How can MAVs assist human-robot teams in disaster response over multiple sorties?

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Typical applications for Micro Aerial Vehicles (MAVs) in Urban Search and Rescue environments:
- **Aerial photography, Inspection tasks, 3D Modeling**

Disaster response is not just “in-and-out”. MAVs perform multiple sorties during missions.

Needed:
- **Integration** of information, to create persistent situation awareness.
- **Fusion** and **integration** of different sensors i.e. Mono / Stereo / Omni Cameras, 2D / 3D Laser scanners, Radar, GPS, Gyros, Compass...

MAV actions
1. Localization and Planning
2. Construction of 3D models for dynamic environments, from observations obtained over time across multiple sorties
3. Persistent models for MAVs acting in environments with or without GPS.
4. Persistent models for human-robot teaming

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