



SÉMINAIRE INTERNATIONAL

# POST-ACCIDENTEL NUCLEAIRE

PROGRAMME FRANÇAIS « CODIRPA » ET TRAVAUX INTERNATIONAUX

Paris, 6 et 7 décembre 2007



Session introductive

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Travaux nationaux pour l'élaboration  
d'une doctrine post-accidentelle

# Post Accident Management Strategy and Capabilities

**Vince McClelland**

*National Nuclear Security Administration  
Etats-Unis*



# ***CODIRPA SEMINAR***

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## **U. S. Department of Energy Post Accident Management Strategy and Capabilities**

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**Vincent McClelland  
Director, Office of International Emergency  
Management and Cooperation  
December 6, 2007**



# Office Of Emergency Operations

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## MISSION

Administer and direct the emergency response programs that provide the capability to respond to and mitigate a nuclear or radiological incident or emergency within the U.S. and abroad.

Issue emergency management policy, procedures, guidance and training along with overseeing the implementation of the Department's Emergency Management System.

## ***A Radiological or Nuclear incident can range from ...***



**... a lost medical isotope to a thermonuclear weapon**

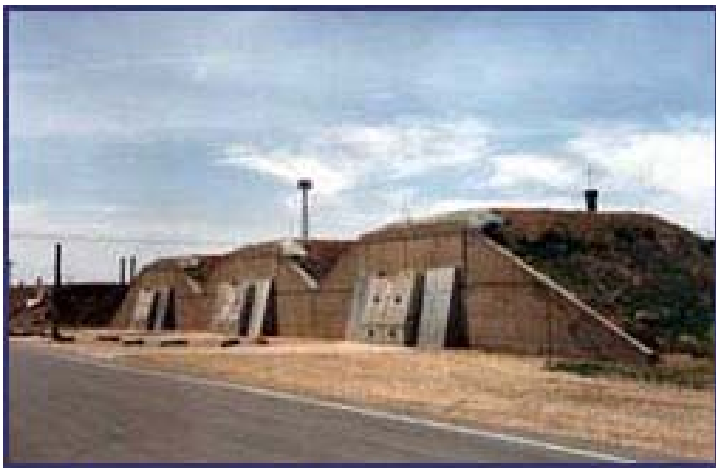


# Office Of Emergency Operations



Responsible for implementing and coordinating emergency management policy, preparedness, and response activities within the NNSA, including:

- Support NNSA field and contractor implementation of DOE and NNSA emergency management policy.
- Provide Oversight of NNSA Site Offices.



STAGING BUNKERS AT PANTEX USED FOR  
TEMPORARY STAGING OF NUCLEAR WEAPONS



Y-12



# Authorities

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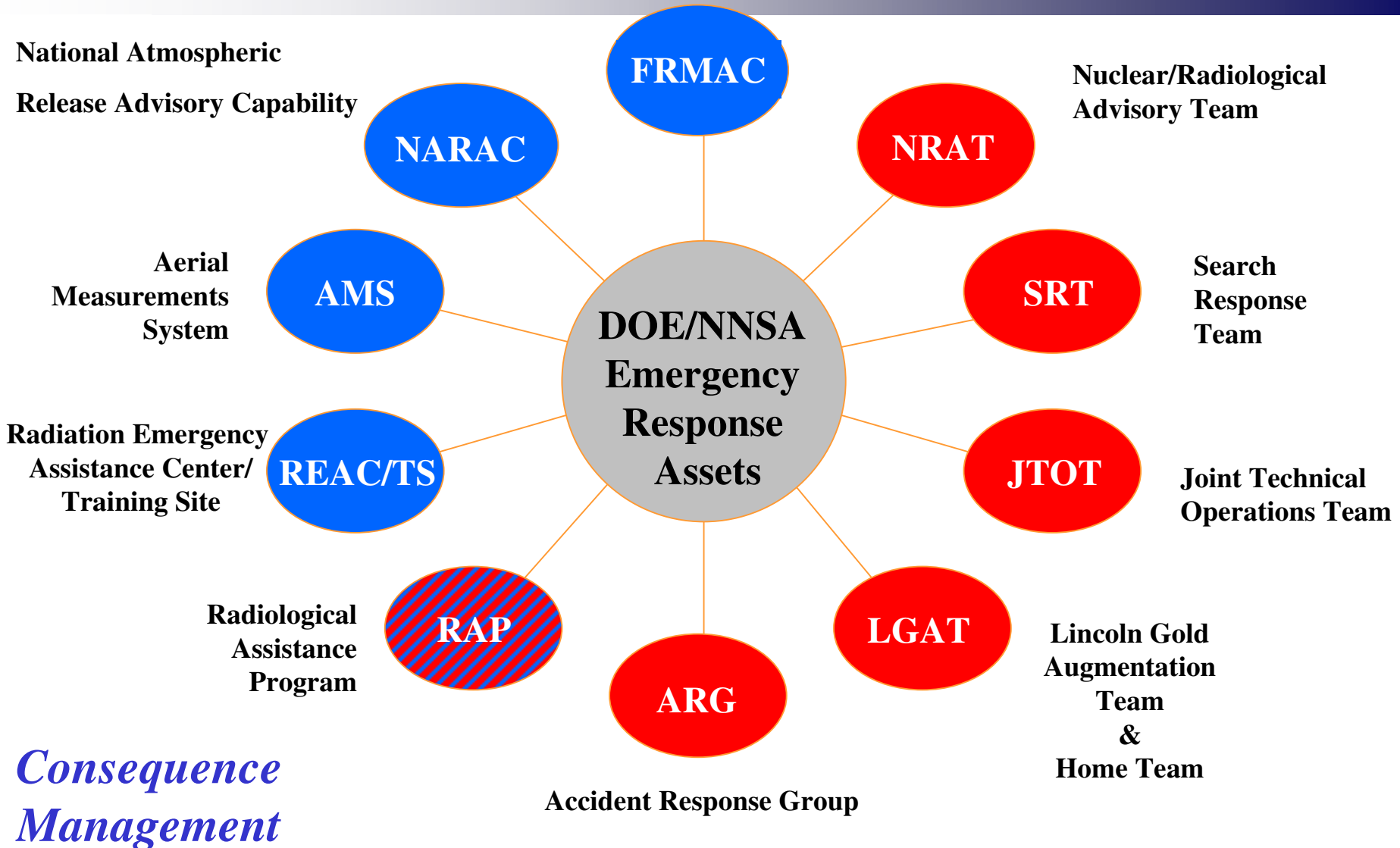
- **Atomic Energy Act**
- **Executive Order 12656**
- **National Response Plan**
- **Presidential Decision Directives 39 & 62**
- **NSPDs**
- **HSPDs**





