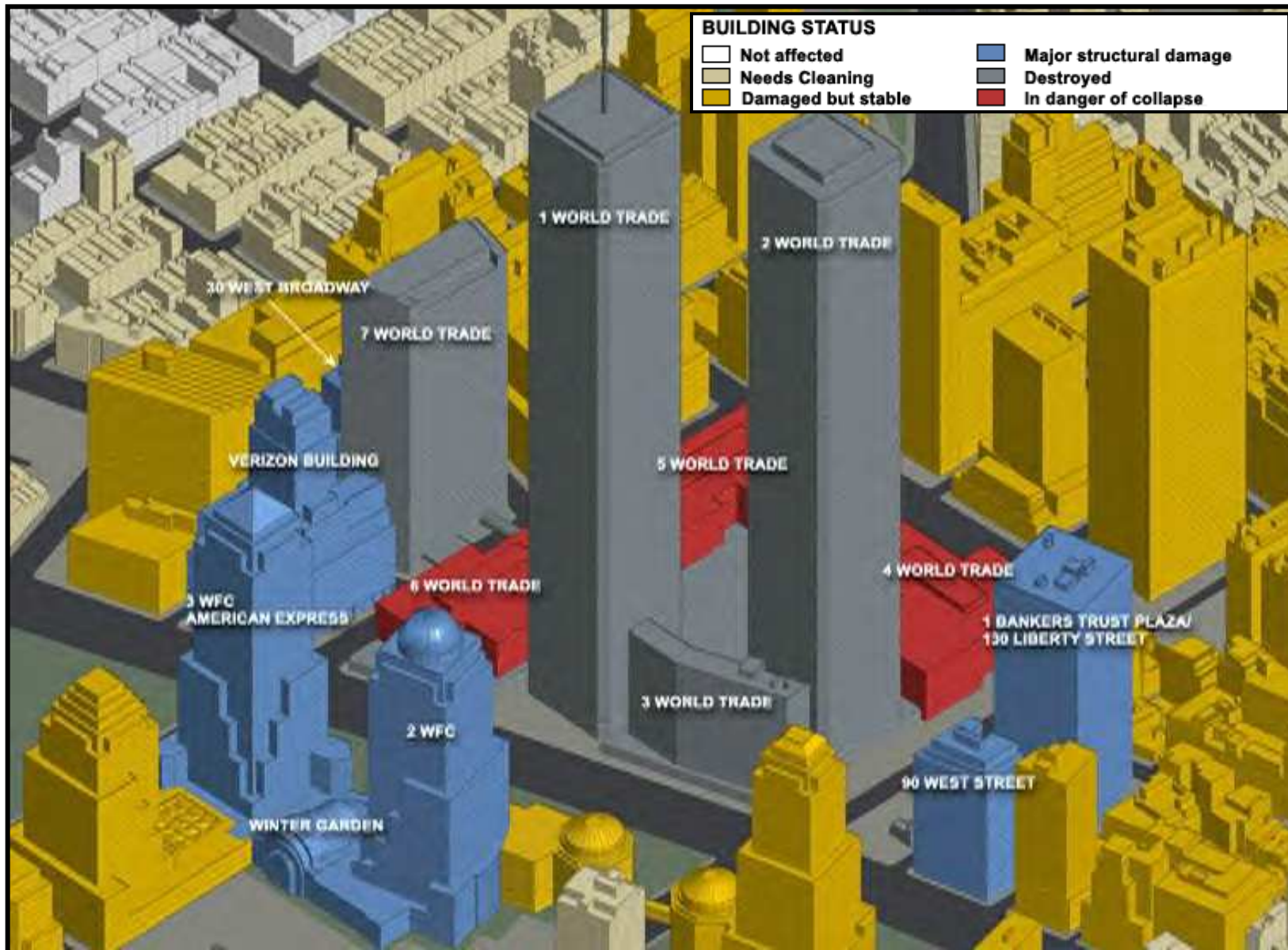


FDNY

Facing Future Challenges with ICS



Deputy Assistant Chief
Ron Spadafora



3-D view of Ground Zero showing destroyed buildings and those with major structural damage (viewed from southwest)



















