



Ministry  
of Defence

# Defence Science

The magazine for Science, Technology and Engineering

[www.gov.uk/government/groups/defence-science-and-technology](http://www.gov.uk/government/groups/defence-science-and-technology) Issue 17

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# Flexible medical training prepares soldiers during Ebola crisis

In August 2014 Army Medical Services Training Centre (AMSTC), Strensall, was tasked to design, construct and assure training for what has been described as the ‘most dangerous medical mission ever undertaken by Defence Medical Services’ – the Ebola outbreak in West Africa. Capt Neil Weddell describes how innovative training supported the Army and scientists working in West Africa to counter the disease, which was moving into crisis.



**1** Op GRITROCK saw the British Army provide medical, planning and engineering capabilities to the Sierra Leonean Government; building and running Ebola treatment centres and training their healthcare workers, police and civilians.

That AMSTC were able to deploy medical personnel with the appropriate knowledge and training, straight to an unknown theatre of operation at such short notice, which was no mean feat. So, how did they set about arming them with the correct training materials to enable them to deploy safely to such a hazardous environment?

AMSTC was responsible for developing and delivering an affordable and flexible training system to ensure each soldier was prepared and sustained to the required standard for operating in that environment.

Aware that getting this training correct would keep our personnel safe from this most virulent of viruses, AMSTC enlisted the support of the Education and Training Services (ETS) branch of the Adjutant General's Corps (AGC). Traditionally perceived as academics who prepare soldiers and officers for promotion, the ETS are also Masters level specialists in training theory and innovation.

ETS from the Directorate of Training (Trg Dev) identified early on that the application of learning technology underpinned with sound academic theory was the most suitable way forward. This stemmed from the international nature of the crisis, the remote areas of operations, the varying educational levels of personnel, the mix of regular and reserve and the fact treatment practices were evolving on a near daily basis. Consequently all training material needed to be accurate, timely, compliant to Defence Training standards (DSAT) and be easily accessed by various organisations through multiple channels 24/7.

Guided by the academic principles of Adult Learning Theory (Andragogy) and the versatility of e-learning devices, the challenge was met with unstinting drive, enthusiasm and passion.

Through forensic attention to detail, the cap badge partnership contributed to operational capability through the design of numerous innovative processes which have brought acclaim, acumen and requests for access. However, more importantly, they brought confidence to those deploying that the new skills were fit for purpose and would

**Photo 1 –**  
Ebola virus disease is a severe, often fatal illness in humans



**Photo 2** –  
Army HQ Medic  
Training Op  
GRITROCK  
**Photo 3** –  
Op GRITROCK  
microsite design

allow them to treat patients to UK standards in the rigor of a West African jungle without the threat of becoming a casualty themselves.

