



A bimonthly resource for RAE Systems distributors and representatives

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## Visit RAE Systems at These Summer/Fall 2005 Tradeshows:

#### Fire Rescue International

Friday, August 12, 2005 - Saturday, August 13, 2005 Denver, CO, USA Please visit us at Booth #928

#### The 21st Annual National VPPPA Conference

Monday, August 22, 2005 - Thursday, August 25, 2005 Dallas, TX, USA Please visit us at Booth #703

#### **ASIS International 2005**

Tuesday, September 13, 2005 - Thursday, September 15, 2005 Orlando, FL, USA Please visit us at Booth #4472

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#### RAE Systems, Inc., is a leading global developer of hazardous environment detection solutions

Homeland Security • Industrial First Responders • Military Emergency Management

For Tech & App Notes, Product Updates, And More, Visit Our Web Site At www.raesystems.com



# **Expert Insight**

# Advice, tips, and answers to your questions

Q: Is the published LEL (Lower Explosive Limit) of a chemical based on 20.9% oxygen? Does an LEL change with an enriched oxygen environment?

A: Yes, the LEL values normally given in RAE Systems' Technical Note TN-156 are based on 20.9%  $O_2$ . Believe it or not, the LEL is actually higher at higher  $O_2$  concentration. For example, the LEL of xylene, which is about 1.1 vol% in air, is estimated to be about 1.5% in an environment of 30% oxygen.



However, the absolute flammability concentration range and maximum explosion pressure are also increased. Therefore, once the material is ignited, the flame is more violent and thus presents a greater hazard. So VOCs are a little harder to ignite, but a lot more dangerous if they do ignite at higher oxygen levels.

## Q: Why are the readings on your logged data different than what you saw on your monitor during the day?

A: The data you store is either Min., Max., or Avg. of a datalog period, which may be from one second to many hours, while your instrument reads in real



time. Thus the data may be recorded at a different time range and be of a different type then what you see on the screen of the monitor. Also, when you download your daily readings, unless you have cleared the data at the beginning of the day, everything that has been previously datalogged will be downloaded at the same time. This could result in having more events than that day's readings.

## **Upcoming Tradeshows**

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#### U.S. Maritime Security Expo

Tuesday, September 20, 2005 -Wednesday, September 21, 2005 New York, NY, USA Please visit us at Booth #839

#### National Safety Council Congress & Expo (NSC)

Wednesday, September 21, 2005 -Friday, September 23, 2005 Orlando, FL, USA Please visit us at Booth #427

## International Association of Chiefs of Police (IACP)

Sunday, September 25, 2005 -Tuesday, September 27, 2005 Miami, FL, USA Please visit us at Booths #2512 and 2514

For the latest list of scheduled tradeshows, please visit www.raesystems.com/events

## Moving? Let Us Know!

If you move, or if your contact information changes, let us know. That way, you'll be assured of always receiving the RAE Partner News on time. Email us at raesales@raesystems.com.



# **Need To Know**

- The ratio of the number of computer viruses targeting Microsoft's Windows-based computers to those that target Apple's Macs is **1,000:1.** (Source: Symantec Corporation, Cupertino, California.)
- The minimum number of songs sold on Apple's online music store that consists entirely of silence: **291.** (Source: Harper's Index.)
- December 2004's Indian Ocean earthquake permanently shortened the length of a day by **3 microseconds.** (Source: Richard Gross, Jet Propulsion Laboratory, Pasadena, California.)
- The chance that a tsunami will hit the U.S. Pacific Northwest in the next 30 years is **1 in 10**. (Source: Eric Geist, U.S. Geological Survey, Menlo Park, California.)

## RAE Systems Announces Integration of AreaRAEs into SAFER Systems' Real-Time Chemical Emergency Response Solution

AE Systems' partner SAFER Systems announced Kin June the official release of SAFER Real-Time<sup>®</sup> and SAFER STAR Version 9.2 – Integrated Software for Chemical Emergency Management for the chemical and petrochemical processing industries. The company's plume dispersion modeling software offers a unique and proprietary solution, worldwide, to manage any toxic chemical emergency event. This is the only real-time software that can time integrate wired or wireless weather and sensor data to estimate the toxic chemical release rate. The solution includes an interface to RAE Systems' AreaRAE wireless gas monitor, which allows the GPS-enabled toxic gas sensors to provide system inputs. This improves the performance of the modeling algorithm through a completely portable and wireless gas monitoring

network. The basis of this enhancement is a data acquisition system that provides interaction between RAE Systems' AreaRAE networks and SAFER products. AreaRAE supports up to five simultaneous chemical sensors, including oxygen, lower explosive limit (LEL), total volatile organic compounds (VOC), hydrogen sulfide, sulfur dioxide, carbon monoxide, ammonia, chlorine, and others.

A SAFER Systems spokesperson said that leveraging RAE Systems' proven sensing networks with their software solutions provides industrial ER Management teams a uniquely robust solution for assessing and responding to toxic releases. For more information on this solution, please contact raesales@raesystems.com.

