

# Some essentials for good recurse technique

Dr James Park

# My recurve credentials

- 90 m 1440 round: 1311
- 60 m 900 round: 848
- 18 m indoor round 297
- Twice Australian open age group recurve champion
- Coach, 2012 Olympic Games
- Coach, 1979 World bronze medallist

# Objective

- Cover the essential aspects of good recurve technique that I look for when watching archers
  - Elite recurve technique is simply excellence with those basic elements

# Body position

- A relaxed body position, with head upright
  - Stand at ease
  - Shoulders in their lowest position
  - Head turned towards the target

# Bow arm

- Bow arm by your side, raise your arm without rotating the humerus
  - Keep your shoulder down
  - Your palm should be open towards the ground
  - If you flex your elbow, your forearm should be approximately horizontal

# Bowhand

- Without rotating your arm, turn your hand to that the knuckles are at 45 degrees from vertical
  - The pressure of the bow should be on your thumb muscle
    - Not on your palm
  - Usually, the 2<sup>nd</sup> thumb metacarpal will be pointing directly at the target

# Drawing arm and hand

- Your drawing arm wrist must be straight
- The back of your drawing hand must be flat

These are very important!

- Otherwise you will be using your wrist and finger flexor muscles to help with the clicker, which is very tiring and inconsistent

# Drawing the bow - safety

- At no time during the draw can the arrow be aimed higher than it would be at full draw
  - Safety requirement!
- Similarly, it cannot be aimed to the side of the target during the draw
  - Another safety requirement!
- These are assessed by the judges, not you, and if unsafe must be corrected for the next shot, or you must stop shooting!



# Drawing the bow

- We want to draw the bow using only the muscles needed to hold it at full draw
  - That is: not the drawing arm biceps or triceps
- That means that we need to keep the drawing arm elbow on the line of force during the draw (and at full draw)
  - The line of force is the line between the contact point between the bow hand and the bow, and the drawing hand middle finger
- We can do this if we start with the bow arm shoulder joint in the full draw position and the arrow horizontal at about eye level



Kim Woojin, World Cup 1, 2015  
Three times World Champion (2011, 2015, 2021)

# During the draw

- Start with the bow hand in the correct position
  - And do not move it during the draw
- Bowarm shoulder in the correct position
  - Good technique and minimises injury
- Draw the string to your head
  - That is, do not move your head towards the string or tilt your head to contact the string
  - If you move your head during the draw, you will get a lot of draw length variation and lose a lot of score through variable bow cant angle!

# At full draw

- The rear sight:
  - “Bone on bone” or “shelf on bone” vertically
  - String alignment laterally

# Alignment

- Use bones as much as possible, and muscles where you must
  - Bowhand wrist joint directly under the arrow
  - Minimal clearance between the string and bow arm
    - Rotate your chest to minimise the clearance
  - Drawing arm elbow joint on the line of force

# Clicker use

- Must be initiated by the major muscles
- Never by the drawing arm muscles
- The release needs to be subconscious following the clicker
- And, all that time:
  - Keeping the sight in the correct place!
  - Maintaining the string alignment

# The release

- “Stop holding the string” as distinct from “let the string go”
- The only change in muscle use should be relaxing the drawing arm finger flexor muscles (subconsciously)
  - It is exactly the same for barebow recurve and longbow, but much more challenging without the clicker!

# Follow through

- The follow-through shows the muscle use at the time of release
  - Hence: ‘fix the muscle use”, not the follow-through
  - That is: fix the fault, not the symptom
- If the muscle use is correct, it is not possible to keep the sight aligned with the target after the arrow leaves the string
  - For right handed, it should go down and to the left
  - I make no attempt whatsoever to keep the sight aligned with the target after release as that would mean pre-empting the release and a major loss of accuracy
- The drawing arm wrist joint should stay straight
  - Any flex after release indicates arm muscle use to operate the clicker