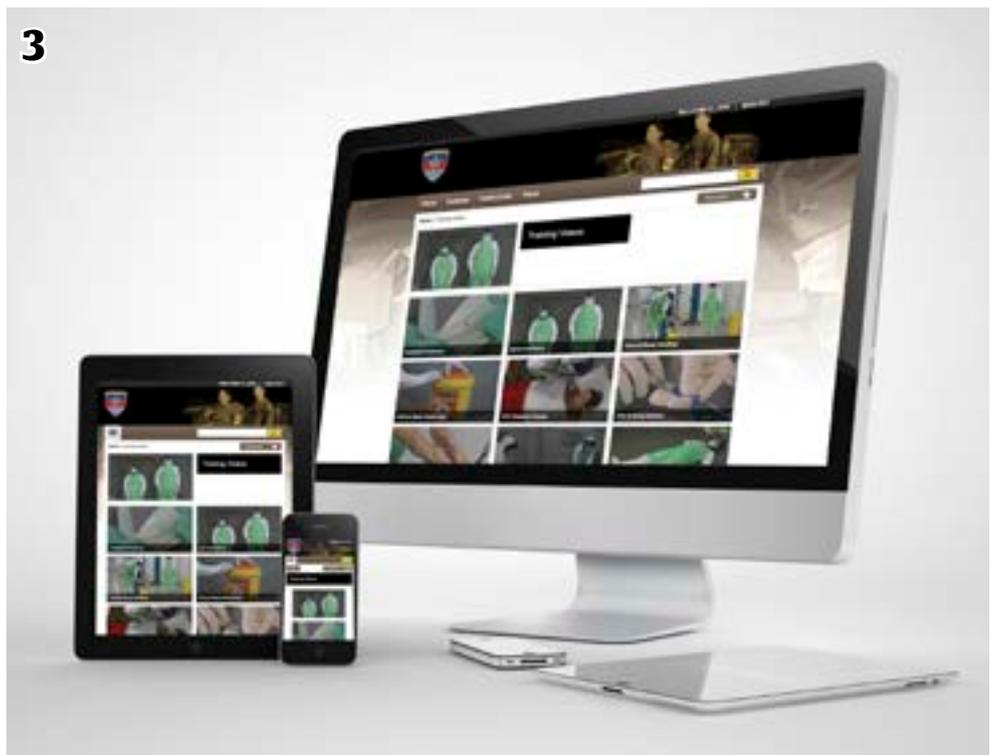
One example of innovation was the creation and deployment of the GRITROCK online e-learning portal. Up and running within two weeks of the contractor CDS receiving the brief it was fully deployed within a month. The successful execution of the project included five strands offering a combination of learning material from videos to interactive training presentations. Examples included:

ETS specialists managed the creation of bespoke video tutorials, developed at the training field hospital facility in the UK, a replica of the field hospital deployed in Sierra Leone, to ensure they captured important new information as it was relayed from the Army on the ground and scientists working to combat Ebola. 100 per cent accuracy of the training material was an absolute requirement given the number of lives at stake, so high definition video with commentary in multiple languages was the only choice.

This approach also allowed for flexibility in training content, if feedback from Africa identified a change on how personal protection clothing should be donned, the video crew (on standby in York) would record the change that same day. This enabled the updated version to be sent electronically to

Sierra Leone overnight ensuring the very next morning medical personnel preparing to enter the red zone could watch the latest procedure before they started that day. With traditional posters and medical leaflets this would not be possible.

**3**



A tailor made internet microsite was designed to host training videos and enhanced PPTs, ensuring material was accessible using smartphones, laptops and tablets. Foreign armed forces and Non-Government Organisations (NGOs) preparing for training at AMSTC could watch the videos before arriving, enabling familiarisation and learning to begin earlier. This approach, known as Flipped Learning Theory, leads to students having greater mastery of skills by the end of training compared to traditional 'chalk and talk' due to the longer exposure and out of classroom access to the learning materials.

#### **E-learning intranet portal**

A Learning Management System (LMS) underpinned the micro site enabling the tracking of student access and time spent viewing materials. The use of this e-learning technology means training is richer, more engaging and of higher quality and allows training staff to know which students have accessed what and for how long (training assurance).

There are currently 387 users registered on the GRITROCK portal, with nearly 400 hours of training delivered. Implementing this kind of web-based learning has solved the problem of having to train staff in a traditional classroom environment, which could have required 20 training sessions with two to three trainers used to demo per session.

The impact of this training project is huge, not only in lives saved, but also money and time saved to deliver appropriate sustainable training. The five strands provide a lasting legacy and ongoing e-learning resource, with the materials available and ready for any future outbreak.

This methodology soon became not only the defence solution but that also of the Department for International Development and then quickly moved to be the international centre for NGO's, with now over 1,000 personnel undergoing training at AMSTC.

At the peak of the epidemic 600 people lost their lives to Ebola every day. With effective medical intervention from Op GRITROCK, this figure dropped to one per day. The learning technology solution combined with AMSTC's medical training provided staff on the ground with the knowledge, skills and confidence to work in an extremely dangerous environment. In turn this enabled them to provide critical support to local and NGOs on the Ebola front line. ■



**Photo 4–**  
Medic training  
at Army HQ

