

#### U.S. Department of Energy National Nuclear Security Administration NA-84 Office of Nuclear Incident Response

# DOE Radiological Assistance Program - Bringing Assets To Bear

Lee Michel
Training/Outreach Coordinator
RAP Region 1









# Why DOE?









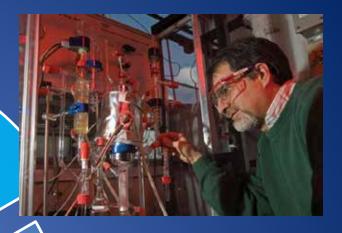


#### **Nuclear Energy**

- Reactor Development
- Research Reactors
- •Isotope Production

#### **NNSA**

- Nuclear Incident Response
- Naval Reactors
- Non-Proliferation
- •Global Threat Reduction
- •Nuc Weapon
  Design/Maintenance

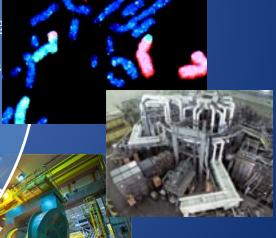


#### Office of Science

- Computing
- Basic Energy Sciences
- •Biological Research
- •High Energy Physics
- Nuclear Physics

#### Environmental Management

- •Cleanup Sites
- Decommissioning





# DOE/NNSA Nuclear Incident Response Capabilities

- Provide technical advice throughout the DOE/NNSA complex in response to:
  - Nuclear weapons accidents and incidents
  - Possible acts of radiological/nuclear terrorism
  - Radiological accidents
  - Lost or stolen radioactive materials
- <u>Provide access to expertise</u> in nuclear weapons design, nuclear/radiological materials characterization, and radiological detection and characterization
- Deployable capabilities configured for a rapid, time-phased response

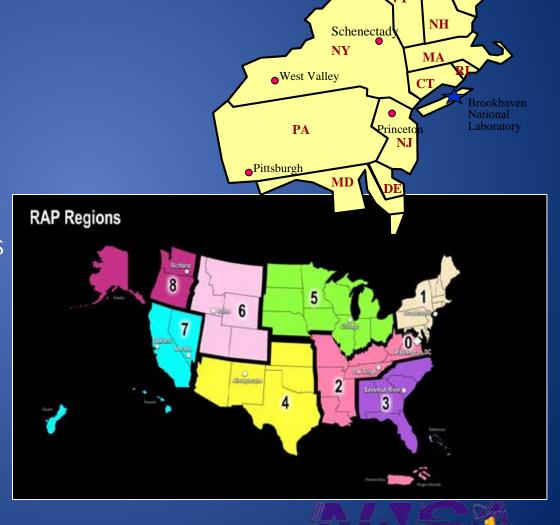






RAP Region 1

- RAP is implemented on a regional basis to ensure a timely response
  - Teams based at major DOE Laboratory locations (except R0)
- RAP is a unique national asset
  - Highly trained & skilled scientific & health physics personnel
  - Unparalleled radiological expertise among National/State/Local Emergency Response assets





ME



# RAP Region 1 Configuration

Regional Response Coordinator (FED)

M. Parsons

Contractor Response Coordinator

K. McIntyre

Training & Outreach Coordinator

L. Michel

Equipment Coordinator

P. Philipsberg









### RAP Mission

Provides DOE first response capability to Federal, State, local and tribal governments for incidents involving radiological incidents









## Radiological Assistance Program





Provides first response capability to Federal, State, local governments for incidents involving radiological emergencies

#### Capabilities

Rapid Response – 24/7/365

#### Search for Radiological Material

- Lost/Stolen Source Materials
- **★** Determine Technical Search Parameters
- Deploy Specialized Search Equipment
- Advise Law Enforcement
- Alarm Adjudication

#### **Characterize Radiation Environment**

- Initial Assessment
- TRIAGE capability
- Area Monitoring
- Contamination Control
- Decontamination

