

# State/FRMAC Semi-Annual Webinar

January 29, 2025



# AGENDA

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- Introduction
- FRMAC Working Group Updates (DOE)
- Exercise Updates (DOE)
- DOE Regional Update (DOE)
- RadResponder Update (FEMA)
- National Radiological Emergency Preparedness Conference
- Emergency Preparedness Update (CRCPCD)
- State/Federal Agency Updates (All Partners)
- Open Discussion & Questions
- Closing

## FRMAC MONITORING AND SAMPLING WORKING GROUP UPDATE

# CBRNResponder Event Settings

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- When creating an event, click the “Shared w/ FRMAC” checkbox.
- When editing an event, go to “Manage” in the “Settings” tab, then click the “Shared w/ FRMAC” checkbox.

The screenshot shows the 'Event Settings' section of the CBRNResponder application. At the top, there is a Microsoft Bing map with the instruction 'Click anywhere on the map to select a location'. Below the map is the 'Event Settings' panel, which contains several configuration options:

- Track Responders?
- Hidden from Search?
- Alerts Enabled?
- VSP Statistical Sampling Plans Enabled?
- Shared w/ FRMAC?**  (highlighted with an orange arrow)
- Shared w/ Advisory Team?

A yellow tooltip is visible below the 'Shared w/ FRMAC?' checkbox, containing the text: 'By sharing with FRMAC, FRMAC organizations'.

