

World Archery Coaching Manual for entry level

Glossary of Terms:

Actual draw length: The personal draw length of the archer measured at full draw, from the bottom of the slot in the nock to the pivot point of the grip plus 1 3/4 inch, which is on most of the bow the back edge (far side) of the bow.

Actual arrow length: The personal arrow length of the archer, measured from the bottom slot of the nock to the end of the shaft (this measurement does not include the pile); with this end of the shaft at 1 inch in front of the vertical passing by the deepest point of the bow grip.

Actual draw weight: The energy required to draw the bow to the actual draw length (measured in pounds).

Anchor point: A location on the archer's face to where the string hand comes to rest at full draw, to give consistency to shooting. Also known as "reference point".

Arbalest: A mechanically hand wound crossbow.

Arbalest: A person who shoots a crossbow.

Archer: A person who shoots a bow and arrow.

Archer's paradox: The initial stages of flight in which the arrow flexes to clear past the bow.

Arm guard: Protects the arm from the bow string; usually leather or plastic and worn on the inside of the forearm.

Arrow: A projectile shot from a bow.

Arrow plate: An attachment on the side of the bow to give single point contact to the arrow and provide smooth arrow passage. Not in common use today.

Arrow rest: A device on the bow to provide a contact point; also a resting point, or shelf to support the arrow

Arrow shelf: A horizontal projection from the bow window upon which the arrow can lay in the absence of an arrow rest.

Arrow straightener: A mechanical device used to detect and eliminate bends in aluminium arrows.

Back (of bow): The side of the bow facing

away from the archer, when holding up the bow.

Bare shaft: An arrow shaft without fletchings.

Bare-bow: A class of shooting where the bow has a single string and the bow is held with one hand and the string is drawn and released with the fingers of the other hand. No sighting marks or protruding stabilisers are permitted.

Barrelled arrow: An arrow that has a greater cross section in the middle and tapers down at both ends.

Basic technique: The fundamental technique of shooting a bow and arrow. Usually the style taught during the introduction to archery, forming the basis for consistent shooting.

Bast: This is a coil of twisted straw that is behind the target face and to which the face is attached.

Belly (of bow): The surface of the bow facing the archer during shooting. Also known as the "face" of the bow.

Black: The fourth scoring colour on the target face.

Blue: The third scoring colour on the target face.

Blunt: Pile – such as used for Popinjay or shooting small game. Arrow point that is not tapered.

Bobtail arrow: An arrow that has the greatest cross section at the front of the arrow and tapers down toward the back.

Bodkin: A type of arrow head used in ancient times for penetrating armour.

Body alignment: The relationship of the archer's legs, hips, trunk, and shoulders to be lined consistently towards the target.

Boss: This is a coil of twisted straw that is behind the target face and to which the face is attached.

Bouncer: An arrow that hits and bounces back off the target scoring zone instead of remaining in the target.

Bow arm: The arm that supports the bow.

Bow efficiency: The ratio of kinetic energy received by the arrow to that stored by the bow.

Bow hand: The hand that supports the bow.

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Bolt: The missile-like shaft that is shot from a crossbow.

Bow scale: A device that measures the draw weight of a bow .

Bow sight: A device attached to the bow and assists the archer in aiming.

Bow sling: A strap attached to the bow through which the archer slips the bow hand, thereby preventing the bow from being dropped upon release.

Bow square: A measuring device that can be attached to the bowstring which lies on the arrow rest, to measure the bracing height and nocking point location. Also known as string gauge or bow gauge.

Bow string: The string of a bow usually made of synthetic material with two looped ends.

Bow stringer: A device an archer uses to assist in stringing the bow.

Bow window: The cut out section on the arrow side of the bow to allow the arrow to pass through or near the centre line of the bow.

Bow: A long object being bent with a string placed from one end to the other holding the object bent and under tension and projects an arrow on release.

Bowyer: A person who makes or repairs bows.

Braced: A bow that has had a string fitted ready for shooting.

Bracer: Protects the arm from the bow string; usually of leather and worn on the inside of the forearm of the arm that holds the bow.

