



45th Weapons of Mass Destruction Civil Support Team

Maryville Railcar Response

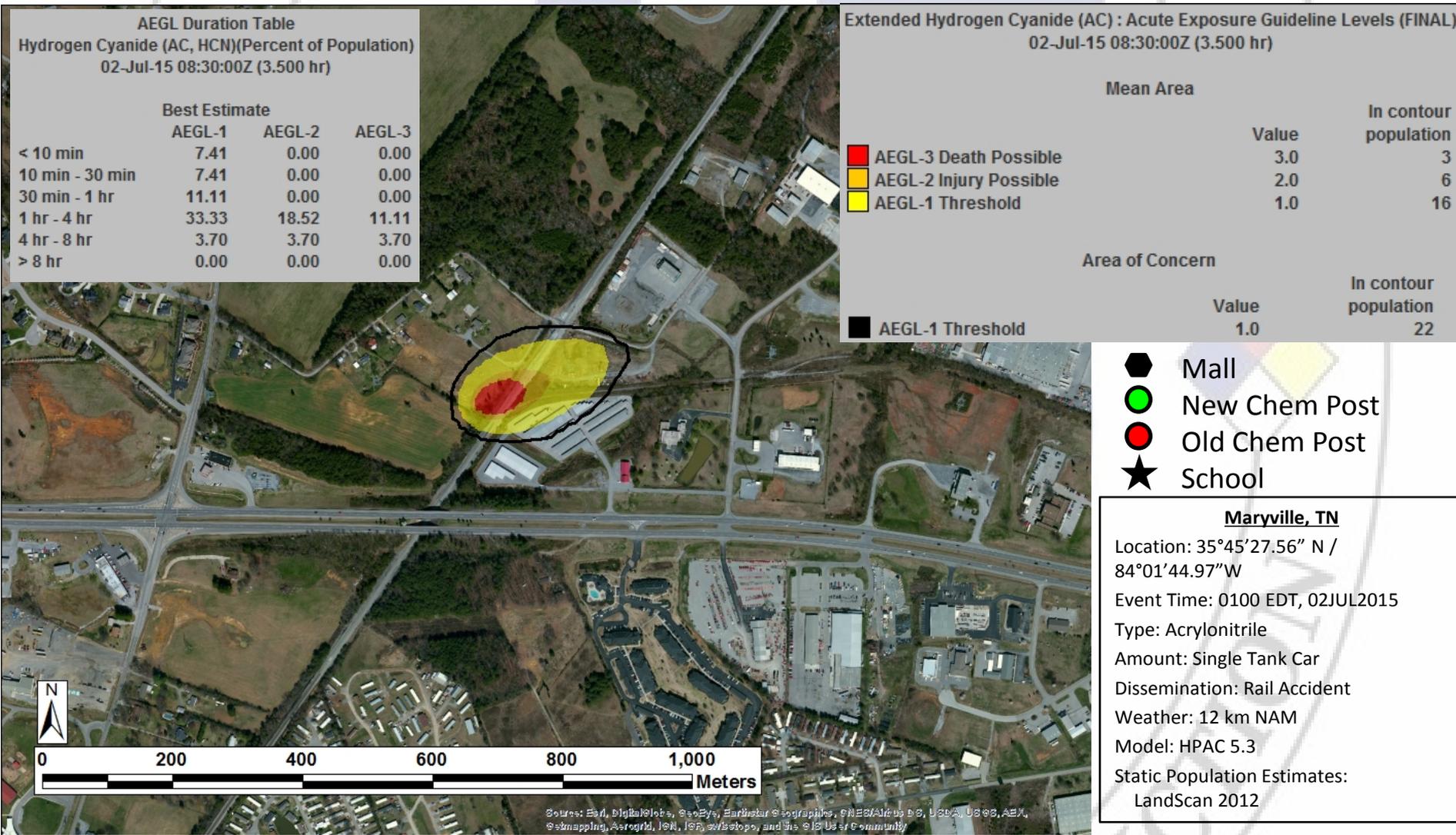
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Overview

- Known Information: CSX Railcar Accident near Maryville, TN. One tank car leaking acrylonitrile and burning.
- Modeling Assumptions: From scene recon team, the material is burning at a rate of 10 gallons/min – since the material is burning, we are modeling the byproduct hydrogen cyanide (HCN), assuming no rain, and extremely low buoyancy to show the worst case scenario.
- 45th CST deployed 11 persons to Maryville in support of the local incident commander
- CST Timeline

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HCN AEGs – Far View



AEGL Duration Table
Hydrogen Cyanide (AC, HCN)(Percent of Population)
02-Jul-15 08:30:00Z (3.500 hr)

	Best Estimate		
	AEGL-1	AEGL-2	AEGL-3
< 10 min	7.41	0.00	0.00
10 min - 30 min	7.41	0.00	0.00
30 min - 1 hr	11.11	0.00	0.00
1 hr - 4 hr	33.33	18.52	11.11
4 hr - 8 hr	3.70	3.70	3.70
> 8 hr	0.00	0.00	0.00

Extended Hydrogen Cyanide (AC) : Acute Exposure Guideline Levels (FINAL)
02-Jul-15 08:30:00Z (3.500 hr)

