

MT&SN Interview: Dr James Blake - PEO STRI



MT&SN: Can you give our readers a brief overview of the role and function of PEO STRI?

Dr Blake: PEO STRI is the US Army's provider of modelling, simulation, training and instrumentation systems. We are the 'go-to' team for anything that supports the training infrastructure of the Army, which includes test and instrumentation infrastructure. We provide the means for the Army to train, as it needs to, for full spectrum operations.

MT&SN: You've been at PEO STRI for seven-and-a-half years now, how would you summarise the changes that have taken place within the organisation over that time?

Dr Blake: Back in 2003, we were transitioning from STRICOM, an element of a major command, into a PEO that reports directly to the acquisition executive. We worked our way through coming to terms with a new command structure and how resources would be provided to us.

At the same time, we transitioned to the AcqDemo personnel system, which moved our workforce from one pay method to another system. In essence, there was a lot of uncertainty about the way ahead, but over the last few years, we've managed to successfully transition from a command to a PEO.

Since becoming a PEO, we've received authority for head of contract activity, which is rather a unique function. We've also set out on a "grow the workforce" initiative, which includes increasing

not only the size, but the proficiency of our employees through professional development opportunities.

In the same breadth, we're augmenting the quantity and quality of the work that we undertake. In 2003, we were doing around \$800 million per year and today that has risen to \$2.7 billion.

MT&SN: Are there any changes on the horizon that you can talk about?

Dr Blake: We're currently winding down the war in Iraq and our focus has shifted to training Soldiers for the war in Afghanistan. As you know, the terrain and roads in Afghanistan are much different than that in Iraq, and certainly a challenge for our ground forces. As a result, we have a number of challenges that we are addressing to provide a training solution to the Army.

In addition to operations in Afghanistan, we are also looking at full spectrum operations, which cover offence, defence, stability and support, and going through a modernisation of the Combat Training Centres to bring us back up to speed to be able to perform these training functions. We are also focussed on the live, virtual and constructive integrated training environment. These are the big challenges facing us today.

How do we position ourselves so that when the units come back from current operations with a longer dwell time, we can provide the training enablers they need to ensure that they get full spectrum training? That's a major challenge for us.

MT&SN: *This change in focus for training obviously has implications for budgets. How do you think that these budgets will unfold over the coming years and specifically, do you think there will be more money available for training?*

Dr Blake: I think there will be a downturn in core funding for training since the priority is placed on re-setting the force as troops come back from operational theatres. At the same time, we're going to see an increased training demand from additional force levels at home.

I think that there's going to be a delicate balance that needs to be achieved; how do you maximise the training benefit with the reduced resources that we may face? That's another challenge we face.

MT&SN: *Do you think that this budgetary uncertainty will cause the T&S industry to work more closely with the DoD to provide increased training for lower costs?*

Dr Blake: This question gets to the heart of the matter. We're trying to achieve efficiencies. Although dollars may decline, we need to leverage the dollars we have to create improved training. For example, when we used to put together a live, virtual and constructive training environment, it would take months, if not years, to put it in place.

Today, we're building a training infrastructure that will take days to put in place, which makes it a more responsive training enabler and reduces contractor support costs. Now more than ever, we are really focused on the efficiency of our training.

MT&SN: *Talking of efficiencies, many companies complain bitterly of the way that the DoD procures its military equipment and services. Does procurement methodology fall under your remit?*

Dr Blake: At our level, all we can do is optimise the way we are configured and how we interface with the training industry. The defence acquisition regulations come down to us, so our focus is on how we take that guidance we receive and then implement that guidance in the most efficient method that we can.

We have an acquisition centre that belongs to PEO STRI as well as a legal staff that can conduct contract reviews

very quickly. This means that in most cases we can cut between 100 and 140 days out of the process as we no longer have to staff this at headquarters.

MT&SN: *Is there any way that efficiencies can be driven through a closer cooperation between PEO STRI, the USAF and US Navy?*

Dr Blake: Yes, and we actually do. As you know, here in Florida we have Team Orlando. So we're collocated with the agencies that you mentioned to help us streamline our acquisitions and to make sure that when we build things they can be used by the other services. I'll give you a couple of examples. Within the live training domain, we have something called the Combat Training Information Architecture.

The Marine Corps has a similar requirement and has leveraged that architecture and by doing that, they cut down the time between concept and delivery from nine years to two years. As well as saving seven years, they also saved \$11 million on software re-use and \$12 million on back-end logistics costs.

Another example is us building the MRAP trainers for the Army, Air Force and Marines. This meant we had the non-recurring engineering costs once and thus saving millions of dollars.

MT&SN: *You are in a unique situation as you form the bridge between the military and industry. What do you see as the key technologies in the future that can help us better train our troops?*

Dr Blake: One of the key areas is miniaturisation and its impact on reducing the complexity of hardware involved in providing the training support. An example would be the prevalence of games and the general availability of more capable and smaller electronics components. MILES is an

Many current US Army training initiatives revolve around training foreign forces.

(Source: US Army)





PEO STRI is a prime mover in assisting in the development of medical simulation technologies.

(Source: PEO STRI)

example of a system that used to weigh seven pounds and had batteries that would die too quickly.