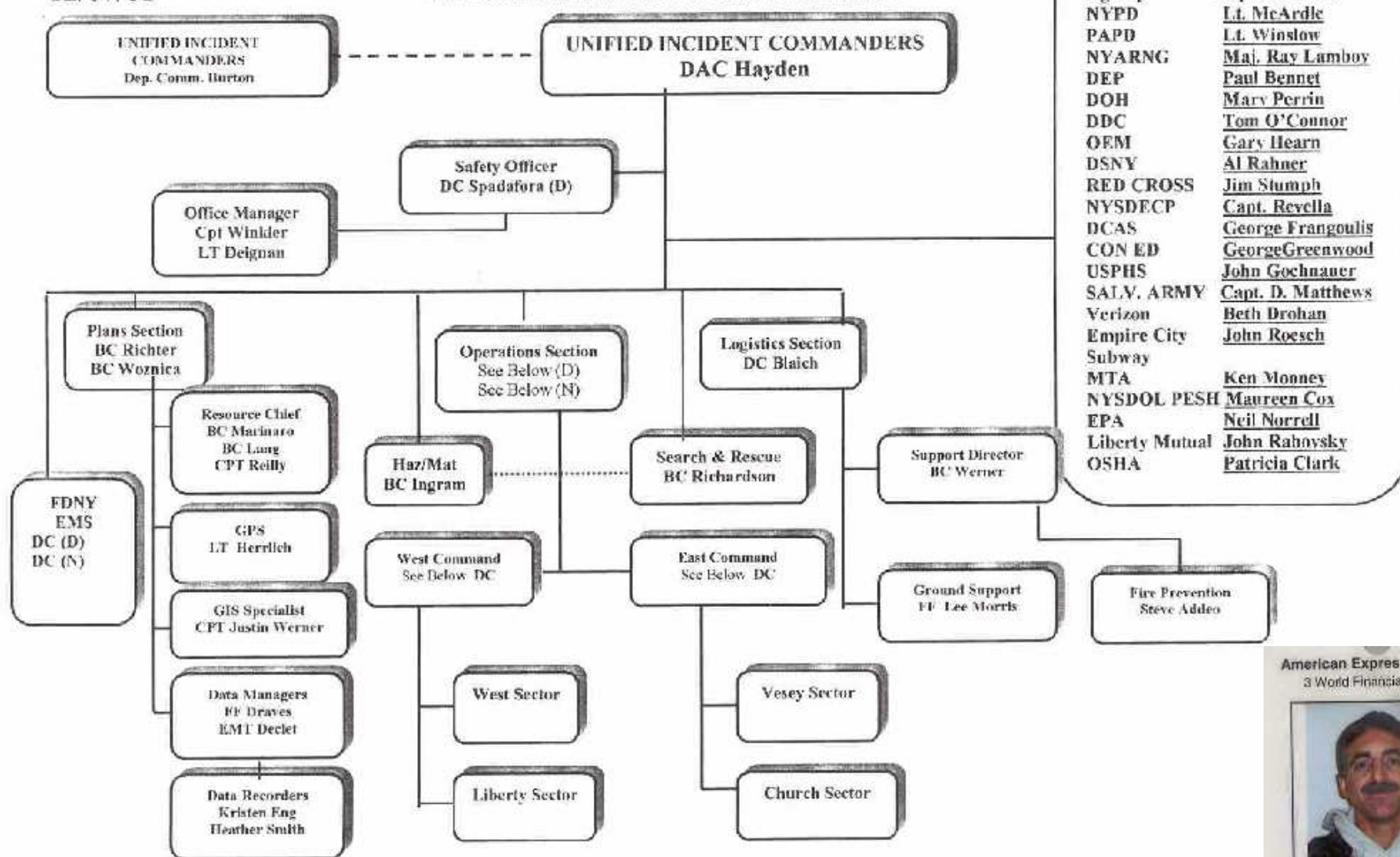
FDNY

Incident Action Plan



12/07/01

WTC ORGANIZATIONAL CHART



Cooperating Agencies	
Agency	Representative
NYPD	<u>L.L. McArdle</u>
PAPD	<u>L.L. Winslow</u>
NYARNG	<u>Maj. Ray Lamboy</u>
DEP	<u>Paul Bennet</u>
DOH	<u>Mary Perrin</u>
DDC	<u>Tom O'Connor</u>
ORM	<u>Gary Hearn</u>
DSNY	<u>Al Rahner</u>
RED CROSS	<u>Jim Stumph</u>
NYSDECP	<u>Capt. Revella</u>
DCAS	<u>George Frangoulis</u>
CON ED	<u>George Greenwood</u>
USPHS	<u>John Gochbauer</u>
SALV. ARMY	<u>Capt. D. Matthews</u>
Verizon	<u>Beth Drohan</u>
Empire City	<u>John Roesch</u>
Subway	
MTA	<u>Ken Monney</u>
NYS DOL PESH	<u>Maureen Cox</u>
EPA	<u>Neil Norrell</u>
Liberty Mutual	<u>John Rahovsky</u>
OSHA	<u>Patricia Clark</u>

WTC Task Force

Tour 1	(D)	0700 - 1900	Operations Chief	AC
Tour 2	(N)	1900 - 0700	Operations Chief	DC -