Mean Area

Value	In contour population
3.0	3
2.0	6
1.0	16

- AEGL-3 Death Possible
- AEGL-2 Injury Possible
- AEGL-1 Threshold

Area of Concern

Value	In contour population
1.0	22

- AEGL-1 Threshold

- Mall
- New Chem Post
- Old Chem Post
- ★ School

Maryville, TN
 Location: 35°45'27.56" N / 84°01'44.97" W
 Event Time: 0100 EDT, 02JUL2015
 Type: Acrylonitrile
 Amount: Single Tank Car
 Dissemination: Rail Accident
 Weather: 12 km NAM
 Model: HPAC 5.3
 Static Population Estimates:
 LandScan 2012

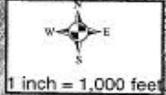
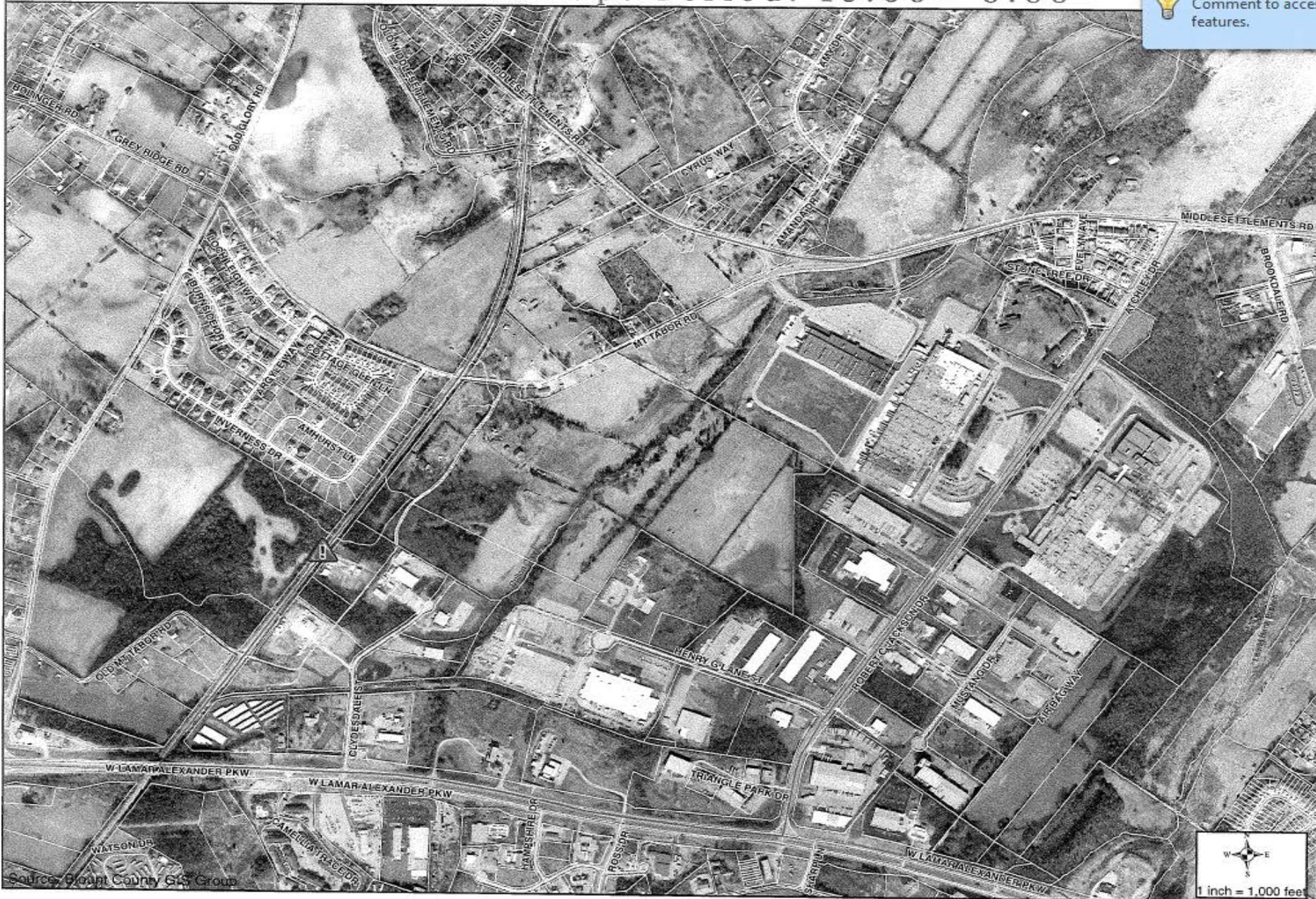
Sources: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Swmapping, AeroGrid, IGN, IGN, swisstopo, and the GIS User Community





EPA - Area 2 - Ops Period: 18:00 - 8:00

Click on Tools, Sign, Comment to access features.



45th Observations

- Lack of proper air monitoring equipment
 - Area RAE HCN sensors
 - ProRAE/Multi RAE lamps

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Summary

- Conducted air monitoring at over 100 known locations surrounding the incident with no evaluated readings for HCN
- Assisted local fire in the evacuation of residents
- Conducted atmospheric monitoring of the local hospital

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CONTACT INFORMATION

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