ROSS Quarterly Call

9 December 2025

FEMA

CRCPD

Agenda

- Welcome from FEMA Office of Emerging Threats (OET) ROSS Program Manager – Jon Gill, PhD and Jeramie Calandro, FEMA ROSS Program Manager
- Welcome from CRCPD ROSS Program Manager – Bill Irwin, ScD, CHP, FEMA Type 1 ROSS
- The State Support Section Report – Juan Garcia, California
- The ROSS Advancement Section Report – Amy Hass, Minnesota
- The Records Management Section Report – Stephan Brown
- Project STORRM Report – Angela Leek, PhD, CHP, Type 1 ROSS
- Topical Training: ROSS and Community Reception Centers – Nancy Stanley, New Jersey
- Closing Remarks – FEMA OET

FEMA Office of Emerging Threats

Welcome and Opening Remarks

Jonathan Gill, PhD and Jeramie Calandro, FEMA ROSS Manager

Source: GAO. | www.gao.gov

https://www.gao.gov/products/gao-19-164 accessed 2/23/23.

FEMA OET Updates

- Federal Funding Hiatus
  - Thank you CRCPD
  - Contingency Options-SOP
  - Updating MissionEdge
- ROSS Trainings
  - RESRAD for all ROSS
  - EMAC 101 for ROSS State Coords/AHJs
- Program
  - Analysis of FEMA Program Documents

CRCPD Homeland Security/ Emergency Response Committee 4 (HS/ER-4) Update

Bill Irwin, ScD, CHP, FEMA Type 1 ROSS, CRCPD ROSS Program Manager

FEMA

CRCPD

Questions? william.Irwin@vermont.gov

The 43-day 2025 Federal Government Shutdown

- This is the second federal government shutdown over the course of the ROSS Program, and both have been challenging.
- FEMA OET is developing a plan to help if another funding hiatus occurs, which is possible as soon as 30 January.
- It reinforces our efforts to:
  - Help states develop their ROSS organizations so they can work more independently with the help of the CRCPD organizations.
  - Evaluate where the CRCPD must develop or extend State ROSS Program support capabilities.

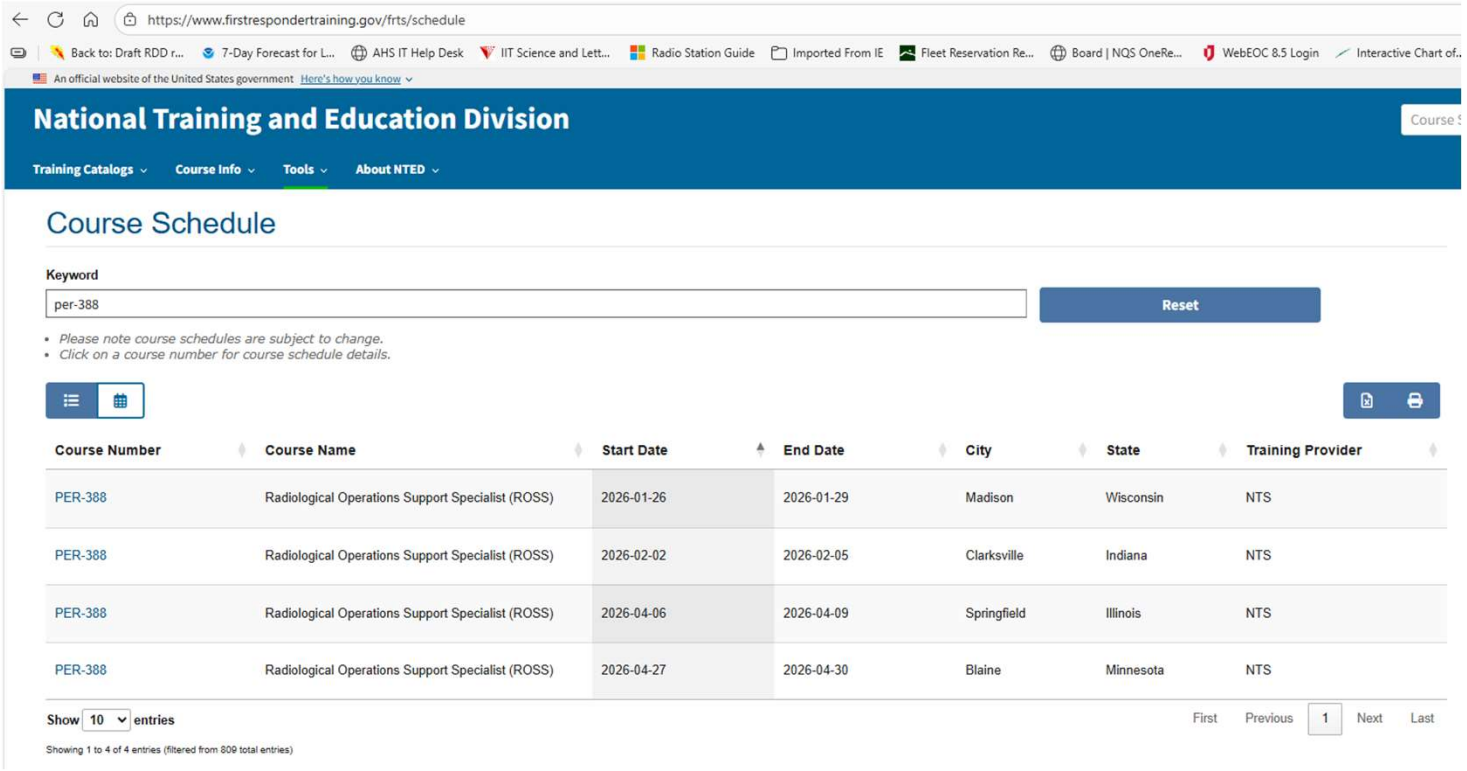
Important Developments Since September

- Focused development of a plan for teaching four to five offerings of the CDC Public Health Decision Making in a Nuclear Detonation Course.
  - More to come from Amy Hass of Minnesota shortly.
  - It is critical to efficiently take advantage of the CDC funding for this in fiscal year 2026.
  - Everyone involved will enhance their abilities to help our nation prepare for, respond to and recover from a nuclear detonation.
- The ROSS Advancement Section is managing this with a new task force.

Other Work by Our ROSS Advancement Section

- Helping the jurisdictions hosting the ROSS Initial Training Course PER-388.
  - Hosting these Counterterrorism Operations Support (CTOS) classes is complicated.
  - Among other things, Dr. Mark Maiello of New York uses past course hosts to help the new course hosts.
  - Our goal is to get as many good ROSS candidates into the training as possible to our classes.
    - Includes health physicists, radiation control program and emergency managers from government, radiation safety officers, medical physicists, reactor radiation protection managers, and hazardous materials, fire service, EMS and other first responders.
- Leading our effort to develop training for our Quarterly Calls and other continuing education in 2026 and beyond.

Upcoming PER-388 Offerings



FEMA

While I Am Thinking of It, I Want to Thank the ROSS Who Support CTOS Who Provides the First Building Block to Becoming a ROSS

- We are fortunate to have numerous ROSS who teach or have taught the Initial ROSS Training Course PER-388:
  - Bobby Baker of Texas
  - Jeff Day of California
  - Bill Irwin of Vermont
  - Matt McKinley of Kentucky
  - Toni Bamford of Oregon
  - Greg Funderburk of California
  - Angela Leek of Iowa
  - Tanya Ridgle of California
- We hope to keep senior ROSS like these folks leading the instruction in this initiating step into the ROSS profession!

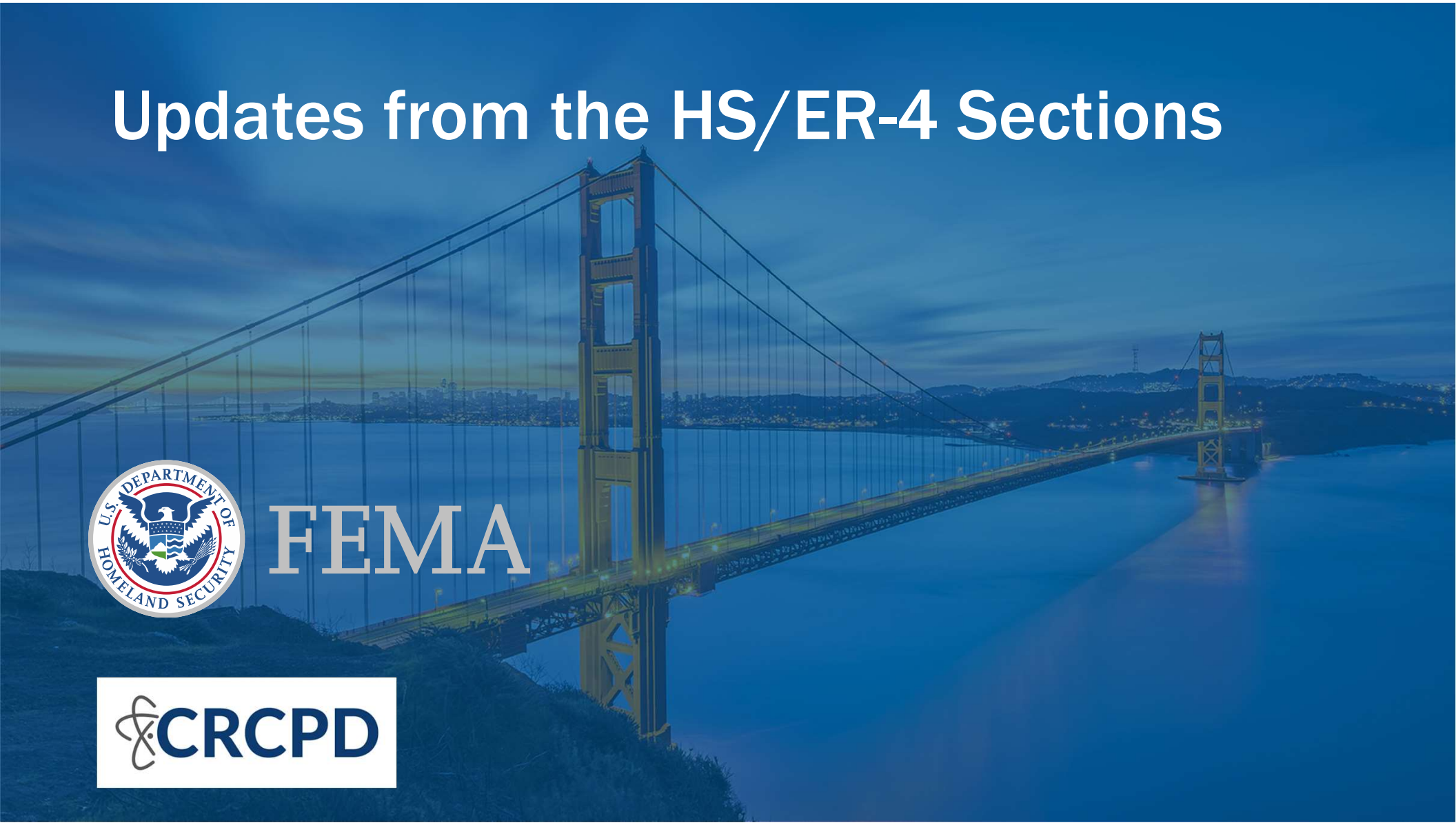
The State Support Section Has Been Working Diligently to Empower the State AHJs and SRCs

- The State Support Section has delivered multiple trainings for the state Authorities Having Jurisdiction (AHJ) and State ROSS Coordinators (SRCs).
- More to come from Juan Garcia of California shortly.
- The most important element of this work is hearing from the different states.
- Another essential part of the process is continuously demonstrating how MissionEdge makes ROSS Cadre Management more efficient.
- The next call for AHJ/SRC is planned for 16 January at 1400-1530 Eastern time.

ROSS Continue Advancement!

