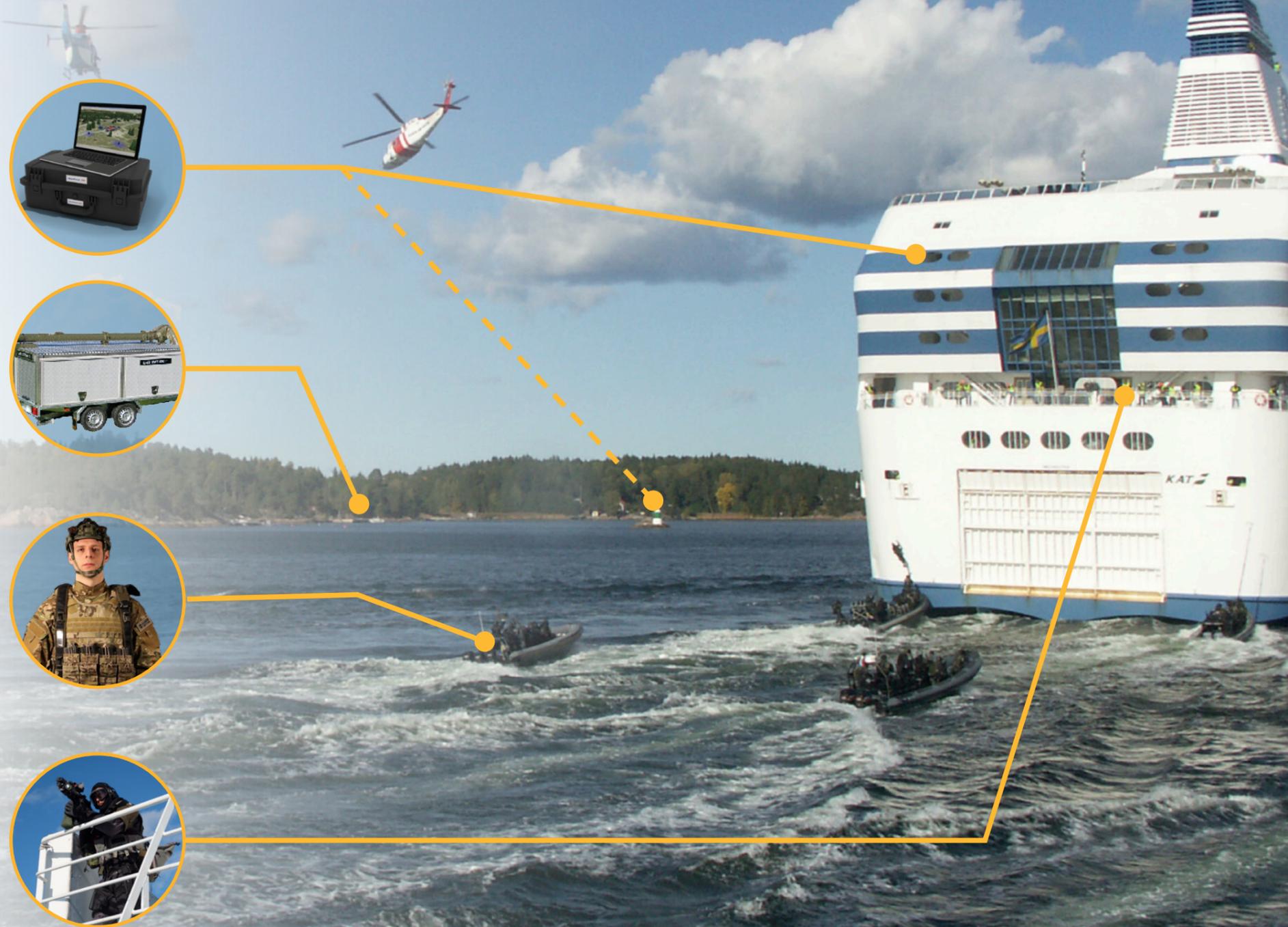LIVE TRAINING

Maritime Training

Maritime Live Training

Saab understands military and law enforcement training requirements and provides world class training solutions to support all phases of the training cycle. Our high-fidelity interoperable Gunnery & Manoeuvre Exercise (GAMER) solution facilitates a professional training environment and therefore a realistic training experience, as close to the replicated mission scenario as possible. GAMER enables training across the spectrum of joint operations, from small focused Gunnery and Live instrumentation activities, to major scale exercises encompassing up to 10,000 entities.

