



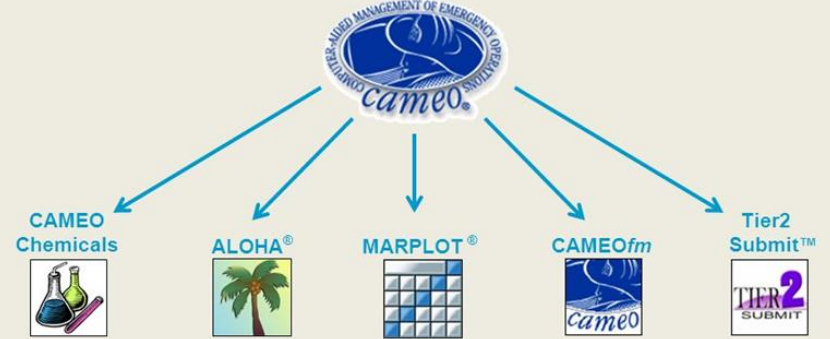
CAMEO for the Future: “This isn’t your Grandfather's program anymore.”

E. Stefan Coutoulakis, NCEM



CAMEO® Software Suite

Developed jointly by NOAA and EPA



325,000 downloads a year and 2,000,000 visitors to CAMEO Chemicals site



Demonstrate the newest versions of the CAMEO Suite of Programs

CAMEO Chemicals

Home
Help

Search Chemicals
New Search
Modify Search
Search Results

MyChemicals
chemicals: 0
View MyChemicals
Predict Reactivity

Database of Hazardous Materials

Search
Find response information for thousands of hazardous materials, including fire and explosion hazards, health hazards, firefighting techniques, cleanup procedures, protective clothing, and chemical properties.

MyChemicals
Build a list of chemicals. For example, substances involved in an incident response (such as a train derailment) or chemicals stored in your community.

Reactivity
See what hazards might occur if chemicals in your MyChem are mixed together.



Location Phoned ID and Regulations Contacts Chemicals State Fields Incidents Attachments

Report Year Site of Shipper

Facility Name Allied Business Group

Location where chemicals are present

Street Address (where hazardous materials are present)

Street

Cross Street

City

State Zip

County

Fire District

Country

Department

Mailing Address

Street

City

State Zip

Country

Email

Latitude and Longitude

Latitude Longitude

[Set latitude/longitude from address](#) [Linked to MAPSPLOT](#)

[Show nearby records](#) Showing records within 2 mi [Clear nearby records](#)

6 facilities 1 incident 3 special locations 1 resource [Show labels](#)

Street view Satellite view [Use raster maps](#) [Map instructions](#)

Controls Temporary Layer Search & Get Info ALCHS & CAMEO Other

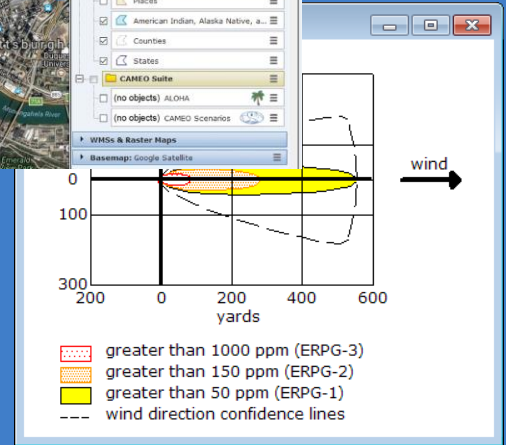
Click Point (40.438395°N, 80.016307°W) USNG: 37T NE 83429 76881...

Incident Derailment

Boxes & Legends

Layers: 4 Shown

- (no objects) Temporary Layer
- Boundaries (U.S.)
- Places
- (no objects) American Indian, Alaska Native, a...
- Counties
- States
- CAMEO Suite
- (no objects) ALOHA
- (no objects) CAMEO Scenarios
- WMS & Raster Maps
- Basemap: Google Satellite





Disciplines

- Emergency Management
- Emergency Medical Services
- Fire Service
- Governmental Administrative
- Hazardous Materials
- Law Enforcement
- Public Health
- Public Safety Communications
- Public Works

Core Capabilities

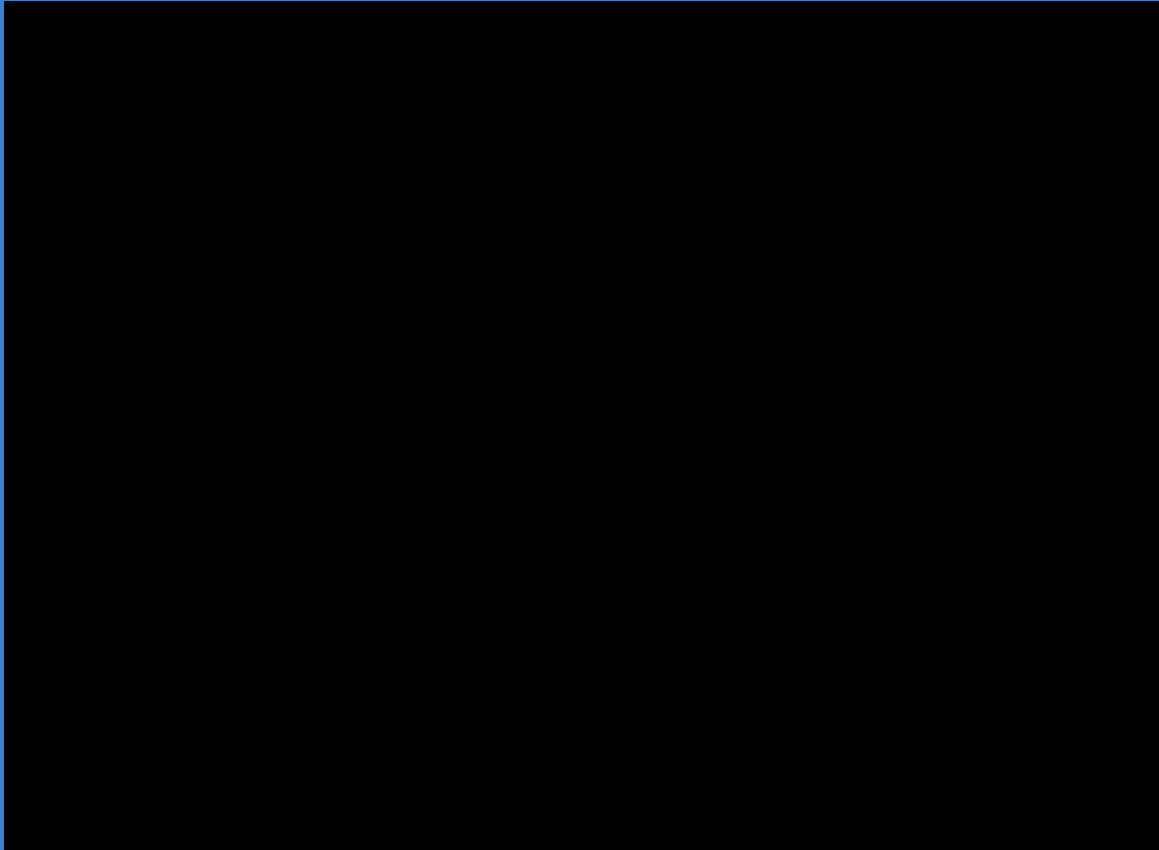
- Threats and Hazard Identification
- Planning
- Operational Coordination
- Public Information & Warning
- Community Resilience
- Cybersecurity
- Situational Assessment
- Operational Communications

