

# Detection of Fugitive Emissions via Mobile Sampling

## On-going Research and Collaborations:

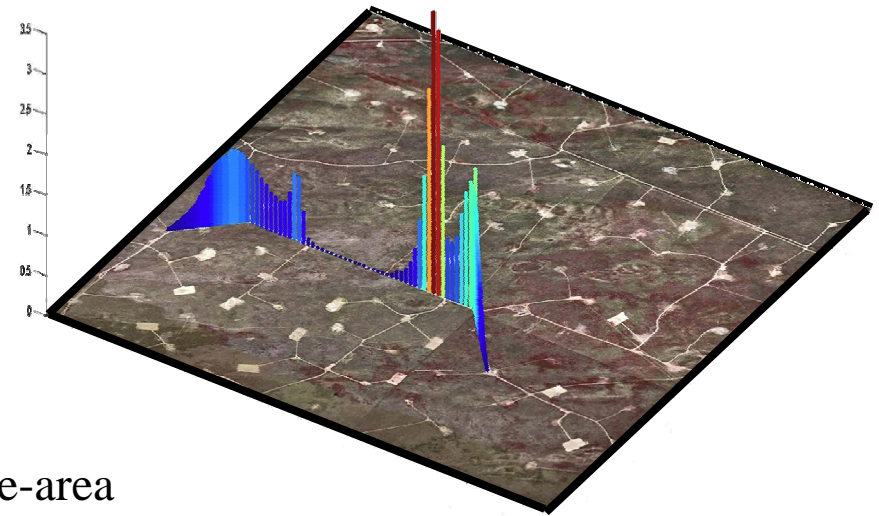
- **“IGERT: Training Program in Wireless Intelligent Sensor Networks (WISeNet),”** 2010 - 2015, NSF. Amount: ~\$3.1M. PI: S. Ferrari (Duke). Collaborators: Albertson, Environmental Protection Agency (EPA).

## Future Research Directions:

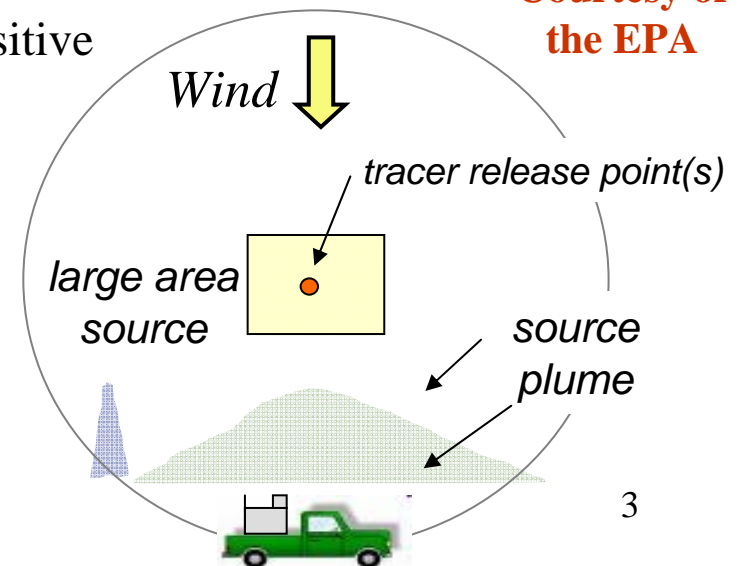
- Detection of fugitive emissions based on large-area distributed source mobile sampling and plume diagnostic.
- Applications: EPA GMAP-REM project, Gas-sensitive Mobile Robots (Gasbots), underwater systems.

