

DEVELOPING EFFECTIVE COMMANDERS

Dr Katherine Lamb explores innovative training techniques for future commanders, focusing on hybrid, augmented and virtual reality for comprehensive skill development

It is well reported that incident numbers attended by the UK Fire and Rescue Services have reduced over the last decade, partially because of the improved fire safety education conducted by dedicated teams in community fire safety, and other related activities. During the period 2008-2018, there was a 20% reduction in total fire calls, however, in 2019, there was a small annual rise in the number of fires attended, and in particular, secondary fires.

Therefore, the total number of fires a firefighter will attend in a career starting in 2020 is likely to be significantly fewer than a firefighter who began their career in 1990. As such an alternative strategy is required to compensate for the reduced opportunities to 'learn on the job' to meet the same learning outcomes required of all roles, firefighter to chief fire officer.

Clearly, this is not easy: fire environments are dynamic, multi-faceted, typically incorporate large volumes of "complex data" and are personnel or resource heavy to simulate accurately. However, the employment of hybrid reality, augmented reality and virtual reality training has demonstrated success across several services.

Enhancing learning outcomes through simulation

A significant proportion of firefighter operational training is centred on technical equipment use, and it is not always easy or possible to create a physical space where training with them is easy. Yet virtual worlds, with their limitless possibilities, allow us to create practically any scenario and with any combination of tools to use. The introduction of new tactical options would traditionally follow a relatively slow uptake-arc, as only a certain number of operators can be familiar with it initially, and we would expect an increase in usage as awareness is gradually built up. However, in a virtual environment, all firefighter or commanders can experiment with all potential tactical options, as there is no limit on availability or scenario complexity.

Integration of tactical options in virtual environments

During Fire officer training, there are elements of role or support functions which are not suited to virtual worlds, these generally



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involve human interactions, and the application of dynamic administrative tasks like decision logging and information processing. To improve the accuracy and value of the training this dynamic is often achieved using actors, role players and “props” to augment the virtual training environment.

In conjunction with this development in the training environment, and the recognition that training now plays a central part in building a commander's capabilities, considerable work on understanding and developing these behaviours associated with decision making, have been the focus of several major research projects.

In addition, the National Fire Chiefs Council had identified that commanders' judgement in high pressure situations, especially where risk appetite was concerned, needed some consideration. Effectively they recognised that this was a “human factors” consideration, where the commander themselves was the factor posing the greatest risk (to themselves, the public and to the people they are in command of).

Command decision making skills and the application of human factors throughout training are now widely recognised as essential components in the development of a fire officers skill set. Fire Services are effectively required to train commanders in those skills, allow them to develop and maintain them and systematically record and evaluate the strength of those skills.

The effective command model

The Effective Command training methodology aligns with the five principles of simulator-based exercise team training.

Principle 1: Develop learning objectives and expected performance standards. Through the use of scenarios, incident commanders are presented with unexpected events or dilemmas. These cues stimulate the expected behaviours and allow relevant behavioural markers to be practiced or demonstrated.

Principle 2: Train the team or individuals. Training the individual in non-technical skills is often overlooked during training and development of Fire Officers.

Principle 3: Use a structured observation tool. The structured observation tool Effective Command is used to capture positive behaviours as well as areas for improvement. The framework is also used as a basis of the training design, used to provide feedback and for self-reflection by the student.

Principle 4: Provide feedback during a structured debrief. Feedback is given face-to-face immediately following a scenario-based exercise, and behaviours observed during the exercise are highlighted.

Principle 5: Repeat the Training regularly

It has been identified in a recent study that structured and holistic training and assessment systems, like Effective Command, provide an efficient and auditable way of developing and assessing Fire Officers. Enabling data trends to be fed into subsequent training cycles to maximise continual organisational development. Through the employment of a consistent behavioural framework, the process of developing essential knowledge and behaviours begins earlier and ensures firefighters are safer and more effective both immediately and as future officers. ■