- The Qualification Review Board (QRB) met this month to evaluate the Type 2 Position Task Book and documentation for Chris Salz of Ohio.
- The QRB is happy to recommend that the AHJ, Bill Loehner of Ohio,that Chris be advanced to Type 2.
- The MissionEdge Workflow has already been processed to document the QRB recommendation and we find MissionEdge to be very efficient for us.
- These QRB meetings are wonderful occasions for the ROSS Program!
- We hope more of you take the time to document your extensive and valuable experience, training, and education to complete tasks and to submit completed PTBs for advancement by type.

Updates from the HS/ER-4 Sections



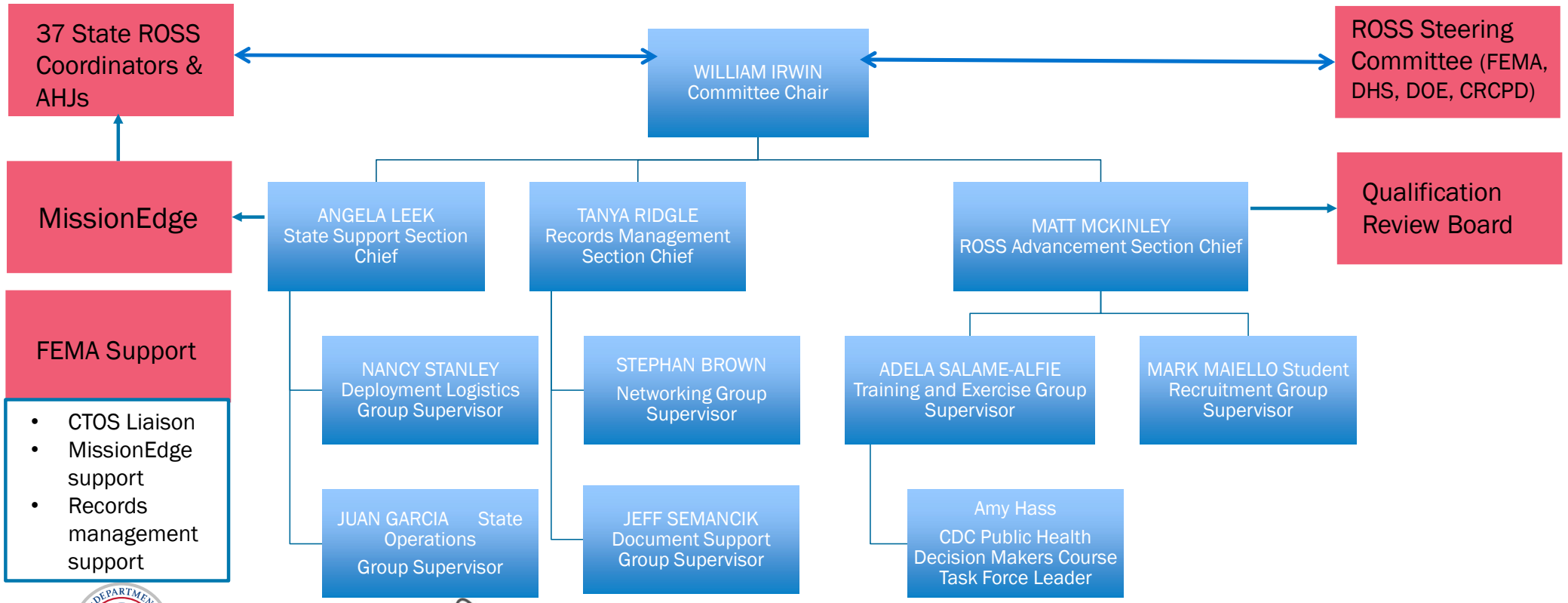
FEMA

CRCPD

Before We Hear From Our Future Leaders Themselves – Introductions:

- We have shared the organization chart below multiple times over the past year.
- This is one of the best developments in our ROSS Program
  - It is exciting to have these solid people who are volunteering so much time and expending so much effort to help our profession.
  - It is essential to our success in delivering the services required of the ROSS as professionals.

CRCPD HS/ER-4 Organization Chart



FEMA CRCPD

Updates from the State Support Section

FEMA

CRCPD

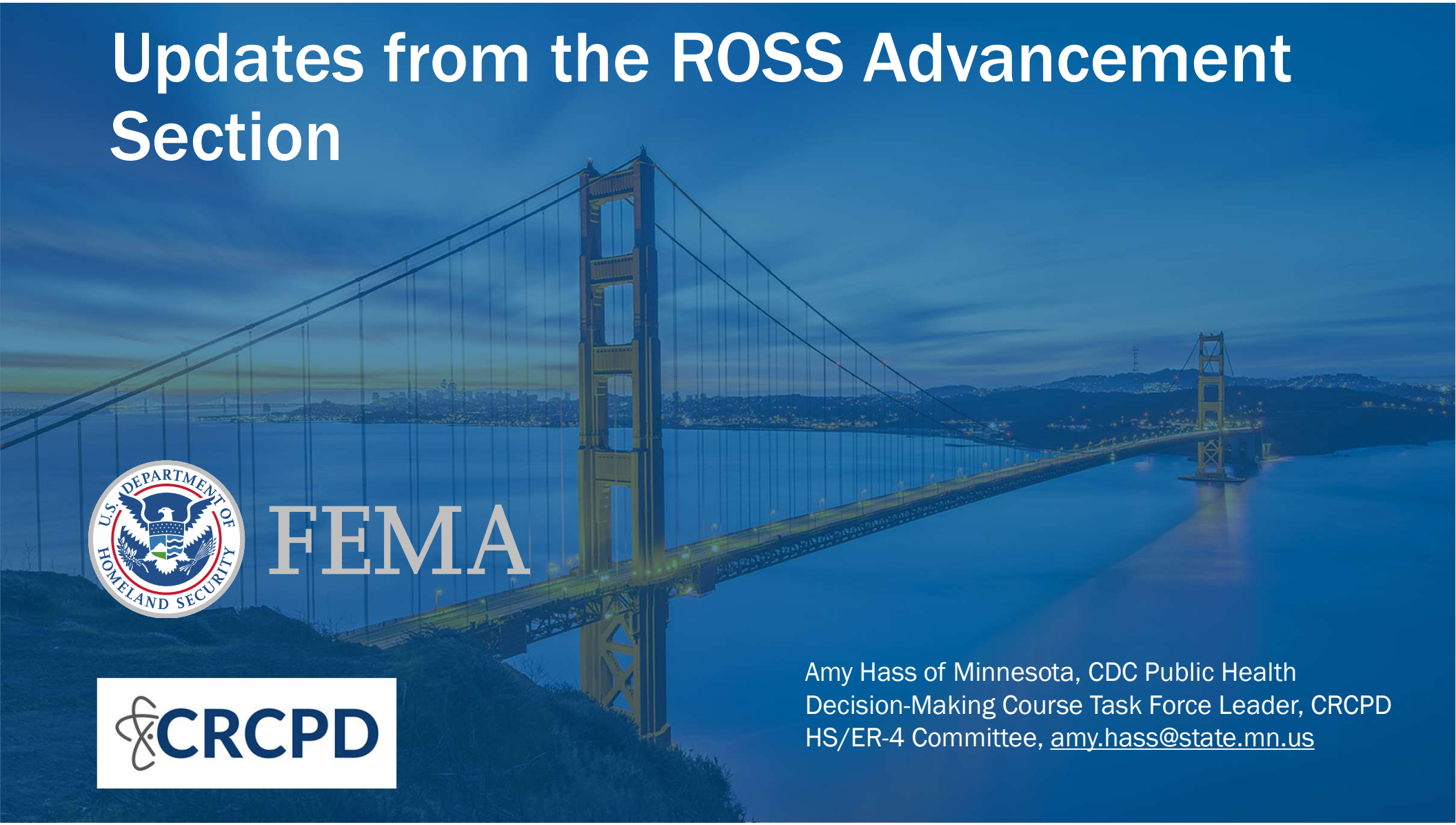
Juan Garcia of California, State Operations Group Supervisor, CRCPD HS/ER-4 Committee, juan.garcia@cdph.ca.gov

State Support Overview from Juan Garcia, California State ROSS Coordinator

- Cadre Management
- Deployment
- Event logging
- Plans to incorporate ROSS
- PTB completion road map
- How to upload to ME
- Outreach to partners on using ROSS

Recent development: Separate State AHJ/SRC meeting

Updates from the ROSS Advancement Section



FEMA

CRCPD

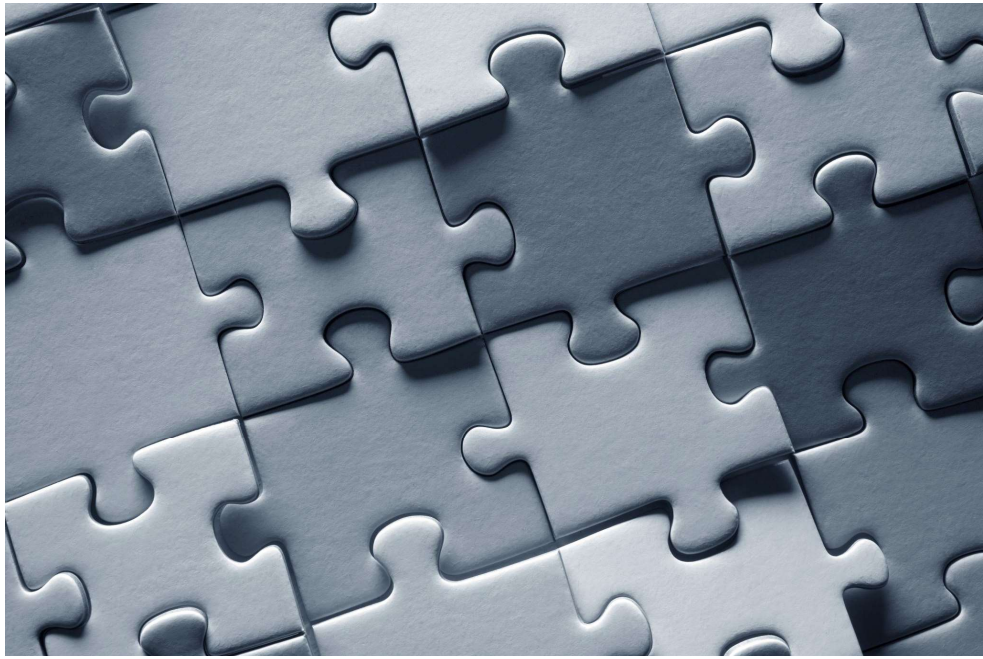
Amy Hass of Minnesota, CDC Public Health
Decision-Making Course Task Force Leader, CRCPD
HS/ER-4 Committee, amy.hass@state.mn.us

MN ROSS EMAC Experience

- Created Mission Ready Package (MRP) based on CRCPD HS/ER-4 Committee Document and links