GAMER's versatility in the provision of Live instrumented military and law enforcement training now extends into the Maritime environment. Saabs advanced technology towards craft instrumentation and weapon system simulation capabilities, permits training in complex inshore, littoral and coastal environments, enabling maritime force elements to exercise, gain experience, and learn, in a highly realistic and safe manner.

The diverse GAMER Exercise Control suite of interoperable software tools (WinEXCON) support the planning, preparation, execution, control and evaluation of exercises. As the global leader in Live Instrumentation training provision, Saab's WinEXCON suite is used by leading military and law enforcement organisations around the world, supporting training from individual to major collective task force activities, enhancing their force readiness.

Controlling Exercises in Real-time

The objective of any training activity is "to learn". Training within a Live instrumented environment provides a unique and highly realistic experience for trainees. The physical personal and craft support weapons are used augmented with high fidelity lasers permitting identical realistic engagement and weapon handling procedures, as per operations.

Simulators provide immediate feedback to the training participants enhancing the learning outcomes. WinEXCON enables all aspects of learning, delivering the capability to reflect, analyse and aggregate results, thus being able to measure and compare with training objectives at all levels of participation and command.

Training at the point of need

The intent of instrumentation is to capture data for After Action Review (AAR). Saab's instrumentation infrastructure is scalable, agile and expeditionary. The communication system includes multiple link options such as microwave or encrypted 3G/4G/5G network, providing the capability to posture optimal communication nodes whilst maintaining the ability to position EXCON at a convenient location for exercising personnel and augmenting staff.

The encrypted network permits connection to geographically remote communication base stations facilitating a distributed EXCON capability, removing the need for EXCON analysts to travel to various different training areas.

Internationally deployable

The GAMER system operates with the NATO spectrum management training band of 340-360 MHZ. It's global usage and expeditionary modular infrastructure enable the capability to be deployed with ease and used internationally with other interoperable nations.
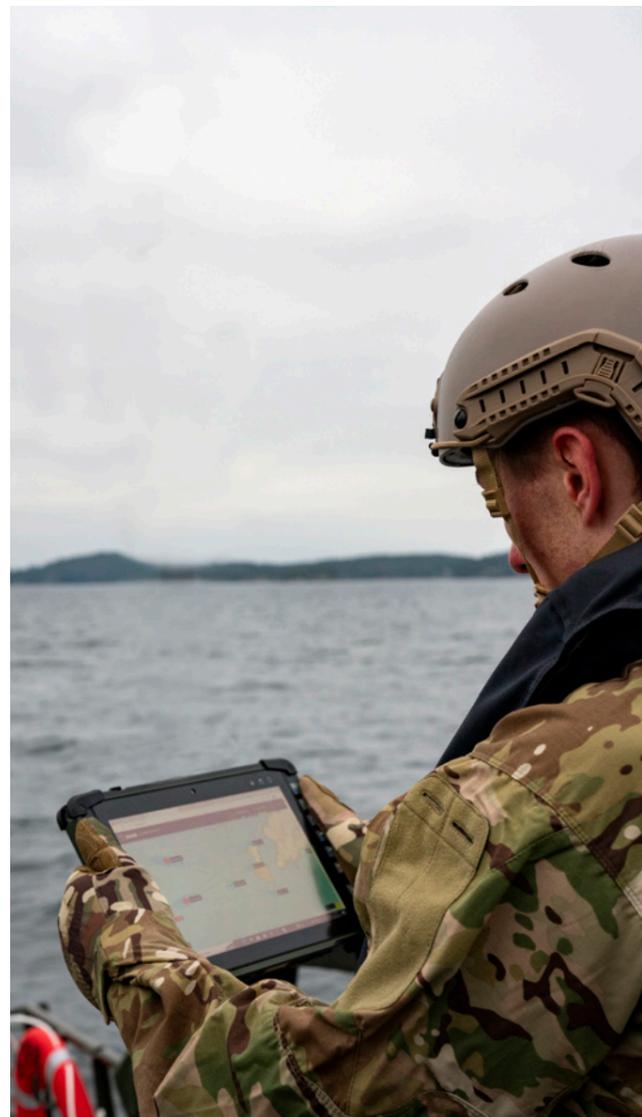
Communication system scalability

Manpack 120: Man Portable

This lightweight man portable Excon consists of a laptop and a hand-held portable radio base station capable of data capture from up to 120 instrumented entities. Its expeditionary versatility enables the Exercise Control to move with the activity either onshore/offshore, on foot, or by craft/vehicle. Optimal for smaller, onshore/offshore dynamic activities.