Federal Radiological Monitoring  
Assessment Center

*Crisis  
Response*





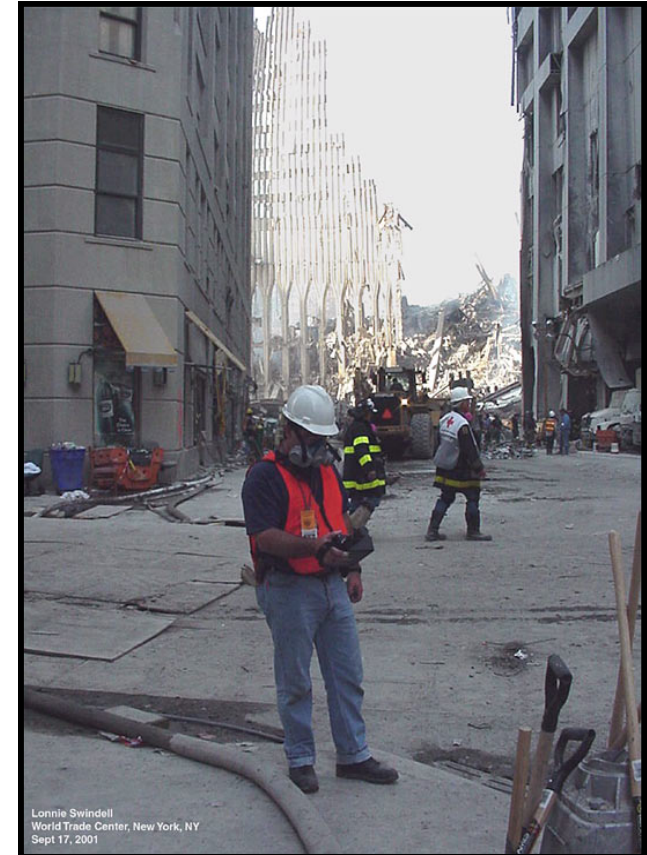


# Crisis Response-Radiological Assistance Program (RAP) Capabilities



**Mission – Radiation, Detection, Maritime and Consequence Management events  
DOE/NNSA First Responders**

- Teams located across the country
- Deploys in 2 – 4 hours





# Consequence Management



## Federal Radiological Monitoring and Assessment Center (FRMAC)

- Coordinates federal off-site radiological monitoring and assessment activities
- Emergency Phase – 32 person team, deploys in 4 hours
- Intermediate Phase – 32 extra team members, deploys in 12-hours
- Characterization Phase – additional personnel, as needed







