sight width == Eye \Rightarrow target / target width

Eye \Rightarrow target = target width X Eye \Rightarrow sight / sight width



Cheat systems

Recurve

- 80cm face, 6 rings = 6 x 5 = 30m



Barebow

- 60cm face, 6 rings = 8 x 3 = 24m

