The ChemResponder Network, Introductory Session February 24, 2021

23rd California Unified Program Annual Training Conference
February 2 – March 18, 2021

Agenda

- Introductions
- CBRNResponder Presentation
- CUPA Pilot Program for Facility Data – Background
- Q&A

Development of the Network

Spring 2013
RadResponder launched

October 2016

"The National Standard and Whole Community Solution for the management of radiological data"

Fall 2018
ChemResponder launched

July 2019
CBRNResponder Network launched

A Network Approach

A Network Approach: Interagency Sponsorship and Collaboration

RadResponder Steering Committee: FEMA, EPA, DOE/ NNSA, DTRA, DHS S&T NUSTL

FEMA

NNSA National Nuclear Security Administration

NUSTL National Urban Security Technology Laboratory

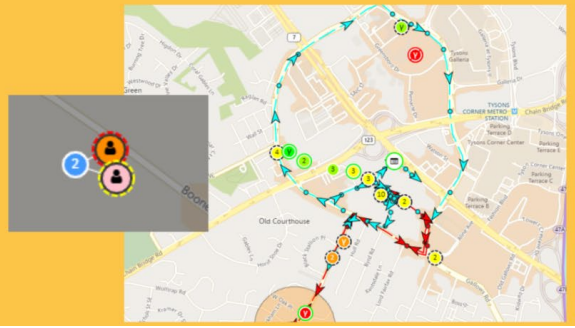
FEMA

ChemResponder Steering Committee: FEMA, CTTSO TSWG, state and local partners

Deployment

Coordinate Field Team Operations

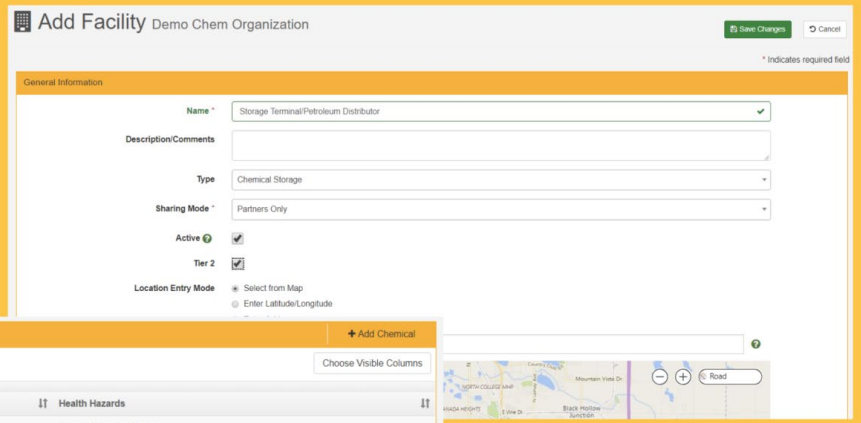
Upload Equipment & **Manage** Personnel → **Assign** & **Deploy** Field Teams → **Track** Responders & **Monitor** Dosimetry in the Field