# CMRT/CMHT Connections as of January 2025

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## Legend

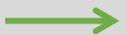
Existing Capability

New in 2025

Under construction

### Connectivity

No/Minor Issues



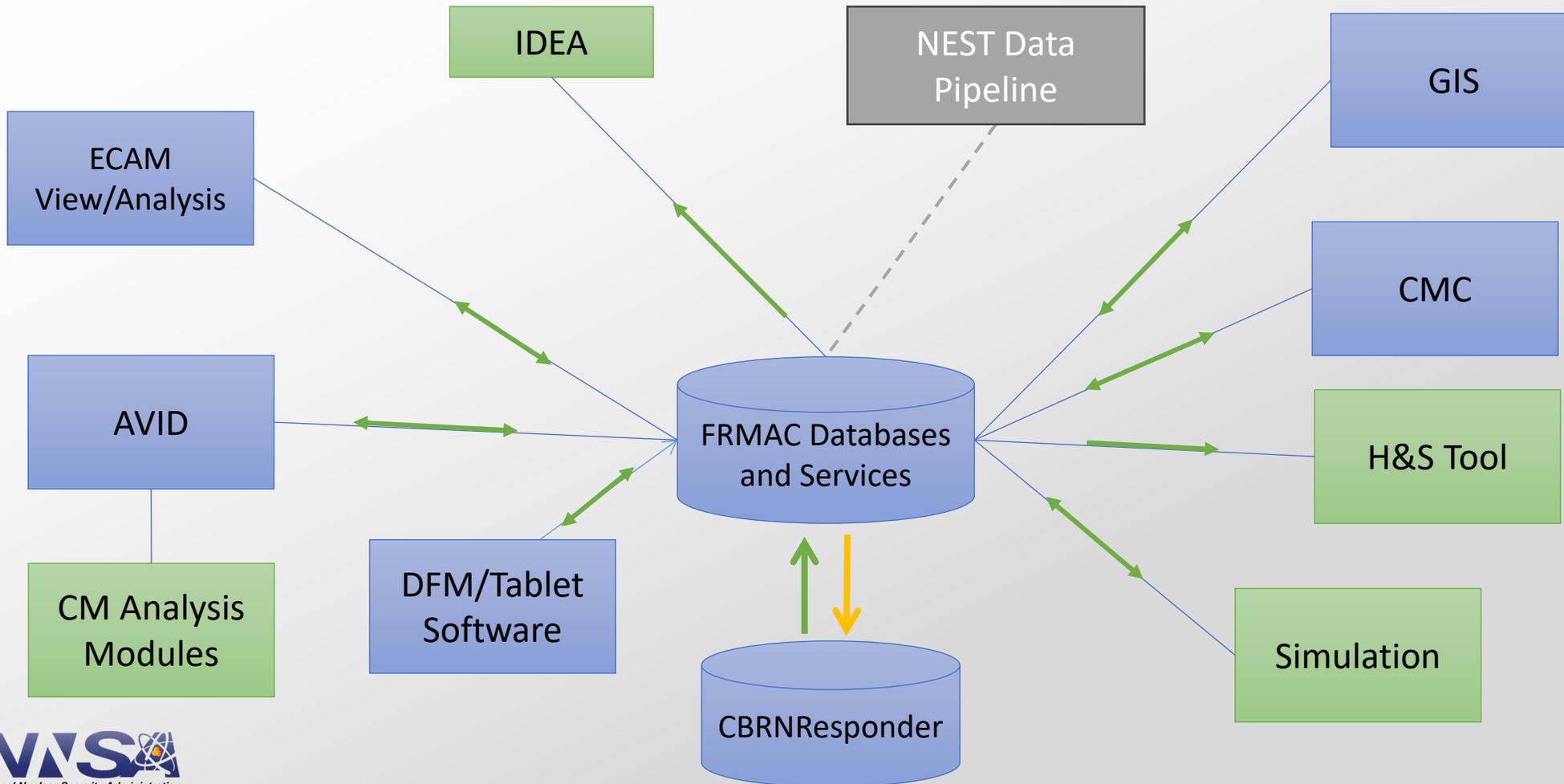
Some Issues



Major Issues



The NEST Data Pipeline is an active Capability Assurance (CA) Project



# What Syncs to CBRNResponder?

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- The FRMAC Normalized value and unit
- The change log appears as a comment
- FRMAC Assessment Status: “Approved” or “Rejected”
- Comments in the “Assessment Comment” box
- Approved By (name): goes into Assessment History

Reading Details	
Measurement	0.01 cpm
Radiation Type	Gamma
Height	1 km
Orientation	--
Window Open?	No
Distance From Source	--
FRMAC Normalized Value	0 uR/hr
FRMAC Normalized Value Comment	1/6/2025 8:58:48 PM Jiang, Christina Radiation Uni... (Show More)
Meter	Q Ludlum CMRT-HPKIT - SN#: CMRT-HPKIT 08 - PN#: CMRT-HPKIT 08
Probe	Q Ludlum 26-1 - SN#: PF010522 - PN#: PF010522
Equipment Surface Area	14 Square Centimeters
Equipment Efficiency	--
Background?	Yes

Assessment Details	
Flags	Incomplete Assessment Data X Failed Standardization X
Steps	✓ Data Quality Review (Passed Review) ✓ Data Integration Review (Passed Review)
Policy	FRMAC - Surveys Policy owned by DOE FRMAC
FRMAC Policy	Default System Assessment Policy Policy owned by FRMAC Group
Latest FRMAC Review Status	Assessment Review (Passed Review)
Latest FRMAC Review Comment	Testing approval
Latest Review Status	Passed Review (Data Integration Review)
Latest Review Comment	Testing approval

# What Syncs to CBRNResponder?

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- The FRMAC Normalized value and unit as well as the FRMAC Assessment status will be visible in the “Field Surveys and Screenings” data table.

Latest Assessment Status	Latest Assessment Comment	FRMAC Normalized Values	FRMAC Assessment	Asses
Passed Review	Testing approval	1,980 uR/hr	Passed Review	Expand
Passed Review	checking values	0.1 uCi/m2	Passed Review	Expand
Passed Review	testing frmac normalized values	0.03 uCi/m2	Passed Review	Expand
Passed Review	testing frmac normalized value	0.03 uCi/m2	Passed Review	Expand
Passed Review	Testing approval	0.02 uCi/m2	Passed Review	Expand

# 2025 Goals

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- Review existing documentation (one more year!)
  - Review M&S Documentation (group action by August)
    - Review manuals and provide minor edits
    - Review and update operator aids
  - Need to update applicable Monitoring Division Training (Gwin)
    - Last updated in 2020-2021 time frame.
- Socialize the standardization of RR settings/inputs (like equipment) among CMRT and RAP assets.
  - Document exists for configuration and instrument settings (Cerefice/Gwin).
  - Will help to respond more cohesively during operations.

