

# SECURITIES AND EXCHANGE COMMISSION

## FORM 10-K/A

Annual report pursuant to section 13 and 15(d) [amend]

Filing Date: **2005-05-02** | Period of Report: **2004-12-31**  
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### FILER

#### **RAE SYSTEMS INC**

CIK: **1084876** | IRS No.: **770588488** | State of Incorporation: **DE** | Fiscal Year End: **1231**  
Type: **10-K/A** | Act: **34** | File No.: **001-31783** | Film No.: **05791697**  
SIC: **3829** Measuring & controlling devices, nec

Business Address  
1339 MOFFETT PARK DRIVE  
SUNNYVALE CA 95112  
408-752-0723

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON D.C. 20549**

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**FORM 10-K/A  
Amendment No. 1**

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- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**

For the fiscal year ended December 31, 2004

OR

- TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934.**

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 001-31783

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**RAE Systems Inc.**

(Exact name of registrant as specified in its charter)

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Delaware  
(State or other jurisdiction  
of incorporation)

77-0588488  
(I.R.S. Employer  
Identification No.)

1339 Moffett Park Drive  
Sunnyvale, California 94089  
(Address of principal executive offices)

408-752-0723  
Registrant's telephone number, including area code

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Securities registered pursuant to Section 12(b) of the Act:

Title of each class  
Common Stock, \$.001 par value

Name of each exchange on which registered  
The American Stock Exchange

Securities registered pursuant to Section 12(g) of the Act:  
None

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Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter periods that the registrant was required to file such reports), and (2) has been subject to filing requirements for the past 90 days. Yes  No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K/A.

Indicate by check mark whether the registrant is an accelerated filer. Yes  No

As of June 30, 2004, the aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was approximately \$189,903,629, based upon the closing sale price of \$5.40 on the American Stock Exchange on June 30, 2004, the last business day of the registrant's most recently completed second fiscal quarter. As of the close of business on March 27, 2005, the number of shares of registrant's Common Stock outstanding was 57,632,139.

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### **DOCUMENTS INCORPORATED BY REFERENCE**

Definitive Proxy Statement for the Company's 2005 Annual Meeting of Stockholders—  
Part III of this Form 10-K.

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## EXPLANATORY NOTE

RAE Systems Inc. (the “Company”) is filing this Amendment No. 1 on Form 10-K/A to amend our previously filed Annual Report on Form 10-K for the year ended December 31, 2004, as filed with the Securities and Exchange Commission (the “SEC”) on March 18, 2005 (the “Original Filing”). This amendment is being filed to provide management’s annual report on internal control over financial reporting, required by Item 308(a) of Regulation S-K, and the related attestation report of the registered public accounting firm, required by Item 308(b) of Regulation S-K. This amendment includes the following changes:

Updates Item 9A, “Controls and Procedures” to provide management’s annual report on internal control over financial reporting;

Adds the report on internal control over financial reporting from BDO Seidman, LLP, our independent registered public accounting firm, relating to the Company’s assessment of internal control over financial reporting and the effectiveness of internal control over financial reporting;

Provides an additional consent of BDO Seidman, LLP; and

Updates the Section 302 certifications from the Chief Executive Officer and the Chief Financial Officer.

The other portions of the Original Filing are unaffected by the changes described above and have not been amended. All information in this amendment is as of the date of the Original Filing and does not reflect any subsequent information or events occurring after the date of the Original Filing, except as noted below. Accordingly, this amendment should be read in conjunction with the Company’s filings made with the SEC subsequent to the filing of the Original Filing, including any amendments to those filings.