Today, those batteries will last for a month and the device weighs a half of what is used to. This has benefits in reducing the logistical tail to support training and providing the Warfighter with more realistic equipment.



Another example is the Common Driver Trainer where we use a number of common elements, such as a motion platform and image generator, and replace cabs to represent specific vehicles. This application of technology, I believe, highlights a growing trend for the future.

MT&SN: *How do you conduct business with foreign governments?*

Dr Blake: We have a very active Foreign Military Sales programme. We are committed to providing our international partners the training solutions and training support that they need. One example is our relatively new OneSAF programme where there are already six FMS cases. We have strong relationships with these countries to enable us to share information.

I see this cooperation as a very good thing for coalition operations because if we are going to train as we fight, we are going to have to interoperate with our coalition partners on all levels.

MT&SN: *Can you give us a flavour of some of the upcoming programmes that PEO STRI will be working on in the future?*

Dr Blake: As we've already mentioned, we have a major CTC upgrade. As you know, over the past few years we've been working on irregular warfare and counterinsurgency training environments, and so we know have to move back into full spectrum operations which is resulting in a major refresh for all of our CTCs.

This also means we're placing an increased focus on live, virtual and constructive training and their associated integrating architectures that rely on a number of complimentary systems. These involve programmes such as CCTT and AVCATT that are part and parcel of this infrastructure, as well as constructive training initiatives and live training with the Home Station Instrumentation Training System (HITS).

MT&SN: *Are there any initiatives currently underway as far as web-based training is concerned?*

Dr Blake: As you know, there is a big push in the DoD that is looking at web-based applications. PEO STRI has an active role in that by working very hard to provide the services they need. This is a developing strategy as we need to define the acquisition model, how we can contractually compete the programmes and how they can be brought into service.

Over recent years, much emphasis has been placed on training for specific operations in Iraq and Afghanistan. This training has largely centred on new types of vehicle, cultural and small arms training.

(Source: Cubic Defense)

MT&SN: *To be effective, web-based training requires standards. How is the T&S industry doing in terms of defining standards that encompass the complete gamut of military T&S?*

Dr Blake: I believe we have had some notable successes, for example, the OneSAF architecture. This can now be put into any image generator or constructive system to provide a common set of behaviours and threats to provide a common operating picture.

This open source data can be provided to all services to allow integrated training to take place. Combine this with our common visual database standard, SE CORE, and we can now have forces training together whose simulators can see the same entities behaving in the same way. SE CORE databases are now being added to the CCTT, AVCATT and RVTT for Afghanistan pre-deployment training.

The first increment of this was delivered to Germany in about two months. The development of this database, using a common standard, was built 10-times faster than in the past. The beauty of the SE CORE database is that we provide the metadata once and we then build plug-ins for individual image generators. This means all players are on the same chessboard and all of them have a common operating picture.

MT&SN: *You mention the benefits of common source data for integrated live, virtual and constructive training and although it's clear that industry can stitch together impressive I-LVC demonstrations but does provide a clear benefit for military training?*

Dr Blake: The way that PEO STRI is set up right now and the way that we approach the problem is that our mission is to build training tools that we put in the toolbox. The commander has certain training objectives that he has to achieve and he then pulls those tools from that toolbox as he needs them.

They could be all live, all virtual or a mix of live and virtual but we are not going to tell that commander how he should use them. We do not want to say 'one size fits everyone,' but provide a palette of solutions that can be selected to achieve the commander's training aim. Where we help is to provide a common applications programme interface to allow these tools to work together.

MT&SN: *How would you define the approach of the military towards simulation in terms of its acceptance?*

Dr Blake: I really do think that things have changed over the last decade or so. Using aviation as an example, in the old days when we got a new aircraft we'd go and fly it for hours to get certified.

Today, we can use high-fidelity simulators that are so good that you can get certified without



the actual aircraft; this process is used in the commercial airline industry. There is a big move afoot in the military to transfer more training to the simulator and out of the aircraft.

This is a global debate because it's cheaper, more environmentally friendly, it's more reliable and the simulator allows us to train in more scenarios that we could do in the real aircraft.

As budgets are being reduced, these arguments are becoming more compelling as to why you would use simulation. This argument is reinforced further when you consider that training areas are being reduced, and weapon systems are becoming more complex and increasing in range so many training areas can no longer accommodate them.

MT&SN. *Finally Dr Blake, I'd like to ask about medical simulation, which seemed to take the spotlight at last year's IITSEC. What's PEO STRI's involvement in this area?*

Dr Blake: We're doing quite a bit in the area of medical simulation. We've fielded a total of 18 medical simulation training centres already with a number of additional centres to come on line in the coming years. They provide 40 hours training for the combat life saver, which is given to almost all Soldiers.

The idea first came from the Vice Chief of Staff of the Army in 2005 and already, we have documented evidence that medical simulation has saved an estimated 1,000 lives.

MT&SN: *Dr Blake, thank you very much for sparing some of your valuable time.*

The US Army's AVC ATT system has drawn considerable praise from users and with its SE CORE database, is now being used for pre-deployment training for Afghanistan.

(Source: Link S&T)

