Implosion Exposition: Using ITS to Facilitate Temporary Traffic Control Management



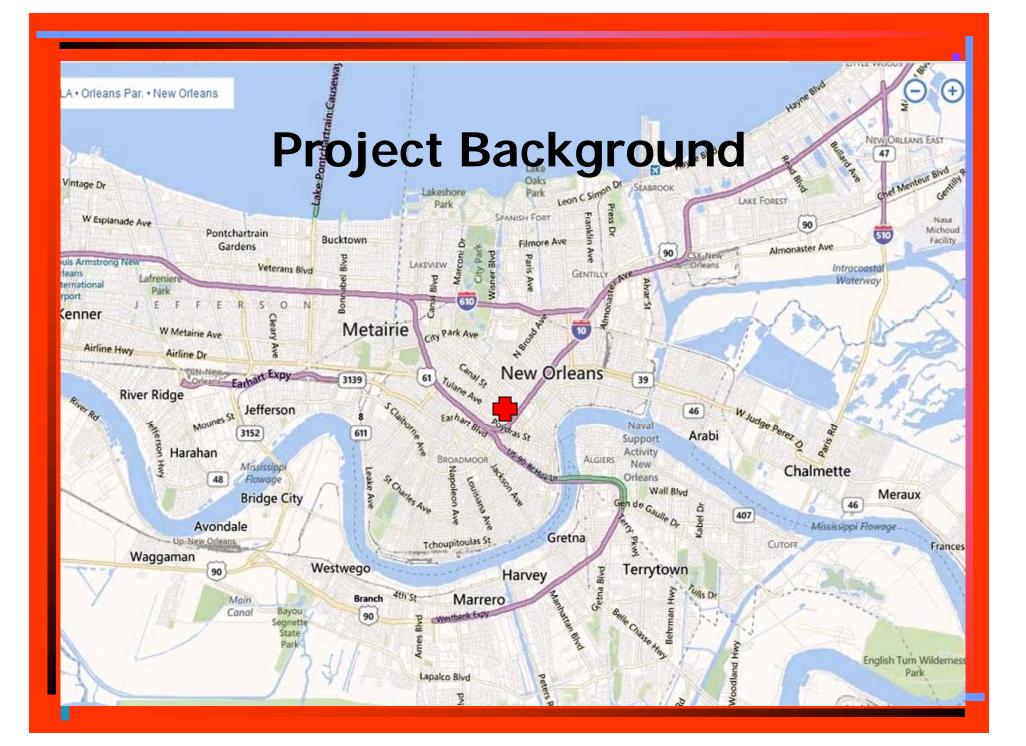
Implosion Exposition: Using ITS to Facilitate Temporary Traffic Control Management

Topics to be covered (under the guise of a case study):

- Concept of "Short Term" TTC(M)
- Security vs. Traffic Management
- Communications issues
- Bringing it all together with ITS



- 2005 06 University Medical Center site proposed in downtown New Orleans
- New Medical Complex to replace old Charity Hospital and VA Medical Centers damaged in Hurricane Katrina
- Will link with existing University Hospital and LSU School of Applied Sciences



Implosion Exposition: Using ITS to Facilitate Temporary Traffic Control Management

MUTCD Part 6 – Temporary Traffic Control applies to:

- Construction Zones
- Incident Management Areas
- And by association, Traffic Control for Planned Special Events
- So which one do we have here?

Points to Ponder

MUTCD Part 6 –

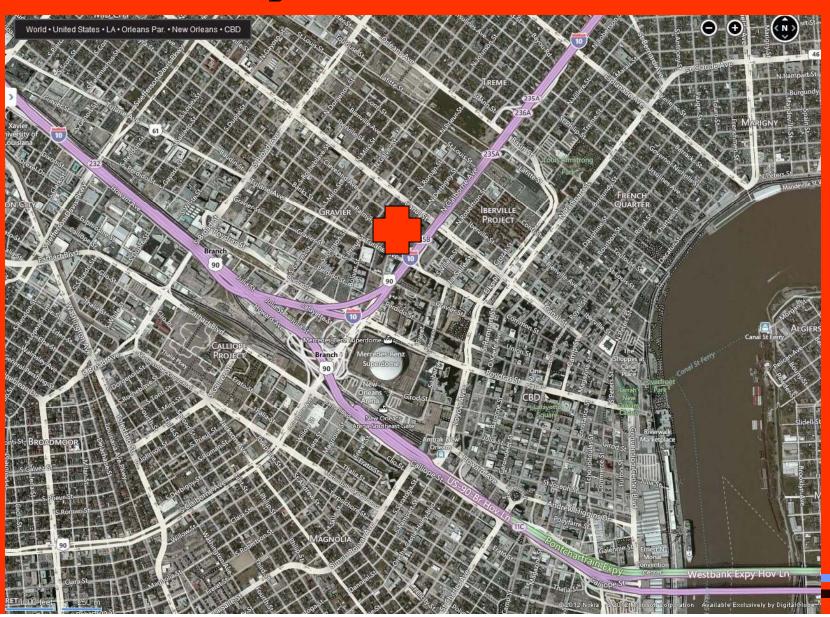
- All work zones should have a Temporary Traffic Control Plan
- Allowances are made for duration, type of work, engineering judgment
- Tradeoff between time to set up traffic control vs. time to do work
- For Incident Management Areas, emergency vehicles may substitute for "traffic control" for up to ...?