Mission Areas: Prevention, Protection, Mitigation, Response, & Recovery



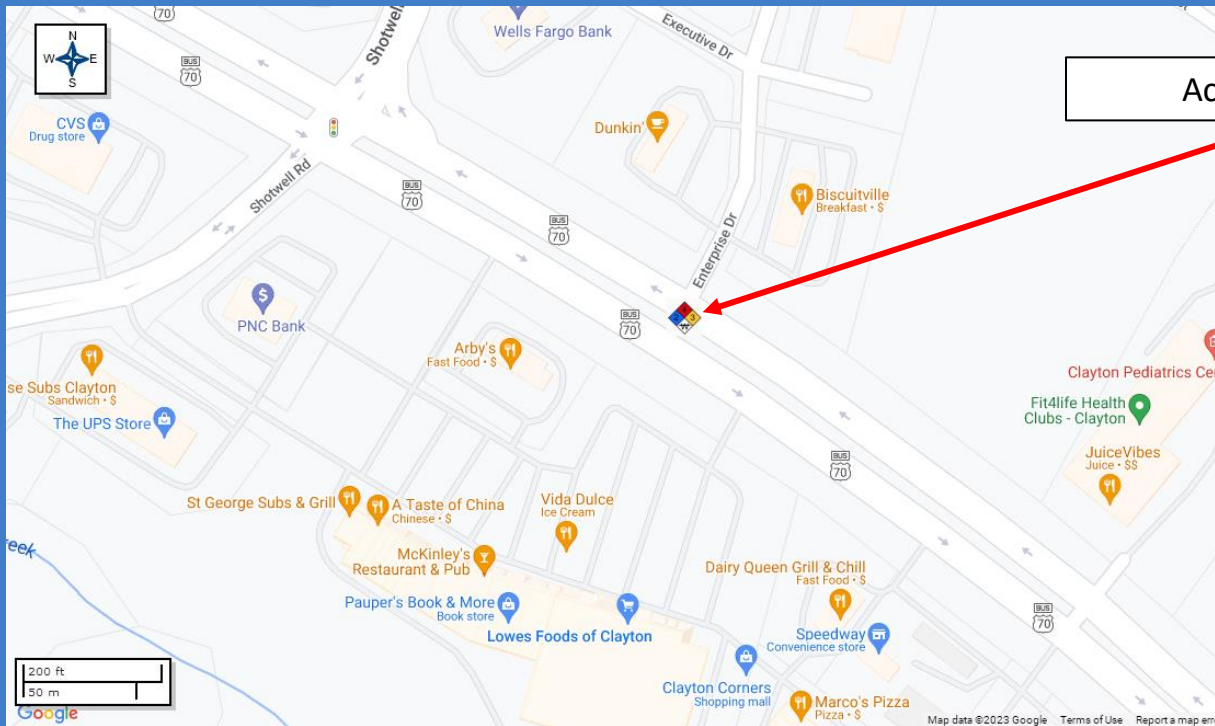


Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY





Demonstration of the CAMEO Suite

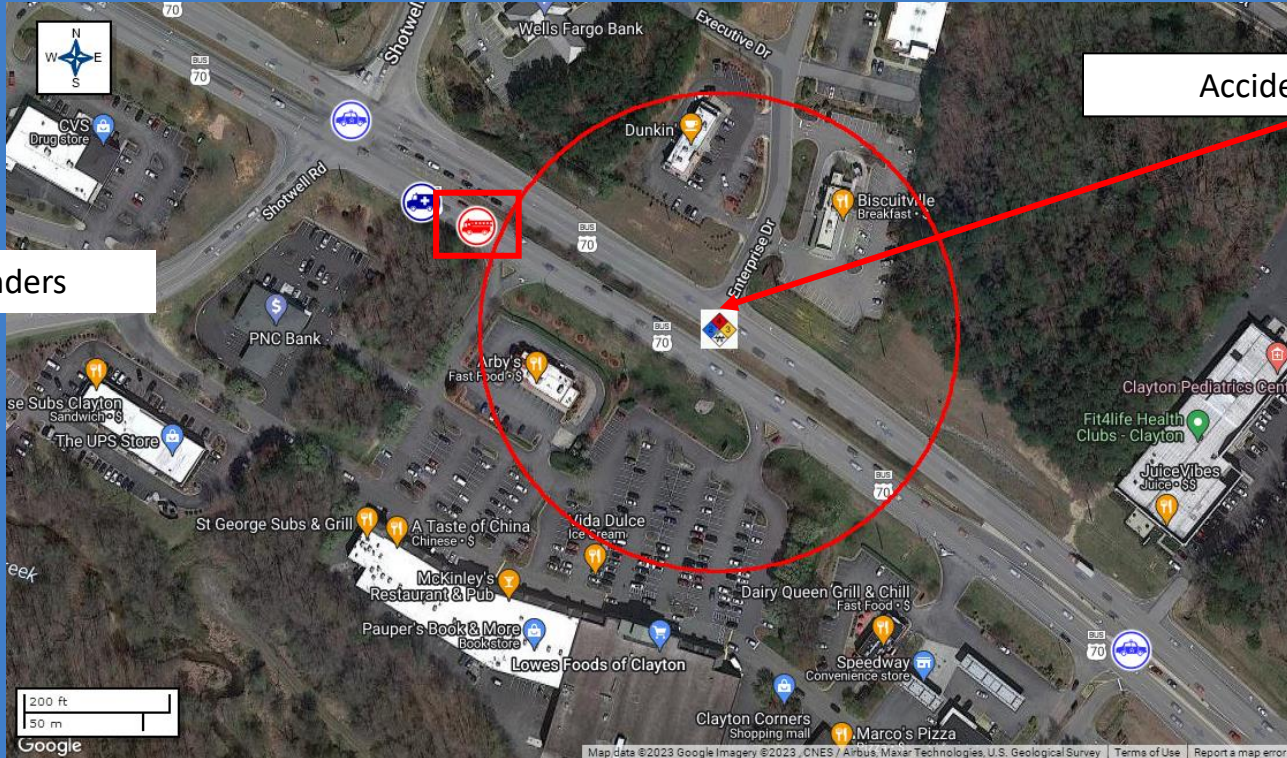


Accident Scene





Demonstration of the CAMEO Suite



Accident Scene

1st Responders





Demonstration of the CAMEO Suite: Engine 6

LOCATION

FEMA Resource Typing

ID	Item	Amount
	1.5 In Hose - (feet)	250
	2.5 In Hose - (feet)	400
	3 In Hose - (feet)	1,200
	Flood Lights	14
	Foam (5 gallon cans)	13
	Ground wire	12
	Generator	12
	Handlights	12
	Ladder 24'	11
	Ladder 24'	11
	Pike Poles 12 feet	12
	Pike Poles 6 feet	12
	Pike Poles 8 feet	12
	Salvage Covers	12
	SCBA	14
	Smoke Ejector	11
	Stair Climbers	14

Searchable Equipment List

**ENGINE 6 APPARATUS INVENTORY
Compartment # 1**

<input type="checkbox"/> 5" x 4" Storz Adapter	<input type="checkbox"/> (Two) Hose Straps
<input type="checkbox"/> 4" Storz x 2-1/2" Reducer	<input type="checkbox"/> Duct Tape roll
<input type="checkbox"/> 6" Blind Cover Cap	<input type="checkbox"/> Red Box of Road Flares
<input type="checkbox"/> 2-1/2" Hydrant Gate	<input type="checkbox"/> Roll Fire Line Tape
<input type="checkbox"/> (Two) Double Males 2-1/2"	<input type="checkbox"/> LDH Hose Roller
<input type="checkbox"/> (Two) Double Females 2-1/2"	<input type="checkbox"/> (Two) 4" Spanners
<input type="checkbox"/> 2-1/2" to 1-1/2" Reducer	<input type="checkbox"/> Intimidator Hyd. Wrench (spare)
<input type="checkbox"/> 1-1/2" to 1" Reducer	<input type="checkbox"/> Triangle Flare Kit
<input type="checkbox"/> SB Nozzle tips 1.75, 1.5, 1.38	<input type="checkbox"/> First Aid Kit
<input type="checkbox"/> SB Nozzle Tip 1"	<input type="checkbox"/> Hydrant Gate 2-1/2" Ball Valve
<input type="checkbox"/> SB Nozzle Tip 1.25"	<input type="checkbox"/> 2-1/2" TFT Automatic Nozzle

Documents





Demonstration of the CAMEO Suite: CAMEO Chemicals

Database of Hazardous Materials

Search
Find response information for thousands of hazardous materials, including fire and explosion hazards, health hazards, firefighting techniques, cleanup procedures, protective clothing, and chemical properties.

MyChemicals
Build a list of chemicals. For example, substances involved in an incident response (such as a train derailment) or chemicals stored in your community.

Reactivity
See what hazards might occur if chemicals are mixed together.

Get started by finding a substance of interest with a [search](#).
Learn more by checking the [help](#) for background information.

	SULFURIC ACID			
PROPANE	Incompatible Generates gas Generates heat Toxic	PROPANE		
FUEL OIL, [DIESEL]	Incompatible Generates gas Generates heat Toxic	Compatible	FUEL OIL, [DIESEL]	
GASOLINE	Incompatible Generates gas Generates heat Toxic	Compatible	Compatible	GASOLINE
CALCIUM HYPOCHLORITE	Incompatible Corrosive Explosive Generates gas Generates heat Intense or explosive reaction Toxic	Incompatible Flammable Generates gas Generates heat Intense or explosive reaction Toxic	Incompatible Flammable Generates gas Generates heat Intense or explosive reaction Toxic	Incompatible Flammable Generates gas Generates heat Intense or explosive reaction Toxic
BRAKE FLUID, HYDRAULIC	Incompatible Generates gas Generates heat Toxic	Compatible	Compatible	Compatible
				CALCIUM HYPOCHLORITE
				Incompatible Flammable Generates gas Generates heat Intense or explosive reaction Toxic

MyChemicals Collection

- [SULFURIC ACID](#)
- [PROPANE](#)
- [FUEL OIL, \[DIESEL\]](#)
- [GASOLINE](#)
- [CALCIUM HYPOCHLORITE](#)
- [BRAKE FLUID, HYDRAULIC](#)

chemicals: 6
View MyChemicals
Predict Reactivity

Accidentally removed a chemical? [Retrieve it here.](#)

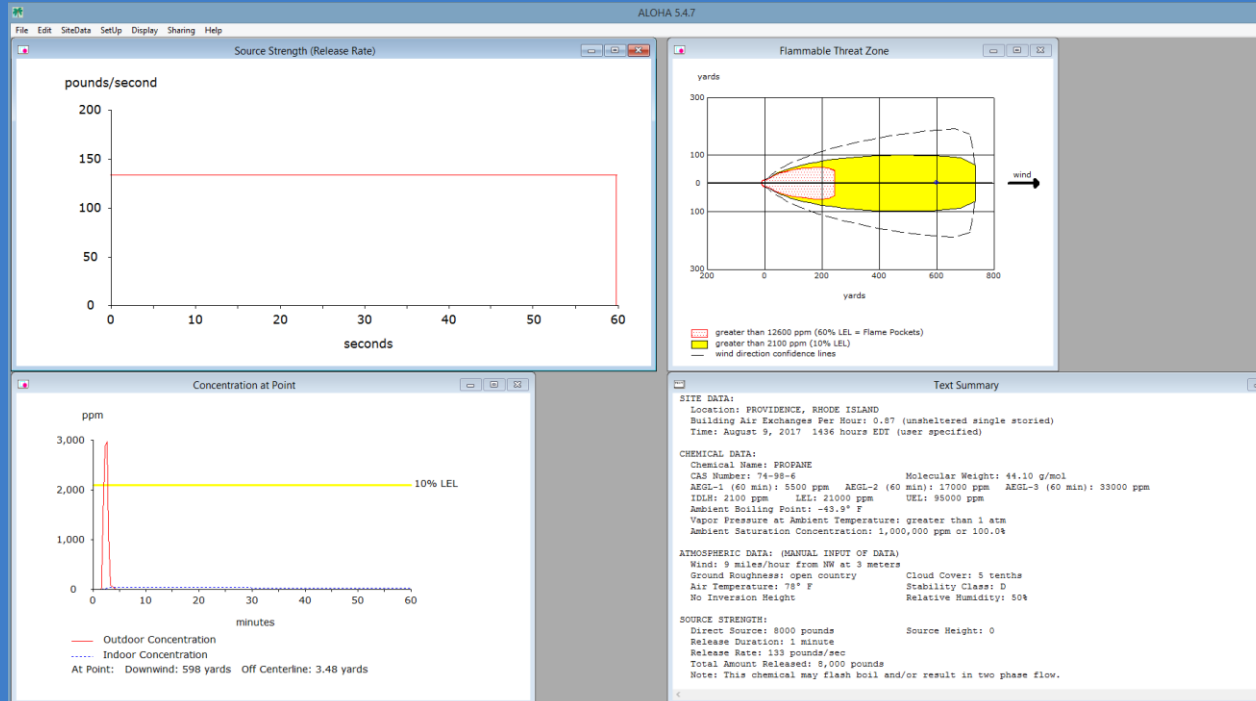
...s (with response recommendations and chemical property information) and by clicking on the name of any substance in the list above.
...editions if these substances were mixed together, by going to the [Reactivity](#) such chemical's reactive hazards (including air and water reactivity), click its reactivity predictions and datasheet information) by clicking Print Report.

