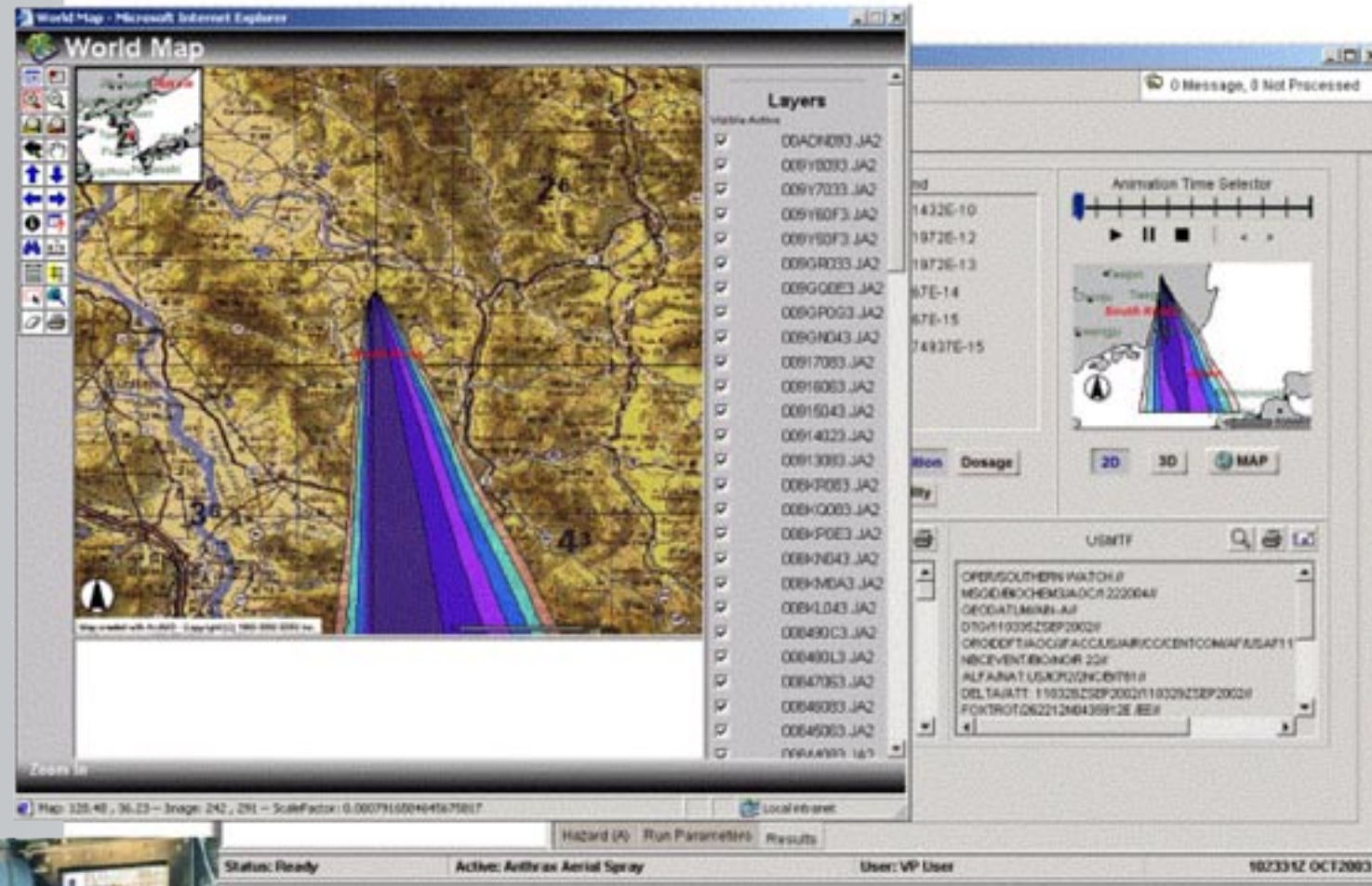# Joint Effects Model (JEM)

Protects soldiers and the public against nuclear, biological, and chemical and toxic industrial chemical/toxic industrial materiel weapons, devices, and incidents.

DESCRIPTION AND SPECIFICATIONS

The Joint Effects Model (JEM) is a general-purpose, accredited model for predicting hazards associated with the release of nuclear, biological, and chemical (NBC) and toxic industrial chemical (TIC)/toxic industrial materiel (TIM) contaminants into the environment. Once fielded, JEM will be the standardized Department of Defense NBC hazard prediction model. JEM will be capable of modeling hazards in a variety of scenarios including: counterforce, passive defense, accident and/or incidents, high altitude releases, urban NBC environments, building interiors, and human performance degradation. The unclassified version of JEM will also support homeland defense through use by civil authorities.
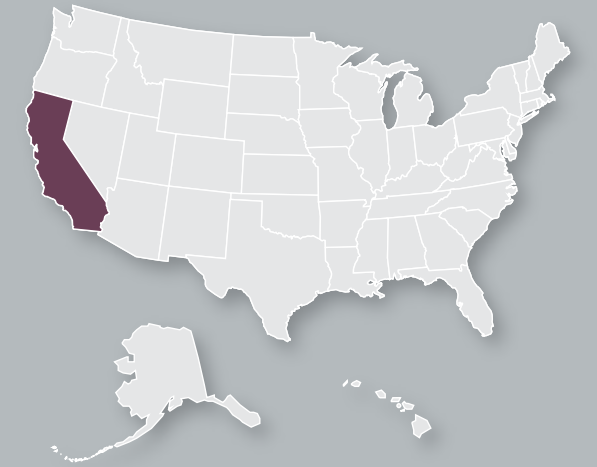
The JEM program will use an evolutionary acquisition approach for design, development, testing, and fielding. Upon completion of an independent model analysis, the JEM interface, credibility, and performance requirements will be refined in an iterative process through a series of design reviews, using cost-effective graphical storyboarding prior to actual implementation of the algorithms and data harvested from the legacy NBC models.

PROGRAM STATUS
- **1QFY05** JEM developmental test and verification/validation
- **3QFY05** JEM operational assesment

PROJECTED ACTIVITIES
- **FY06** JEM operational test
- **FY06** JEM Milestone C, full-rate production
- **4QFY06** JEM initial operational capability

CONTRACTORS
Northrop Grumman Information Technology (San Diego, CA)

INVESTMENT COMPONENT
Modernization

ACQUISITION PHASE
- System Development and Demonstration