< 120
6 km²
1 kg
10 hrs
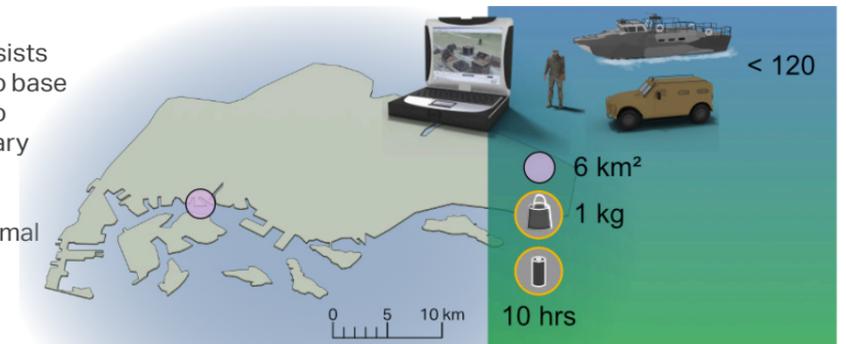
Manpack 300: Mobile

The Manpack 300 is capable of data capture from up to 300 entities and therefore would be used for larger scale activities, onshore and/offshore. This Excon would generally be mounted in a craft or standard all terrain vehicle with antennas mounted externally. The Manpack 300 can be networked by 4G/5G connectivity increasing the exercise footprint and player participation.

< 300
12 km²
13 kg
4G
3/4/5G
10 hrs
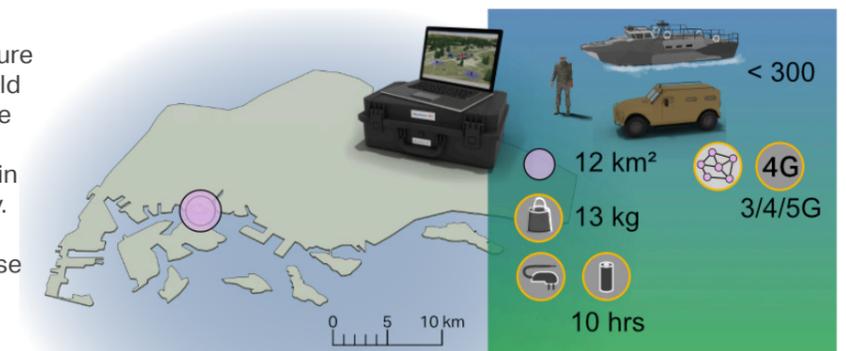
Deployable Portable Base Stations:

The Deployable Radio Base Station facilitates large scale exercises and can be either container or trailer mounted, enabling the capture of data from up to 3200 players via a 21 m or 30 m communication mast. This capability would be established as a static Excon capturing exercise data. The deployable system can be networked by 4G/5G connectivity or by microwave link. A four-man team can fully deploy the system within an hour.

< 3200
110 km²
4G
3/4/5G
21/30 m
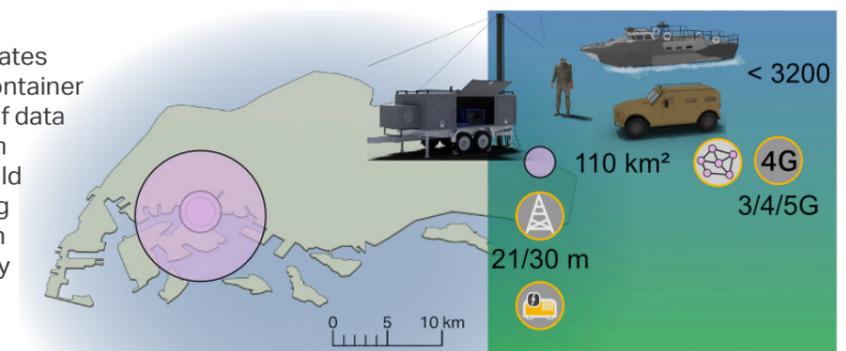
Modular Target System - MTS

The Modular Target System (MTS) is based on Saab's latest and improved BT46 laser-based training solution. It is future proof, compact and adaptable by design. For ease of installation, where feasible, the modular target system units are wireless and use commercial interfaces such as Bluetooth and Wi-Fi. The system is available "out of the box" as either a Regular or Premium Line, both of which use the same core modular building blocks. This modularity results in a more efficient support solution and decreased life cycle costs.

