Joint Emergency Operations Center
Joint Emergency Operations Center (JEOC)

The mission of the JEOC is to:

• Establish emergency preparedness for the City of Fort Worth and Tarrant County, and

• Coordinate disaster response activities among city departments and dozens of agencies.

Co-funded by the:

• City of Fort Worth
• Tarrant County
• Tx Dept of Public Safety
Traffic Management Center (TMC)

The role of our new TMC is to:

1. Manage traffic operations using the traffic signal system, camera systems, and other technologies, and

2. Support the JEOC with real-time traffic condition information and provide video of the roadways and the city.

The City Manager *required* a new TMC to be constructed and made part of the new JEOC.
The JEOC is:

An 18,000-square-foot facility and includes new technology such as:

- Videoconferencing systems
- Crisis management systems
- A Web-EOC system to track all emergency events among EOC staff
- A new Radio Over IP system
- New media room with media hookups outside the building
- Monitors in almost all rooms throughout the facility
Timeline to Create the New JEOC and TMC - 12 months!

- 2010
  - Feb: Architectural design
  - Jun: TMC planning, requirements, equipment determination
  - Sep: $600,000 of cameras, comm equipment and video system equipment procured

- 2011
  - Jan: Decision finally made for where to locate the new JEOC
  - Feb: Building renovation by city forces
  - Apr: TMC and field equipment installed
  - Jun: JEOC and TMC in 24/7 operation
  - Jul: Building Cert. of Occupancy
  - Aug: Super Bowl
Inside the EOC

Public Information Room

• Separate space for the media
• Television studio
• A/V connections to broadcast briefings

Break Room

• Fully equipped kitchen and break room.
• During EOC activations 3 full meals are provided each day.
Inside the EOC

Police/Fire Command Room

• Separate space to organize police and fire response
• Police dept’s separate camera system brought into this room.

Backup Power

• Complete backup power generator and UPS
• Sized to support all computers
• There are elaborate fuel arrangements to power the system
Inside the EOC

Video Chase

Five 3x2 Wall Displays in the Chase area behind the Video Wall

IT Room

13 video system servers in the JEOC IT Room

3 racks just for traffic!
Inside the EOC

Executive Conference Room

• Command room for upper management
• Fully equipped with monitors
• PC hookups in ALL chairs

• During activation:
  • formal reporting protocols are used
  • with hourly briefings in this room
  • so effective field responses can be coordinated
The entire floor had been constructed to be an Internet hotel for Verizon. But the space was mostly unused. Verizon’s lease was bought out and demolition began.
EOC Construction – Jun to Nov 2010

6 months for renovation
All Stations Manned – Jan 2011

The Cotton Bowl at Cowboy Stadium was used as a dry-run to activate the J EOC
TMC Construction – Jun to Nov 2010
Integration of the TMC – Dec to Jan 24

Video management system from boxes to integration

Staff video management system training happened while camera integration continued

Almost too many staff, consultants and vendors at one time
CBD Traffic Camera System

13 new cameras installed
CBD Traffic Camera System

New cameras installed by city forces

Old 3 foot diameter dome cameras removed
CBD Traffic Camera System

New building mounts were structurally designed for each building and pole.
CBD Traffic Camera System

Cameras installed by city forces

Cameras being set up to work
Video Management System

Client software for JEOC workstations

Web client for remote users

• 3 Client workstations in TMC

• 1 Client workstation on the Coordination floor

• System is unicast from field camera to TMC – multicast within city LAN

• Web clients used for city offices outside of the JEOC space
New TxDOT Fiber Link to get freeway cameras

We used our IT Dept’s existing cable installation contract to speed up installation
Citywide Communication
Cellular Modems

- Omni Hotel
- Pittsburg Steelers
- Meacham Field
- Air Transport
- TCU Indoor Practice Field

40 modems up and running
Citywide Communication – Cellular Modems

Modem mounted 15 ft high on pole closest to our cabinet

POE unit mounted in traffic cabinet

Terminal server installed inside of Type 170 controller

All equipment installed by city crews because of rush

Communication established
The JEOC “Activated” early for Ice and Snow weather, then for the Super Bowl.
Traffic cameras used to observe traffic events of great interest:

- Freeway accidents – cameras used by PD and FD to access crash magnitude and traffic access
- Water main break in CBD – Water Dept kept a constant watch on the camera feed to monitor repair progress
- Street Division monitored roadway ice and Steelers bus routes…and bus progress until they left FW city limits
- And countless more events
Traffic Management Experiences

Sundance Square – site of the ESPN booth

Saturday: weather improving, crowds growing

Saturday night before the Super Bowl
Traffic Management
Experiences

Sundance Square – site of the ESPN booth

Numerous Super Bowl events and parties at several venues in downtown Fort Worth
Traffic Management Experiences

Transvision was running 24/7 too. We talked frequently.

Saturday night before the SB

• With congestion seen on camera views, we used Transvision’s website to read their DMS sign displays

• They were displaying: “Watch for Ice on Roadways”

• Almost all freeway traffic was using the same Spur 280 ramp to downtown

• So... after contacting Transvision, several sign text messages were changed to promote the use of alternate downtown ramps.

Since year 2000, we have exchanged video with TxDOT
Traffic Management Experiences

Saturday night before the SB

Extreme congestion

- PD put Belknap signals on flash
- EVERYBODY using Spur 280
Traffic Management Experiences

Life in the JEOC...

3 meals a day

8 staff members manned the TMC 24/7 for 10 days

Comfortable bunk beds
Joint Emergency Operations Center
Traffic Management Center