Bracing height: The distance between the string and pressure point (or the place indicated by the manufacturer) when the bow is strung.

Broadhead: A multi-edged sharp arrow point used in hunting live game.

Bull's-eye: The area on the target face with the highest scoring value.

Butt: A device onto which the target face is placed and which stops the arrow so that the arrow value can be scored.

Button (pressure): A device that fits to the bow and protrudes just above the arrow rest which can be adjusted to assist in obtaining true

arrow flight. Also known as plunger button.

Cam: wheel like devices mounted on the limb tips of a compound bow, used to decrease the amount of weight held on the bow string at full draw.

Cant: To hold the bow tilted off vertical while shooting.

Cast: The ability of the bow to propel an arrow and the degree of efficiency with which this is achieved. Denotes the speed of the limbs in discharging the arrow.

Centre serving: The serving on the central area of the bow string which protects the bow string from wear.

Centre shot: A bow which is designed to allow the arrow to take a position central to the limbs.

Chest guard: A protective device that covers the side of the archer's chest that is nearest to the bow which keeps clothes out of the path of the string during shooting.

Clicker (draw length check): A device attached to the bow which gives an audible indication when the arrow has been drawn to the desired draw length.

Closed stance: A shooting stance where the line of the shoulders is more than 180 degrees taking a line from the shooting position to the centre of the target. A clockwise turn of the feet position for RH archer, and vice versa.

Coach: A tutor or teacher of sporting activities.

Cock fletching: The fletching on the arrow at right angle to the slot in the nock. This fletching is usually a different colour to the other two fletchings.

Composite bow: A bow that consists of different laminated parts or materials.

Compound Bow: A bow where the string is attached to pulleys, wheels, or cams in order to increase the kinetic energy when the bow is being drawn.

Course: The range on which archery rounds are shot.

Creep: Letting the drawing hand edge forward before release.

Cresting: Painted rings just in front of the fletchings for decoration or identification.

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Cross hair: A sight which has two fine lines that cross at right angles; the intersection of the lines is used for lining up on the given aiming point.

Crossbow: A bow that is fitted with a stock, and is shot similar to a rifle.

Deflexed riser: A riser with ends slightly bent towards the archer, built-in during construction, for smoother draw.



DFL (draw force line): This is the line between the pressure point of the hand on the bow, the string fingers, and the drawing elbow.

Director of shooting: The judge in charge during a tournament.

Dominant eye: The eye which is dominant while aiming with both eyes open. This is physiologically determined. The majority of people are right eyed dominant.

Draw: The act of pulling back the bow string thus storing energy in the bow.

Draw (Flemish): The use of only the index and second fingers to draw the bow, the index finger above the arrow and the other beneath the arrow.

Draw (Mediterranean): The use of the first three fingers to draw the bow, the index finger above the arrow with the other two below the arrow.

Draw (Thumb): The use of the thumb around the string just below the arrow. The thumb is locked in position by closing the index finger round the end of the thumb. The arrow would be on the same side of the bow as the hand that is drawing the string.

Draw weight: The force required to draw the bow, measured in pounds, drawn to the anchor point.

Draw: To energise the bow by pulling the string.

Draw-force curve: The curve as charted with the increase of weight during the draw being one axis, and the measured draw length being the other axis.

Drift: Caused by a slight breeze where the arrow flight path wanders slightly left or right

during its travel to the target.

Drop away rest: An arrow rest/launcher that drops away clearing the path for the arrow as the bow string is released. (Mainly used on compound bows).

Dry-fire: release of the string without the normal discharge of the arrow.

Eccentric pulley or wheel: A cam like wheel mounted on the limb tips of a compound bow, used to decrease the amount of weight held on the bow string at full draw.

End: A specific number of arrows shot before the archers go to the target to score and collect their arrows. Usually three or six arrows per end.

Fadeout: The point where the non-working part of the limb that connects to the riser fades out to the working part of the limb.

Field archery: A type of archery round shot outdoors in an undulating wooded area with targets of varying sizes and of varying predetermined distances. The archers walk from target to target.

