



# FIRE DEPARTMENT OF THE CITY OF NEW YORK

JOINT CHEMICAL, BIOLOGICAL,  
DECONTAMINATION AND PROTECTION  
CONFERENCE AND EXHIBITION

OCTOBER 25, 2007

BC EDWARD BERGAMINI  
CP JEFFERY RACE

# WHY IS THE FDNY AT THE CONFERENCE?

- FDNY Pre/Post 9/11
- FDNY CBRNE Challenges
- FDNY-JPEO Partnering Effort
  - BRIEF FIRE BOAT HISTORY
  - JPM-CP Support
- FDNY Future Initiatives



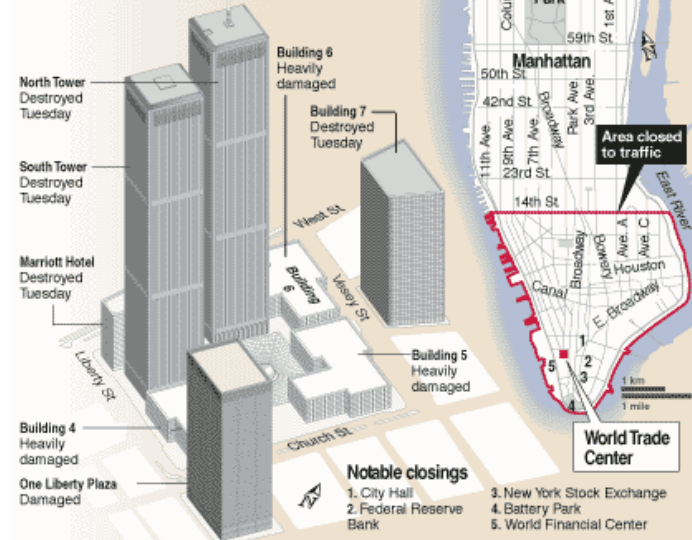
# FDNY on 9/11

- 9/11 had many lessons learned and exposed vulnerabilities
- Not well prepared for a major terrorist event
- Toxic material and smoke major hindrance to first responders
- Mass population evacuation limited
- Command centers not tailored to meet needs of first responders



## After the blast

Partial assessment of building damage following the attack on the World Trade Center towers:



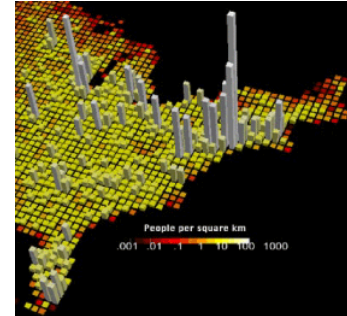
# FDNY Post 9/11

- Assessed vulnerabilities to address future threats
- Upgraded command center to meet challenges of 9/11 magnitude event
- Upgraded CBRN Readiness
  - new fire boats outfitted with CP



# CBRNE CHALLENGES

- GENERAL
  - HIGH POPULATION DENSITY
  - TRADITIONAL CONOPS VS. NEW
  - SUSTAINABILITY OF OPERATIONS
  - ONGOING TRAINING AND EQUIPMENT NEEDS
  - Will City be able to provide the basic services (LE, Fire/EMS) during recuperation activities?





# CBRNE CHALLENGES

- Sustainment in CBRN Event
  - Mobile Command Centers
    - Not hardened for CBRNE event
  - Communications
  - Rest and relief
  - Decon zones
  - Conops not prepared for CBRNE event
- Modeling and Simulation
  - Cloud Plume
  - Population density contamination analysis
  - Post attack assessment tools
- SCBA EQUIPMENT
  - Limited usage time
  - Limits time to complete tasks
  - 2/3 of air time used for ingress/egress to scene



# Fire Boat Collective Protection

- Joint Project Manager-Collective Protection and FDNY developed partnership to assist on CBRNE matters, specifically as expert advisor for fire boat CP design
- JPM-CP worked closely with FDNY to ensure the required capability was implemented for the fire boat
- FDNY required Subject Matter Expertise for shipboard CP
- FDNY sought expertise within DoD, specifically Navy CP SME
- No commercial shipbuilding codes provide CP design requirements
- JPM-CP will leverage Navy CP expertise engineering and technical support for the fireboat design and testing.

# JPM-CP Support

- Requirements definition
- Detail design
- Build phase
- System verification and testing
- System training and checkout
- Life cycle support
- System capability



# FUTURE INITIATIVES

- Other NY/NJ Port Agencies with Maritime Resources
- Land based critical infrastructure protection



**FIRE DEPARTMENT + CITY OF NEW YORK**  
BROOKLYN NAVY YARD, BLDG 4201 + BROOKLYN, NY 11201



**ROBERT ALLAN LTD.**  
NAVAL ARCHITECTS AND MARINE ENGINEERS  
200 - 900 West 42nd Street - Toronto, ON M5V 1K7 - Canada  
Telephone: 416 734-8888 - Fax: 416-734-8888 - Telex: 300000