American Express Building
3 World Financial Center



Ronald Spadafora

DDC
Recovery Team



September 17, 2001









Falling Debris Overhead Hazards

9/21/01



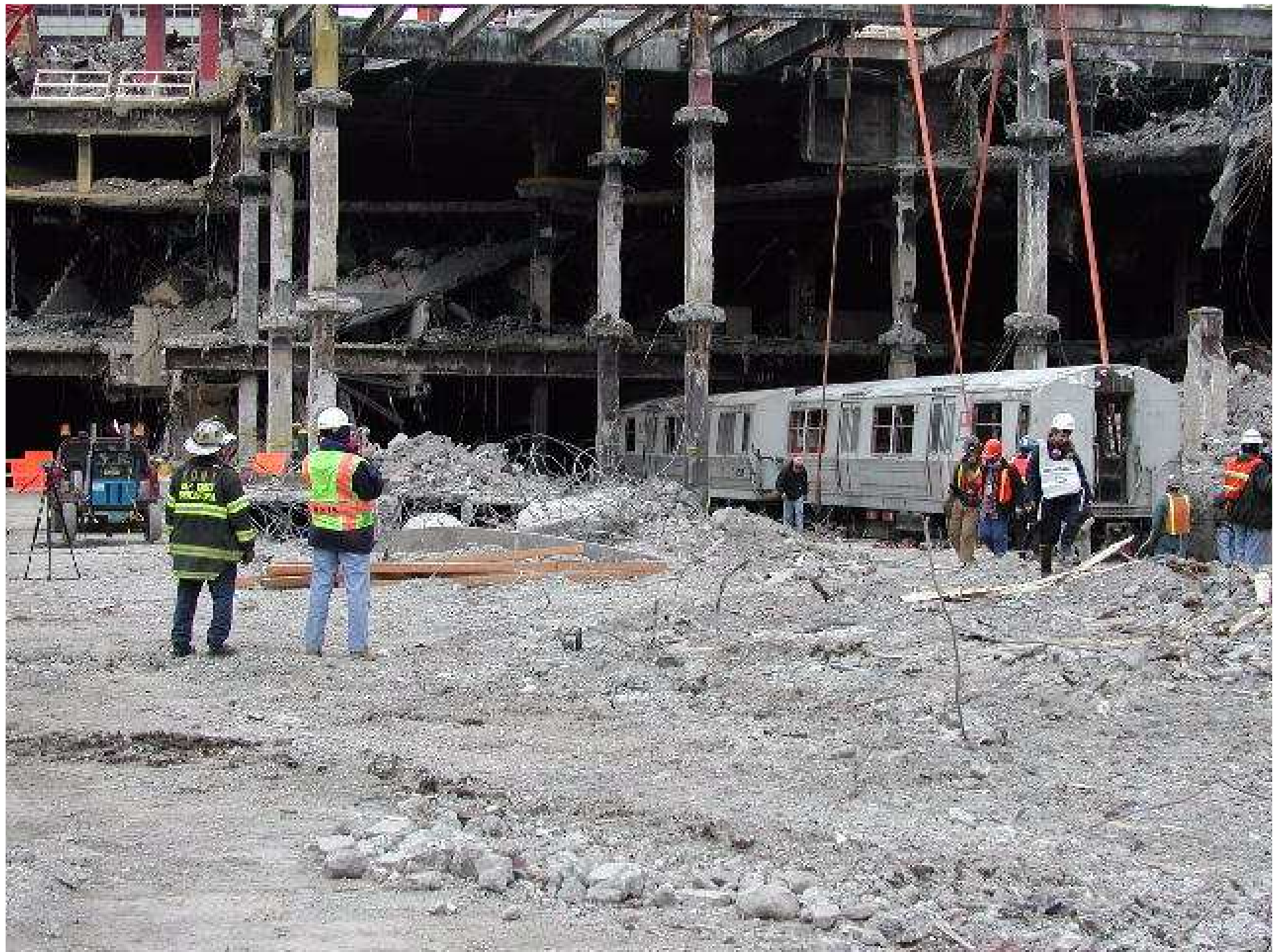


2/17/02















Fall Hazards





Unprotected
elevator shaft





Heavy Equipment







Safety Message

12/14/01



Major Hazards:

Crane Operations

Demolition Operations

Biological Hazards

Dust / Airborne Particles

Falling Glass & Debris

Traffic

Walking and Working Surfaces

Open Shafts

Hazardous Materials

Lack of PPE

Cold Weather







Trucks Hauling Debris



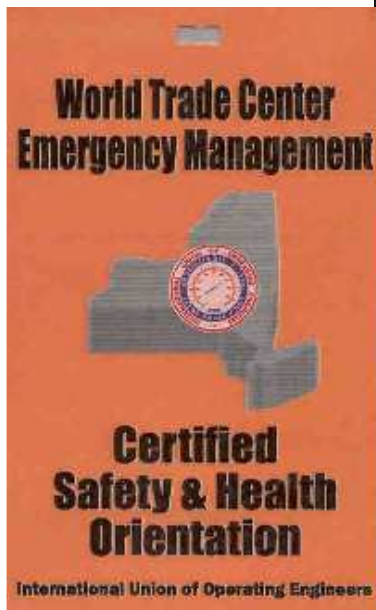






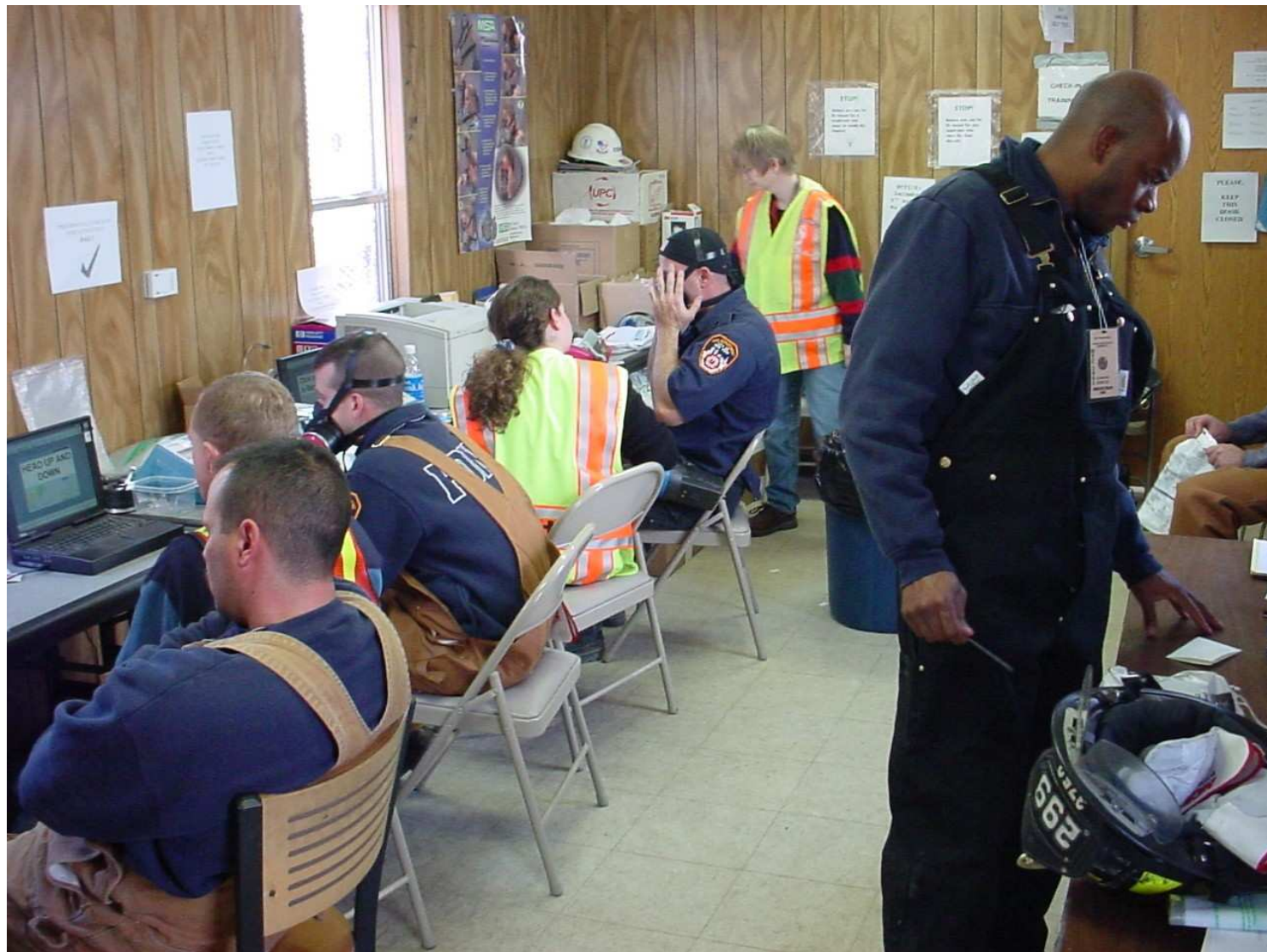


Orientation for all FDNY Members





Respirator Fit Testing



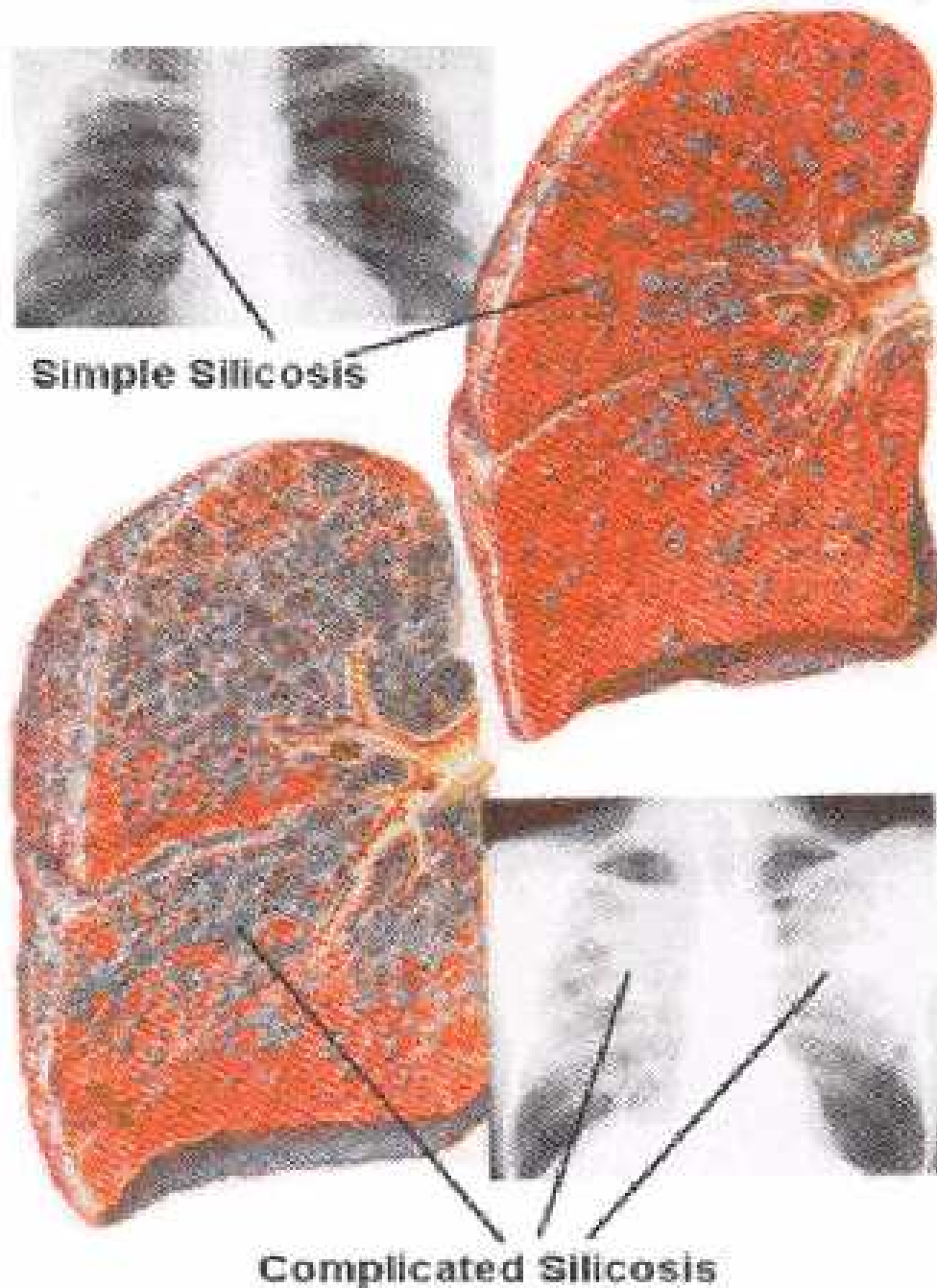
What Does Silicosis Look Like?

