

# PlumeRAE

## Plume Measurement and Decision Support



### Decision Support for First Responders

#### The Challenge

Releases of toxic materials present first responders with an immediate challenge—determining what actions need to be taken to protect nearby populations. They must answer a number of questions:

- Where is the toxic plume headed, and in what concentration?
- What areas need to be evacuated?
- Who should shelter in place?
- What roads should be closed?
- How do we prioritize actions with limited resources available?

#### The Solution

Industry leaders RAE Systems, SAFER Systems and Coastal Environmental Systems have teamed to create PlumeRAE, a unique, turn-key solution that allows rapid monitoring and assessment of situations involving the release of hazardous substances.

#### Plume Measurement

PlumeRAE gives Municipal first responders information to make crucial decisions.

- GPS-equipped AreaRAE wireless monitors placed in strategic locations measure the levels of critical toxic chemicals and communicate their measurements to a ProRAE Remote Base Station.
- ProRAE Remote, running on a standard laptop computer, feeds this information to the Plume Measurement Software that is running on the same PC.
- Weather data transmitted by a Coastal Environmental Systems WEATHERPAK® completes the information package needed for analysis.
- The Plume Measurement Software, developed by SAFER Systems, integrates the information and shows users a picture of the toxic plume, the speed at which it is spreading, and the concentration of the toxic compound.

#### Decision Support

PlumeRAE gives Municipal first responders the information they need along with decision support so that they can answer critical questions and take immediate, effective action.

First Responders can:

- Track and validate plume impact
- Employ intelligent placement tactics for safely locating responders
- Evaluate the toxicological effect on responders and the community
- Create emergency response strategy
- Understand how long the event will persist
- Save the event for post-event analysis



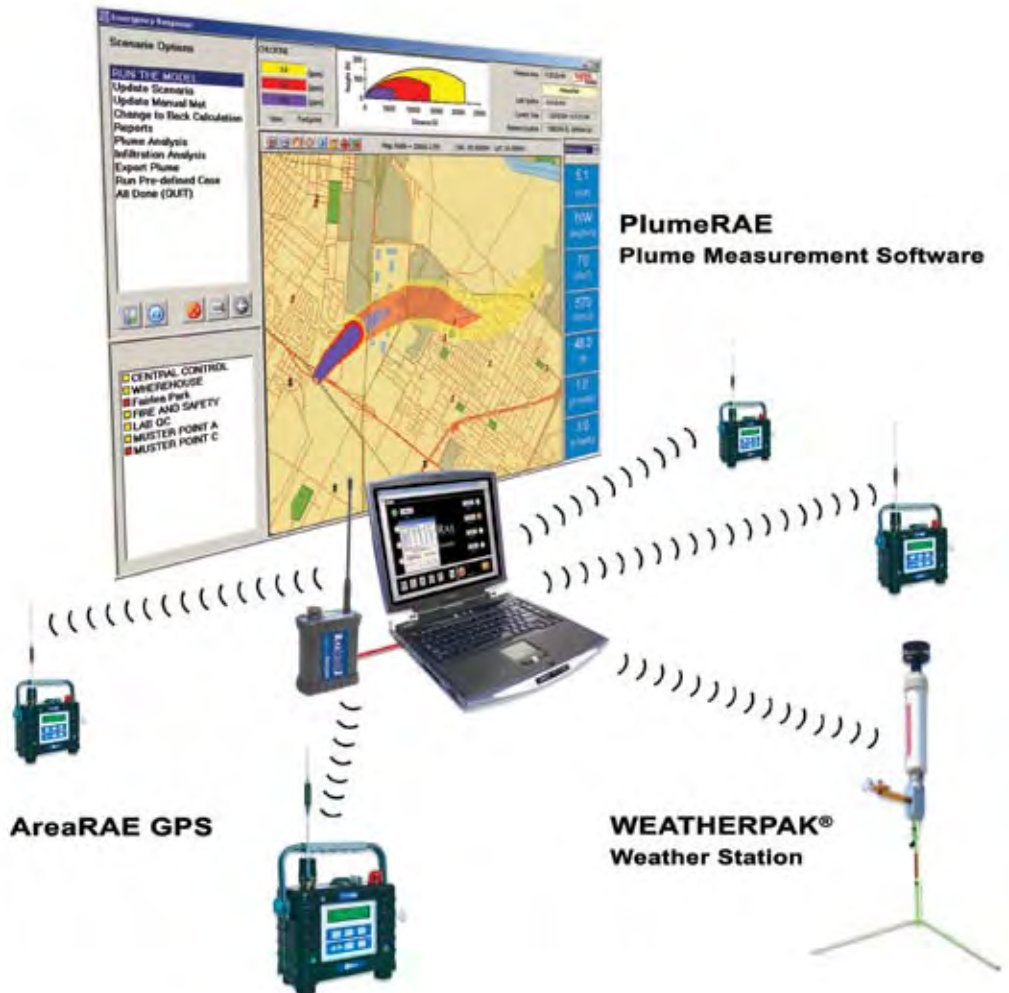
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## PlumeRAE System Components

- RAE Systems Rapid Deployment Kit
  - Four AreaRAE Wireless Detectors with GPS
  - ProRAE Remote Software preloaded in a PC
  - Complete package for charging
  - Carrying case for easy transportation
- SAFER Systems powered Plume Measurement Software complete with GIS mapping data covering a single county (U.S. only; additional countries available)  
Non-U.S. customer pricing subject to local GIS data availability.
- Coastal Environmental Systems WEATHERPAK® solid-state weather station monitoring wind speed, direction, temperature, solar radiation, and humidity

### Applications

- Municipal first responder
- Large event emergency planning
- Crisis management



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