...s
... will be cleared when you close your browser (or close the program in the
...ference, click Export to save a file to your computer that you can later import exported file only contains a list of substances that is used to re-create your



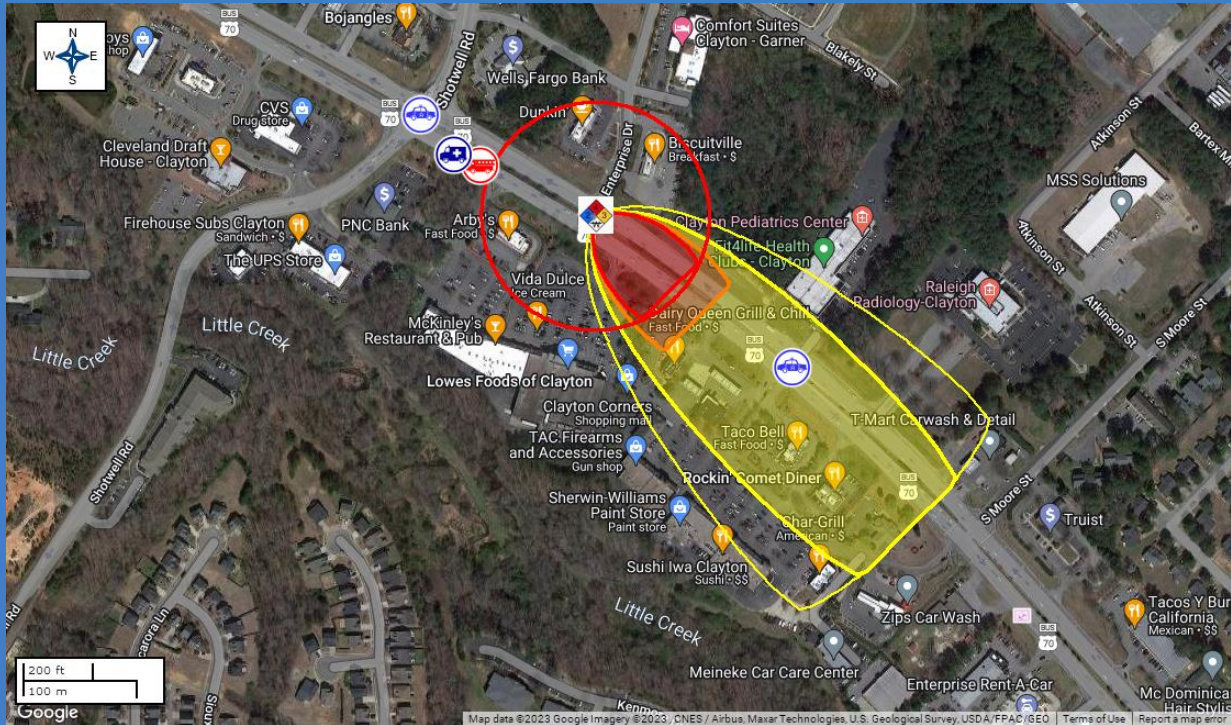


Demonstration of the CAMEO Suite: ALOHA





Demonstration of the CAMEO Suite: ALOHA: Flammable Area



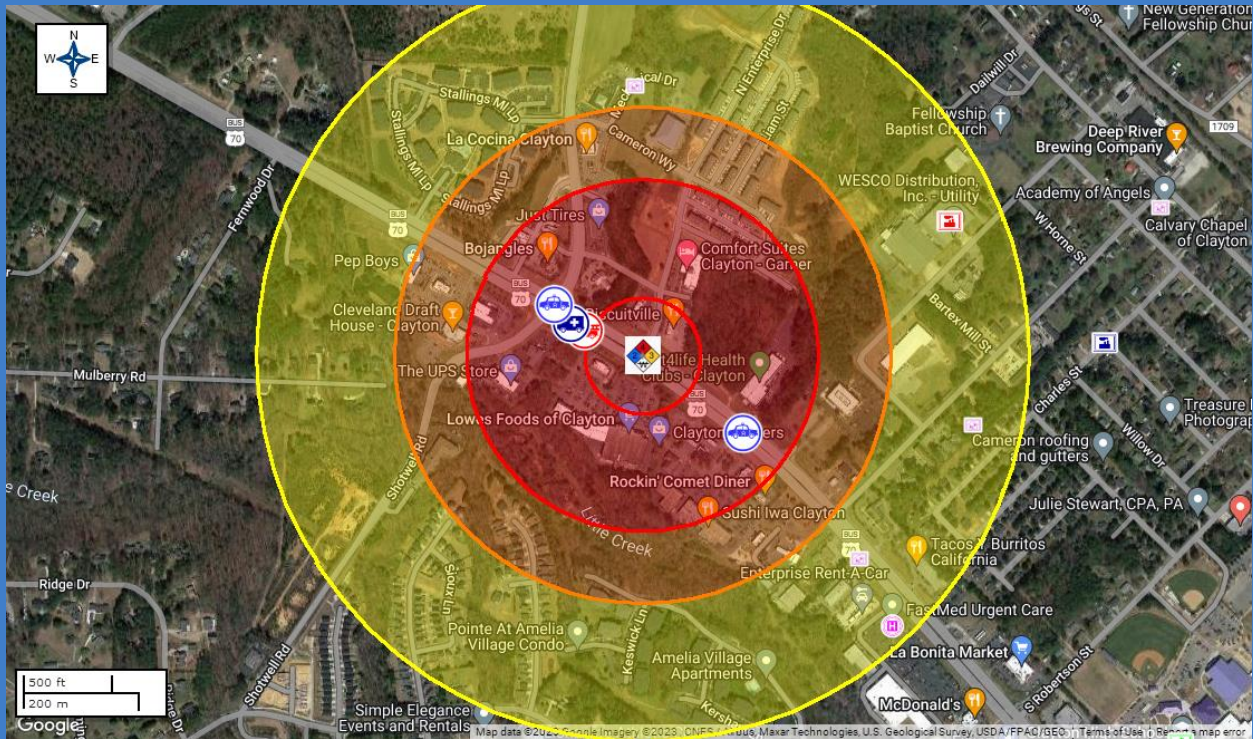


Demonstration of the CAMEO Suite: ALOHA: VCE



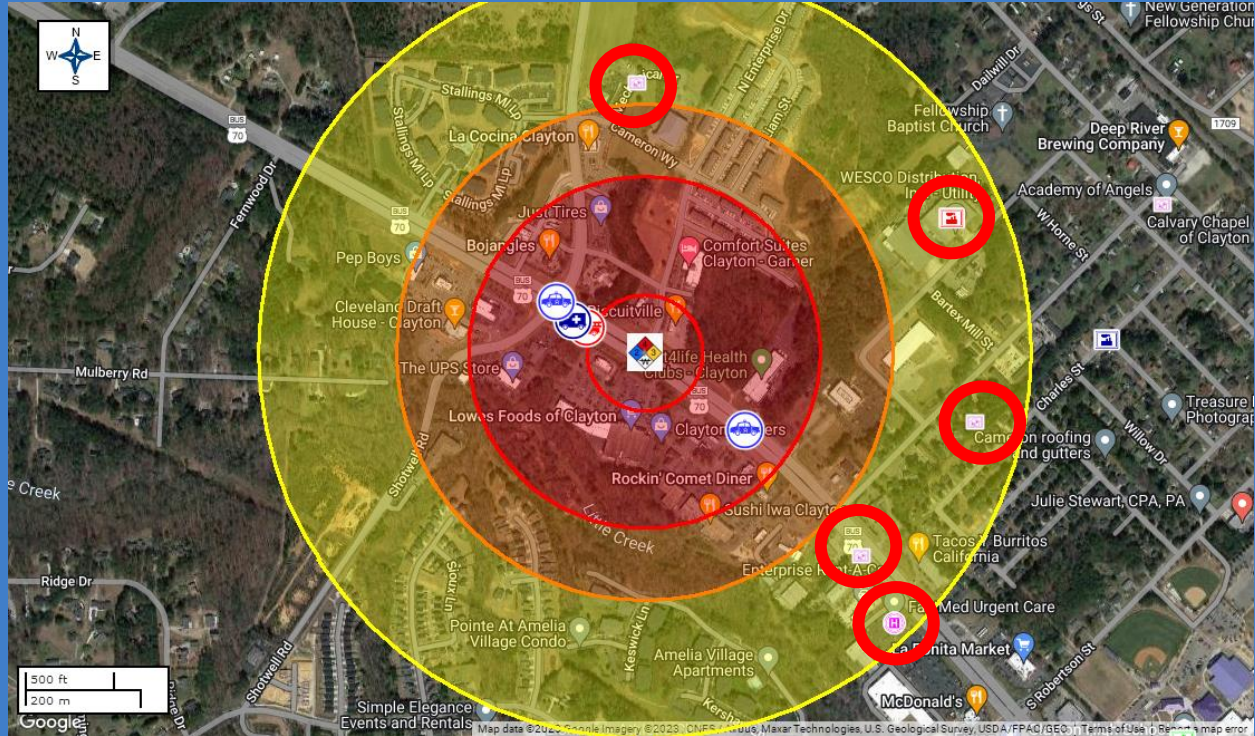


Demonstration of the CAMEO Suite: ALOHA: BLEVE





Demonstration of the CAMEO Suite: ALOHA: BLEVE





Demonstration of the CAMEO Suite: Affected Population

- Population: 1,031*
 - Housing units: 629
 - WESCO: 28
 - 4 Day Care Centers: 100
 - 1 Urgent Care: 25
- Total known: **1813** est.