Field captain: A person controlling the shooting along all or part of the shooting line, and responsible to the judge.

Field point: An arrow point that is usually heavier than a target point and with the diameter of the front end smaller than the arrow shaft.

Finger tab: A piece of leather worn on the drawing hand to protect the fingers and give a smoother release to the string.

Finger sling: A piece of leather, plastic or rope looped at each end through which the archer slips the thumb and finger after taking hold of the bow, permitting a loose grip on the bow. It also prevents the bow from being dropped upon release.

Fishtailing: A horizontal left/right motion of the nock of an arrow during its flight to the target.

Fistmele: The distance between the bow grip and string when the bow is strung as measured by the closed hand with the thumb extended. The measurement is made between the width of the clenched hand and the extended thumb. Measured by a fistmele gauge, also known as

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bow square or bow gauge.

WA standard arrow: An arrow not exceeding the diameter of 25/64 of an inch (9.4mm) with a specification of the XX75 alloy or its equivalent.

WA standard bow: A basic one piece or take down bow with wood and or glass fibre limbs. It can have a simple sight and a non-adjustable arrow rest. The tab or finger protection must exclude any form of stiffening or locating platform. The un-braced bow complete with its accessories must be capable of passing through a hole of 12.2cm diameter.

WA Star: A special tournament run under FITA rules at which an archer may win a FITA Star award. These are awarded to archers achieving a score for the first time in the following category – 1000 (star), 1100 (star on black shield), 1200 (Star on blue shield), 1300 (star on red shield), 1350 (star on gold shield) and 1400 (star on purple shield).

WA: Fédération Internationale de Tir à l'Arc. The international governing body of archery.

Flemish twist: A method of assembling a bow string end loops by twisting the material similarly to that of making a rope. It eliminates the use of "serving" the string loops.

Fletching jig: A mechanical device that is used for accurate and consistent fletching of arrows.

Fletchings: The feathers or plastic vanes fitted to the arrow.

Flight archery: Shooting for maximum distance for the type and weight of bow being used.

Flinch: To move either the bow or release arm just prior to the release, usually caused by anticipating the clicker or fear of hitting the arm.

Follow through: The backward movement of the drawing hand after the release has been executed.

Foot markers: Small objects placed in the ground to mark the place where the individual places the feet to assist with consistency of stance.

Footing: A hardwood section that is spliced onto the front of a wooden arrow shaft to give extra strength and durability.

Freestyle: A class of shooting where the bow has a single string and the bow is held with one

hand and the string is drawn and released with the fingers of the other hand.

Freeze: A shooting flaw where the archer aims outside of the gold (bull's eye) and cannot move the sight aperture into the centre. Also, an inability to release an arrow. A psychological shooting problem.

Full draw: The position reached when the string has been pulled back to the anchor point (reference point) prior to the release.

Gold: The first (centre) colour of a target face.

Grain: A very small measure of weight for arrow components (1 gram = 15.432 358 353 grains).

Ground quiver: An arrow holder that sits on or sticks into the ground; may also hold a bow.

Group: The pattern of an archer's arrows as they appear on the target.

Handle: The centre section of a bow also called the "riser".

Hanger: An arrow that does not penetrate the target but hangs down the face.

Heeling (the bow): A term used when the archer puts the majority of pressure on the lower part of the palm (with the heel of the hand) when at full draw.

Holding: Maintaining a steady bow position at full draw during aiming.

Hen fletchings: Fletching other than the index fletch. Sometimes called the shaft fletchings.

Index fletching (Recurve): The fletching that is mounted on the arrow that is situated at right angle to the nock slot (as for archers shooting off the fingers).

Index fletching (Compound): The fletching that is mounted on the arrow that is situated in-line to the nock slot (as for archers shooting a compound bow using a release aid and arrow launcher).

Instinctive: A method of shooting in which no aiming method is used. The archer just looks at the target and shoots.

Judge: The person responsible for the application of the rules of shooting during a tournament.

Kisser button: A small disc, or similar, which is

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fitted to the bow string and is drawn to the lips, or other reference point before loosing (releasing).

Kyudo: The traditional Japanese form of archery.

