Radiological Preparedness in the Tampa Bay Region

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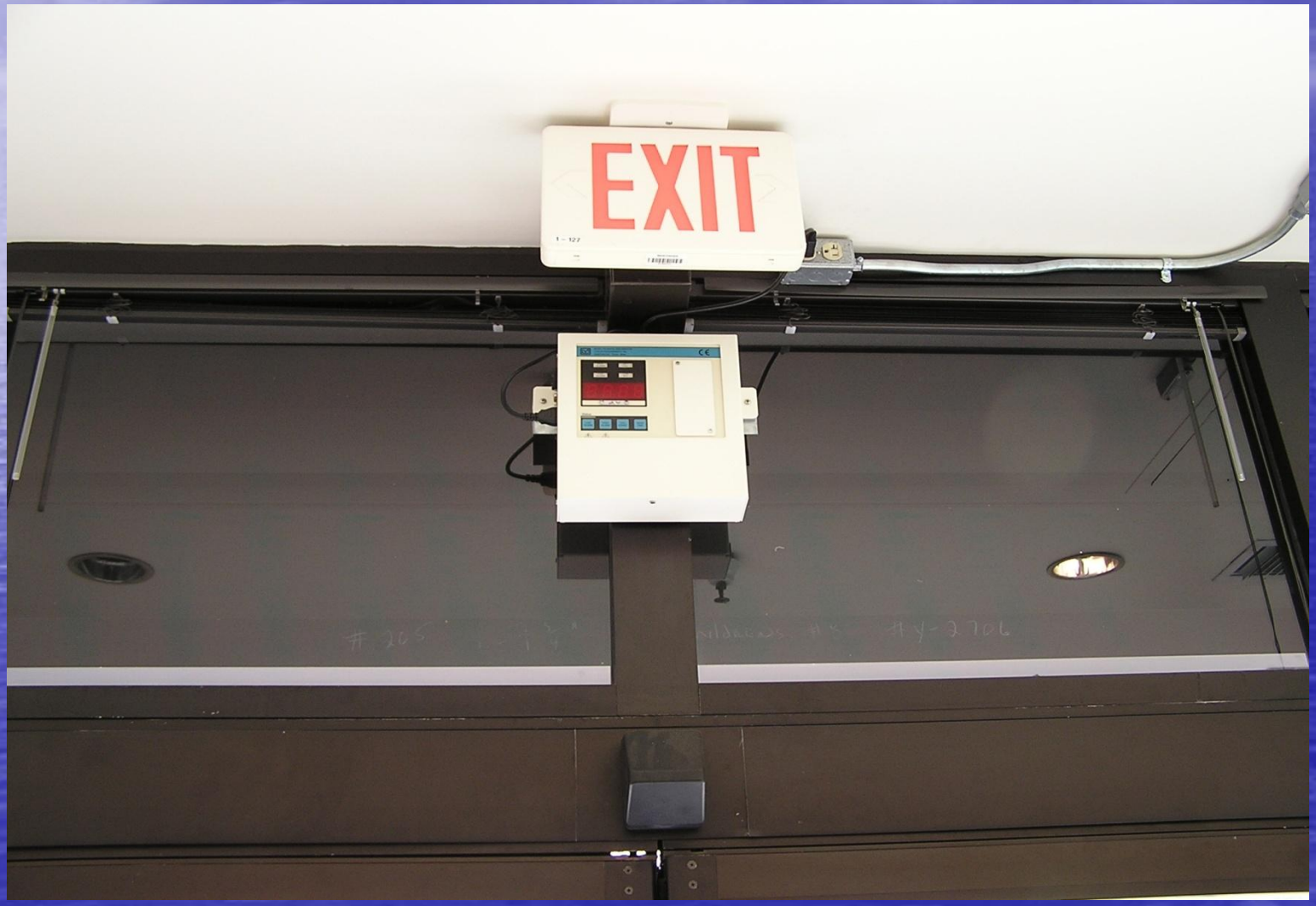
St. Pete. Metropolitan Medical Response System (MMRS)

- MMRS – funded by US Homeland Security, charged with preparing for a disaster, whether manmade or natural causes.
- Created Radiation Subcommittee – many agencies/hospitals represented.
- MMRS provided all Pinellas Co. hospitals with two portal radiation monitors.

