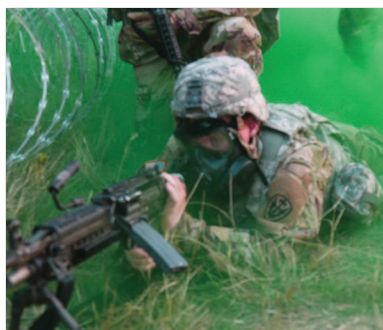


Numerous capabilities are available to portray, sense, and counter the effects of various types of weapons of mass destruction.

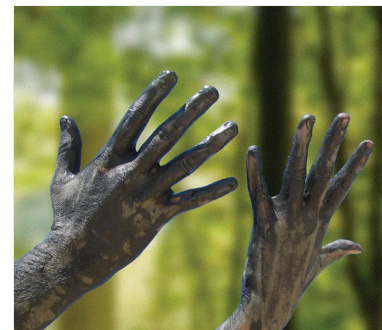


Chemical, Biological, Radiological, and Nuclear (CBRN) Weapons

- ▶ Air- and ground-delivered weapons (artillery, bombs, and rockets) with customizable agent types
- ▶ High-resolution transport models may be used to pre-record hazard spatial extents and concentrations and play back within a scenario
- ▶ Multiple states of matter represented for chemical and biological agents



Non-persistent chemical



Persistent chemical



Biological



Radiological



Nuclear

CBRN Weapon Effects

- ▶ Vapor and aerosol hazards move and diffuse over time as appropriate to prevailing weather
- ▶ Lifeforms and equipment accumulate contamination in proportion to hazard density, location, and time in contact with contaminant
- ▶ Unprotected individuals exhibit degraded performance from exposure depending on route of entry
- ▶ Protected individuals exhibit degraded performance due to gear, heat stress, and contamination
- ▶ Lifeforms exposed to biological agents may become infected and progress through infection stages



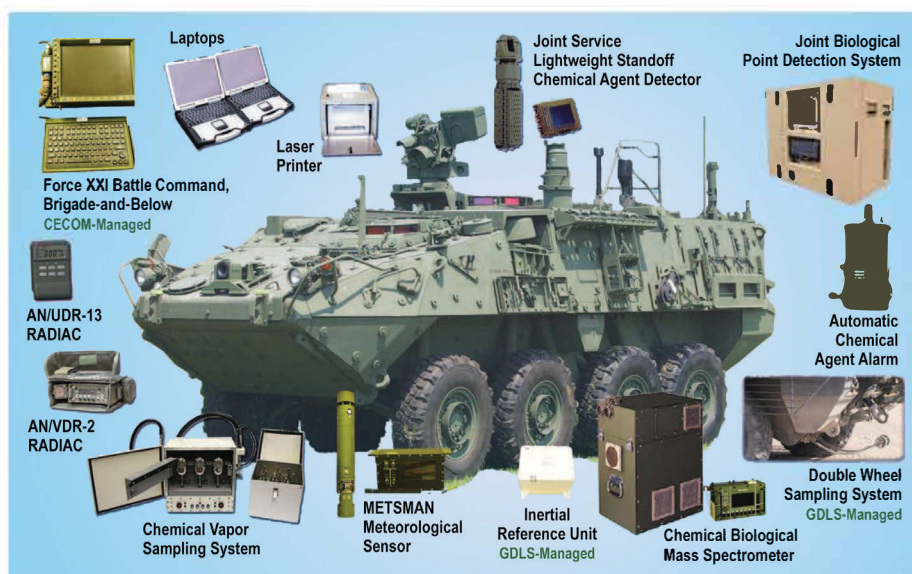
Protection/Decontamination

- ▶ Soldier protective equipment is modeled at the level of individual components (i.e., mask, coat, trousers, gloves, and boots)
- ▶ Decontamination reduces or removes contaminants
- ▶ Vehicle protection is modeled for mounted lifeforms (i.e., overpressure)



Sensing/Reporting

- ▶ Vehicular and man-portable point and standoff sensors provide warning of the presence of hazards
- ▶ Reconnaissance behaviors identify hazards at locations along routes, or at standoff sensor detection locations



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