Laminate: A bow laminated from two or more kinds of wood or other synthetic materials.

Launcher: An arrow rest where the arrow rests on top of a pronged extension just under and inline with the arrow. Can be spring loaded or drop away.

Left hand archer: An archer who holds the bow in the right hand and draws with the left hand. Aims with the left eye.

Left hand bow: A bow with the window cut out on the right hand side when viewed from bow's string side.

Let down: When drawing the bow; it is to return to the pre-draw position without releasing the bowstring.

Let-off: The weight reduction of 65% or 80% from the peak weight to the holding weight on a compound bow.

Level: A bubble device attached to the sight to help the archer maintain a vertical bow position. Very common on compound bows, not permitted on recurve bows.

Limbs: The parts of a bow that bend when the bow is drawn and gives the propelling force to the arrow.

Longbow: A traditional bow popular in England in the middle ages, usually 6 feet or more in length and made of Yew wood or similar.

Loop: The woven or served eyes at the ends of a bow string that fit into the notches at the tip of the limbs when the bow is strung.

Loose: The action of the hand at the point of release.

Low wrist: A bow hand position where the hand is flat against the bow grip and the pressure during the draw is in line through the forearm bone.

Mark: The precise place the archer is aiming to hit.

Mat: A device onto which the target face is placed and which stops the arrow so that the

arrow value can be scored.

Mass weight: The weight of any piece of equipment placed on a weighing scale; usually used in reference to the bow.

Minnowing: Similar to "fishtailing" but the movements are less severe but much faster.

Monofilament: A single strand material which is used for the centre serving on the string.

Nock locator: A locator on the bowstring against which the arrow nock is placed.

Nock: This is a device fitted to the back of the arrow that has groove in it which fits onto the string. Also, it is the grooves at the extreme ends of the limbs in which the loop ends of the bow string fit.

Nocking point: The marked place on the bowstring where the arrow nock is placed before drawing and releasing.

Open Stance: A shooting stance where the line of the shoulders is less than 180 degrees taking a line from the shooting position to the centre of the target. An anti-clockwise turn of the feet for RH archer & vice versa.

Over bowed: Using a bow that is too strong for the individual.

Over braced: A bow that has a bracing height greater than the manufacturers' recommendation, or a bow that is fitted with a string too short for optimum and safe performance.

Over draw: A device fitted with an arrow rest that protrudes inside of the bow allowing for shorter arrows to be used. Sometimes used on compound bows.

Overdrawing: To pull the string further back than optimum, at full draw and may cause limb failure.

Pass through: An arrow that hits the target but passes right through.

Peak weight: The highest weight achieved during the drawing of a compound bow.

Peaking: A shooting flaw where-in the archer moves the head at release to watch the flight of the arrow.

Peep-sight: A plastic or metal device attached to the string and has a small hole which the

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archer looks through to line up the front sight with the target. Also, required to give clarity to a magnifying front sight in compound shooting.

Perfect end: An end in which all arrows land in the highest scoring zone.

Petticoat: An outer, un-scoring area, on some target faces where the target pins are placed to hold the face on the target mat. Also known as the "Skirt".

Pyle: (Also spelt pile). The metal tip attached to the head of the arrow shaft. Also known as the arrow point.

Pinching: Squeezing the arrow nock with the fingers whilst at full draw.

Pin-hole: The exact centre of the gold ring in the target face that are used in competitive events.

Plucking: A shooting flaw in which the string hand is pulled out and away from the anchor point (reference point) at the moment of release.

Point: The metal tip attached to the head of the arrow shaft. Also known as the "Pyle".

Point of aim: This is the place or the object at which the archer aims, when they sight over the tip of the arrow. This may be above, below or on the target or on the ground, depending on the distance of the target and the cast of the bow.

Poker: A colloquial name for a long rod stabiliser.

Popinjay: A type of archery where the target (birds) is placed on mast, the archers stand under the mast and shoot upwards to knock the "birds" of the perch.

Porpoising: The up and down movement of an arrow in flight, usually caused by a wrongly positioned nocking point.