The Premium Line target system is the highest fidelity training solution available on the market today, offering the greatest realism of vulnerability and lethality simulation, which can be specifically tailored to each type and variant of craft/vehicle platform.

The Premium target system is optimised for SISO UCATT U-LEIS performance and offers the longest engagement ranges with pinpoint accuracy whilst maintaining Class 1 Unconditional Eye Safe Laser Certification.

Each of the detectors contains integrated Kill LED's and Retroreflectors.

The Premium Line includes highly accurate vulnerability modelling. The high-fidelity software models allow for lethality and vulnerability effects to be accurately paired which result in a more realistic outcome. This further improves training and supports Tactics, Techniques and Procedures development, whilst also aiding force elements to understand and engage the more vulnerable parts of a target, receiving accurate engagement feedback.

The accurate representation of point of impact, also enables simulation of countermeasure capabilities such as Automatic Protection Systems. To achieve these high levels of fidelity, the Premium Line requires a custom mounting solution to ensure correct placement of Retroreflectors.

Regular line

The Regular Line target system is especially suited for a wide range of lightly or unarmoured military and law enforcement craft/vehicles. It is designed with an emphasis on quick and easy installation without the need for any bespoke craft/vehicle adaptation or vulnerability modelling.

The Regular Line is the optimal choice for instrumenting a broad spectrum of smaller support craft/vehicles/structures, for both the home organisation and any visiting training partner.

Target System

The Regular Line offers a quick mount target system, enabling rapid and easy instrumentation. Small wireless detector units that contain integrated Kill LEDs and Retroreflectors, provide a 360-degree vulnerability, and enable SISO UCATT U-LEIS ballistic simulation.

The system has a predefined target silhouette with three customer selectable vulnerability levels, all supporting direct hit, air-burst, top attack and collateral effects on the craft/vehicle occupants.

Weapons

The Regular Line supports appended weapons such as pintle mounted machine guns, with full reporting of firing and automatic fire inhibit when the craft/vehicle becomes too severely damaged to operate.

Precision Gunnery Training

In addition to the Force On Force mode, the Modular Target System can also be used in a Gunnery Training mode enabling force elements to train on craft weapon systems inshore, that would generally have to be executed far offshore in bespoke sea range areas. Saabs augmenting latest generation Compact Ballistic Laser provides accurate and realistic ballistic simulation of target engagements permitting training to be conducted against static/moving targets in any environment, without range safety danger areas or environmental concerns.

High fidelity training system

When utilising Saab's weapon laser solutions, force elements must apply all normal weapon handling skills and procedures, enforcing the "train as you fight" ethos. In doing this, accurate individual and collective results and the associated learning experience, will build trainee confidence in preparation for future operations.

As an option, the Compact Ballistic Laser configurations can be equipped with a high-fidelity optical feedback system known as Tracer, Burst and Obscuration Simulation (TBOS). This capability facilitates the gunners optical sight view to be augmented and synchronized with an advanced ballistic simulation computer, enabling visualisation of tracer, burst on target/ground, and obscuration, to further enhance the gunnery and engagement realism.

Gunnery skills training

To further compliment and enhance the Gunnery training capabilities, an instructor's application, WE:X, is available to provide data and feedback on trainee's marksmanship skills and results.

WE:X can monitor up to ten simulators simultaneously, presenting individual results in near real time. The application also offers the following supporting range practice information functionalities.

- Target Range
- Projectile Range
- Timing LRF, Fire, Hit
- Configurable Shooting Exercises
- Photo import for Target Templates

MODERN GUNNERY TRAINING

Saab's Gunnery Training tool, WE:X, further improves analysis and After-Action Review of Gunnery exercises utilizing ballistic simulators.

Saab's thinking edge delivers innovative, precision products and solutions that enhance capability

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