### ITEM 9A. CONTROLS AND PROCEDURES.

#### *Management’s Report on Internal Control Over Financial Reporting*

Management is responsible for establishing and maintaining adequate internal control over financial reporting and for the assessment of the effectiveness of internal control over financial reporting. As defined by the SEC, internal control over financial reporting is a process designed by, or under the supervision of, the Company’s principal executive and principal financial officers and effected by the Company’s board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. In order to evaluate the effectiveness of internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act, management has conducted an assessment, including testing, using the criteria in *Internal Control – Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Because of its inherent limitations, there can be no guarantees that internal control over financial reporting will prevent or detect misstatements. Furthermore, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Management has excluded from its assessment, the internal control over financial reporting at RAE KLH (Beijing) Co. Ltd., which was acquired on May 27, 2004 and whose financial statements reflect total assets and revenues of 25% and 17%, respectively, of the Company’s related consolidated financial amounts as of and for the year ended December 31, 2004, as the Company did not have sufficient time to make an assessment of KLH’s internal controls using the COSO criteria in accordance with Section 404 of the Sarbanes-Oxley Act of 2002. In excluding KLH from its assessment, the Company has considered the “Frequently Asked Questions” as set forth by the Office of the Chief Accountant of the Division of Corporate Finance on June 24, 2004 which acknowledges that it may not be possible to conduct an assessment of an acquired business’s internal control over financial reporting in the period between the consummation date and the date of management’s assessment and contemplates that such business would be excluded from management’s assessment in the year of acquisition. Nonetheless, for presentation purposes, the following discussion includes information regarding KLH known to management as of May 2, 2005.

As defined by Public Company Accounting Oversight Board (“PCAOB”) Auditing Standard No. 2, a material weakness is a significant control deficiency, or a combination of significant control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. In connection with the work on the Company’s internal control over financial reporting, the Company has identified the following material weaknesses: (i) inadequate codification of the

Company's revenue recognition policies and review procedures to ensure that revenues are recorded in the proper period; (ii) inadequate training and supervision practices necessary to ensure that all of the Company's key controls are effective; (iii) inadequate record retention policies and procedures to ensure that all key documents in support of the Company's transactions are obtained, retained and safeguarded; (iv) inadequate controls pertaining to the segregation of duties relative to certain of the Company's processes, especially in locations where the Company has limited staff; (v) inadequate controls pertaining to the preparation or maintenance of adequate documentation in support of all disbursements made at the newly acquired KLH subsidiary; (vi) inadequate controls pertaining to the Company's review and oversight of its subsidiary's financial information originating at the newly acquired KLH subsidiary; (vii) inadequate controls pertaining to the Company's information technology infrastructure in the area of security and data protection; and (viii) and inadequate planning, organization and supervision of the Company's Sarbanes-Oxley 404 process.

The material weakness identified with respect to our revenue recognition practices relates to the following specific circumstances: The Company identified a single distributor in Canada, accounting for less than 1% of our annual revenues, who (a) had not signed the Company's standard distributor agreement sent to the distributor over the last three years and (b)

from time to time, placed purchase orders with a “right of return” clause. The Company’s internal control processes originally failed to identify and consider the accounting impact of this right of return clause. In addition, the Company identified several U.S. local, state and federal agency purchase orders with freight delivery terms of “FOB destination” rather than “FOB factory,” the Company’s standard terms. Typically, it takes from two to five days for deliveries to reach the Company’s U.S. customers. The Company’s internal control processes originally failed to identify and consider the accounting impact of these non-standard shipping terms. In both cases, revenues were incorrectly recognized in the periods in which shipment took place, when current revenue recognition rules required that the revenues be deferred until certain conditions were met. Under current revenue recognition rules, the revenues from the distribution customer should not have been recognized until the right of return had expired or the customer specifically disclaimed the right of return. In the case of the goods shipped “FOB destination,” the revenues should not have been recognized until proof of delivery was established. After conferring with the Audit Committee of the Company and its independent registered public accounting firm on these matters, another independent certified public accounting firm was engaged to conduct an independent study (agreed-upon procedures report) of the impact of the Company’s revenue recognition practices. The initial focus of this study has been to assess the impact of these matters on the Company’s “annual” financial statements for 2004, 2003 and 2002 (the “Annual Financial Statements”). Based on preliminary results of the study, none of the errors that have been identified to date, either individually or in the aggregate, are in management’s judgment material to the Company’s annual financial statements. However, based on preliminary results of the study, management believes that it is reasonably possible that these errors could have a somewhat greater impact on revenue recognized within certain quarterly reporting periods. The Company expects to receive a completed agreed-upon procedures report in the next several weeks, which will enable the Company to finalize its determination of the impact of these matters on its annual and interim financial statements. At that time, the Company will report its findings and conclusions (including the impact of these matters on the Company’s annual and interim financial statements) in a current report on Form 8-K.