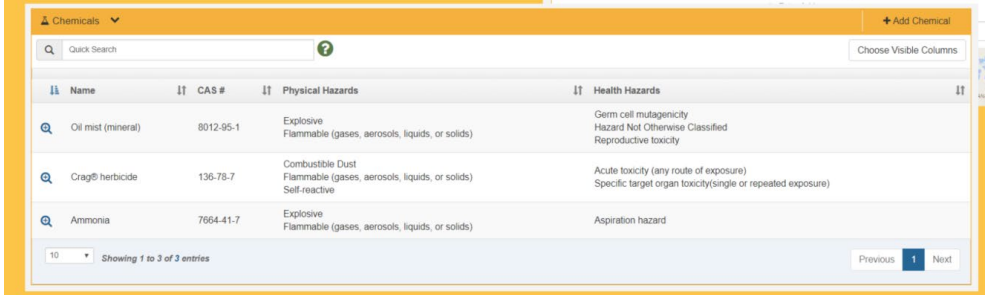


Deployment

Upload Facility Information

- Tier II Information
- Chemicals
- Documents
- Points of Contact





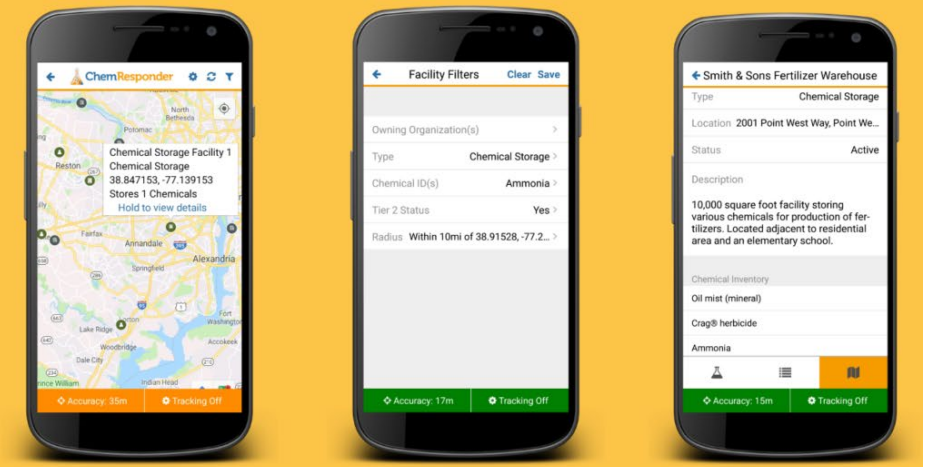
Deployment

Situational Awareness on Mobile App

Display data points, facilities, sampling locations, and responders on map

Search and filter facilities

View facility details: chemicals present, descriptions, locations



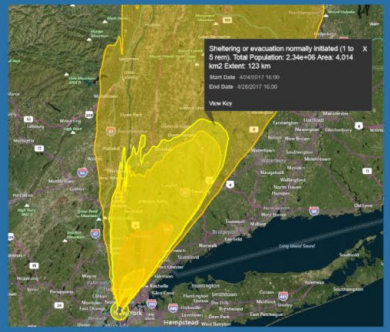
Modeling

GIS Files

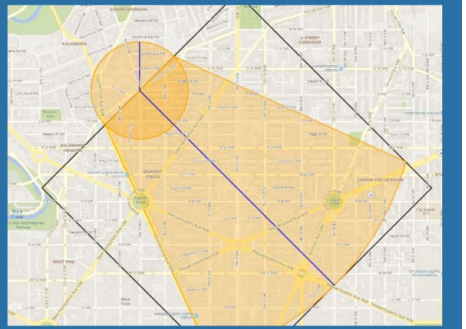
Get initial prediction models or products pushed directly to the event map from federal systems

Upload your own GIS files (KML, KMZ, or Shape files)

- ERG, Aloha or DTRA products
- Critical infrastructure
- Weather



IMAAC Initial Prediction Model (Exercise)

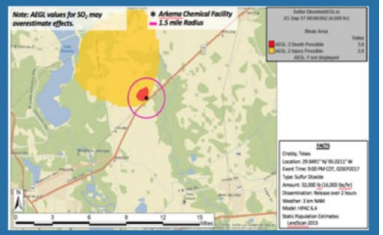


ERG Protective Distances

Modeling

Interagency Modeling and Atmospheric Assessment Center Overview

- Provides a single point for the coordination and dissemination of Federal dispersion modeling and hazard prediction products that represent the Federal position during actual or potential incidents involving hazardous atmospheric releases.
- The IMAAC provides atmospheric modeling support for:
  - Real-world events and emergencies
  - Exercises
- Led by FEMA CBRN Office; stakeholders include DoD, DOE, EPA, HHS, NRC, and NOAA/NWS
- Provides Reachback center staffed 24/7 by CBRNE subject matter experts, with decision support tools to assist Interagency customers.
- Responds quickly to requests for assistance.
- **To activate IMAAC or request assistance, please call (703) 767-2003.**



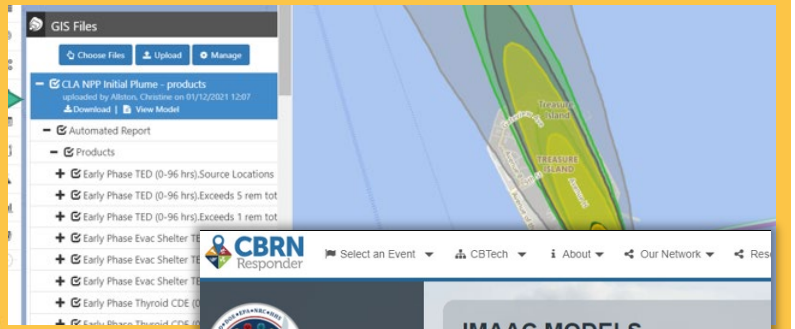
(Images Above: The Arkema chemical plant fire in Crosby, TX, and one of the modeling products IMAAC provided in response.)