#### **Advise on Public Safety**

#### **Material Recovery**

**Activation of other DOE assets** 





#### **RAP Missions**

Crisis Response

Consequence Management

**Detection & Search** 

Stabilization

Big CM

Little CM

**PRND** 

Search

JTOT Checklist

Fukushima

Post Det IND Fed Ex Truck Off Site Contam Events

**NSSEs** 

**SEARs** 

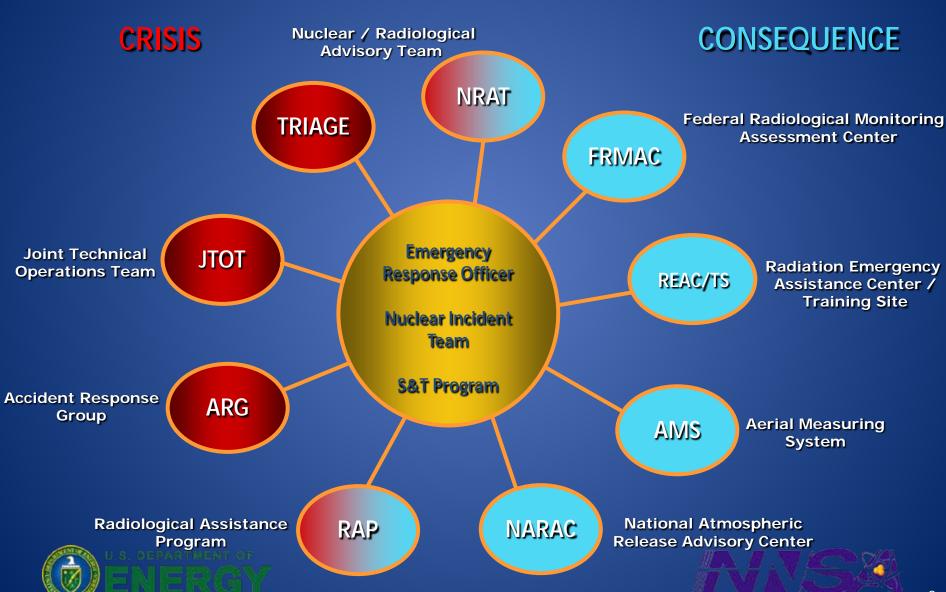
RNSO Low Threat: Local Response RNSO High Threat: National Response







# NNSA Office of Nuclear Incident Response (NA-84)





### RAP Assistance

- RAP <u>supports</u> and provides assistance to the appropriate <u>on-</u> scene authority
- RAP Teams do not preempt State, Local, or Tribal authority
- The primary responsibility for the incident remains with the owner of the radioactive material
- RAP involvement ends when:
  - There are other sufficient resources (state/local/private) at the scene or
  - Assistance is no longer needed.







### RAP Assistance

#### • RAP is:

- Not a first on scene responder, but likely to be the first DOE ground asset to arrive
- Not prepared for chemical and biological assessment
- Prepared to provide on scene training to HAZMAT responders









# RAP Region 1





# RAP Mission Response

- Fully mobilized within 2 hours
- On scene within 6 hours
- Deployment by dedicated response vehicles and/or USCG/CBP assistance









## Standard Response Equipment

- Radiation Detection
  - Alpha, Beta, Gamma, Neutron
- Gamma Spectroscopy Systems
  - Nal and HPGe based instruments
- Air Sampling
  - High/Low volume
- Communications Gear
  - Radios
  - Repeaters
  - Satellite phones
  - Secure phones
  - Hotspots
  - Cellular Signal Boosters
- PPE & Dosimetry







**RAP Mission Profiles** 

- Routine 'we found a box' missions
- Searches/Surveys/Field Sampling
- Lost/stolen radioactive materials
- Nuclear Power Plant accidents
- Nuclear weapons accidents and other significant incidents
- Acts of radiological/nuclear terrorism







### How Has the RAP Mission Changed?

- While the documented RAP mission has not changed, Region 1 deployments since the WTC response are largely in the Preventive Radiological/Nuclear Detection (PRND) arena.
- NA-84 is currently refining a
   Mission Analysis to determine if
   the Regions are appropriately
   staffed and equipped for what is
   perceived to be their *Primary* mission.
- Region 1 Missions are primarily PRND and Search

"The greatest threat before humanity today is the possibility of a secret and sudden attack with chemical or biological or radiological or nuclear weapons."

Former President George W. Bush February 11, 2004

"...the greatest threat to United States and global security is no longer a nuclear exchange between nations, but nuclear terrorism by violent extremists..."

President Barack H. Obama April 6, 2010









### What is a Typical Region 1 PRND Mission?

- Usually for DHS Special Event Activity Rating (SEAR) 1 or 2 events
- Searching for illicit radiological/nuclear materials
- Can have many components
  - Mobile surveys
  - Choke point monitoring of vehicles/people
  - Roving foot patrols
  - Venue surveys
  - Aerial surveys
  - Marine surveys



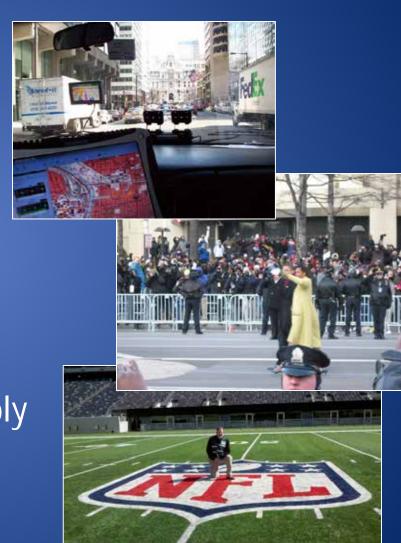




## Recent Region 1 PRND Missions

- 2015 Papal Visit
- Superbowl 47, New Orleans
- Superbowl 48, NY/NJ
- Boston Marathon
- Presidential Inauguration
- New Years Eve, Times Square
- Rockefeller Center Tree Lighting Ceremony
- United Nations General Assembly
- US Tennis Open
- Baltimore Grand Prix







