

# CATS TYR™

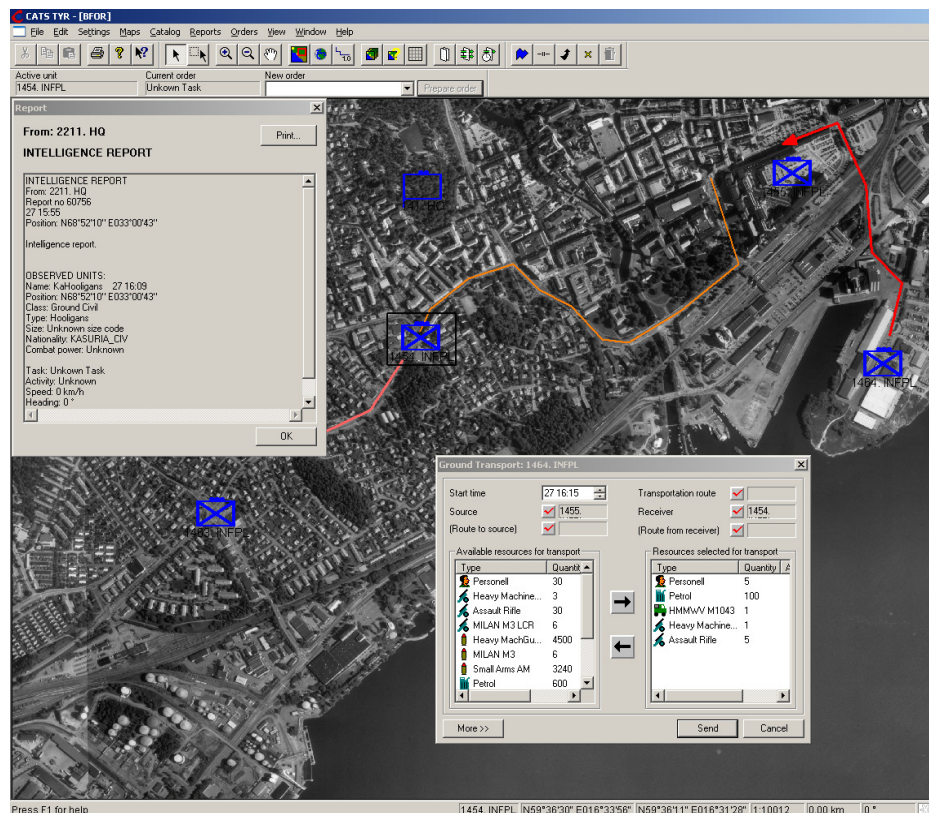
## Joint Operations Wargaming System

### Joint level simulation provides

- Command and staff training in computer aided exercise
- Preparation for future operations
- Operational research and analysis
- Concept development and experimentation

### Areas of application

- Conventional wargaming including full support for land, air and maritime operations
- Asymmetric warfare
- Homeland defence
- Humanitarian assistance and disaster relief



### CATS TYR™ Wargaming System

The CATS TYR™ Wargaming System is used by military customers and other large organisations that require either a command training capability or an operational analysis capability. CATS TYR™ provides significant cost savings by replacing the need for fielded land units, aircrafts, ships and submarines, in a large scale operation by a computer aided exercise.

### Operation of CATS TYR™

CATS TYR™ implements a wide range of highly automated computer generated forces (CGFs) that respond to high level orders. The CGF carry out all activities as if they were the actual fielded units. The units consume supplies and food and they are subject to wear and tear, affecting their performance.

Human operators can influence the simulation through manual arbitration of situations. This feature is particularly useful for increasing the friction of operation during command training situations, or investigation of unexpected injects in a course of action simulation. CATS TYR™ has been integrated with several C4I systems, providing "Train as you fight" configurations.

Efficient decision making in multinational coalition and joint military operations requires a solid consultation, command and control process. CATS TYR™ provides effective and dynamic training for commanders and their staff.

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#### MAIN STANDARDS:

#### Mature joint level simulation

CATS TYR™ is a mature and proven system. Since 1999, it has supported numerous national and international computer aided exercises, ranging from battalion-battle group-brigade level exercises, to component command-combined-joint task force exercises, e.g. in the Viking series of exercises.

CATS TYR™ provides a true Joint level system, simulating all land, air and maritime elements in a theatre. The playbox size is up to 4000x4000 km.

#### Conventional warfare, asymmetric forces and peace support operations

CATS TYR™ can handle approximately 4000 entities in its simulation database representing all branches of military forces, police units, civilian elements such as humanitarian organisation's field offices, refugees, ambulances as well as the infrastructure with airfields, hospitals, harbours, etc. In addition to conventional warfare scenarios, CATS TYR™ is well suited for non lethal operations, including peace support operations, asymmetric forces, humanitarian assistance, disaster relief and homeland defence.

#### Situation awareness and ISTAR

All entities can be equipped with sensors for various media, e.g. optical, electromagnetic or acoustic. The sensors are fundamental in the establishment of a unit's situation awareness. Each unit's situation awareness affects the way it resolves orders and tasks.

External systems can be integrated and connected to CATS TYR™ to facilitate capabilities or services from various sensors, e.g. video feeds from sensors.

#### Advanced logistics model

Sustained logistics capabilities are often key to successful missions. CATS TYR™ includes a comprehensive logistics model. All units consume food, water, fuel and ammunition in a realistic way. Vehicles are subject to wear and tear. Wounded personnel require medical treatment. Lack of replenishment and recovery will directly decrease a unit's performance.

#### After Action Review

During an exercise, CATS TYR™ records extensive sets of data. The data can be used for play-back or compiling statistics for after action review and evaluation.

#### Cost effective and interoperable

CATS TYR™ is designed for low life cycle costs. CATS TYR™ is very personnel efficient i.e. using a minimum of system and simulation operators during command and staff exercises.

An open architecture makes it possible to combine CATS TYR™ with a range of off-the-shelf tools for exercise planning, preparation and execution. The system executes on standard PC and server hardware.

A CATS TYR™ exercise can be distributed across the Internet, providing the possibility to train either at training centres, at garrison or in the field. Through its High Level Architecture interface or its well documented XML interfaces, CATS TYR™ can exchange data with other systems, e.g. C4I systems or other simulations.

CATS TYR™ provides a modern interoperable, international state of the art, digital simulation system and an enduring platform for training, simulation and experimentation.

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[NATO STANAG 2019 / APP-6A / MIL-STD 2525B Symbology](#)

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[World Geodetic System 1984 / WGS-84](#)

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[ESRI Shape Map data](#)

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[DTED Terrain models](#)

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[IEEE 1516 and STANAG 4603 High Level Architecture](#)

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[SISO-001-xx Real Time Platform \(RPR\) FOM v.2.17 Draft.](#)

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[SISO-007-2008 Military Scenario Definition Language \(MSDL\)](#)

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