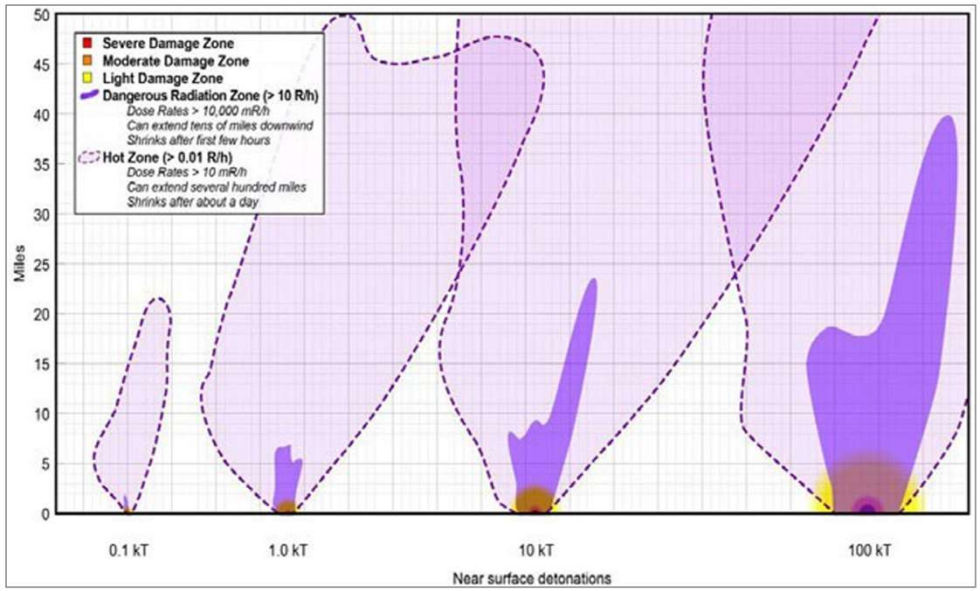
  ROSS-EMAC-MRP-Job-Aid-Final-V1.0-rev-1.pdf

- As State ROSS Coordinator, found MN State EMAC Coordinator from Homeland Security and Emergency Management (HSEM) organization
- State EMAC Coordinator uploaded MRP to MASS, the system where EMAC is accomplished
- Working with other state ROSS in other organizations to create their MRP



CDC Public Health Decision Making in a Radiation Emergency Course

- From 18 Train the Trainer ROSS, 4-5 ROSS Instructors will deliver each course with 30-35 max attendees
- Limited by funding for travel for instructors (3-5 courses in 2026) depending on funding
  - February 10-12 in Frankfurt, KY
  - May in Middlesex County Fire Academy Sayreville, NJ
  - Late July to early August with the New England Radiological Health Compact
  - August 4-6 in St. Paul, MN
  - Texas newest request (UT Medical Branch and Harris County)



FEMA

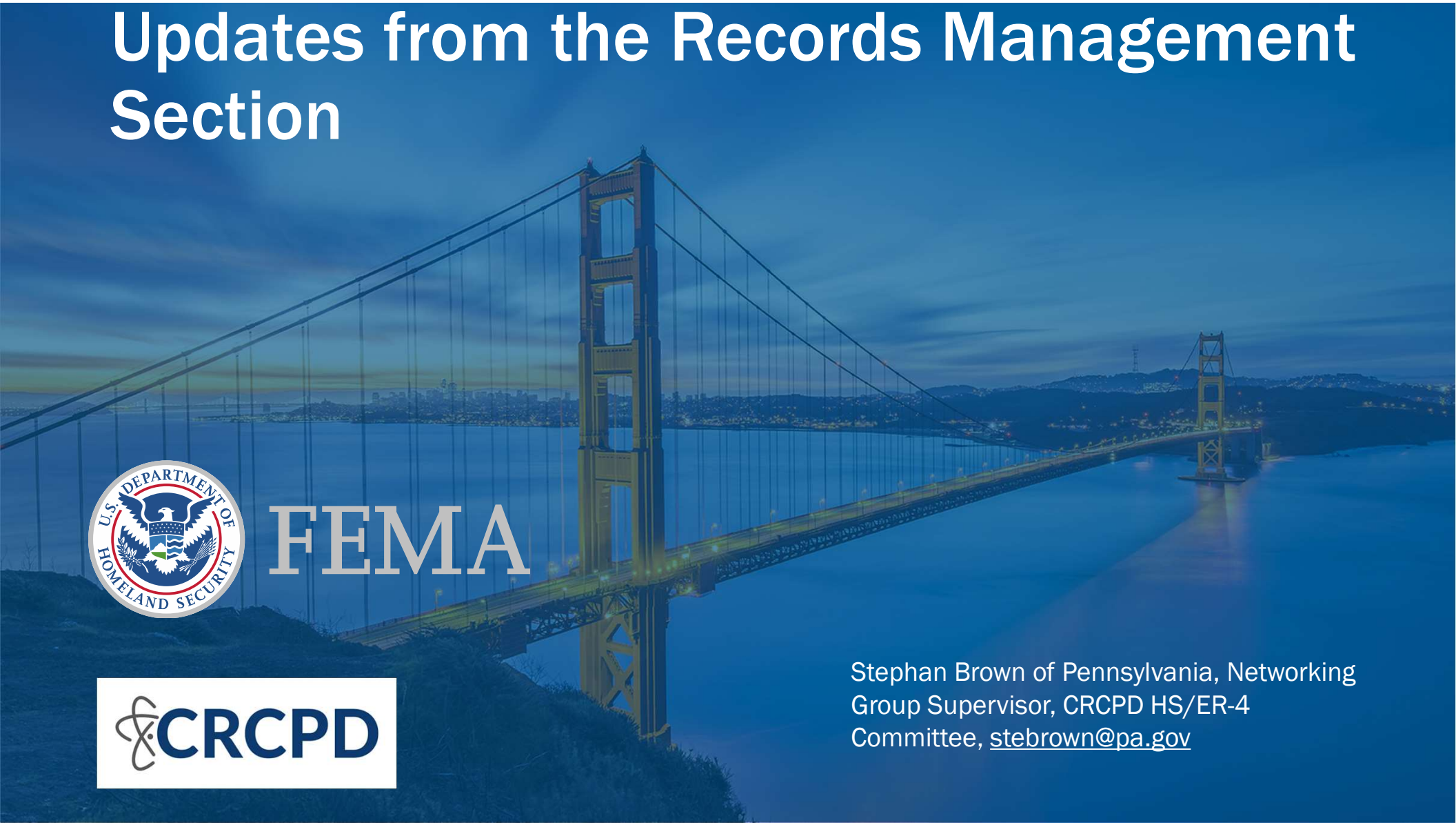
CRCPD

Logistics

- Host POC
- Designated Room reserved Mon-Thur with Course Tue-Thur
- Host location prints 3-ringed manuals and handouts for 30-35 participants
- Availability to either provide working lunch, or easy individual order/delivery of lunches
- CRCPD ships box to/from POC for course instructors
- HS/ER-4 provides course flyer, files to print, and assistance with registration

FEMA CRCPD

Updates from the Records Management Section

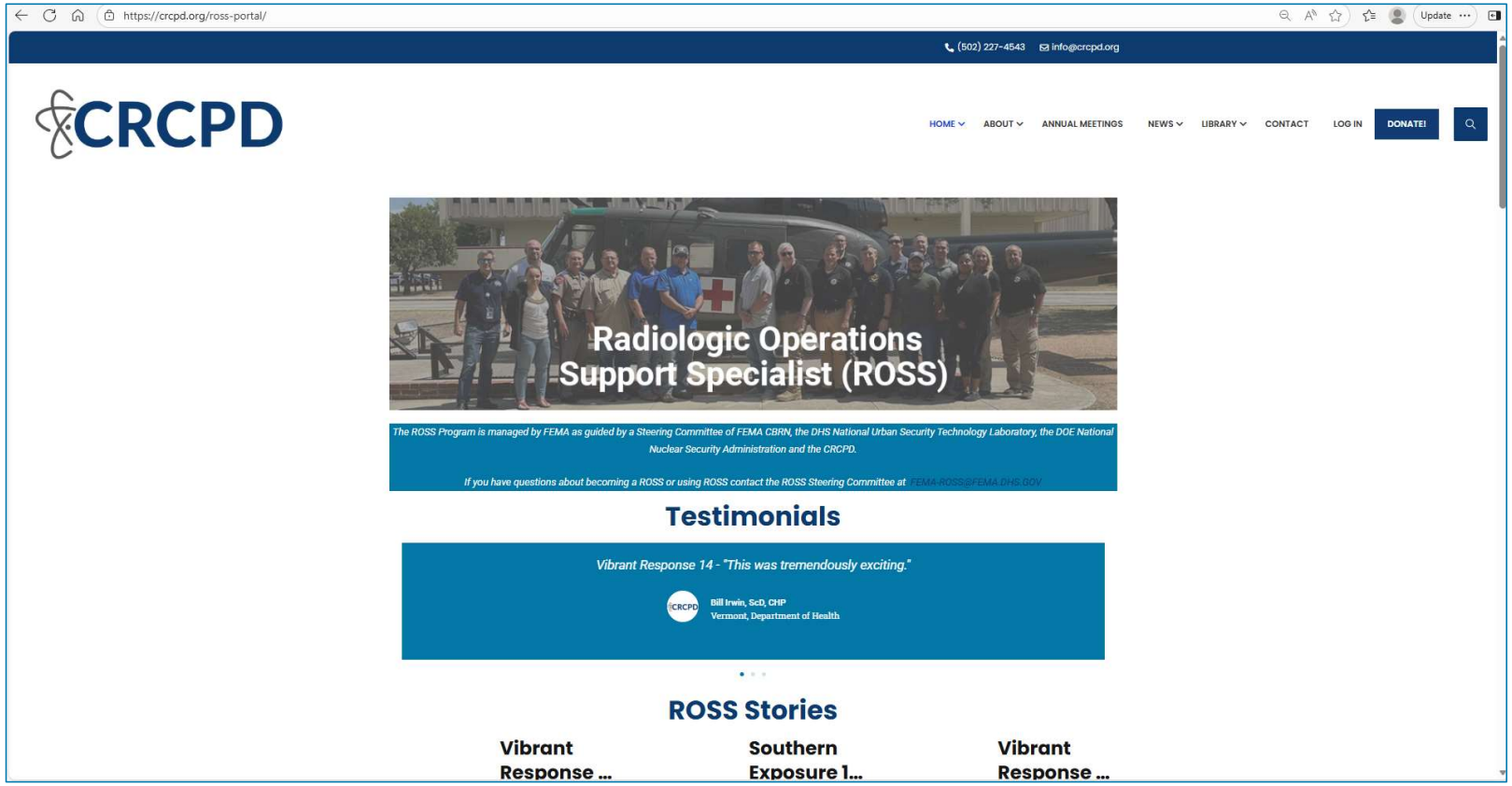


FEMA

CRCPD

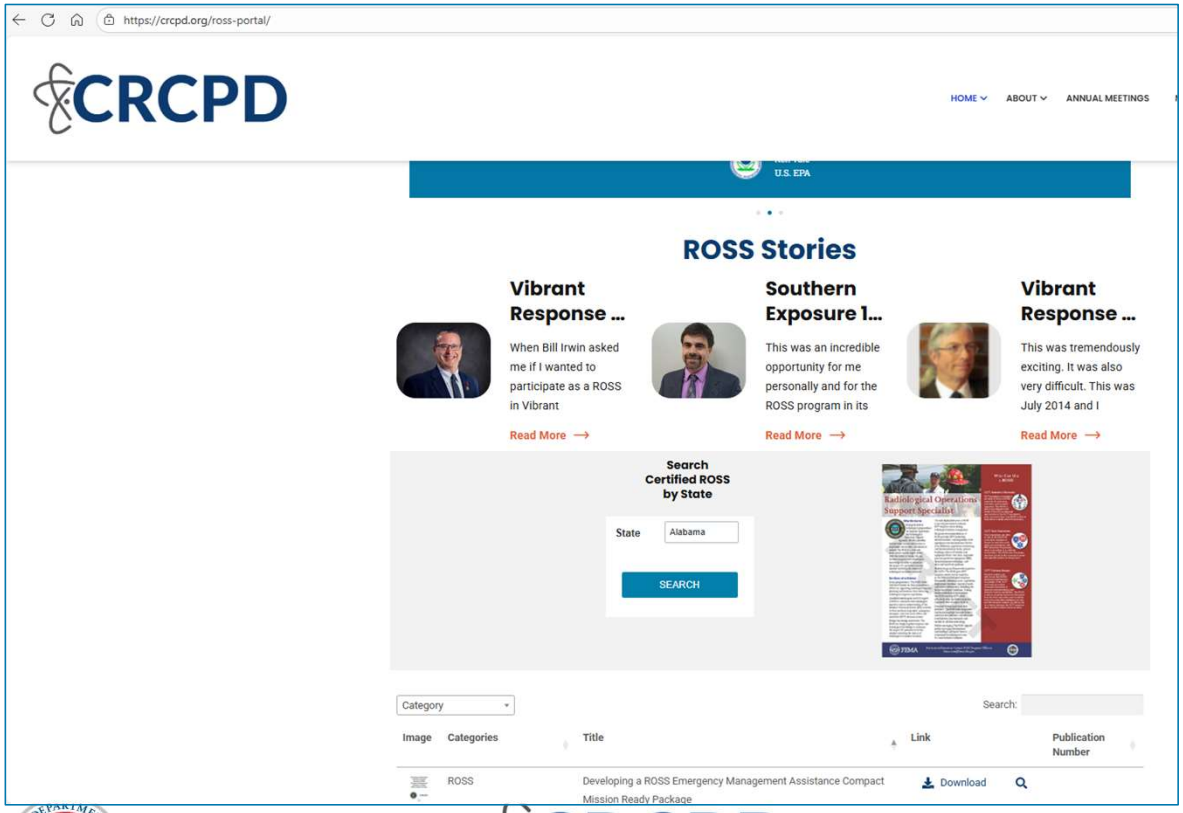
Stephan Brown of Pennsylvania, Networking Group Supervisor, CRCPD HS/ER-4 Committee, stebrown@pa.gov