Hospital Radiation Monitors

- MMRS Radiation Subcommittee provided hospitals draft protocols to respond to an alarming monitor.
- Hospital staff's were provided radiation training by the Department of Health in Pinellas County - Radiation Safety Officer (RSO).
- Meetings were attended by Pinellas County agencies and hospitals to develop protocols to respond to a 911 call due to an alarming monitor.

Radiation Monitor




MODEL 375 DIGITAL AREA MONITOR
LUDLUM MEASUREMENTS, INC
SWEETWATER, TEXAS 79556
CE
HIGH ALARM
DET FAIL
LOW ALARM
LOW BAT
1.4
µR/hr
Status
LOW ALARM
HIGH ALARM
CAL CONST
DEAD TIME

Radiation Monitors

- The monitors detect microcurie amounts of gamma radiation at distances of ~5 feet.
- Low energy radionuclides (<364 kev) do not activate the device due to a pre-set calibration.
- Monitors have back-up battery in case of power failure.

Hospital Radiation Monitor Response Plans

- Plans are similar – some "in-house" differences.
- If monitor alarms, Emergency Department (ED) or Security interviews person(s). Primary question – "have you had a recent diagnostic or therapeutic radiation procedure"?
- If yes, person can proceed. If no, the person(s) is isolated and further questioned by trained hospital staff. A 911 call may be initiated.

Consequences – No Hospital Radiation Monitors

- Potential for contamination of ED and other hospital areas.
- Potential of radiation exposure to ED staff and other hospital staff.
- Long term consequences of public perception that hospital was/is contaminated.

Hospital Safety
Radioactive Contamination Control

2006 Mass Casualty Exercise

- 2006 "Totally Rad" Exercise – many agencies and hospitals participated in the full scale exercise.
- An "After Action Report" identified deficiencies in the response to the radiological exercise.
- A "Workshop" was subsequently planned by the agencies/hospitals to address the deficiencies.

March 2006 Radiological Exercise

Multi-agency Workshop

- A "Workshop" was subsequently attended in 2007 by the agencies/hospitals.
- The "Workshop" revealed deficiencies in responding to a radiological event. As a result, the MMRS Radiation Subcommittee recommended law enforcement, fire departments, and SunStar (in conjunction with the office of the Medical Director) develop revised written protocols to respond to a 911 call due to an alarming radiation monitor.

Protocols for Radiation Response

- Level I – generally 1 or 2 persons of concern at 1 hospital. Response limited to single response from fire department/law enforcement. Note: Pinellas County Sheriff's Office has 2 trained officers with radiation detection equipment to respond to hospitals.
- Level II – many persons and hospitals involved, with multiple first responders; i.e., transportation accident or "dirty bomb".

Radiation Incidents

- Goiania, Brazil – accident in 1987 involving a medical device containing a radioactive source.
- Morton Plant hospital – radiation monitor alarms while patient is being transported into the emergency room (2008).
- Hospitals – numerous responses to radiation monitors alarming, adjudicated by hospital staff (patients had recent radiological procedure).

Radiation Preparedness Continues

- Hospitals were provided with electronic dosimeters (MMRS funding) in 2009 to monitor exposure of staff in the event of a radiation incident.

- HazMat teams continue to receive new radiation detection equipment and training. Radiation response kits and electronic dosimeters were provided to all 5 locations, as well as a new radioisotope identifier.

Radiation Preparedness Continues

- Florida DOH Bureau of Radiological Health has trained ~100 members of DOH "strike teams" and provided each member a radiation detection kit (1 GM meter, 2 dosimeters). Additionally, each RDSTF region has received a "portal monitor" to use in the event of a large radiological event.

