

**April 2009**

*I shoot DTL at various clubs in NSW mainly for fun, but I would like to get better to the point where I could shoot competitions. I guess I average about 20/25 at most clubs. There is one range where I shoot at on the coast which I find very hard as the targets there always appear very low. I have asked many of the local shooters and they say the height stick is often used to verify that the targets are legal. Is the difference in height just an optical illusion?*

*Peter Goldsmith, Newcastle, NSW*

Peter there are a few variables that need to be considered when questioning what becomes a legal target in DTL shooting. Let's assume both targets will be thrown at the required distance of 46 metres. There is a tolerance of plus or minus 2 metres. The rules state that the height stick can be placed at 10 metres from the trap and a legal target must be thrown at a height of 3 metres plus or minus .5 of a metre. Alternatively the height stick can also be placed at a distance of 18 metres from the trap to a height of 4.5 metres plus or minus .5 metres. Let's assume the club where you shoot well sets its targets using the first method and uses the full legal tolerance of 3.5 metres in height at 10 metres and has its trap mounted inside the trap house with the pivot point of the arm at the recommended 25 cm above ground level. Further to this lets also make the assumption that the club where you shoot poorly uses the second method at the lower tolerance of 4 metres in height at 18 metres and has an old style trap which may have its pivot point as high as 75 cm above ground level. Making the assumption that the target flies in a straight line for say the first 25 metres of its flight ( which I am sure that it doesn't due to the targets declining speed and gravity ) then at this point the two different targets will appear in the sky at approximately 3 metres apart with the second target being the lower. The height will vary more if the first club throws its targets to the maximum distance of 48 metres and the second throws to the minimum of 44.

That is the mathematical answer to how the targets can both be legal and appear different. For your own piece of mind see if you can have a look at the trap in question and see how differently it is mounted in the trap house compared to the other clubs that you shoot comfortably on. In time you will learn to make adjustments to your shooting no matter what height, speed or angled targets you are shooting at. From my experience very few clubs actually throw identical targets to each other no matter how closely the rules are followed.

**Questions:** [russell@russellmark.com.au](mailto:russell@russellmark.com.au)