Records Management Section Networking Group Report



FEMA

Records Management Section Networking Group Report

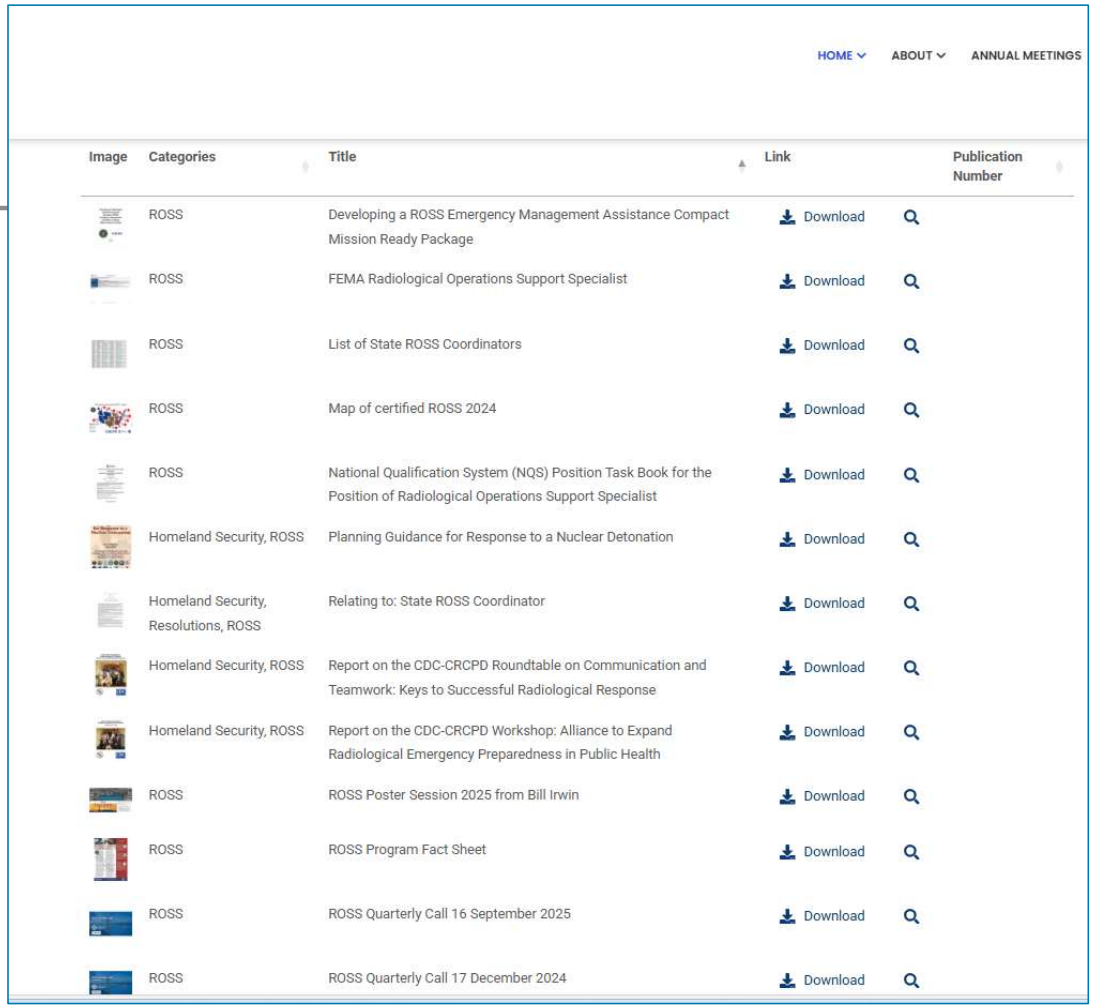


Share yours with stebrown@pa.gov.

Records Management Section Networking Group Report

Our ROSS Library.

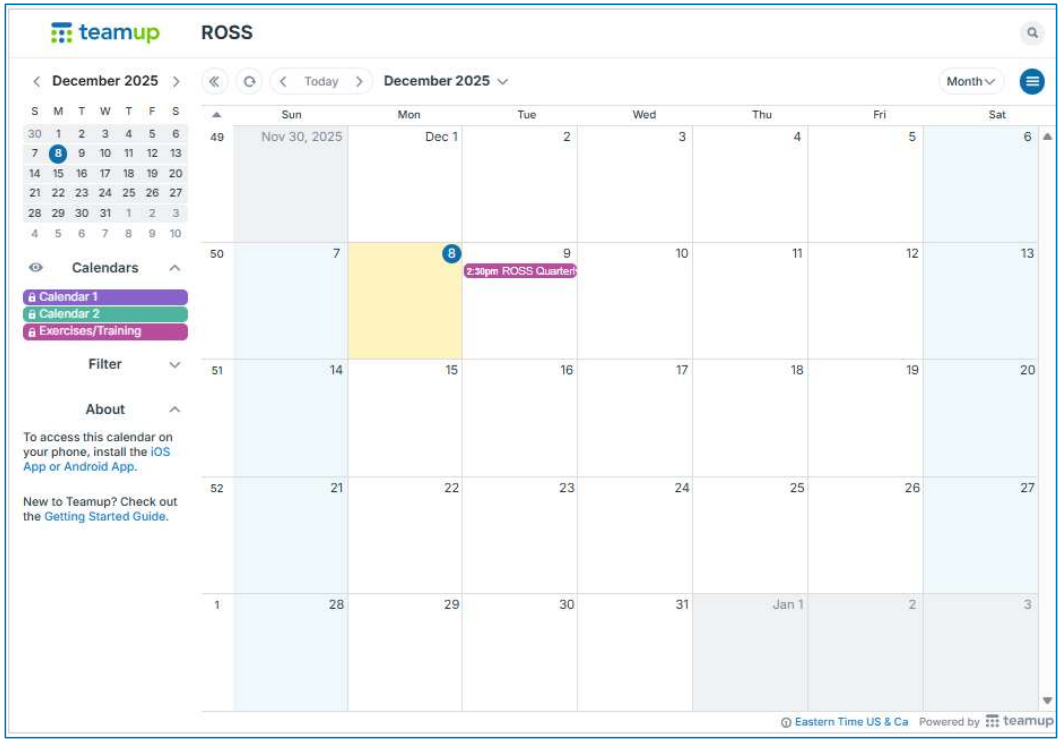
Share suggestions with Stebrown@pa.gov.



FEMA

CRCPD

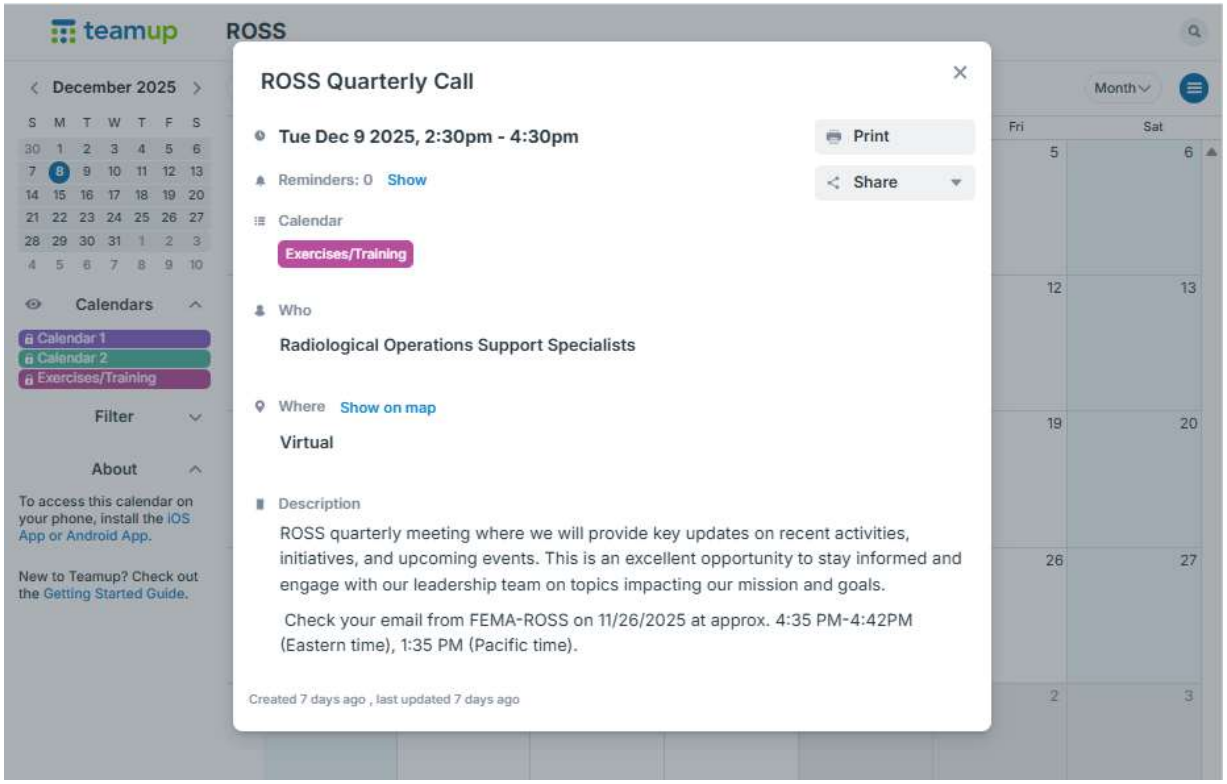
Records Management Section Networking Group Report



Our calendar.

Please share events with us (stebrown@pa.gov) to get them posted.

