GB sharpshooters aim for success with Dstl science

The facility has a number of unique sensors and cameras that can help the team perfect their firing skills as well as refine the accuracy of their rifles.

Team GB's Vice Captain Jonathan Longhurst, and Wind Coach Ewan Campbell have been given access to state-of-the-art scientific equipment with Dstl scientists producing key data for the team. This allows them to accurately determine various issues with their firing system, enabling them to refine both their rifles and ammunition as well as identify human error.

Dstl's lead scientist Brett, said:

> It's a real honour to have 2 shooting champions here on the Dstl site. We normally deal with painted and camouflage weapons for the British Army, so to see high specification champion style bare equipment is really exciting and interesting for us.
>
> I think the team GB guys are really thrilled to be here also – they have access to very specialist scientific equipment and knowledge, which they can't get hold of anywhere else in the UK.

Dstl possesses a unique array of measurement instrumentation and the team GB research helps validate the capability of its systems. In this piece of work, scientists are able to accurately measure the different speeds of a bullet as it is fired from the rifle. Dstl also uses high speed cameras which capture precisely the horizontal and vertical movement of each bullet, unseen by the naked eye.

Dstl scientists and shooting champions are also assessing how the weight of a rifle and other factors may affect its accuracy. This includes the type of support rests the rifle sits on, the type and weight of a bullet and the stock material, which may affect the precision of the shot.

Jonathan Longhurst, the Vice Captain of Team GB for F class, said:

> We shoot up to 1,200 yards, so the knowledge and tech that Dstl scientists have to offer is massively helping us towards our goal of winning gold at the World Championships in South Africa. Before the science of Dstl we have previously relied on theories, but Dstl scientists have helped us to confirm and de-confirm if those theories are correct. It's an incredible facility at Dstl and encouraging to see defence scientists keen to support us and see what we can achieve too.

Dstl’s indoor firing range is specifically set up to test the latest military and police hand-held and sniper weapons, using its scientific expertise to assure and protect military personnel.

Ewan Campbell is the Wind Coach for the F class GB Team. He said:

> We’re looking at ways to try and make our rifle systems more accurate which will give us as much of a competitive edge as possible. It’s fantastic to be here: the Dstl team have worked really hard to set up the tests and have put a lot of effort in to supporting us. As for the equipment ‘wow!’ I want to take it home with me – it’s helping us to look the finest of differences, something we’ve not been able to do before.

The GB Long Range Shooting Team are targeting the World Championships and Dstl is aiming to help them secure top marks.