

## A COMPLETE SYSTEM FOR EFFECTIVE LEARNING

### SIMULATORS

#### Soldier System

The heart of the soldier system is the Personnel Detection Device (PDD) and the Small Arms Transmitter (SAT).

- Personnel Detection Device (PDD)

An operator worn vest with integrated MOUT capability as standard, the PDD is equipped with laser detectors, loudspeaker, computer electronics and radio. The PDD is modular and can be configured for different levels of needs.

- Small Arms Transmitter (SAT) Laser Simulators

The SAT has a unique eye-safe laser (class 1) transmitter that supports realistic small arms training from close distance laser lobe down to two metres covering the full effective range of the weapon. SAT/weapon alignment is achieved in minutes with Saab's patented alignment device. The SAT is very accurate and provides reliable simulation both indoors and outdoors.

#### Direct Fire Weapon Simulators

Saab's range of simulators for anti-tank weapons training include simulation of weapons/ammunition such as fire-and-forget missiles, Command to Line Of Sight (CLOS) missiles, and ballistic projectiles. Saab also provides a range of Anti-Tank Simulators based on one-way simulation to support combat training.

#### Hand Grenade Simulator

The hand grenade simulator opens a new dimension in close combat training. It makes soldiers wearing the PDD vulnerable to grenade effects at a predefined distance.

#### Structure Effect Simulation

- Wireless communication, easy set up and assembly
- Casualty assessment in primary, secondary and adjacent room
- Cumulative damage affecting the casualty assessment
- Laser detectors with integrated hit detector, effects from hit via audio
- Battery powered
- MILES and OSAG compatible
- Interface to EXCON

#### Building Effect Generator

- Simulates effects from hits, fire and human voices
- Triggered by Structure Effect Simulator and/or EXCON
- Smoke, light and audio effects, setup for different effect scenarios
- Supports control via DMX 512

