CLAIMS

1. Simulator (10) for simulating a use of a missile of an attacking system (20) in a battle terrain (G), comprising:

a storage device (11) for storing at least a terrain model (GM) of at least a battle terrain (G) and a number of target object models (Z1 – Z3) of target objects (31 – 33),

a sensing unit (12) associated with the attacking system (20) for sensing and tracking a defined target object (31) of the target objects (31 – 33) in the battle terrain (G),

a transmitting unit (13) associated with the attacking system (20) for transmitting a coded laser signal (LS) to the defined target object (31), wherein the coded laser signal (LS) comprises at least an identification (ID) of the attacking system (20),

a receiving unit (14) associated with the attacking system (20) for receiving a response signal (AS) transmitted by the defined target object (31) as a response to the laser signal (LS), the response signal comprising at least a location information (OI) and a type information (TI) of the defined target object (31),

a providing unit (15) for providing a target object model (Z1) stored in the storage device (11) in dependence on at least the type information (TI) of the received response signal (AS), for the defined target object (31), and

a visual means (16) associated with the attacking system (20) for outputting a current visual representation of the battle terrain (G) by means of the terrain model (GM), the provided target object model (Z1) and the location information (OI) of the response signal (AS).

2. Simulator according to claim 1,

characterized in

that the visual means (16) is configured to output a real visual representation of the battle terrain (G) as well as a virtual visual representation of the battle terrain (G).

3. Simulator according to claim 2,
characterized in
that the visual means (16) is configured to switch from the real visual representation to the virtual visual representation at the moment of firing the missile.

4. Simulator according to one of claims 1 to 3,
characterized in
that the coded laser signal (LS) comprises the identification (ID) of the attacking system (20) and an ammunition type (MA) of the missile of the attacking system (20).

5. Simulator according to one of claims 1 to 4,
characterized in
that the response signal (AS) comprises the location information (OI) of the defined target object (31), the type information (TI) of the defined target object (31) and a movement vector (BV) of the defined target object (31).

6. Simulator according to one of claims 1 to 5,
characterized by
a setting unit (17) for setting an orientation of the attacking system (20) in dependence on the location information (OI) of the response signal (AS).

7. Simulator according to claim 6,
characterized in
that the setting unit (17) is configured to set the orientation of the attacking system (20) in dependence on the location information (OI) of the response signal

(AS) and a reconciliation of geometric three-dimensional data from the terrain model (GM) with information of at least an imaging device associated with the attacking system (20).

8. Simulator according to one of claims 1 to 6,
characterized by
at least an imaging device for capturing at least an image of the battle terrain (GM).

9. Simulator according to claim 7 or 8,
characterized in
that the at least one imaging device comprises a daylight camera, a thermal imaging camera and/or a laser scanner.

10. Simulator according to one of claims 1 to 9,
characterized in
that the receiving unit (12) is configured to directly receive the response signal (AS) from the defined target object (31).

11. Simulator according to one of claims 1 to 9,
characterized in
that the receiving unit (12) is configured to receive the response signal (AS) transmitted from the defined target object (31) via a combat training center (40).

12. Method for simulating a use of a missile of an attacking system (20) in a battle terrain (G), comprising:

a) storing (701) of at least a terrain model (GM) of at least a battle terrain (G) and a number of target object models (Z1 – Z3) of target objects (31 – 33) in a storage device (11),

b) sensing (702) and tracking of a defined target object (31) of the target objects (31 – 33) in the battle terrain (G),

c) transmitting (703) a coded laser signal (LS) from a transmitting unit (13) associated with the attacking system (20) to the defined target object (31), wherein the coded laser signal (LS) comprises at least an identification (ID) of the attacking system (20),

d) receiving (704) a response signal (AS) transmitted by the defined target object (31) as a response to the laser signal (LS) by a receiving unit (14) associated with the attacking system (20), the response signal (AS) comprising at least location information (OI) and type information (TI) of the defined target object (31),

e) providing (705), in dependence on at least the type information (TI) of the received response signal (AS), a target object model (Z1) stored in the storage device (11) for the defined target object (31), and

f) outputting (706) a current visual representation of the battle terrain (G) by means of the terrain model (GM), the provided target object model (Z1) and the location information (OI) of the response signal (AS) by a visual means (16) associated with the attacking system (20).

13. A computer program product comprising a program code for executing a method for simulating a use of a missile of an attacking system in a battle terrain according to claim 12 when run on at least one computer.