# ARGON | CBRNe/HazMat training systems

# **PLUMESIM®**

A world leading training system to bring your table top and field CBRN / HazMat exercises to life and enhance student engagement.

Deployable in less than thirty minutes, PlumeSIM® enables you to remotely manage multiple students deployed with simulation chemical and radiological detectors under a fully configurable 'virtual plume' in real time using both Geographical Information System (GIS) mapping and your own "home-made" maps.

You can train the entire mission from use of detector, communication of readings, interpretation by the CBRN cell to ultimate commander decision making enabling you to test, evaluate and verify the effectiveness of your response teams and their senior management.

CBRN / HazMat instructors can now effectively manage detection instrument training of multiple personnel, selecting exercise parameters incorporating the nature and release / delivery of single and multiple time phased threats including hidden radiological dispersion devices and major radiological and toxic gas releases for the activation of simulation instruments while monitoring trainee activity from a single location.

#### Planning Mode- The Virtual Plume

PlumeSIM® allows you to define plumes or hotspots based upon a variety of specific substances such as chemical warfare agents, toxic substances, false positives and radionuclides / compounds.



You can also implement different environmental conditions and release characteristics including duration, direction, deposition and persistency. Exercise parameters can be saved as libraries for sharing with other users and later use to facilitate rapid exercise set up. A powerful simulated wind field enables you to represent complex environments incorporating meandering plumes.

Live and cashed GIS maps are supported, and because our customers like to represent imaginary areas within their training facilities, PlumeSIM® also enables you to import your own "home-made" sketches of the proposed training area.



## PLUMESIM®

### **Table-Top Mode**

Using familiar gamepad controllers, students represented by icons maneuver themselves within the virtual on-screen display of the training area enabling physical simulation instruments to indicate readings based upon student location within the threat environment while the instructor observes progress at the control station. All movement and readings are recorded, enabling survey and reconnaissance procedures to be cost effectively optimised through after action review prior to field exercise. This powerful concept results in much greater student engagement than traditional paper based table top exercises.



#### Field Exercise Mode

Large area CBRN and HazMat exercises can now be implemented with ease in typically less than thirty minutes.

Students are instrumented to enable exercises to take place over multiple square kilometres with each able to be assigned up to eight different types of simulator. The entire exercise takes place in real time, with high fidelity lookalike detection instruments responding to the simulated threat scenario as it evolves while the instructor monitors progress on the exercise control system. Students can experience how different chemical detector technologies can be used to confirm actual threats or false positives and practice the decisions associated with encountering lethal levels of simulated radioactivity.

PlumeSIM® even monitors and records correct use of the simulated detection instruments in real time, so you can interject as appropriate to maximise learning opportunities, save time and ensure conformance to operational procedures.

#### Post Event Exercise After Action Review (AAR)

A full record of student movement and simulator activity is captured to facilitate correcting equipment use errors during or at the end of the exercise; enabling you to maximise learning opportunities during AAR debriefing. Exercise recordings and results can be forwarded to an independent moderator for response capability assessment and validation of contingency plans.

### (Live/ Virtual/ Constructive (LVC) Battlefield Integration

PlumeSIM® and Argon simulators can be integrated with third party LVC systems to provide you with a superior CBRN / HazMat training capability.

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