## FRMAC ASSESSMENT WORKING GROUP UPDATE

# Assessment Working Group Update

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## Assessment Manuals available

**Vol 1, Assessment Operations** – CM/FRMAC Assessment Operations

**Vol 2, Assessment Methods** – Technical Methods

**Vol 3, Assessment Pre-Assessed Scenarios** – 7 different types of release scenarios, replaces 2010 version

[https://www.nnss.gov/pages/programs/frmac/frmac\\_documentsmanuals.html](https://www.nnss.gov/pages/programs/frmac/frmac_documentsmanuals.html)

Or just google “FRMAC Manuals”!

# Assessment Working Group Update

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## Training

- AS-50 is available in recorded form
- AS-100 available in an online self-study (LMS) version
  - <https://snl.matrixlms.com/>
  - Instructions at <https://nirp.sandia.gov> under AS100 Training “FRMAC Training Portal MATRIX Login Instructions”
- Quarterly Continuing Training continues
  - Recordings available at [nirp.sandia.gov](https://nirp.sandia.gov)
  - Will be added to LMS as time allows

# Assessment Working Group Update

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## **Turbo FRMAC 12.1.0 Released 1/23/25!**

- Created an export top dose contributors feature in the Dose Roll Up Tool. This feature reduces a mixture to a set of radionuclides that contribute a percentage of dose for selected time phases. The percentage, dose type, and time phases are user-defined.
- Implemented OIL corrections for radionuclides with non-standard forms for inhalation and ingestion.
- Fixed an error where meat and milk transfer factor references did not appear. Also fixed an issue maintaining user-entered values when the user toggles between user defined transfer factors and provided transfer factors.
- Fixed an issue with saving and loading radionuclide group transfer factor values.
- Implemented option to only select and export total dose in the Excel Total Dose Export Tool.
- Increased the input size in the Paste Mixture From Tool to support all unique radionuclides.
- Updates to Java and third party libraries

<https://nirp.sandia.gov/Software/TurboFRMAC/TurboFRMAC.aspx>

# Assessment Working Group Update

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## NIRP Website Update (planned)

<https://nirp.sandia.gov>

This screenshot shows the home page of the Nuclear Incident Response Program (NIRP) website. The header includes the Sandia National Laboratories logo and navigation links for Home, Software, Training, Help, and Contact Us. A central 'Our Mission' section is followed by a 'Recent Software Updates' section. This section features four software updates, each with a logo, version number, last release date, a brief description, and a 'LEARN MORE' button.

Software Name	Version	Last Release
Turbo FRMAC	11.3.1	Sep 4, 2023
SHARC	10.5.0	Sep 4, 2023
Mixture Manager	4.0.0	Jun 5, 2023
Radionuclide Viewer	4.4.0	Jun 5, 2023

This screenshot shows the 'Training' page of the NIRP website. It features a grid of training modules, each with a title, description, last update date, and a 'VIEW TRAINING' button. Each module also includes a set of icons representing different categories or metrics.

Training Module	Last Updated
Assessment Scientist Continuing Training	Mar 31, 2023
AS300 Training	Mar 31, 2015
AS100 Training	Mar 22, 2021
AS50 Training	Jul 31, 2022
Assessment Work Group	Jul 17, 2019

## FRMAC LABORATORY ANALYSIS WORKING GROUP UPDATE

# Lab Analysis Working Group Update

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## Programmatic Improvements and Training Development