Image credit: California's Population - Public Policy Institute of California

Graphic	Label ▲	Layer
	Carolina Child Development Center	Day Care Centers
	Carolina Child Development Center	Day Care Centers
	CLAYTON URGENT CARE AND FAMILY CLINIC	Urgent Care Facilities
	Presmy Academy	Day Care Centers
	Toddler'S Inn Day Care	Day Care Centers
	WESCO International, Inc. (7884 - Clayton, NC)	Facilities

CAMEO Records: 1 Facility, 5 Special Locations





Solving the Problem: EPZs

1. Hazards: What is the problem or concern?
2. Geography: Where is it happening? Jurisdiction?
3. Demographics: Who is being affected?
4. Emergency Service Organization: What resources and availability to respond or assist?

HAZARD + VULNERABILITY = LEVEL OF EMERGENCY

Problem?

Who's being affected?

Can we change the outcome?





Demonstration of the CAMEO Suite: Solving the Problem

1. Hazards: Accident with active leak and potential explosive concern.
2. Geography: Urban terrain with low-lying areas.
3. Demographics: US Census: 1831 population, 629 Housing*, Businesses, and special locations

**911 Data points could specify exact numbers for notification purposes*

4. ESO: Fire Dept, LEO, Ambulances, RRT, EMA





Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY



Town of Exeter, RI

RESILIENCE



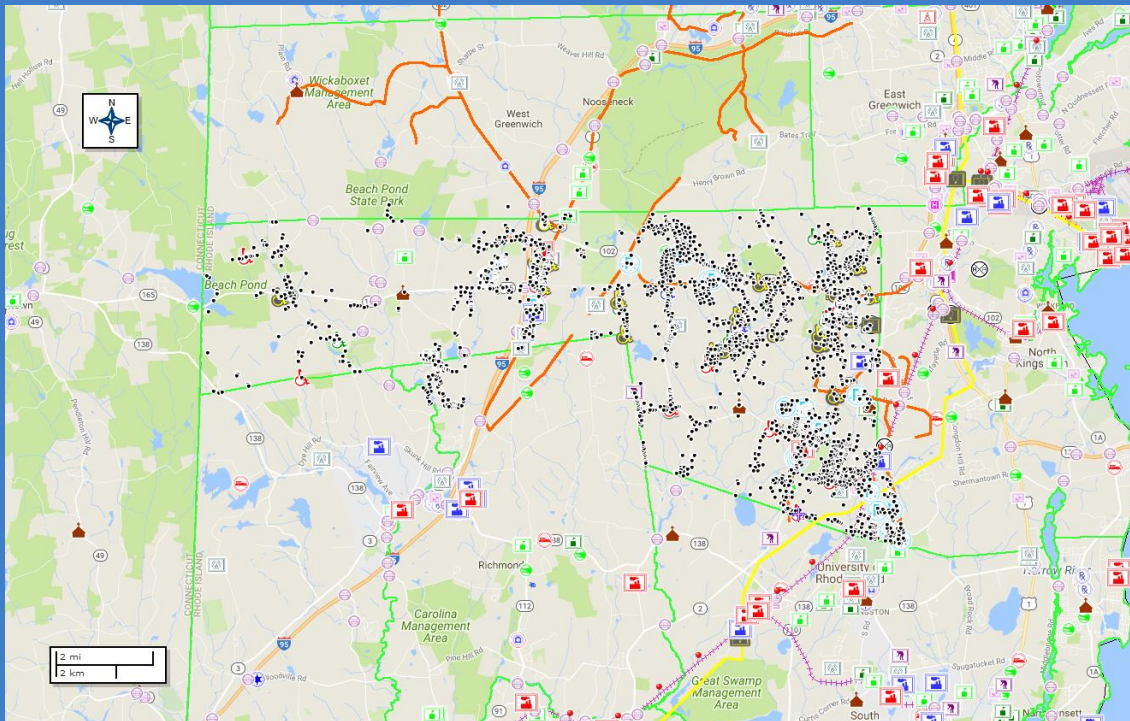


Critical Infrastructure

- Chemical
- Commercial Facilities
- Communications
- Critical Manufacturing
- Dams
- Defense Infrastructure
- Emergency Services
- Energy
- Financial Services
- Food & Agriculture
- Government Facilities
- Healthcare & Public Health
- Information Technology
- Nuclear Reactors, Materials, and Waste
- Transportation Systems
- Water & Wastewater Systems
- Cybersecurity



Town of Exeter, RI : E911 sites, Facilities, Special locations, Utility locations





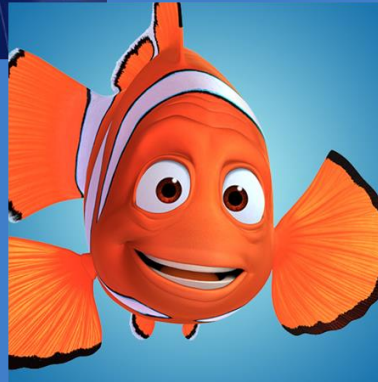
Town of Exeter, RI : Events Supported with CAMEO



