

# LIZARD PENINSULA BOWMEN

## EDITORIAL

What a wet and miserable start to the outdoor season we have had. It's not all doom and gloom though, we have had two 'have a go' sessions at the field both with great attendance. Lots of people turned up and we have so many interested that the beginners courses in October will be busy. I would like to take this opportunity to thank all who turned up to help at both taster days, however, it does always seem to rely on the same individuals so please if you have the time we would love to have more club members to help out.

The second taster was a first for the club having members camping at the field overnight, what a good time we had! You'll have to read further to find out what happened.

Gweek village Quiz night went very well, the Archery club entered 4 teams who all performed well on the night. The winning team was 'Fluff and Sparkle' captained by Diane. Well Done to all members who took part.

The AGM meeting is in October (date to be arrange) I would like to stress how important it is for club members to attend.

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## BASIC TUNING OF A RECURVE BOW BY DAVID HILL

No matter how good your shooting technique, if your bow is not correctly tuned you will not achieve the full potential of your equipment. A correctly tuned bow will be far more forgiving of minor errors and your grouping will tend to be much tighter.

There are several different adjustments needed which should be done in the correct order or one problem can mask another:

- i.e.
- 1) correct arrow spine
  - 2) bracing height
  - 3) nocking point
  - 4) centre shot
  - 5) button pressure

### Arrow Spine:

One of the peculiarities of finger-release archery is that the arrow does not leave the bow in a straight line; it actually bends under the pressure of the string, curving around the riser then flexing the other way as it leaves the bow.

This oscillation should rapidly damp down in flight until it approximates to a straight line.

Because of this, the 'spine' or stiffness of the arrow is critical and should be matched to the draw weight of the bow. The stronger the bow the stiffer the arrow needs to be to resist the bending effect of the released string. If the arrow is too flexible it will bend too much and 'fishtail' in flight and be erratic. Conversely an arrow which is too stiff will push hard against the riser and be deflected and the fletching's may also slap the riser in passing. Arrows are marked with an indication of their spine, but just to make things more complicated different types of arrow use different calibration systems. For example, aluminium arrows use a 4 digit code, the first two numbers representing the diameter of the arrow in 64ths of an inch and the second two the thickness of the metal in thousandths of an inch.



## BASIC TUNING OF A RECURVE BOW continued



Both these factors will influence the stiffness; so for example, a broad arrow with a thin wall may have the same spine as a narrower arrow with a thicker wall. e.g. an 1816 arrow has a similar spine to a 2112. Confused? Never mind, if you buy direct from a reputable dealer the simplest thing is to ask them to supply the correct arrows for the draw weight of your bow and the length of the arrow you require. Alternately you can search Google for 'arrow spine chart', and work it out for yourself, there are several charts available online.

Small aside about arrow length: Normally the correct length for an arrow is such that there is about  $\frac{3}{4}$  inch protruding in front of the arrow rest at full draw. However if you are a relative novice, for your first set of arrows it's worth getting a set at least 2 or 3 inches longer than this as your draw length will tend to increase as your technique develops – 'overdrawing' can cause the arrow tip to pull inside the rest and drop as you loose and can result in serious injury to the hand gripping the bow. It's Safer to have arrows that are too long than too short. Another small aside about arrow types: The main types of arrow with some variations are: aluminium, aluminium-carbon and pure carbon. Aluminium arrows are relatively cheap and tough. Even if bent they can often be straightened (the club has an arrow straightener). They are the obvious choice for a novice who will not gain any benefit from the more expensive types until their technique has developed considerably. Experienced archers often use aluminium arrows for indoor shooting as they have a wider diameter giving a slight advantage when scoring 'line cutters'. They are also more expendable being cheaper, as arrows are more likely to be damaged on the crowded indoor targets.

Pure carbon arrows are stiffer therefore thinner and have less wind resistance. This can give an advantage outdoors especially over the longer distances. However they are expensive and rather fragile. They are prone to damage and can give nasty splinters if the carbon fibres start to delaminate. They are also very difficult to find in the grass as they do not give a good signal for a metal detector. Aluminium-carbon are a good compromise combining some of the stiffness of carbon with the more robust and metal-detectable characteristics of aluminium.

