



For Immediate Release

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RAE Systems Reports Preliminary Second Quarter 2008 Results

SAN JOSE, CA, August 4, 2008 -- RAE Systems Inc. (AMEX: RAE), a leader in delivering innovative sensor solutions to serve industrial, energy, environmental, and government safety markets worldwide, reported preliminary financial results and business highlights for the second quarter ended June 30, 2008. As discussed below, the Audit Committee of the Board of Directors of the Company is conducting an independent investigation into certain accounting and reporting matters. Although the Company has not yet determined any changes are required to the results discussed below, these results should be considered preliminary until the Company files its Quarterly Report on Form 10-Q.

Second Quarter 2008 Preliminary Financial Results

For the second quarter of 2008, RAE Systems expects to report revenue of \$24.7 million, compared with revenue of \$20.1 million for the same quarter in 2007. For the second quarter of 2008, Americas contributed 38 percent of total revenue, Asia contributed 45 percent and Europe contributed 17 percent. Gross margin for the quarter was 54 percent, compared with 50 percent for the second quarter of 2007. The Company expects to report operating expenses for the quarter were of \$12.9 million as compared to operating expenses of \$12.0 million in the second quarter of 2007. The increase in operating expenses included approximately \$0.7 million relating to the internal investigation. The Company expects to report a net loss for the second quarter of 2008 of \$0.7 million, or \$0.01 per share, compared with a net loss of \$2.5 million, or \$0.04 per share, for the second quarter of 2007.

First Six Months 2008 Preliminary Financial Results

For the first six months of 2008, RAE Systems expects to report revenue of \$42.5 million, compared with revenue of \$38.0 million for the same period in 2007. The Company expects to report a net loss for the first six months of 2008 of \$3.0 million, or \$0.05 per share, compared with a net loss of \$4.8 million, or \$0.08 per share, for the first six months of 2007.

Robert I. Chen, president and CEO of RAE Systems, said, "Our diversified market strategy and continued focus on cost control delivered improved second quarter 2008 preliminary revenue, gross margin and bottom line results. Our ongoing research and development efforts have created strong product differentiation points, which support our growth in the markets we serve. This year, we have introduced eight new products including the first solar powered, multi-sensor, gas

monitoring system with Class One, Division 2 hazardous environment safety certification. These products – in combination with our existing technology have won many new customers worldwide, particularly in the rapidly growing energy sector. In addition, by introducing our radiation and toxic gas detection in a new form factor, we secured a key contract for the Beijing International Airport's new terminal as part of its preparation for the Olympic Games, which will be completed in the third quarter. We expect that this key win will help RAE Systems expand its global awareness.”

As business conditions continue to be favorable, management expects full year 2008 revenue to be in the range of \$104 to \$109 million, gross margin to be in the mid 50 percent range, and the Company to be profitable for the full year.

Second Quarter 2008 Business Highlights:

- Delivered 38 radiation portals and AreaRAE wireless toxic gas monitors to the Beijing International Airport. Additional orders for gammaRAE II and doseRAE radiation monitors and AreaRAE toxic gas monitors were received from six additional China airports.
- Secured a follow-on order for wireless toxic gas monitors for oil drilling rigs and pump stations from the Liao He Oil Field.
- Petro China purchased additional fixed and portable monitoring systems.
- Sold the first AreaRAE Solar Units to the Total Petroleum Refinery in Texas to remotely monitor a Storage Tank Farm.
- Established key wins in the United Kingdom for Wireless AreaRAE Steel units for deployment on offshore oil platforms.
- Secured a large order for gas detection, worker safety and personal protective equipment from the An Steel Company in China.
- Sold wireless AreaRAE systems to the State of Hawaii to monitor toxic gases over a 45 mile radius around the active volcano on the Big Island.
- Sold ppbRAE units to the Hyundai Motor Group for new car Indoor Air Quality inspections.
- Sold AreaRAE Steel Rapid Deployment Kits to the Department of Homeland Security and the Federal Emergency Management Agency's Urban Search and Rescue teams.
- Expanded its relationship with New Zealand Fire services as they purchased additional wireless MiniRAE 3000 wireless VOC monitors.

Internal Investigation

The Audit Committee of the Board of Directors of the Company is conducting an independent investigation into certain accounting and reporting matters that were discovered as a result of the Company's internal audit processes. Based on the results of the investigation to date, the Company has not yet determined that any changes are required to the preliminary financial results disclosed in this press release or to any financial results for any prior period. However, depending on the results of the investigation, it is possible that the Company will determine that

changes are required. Based on the matters under investigation, the results of the investigation could lead to changes to reported revenues or expenses or period to period adjustments. However, based upon the results of the investigation to date, the Company does not have any reason to believe that any such adjustments would impact the aggregate net income or loss or cash flow.

About RAE Systems

RAE Systems is a leading global provider of rapidly deployable sensor networks that enable customers to identify safety and security threats in real time. Products include multi-sensor chemical detection networks, wireless gas detection systems and radiation monitors for energy production and refining, industrial and environmental safety, and public and government first responder security. RAE Systems' products are used in over 85 countries by many of the world's leading corporations and by many U.S. government agencies. For more information about RAE Systems, please visit www.raesystems.com.

Safe Harbor Statement

This press release may contain "forward-looking" statements, as that term is used in Section 21E of the Securities Exchange Act of 1934. Forward-looking statements include, without limitation: expressions of "belief," "anticipation," or "expectations" of management; statements as to industry trends or future results of operations of RAE Systems and its subsidiaries; and other statements that are not historical fact. These types of statements address matters that are subject to risks and uncertainties, which could cause actual results to differ materially. Factors that could cause or contribute to such differences include, but are not limited to, the results of the Company's internal investigation, the general economic and industry factors and receptiveness of the market to RAE Systems and its products. In addition, our forward-looking statements should be considered in the context of other risk factors discussed in our filings with the Securities and Exchange Commission, including but not limited to our annual report on Form 10-K and Form 10-Q filings, available online at <http://www.sec.gov>. All forward-looking statements are based on information available to the company on the date hereof, and the company assumes no obligation to update such statements.