Hurricane Irene: 2011



Superstorm Sandy: 2012



Blizzard Nemo: 2014

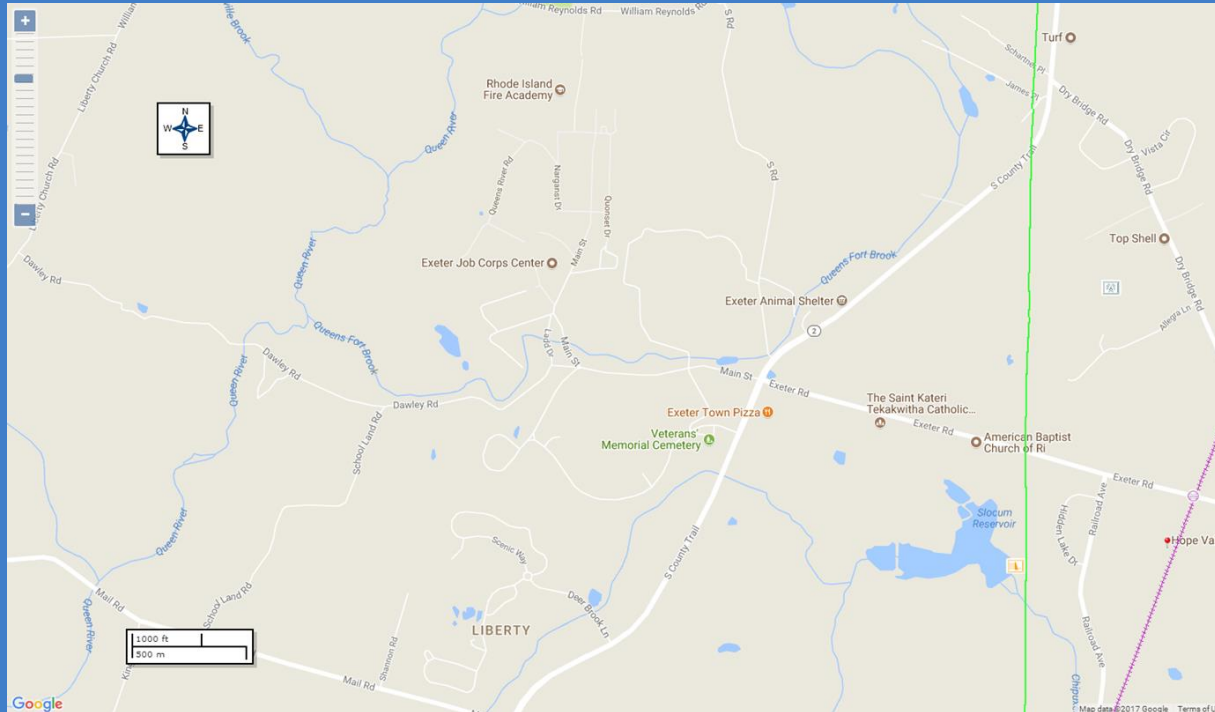


Winter Storm Juno: 2015



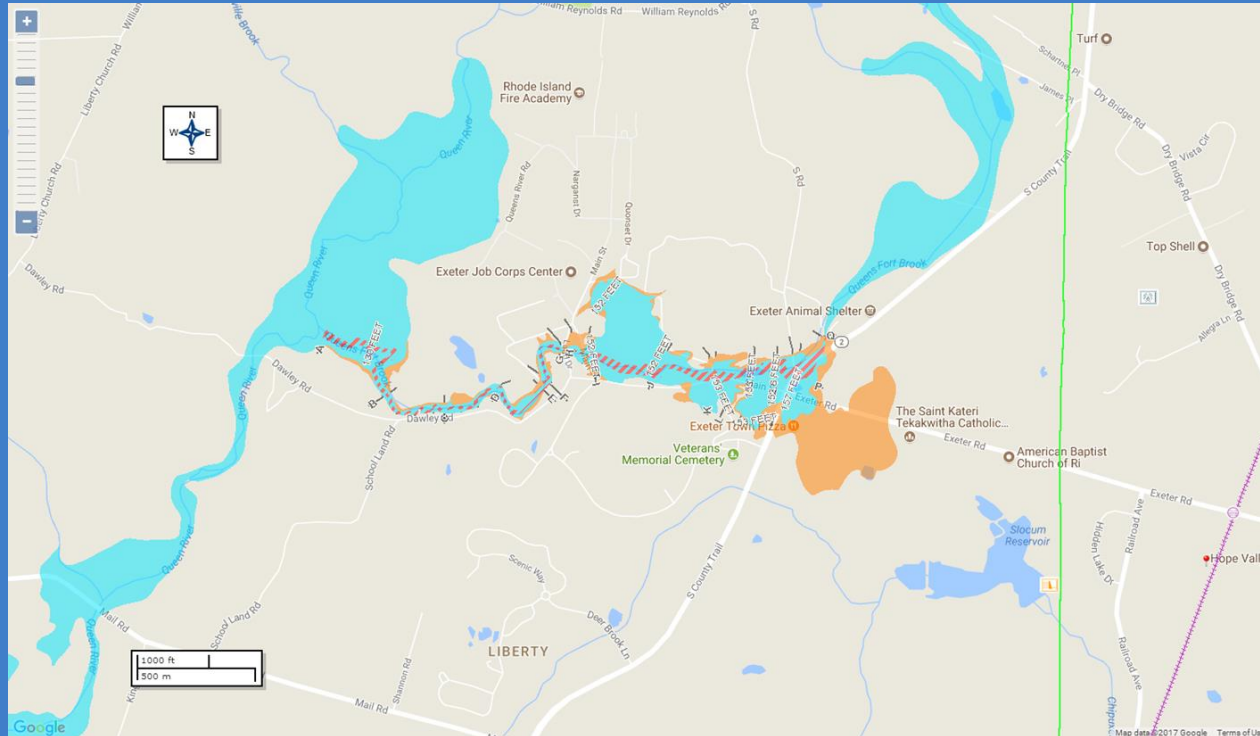


WMS Layers: FEMA Flood Zones



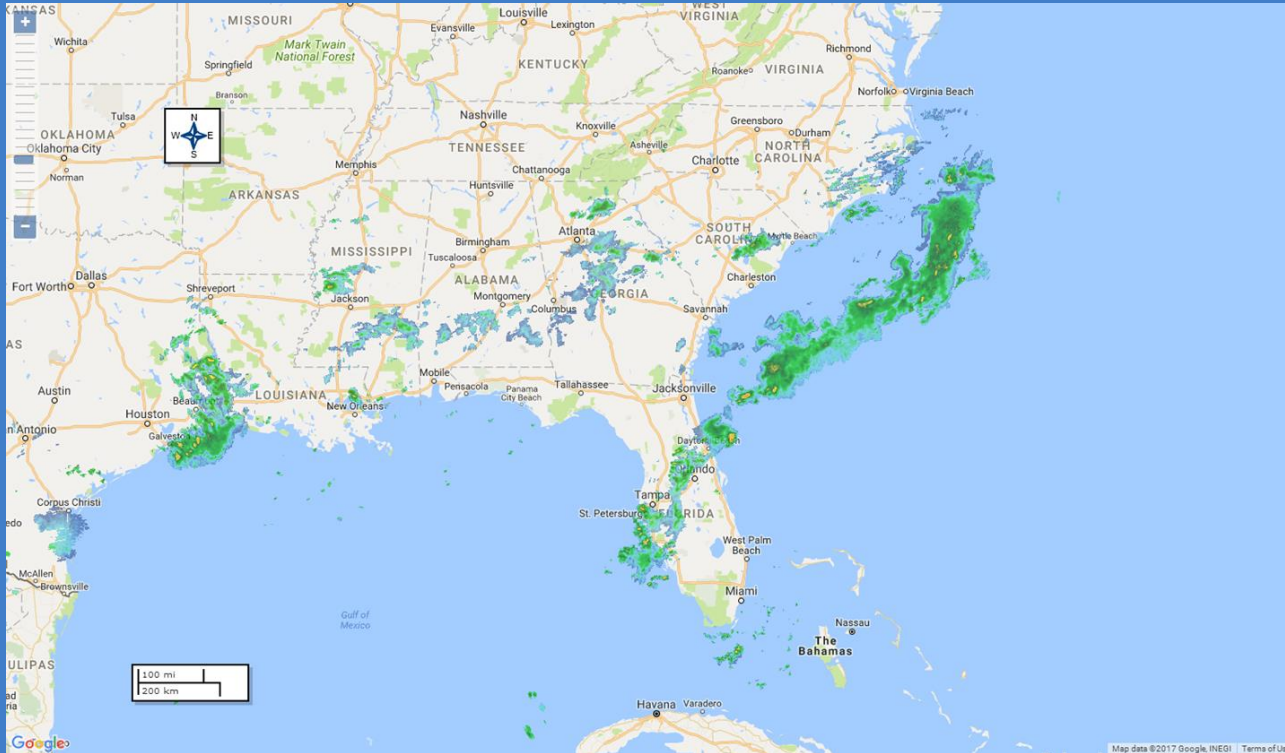


WMS Layers: FEMA Flood Zones





WMS Layers: Weather RADAR





Winter Storm Brings Rail Line to a Halt: February 5, 2016

LOCAL

Parts of Red, Green T lines shut down during snow

Bus shuttle service is replacing trains in the affected areas.

A photograph showing a train yard covered in snow. Several trains are visible, some stopped and some moving slowly. The tracks are also covered in snow, and the overall scene is a winter landscape.

By Adam Vaccaro
February 5, 2016



22

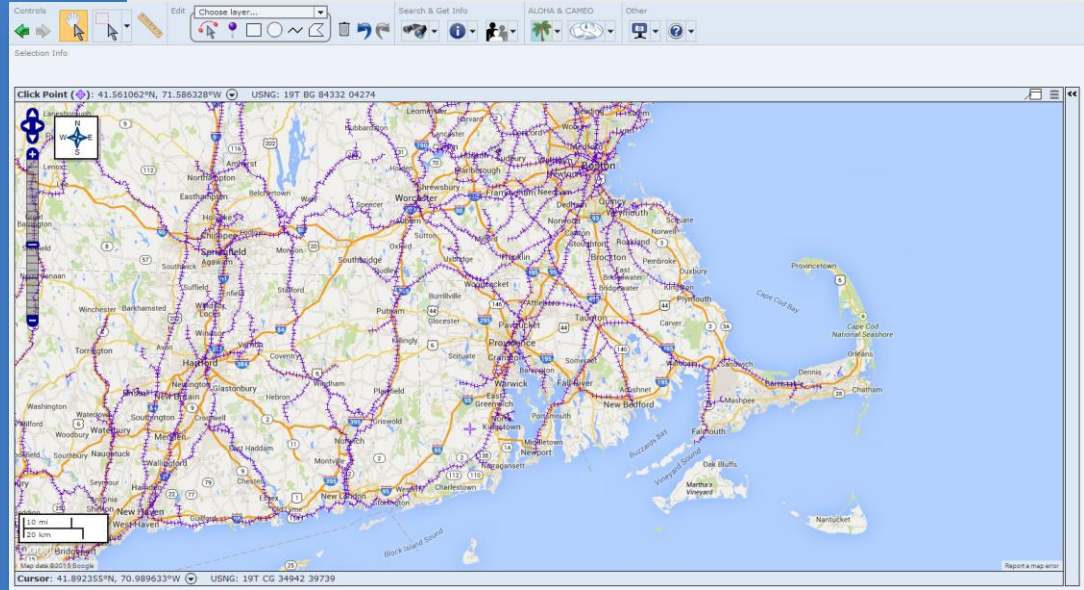
Trains stopped running on sections of the T's Red and Green lines during a snow storm on Friday, forcing passengers to rely on bus shuttle service.





Transportation: Rail Scenario

Planning
First Response
Emergency Management





Emergency Management
NC DEPARTMENT OF PUBLIC SAFETY

Transportation: Rail Scenario

Amtrak locomotive stalled on
main line:

Passengers needing to be
evacuated*





CAMEOfm Database: to confirm the location of the Incident

Search for a Chemical Search for a Facility

CAMEO Chemicals
 ALOHA
 MARPLLOT
 Help

Facilities
 Chemicals In Inventory
 Contacts
 Incidents

Special Locations
 Routes
 Resources
 Screening & Scenarios

CAMEOfm - [Routes]