**Bracing Height:**

This is the distance between the string and the pivot point of the bow, (usually the button position). A bow manufacturer will recommend a bracing height for a particular model of bow and it will vary slightly depending on the length of the limbs used. (The overall length of a recurve bow is usually 66, 68 or 70 inches.) The bracing height is measured using a bow square.

If you don't know the bracing height for your particular bow then start with a distance of 22cm from string to button position, then experiment. The height is determined by the length of the bow string, the shorter the string the bigger the brace height. A bow string should always have some twists in it and small adjustments can be made to its length by having fewer or more twists. If all the twists are taken out and the brace height is still too high you need a longer string, conversely if your height is still too small after 25-30 twists then a shorter string is required.

Generally the best brace height is the one that produces the quietest action when the arrow is released - experiment.

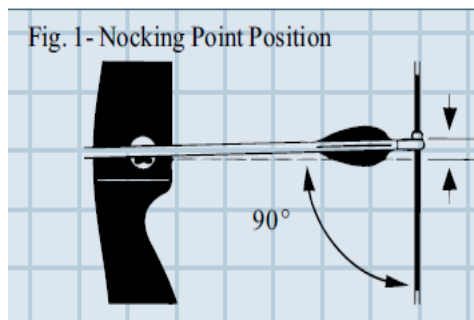


## BASIC TUNING OF A RECURVE BOW continued

**Nocking point:**

Rough tune: - position the nocking point about 10mm above the line which is at right angles to the arrow rest. (Use a bow square for this).

The reason why the nocking point needs to be slightly high is to allow the fletchings to clear the arrow rest on leaving the bow. Brass nock locators can be easily moved by gently opening up the crimp then rotating them on the serving which acts like a screw thread so you can twist the locator up and down. Gently squeeze together again when at the correct position.

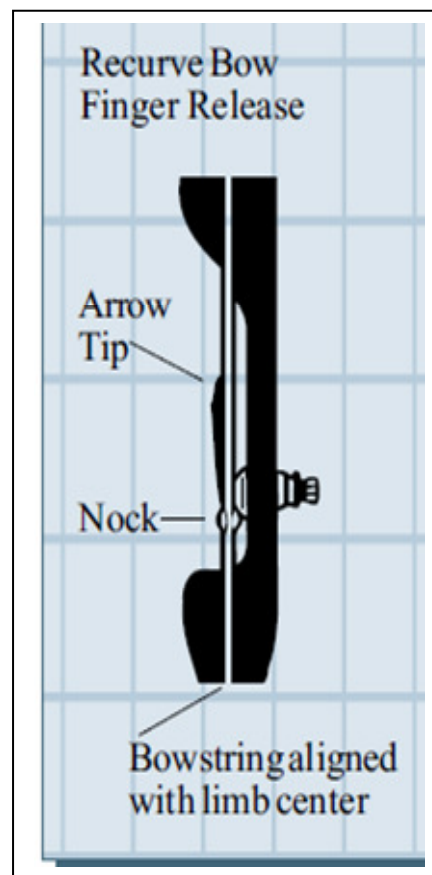
**Centre shot:**

(can only be adjusted if bow is fitted with a 'button')

This is the side to side alignment of the arrow, it can be adjusted if your riser is fitted with a 'button' next to the arrow rest. The side of the arrow rests against the end of the button plunger, so by screwing the button in or out, the arrow can be made to point further left or right. (Reverse in a left handed bow). To adjust this correctly, support the bow in a vertical position, (a 'workmate' DIY clamp bench is ideal for this.)

Place an arrow in the bow correctly nocked onto the string and on the arrow rest against the button. Now stand behind the bow. Move your eye side to side to line up the string with the exact centre of the limbs then sight down the arrow from slightly above and see how the tip of the arrow lines up with the string. The correct position is when the tip of the arrow appears about 1/8th inch outside the string (i.e. to the left for a R hand bow and vice versa for a left hand bow).

Note: having too little gap is more of a problem than too much, or worse having the arrow lining up the wrong side of the string, this will destabilize the flight severely.



