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**ENERGETIC DISRUPTER MODELS: THREATS and HAZARDS**  
**for**  
**Emergency, Disaster, and Humanitarian Management Programs**

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*Abstract*

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This presentation highlights the challenges of establishing a consistent application of the two terms, *threats* and *hazards*, in academic courses and professional training, designed for emergency, disaster, and humanitarian management programs offered by public and private higher education, government agencies, and nonprofits.

A new approach for viewing threats and hazards, named Energetic Disrupter Models, is presented, based on their ambient sources of energy, specifically potential or kinetic. Examples of threats and their collateral hazards for naturally occurring events are also offered for discussion and discernment. Such examples can provide the ingredients to created dynamic case studies that reimagine threats and hazards and simultaneously incorporate their respective sources of energy, which can create impactful events.

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*Presentation*

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**NEW CHALLENGE**

The field of emergency management is booming, and expansion into adjacent domains, principally disaster and humanitarian management, continues with momentum. In parallel, new certificate and degree programs added by higher education institutions are mushrooming, offering new and expanded subfields with diversity of subject matter, each with unique or expanded career opportunities. Growth and new players, however, are both driving the challenge for a consistent definition and unambiguous application of two essential operational terms: *Threats and Hazards*. The latent challenge is the multiple operational meaning and use of threats and hazards. They are not equivalent, but are so treated and conveniently viewed to be interchangeable. Unintentional multiplicity clouds and endangers timely, critical decisions for emergencies and related disaster and humanitarian management decision making, often generating harm to individuals in need of survival services and essential supplies, while struggling in harsh environments.

**BACKGROUND**

Threats and Hazards are ubiquitous terms, and they are deeply rooted in the expanding field of emergency management services: law enforcement, fire suppression, and paramedical. Disaster and humanitarian management are key outliers providing unique services to survivors: disaster management focuses on saving lives, protecting property, and safeguarding immediate environment, while humanitarian management provides water, food, and temporary shelter to survivors enduring acute or chronic conditions, including public health challenges. Higher education courses and professional training programs are not exempt from the multiple application of threats and hazards.

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**REIMAGINING THREATS and HAZARDS**

We, experienced emergency/disaster managers, propose a new way to view, discern, and to apply threats and hazards – minus ambiguity. The approach, Energetic Disrupter Models, recognizes potential and kinetic energy sources to differentiate between threats and hazards that impact stable conditions.

Our proposed operational approach is:

**Threat – distinguished by its source of potential energy.**

**Hazard – distinguished by its source of kinetic energy.**

To support our approach, we introduce examples and breakdown a new path of anticipating latent disruption(s) of emergency, disaster, or humanitarian management operations using the proposed “Energetic Disrupter Models” for the well-worn terms: *Threats and Hazards*.

Our proposed replacement view of operational threats and hazards is:

*Threats: Amorphous potential energy that can coalesce quickly to generate havoc for emergency, disaster, and humanitarian operations.*

*Hazards: Distinct kinetic energy with accelerating momentum and lethal force, impacting timely and orderly execution of operations.*

The proposed “Energetic Disrupter Models” are uncommon in everyday thought, yet have practical value with the rethinking and reimagining of threats and hazards. Our proposed “Energetic Disrupter Models” can be applied to multiple and complex events – whether emergency, disaster, or humanitarian in origin. Table 1 is a summary of our model for naturally occurring events, the focus of our inaugural presentation.

Also, the proposed model recognizes the ever-expanding roles of Public Health and Public Works within the spectrum of emergency, disaster, and humanitarian events.

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**TABLE 1: ENERGETIC DISRUPTER MODELS: THREATS and HAZARDS**

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<b>THREAT &gt; POTENTIAL ENERGY</b>	<b>HAZARDS &gt; KINETIC ENERGY</b>
<b>Hurricane</b>	Intense Wind Pelting Rain Loose Lightning Severe Flooding
<b>Earthquake</b>	Seismic Waves Ground Shaking Mechanical Stress Pressure Waves
<b>Tsunami</b>	Surface Flooding Seismic Waves Ocean Currents Tidal Waves
<b>Tornado</b>	Violent Storms Destructive Hail Lightning Strikes Flying Objects
<b>Land Slides</b>	Surface Shock Flowing Debris Runoff Water Shifting Soil

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Hazards resulting from a single threat can then transfer its kinetic energy into additional hazards such as fires, dam failures, explosions, and infrastructure collapse. This can occur because energy is neither created nor destroyed; it simply changes form. We refer to the sequence or chain of resulting hazards as Cascading Events.

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*Transparency*

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**SOURCES**

White House: *Presidential Policy Directive 8: National Preparedness*, Washington, DC (30 March 2011) [http://www.dhs.gov/xabout/laws/gc\\_1215444247124.shtm](http://www.dhs.gov/xabout/laws/gc_1215444247124.shtm).

Homeland Security: *Threat and Hazard Identification and Risk Assessment (THIRA) and Stakeholder Preparedness (SPR) Guide*.

Comprehensive Preparedness Guide (CPG) 201, 3<sup>rd</sup> Edition (May 2018).

Congressional Research Service: *Presidential Policy Directive 8 and the National Preparedness System – Background and Issues for Congress*. CRS Report for Congress, R 42073 (21 October 2011).

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