- **Preparations for CM-25**
  - CM-25 Dry run drill – Nov 5<sup>th</sup> -6<sup>th</sup> 2024
  - Fly Away Lab Training – Jan 14<sup>th</sup> – 16<sup>th</sup> 2025
  - LA-100 virtual refresher – Feb 18<sup>th</sup> 2025 (contact [ecniels@sandia.gov](mailto:ecniels@sandia.gov) if you are interested)
  - Cross-training with AFRAT laboratory personnel
- **Official retirement of EPA MERL announced by EPA**
  - This leaves a major gap in the nation's ability to respond. How can FAL fill this gap?
- **Relocation of Fly Away Lab gear to ABQ, NM**
- **New iMatic unit for the Fly Away Lab**
  - Radon-compensated alpha/beta detector with automated sample changer (50 sample stack) with diameter <2 inches (smears and lo-vol filters)



## Drill Activities

- **CM-25 (March 14<sup>th</sup> – March 21<sup>st</sup>, 2025)**
  - Participants: All skillsets
- **INL Live radiological drills (June 2025)**
  - Participants: Sample Control Specialists, QA Specialists, and Fly Away Laboratory, Gamma Spectroscopists
- **RAP Regional Drills – Late summer 2025**
  - Participants: Sample Control Specialists, QA Specialists, and Fly Away Laboratory, Gamma Spectroscopists

## Current Joint EPA/FRMAC FEMA-NIRT Projects

- Pre-planned analytical strategies
  - What to do about Sr-89/90?
  - Estimating MDAs for in-situ measurements for mission planning
  - How to verify resuspension factor and weathering factor assumptions with field measurements and samples
  - Estimating MDAs for handheld instruments
  - How to design a campaign to confirm no contamination is present

# Nuclear Incident Response Self-Paced Learning Opportunities



## AS-100: Introduction to Assessment Science

24 ABHP CECs

- 22 module course covering FRMAC Assessment methods for public protection, worker protection, and ingestion pathway [PNNS-KDXC](#)

## Turbo FRMAC Advanced Methods

1 ABHP CEC each

- Administration of Potassium Iodide Derived Response Level Calculation [OMXL-NMBV](#)
- Analytical Action Level Calculation [HZAK-EWAX](#)

## LA-050: Support Laboratory Briefing

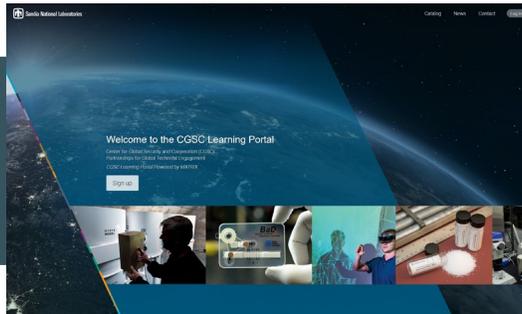
- What labs should expect when called to help FRMAC [CMOT-EKHS](#)

## LA-075: Laboratory Data Reporting (Sept 2025)

- Detailed walkdown of data reporting in CBRNResponder

## Gamma Spectroscopy Fundamentals [ERXF-ZREQ](#)

- Detector Calibration Methods
- Sample Analysis
- Software Functions
- Mathematical Instrument Calibration
- True Coincidence Summing Corrections
- In-Situ Gamma Spectrometry



Sandia and partners have developed *free, online* training!  
Learn more: <https://snl.matrixlms.com/>