# FRMAC Field Measurement and Sampling



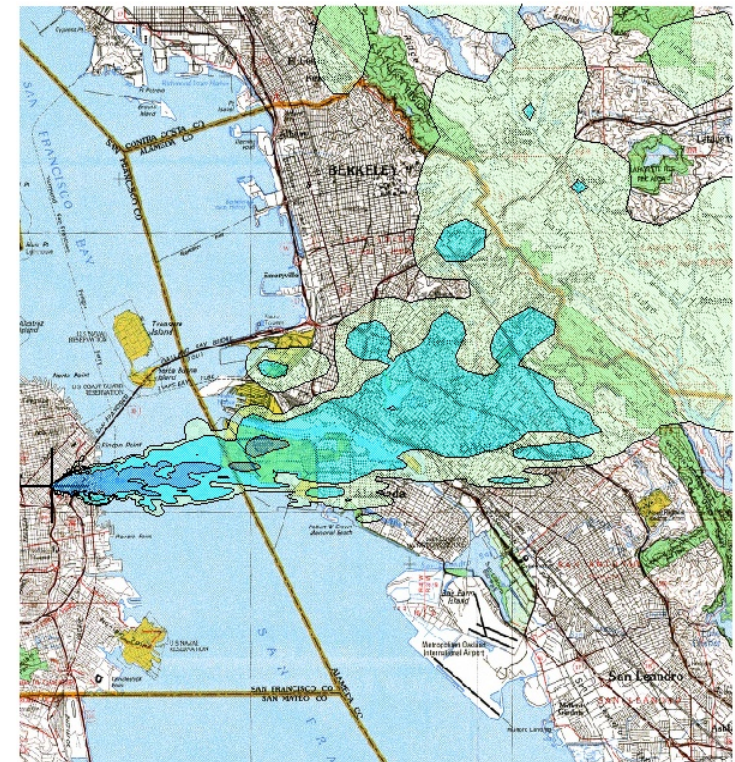
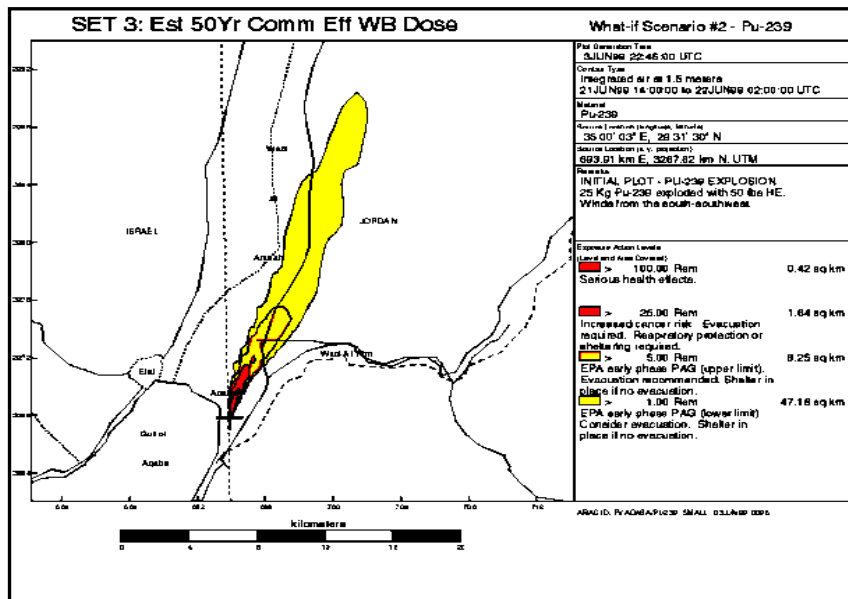


# Consequence Management -- National Atmospheric Release Advisory Capability



Mission – Provide plume predictions for early phase decisions and long-term consequences predictions

- Initial models provided in 15 minutes via the internet
- Number of team members – 20



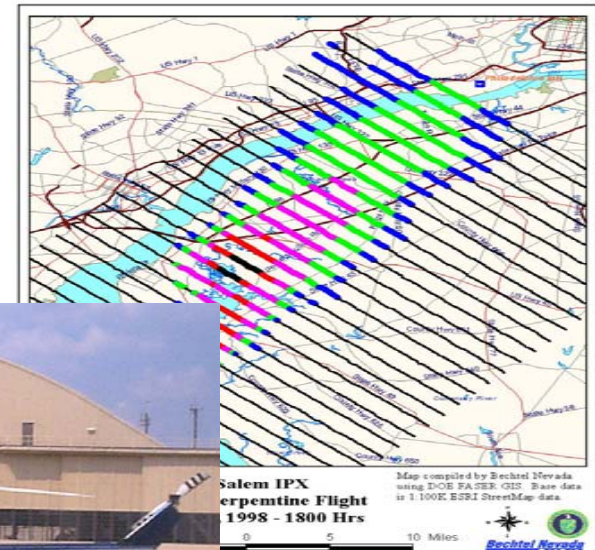
**HYPOTHETICAL**





**Mission – Provides radiological detection capability mounted on helicopters and fixed wing aircraft to measure ground disposition of radiation in radiological emergencies**