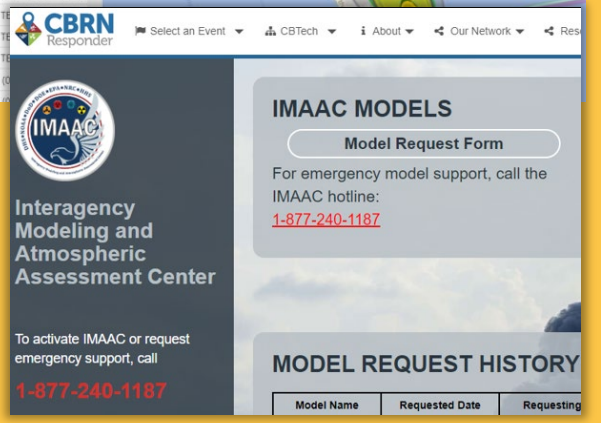
Upcoming in GIS Capabilities

Request IMAAC Products

- Request IMAAC models for exercises with a web form
- A 24/7 emergency support number is available for real-world emergency requests
- Models are seamlessly pushed directly to users' CBRNResponder events

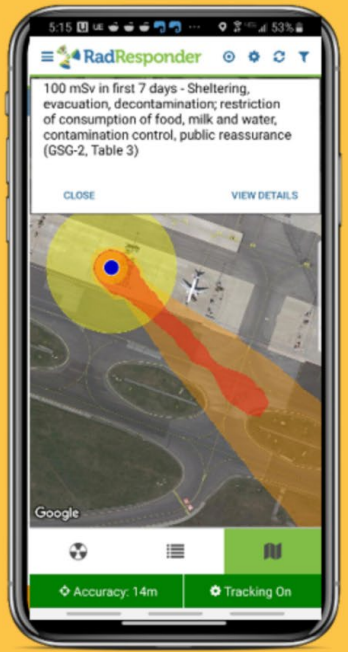
* These are forthcoming features not yet available to end-users. But these features will be available soon. The screenshots here are from the CBRNResponder development region.





Upcoming in GIS Capabilities

Display IMAAC GIS Products on Mobile



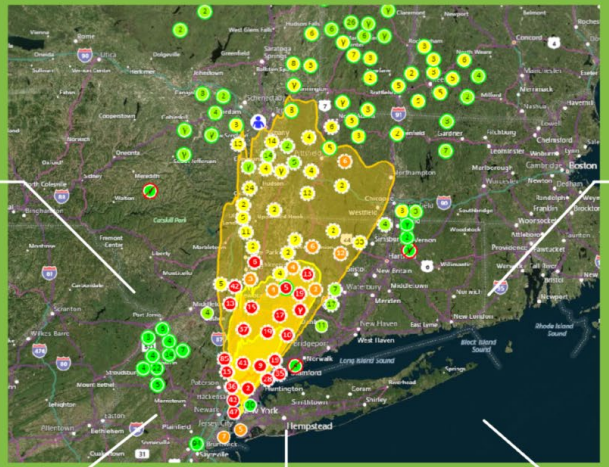
Collecting Data

Integrate Raw Data

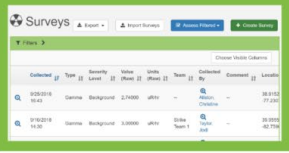
- Field Surveys
- Field Samples
- Observations
- Spectra

- Chemical IDs
- Gas Meter
- Colorimetric
- Observations
- SitReps
- *Spectra (coming soon)*

Mobile application uploads data in real-time, saves data locally when no connection is detected



Integrate **fixed monitoring sensors** to stream minute-by-minute data



Enter individual records or bulk upload data via the **website**

***New** API Update:
Data from **unmanned aerial systems***

MIRION TECHNOLOGIES
MSA The Safety Company
Thermo SCIENTIFIC
LUDLUM MEASUREMENTS, INC.
BNC
POLIMASTER

Visit our website to see a full list of integrated equipment

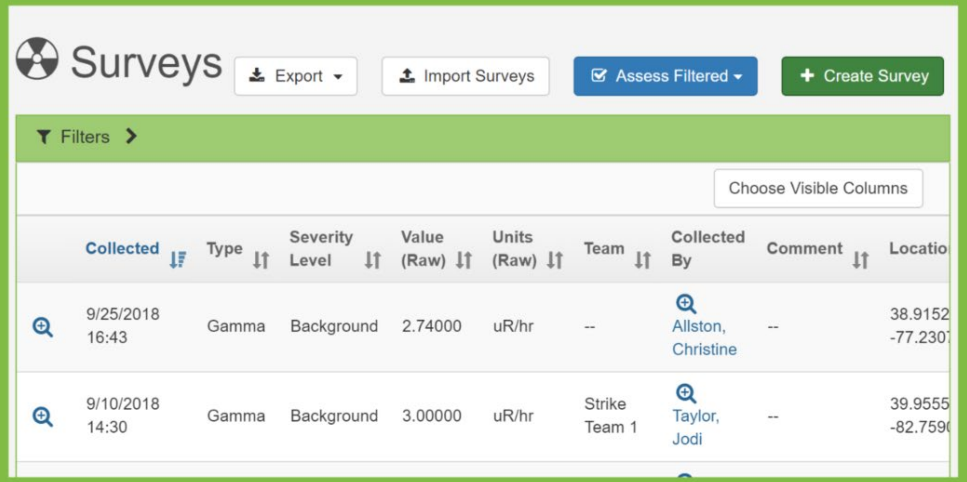
Integrated **Bluetooth-enabled equipment** can telemeter data directly to the website