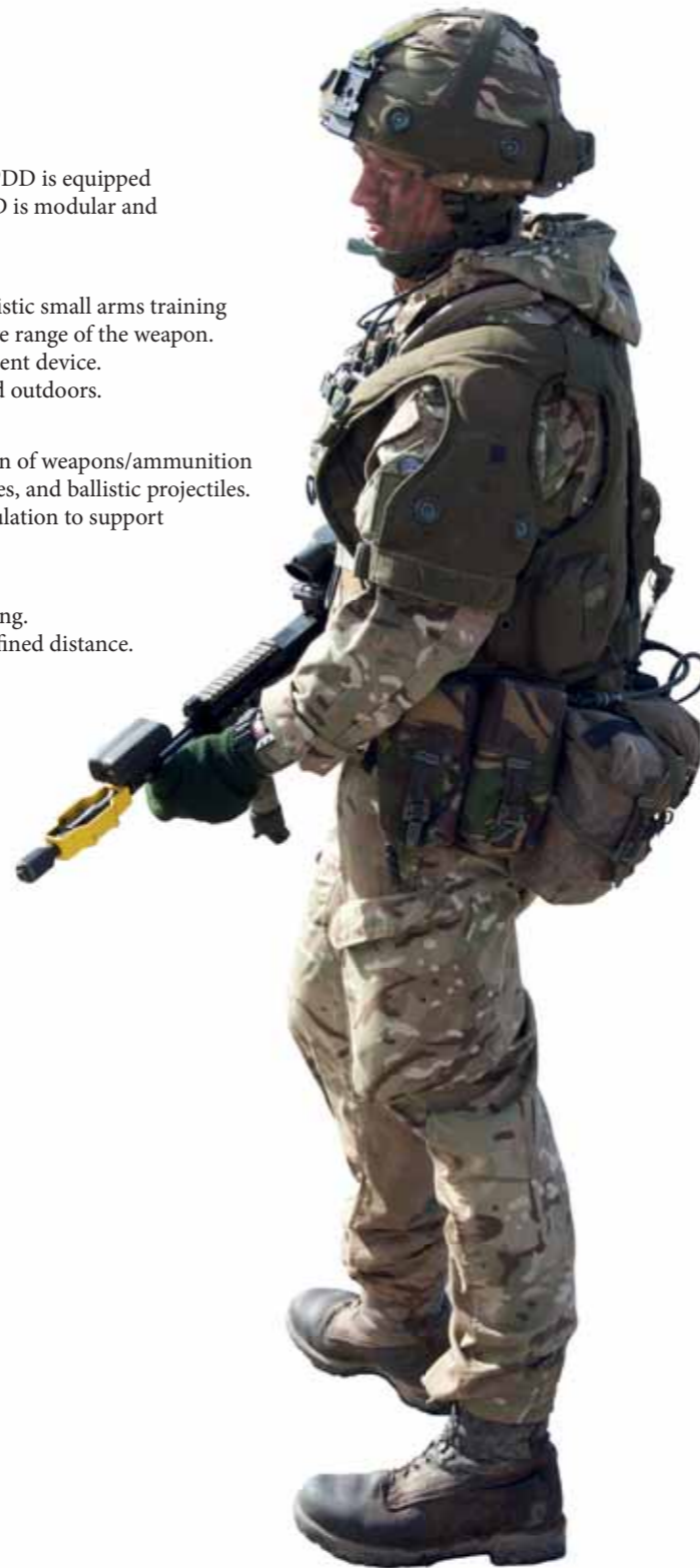
#### Reactive Targets

- Fast and silent lifter and swivel mechanism
- Laser target and shoot back functionality
- Different boards for civilian, friend or foe
- Dual use for live fire or laser based blank firing
- Battery powered

### CONTROL AND EVALUATION

#### Video monitoring

- Automatic overlay of player information in camera view
- Indoors tracking
- Triggers to start recording
- Follow me and find function for tracking players in video streams
- Interactive camera field of view in EXCON map
- Integrated control of Pan Tilt Zoom camera
- Interface to EXCON
- Quick and easy setup



# URBAN OPERATIONS

## TACTICAL AND SKILLS TRAINING

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# TACTICAL AND SKILLS TRAINING WITH THE SAME SYSTEM

The Urban Training Package is a product enhancement to Saab's proven instrumented training systems, adding the capability to implement an urban training environment within the exercise box. Units can seamlessly train the full spectrum of fire and manoeuvre from open to urban terrain, from section/squad through to battalion combat team level. The system is modular, deployable and easily configured to meet differing training needs and budgets.

## Seamless tracking, easy handling

A multi-sensor tracking system follows the players through open terrain into urban streets and through the three-dimensional challenge posed by buildings. The instrumentation provides realistic combined arms simulation in buildings as well as the open terrain. Buildings are instrumented with player communication devices that are simply hung on the wall and work in conjunction with external sensors for direct-fire engagements. Tackling the challenge of transitioning from unrestricted GPS coverage to movement around and inside urban structures, Saab's urban tracking system is quick and easy to install and requires no special infrastructure or cables.

## Rehearsal, During and After Action Review

Location and status data is collected in real time and relayed to command centres for post-mission analysis. Urban terrain is represented in 2D and 3D to provide the participants with a replicated situational awareness. The rehearsal and After Action Review (AAR) are augmented with features such as the visual depiction of the fields of fire and observation views from any point. The system monitors status at the individual dismount level and rolls up the information to the unit level to show battle flow and cleared buildings.



## UPGRADE MODULES - ENHANCING THE LEARNING EXPERIENCE

The Urban Training Package is designed around upgrade modules providing a choice of capabilities. The entry-level solution provides an indoor tracking module with the ability to expose players to simulated indirect fire.

Other Upgrade Modules are:

### Direct Fire Module

Providing simulation of direct fire effects such as anti-tank weapons fire and tank gunfire on buildings, this senses the building zone under direct fire attack and communicates the primary and secondary effect to the players inside. The ability to connect the module to EXCON enables monitoring of the events in the buildings such as fire lines from incoming fire and building status. See also Structure Effects Simulation on next page.

### Building effects

This capability provides various visual and audio effects in and around the buildings triggered by direct and indirect fire on buildings or manually from EXCON. With this function added, trainees experience an enhanced situational awareness increasing the difficulty of making the right decisions during the training scenario. The effects are distributed safely by a combination of smoke, light and audio.

### Streaming Video and Audio

The system includes an advanced audio/video system that creates a lot of possibilities for detailed evaluation of soldier behaviour and their communication. By adding cameras at critical points of the exercise, the player's action is recorded in the system. The Combat Network Radio is also recorded for later evaluation. Exercise leaders and O/C's can follow the exercise on line and all events, audio, video and positions are time-tagged and synchronized for a rapid and comprehensive After Action Review.

### Reactive target

The infantry reactive target replaces or complements the need of OPFOR recourses in the MOUT training. With its light design, swivel functionality and different triggers it is easy to reconfigure the training scenario within a short time. By adding a laser interface the soldiers have a predetermined time to engage the threat with a laser-equipped weapon. If the time is exceeded, the shoot-back system is activated to transmit laser fire. The EXCON interface makes it easy to control and follow the scenario for measurement of the trainee's skills.