- A RDSTF Region 4 Radiation Committee was established "Preventative Radiological Nuclear Detection" (PRND) and has acquired radiation detection equipment and provided training for first responders.

Preventative Radiological Nuclear Detection (PRND)

- Domestic Security Oversight Board created PRND subcommittee in 2007. Statewide subcommittee, 2 co-chairs – FDOT and FDOH.
- Primary mission – preventative detection of unauthorized radioactive materials.
- Regional committees, 7 areas = Regional Domestic Security Task Force regions. Primary players – law enforcement, fire departments, and DOH Bureau of Radiological Health.

"PRND"

- 5 year plan – establish policies, acquire equipment, and train first responders.
- Utilize electronic dosimeters and radioisotope identifiers to detect radioactive materials.
- Federal assistance is available if needed – reach-back to Joint Analysis Centers.

RDSTF Region IV PRND Equipment

- Equipment purchased in the Region includes:
  - 222 PRDs
  - 9 Identifinder RIIDs
  - 3 Pack-eye Backpacks
  - 2 Mirion Mobile Systems (with He3 obtained through DNDO)
- Training in the Region includes:
  - PRD/RIID training primarily provided by the Indian River State College Banner Center
  - Maritime training provided by DNDO in March 2012
  - AROC training provided by DNDO in October 2013

RDSTF Region IV Operation ROPE TTX

- The TTX was conducted July 2013 and discussed the Strengths and necessary Areas for Improvement of the CONOPS/SOPs by discussing their applicability during RND operations to include:
  - A patrol scenario
  - A special events scenario (pre-event sweeps, check and choke-points, etc.)
  - Intel driven Scenario

- Information provided in the After Action Report was used to:
  - Make the appropriate changes to the CONOPS/SOPs
  - Make changes in the notification processes
  - Identify training needs → **AROC**

RDSTF Region IV AROC Conducted

- A 3-day course conducted in October 2013
- Included 24 Students from State and Local Law Enforcement, FL Bureau of Radiation Control, and CST
- Provided advanced training on PRDs, RIIDs, Backpacks, Mobile Systems, and Reachback
- Provided sources for training drills to include
  - Area Sweeps
  - Fixed Site Sweeps
  - Chokepoints
- Included a module on Special Event PRND operations planning using ICS

