

## Military Operations in Urban Terrain (MOUT) 4

Frank Dean  
STTC  
Orlando, Florida.

Cadet Chafac Melvis  
United States Military Academy  
West Point, New York

### ABSTRACT:

Situational awareness is directly related to the Warfighter's combat effectiveness. If soldiers can be trained in an immersive environment that taxes them not only physically, but mentally and psychologically as well, they may be better prepared to face and adapt to the fluid and ever changing combat environment.

The combat experience and input of returning soldiers provide valuable information to researchers in identifying the types of sights, sounds and other factors that have been used to increase situational awareness during operations. A mixed reality training environment may be beneficial in presenting these factors to the soldier in training.

In an effort to prep soldiers prior to mission deployment and to sensitize them to some of the possible scenarios that they will likely encounter, a mixed reality scenario was developed in which the soldier had to make decisions and communicate with his superiors under pressure. The SAGAT (situational awareness global assessment technique) stopped the soldier at different intervals to evaluate their level of situational awareness through strategic questions.

On the whole, a mixed reality scene was created based on an ambush during a meet and greet. The soldier was evaluated on their decisions, their perception and their interpretation of what was going on. In effect, the scenario was used to create mental images in the soldier's mind similar to those gained in a real life situation and as such; create a higher level of situational awareness in the soldier.

**KEYWORDS:** SAGAT, Situational Awareness, mixed reality.

**CONTACT:** Frank Dean, Simulation and Training Technology Center, Research Parkway,  
RDECOM- STTC, Orlando Florida.

Email: [frank.dean@us.army.mil](mailto:frank.dean@us.army.mil)

CDT Chafac Melvis, United States Military Academy, West Point, NY, Tel: (845) 515-3574,  
Email: [ngimndoh.chafac-ngemasong@usma.edu](mailto:ngimndoh.chafac-ngemasong@usma.edu)