■ Simple Silicosis

- *Small discrete nodules (lesions)*

■ Complicated Silicosis

- *Lesions increase in size*
- *Grow together to form larger opacities (masses)*





PPE-Physical Hazards







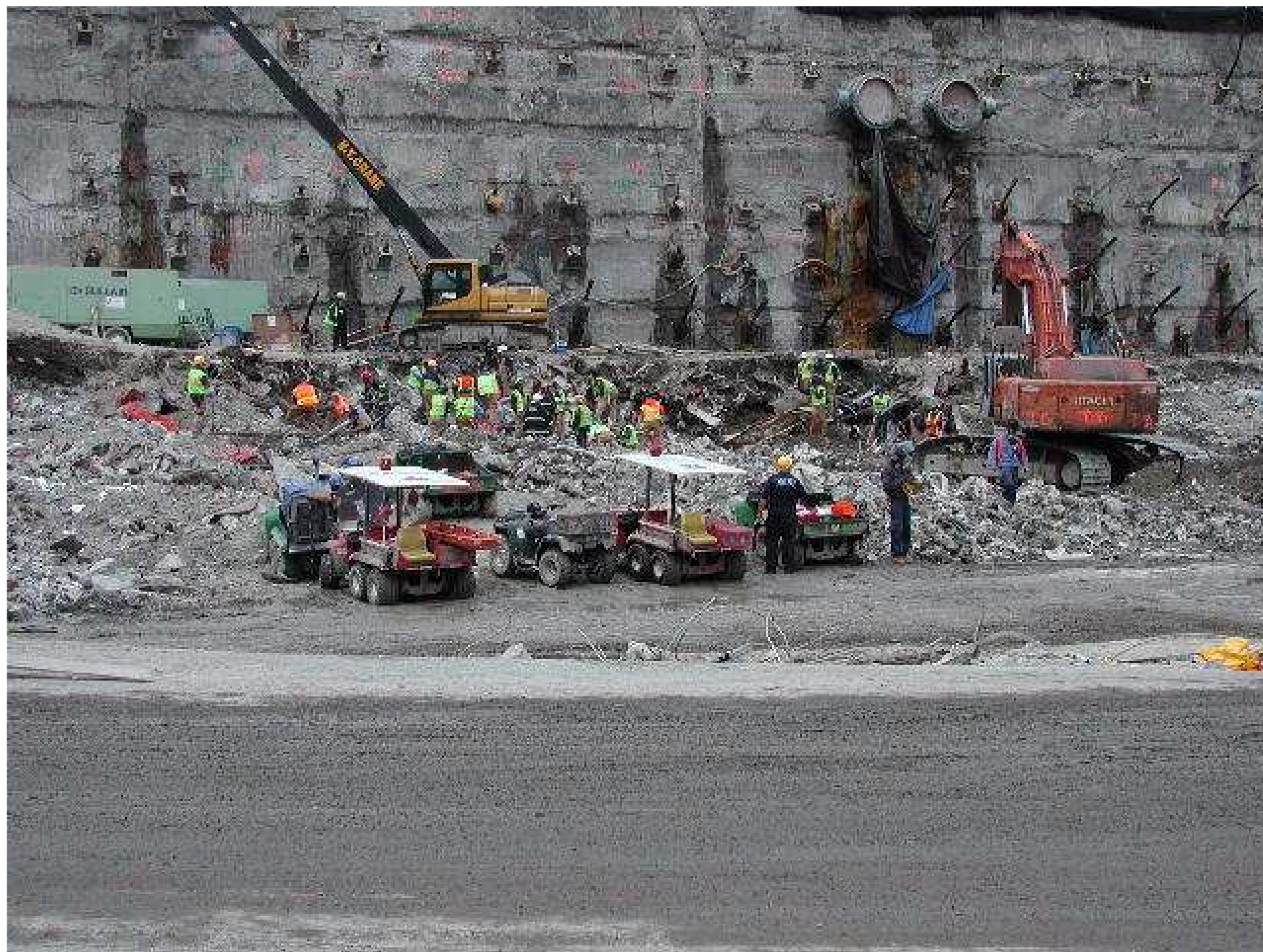
Recovery Team Safety: Safety Officers

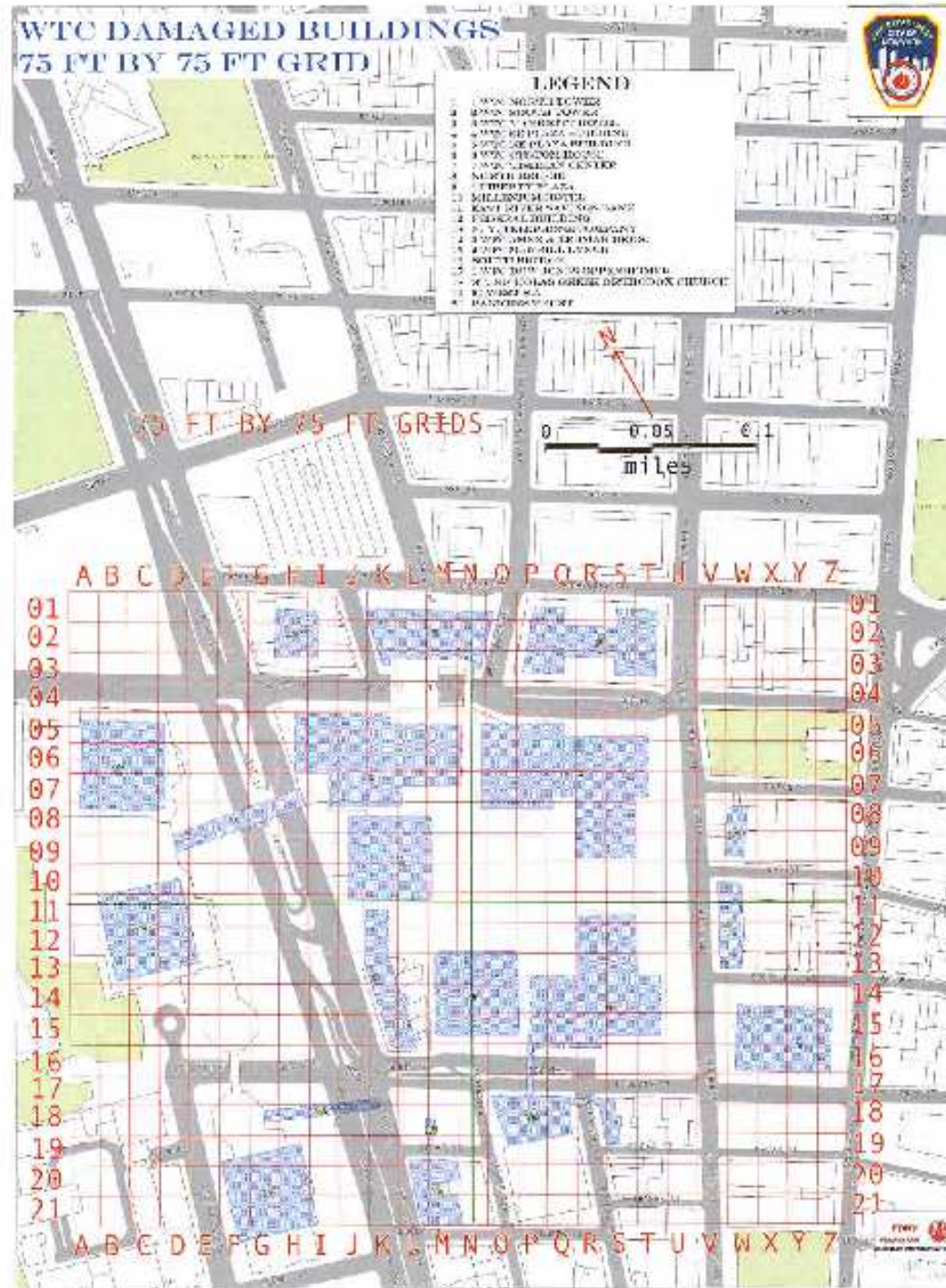




Recovery Team Safety: Spotter









Hazardous Environment: Exposure to Combustion By-Products





Cutting Steel





Air Contaminants [Possible Exposures]

- Silica
- Asbestos
- Sulfuric Acid
- Heavy Metals
- Combustion Products from the fires
- Freon