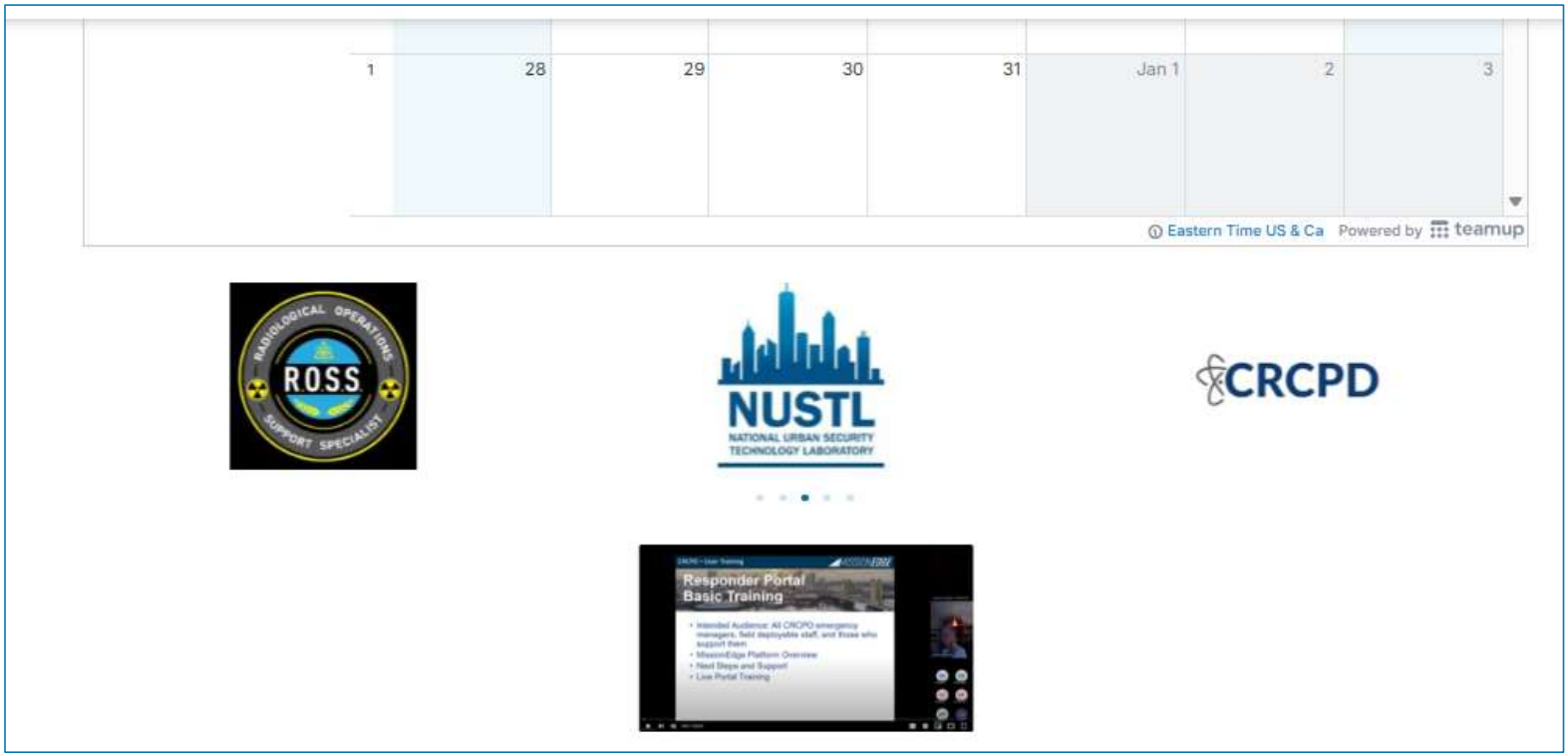
Records Management Section Networking Group Report



FEMA

CRCPD

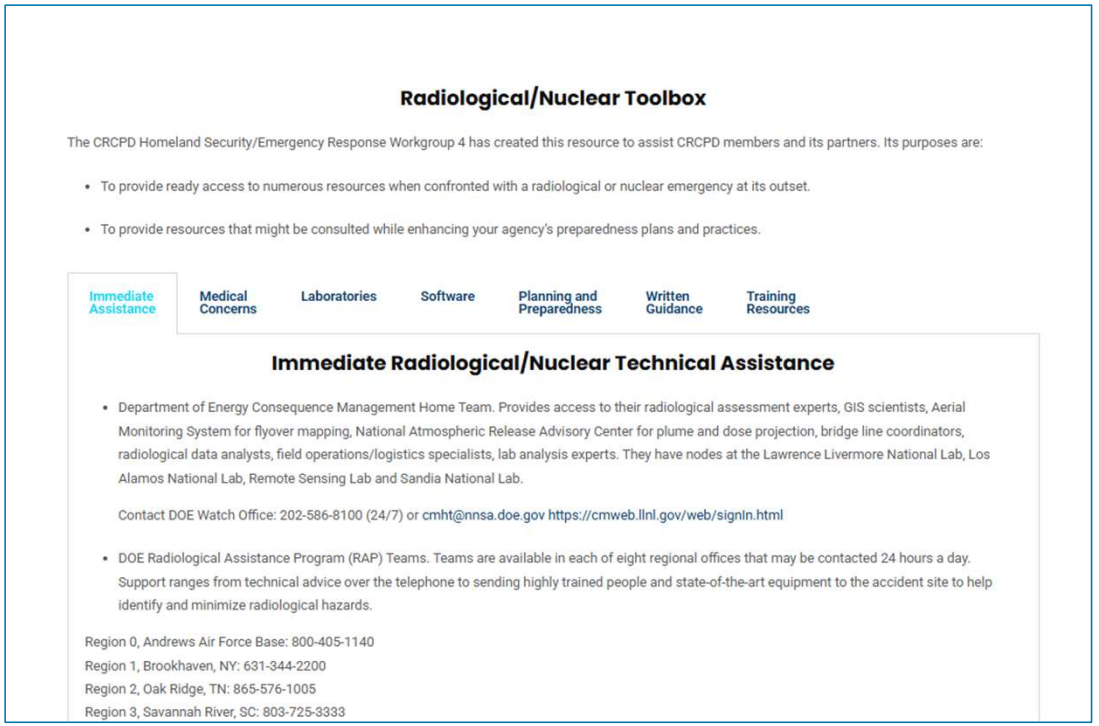
Records Management Section Networking Group Report



A link to our YouTube Channel

Records Management Section Networking Group Report

One of our earliest toolboxes is still maintained here.



Radiological/Nuclear Toolbox

The CRCPD Homeland Security/Emergency Response Workgroup 4 has created this resource to assist CRCPD members and its partners. Its purposes are:

- To provide ready access to numerous resources when confronted with a radiological or nuclear emergency at its outset.
- To provide resources that might be consulted while enhancing your agency's preparedness plans and practices.

Immediate Assistance | Medical Concerns | Laboratories | Software | Planning and Preparedness | Written Guidance | Training Resources

Immediate Radiological/Nuclear Technical Assistance

- Department of Energy Consequence Management Home Team. Provides access to their radiological assessment experts, GIS scientists, Aerial Monitoring System for flyover mapping, National Atmospheric Release Advisory Center for plume and dose projection, bridge line coordinators, radiological data analysts, field operations/logistics specialists, lab analysis experts. They have nodes at the Lawrence Livermore National Lab, Los Alamos National Lab, Remote Sensing Lab and Sandia National Lab.

  Contact DOE Watch Office: 202-586-8100 (24/7) or cmht@nnsa.doe.gov https://cmweb.llnl.gov/web/signIn.html

- DOE Radiological Assistance Program (RAP) Teams. Teams are available in each of eight regional offices that may be contacted 24 hours a day. Support ranges from technical advice over the telephone to sending highly trained people and state-of-the-art equipment to the accident site to help identify and minimize radiological hazards.

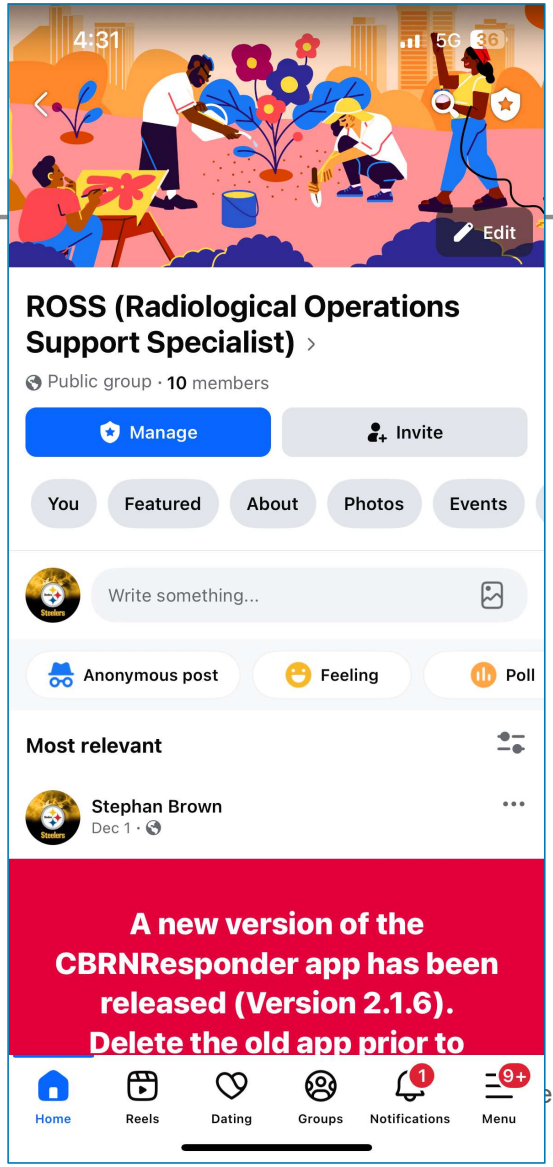
Region 0, Andrews Air Force Base: 800-405-1140
Region 1, Brookhaven, NY: 631-344-2200
Region 2, Oak Ridge, TN: 865-576-1005
Region 3, Savannah River, SC: 803-725-3333

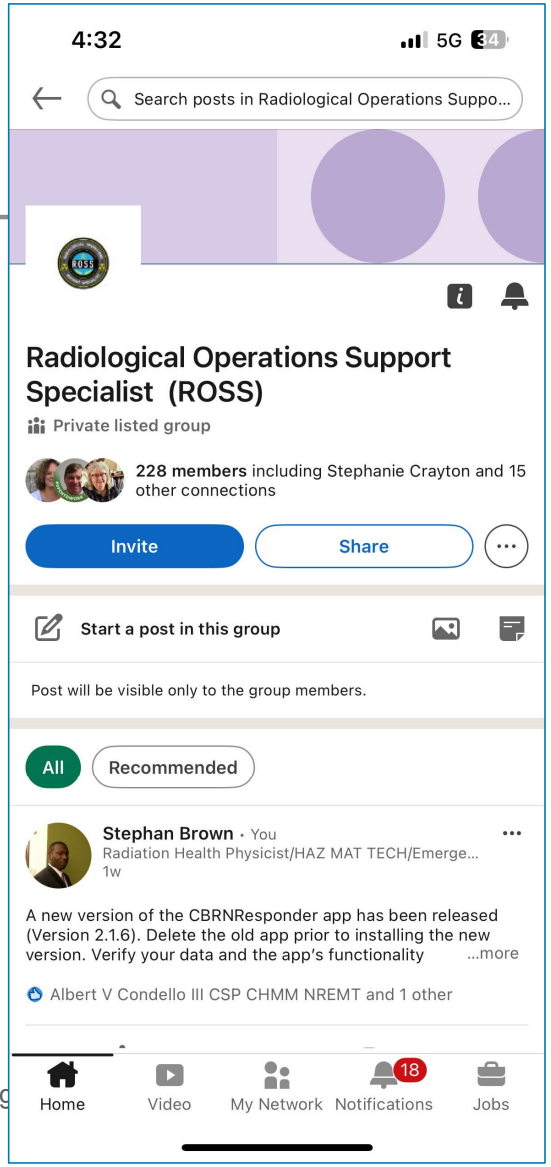
FEMA

CRCPD

Records Management Section Networking Group Report

Our ROSS Facebook and LinkedIn pages





A Report on Project STORRM

FEMA

CRCPD

Angela Leek, PhD, CHP, FEMA Type 1 ROSS, Iowa,
angelaleek@quantumradsolutions.com

Project STORRM 2025: Operation First Light

Simulation and Training for Operational Radiological Response Management

Recap for ROSS
December 2025

Introduction to the Exercise Series

This was the inaugural event in a recurring radiation preparedness exercise series created and delivered by Radiation Emergency Services and Quantum Radiation Solutions.