## Future Funding:

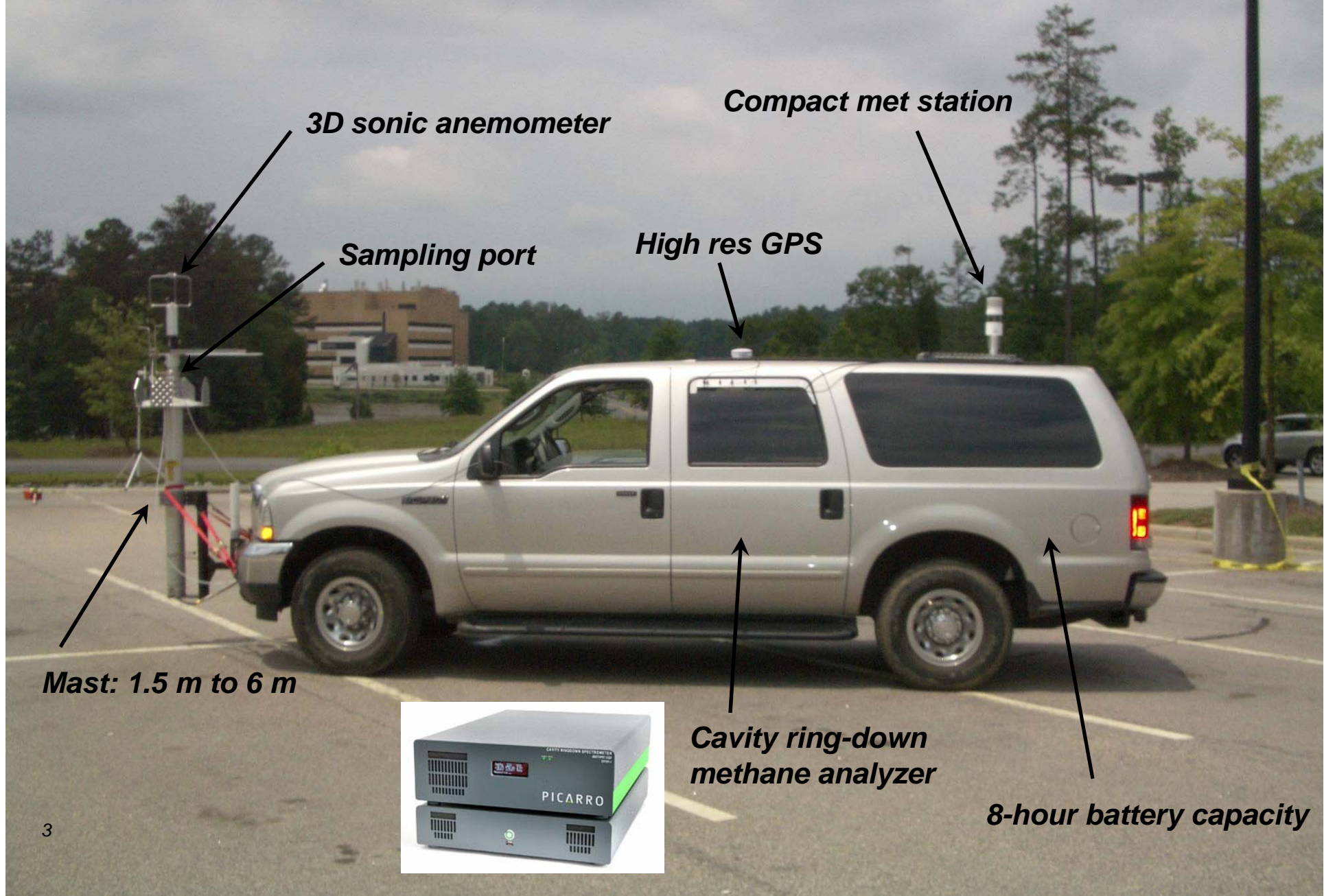
- EPA, ARPA-E, DoE, DoD, NSF.



Courtesy of  
the EPA



# *EPA Mobile sampling vehicle*



**3D sonic anemometer**

**Compact met station**

**Sampling port**

**High res GPS**

**Mast: 1.5 m to 6 m**

**Cavity ring-down methane analyzer**

**8-hour battery capacity**

