

## Comprehensive solutions of the individual and tactical training systems for the simulation centers

### Products:

#### Simulators and trainers for individual training:

- **Ground forces**
  - BMP-2 Crew Simulator (FMS)
  - BMP-2 Driver Simulator (FMS)
- **Air forces**
  - L-159 Flight Simulator (FMS)
  - L-159 Simulator (PTT)
  - L-39 Flight Simulator (FMS)
  - L-39 Simulator (PTT)
  - Mil Mi-2 Helicopter Simulator (PTT)
  - Mil Mi-17/171Sh Helicopter Simulator (PTT)
  - Simulator GCI (DTS)

#### Simulation systems for the tactical training of the ground and air forces:

- Reconfigurable Virtual Simulators (VTS)
- Team Leader Simulators (VTS)
- Forward Artillery Observer LOS (VTS)
- Tactical Live Simulation System STING (LS)

#### Other Products and Tools

- Modeling and Simulation Tools
  - DIS Modules
  - Aurora Image Generator
  - Exercise Director Tools
  - WASP - Constructive Simulation
  - Communication System ASTRA
- Terrain Databases
  - Terrain Database Creation
  - Terrain Database Conversion
  - 3D Models

### Services:

- User Requirements Analysis
- Complex Customer Service
- Simulation Centres Technical Support
- Codification Agency
- Simulation Systems Integration
- Constructive Simulation - Adaptation

### Solutions:

- Modular Tactics Training System Solution
- BMP-2 Training Solution
- L-159 Training Solution
- Air Forces Training Solution
- Infantry Training Solution

### Simulator Categories

#### Full Mission Simulator (FMS)

The Full Mission Simulator is characterized by its ability to arrange such perceptions to trainees, that is as much close as possible to perceptions in the real vehicle.

#### Virtual Tactical Simulator (VTS)

The Virtual Tactical Simulator is a simplified version of the real vehicle simulator, reflecting all properties and functions that are important for tactics training.

#### Part Task Trainer (PTT)

The Part Task Trainer is the training equipment, designed to learn procedures and skills in handling and operation of specific land or air systems.

#### Live Simulation

The Live Simulation is training of the real units in the real terrain using the real weapons and equipment.

#### Desktop Simulator

The Desktop Simulator is the simplified Software version of the real vehicle simulator running on one PC equipped by the simplified or real controls.

# Individual and Tactical Training

## Individual Training

Training focuses on gaining and development of the individual skills in handling and operation of the ground and the air equipment.

**Training can be performed in three basic modes:**

- individual training
- training of vehicle crew co-operation
- training of flight personnel

**The main assets of individual training:**

- ground vehicles: gaining and improvement the proper routines and the reactions during vehicle operation (driving, shooting etc.) and improvement of the crew co-ordination
- air forces: gaining proper routines and training of the normal and emergency activities and the procedures on ground and during flight

Training is performed on the simulators which are capable to simulate properties and parameters in conditions similar to real land and air forces. Most of the simulators for the individual training is ready to operate in the tactics training mode.

## Tactical Training

Trainig focused on development of the tactical, communication, command and control skills of the trainees. To support this training type Live, Virtual and Constructive simulation systems are interconnected using DIS/HLA protocol. Using this interconnection and in accordance with training needs, training goals and exercise director intent, the complex scenarios are created. For the exercise preparation, control and evaluation special Exercise Director Tools are used.

**Main benefits of tactics training:**

- tactical skills and thinking development
- co-operation and communication development in platoon, company (wing, squadron) and task force
- command and control process improvement

## Comparison of the simulators for individual and tactics training

	Simulators for individual training	Simulator for tactics training
<b>Simulation equipment category</b>	<ul style="list-style-type: none"> <li>■ simulators of the "Full mission" category</li> </ul>	<ul style="list-style-type: none"> <li>■ simulators of the Virtual tactical simulator</li> </ul>
<b>Developed skills</b>	<ul style="list-style-type: none"> <li>■ individual and psycho-motor skills</li> </ul>	<ul style="list-style-type: none"> <li>■ tactical capabilities and thinking</li> <li>■ co-operation and communication among crew and unit</li> <li>■ improvement in command and control processes</li> </ul>
<b>Construction</b>	<ul style="list-style-type: none"> <li>■ replica of the real equipment</li> </ul>	<ul style="list-style-type: none"> <li>■ simplified, but reflects main features of the real equipment</li> </ul>
<b>Variability</b>	<ul style="list-style-type: none"> <li>■ simulators are single-purpose, only for the specific equipment type</li> </ul>	<ul style="list-style-type: none"> <li>■ simulators (namely RVS) are configurable into the various types of the land and air vehicles</li> </ul>
<b>Training options:</b>	<ul style="list-style-type: none"> <li>■ individual training</li> <li>■ training in co-operation of the ground vehicle crew</li> <li>■ training in co-operation of flight personnel</li> </ul>	<ul style="list-style-type: none"> <li>■ platoon, company and task force training</li> </ul>
<b>Initial and operating cost</b>	<ul style="list-style-type: none"> <li>■ higher</li> </ul>	<ul style="list-style-type: none"> <li>■ lower</li> </ul>
<b>Training task types</b>	<ul style="list-style-type: none"> <li>■ handling and operation of land and air vehicles (driving, piloting, shooting on training targets)</li> </ul>	<ul style="list-style-type: none"> <li>■ missions and operations (movement, convoy escort, patrol, reconnaissance)</li> <li>■ large exercises</li> </ul>