# EXERCISE UPDATES

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## EXERCISE UPDATES

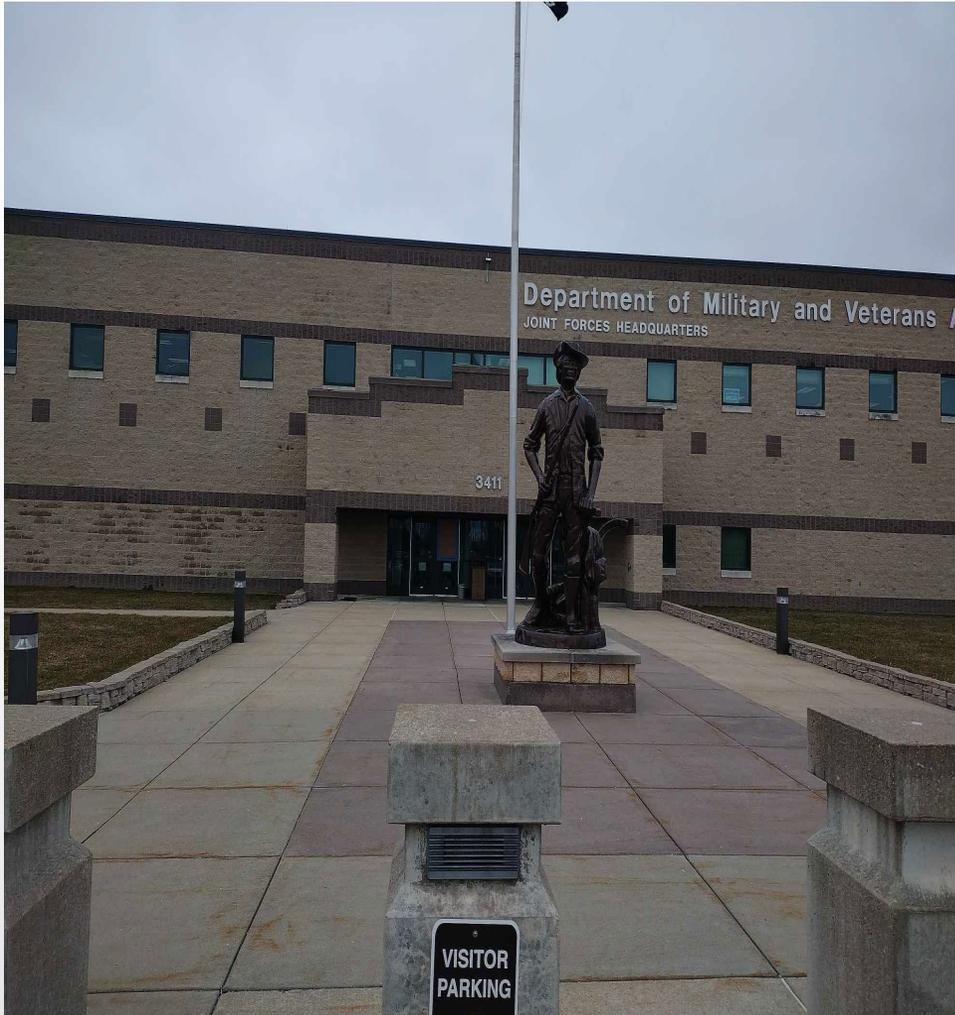
# Cobalt Magnet 2025 Updates

FRMAC Quarterly: July 2024



# Recent Progress: Mid Planning Meeting Conducted in April

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Working groups breakouts were conducted each day

All draft exercise documents were reviewed and discussed

Exercise control and evaluation concepts were drafted

Planning for the VIP day was conducted

Information sharing, especially cross borders, was the topic of interest and continued conversations

# New Developments

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Ohio has now joined the planning team!

- Us Play = Michigan, Indiana, and Ohio
- Canada Play = Federal in Toronto and Provincial in Ontario

The planning team is now approximately 300 members

- To limit accidental sharing of information with players, most working groups are having smaller meetings
- Larger meetings are being leveraged to share broad concepts

An estimated 1400 players will be participating in the exercise

The scenario lead up story has been finalized (it will not be shared in advance of the exercise)

Canada has tied CM25 to another major exercise, Vital Archer

The October training event has been moved to February and will be virtual to enable all players and staff to participate

# Remaining Planning Schedule

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In Progress Review (Virtual): 30 July 2024

MSEL scripting session 2: September 10 – 12, 2024

In Progress Review (Virtual): 10 December 2024

Final Planning Meeting: January 7-8, 2025

Communication Exercise 1: January 9, 2025

Communication Exercise 2: February 11, 2025

Senior Leader Seminar: February 12, 2025

Exercise Training Event: February 24-28, 2025

- Virtual event for exercise players and staff
- Will have some required sessions, and others that are optional
- Will include participants from both US and Canada
- Will leverage “tracks” for players and staff to attend relevant sessions