Collecting Data

- Field Surveys
- Field Samples
- Observations
- Spectra
- Dose Readings
- Data Sets

Mobile application uploads data in real-time, saves data locally when no connection is detected

Collecting Data



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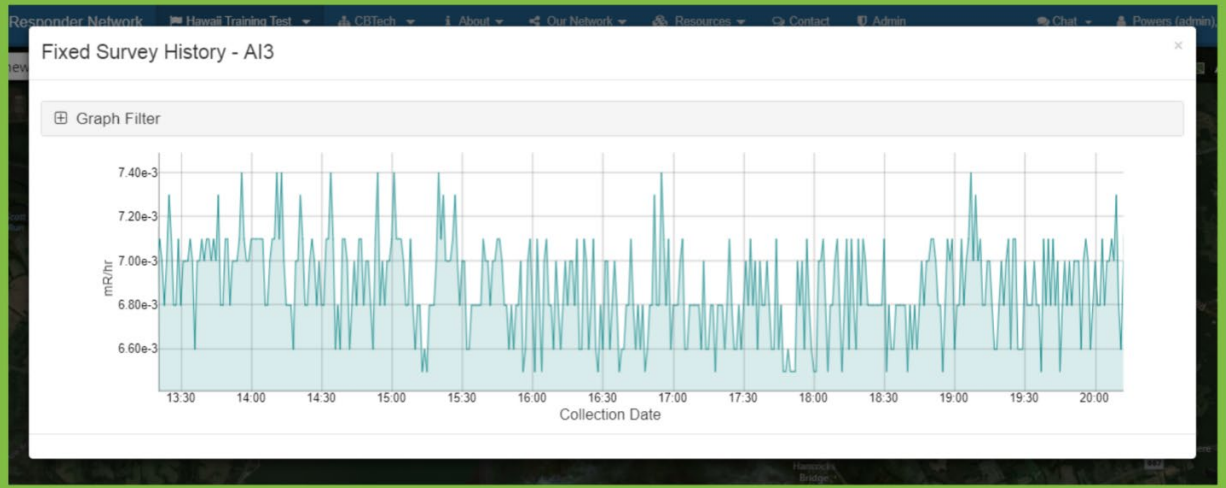
Collecting Data



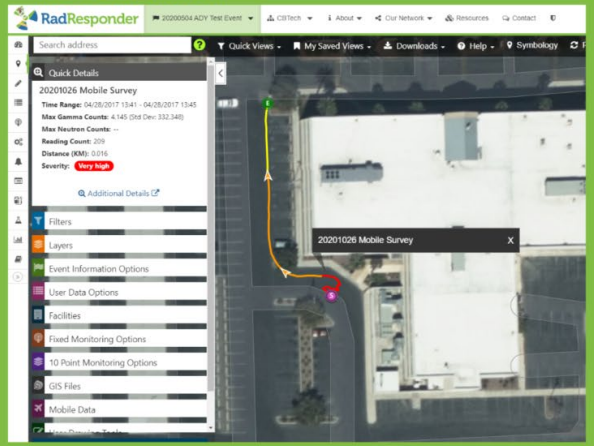
Integrate **fixed monitoring sensors** to stream minute-by-minute data