Exposure Controls: Dust Suppression





Fire Prevention Issues





Liquid Oxygen





Exposures to Hazardous Materials







Freon Tank

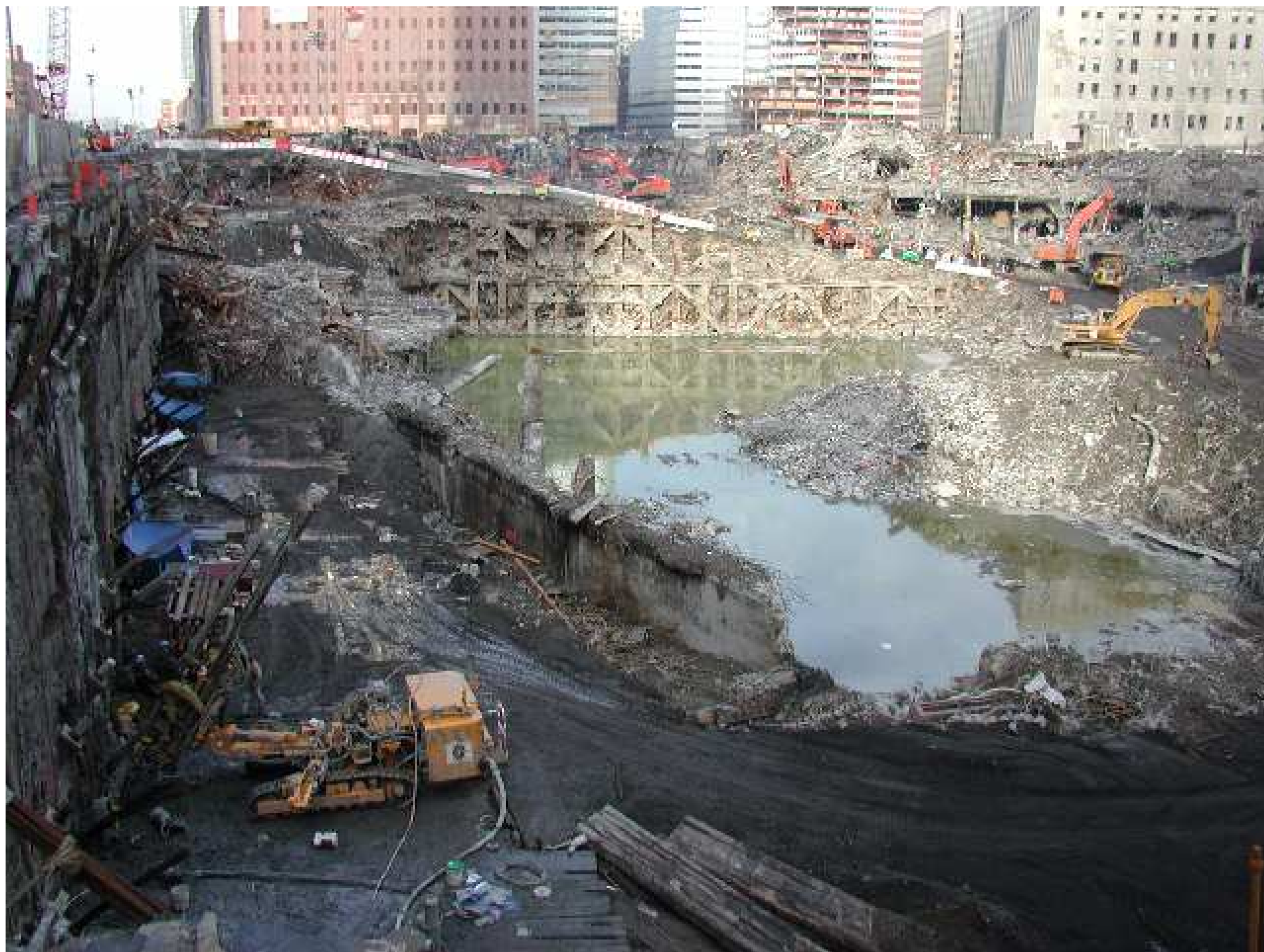














Evacuation: Alarm System





Evacuation: Stairways





Lighting











EMS





4/12/02

Hydration Station



The Taj Mahal





Vacuum Station





Boot Wash





Hand Wash





Wash Stations



EARTH  TECH

A *tyco* INTERNATIONAL LTD. COMPANY

SHOWER STATION





Cafeteria



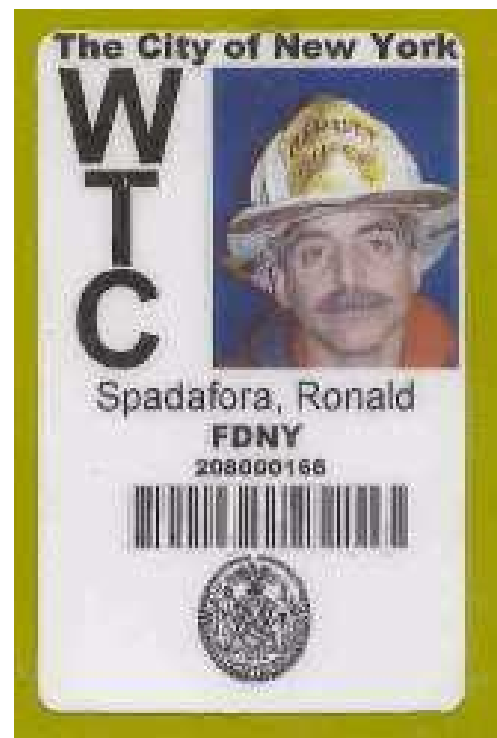


NEW YORK CITY
FIRE DEPARTMENT'S
COUNSELING SERVICE UNIT



Mychal's Prayer

Lord,
Take me where you want me to go
Let me meet who you want me to meet
Tell me what you want me to say
And keep me out of your way.





Environmental Health & Safety Issues



- Ongoing Construction Evaluation
- Structural Hazards
- Utility Installation
- Fire Prevention
- Site Access
- Building Fire Suppression Systems
- Fire Hydrants
- Site Security
- Hazardous Materials
- Safety/Health Issues



December 2001
U.S. Naval War College
Planning Exercise

Evaluators Concluded:

- As a function of Command and Control the FDNY has no formal system to evaluate problems or develop plans for multiple, complex, events. The FDNY has conducted very little formal planning at the operational level.

Feb-Aug 2002 McKinsey Report

Analyzed FDNY 9/11/01 Operations

- Interviewed FDNY Officials
- Reviewed Tapes/Audio transmissions
- Read Computer Files/Operational Logs
- Interviewed Outside Experts

Feb-Aug 2002

McKinsey Report, Cont'd

169 Page FDNY Report Resulted:

- Improve Operational Procedures and Planning
- Specially trained personnel are needed
- Evident 9/13 with arrival of Southwest IMT
- Use of ICS as a “Management Tool Box”

February 2003

USDA-FDNY MOU

- Develop IMTs in the FDNY
- IMT 2-Week Training Course-using NIIMS Curriculum
- U.S. Forest Service Southwest IMTs
- 70 FDNY Chief Officers
- 38 Civilian Officials-ICS for Executives
- Foundation for establishing FDNY IMTs was the completion of the 17 module training to ICS 400 Level

August 2003-Shadow Team Training

- Culmination of FDNY ICS Training