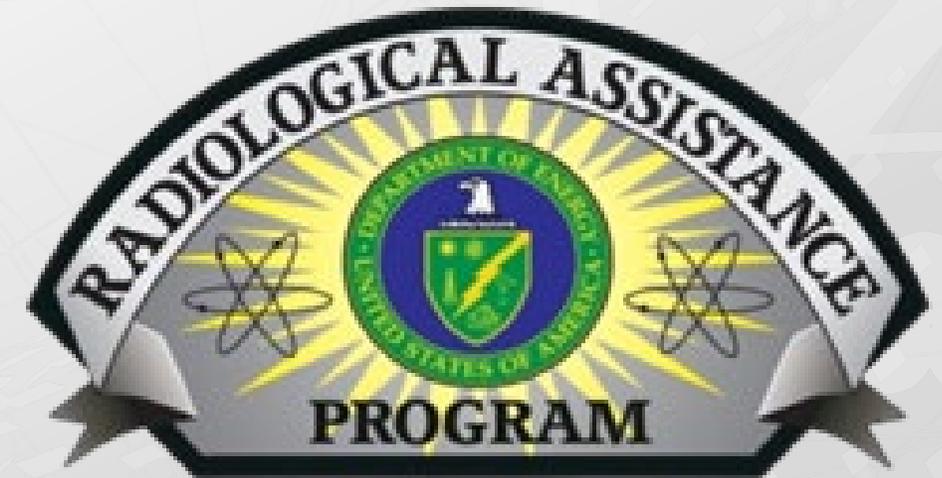
Exercise Execution: March 14/17- 21, 2025

Long Term Recovery Workshop/Session: May 21-22, 2025

# RADIOLOGICAL ASSISTANCE PROGRAM

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## REGIONAL UPDATES





# Region 2 Request For Assistance/Outreach

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## **Provided radiation training/exercise support to:**

- New Orleans Regional Render Safe Training (RRST)
- 47<sup>th</sup> National Guard Bureau Civil Support Teams (CST) Training
- 35<sup>th</sup> National Guard Bureau Civil Support Teams (CST) Training
- Provided Harbor View Briefing ISO Little Rock FBI event

## **Participated in:**

- Silent Thunder Memphis, TN
- Supported TEMA Radiological Training
- UK Capabilities Demonstration Bath, UK
- Super Bowl LIX TTX New Orleans, LA

## **Preventive Radiological / Nuclear Detection - Support to Special Events:**

- Super Bowl LIX prep New Orleans, LA



# Region 3 Request For Assistance/Outreach

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## Blue Angels Airshow – Naval Air Station Jacksonville

- Provided PRND support for large event - crowd of over 500,000 for the two-day event
- Worked closely with U.S. Navy, Florida Highway Patrol, Florida Department of Health and the Florida National Guard's 44th Civil Support Team.



## Supported exercises by FBI Level 3 and 5 Regional Render Safe teams

## Training conducted and exercises supported in all states in Region 3

## Preparing for 2025 Masters and Heritage Golf Tournaments

- Provide PRND support to ensure public safety.
- Partner with FBI, CSTs, USPIS and state and local police and emergency responders.





# Region 6 Request For Assistance/Outreach

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August 27, 2024

- Tacoma police department vehicle and equipment garage
- Tacoma, WA
- Damaged sealed button source
- Requested to survey equipment and surrounding areas that the damaged sealed source may have come in contact with.
- RAP 6 deployed 5 team members
- Worked with office of Radiation Protection Environmental Public Health Division Washington State Department of Health





# Region 7 Request For Assistance/Outreach

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## Provided radiation training/exercise support to:

- Modesto Fire Department/HazMat, San Jose EOD
- Bay Area Securing the Cities (STC) Program

## Participated in:

- Cal OES / FBI WMD Summit
- Waste Isolation Pilot Plant Training Exercise (WIPPTREX)
- Diablo Canyon Nuclear Power Plant Ingestion Pathway Exercise

## Preventive Radiological / Nuclear Detection - Support to Special Events:

- Las Vegas New Year's Eve (SEAR 2), Rose Bowl (SEAR 1), Las Vegas Formula 1, Monterey Car Week, RNC/DNC (NSEE), Inauguration (NSSE)





