

### WHY TMC'S?

- The concept of traffic management in the United States in the 1960s and 1970s began as the traffic volumes began to rise rapidly.
- Since the late 1980s, over 288 traffic management centers have been built in various regions of the United States to monitor freeways and major arterials.
- At the same time, the construction of new roadways was slowing down which forced agencies to develop new and innovative ways to manage the congestion on the existing system without expanding the capacity.
- The TMC has become the focal point for operating and monitoring traffic management systems.

## **BENEFITS OF A TMC**

- Improved traffic incident detection, response, and clearance times;
- Improved understanding, trust, respect, and communication among agencies;
- Allow for better on-site management of incidents;
- Allow for improved sensitivities to responder organizational objectives and responsibilities;
- Improved coordination to the actual response to scenes and the monitoring of impacts of incidents;

### **DETECTION OF INCIDENTS**

In the typical TMC, operators receive notice of incidents through:

- A network of sensors (loop detectors, radar, etc.) which continuously monitor traffic flow (speed, occupancy, and/or volume)
- Motorist calls from roadside telephones, cellular phones, or those relayed via the "911" network
- Vehicle "probes" such as those monitoring flow of vehicles (including passenger and commercial vehicles, transit buses, law enforcement vehicles, or maintenance vehicles) which carry radio frequency transponders or are actively transmitting location derived from on-board global positioning systems.
- Monitoring video images from roadside cameras (CCTV)

### THE FUTURE?

As technology increases and changes, the role of TMC's will change as well, some areas that are either being integrated now or may be in the future include:

- TMC Automated Vehicle Operations
- TMC Dynamic Lane Management and Shoulder Use
- TMC Evacuation Support
- TMC Toll Facility Management
- TMC Multi-Modal Coordination
- TMC Traffic Metering
- TMC Variable Speed Limits

# LOCATIONS OF TMC'S IN THE UNITED STATES (2010)