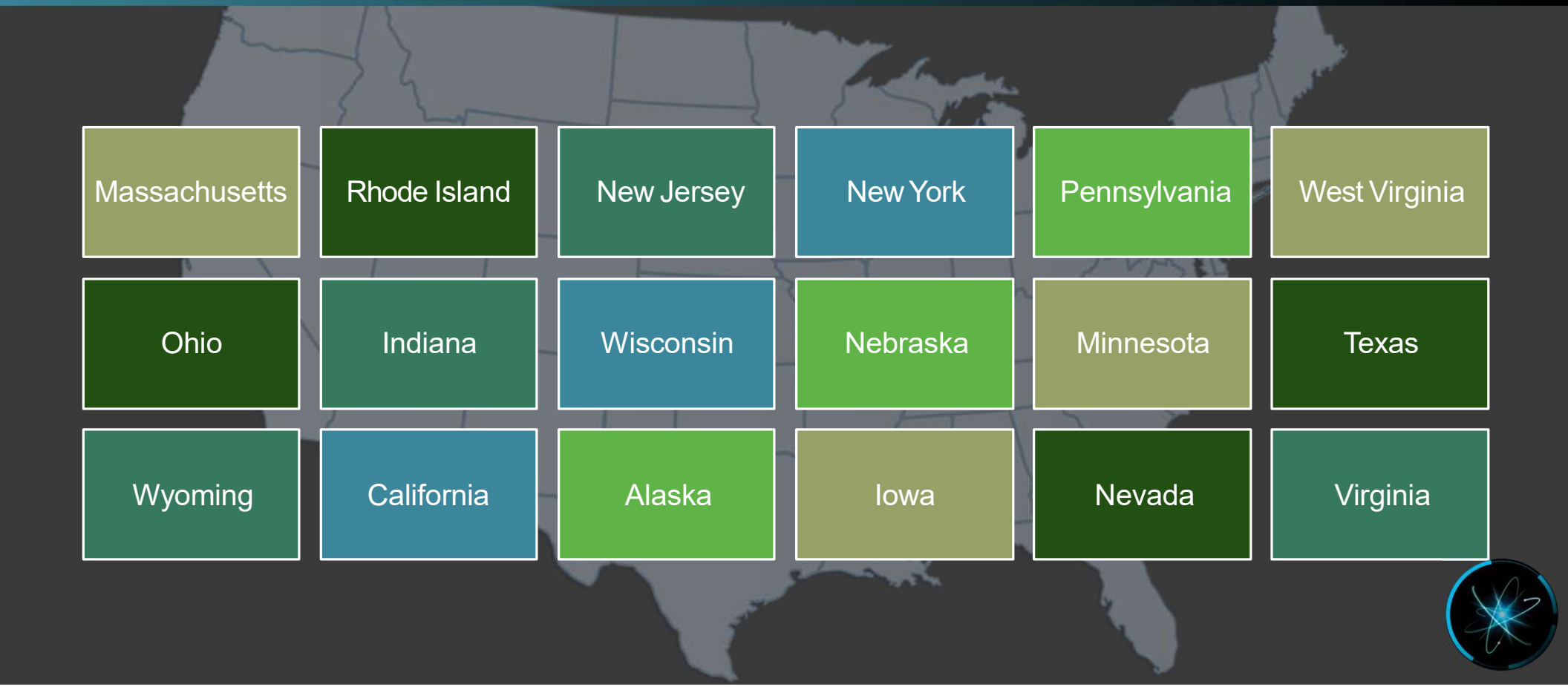
(No Federal sponsorship or play)

The intent was to provide a “no-fail” zone for interested response partners and jurisdictions to practice procedures, leveraging technology, and coordination.

This iteration focused on a low probability, high consequence nuclear detonation scenario.

Over several days, participating organizations explored key considerations for responding to a 10 kT nuclear detonation, including evolving fallout, ground monitoring challenges, public protection decisions, and interagency coordination.

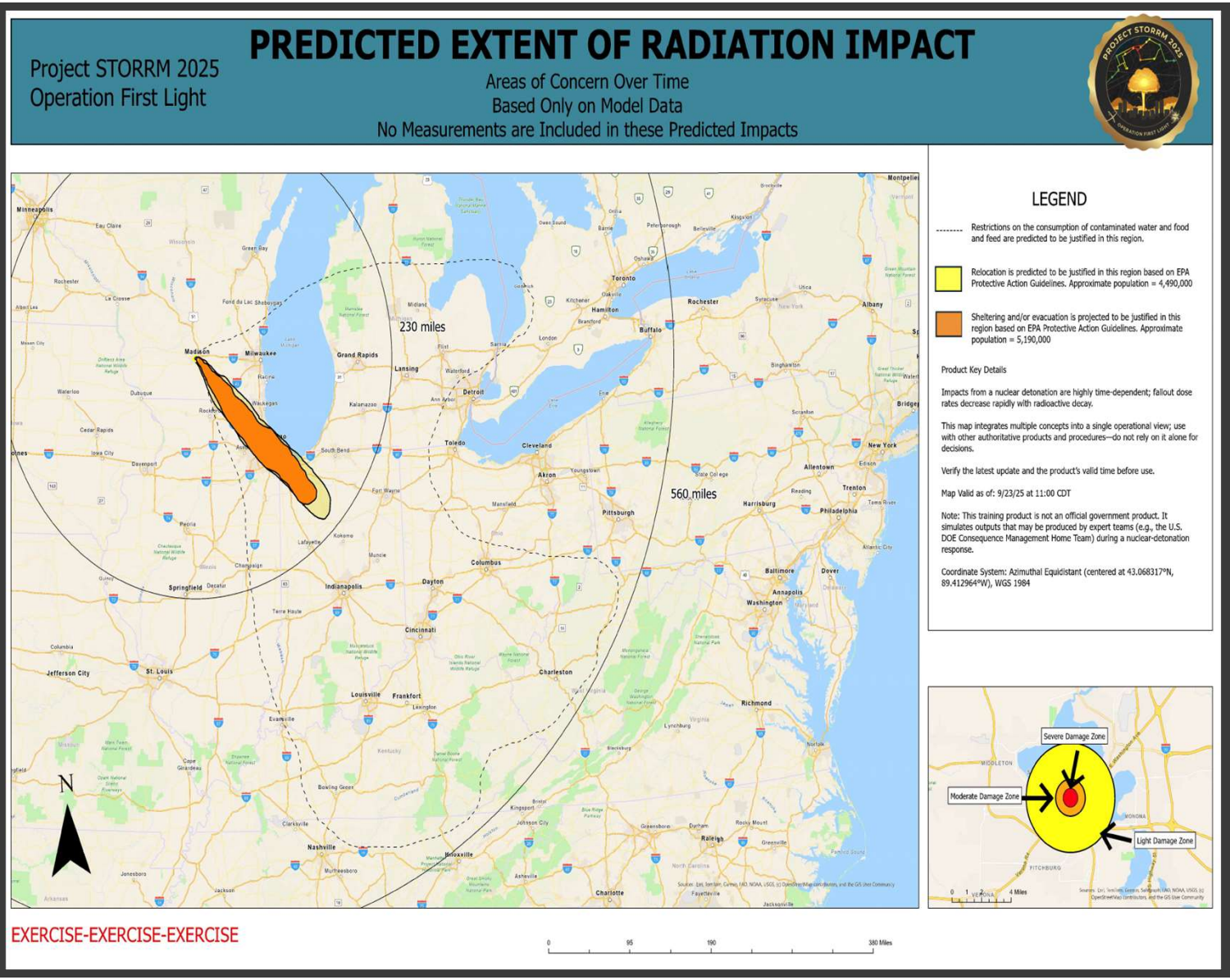
Participating States (Including Exercise Support & Players)



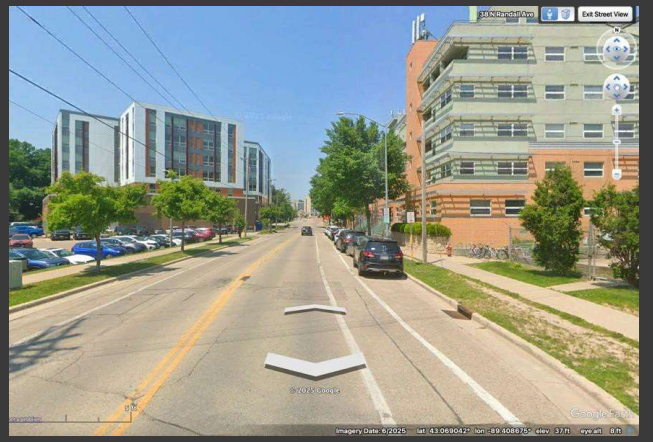
Exercise Scenario:

10kT Nuclear Detonation
Surface Burst

Madison, WI



Simulated Field Activities using RadTeamSim.Route



RadTeamSim.Route

Health Impact	Above the range of normal, everyday radiation levels, but no health effects expected (US CDC Hazard Category 2)							Increased risk of cancer later in life (symptoms may take decades to appear) (US CDC Hazard Category 3)			Increased risk of radiation sickness, but death is not likely (symptoms may appear in hours to days) (US CDC Hazard Category 4[2])		Death may occur in days to weeks (US Hazard Scale Category 5[2])		
External Dose (mR)[1]	0	0.01	0.1	10	1,000	5,000	10,000	20,000	50,000	100,000	150,000	200,000	300,000	600,000	1,000,000
This Mission Simulation Result															

(1) Health impacts in this comparison only include external exposure to radation.
(2) CDC suggested dose guide for category 4 is 1 Gy/114,025 , and for Categroy 5 is 2 Gy/228,050mR.

Responder Mission Summary

Mission Report File Name	STORRM Training Network Wide_wendy_Mission_D-09-11-25_T-06-44-00
Event Name	STORRM Training Network Wide
Responder First Name	Wendy
Responder Last Name	Renno
Field Team	Alpha
Mission Duration	00:20:58
Highest Dose Rate Encountered	30.10 R/h
Total Dose Received	823.30 mR
% Of population that could experience nausea/vomiting within 4 hours	0
Predicted Health Impacts	None
Dose Comparison	Mamogram
Dose Comparison Value	18 mR
Reference	ESE, Appendix A, ICRP Report No. 184 - Medical Radiation Exposure of Patients in the United States (2019)

Dose Rate Graph

Exit Simulation

Themes Identified

There is a need for access to actionable, decision-ready data products - particularly those supporting plume modeling, population exposure estimation, protective action planning, and field monitoring integration.

There is value of complementary simulation tools (e.g., RadResponder, Mission Edge, RadTeamSim) for training and cross-system interoperability.

The importance—and inherent complexity—of validating data across multiple jurisdictions.

