

CITY OF HOUSTON TRAFFIC INCIDENT MANAGEMENT PROGRAM

Overview of the city- wide Traffic Incident Management Program

I. Objective: Management of the Freeways and intersecting Major Arterial Roadways to effectively reduce the impact of incidents on traffic congestion, pollution, safety, the economy and community disruption and on the regional transportation system.

The Greater Houston area experiences over 25,000 freeway related incidents annually, including traffic accidents, hazardous materials spills, overturned trucks, lost loads, vehicle stalls, etc. Rapid detection of incidents will allow trained personnel to properly dispatch the appropriate resources and avoid duplicative resource response.

II. Benefit of an aggressive, technology driven traffic incident management program:

- Reduce clearance time and to return traffic flow to normal
- Reduce duplication of resources responding to the incident
- Reduce vehicle idling and emissions
- Reduce Emergency Medical Response time
- Reduce traffic congestion's impact on the economy
- Reduce possible exposure of citizens and first responders to hazardous materials spills

Incident managers will:

- Monitor freeways from a remote location
- Re-route traffic
- Request emergency medical response
- Dispatch the appropriate team to respond to the incident
- Assist with the enforcement of current laws/ordinances

III. Methodology

The use of real time zoom cameras affixed to roving helicopters will allow rapid detection of incidents when they occur. Images from camera systems will be transmitted in real time to monitors observed by trained incident management personnel to determine what specific resources are needed to clear the incident. Computerized dispatching systems will be used to dispatch the appropriate resources. Motorist assistance and towing services will remove vehicles and other obstacles in the roadway. Simultaneously, a plan to re-route motorists will be implemented in real time via the existing TxDOT Dynamic Message Sign system and the Highway Advisory Radio system. Duplication of services from multiple responders and agencies will be avoided, allowing precious resources and personnel to be allocated to other needs.

This program allows incident managers to implement a plan for the particular incident from a remote location.

A team approach will be used to address each incident. Incident investigators, motorcycle officers, and helicopter personnel will be assigned designated segments of the freeways. If fixed camera monitors detect that traffic is slowing, a request will be made for the helicopter to fly over the area. Images will be transmitted to TranStar where incident managers will determine what is causing the congestion and immediately summon the appropriate response. A plan will be formulated to re-route traffic if needed. Incident investigators and motorcycle officers will be dispatched to the incident. Incident managers will use information obtained from the Automatic Vehicle Locators (AVL) to properly dispatch investigators and motorcycle officers. If it is apparent that emergency medical personnel or life flight may be needed, incident managers will make the necessary contacts for an immediate response or may request that medical personnel be placed on stand-by status. Incident managers will be able to view specific hazardous materials information on trucks involved in hazardous materials spills. Advanced notice to the motorcycle officers will allow them to expand their area of containment preventing further citizen and first responder exposure.

Incident investigators will quickly process accident scenes and direct wrecker services to remove vehicles from moving lanes. Once the freeway is clear for traffic, the investigators will begin their reports and issue citations away from the freeway.

When incident investigators and motorcycle officers are not responding to incidents, they will maintain a presence on the freeways and major arterial roadways.

City of Houston partners: TxDOT, TranStar, Houston Emergency Center, Harris County, Metro Police Department, and towing services.

IV. Technology:

- Real-time zoom cameras affixed to roving helicopters
- Remote viewing consoles
- Dispatching consoles
- Fixed cameras along the freeways viewed remotely
- TxDOT messaging signs to advise of incidents
- Automatic Vehicle Locators
- High-tech accident reconstruction equipment

VI. Training

The Houston Police Department and Houston Fire Department have initiated mandatory traffic incident management training.

Traffic incident management teams will be trained in:

- Increase awareness of responder safety issues
- Improve multi-agency communication and coordination
- Decrease time and impact of incidents
- Improve roadway management and clearance techniques

TRAFFIC INCIDENT MANAGEMENT IMPLEMENTATION PLAN

Phase One: The Traffic Incident Management Program Phase I will target the IH 10 Katy Freeway from downtown west to the Grand Parkway and US 59 Southwest Freeway from downtown to Highway 6. The objective is to reduce the impact of incidents on the Katy Freeway during the 7-year major construction project and to reduce the impact of truck involved accidents, overturned trucks and lost loads on the Southwest Freeway.

Phase Two: Phase II will target IH 45 Gulf Freeway and will address the impact of incidents on the freeway especially related to natural and man-made disasters.

Phase Three: Phase III will be determined based on results of the first two phases and will extend coverage to other freeways and major arterial roadways.