Powder pouch: A container for talcum or similar powder often used to dry an archer's hands or applied to the finger tab for a smoother release.

Practice bow: A bow with a light draw weight, usually used when teaching beginners.

Prep-line: A position the archers take prior to raising and drawing the bow for shooting.

Pressure button: A device that fits to the bow

and protrudes just above the arrow rest which can be adjusted to assist with obtaining true arrow flight.

Pressure point: The place on the bow grip where the hand pressure is located when at full draw.

Pull: To remove arrows from the target

Quiver: A holder for arrows that may be worn by the archer or placed on the ground. This may also be mounted on a hunting bow.

Range: The distance to be shot.

Range: The place where shooting takes place.

Rebound: An arrow that hits and bounces back off the target instead of remaining in the target scoring zone.

Recurve bow: A bow with limbs tips that are curved forward, away from the archer.

Red: The second scoring colour on the target face.

Reference point: A location on the archer's face to where the string hand comes at full draw to give consistency to shooting. Also known as "Anchor point".

Reflexed: A riser or bow limbs that curve away from the archer (convex).



Release: To allow the bow string to leave the fingers.

Release aid: A mechanical hand-held device that attaches to the bowstring and used to draw and release the string minimising the string deflection on release.

Right hand archer: An archer who holds the bow in the left hand and draws with the right hand. Aims with the right eye.

Right hand bow: A bow with the window cut out on the left hand side when viewed from bow's string side.

Riser: The centre section of a bow onto which the limbs are attached.

Round: The number of ends shot at designated distances and sizes of targets to obtain a standard score.

Roving: A form of shooting in open country where the archer shooting nearest to the mark

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will select the next mark to aim at, such as a tuft of grass, tree stump, or patch of bare earth etcetera.

Self: A bow or arrow that is made from a single piece of wood, thus they are called self bows or self arrows.

Serving tool: A mechanical device to assist in winding serving material onto the bow string.

Serving: Thread wrapped around the bowstring at its centre and on the loops to protect the string and reduce wear.

Shaft fletchings: Fletching other than the index fletch. Sometimes called the hen fletchings.

Shaft size: An identification code given to a particular arrow size and properties to allow matching with the bow weight in use.

Shaft: The main body of the arrow; un-fletched arrow tube or solid wood.

Shake: A crack running with the grain in a bow stave.

Shooting glove: A partial glove with three fingers to protect the drawing hand fingers and to ensure a smooth release of the bow string. Usually for hunters.

Shooting line: A line marked parallel to the targets from which the archers shoot.

Sight bar: The vertical part of the bow sight to which the aperture assembly is attached.

Sight block: The moveable portion of the bow sight which holds the sight pin.

Sight extension: A bar that allows the bow sight to be extended away from the bow toward the target.

Sight pin: The part of the bow sight that is superimposed on the centre of the target during the act of aiming.

Sight window: The recessed area on the riser just above the grip.

Sight: Any device mounted on the bow that allows the archer to aim directly at the target or mark.

Sighters: Practice arrows shot prior to a tournament commencing.

Sipur: An extension which is fitted to a bow to

enable a short arrow to be used (usually used in flight shooting).

Six gold end: A perfect end of six arrows (all in the gold/bull's eye).

Skirt: An outer, un-scoring area, on some target faces where the target pins are placed to hold the face on the target mat. Also known as the "Petticoat".

Sling: A strap attached to the bow through which the archer slips the bow hand, thereby preventing the bow from being dropped upon release.

Snap shooting: Shooting without pausing to aim carefully.

Spectator line: A line clearly marked over which spectators must not pass.

Spine: The measured deflection of an arrow shaft established by hanging a specified weight (880 grams) from its centre whilst being supported at both ends across 28". A measure of the stiffness of arrows.

Springy rest: A small spring with an arrow rest extension and substitutes for a Pressure button.

Stabiliser: A rod and weight assembly mounted on either the face or back of the riser to help eliminate torque of the bow around its axis upon release.

Stacking: A rapid disproportionate increase in draw weight in the last few inches when drawing some (usually older) recurve bows.