Points to Ponder

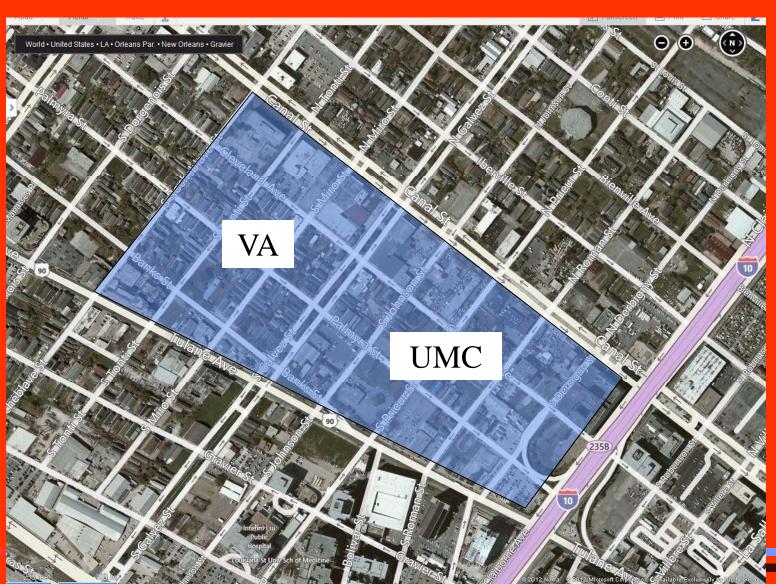
MUTCD Part 6 –

- All work zones should have a Traffic Control Plan
- Allowances are made for duration, type of work, engineering judgment
- Tradeoff between time to set up traffic control vs. time to do work
- For Incident Management Areas, emergency vehicles may substitute for "traffic control" for up to 30 minutes