- Goal: 12 teams of 5 Chief
 - 5 day shadow assignment at an Incident
- Designated as Technical Specialists
 - Operations/Planning
- Objective:
 - Expose FDNY teams to an IMT in action
 - Gain knowledge of ICS techniques and team structure
 - Better response to complex and long duration assignments-Nationally and within NYC

Missoula meeting new friends



Project Name	Project Area	Project Group	Project Type	Project Status	Project Date	Project Location	Project Size	Project Cost	Project Notes
Project A	Area 1	Group 1	Type 1	Status 1	Date 1	Location 1	Size 1	Cost 1	Notes 1
Project B	Area 2	Group 2	Type 2	Status 2	Date 2	Location 2	Size 2	Cost 2	Notes 2
Project C	Area 3	Group 3	Type 3	Status 3	Date 3	Location 3	Size 3	Cost 3	Notes 3
Project D	Area 4	Group 4	Type 4	Status 4	Date 4	Location 4	Size 4	Cost 4	Notes 4
Project E	Area 5	Group 5	Type 5	Status 5	Date 5	Location 5	Size 5	Cost 5	Notes 5
Project F	Area 6	Group 6	Type 6	Status 6	Date 6	Location 6	Size 6	Cost 6	Notes 6
Project G	Area 7	Group 7	Type 7	Status 7	Date 7	Location 7	Size 7	Cost 7	Notes 7
Project H	Area 8	Group 8	Type 8	Status 8	Date 8	Location 8	Size 8	Cost 8	Notes 8
Project I	Area 9	Group 9	Type 9	Status 9	Date 9	Location 9	Size 9	Cost 9	Notes 9
Project J	Area 10	Group 10	Type 10	Status 10	Date 10	Location 10	Size 10	Cost 10	Notes 10





Camp Robert

Robert Incident INCIDENT OBJECTIVES

8/3/03 – 1300 hrs



1. Provide for the safety of firefighters, the public, and aviation operations by recognizing and mitigating risks identified in LCES, the 10 Standard Fire Orders, and Watch Out Situations.
2. Keep the fire north of the North and Middle forks of the Flathead River, north and east of Canyon Creek drainage, and south and east of Big Creek.
3. Provide for the protection of property in the communities of North Fork Canyon, Apgar, Lake McDonald, and Glacier National Park Headquarters.
4. Provide for protection of Huckleberry Lookout and Apgar Lookout.
5. Continue to provide timely and accurate information to the communities affected by the fire.
6. Provide for initial attack for Glacier National Park and Flathead National Forest.