File Edit Record Scripts Help

Home View Routes New Search New Record Help 1 of 255178 total

Route Name	Route Type	Start Point	Endpoint	Evacuation	Snow	School	...
FRA#: 125830 AL CTY: 019	RAILROAD	33.983968	-85.488934				
CSXT FRA#: 262806 AL CTY: 097	RAILROAD	30.651932	-88.070029				
CN FRA#: 152959 AL CTY: 097	RAILROAD	30.695987	-88.112319				
CN FRA#: 152935 AL CTY: 097	RAILROAD	30.717567	-88.16406				
CN FRA#: 152935 AL CTY: 097	RAILROAD	30.748776	-88.230034				
CN FRA#: 152902 AL CTY: 097	RAILROAD	30.805663	-88.310679				
CN FRA#: 152902 AL CTY: 097	RAILROAD	30.842872	-88.386863				
NS FRA#: 153030 AL CTY: 097	RAILROAD	30.707981	-88.049684				
NS FRA#: 153077 AL CTY: 097	RAILROAD	30.806586	-88.069185				
NS FRA#: 0 AL CTY: 097	RAILROAD	30.755053	-88.070158				
CSXT FRA#: 153048 AL CTY: 097	RAILROAD	30.696766	-88.03822				
CSXT FRA#: 153053 AL CTY: 097	RAILROAD	30.698464	-88.046043				
CN FRA#: 153067 AL CTY: 097	RAILROAD	30.672361	-88.068123				
CSXT FRA#: 152957 AL CTY: 097	RAILROAD	30.576396	-88.153979				
FRA#: 153016 AL CTY: 097	RAILROAD	30.711354	-88.047369				
FRA#: 153024 AL CTY: 097	RAILROAD	30.711104	-88.047317				
AGR FRA#: 153025 AL CTY: 097	RAILROAD	30.710299	-88.049275				
CSXT FRA#: 262810 AL CTY: 097	RAILROAD	30.547786	-88.17276				
CSXT FRA#: 152954 AL CTY: 097	RAILROAD	30.525257	-88.207645				
CSXT FRA#: 153078 AL CTY: 097	RAILROAD	30.476624	-88.33966				
CN FRA#: 152935 AL CTY: 097	RAILROAD	30.705693	-88.122295				
NS FRA#: 152936 AL CTY: 097	RAILROAD	30.767411	-88.07279				
NS FRA#: 262792 AL CTY: 097	RAILROAD	30.858135	-88.05331				
CSXT FRA#: 0 AL CTY: 003	RAILROAD	30.922812	-87.721294				
CSXT FRA#: 0 AL CTY: 003	RAILROAD	30.862327	-87.839531				
NS FRA#: 0 AL CTY: 097	RAILROAD	30.911488	-88.033244				
NS FRA#: 0 AL CTY: 097	RAILROAD	30.714296	-88.053889				

CAMEOfm - [Routes]

File Edit Scripts Help

CAMEO Basic Search

Operator for text fields: Contains characters Contains word starting with

Route Name:

County:

Fire District:

Note: If you enter multiple criteria, records satisfying **all** of your criteria will be found.

Search function with data to locate area of incident





CAMEO DM Database: Routes Module

CAMEO Data Manager 4.2.0

Facilities | Contacts | Chemical Inventory | Incidents | Special Locations | Routes | Resources | MARPLOT

Location | Intersections | Chemicals | Incidents

Route Name: Route Type: Types of Vehicles:

Route Uses: Evacuation Snow School HAZMAT Mass Transit

Location

Start Point: End Point:

County/District: Fire District:

Record is linked to a MARPLOT object

Intersections

Order	Intersection
1	Apponaug Cove Bridge Warwick :No Access Walk from Ends
2	Arnolds Neck Dr. Warwick :Gated Walking
3	Dale Ave Warwick :No Access Tracks Below
4	Packard Ave. Interlock Warwick :Gated Walking
5	Post Road Extension Warwick :No Access Tracks Below
6	Station St. Dirt Road Warwick :Open Access Walking
7	West Shore Rd. Warwick :No Access Tracks Below

[Add Route Intersection](#)

CAMEO Data Manager 4.2.0

Facilities | Contacts | Chemical Inventory | Incidents | Special Locations | Routes | Resources | MARPLOT

Location | Intersections | Chemicals | Incidents

Route Name: Route Type: Types of Vehicles:

Route Uses: Evacuation Snow School HAZMAT Mass Transit

This route has no incidents.

[Add Incident](#)

Attachments

File Name	Open file
174 APPONAUG BRIDGE.JPG	Open file
174 ARNOLD NECK GATE.JPG	Open file
174-34.JPG	Open file
174-40.JPG	Open file
174-46.JPG	Open file
174-6.JPG	Open file
174-64.JPG	Open file
174-72.JPG	Open file
174-8.JPG	Open file

[Add Attachment](#)

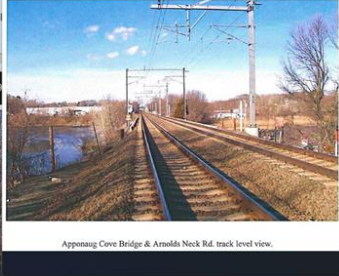
Notes

Amtrak Police 800-331-0008 Chief Train Dispatcher, Boston 617-345-7569 Power Director, Boston 617-345-7714/7715 Providence & Worcester Railroad 800-447-2003 x 400 RI Department of Environmental Management Police --222-3070

Imported: 3/15/2023 11:00 am
Last modified: 11/9/2014

[Back to Routes List](#) [Back to Top](#)

174 APPONAUG...



Apponaug Cove Bridge & Arnolds Neck Rd. track level view.





Aerial View of the Incident

The screenshot displays a GIS application interface with the following components:

- Top Toolbar:** Includes navigation controls (back, forward, pan, zoom), a 'Choose layer...' dropdown, search and get info tools, and ALOHA & CAMEO tool icons.
- Selection Info:** Shows coordinates: Click Point (41.696160°N, 71.448324°W) and USNG: 19T BG 96267 18939.
- Map Area:** An aerial satellite view of a residential area with a purple line indicating a boundary. Callouts include:
 - Name: AMTRAK RR_Milepost: 174 (AM) RI
 - PrimaryAdd: 30 STATION ST
 - PrimaryAdd: 154 CLYDE AVE
- Left Panel:** Contains a compass rose and a scale bar (150 ft / 200 m).
- Right Panel (Layers):**
 - NH 2013 Tier 2 Facilities
 - RI DATA FOLDER
 - Spectrum
 - Temporary Layer
 - Boundaries (U.S.)
 - Places
 - American Indian, Alaska Native, a...
 - Counties
 - States
 - CAMEO Suite
 - (no objects) ALOHA
 - (no objects) CAMEO Scenarios
 - NCBRT EXAM LAYER
 - WMSs & Raster Maps
 - Basemap: Google Satellite
 - Google Physical
 - Google Satellite (checked) show streets
 - Google Streets
 - Open MapQuest Satellite offline mode
 - Open MapQuest Streets offline mode
 - OpenStreetMap
 - (None)
- Bottom:** Map data ©2015 Google Imagery ©2013, Cors, Spot Image, DigitalGlobe, MassGIS, Commonwealth of Massachusetts ECEA, RIGIS, USDA Farm Service Agency. Cursor: 41.699560°N, 71.444869°W USNG: 19T BG 96565 19308.





The Outcome

- Ability to identify & locate trains in the event of an incident.
- Assets can be located through mapping software by latitude & longitude coordinates OR the US National Grid.
- Resources can be directed towards these assets or provide protective actions for them through access points along the tracks.
 - i.e. Safely evacuating passengers and removing from the scene to another rail station, Hazmat situations.
 - Hazardous Material Inventories can be tracked, as well.



Hazardous Material Tracking

Controls: [Navigation icons] Edit: Choose layer... Search & Get Info ALOHA & CAMEO Other

Selection Info
1 object selected (44, National Railroads)
Length: 2.32 miles

Click Point: 41.758429°N, 71.430729°W USNG: 19T BG 97926 25811

Layer: National Railroads
Length: 2.32 miles

Layer List (Right Panel):

- NH 2013 Tier 2 Facilities
- RI DATA FOLDER
 - floodhaz13
 - RI Dams
 - RI RAIL MILEPOSTS
 - e911Roads14r3
 - RI Hazmat Highways
 - dams12
 - RI Cities
 - e911Sites14r2
 - e911Hydrants14r2
- Spectrum
- Temporary Layer
- Boundaries (U.S.)
 - Places
 - American Indian, Alaska Native, a...
 - Counties
 - States
- CAMEO Suite
 - (no objects) ALOHA
 - (no objects) CAMEO Scenarios

Cursor: 41.782498°N, 71.337860°W USNG: 19T CG 05720 28269





Route Record: Rail

CAMEO Data Manager 4.2.0

← → Facilities Contacts Chemical Inventory Incidents Special Locations Routes Resources MARPLOT

Location Intersections Chemicals Incidents

Route Name: Route Type: Types of Vehicles:

Route Uses: Evacuation Snow School HAZMAT Mass Transit

Location

Start Point: End Point:

County/District: Fire District:

Record is linked to a MARPLOT object

Intersections

This route has no route intersections.

[Add Route Intersection](#)

Chemicals

Chemical Name	CAS	EHS	Maximum Amount (Pounds)
Chlorine	7782-50-5	Yes	390,000

[List this route's chemicals](#) [Add Chemical](#)

Incidents

This route has no incidents.

[Add Incident](#)

Attachments

This route has no attachments.

[Add Attachment](#)

Notes

← → Facilities Contacts Chemical Inventory Incidents Special Locations Routes Resources MARPLOT

Physical State & Amounts Hazards Locations Components Screenings & Scenarios

Route Name: Route Type: Railroad

CAS Number: EHS: Yes No SDS:

Chemical Name:

Pure Solid
 Mixture Liquid
 Gas

Weight

Maximum Daily Amount: pounds Maximum Daily Amount Range Code:

Average Daily Amount: pounds Average Daily Amount Range Code:

Max Amount in Largest Container: pounds [Need help converting gallons to pounds?](#)

Below Reporting Thresholds Trade Secret

Hazards

Physical Hazards	Health Hazards
<input checked="" type="checkbox"/> Fire	<input checked="" type="checkbox"/> Acute
<input checked="" type="checkbox"/> Sudden Release of Pressure	<input checked="" type="checkbox"/> Chronic
<input type="checkbox"/> Reactive	

Storage Locations

Storage locations are confidential

Location at Facility: Max Amount: gallons

Type of Storage: Pressure: Temperature:





Access to CAMEO Chemical Datasheets

CAMEO Chemicals 2.8.0
Home

CAMEO Chemicals

Home

Help

Privacy Policy

Search Chemicals

New Search

MyChemicals

chemicals: 0

View MyChemicals

Predict Reactivity

Chemical Datasheet
Select in ALOHA
Add to MyChemicals
Print Friendly Page

CHLORINE

CAMEO CHEMICAL DATASHEET

[Chemical Identifiers](#) | [Hazards](#) | [Response Recommendations](#) | [Physical Properties](#) | [Regulatory Information](#) | [Alternate Chemical Names](#)

Chemical Identifiers

[What is this information?](#)

CAS Number
7782-50-5

UN/NA Number
[1017](#)

ERG

DOT Hazard Label
Poison Gas
Oxidizer
Corrosive

USCG CHRIS Code
[CLX](#)

CHRIS MANUAL

NIOSH Pocket Guide
[Chlorine](#) (2)

NIOSH MANUAL

International Chem Safety Card
[CHLORINE](#) (2)

INTER. CHEM SAFETY CARD

NFPA 704

Diamond	Hazard	Value	Description
	Health	4	Can be lethal.
	Flammability	0	Will not burn under typical fire conditions.
	Instability	0	Normally stable, even under fire conditions.
	Special	OX	Possesses oxidizing properties.