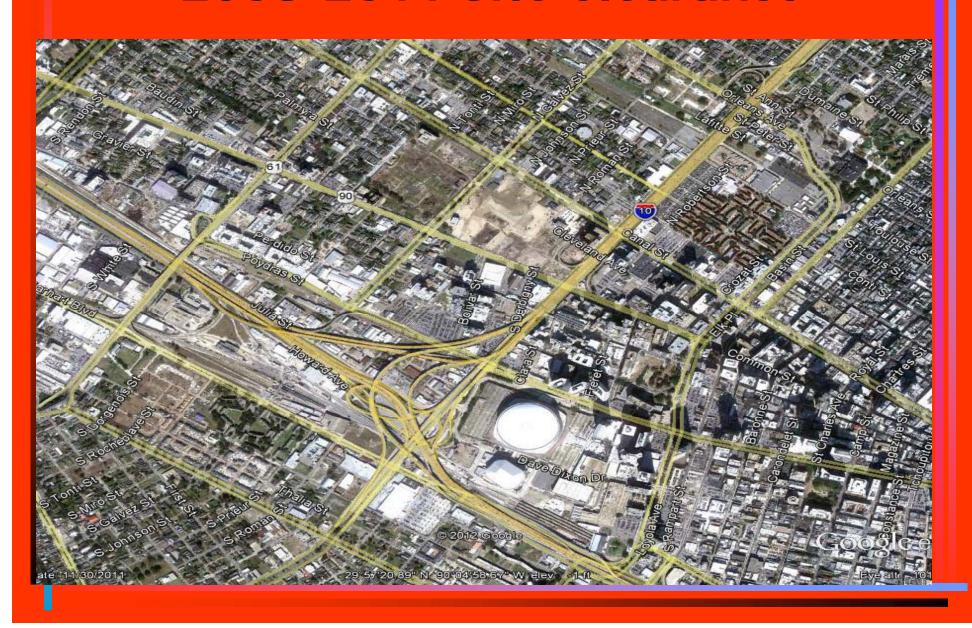
University Medical Center Site



University Medical Center Site



2008-2011 Site Clearance



2008-2011 Site Clearance



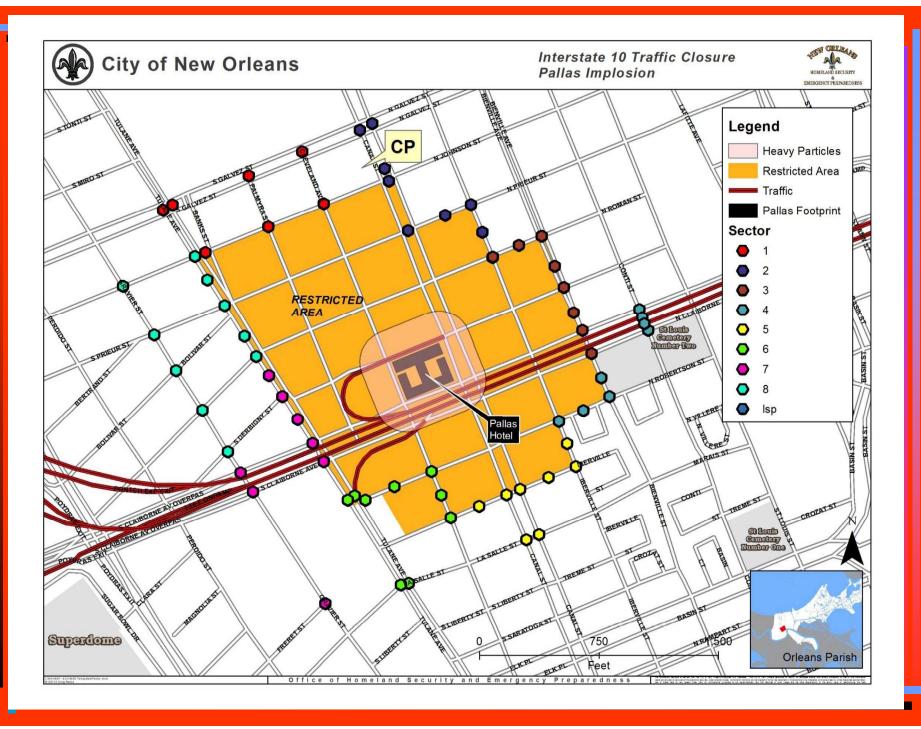
- 22 story Pallas
 Hotel last major
 structure
 remaining
- Effects of work on access to I-10 / Canal Street offramp
 - Decision made to remove by implosion

2008-2011 Site Clearance



Coordination of Planning

- Street Closure Plan coordinated by City of New Orleans – Security
- Highway Closure Plan Coordinated by LA DOTD and State Police
- Distinctions between interests of the Security and Transportation aspects
- LADOTD / LSP permits required to proceed with plans
- Organization / Implementation under Incident Command System (ICS)



Pitfalls of Planning

- Initial planning for event focused on local street closures only, using ICS techniques without regard for TTC requirements
- Demo contractor believed a very short closure window was possible, did not account for need to inspect and clean bridge structure
- Incident Command System (ICS) did not account for dealing with active traffic beyond the project site
- Emphasis on project requirements, not road user needs, was a recurring pitfall