Collecting Data with APIs

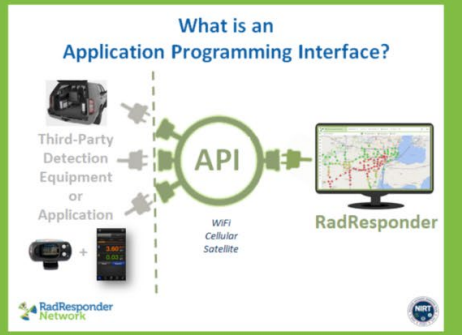
Collecting Data with APIs

Bluetooth Integrated Detection Equipment

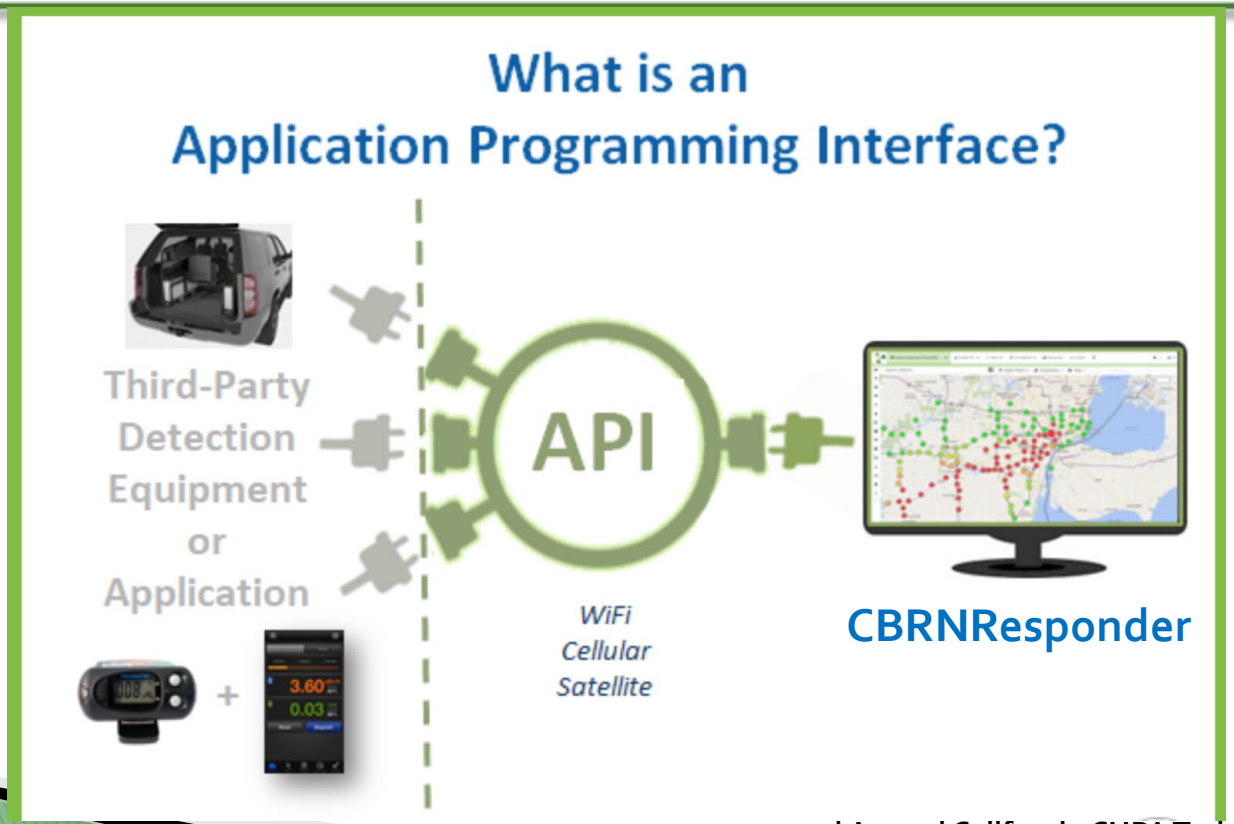
NEW: Mobile & UAV Systems For High Volume Data Acquisition and Visualization