(Drawing's from the Easton arrow website)

## BASIC TUNING OF A RECURVE BOW continued

**Fine Tuning:** For this, your technique will need to be good enough to be able to produce consistently tight groups. You will also need to have at least one of your arrows with no fletching's – a 'bare shaft'.

This method can fine tune the nocking position and the arrow spine -

Stand about 10yds from a target and shoot a group of arrows at the centre.

Then shoot a bare (unfletched) shaft at the same point. Look at where the bare shaft lands. If you only have the one bare shaft repeat this a few times to be sure the result is consistent.

First look at whether the bare shaft landed above or below the fletched group. If above then the nocking point is too low. Make a small adjustment and try again. Similarly if the bare shaft lands too far below the group the point is too high and needs adjusting down. The ideal is for the bare shaft to land just below the group. This means the nocking point is high enough to allow clearance for the fletching's at the arrow rest.

Now consider whether the bare shaft landed to the right or left of the fletched group. This will depend on the effective spine of your arrow, if it is too stiff the arrow will go to the left of the group, if too flexible then it will go to the right. You will probably have noticed the button cushion end is spring loaded. The spine of the arrow can be compensated by altering the spring loading pressure, check your button instructions to see how this is done, (often with an Allan screw on the other end).

Stronger spring pressure effectively increases spine, a weaker spring loading reduces it. If the bare shaft has gone to the right then the arrow spine is effectively too flexible, so gradually increase the spring pressure to compensate.

Similarly, if to the left, reduce the spring pressure to compensate.

(If adjusting the button is not enough to compensate then you need to look at getting differently spined arrows)

Once this is set up within close limits then repeat the operation at 20 yds and fine tune. At this distance try and get the bare shaft to hit about three inches below and three inches to the left. For some reason most bows will group more tightly if set up slightly stiff.

(Remember if shooting a left handed bow, reverse all the lefts and rights above).

So there you are. This may sound a little complicated but actually only scratches the surface; there is also walk-back tuning, pile and nock weights, string thickness, nock locator weight, tiller, forward-of-centre balance and many other factors. Not to mention that if you shoot a compound bow with a release-aid almost none of the above applies. However all this is part of the fascination of archery. There are many good books on the subject and you can follow it as far as your interest and competitive instincts take you.

When all's said and done there is as much art as science in archery. A longbow has wooden arrows of dubious and variable spine, no arrow rest, no button and a rubber band for a sight but I have yet to see a long bow archer who didn't enjoy their sport enormously, and that surely is the important thing.



## Fitting Archery in Whilst Taking GCSE's

By Treve Stock

My name is Treve and I joined Lizard Peninsula Bowmen in 2007 after going along to a 'Have A Go Day' at Garras. Mum and I enjoyed the day and booked onto the next beginner's course, we then both joined the club, my dad then started coming along followed shortly by my brother too.

After about 3 years I was finding my commitment to the Air Cadets, whose training sessions clash with archery practices and with GCSE studies taking up a fair amount of my time I decided to give archery a break for a while and packed away my bow and equipment.

I was discussing my GCSE PE with my teacher and it was suggested that it may be a good idea to include a personal sport in my course work, I told the teacher about my archery experience and she said it would be worth some extra points, so that's why I'm back!!

I've found it quite difficult to pick up the sport again, I can only shoot once or twice a week and often have sore shoulders etc from all the sports and things like night exercises with the Air Cadets.

I am enjoying the social aspect of the sessions!

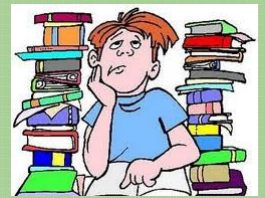
When I leave school I will carry on at Camborne College and complete the 3rd year of the BTEC Public Services Diploma that I have been doing for a year and a half and then probably take an engineering course with the intention of joining the RAF Engineers as an Officer.

With the Air Cadets I have the opportunity to fly gliders and also go up in a Tutor which was really exciting as we did some aerobatics. I have been up in a Jetstream and in the Merlin Simulator at Culdrose. I have been shooting using the L98A2, L39 and the 22 rifles which are slightly different to shooting a recurve as I don't have to go and collect the arrows!