# RadResponder Updates

## **35<sup>th</sup> ANNUAL NATIONAL RADIOLOGICAL EMERGENCY PREPAREDNESS CONFERENCE**

Le Méridien Charlotte  
Charlotte, North Carolina  
April 21-24, 2025

Last Day to Book Hotels at Group  
Rate: Thursday, April 4th, 2025

<https://nationalrep.org>



## CONFERENCE OF RADIATION CONTROL PROGRAM DIRECTORS



# FRMAC PARTNER UPDATES

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## STATE AND FEDERAL AGENCY UPDATES



# Ingestion Pathway Schedule (2025-2026)

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## **Palo Verde (AZ – RAP 4)**

- 30-31 JAN '25 – Dress Rehearsal
- 04-05 MAR '25 – IPX
- 06 MAR '25 – TTX

## **Browns Ferry (AL – RAP 3)**

- *TBD - Outreach*
- 24-28 JUN '25 – IPX

## **Surry (VA – RAP 2)**

- 21-25 JUL '25 – IPX (moved to '27)

## **Point Beach (WI – RAP 5)**

- *TBD - Outreach*
- 08-12 SEP '25 – IPX

## **Callaway (NE – RAP 5)**

- *TBD - Outreach*
- 16-17 SEP '25 – IPX

## **Perry (OH – RAP 5)**

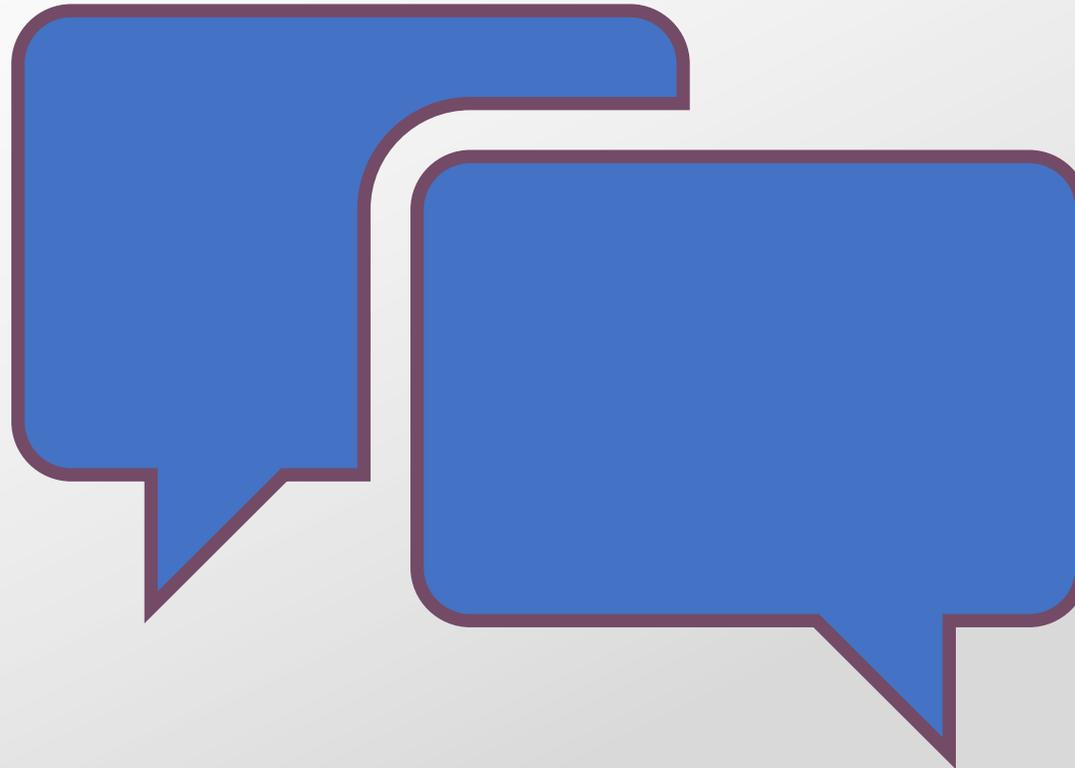
- MAR '26 – Outreach
- 21-25 SEP '26 – IPX