New: Chemical Gas Detection



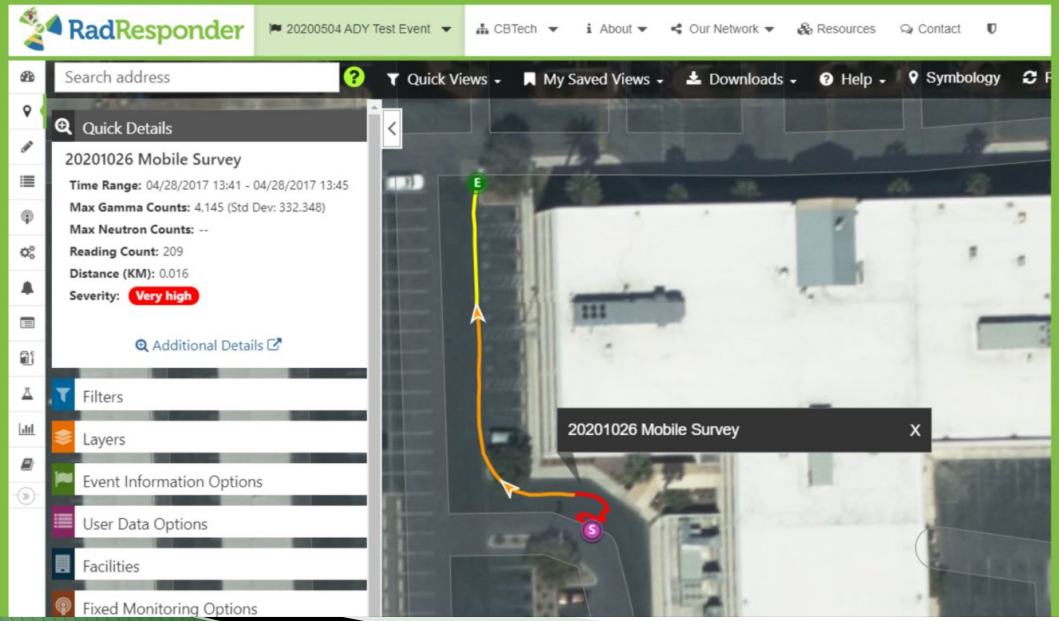
Collecting Data with APIs



Collecting Data with APIs

ChemResponder

NEW: Mobile & UAV Systems For High Volume Data Acquisition and Visualization



CALIFORNIA CUPA FORUM

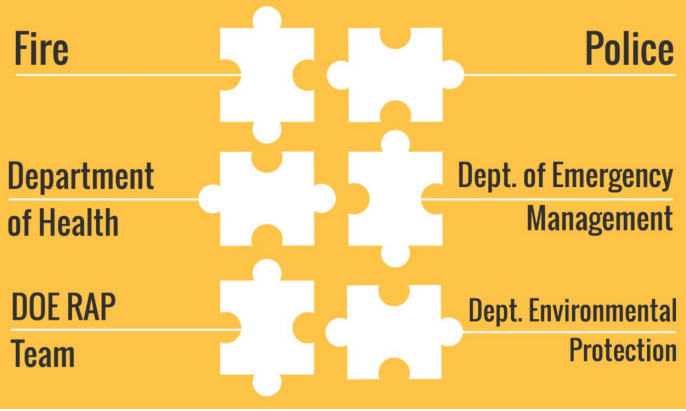
Training Conference
February-March 2021

Collecting Data with APIs

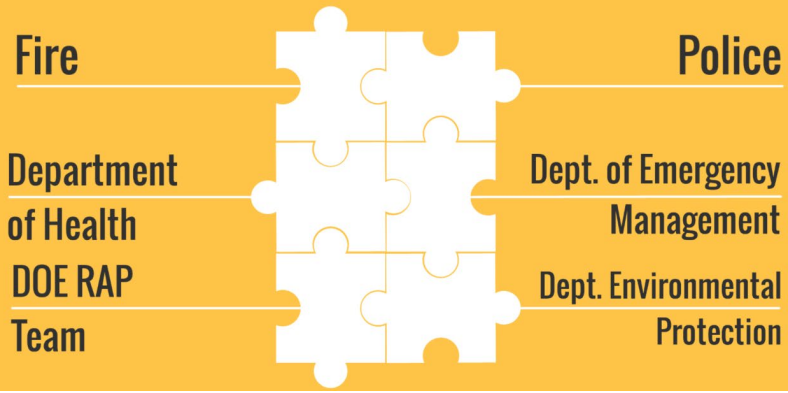
New: Chemical Gas Detection

Data Sharing

Establish Default Partnerships...

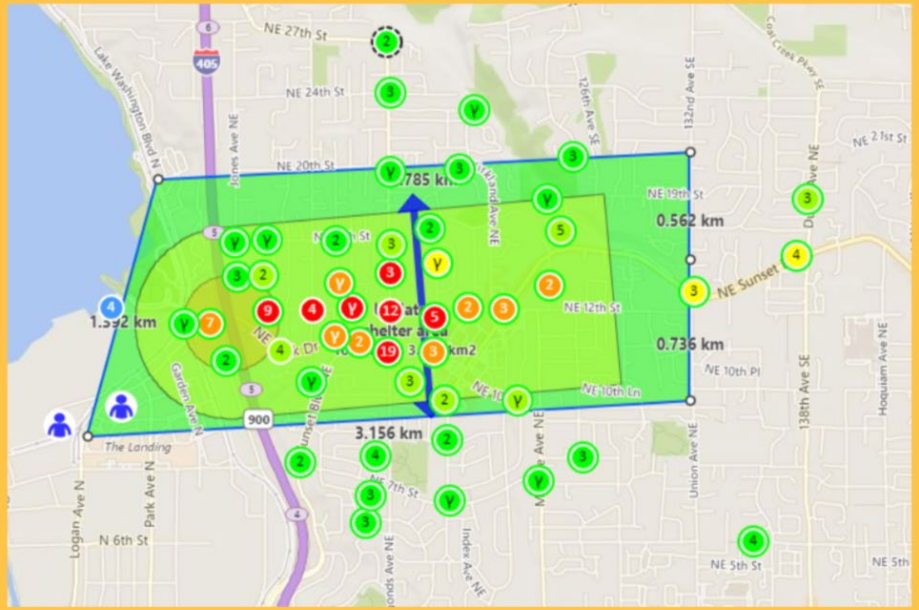


...To Share Data in Real-Time...