(NFPA, 2010)

General Description

A greenish yellow gas with a pungent suffocating odor. Toxic by inhalation. Slightly soluble in water. Liquefies at -35°C and room pressure. Readily liquefied by ...





2020 Emergency Response Guidebook

Emergency Response Guidebook (ERG, 2020)

[What is this information?](#)

Material Names

Chlorine



Response Guide 124

[Gases - Toxic and/or Corrosive - Oxidizing](#)

English Español Français

ERG Table 1: Initial Isolation and Protective Action Distances

Name of Material	Small Spills (from a small package or small leak)			Large Spills (from a large package or many small packages)		
	First Isolate in all Directions	Then Protect Downwind		First Isolate in all Directions	Then Protect Downwind	
		Day	Night		Day	Night
Chlorine	200 ft	0.2 mi	0.9 mi	Refer to Table 3		

The ERG doesn't predict that large amounts of **toxic-by-inhalation gases** will be produced if this material is spilled in water.

ERG Table 3: Initial Isolation and Protective Action Distances for Different Quantities of Six Common Toxic-by-Inhalation Gases

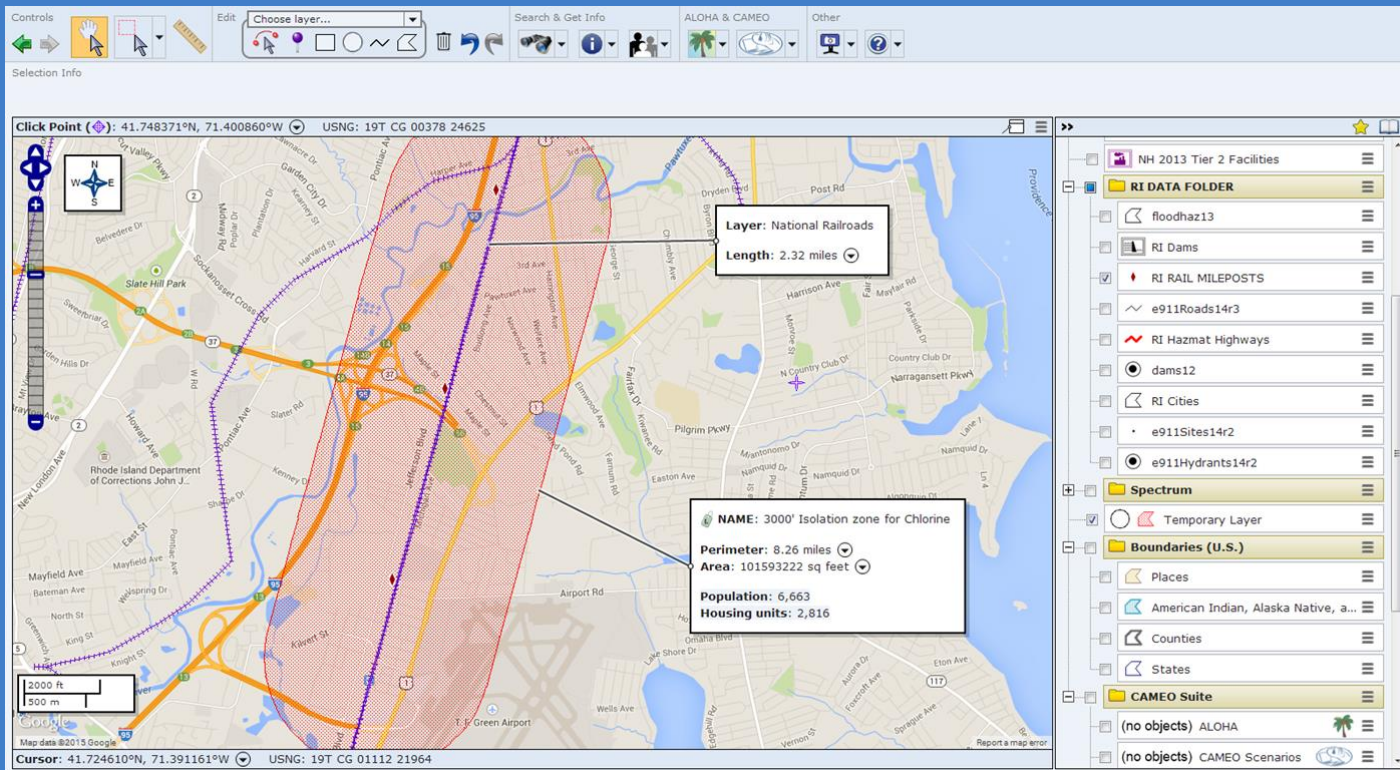
UN1017 Chlorine: Large Spills							
Transport Container	First Isolate in all Directions	Then Protect Downwind					
		Day			Night		
		Low Wind (<6 mph)	Moderate Wind (6-12 mph)	High Wind (>12 mph)	Low Wind (<6 mph)	Moderate Wind (6-12 mph)	High Wind (>12 mph)
Rail tank car	3000 ft	6.3 mi	4.2 mi	3.3 mi	7+ mi	5.7 mi	4.3 mi
Highway tank truck or trailer	2000 ft	3.6 mi	2.1 mi	1.8 mi	4.3 mi	3.1 mi	2.5 mi
Multiple ton cylinders	1000 ft	1.3 mi	0.8 mi	0.6 mi	2.5 mi	1.5 mi	0.8 mi
Multiple small cylinders or single ton cylinder	500 ft	0.9 mi	0.5 mi	0.3 mi	1.8 mi	0.8 mi	0.4 mi

"+" means distance can be larger in certain atmospheric conditions.