## **Peach Bottom (PA – RAP 1)**

- *TBD - Outreach*
- 28 APR - 02 MAR '26 – IPX

# OPEN DISCUSSION AND QUESTIONS

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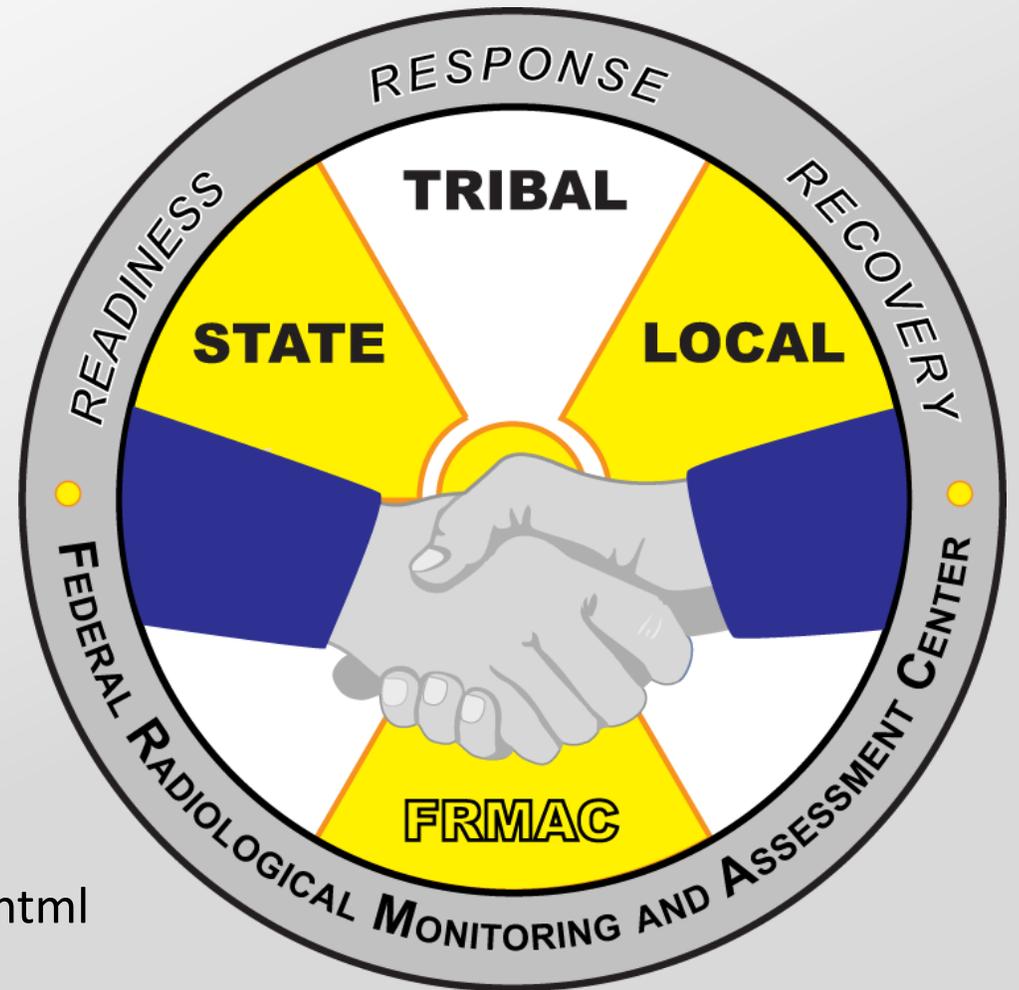


## Next Webinar

## Wednesday, Jul 30, 2025

Visit the site below for additional content

<https://www.nnss.gov/pages/programs/FRMAC/FRMAC.html>



“Scientifically Informed, Operationally Focused.”

CTCP Website:

<https://nnsa.energy.gov/aboutus/ourprograms/ctcp>

CTCP Office Phone: 202-586-1734

IN CASE OF EMERGENCY: 202-586-8100