Data Sharing

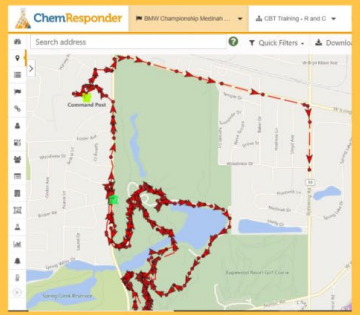
...and Enable Decision-Making

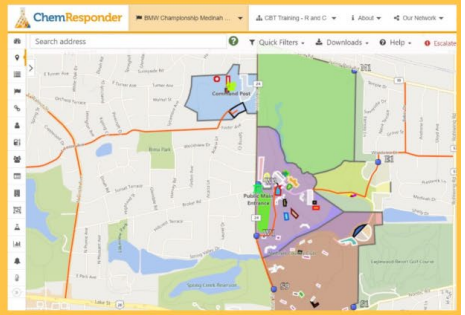


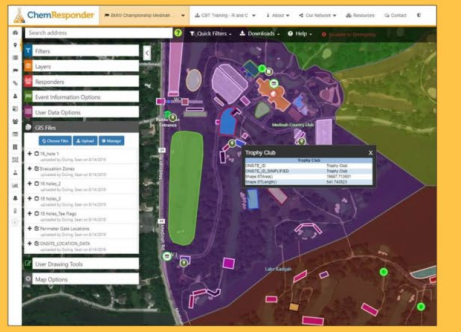
Use Cases

BMW Classic Golf Tournament - Illinois, 2019

- Joint Hazards Assessment Team (JHAT), 30k in attendance/day
- Rad/Chem event used
- Responder tracking for field teams
- GIS files
- Background measurements
- Assignments





