The breakout session on emergency management began with a definition of emergency management from the context of intelligent transportation systems (ITS). In particular, the Disaster Response and Evacuation user service of the National ITS Architecture is defined to include the following major functions (see for example the summary available at http://www.nawgits.com/fhwa/itsarch_v5highlights.html):

1. Coordinate response plans
2. Monitor alert levels
3. Detect and verify emergency
4. Assess infrastructure status
5. Coordinate response/recovery
6. Critical service restoration
7. Manage area transportation
8. Disaster traveler information
9. Evacuation planning support
10. Evacuation traveler information
11. Evacuation transportation management
12. Evacuation resource sharing

More generally, the breakout session discussed the processes involved in emergency management, including:

1. Data gathering
2. Information management
3. Information dissemination
4. Knowledge formation

The group also used a Federal Emergency Management Agency definition of emergency preparedness (http://www.dhs.gov/dhspublic/display?theme=51&content=206) as consisting of:

1. Preparedness
2. Prevention
3. Response
4. Recovery

The group distinguished between “scene management” (what to do at the scene of an emergency to secure, organize, and control the scene) and “emergency management” (the broader set of efforts involved in preparing for, preventing, responding to, and recovering
from an emergency). The group also discussed what is included in the architecture to respond to major disasters:

1. Communication
2. Procedural agreements
3. Equipment/infrastructure
4. National/statewide/local coordination (e.g., standards, interoperability issues)

With these definitions in place, the breakout session participants identified possible research activity needs as follows:

1. Transportation
   a) The level of integration of transportation facilities and operations into emergency-response plans (which varies significantly depending on the specific region or venue of interest)
   b) How to evacuate when the extent or direction of a hazardous plume is unknown or changing
   c) How to enhance knowledge of what transportation assets are available
2. Medical
   a) The preparedness of the medical community to respond to emergencies
3. Communication interoperability
4. Interoperability between the transportation system and the public safety system (not limited to communication interoperability)
5. Possible focused development of an emergency-management architecture to establish a framework to define and achieve interoperability