

DEFENSE THREAT REDUCTION AGENCY



Making the World Safer

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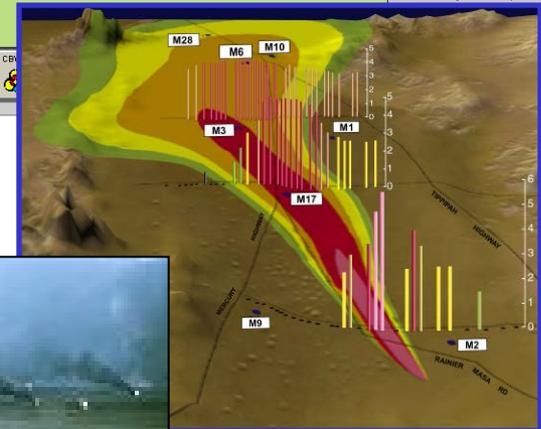
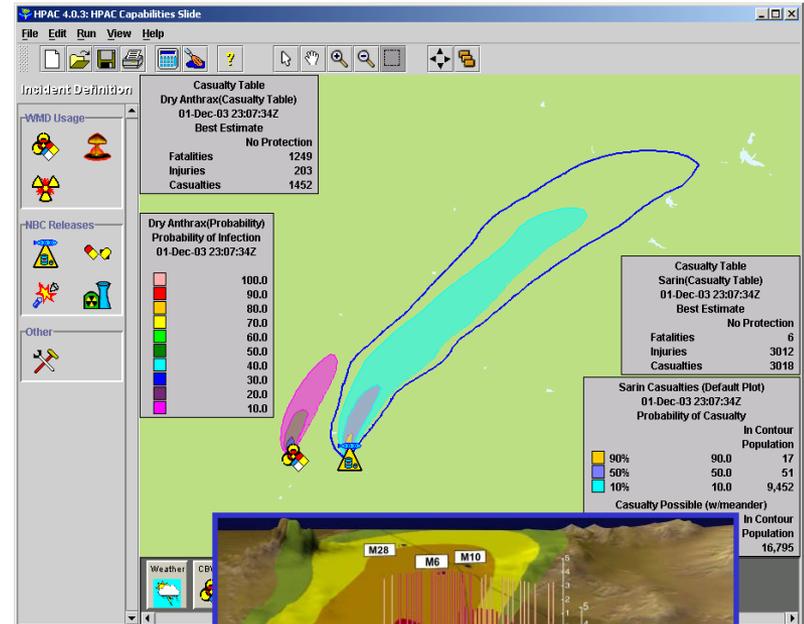
DTRA makes the world safer by reducing the threat from weapons of mass destruction

- A combat support agency that is part of the Department of Defense:
- We use a comprehensive set of tools to accomplish our mission
 - Arms Control – Fulfilling treaty obligations and countering proliferation
 - Threat Reduction – Dismantling the former Soviet nuclear arsenal in place and eliminating Iraqi weapons of mass destruction
 - Technology Development – Developing, testing and fielding offensive and defensive technologies
 - Chemical and Biological Defense – Assuring operations in hostile environments
 - Combat Support – Assessing vulnerabilities, assuring the nuclear deterrent
- DoD's "go-to" agency on WMD threats

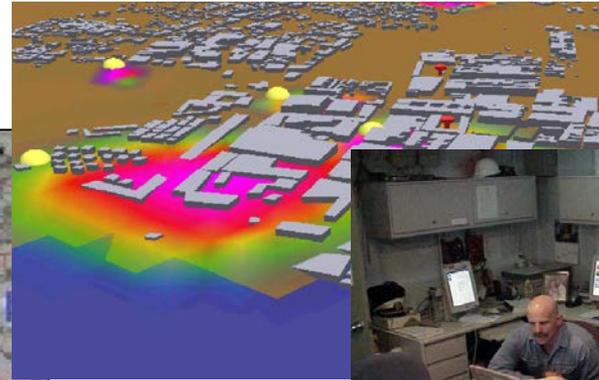


Consequence Assessment

- Develop/Integrate hazard and consequence assessment tools
- Provide up-to-date weather, terrain, population and sensor data/predictions
- Develop high-fidelity models of urban environments, target and structure response
- Provide consequence of execution assessment
- Primary products include Hazard Prediction and Assessment Capability (HPAC) and Consequence Assessment Toolset (CATS)



Operational Support Technology



- Provide WME consequence prediction & analysis tools to Combatant Commanders
- Provide on-site and reachback support, convey critical info to decision-makers
- Assist warfighter in assessing the effectiveness of operational theater plans and formulate alternatives



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WMD Analysis Support to Combatant Commanders and other USG Activities

TECHNICAL REACHBACK SUPPORT

On shift technical experts – 24/7 support.

Missions: Consequence Management, Collateral Effect and WMD Targeting support Expert operators for DTRA tool

Single operational point of entry for DTRA (TD) expertise

Tools: HPAC, J-CATS, IMEA, ITPTS,

Provides PM/developer expertise for enhanced reachback support and modeling

Can leverage additional DTRA expertise when required



Recent support:

DETERMINED PROMISE (NORTHCOM)
UNIFIED DEFENSE 04
UFL (PACOM/USFK)
State Dept Support
G8 Summit
NSSEs



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Meteorology Program

- Provide tailored meteorological products to DTRA customers for T&D analyses and predictions
 - Warfighter and emergency responders
 - Planning and emergency response scenarios, forensic analyses
 - Suitable meteorological products for use with DTRA's NBCR hazard prediction suite of tools
 - Fund applied meteorological research to improve DTRA weather related products
 - Probabilistic weather
 - Improvements to NWP models



Research and Development Needs

- Improved methods for validation of mesoscale model performance at high resolutions (<2km)
- Alternative methods for the calculation of meteorological uncertainty
- Improved parameterization schemes for high resolution NWP simulations
- Use of urban measurement in T&D calculations
- High altitude meteorology for missile intercept scenarios



MET Program Partnerships

- NOAA
 - NCEP, NWS, NOS, ARL
- Army
 - ARL, Dugway
- Air Force
 - AFWA, AFCCC
- Navy
 - NAVO, FNMOC
- National Center for Atmospheric Research
- Pennsylvania State University
- Technical Panel #9 – Cooperative Research
- NATO