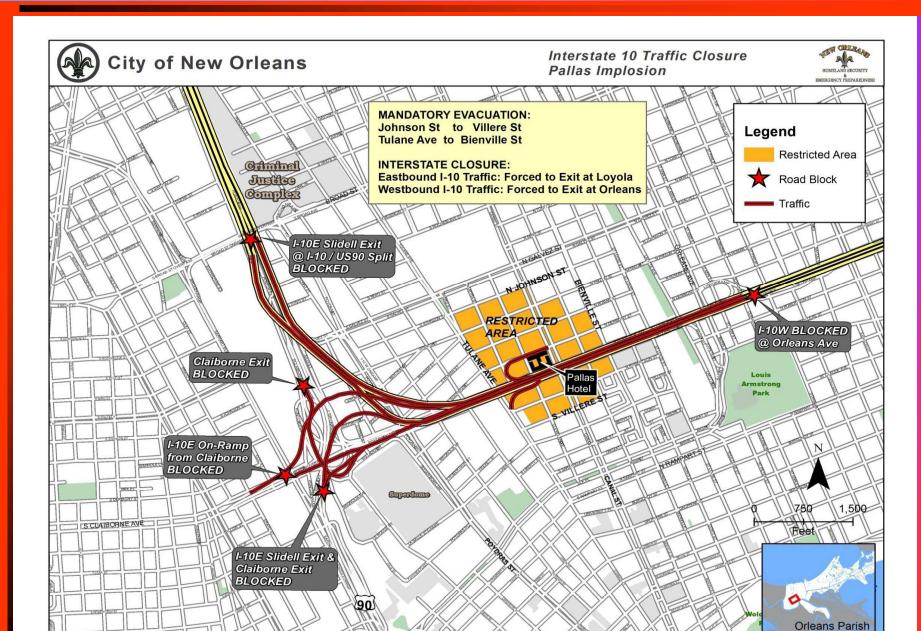
Different Interests, Outcomes

Security

- Safely evacuate residents and businesses
- Ensure public health and safety
- Control crowds of onlookers
- Inspect site for stability postblast

Traffic Management

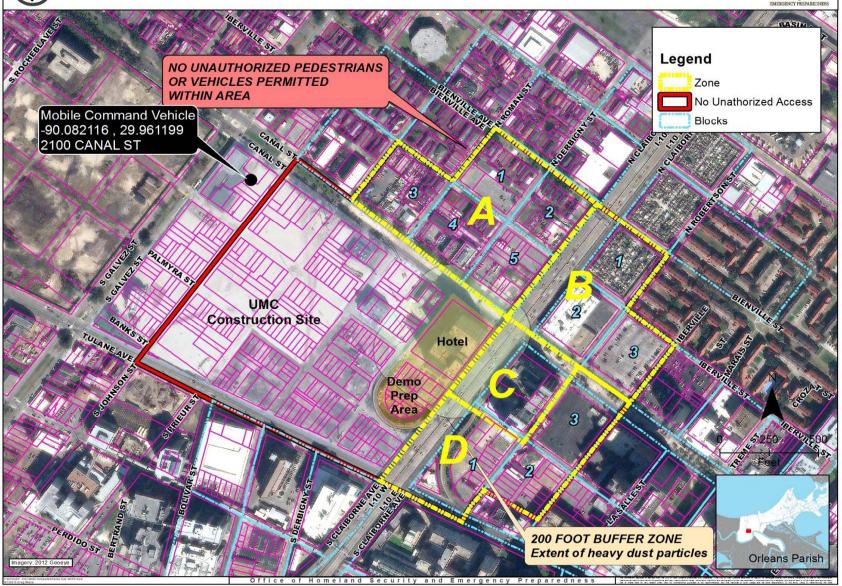
- Detour traffic
- Minimize disruptions to through traffic
- Ensure safe restoration of operations
- Inspect/repair damage to infrastructure





