

# Comparison of Natural and Technological Disasters

by Jon Hansen

After 26 years in emergency services which included involvement in such large-scale disasters as the Oklahoma City Bombing and a F5 tornado, I have drawn the following conclusions about the differences and similarities related to disasters arising from these two different types of causes.

These days, the number of fire calls to which the fire service responds is actually down. However, the variety of incidents is much more diverse *and complicated*. Hazard Materials incidents in which we may encounter many different kinds of chemicals from highly flammable petrochemicals to caustic chemicals to biohazards have now become a very frequent occurrence. Clearly, the criminal element or possible terrorism now often enters into the equation. Incidents involving Weapons of Mass Destruction (WMD) are **not** rare occurrences. Even traditional Class A combustible fires are no longer simple since scientific advances in the building materials have resulted in many more flammable products. We are also responding to more fires resulting from natural causes, such as wildland fires, which may go on for days. Major floods have been occurring with more regularity in recent years than in the preceding decades.

One of the major differences between them is the need to detect and preserve evidence. Whether it is a WMD incident, a meth-lab bust, or an arson case, firefighters must add this task to our long list of duties as we do our work saving lives and protecting property. Prosecutors rely on the evidence we collect to catch and convict the perpetrators.

We must realize that *“The Rules Have Changed”* for today’s emergency services. Few would have previously predicted an airliner would be used as a WMD. Following the first World Trade Center incident, little attention was paid to possibilities of further terrorism. After the Oklahoma City Bombing, there was a brief interval of attention to readiness for terrorist attacks but it was put aside. The bomb at the Atlanta Olympics barely registered in our consciousness. I hope we will not soon forget September 11<sup>th</sup>. We must change our methods by thinking the “unthinkable” and learning to respond to such incidents.

As far as similarities, the incident scenes are very similar despite the original cause. I would defy you to identify the initial cause of disaster as you first arrive on the scene.

Intensive training is imperative. There is no second chance to learn how to handle these situations. There is no time to develop a learning curve onsite. Sometimes, only subtle tattletale signs can warn firefighters of possible hazards or secondary devices. Training is critical to avoid potential danger to both the general public and rescue workers. Firefighters today must know how to execute confined space rescues, trench rescues, high-angle rescues, as well as diving and swift-water rescues. In addition, many rescues involve highly specialized equipment running the gamut from helicopters to heavy construction equipment. These all require specialized skills, for which training is an absolute necessity. Training and Preparedness with a capital “T” and “P” are essential as we must make it our goal to see to it that our citizens wake up safely *and* that our firefighters go home safely each day.