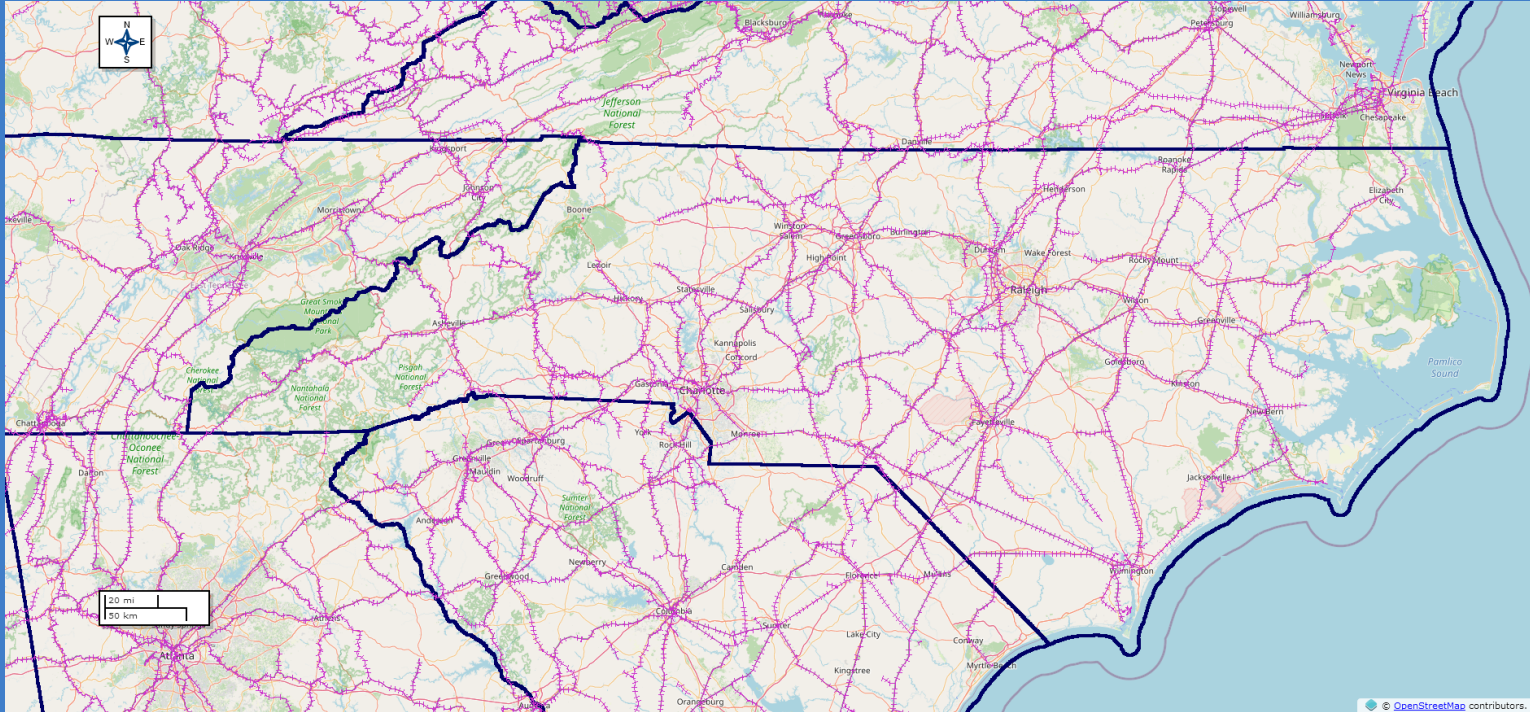


Strategic and Tactical Objectives





North Carolina Data

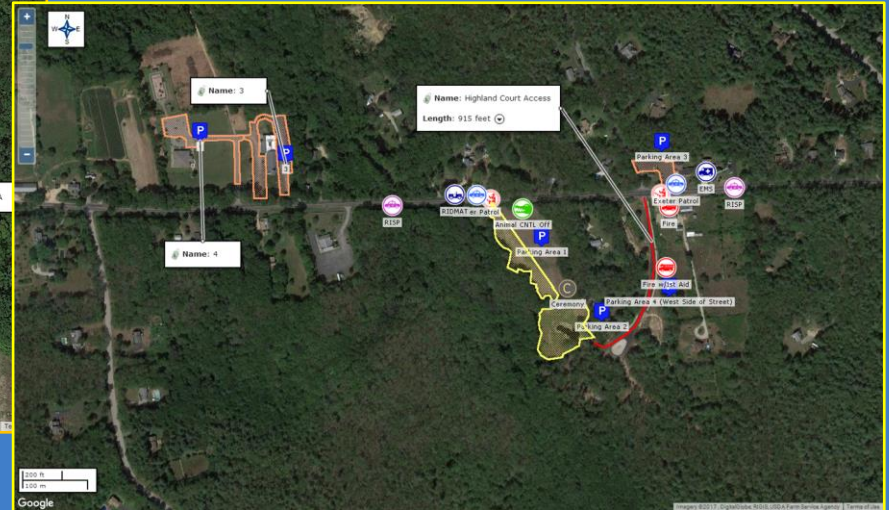
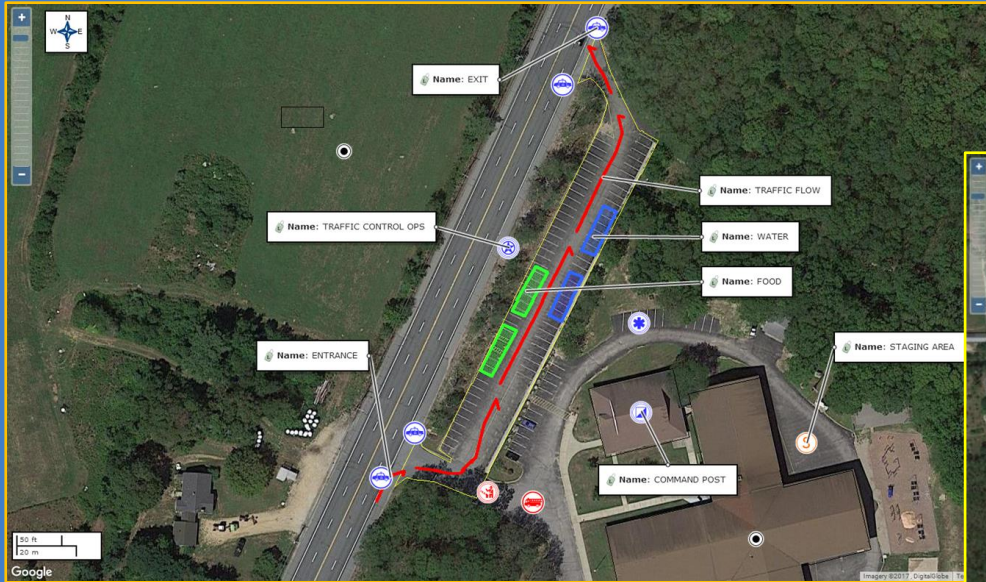


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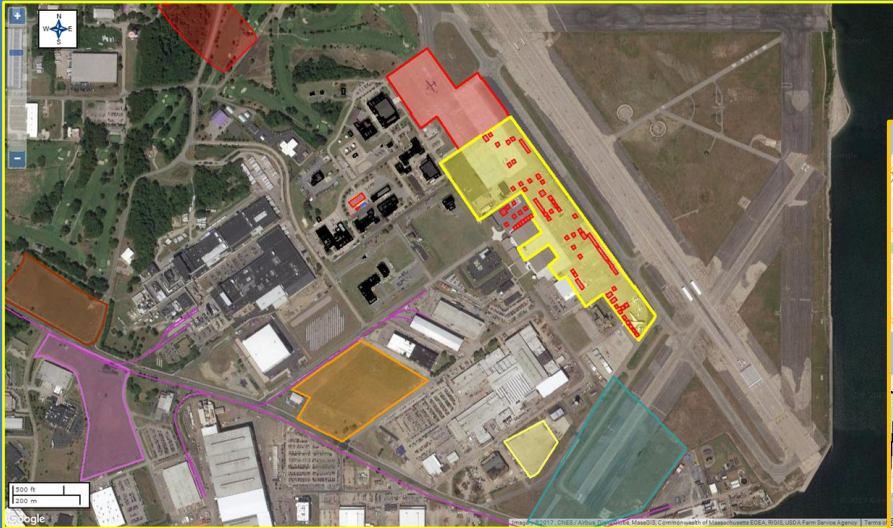


EM Projects

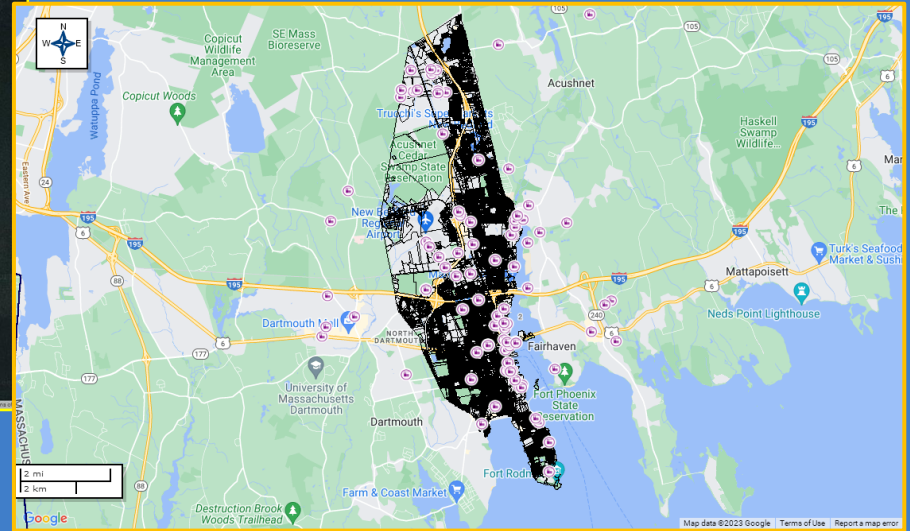




EM Projects (continued)



RI National Guard Air Show

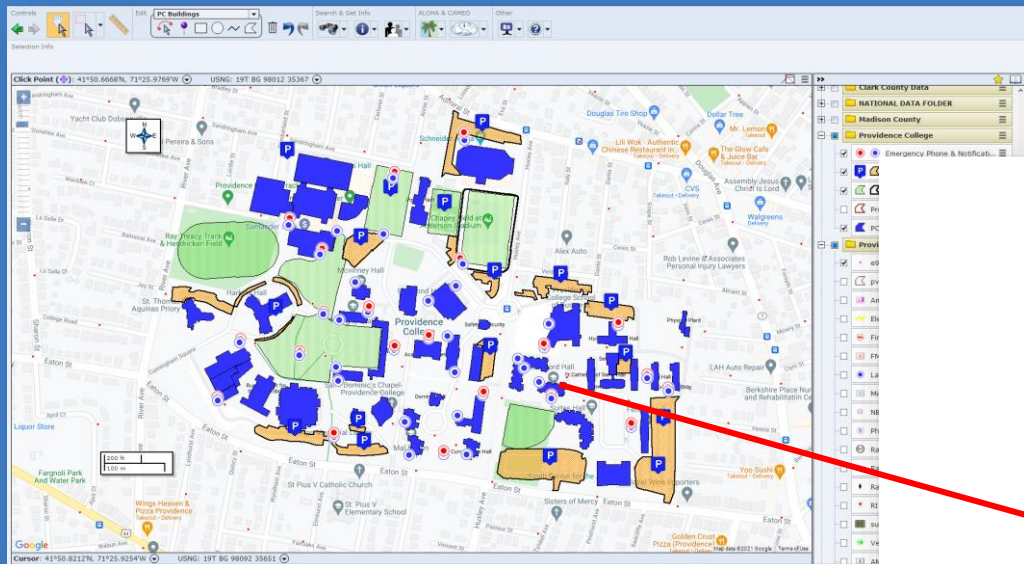


City of New Bedford Preplan Project





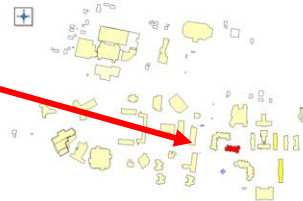
Providence College Project *(continued)*



Bedford Hall



MB 454



Select image for more information



CAMEO: The Future in North Carolina

- Cameo is free: Google “*Get EPA Cameo*”
- It’s not just for HAZMAT!
- Data can be shared; including WEBEOC, ARCVIEW, ESRI, & PEACs WMD.
- Promotes:
 - Situational Awareness
 - Operational Coordination
 - Threat, Hazard and Risk Assessment
 - Whole Community Concept
- Cameo Chemicals APP: Will operate on both Android, iPhone, & Tablets.





POCs for HAZMAT, Tier II or RMP Questions

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