Pallas Implosion

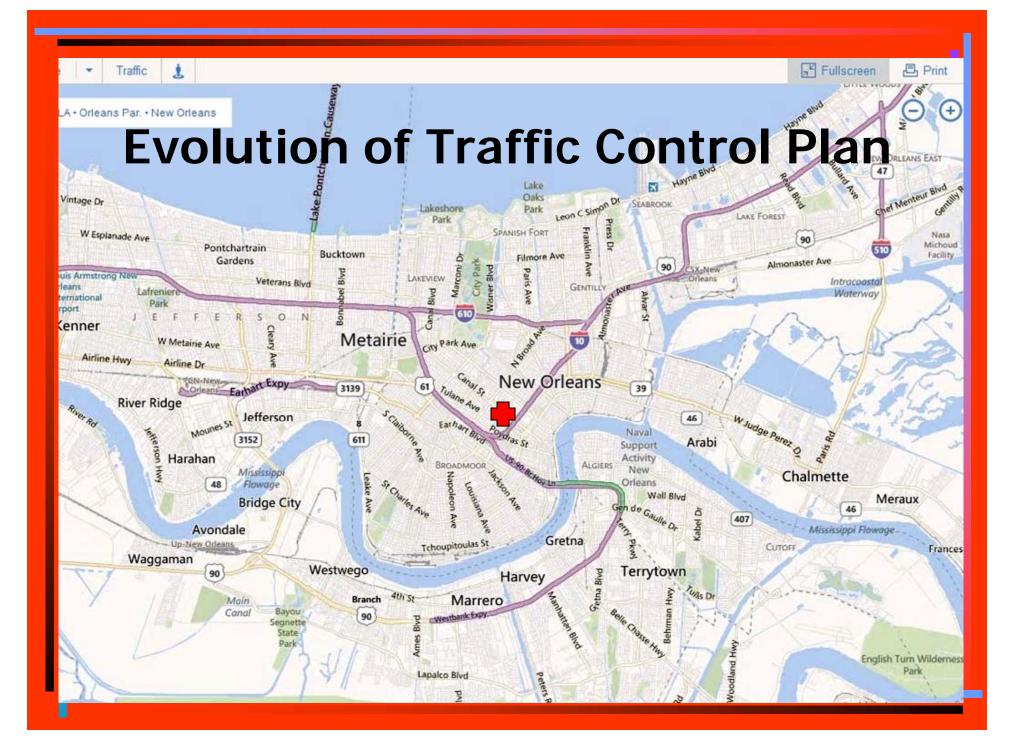




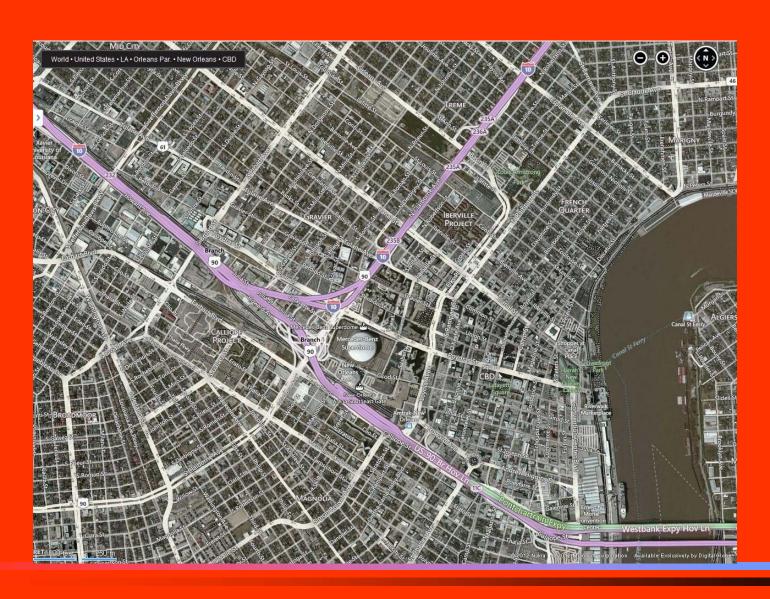
Evolution of Traffic Control Plan

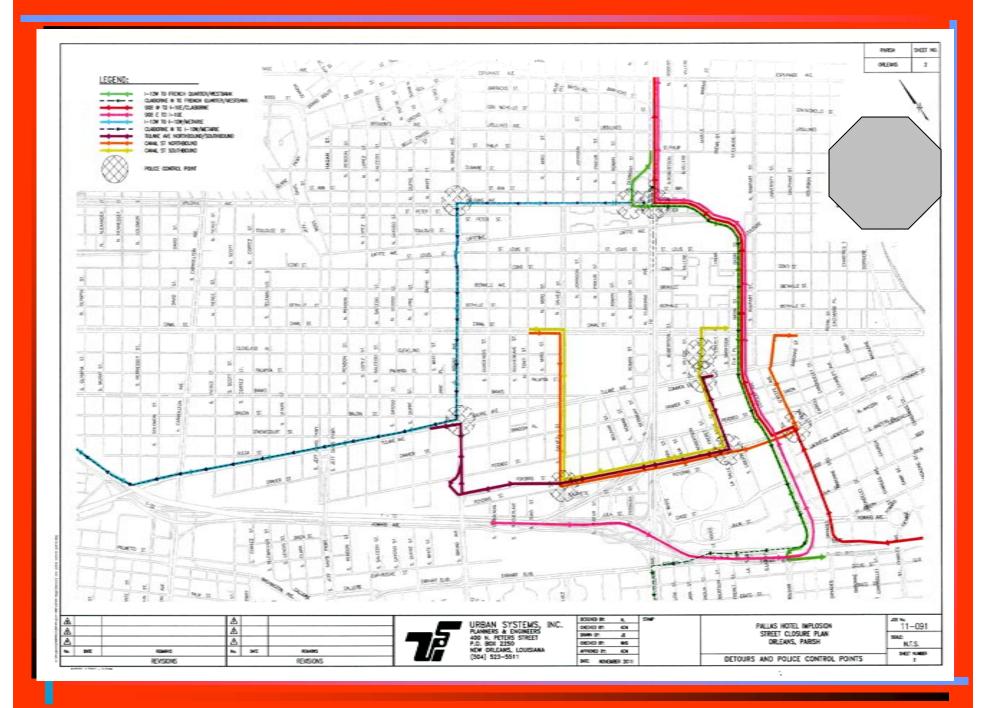
Timeline - October - November 2011

- Initial submittal involved using police units and Message Signs to block I-10 at I-610 for short duration
- Rejected in favor of a detailed plan using exits closer to the job site
- Loyola Avenue used as primary detour route
- Target date mid December 2011