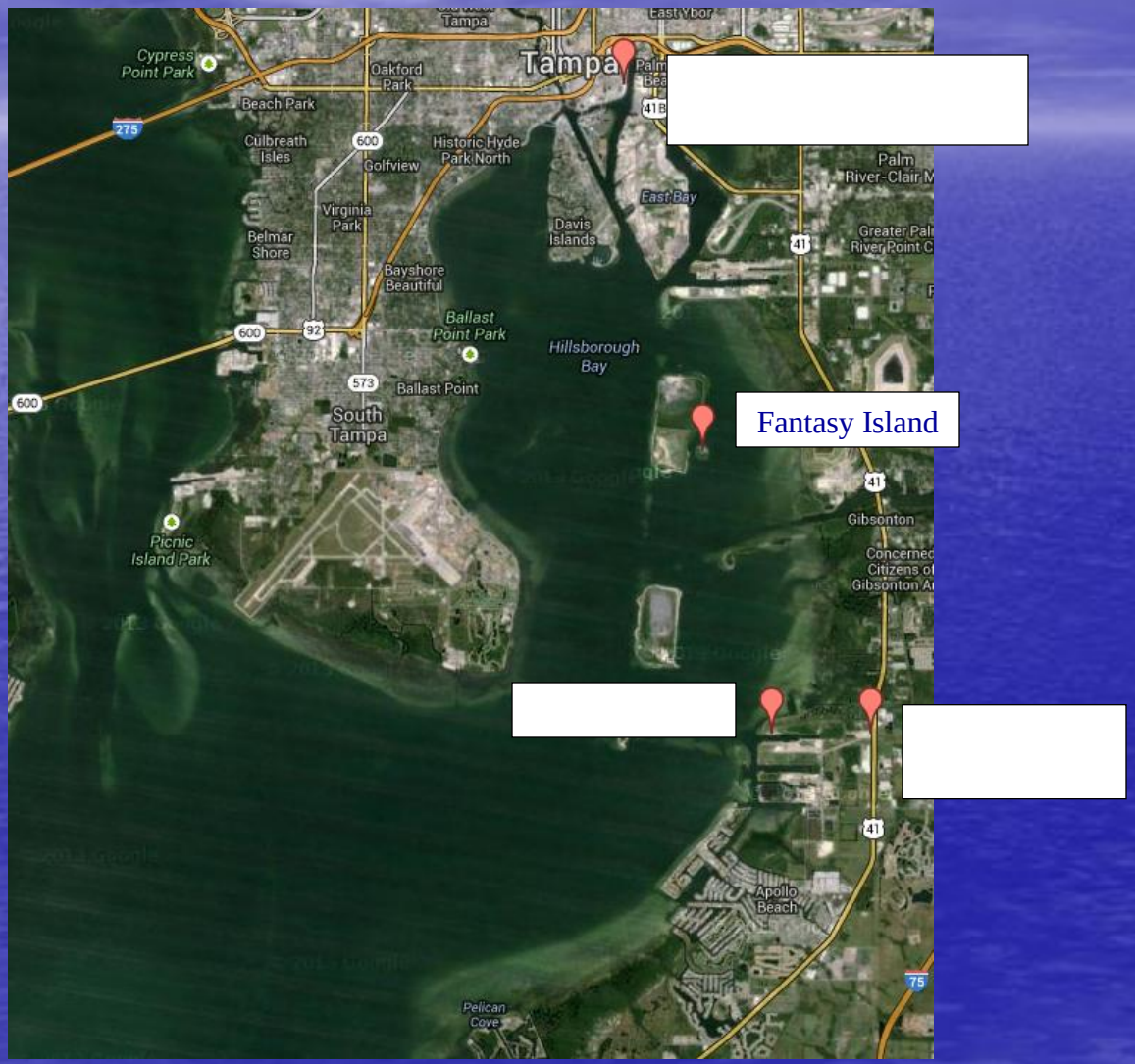
RDSTF Region IV Operation ROPE Full Scale Exercise

- The Operation ROPE FSE was conducted over a two-day period in Dec 2014.

- December 3rd, Day 1:
  - The DNDO Red Team conducted a training drill with various Law Enforcement agencies at the Port of Tampa in order to practice using the brand-new Mirion Mobile System and other RND equipment
  - The DNDO Exercise Team conducted an Intelligence TTX with the Florida Dept. of Law Enforcement

- December 4th, Day 2:
  - The DNDO Exercise Team with the assistance of the DNDO Red Team conducted a Full-Scale Exercise at the Port of Tampa facility.

RDSTF Region IV Operation ROPE FSE Area of Play



RDSTF Region IV Operation ROPE FSE Participation

- The FSE participants included:

Local

- Hillsborough County Sheriff's Office
- Hillsborough County Fire Department
- Port of Tampa
- Hernando County Sherriff's Office
- Pinellas County Sherriff's Office
- Tampa Police Department
- Tampa Fire Department
- Tampa Office of Emergency Management
- Hillsborough County Office of Emergency Management
- Florida Department of Health
- Citrus County Sheriff's Office
- Pasco County Sheriff's Office
- Clearwater Fire Department

State

- Florida Fish and Wildlife Conservation Commission
- Florida Bureau of Radiation Control
- Florida Highway Patrol
- Florida Department of Law Enforcement
- Florida State Fire Marshal

Federal

- Federal Bureau of Investigation
- U.S. Coast Guard Auxiliary
- U.S. Customs and Border Patrol
- DHS Domestic Nuclear Detection Office

PRND Today

- A “training team” from the local Committee has been organized to provide PRD training to the RDSTF Region 4.

- The first training was provided in October 2014.

Radiological Preparedness Continues – Questions?