Stance: The physical standing alignment of the body in relation to the target in preparation for shooting.

Stave: A wood blank that a bow is fashioned from.

Stock: The main part of a crossbow which houses the trigger mechanism and to which the bow prod is fixed.

String alignment: The relationship between the bowstring and the sight aperture.

String fingers: The fingers that hold the bowstring when shooting a bow.

String gauge – see bow square /fistmele gauge.

String hand: The hand that pulls the string.

String height: The distance between the string

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and pressure point (or the place indicated by the manufacturer) when the bow is strung.

String jig: A mechanical device on which bow strings are made.

String loop: The part of the string that fits over the nocks at the end of the bow limbs.

String walking: A style of shooting where the archer moves the position of the string fingers on the string to adjust the vertical displacement of the arrow. No bow sight is permitted when this method of shooting is being used.

String: The string of a bow usually made of synthetic material.

Tab: A piece of leather worn on the drawing hand to protect the fingers and give a smoother release to the string.

Tackle: Archer's equipment.

Take down bow: A bow that is assembled out of a riser and separate limbs to make a complete bow.

Target archery: A competitive round shot at fixed distances in an open field.

Target Captain: The person at each target during a tournament designated to call the scoring value/or recording all arrows on that target.

Target face: The cloth or paper or cardboard scoring area mounted on the target butt.

Target panic: The inability to hold the sight on the gold/bull's eye long enough to steady the bow sight and aim before release.

Target Stand: A prefabricated structure which holds the target butt in the designated correct position.

TFC: Torque Flight Compensator; an adjustable flexible coupling fitted between stabiliser rods and the riser to damp down vibrations.

Thumb ring: A ring that fits onto the thumb with a small raised section that holds the string during the draw. Mainly used in the eastern and Asian countries in traditional archery.

Tiller (static): The difference of the measurements between a given point on the top & bottom bow limbs and the bow string. Most bows now have adjustable limb bolts that assist in adjusting the tiller measurements. Usually 4-

9mm more at the top limb measurement.

Timber hitch: Traditionally the knot which is used to form the second loop on a string which has been manufactured with one loop. Such as a longbow string.

Tip: The extreme end of the narrow part of the limbs.

Torque: A rotation of the bow about its axis upon release of the bow string.

Toxophilite: One who takes part in the sport of archery.

Toxophilus: The title of the first book to teach the art of archery, written in 1544 by Roger Ascham who was the archery coach to Queen Elizabeth 1st of England.

Toxophily: The sport of archery

Trajectory: The curved path an arrow follows during its flight to the target.

Tuning: Adjustments made to the bow and arrow set-up, to achieve the truest arrow flight possible.

Under-bowed: An archer shooting a bow that is too weak for the task being undertaken.

Under-draw: An archer who does not draw the bow to its full potential.

Under-strung: A bow with a string too long resulting in a low bracing height and reduced efficiency.

Unit aiming: Maintaining the relationship of the body's shooting line while adjusting the elevation needed from the waist or hips.

Upshot: The final shot in an archery tournament.

Valley: The point of the lowest holding weight reached at full draw on a compound bow.

Vane: A feather or plastic fletching fitted to the arrow.

Waiting line: A line parallel to the shooting line where the archers, about to go to the shooting line, must not cross until given the signal to do so.

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Wand: A piece of wood, 6 feet long, and 2 inches wide, that is driven vertically into the ground serving as a shooting mark. Traditional ancient shooting of "splitting the wand", at 100 yards.

Wax: Bee's wax is traditionally used to seal the bow-string preventing excessive moisture being absorbed. It also binds the string fibres together and lubricates the loop ends.

Weight: The force required to draw the bow, measured in pounds to the specified draw length.

Whip-ended: A description of a bow where the limbs are too weak in the tip area.

White: The fifth scoring colour on the target face.

Windage: Horizontal correction of the bow-sight adjustment to compensate for wind drift.

Wobble: An erratic motion of an arrow in flight.

Wrist sling: A strap that wraps around the archer's wrist and the bow, thereby preventing the bow falling to the ground during release.

Yaw: An arrow's erratic motion during flight.