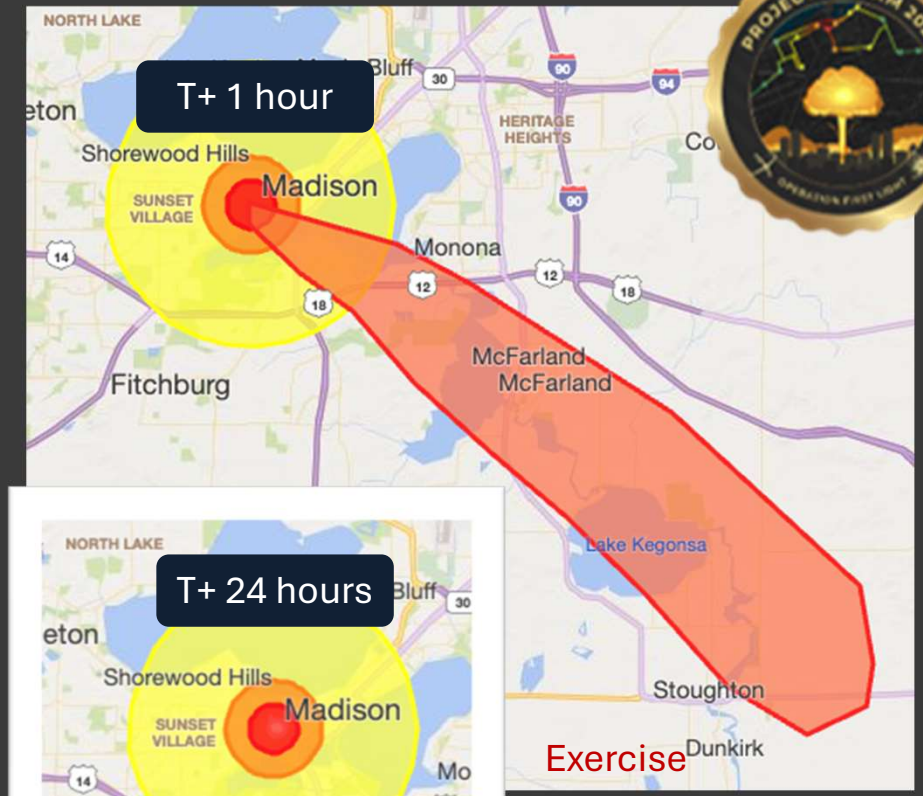
The operational challenges posed by real-world decision timelines, communication pathways, and technical constraints test both coordination and technology integration.

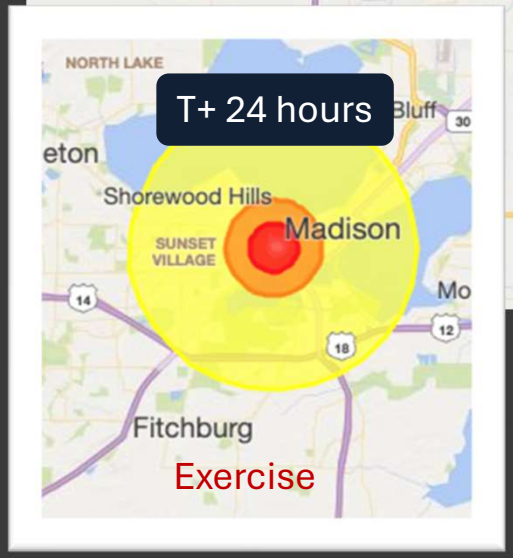
Key Actions for Nuclear Detonation

- Initial message is critical - Go Inside, Stay Inside, Stay Tuned
- Ensure responders in the DRZ stay inside during first 12-24 hours
- Initially shelter populations in a 50-mile radius around blast

Key Actions for Nuclear Detonation

- Evacuation of those sheltered in the DRZ should be priority at 24-48 hours
  - Those sheltered in high radiation zones may have accumulated nearly 50 rem or higher by leaving them sheltered instead of evacuating after the initial 12-24 hours had passed.
- Higher doses must be considered for emergency workers and lifesaving
  - 50 rem or higher
- Supporting jurisdictions should be prepared to offer assistance and resources to the impacted jurisdiction
  - Balance need to retain radiological resources in areas where deposition will continue to fall but will be below the hot zone levels

