

COMPARATIVE RISK ASSESSMENT OF TERRORISM AND NATURAL HAZARDS

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CAS In Focus:
Elephants in the room
Chicago





TERRORISM MODELING: LOSS ANALYSIS



**Security
Landscaping**

**Federal
Building**

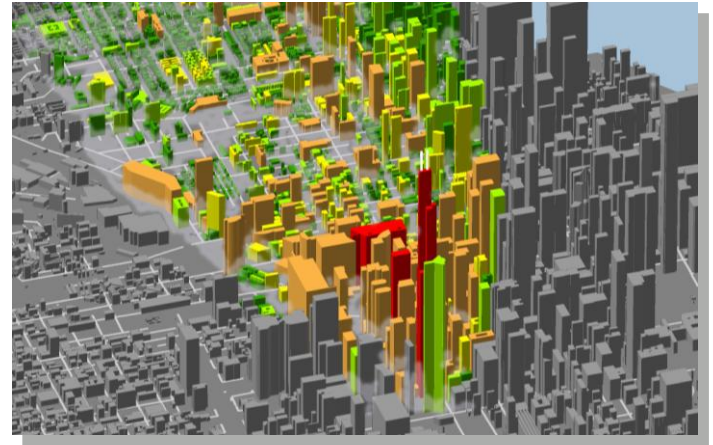
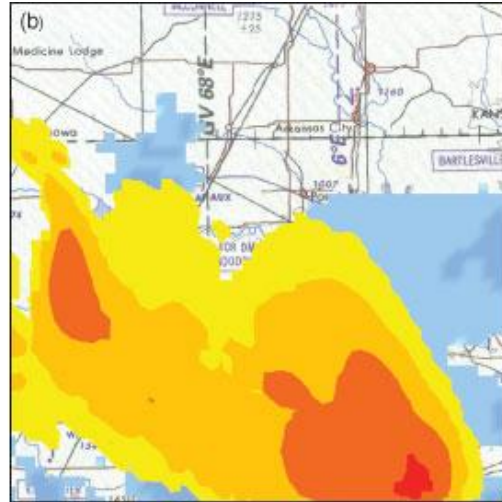
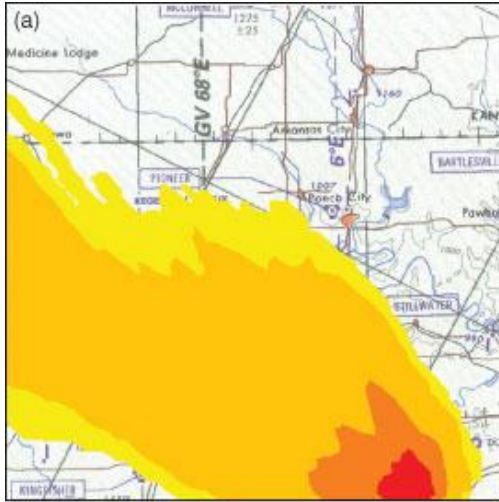
**Columbia,
South
Carolina**

Islamabad Marriott: September 20, 2008



$$\frac{R_1}{R_2} = \left(\frac{W_1}{W_2} \right)^{1/3}$$

Atmospheric dispersion scenario analysis



Footprint of fallout from nuclear plant incident
Lawrence Livermore

Dispersion modeling: anthrax

Knowing the design basis and code compliance

Jamuna Bridge, Bangladesh



Rana Plaza,
Dhaka, Bangladesh
April 24, 2013



Predictive capability of terrorism threat modeling

- Terrorism is a control process, with less frequency volatility than natural hazards, because of counter-terrorism feedback to suppress further acts of terrorism.
- Spectacular plots involving numerous operatives are likely to be interdicted, because of intercepted communications.
- The most likely successful attacks are plots with few operatives targeted in major cities.

The 'Known Knowns' of terrorism risk distinguishing terrorism from natural hazards

- Terrorists have the ambition to inflict maximum loss, with no limit to the scale of property or casualty loss.
- Terrorists deliberately target properties in principal cities with very high insured value.
- Losses only arise from some failure of government counter-terrorism protection.



NBC News