I was promoted to Corporal in July 2010 and have just passed my Junior NCO course which allows me to be promoted to Sergeant, which I was on 28<sup>th</sup> June 2011.

I would like to say a Big Thank-you to Carol for helping and supporting me with my GCSE work, it is much appreciated

*Photo form Air Cadets Facebook page*





### Club Results and Achievements

03 July 2011	Bowmen of Wadebridge	<u>Ladies Compound:</u> 1 <sup>st</sup> place Nicole Challacombe <u>Ladies Recurve:</u> 3 <sup>rd</sup> place Sue Day <u>Gents Compound:</u> 3 <sup>rd</sup> place Alex Greig
26 June 2011	Redruth Double American	<u>Ladies Compound:</u> 1 <sup>st</sup> place Nicole Challacombe <u>Ladies Recurve:</u> 1 <sup>st</sup> place Sue Day
29 May 2011	Brixham Open Rose	<u>Ladies Recurve:</u> 3 <sup>rd</sup> place: Sue Day
01 May 2011	DCAS Grand Day	<u>Ladies Recurve:</u> 2 <sup>nd</sup> place: Sue Day

The Indoor Handicap Improvement Medals Season 2010-2011 will be awarded to :-

Cherilynn Woolford (Senior) reduced handicap from 74 to 62  
Nicole Challacombe (Jnr) reduced handicap from 16 to 9

The committee discussed the changes to the rules regarding dress code and club colours as mentioned in the last newsletter from a recent article in Archery UK. It was agreed that we would like to ask Club members taking part in tournaments to continue to wear Club Colours.

### GB Archers Get a Taste of Olympics Atmosphere

As you are no doubt aware from recent news, many of the Olympic Venues are now complete and being tested. What wasn't mention in the news was that Team GB Archers were subjected to a barrage of noise from schoolchildren to test how they will react to the noise at the Olympic for 2012.

The idea was to simulate the possible noisy atmosphere competitors would face from a crowd during the real Games.

Team GB programme manager, Ceri-Ann Davies, said it was important the archers gained a sense of the pressure they would be put under.

The Olympic archery is being held at Lords Cricket Ground in London



## *Have a Go Tasters and Camping*

The first 'have a go' in June was most successful and a great time was had by all. The attendance rate was probably our best ever at the time and the new advertising obviously worked a treat. However maybe as we are now in the holiday season, the July 'have a go' has eclipsed all previous sessions. Keeping all club members who attended very busy, we still had people turning up at half three for a session. Though very hard work for those who helped those of us who stayed overnight had such a relaxing and enjoyable evening it felt like a short holiday.



Now about the antics of the camp archer's!! See some of the pictures taken during the camping evening. The campfire or furnace kept us all warm; Hugh said he wondered why we've never had a camp over at the field before. We were all in bed by midnight (before we turned into pumpkins) hoping for a long shot Sunday morning; however the weather had other ideas. We were not put off by the drizzle and shot a few ends, before we decided the weather had won. Tents went home wet, but spirits were high. Provisionally we want to camp over again for the August 'have a go', come on club members please join us if you can.





### DATES FOR YOUR DIARY

20<sup>th</sup> August – Have a Go session at Garras  
 07<sup>th</sup> October – Beginners course starts

### COMPETITION



At the Club Easter Dinner we had many guesses; the winner was Sue Day with 5 out of the 6 butts!

Left to right we have; Peter Jennings, Tony Bush, Hugh Rowe, Andrew Mitchel, Philip Guffogg and Jon Vinnell



The Clubs Treasurer enjoying the profits of the last 'Have a Go' session

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**Forget Me Not**, 6 Wendron Street, Helston, has our club logo and will embroider it onto a garment of your choice supplied from their shop. Why not pop in and have a look.

If you're looking to buy or sell archery kit, please don't forget the 'For Sale' section within the club website

Hope it's been an interesting read and that you look forward to the next edition. Thank you to Nigel for printing the newsletter. Any ideas for articles please catch me at a shoot, or email me on [rebelpind@btinternet.com](mailto:rebelpind@btinternet.com)

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