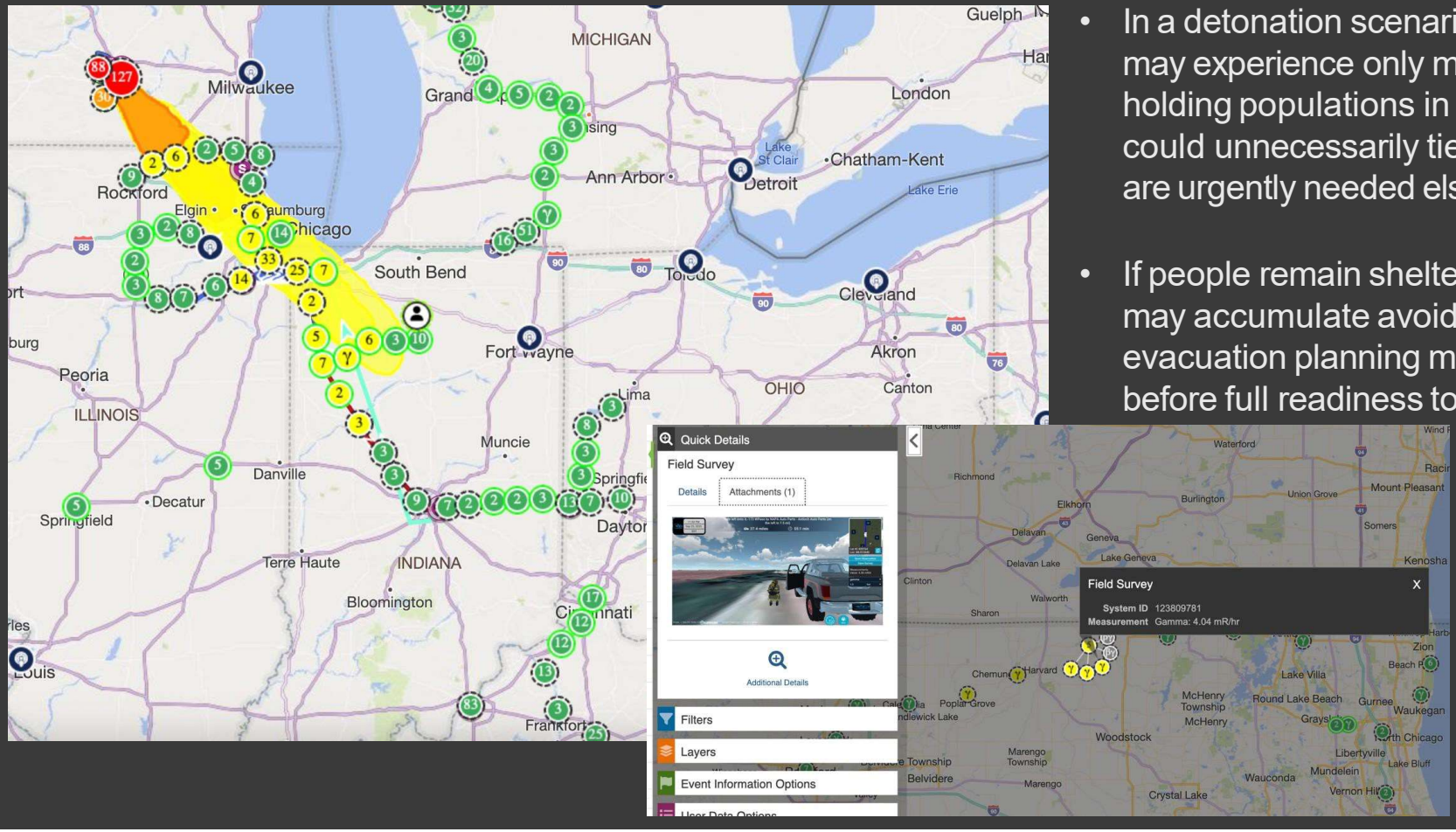




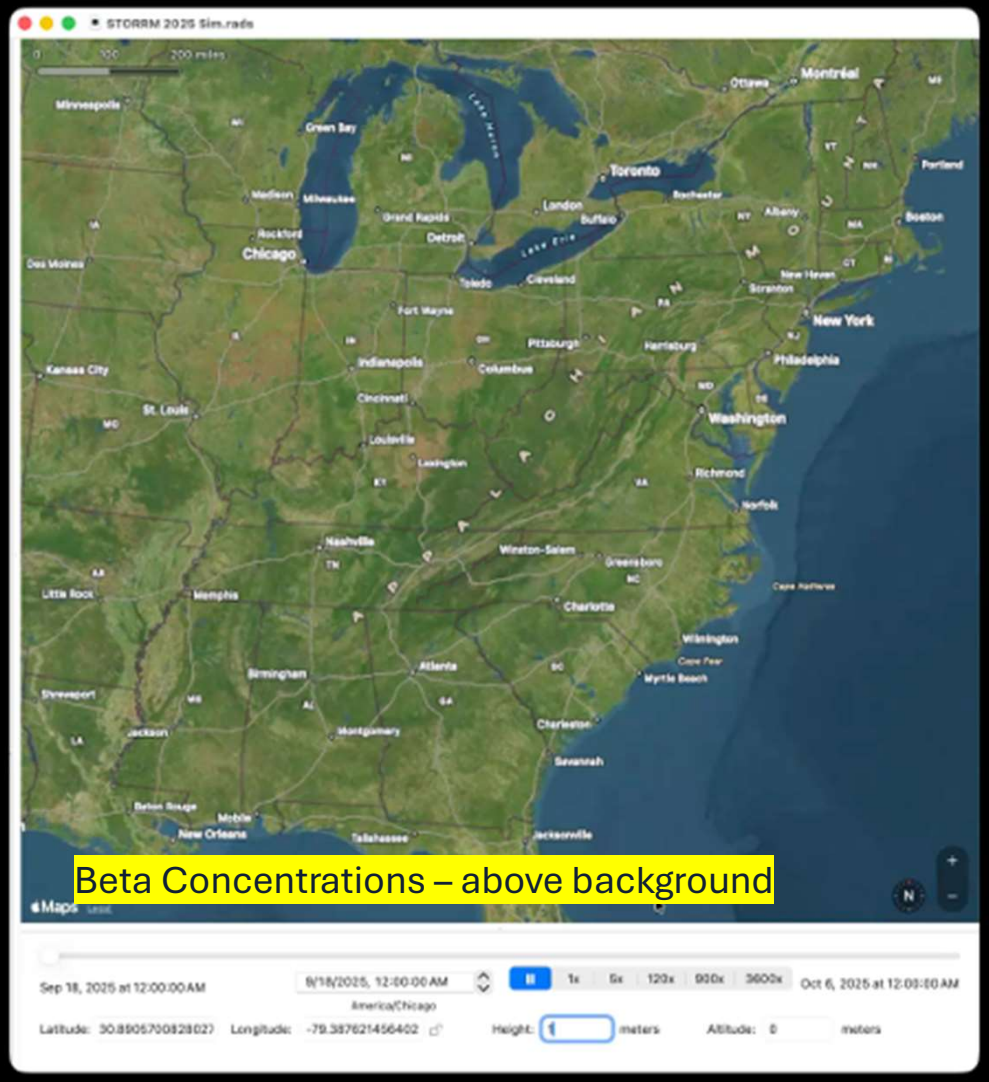
Key Actions for Nuclear Detonation

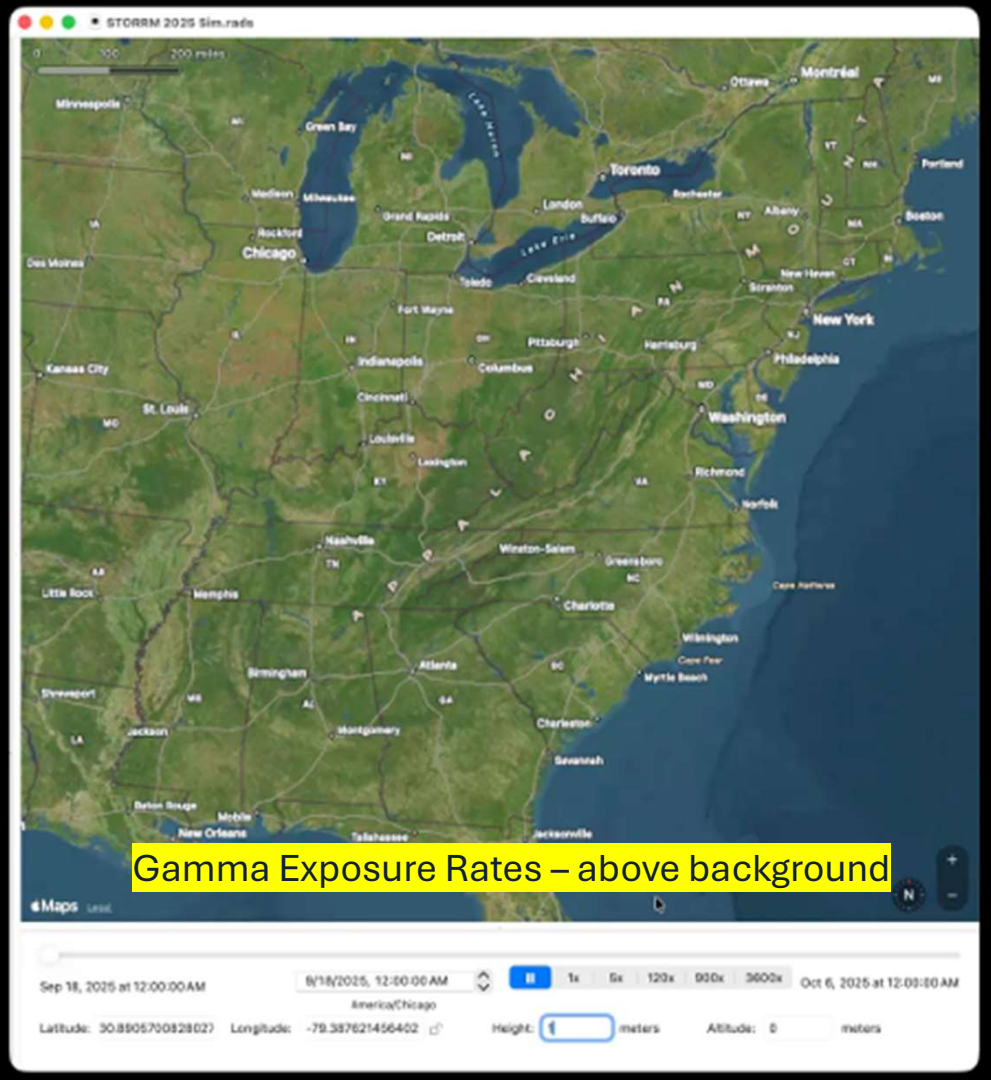
- Once we know where fallout is headed (projection models)
  - Extend shelter to those in projected DRZ and hot zone
  - Consider releasing populations in 50-mile ring without fallout to assist with response – may not have time for extensive measurements
  - In areas exceeding EPA PAG of 1-5 rem – do not use typical shelter in place
    - Could be adjusted to be limited activities, but still get resources and provide support
    - Need to ensure those resources are available for response

Critical Differences between NPP and NuDet



- In a detonation scenario, areas like Chicago may experience only mR/hr-level dose rates; holding populations in prolonged sheltering could unnecessarily tie up resources that are urgently needed elsewhere
- If people remain sheltered for too long, they may accumulate avoidable dose; phased evacuation planning must begin early, even before full readiness to execute





Video representations developed by Lokahi Enterprises - eric@lokahi.enterprises

Some Key Takeaways

- The planning guidance gives basis for critical plan adjustments that can address nuclear detonation response
- Public reaction, policy decisions, and economic pressures will have influence,
  - However - planning now can ensure initial actions can occur so those discussions do not delay critical actions that MUST happen in the first hours/days to save lives.
- We should try to get data from anywhere we can (fire stations, EPA RadNet)
  - Field missions may be difficult due to damage/response challenges and limited resources
- There will be more data than we can manage – a plan to address review of the data is key – Many ROSS will be needed
- Coordination across priorities from Incident Command to Data Validation to Field Teams is vitally important

Exercise Staff

We are grateful to these dedicated colleagues who are sharing their expertise, time, and energy to make this exercise a success.

Your commitment, leadership, and volunteer spirit drive strong national preparedness.

Bill Irwin
Chris Moore
Roy Renno
Craig Marianno
Sonia Carpena
Amanda Hughes
Dustin Willett
Jessica Weider
Adela Salame-Alfie
Linda Wendt
Brendan Palmer
Ken Yale
Matt McKinley

September 2025 Topical Training: ROSS and Community Reception Centers

FEMA

CRCPD

Nancy Stanley, NJ Dept. of Environmental Protection
Deployment Logistics Group Supervisor, CRCPD
HS/ER-4 Committee
Nancy.Stanley@dep.nj.gov

Overview

- Definition of a community reception center (CRC)
- Roles and Responsibilities of a CRC
- Items of note
- ROSS integration opportunities
- My experiences
- Available resources
- Q & A and Discussion

FEMA

CRCPD

What *is* a Community Reception Center?

A Community Reception Center (CRC) is an established location where population monitoring and wash/decontamination occur following a radiation emergency or incident. Population monitoring services include, but are not limited to:

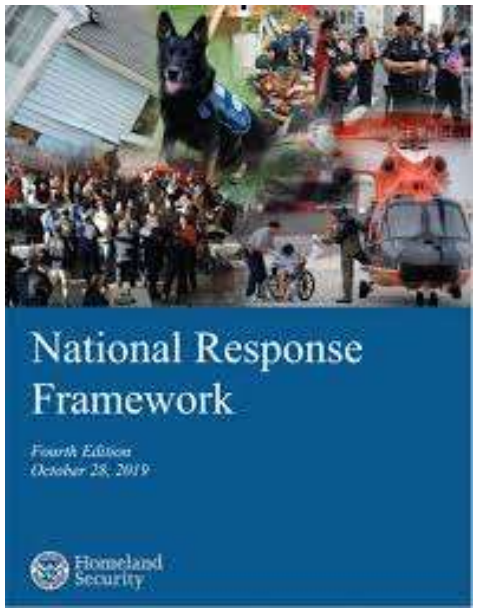
- Surveying members of the public for radioactive contamination;
- Wash/Decontamination of external radioactive material from people, service animals, and pets ;
- Establishing an exposure registry to track long-term health effects.

Radiation incidents for which a CRC could be activated may include/involve nuclear power plants, radiological dispersal devices, improvised nuclear devices/detonations, transportation accidents, and industrial accidents involving radioactive materials.

FEMA CRCPD

Responsibility

- After a major disaster it is the public health workers who are called upon to assist in a coordinated response.
- ESF 8 – Public Health & Medical Services
- Decontamination & population monitoring is "accomplished locally and is the responsibility of State, Tribal, and local governments." (www.fema.gov/emergency/nrf)



FEMA

CRCPD

Key Elements of Population Monitoring

Providing a mechanism for monitoring & evaluation after a radiation emergency:

- Determine need for medical treatment
- Finding contamination on body or clothing
- Identifying internal contamination
- Removal of external contamination
- Assessment of radiation dose and health risk
- Tracking for long term health effects

FEMA

CRCPD

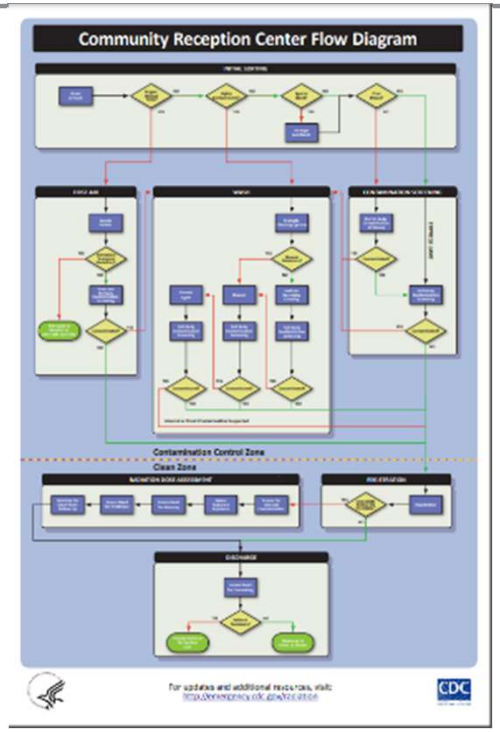
Facility Considerations

Facilities or sites in the community being considered for use as CRCs should be assessed on the following characteristics (not a complete list):

- Size
- Location
- Restroom facilities
- Shower rooms or facilities
- Accommodations for people with disabilities
- Environmental controls (heat & air conditioning)
- Adequate access and exit control

Population Monitoring in Radiation Emergencies, 2nd Ed. CDC, April 2014

Going with the Flow



- There are many ways to set up the “flow” in a CRC
- May be adjusted for specific needs/scalable
- Dependent on location

There are a lot of moving parts

- Registration
- Preliminary screening (outside)
- Screening
- Dose assessment
- Decontamination (people & pets)
- Mental health services
- Vulnerable populations
- Access & functional needs
- Translators
- Staffing!

FEMA

CRCPD

Some Things to Note

- Setting up a CRC is incredibly complex
- It can be the most difficult aspect of a response because it's so hard to get enough people to staff it, let alone staff it with enough rad folks
- You are also dealing with "concerned citizens"
- Could be open for weeks
- What if another public health emergency occurs?

FEMA CRCPD

Some of the Roles that a ROSS Can Fill

- Provide just in time training
- Survey instrument troubleshooting
- Facility setup (portal monitors)
- Dose assessment/tracking
- Assist the RSO, or act as RSO
- Work side by side with mental health professionals to answer radiation related questions raised by members of the public
- Exercise controller/evaluator

FEMA CRCPD

Some Personal Experiences with CRCs

Experience:

- Participation in large scale exercises such as Gotham Shield (2017)
- Participation in several smaller scale exercises
- Led training, assisted with planning
- Evaluated exercises

Observations:

- Radiation SMEs welcomed with open arms ☺!
- Can get spread thin quickly

FEMA CRCPD

As a ROSS What Can We Do to Prepare?

- Get to know which agency is responsible for running CRCs in your state/region!
- Do they have exercises?
- What is their written plan?
- Review the CRC resources on the CDC's web site – they're excellent!

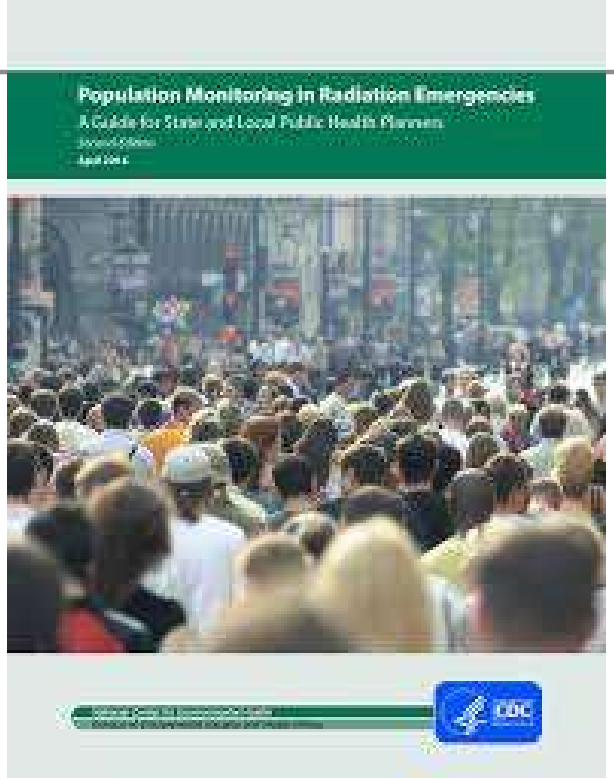
FEMA

CRCPD

Resources

If you only look at one thing, this should be it:

Population Monitoring in Radiation Emergencies: A Guide for State and Local Public Health Planners, April 2014, Radiation Studies Branch, CDC (Part of the CDC's Toolkit - https://www.cdc.gov/radiation-emergencies/php/toolkit/index.html)



FEMA

CRCPD

Questions & Discussion

Thank you for your support of the ROSS Program!

- Our next call will be in March 2026!
- Contacts: FEMA-ROSS@FEMA.DHS.GOV

FEMA CRCPD