# PRND Training/Support

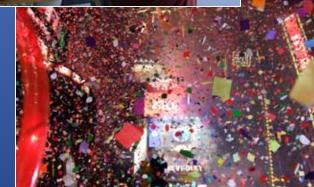
Region 1 provides training and support to several

agencies

Ongoing contact for PRND activity

- FBI NYFO
- FBI Newark
- FBI Philadelphia
- FBI Albany
- NY Joint Terrorism Task Force
- US Secret Service
- DHS DNDO









# PRND Training/Support

- Training/exercise support
  - Federal
    - National Guard Civil Support Teams (Maine – Maryland)
    - DHS TSA
    - Stabilization Team NY Metropolitan area
    - US Navy (Groton, CT; Portsmouth, NH; Schenectady, NY)
    - FEMA
  - Regional
    - New England Radiological Health Committee









# PRND Training/Support

- Training/exercise support (cont.)
  - State
    - CT
    - MD
    - MA
    - NH
    - NY
    - PA
    - VT
  - Local
    - Thunder Exercise Series (Penn State, Sloan Kettering, MIT, Columbia University, Boston Children's Hospital)
    - FDNY
    - Suffolk/Nassau County PD, DOH,
       SC Terrorism Response Task Force
    - Transportation Emergency Preparedness Training











### **Special Events**















Presidential Inauguration













# G20 Summit









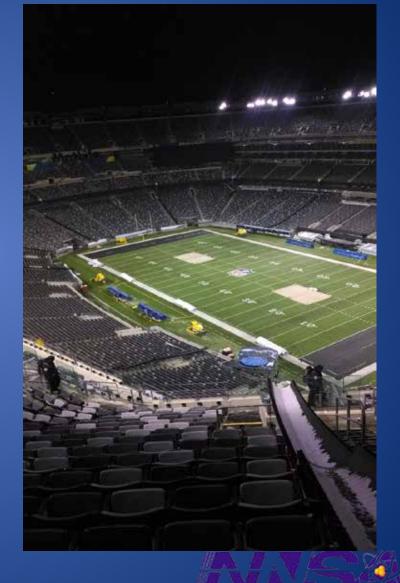




# Sports Events







### Exercises



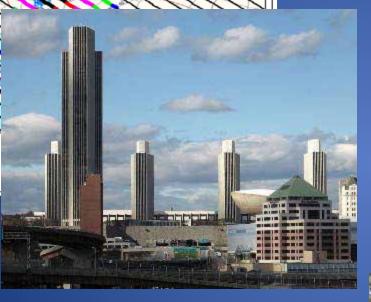








# Empire09









B-200 Serpentine 0 - .001 mR/Hr .001 - .01 .01 - 0.1 0.1 - 1.0 1.0 - 10 10 - 150



# Deployments

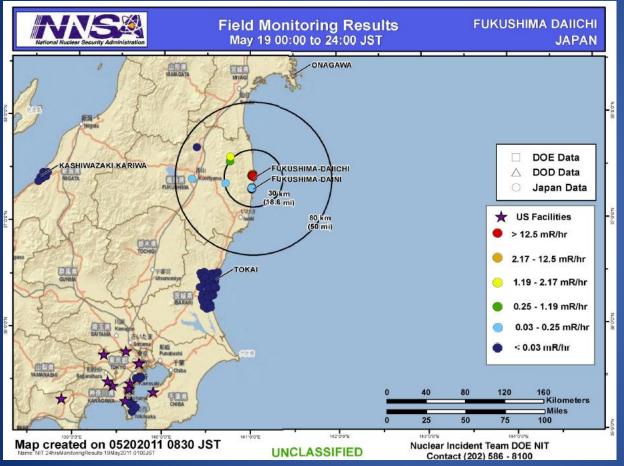








### Fukushima













### **Contact Information**

#### **Emergency Assistance**

RAP Region 1 (631) 344-2200

DOE Watch Office (202) 586-8100

Mark Parsons (Regional Response Coordinator)

(Office): (631) 344-7978

(Cell): (631) 466-1927

PARSONS@BNL.GOV

Lee Michel (Training/Outreach Coordinator)

(Office): (631) 344-6306

(Cell): (631) 466-2001

MICHEL@BNL.GOV