## **RAE Systems Announces the Plus PID Program**

Selling the best, low-cost, multi-gas **Plus PID** monitor just got easier! Trade in ANY 4-gas monitor and the **Plus PID** Program gives you **\$500 off** the list price of a brand-new EntryRAE – <u>and standard distributor</u> <u>discounts still apply</u>!

RAE Systems has been building multi-gas **Plus PID** safety into our monitors for more than 10 years – 10 years longer than anyone else! And now, for a limited time, you can offer your customers a great price on the name people trust for PID safety: **RAE Systems**.



Great product, great price (\$1,495!), limited-time offer. For more information, go to www.raesystems.com

## **Vital Information To Increase Your Sales**

**Get faster service by calling the RAE Systems' Inside Sales Number.** Do you need help fast? Be sure to call the RAE Systems Inside Sales number, 408-952-8469. This will guarantee that your call is logged, tracked and closed with a priority designation. If you call the direct extensions of RAE Systems' inside sales staff, they are always happy to help, but if you leave a voice mail, there's a chance they might be on vacation or out of the office, or simply cannot respond to your call immediately. Don't take the chance – call 408-952-8469!

The \$200 minimum order requirement has been eliminated! RAE Systems is pleased to announce that we will no longer require a \$200 minimum order. Our relationship with you, our partners, is important to us, and we have made this change based on your feedback. If you have any questions, please feel free to contact Will Harrison, Director, Americas Sales Operations, at wharrison@raesystems.com or 408-952-8417.

**Pricing guides are available now.** Electronic copies have been e-mailed to you. If you have not received yours, please contact raesales@raesystems.com. Printed copies of the pricing guides will be mailed in mid-July.

**The 2005-2006 Application and Technical Notes Guide is Available Now.** The 2005-2006 edition of RAE Systems' Applications and Technical Notes Guide is now available. Partners may order up to 10 copies free of charge by placing a standard literature request. More copies can be ordered at RAE Systems' e-commerce site, at http://ecommerce.raesystems.com. Partners are entitled to purchase additional copies for \$40, a \$55 discount off the retail price of \$95. The updated and expanded guide contains many application notes detailing best practices and use of RAE Systems' equipment in a variety of real-world situations such as monitoring wing-tank entry, HazMat response, indoor air quality, marine situations, and confined space entry. Technical notes cover common scenarios that occur with the entire family of RAE Systems products. Topics include Correction Factors, calibration procedures, PID lamp characteristics, diagnostic modes, and much more.



## A Note from Chris Wrenn

Do you think the market for environmental monitoring solutions ever takes a summer holiday? Every month, our partners continue to tell us of many, many applications where sensing networks and portable monitors are saving lives. From first response to industrial process monitoring to fenceline and public venue applications, the demand for environmental monitoring equipment has never been greater.

RAE Systems had a very good second quarter, and we significantly increased our business from the same quarter last year. Once again we owe it to your hard work and dedication—not to just selling RAE Systems solutions, but to providing cutting-edge, life-saving solutions that provide peace of mind.

## RAE Systems Extends PID Trade-In/Trade-Up Program to August 31, 2005

A ct now to save up to 30% on a new MiniRAE 2000 or ppbRAE Plus! Trade in your MiniRAE, MiniRAE Plus, MiniRAE Plus Classic, or ppbRAE by August 31, 2005, and save 30% on a new MiniRAE 2000 or ppbRAE Plus.

In addition, users can trade in PID monitors from other manufacturers and save 25% on the purchase of a new MiniRAE 2000 or ppbRAE Plus.

If you have questions, please contact your Regional Sales Manager or Meg Godfrey, Product Manager, Portable Products, at (408) 952-8251.

To order, call 1-877-723-2878 or e-mail raesales@raesystems.com.

#### **MiniRAE 2000 Features**

- 3-year 10.6 eV lamp warranty
- 3-second response up to 10,000 ppm

#### ppbRAE Plus Features

- Extended range of 1 ppb to 2,000 ppm
- Exclusive VOC zeroing tube assures repeatability at low ppm levels

#### **RAE Systems PID Unbeatable Features**

- Self-cleaning lamp and sensor minimize the need for maintenance and calibration
- The lamp and sensor can be taken apart in seconds for easy maintenance without tools
- More than 100 built-in Correction Factors
- User-friendly screens make it easy to use for simple applications and flexible enough for sophisticated operations
- Drop-in spare battery pack
- Rugged rubber boot
- Strong, built-in sample pump draws up to 100 feet (30m) horizontally or vertically



## **Tell Us Your Story!**

RAE Systems wants to hear your application stories! If you have an interesting anecdote about interesting or newsworthy uses of RAE Systems solutions, please tell us.

For example, RAE Systems' equipment was used at the site of a HazMat spill on a South Carolina railroad line. Incident commanders used AreaRAEs to keep the community informed. In another case, AreaRAEs were used to monitor a toxic cloud that resulted when a barge carrying sulfuric acid capsized near Texas City, Texas.

Compiling these stories helps create a database of good references, drives positive media coverage, helps us refine products, and ultimately helps sales. Even if you only have a few details, let us know, and we'll do the legwork. Send your story ideas and contact information to raesales@raesystems.com.