<http://akteam.akteam.ak.blm.gov>
www.fs.fed.us/r5/fire/cmnts/ac

START DATE:

JULY 23, 2003

ROBERT FIRE

AUGUST 4, 2003

ALASKA TYPE 1

INCIDENT MANAGEMENT TEAM

JOE STAM - I.C.

TOTAL ACRES: 24,400

% CONTAINED: 40%

BURN OUT OPERATIONS:

TOTAL ACRES: 5000

TOTAL MILES: 12

RESOURCES ASSIGNED:

PERSONNEL: 994

DOZERS: 9

CREWS: 22

ENGINES: 68

HELICOPTERS: 8

WATER TENDERS: 17

COST TO DATE: 7,100,000

EVACUATED AREAS

AREAS: LAKE McDONALD

STRUCTURES:

APGAR (OPEN 8AM-8PM)

COMMERCIAL PROPERTIES

OTHER: 36

Branch 3

Robert Fire



Robert Fire Perimeter

Robert Fire
August 4, 2003

Infrared Interpreted
Acres: 24,395

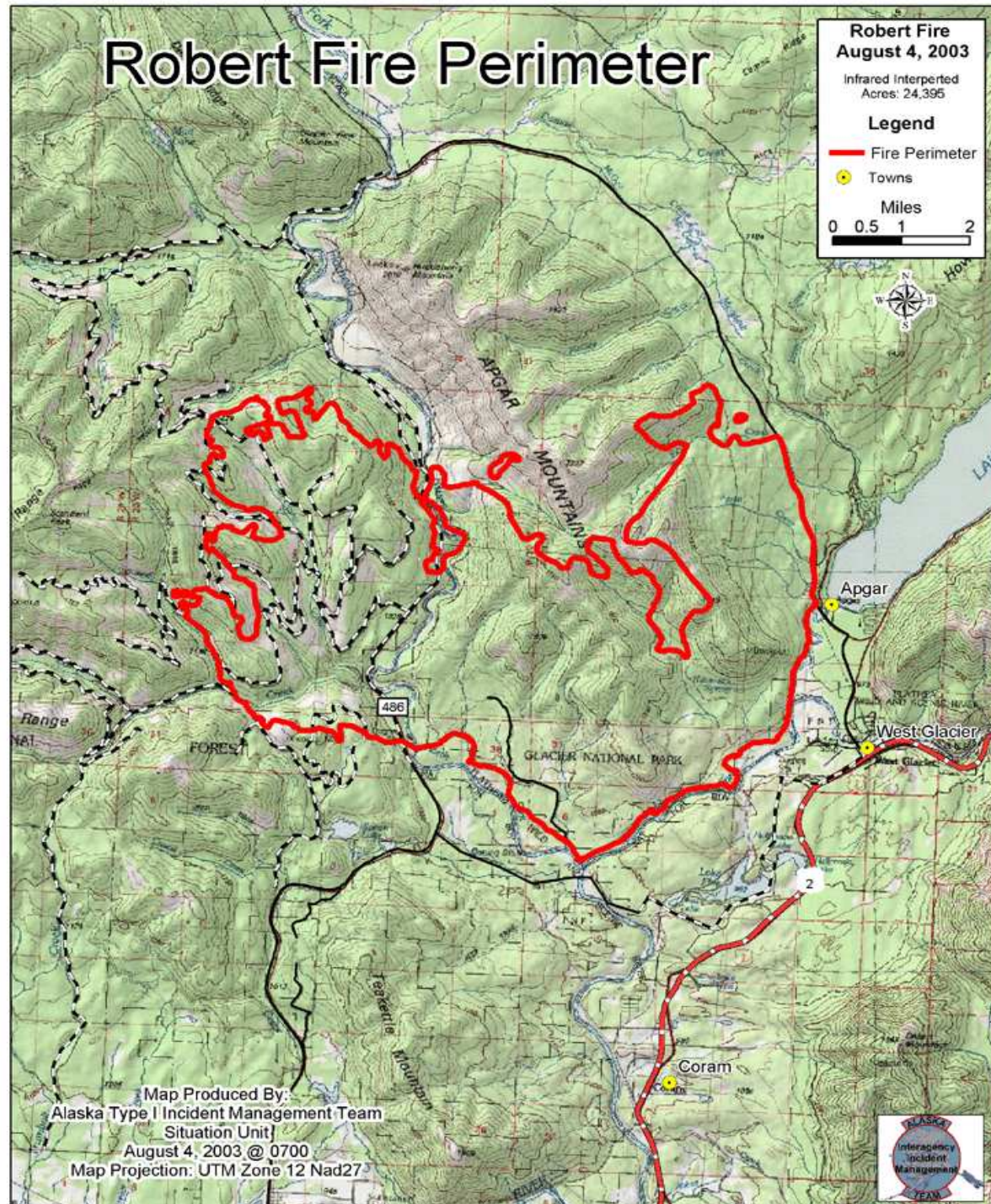
Legend

 Fire Perimeter

 Towns

Miles

0 0.5 1 2



Map Produced By:
Alaska Type I Incident Management Team
Situation Unit
August 4, 2003 @ 0700
Map Projection: UTM Zone 12 Nad27







“Hunkering Down”







08/04/2003

Camp Robert



SAFETY



Do Not take food in or around your tent.

Do Not leave food or garbage unattended.

Throw garbage in trash receptacles.