- **Aircraft located at Nellis and Andrews Air Force Base**
- **Responds in 4 to 6-hours**
- **40 team members**





# **Consequence Management – Radiation Emergency Assistance Center / Training Site (REAC/TS)**



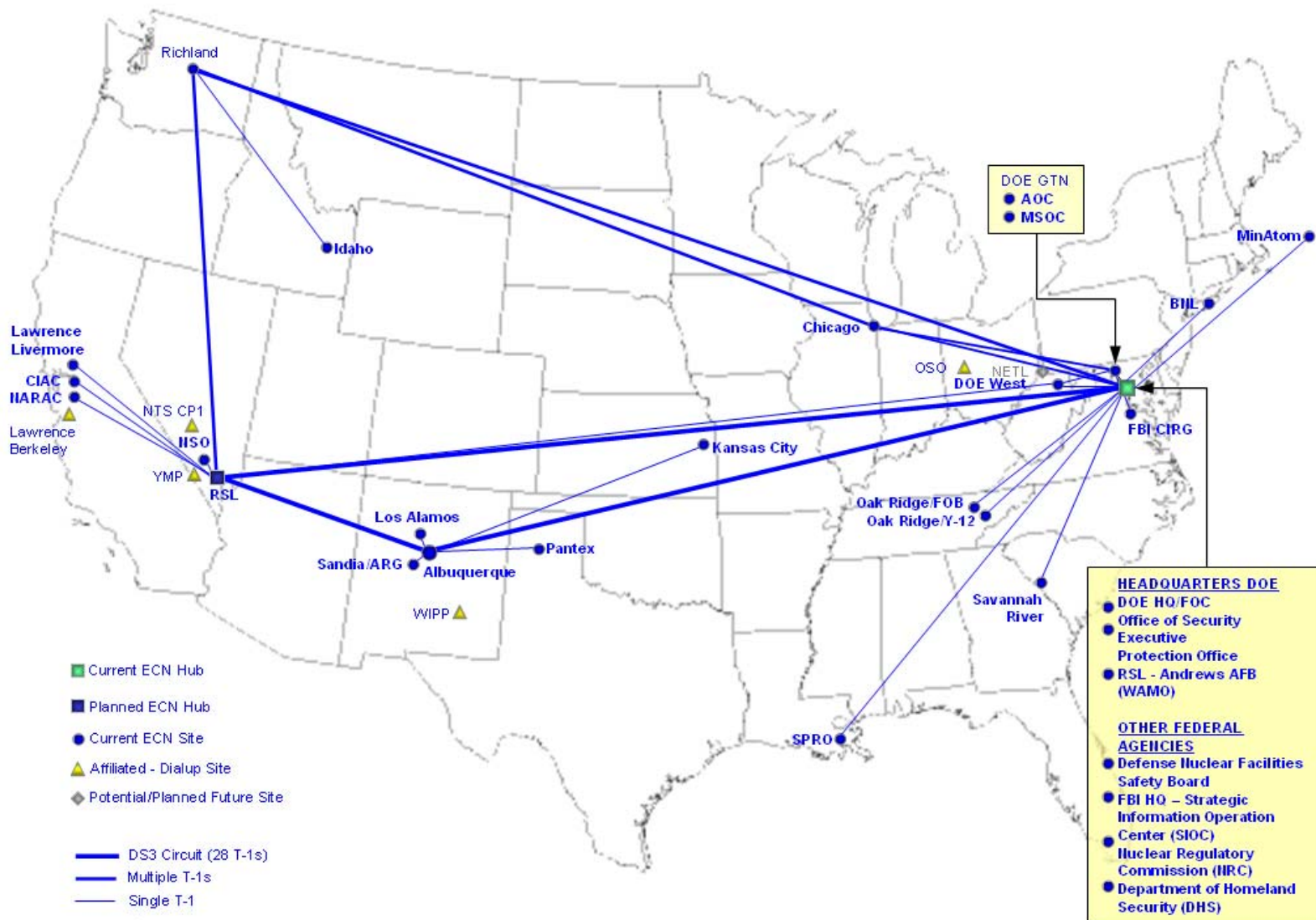
**Mission – Provide medical response, advice, and consultation for rapid assessment and treatment of high-dose radiation cases**

- **24/7 capability**
- **Staffing -- 14**
- **Assistance to Federal, state, local governments as well as the IAEA, foreign governments and private physicians**
- **Provides training programs for health professionals**
- **Maintains “Radiation Accident Registry System”**





# Emergency Communications Network (ECN) configuration







# Summary

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**DOE stands ready with versatile emergency response teams that are:**

- Highly motivated, trained and equipped**
- Nuclear weapons experts resourced from the National Laboratories**
- Rapidly configurable to any radiological emergency**



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