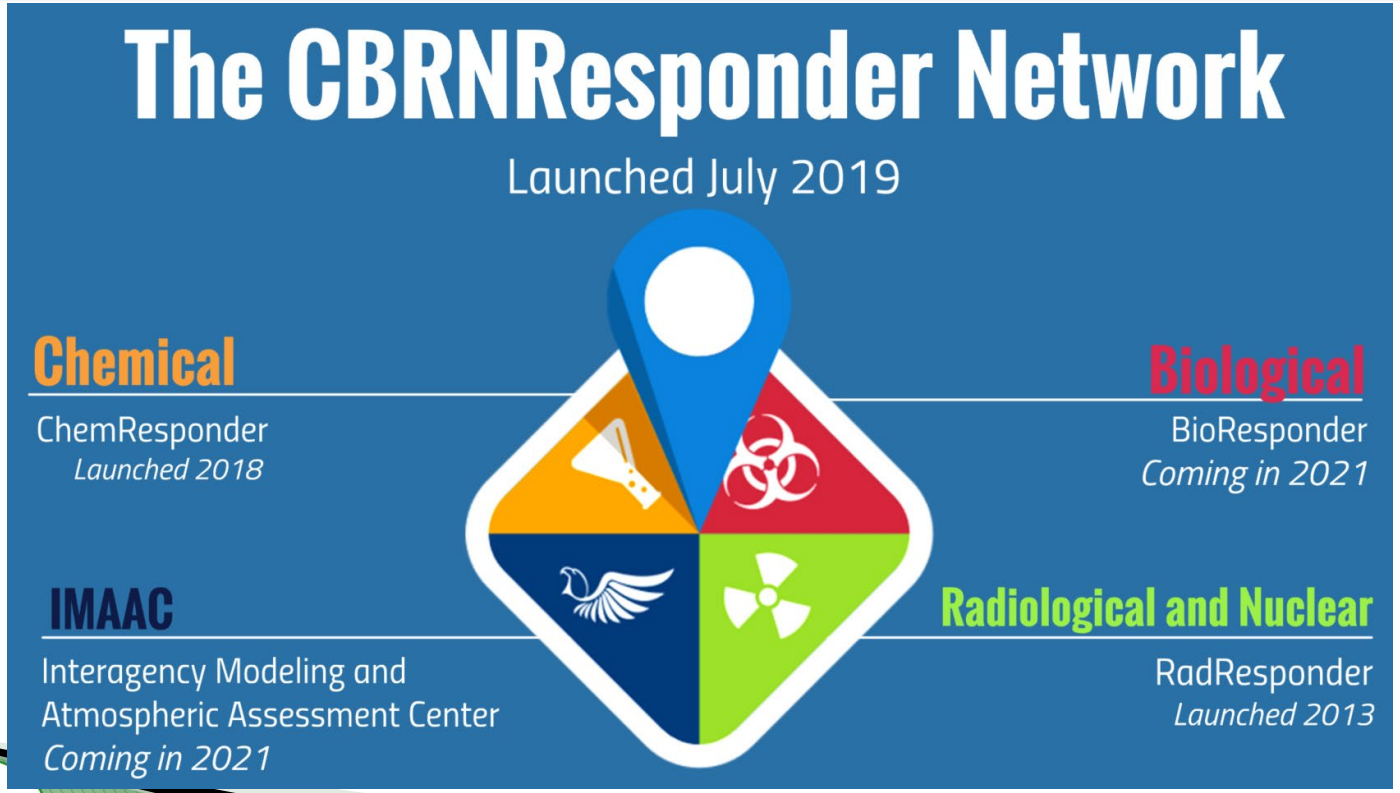


Use Cases

Real World Monitoring Events | 2019

- College Football Championship
- Women's March
- NHL All-Star Game
- Monster Jam
- State of the Union Address
- NYC St. Patrick's Day Parade
- UAL Half Marathon
- USAFA Grad 2019
- Fair St. Louis
- World Pride Parade
- July 4th Celebrations
- BMW Championship
- College Football Games (WVU, Clemson)
- UN General Assembly
- 2019 Rockefeller Christmas Tree Lighting
- NFL Games (Falcons, Rams, 49ers, Super Bowl)
- Rose Bowl
- NYC New Years Eve

Bringing it all together…



Bringing it all together…

Mobile Application vs. Website Access

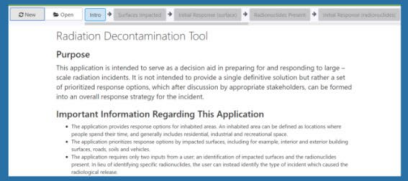
- Designed primarily for data collection
- Limited situational awareness
- Can be used with or without wifi/cell connection
- Responder tracking

- Optimal for situational awareness
- Data Assessment
- Event creation and management
- Organization management
- Must have internet connection

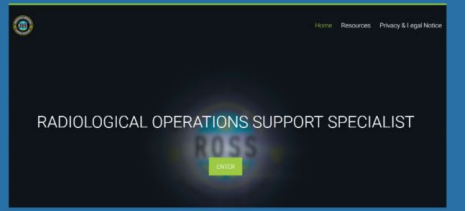
Resources

The One Stop Shop Resource Library

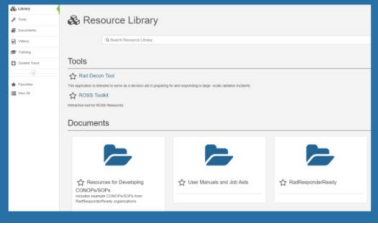
- Rad/Nuc Decon Tool



- Radiological Operations Support Specialist (ROSS) Toolkit



- FEMA REPP Disaster Initiated Review (DIR)
- References



Resources

24/7 Emergency Support Hotline

24/7 emergency hotline supports users during real-world operations and interagency exercises/ drills

Toll-free number can be found on the CBRNResponder **Contact** page **(855) 485-9499**

CUPA Pilot with ChemResponder

- **Purpose**: develop implementation guidelines for using CBRNResponder as a local hazmat response tool, an electronic Unified Program Area Plan using real world organizations and limitations, and for DEAP integration
- **Partners**: Cal EPA (lead), Yuba County, Contra Costa County, Roseville County, San Diego County
- **Approach**:
  - 4 CUPAs participating
  - Uploading CUPAs' facility information (from CERS) into their respective ChemResponder organizations
  - Accrue feedback on ChemResponder incident response and facility management capabilities from CUPAs; use as basis for developing implementation guidelines
- **Current status**: uploading CUPA facility information this month to proceed with pilot activities

Post-Presentation Q&A

- After our Session is over, we are offering a Zoom Room opportunity to continue the conversation started in this Session
- Near the end of the Session in the QandA box, we will post the Zoom Room link
- To join in the conversation, you will need to copy that link BEFORE we close out the Session and paste it to a new browser tab/window
- In this Zoom Room, you may meet with the Speaker, Moderator and/or fellow Attendees for a post meeting de-brief

Any Questions?

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