Downtown Detour Routes

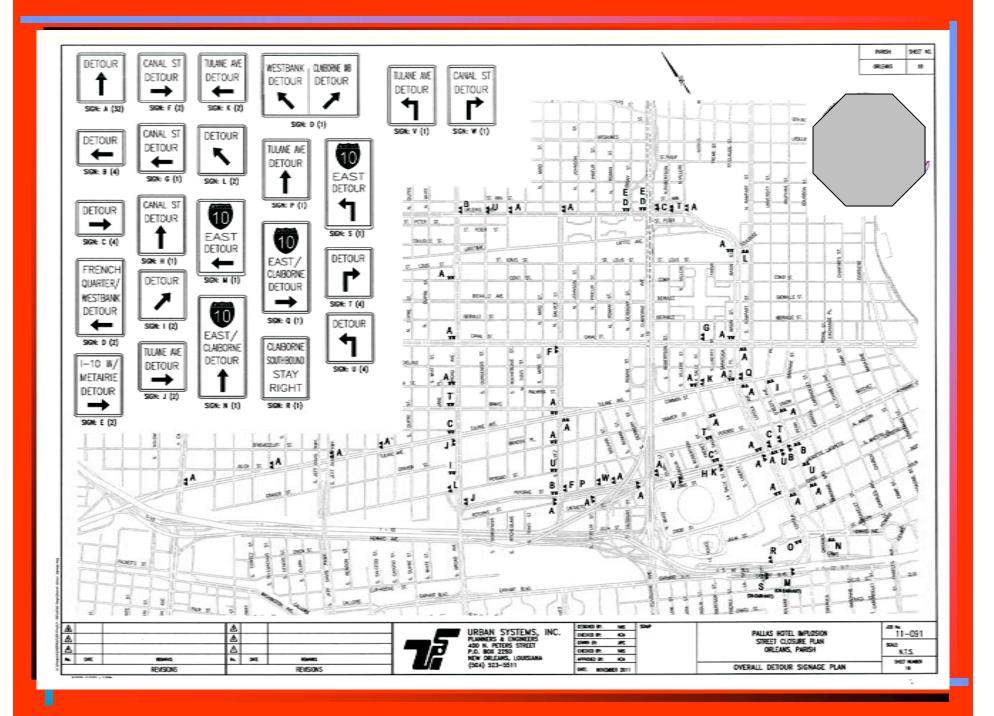




Evolution of Traffic Control Plan

Timeline – December 2011 - June 2012

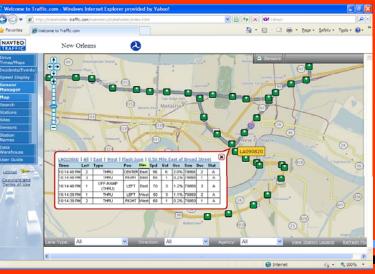
- Delays in scheduling implosion due to holiday/Mardi Gras/Final Four special events
- Misunderstandings regarding permits required by LSP and DOTD
- Loyola Avenue detour route affected by new streetcar construction project
- New target date July 22, 2012
- Commitment to use Traffic Control contractor not affirmed until July 16!



Major operational features provided by DOTD for I-Day

- Motorist Assistance Patrol (MAP)
- Limited CCTV Camera Coverage
- Changeable Message Signs (CMS)
- Traffic detectors to monitor backups
- Bridge inspection crews to assess any damage to infrastructure
- RTMC operators to issue notices, update Twitter and 511





Major operational features provided by State Police for I-Day

- LSP Officer at RTMC to dispatch road units
- Presence at end of traffic queues
- State Police radios to monitor coordinated channels
- Rolling roadblock on US 90B for actual implosion time to discourage onlookers
- Liaison with NOPD, Incident Command Post, field units



Implosion day



Implosion day



Implosion day





Before / After





Before / After





Before / After