The material weaknesses identified by management could result in a material misstatement to the annual or interim financial statements that would not be prevented or detected. As a result, management has determined these control deficiencies each constituted a material weakness as of December 31, 2004. Because of the material weaknesses described above, management concluded that the Company did not maintain effective internal control over financial reporting as of December 25, 2004, based on criteria in *Internal Control – Integrated Framework* issued by the COSO. Management communicated its conclusions to the Audit Committee of the Company’s Board of Directors.

The Company recently completed its documentation and testing of internal control over financial reporting as of December 31, 2004. The Company’s auditors, BDO Seidman, LLP, have disclaimed an opinion on management’s assessment on the effectiveness of internal control over financial reporting as of the stated period.

### **Changes in Internal Control Over Financial Reporting**

During 2004 and continuing through the date of this filing, the Company implemented a number of compensating internal controls and will continue to remediate controls in an effort to improve the level of assurance regarding the accuracy of the Company’s financial information. These compensating internal controls and remediation efforts include the following:

*Controls related to inadequate codification of the Company’s revenue recognition policies and review procedures to ensure revenues are recorded in the proper period:*

During the first quarter of 2005, the Company clarified and re-emphasized its worldwide revenue recognition policy.

During the same period, a standard process was put in place in the United States to review customer contracts and purchase order terms. This process will be extended worldwide during the second quarter of 2005.

During the second quarter of 2005, the Company engaged an independent certified public accounting firm to test selective revenue transactions for cutoff issues.

*Controls related to inadequate training and supervision practices necessary to ensure that all of the Company’s key controls are effective:*

In 2005, the Company will be implementing a series of training programs to educate its employees on the Company’s internal control standards.

*Controls related to inadequate record retention policies and procedures to ensure that all key documents in support of the Company's transactions are obtained, retained and safeguarded.*

During the first quarter of 2005, the Company developed a world-wide records retention policy.

During the second quarter of 2005, the Company completed an inventory of its North American distributor contracts and identified contracts not yet signed and returned. The Company is currently following-up with distributors who have not returned signed contracts.

During the second quarter of 2005, the Company revised its procedures for retaining its customer purchase orders in the U.S.

*Controls pertaining to the segregation of duties relative to a few of the Company's processes:*

During the first quarter of 2005, the Company implemented additional levels of approval, verification and sign-off processes for the Company's key controls.

*Controls related to the preparation or maintenance of adequate documentation in support of all disbursements made at the newly acquired KLH subsidiary:*

During the fourth quarter of 2004 and continuing into the first quarter of 2005, the Company implemented an enterprise resource planning system in Beijing to improve the reporting and controls over disbursements.

*Controls related to the Company's review and oversight of its subsidiary's financial information originating at the newly acquired KLH subsidiary:*

During the fourth quarter of 2004, the Company hired an experienced financial controller with United States accounting experience to manage the Shanghai manufacturing operations and to provide some in-country supervision to the financial manager at the Company's newly acquired KLH operations in Beijing.

During the first quarter of 2005, the Company transferred a United States trained accountant to assist in the financial management of the Company's newly acquired KLH operations.

Starting with the filing of the 2004 Form 10-K on March 18, 2005, the Company instituted a sub-certification process, including KLH, whereby all key finance and operations personnel within the Company are held accountable for the accuracy of the financial statements.

*Controls related to the Company's information technology infrastructure in the area of data security and data protection:*

During the fourth quarter of 2004, the Company formed a team to select a new enterprise resource planning system to replace the current system that was determined to be inadequate in the area of security and data protection. The implementation effort is scheduled to commence in the second quarter of 2005.

*Controls related to inadequate planning, organization and supervision of the Company's Sarbanes-Oxley 404 process:*

During the first quarter of 2005, the Company supplemented the Sarbanes-Oxley 404 team to include every member of the United States finance department. This team developed and implemented standard documentation and test procedures worldwide to comply with the requirements of Section 404 of the Sarbanes-Oxley Act.

During the same period, the Company hired an experienced consultant to assist with the Sarbanes-Oxley 404 testing and remediation process.

The Company is in the process of developing procedures for the testing of the remediated controls to determine if the control deficiencies have been remediated and expects that testing of these controls will be substantially completed by the end of its fiscal year 2005. The Company believes that the compensating internal controls and remediation efforts, taken as a whole, mitigated the risk of error with respect to our preparation of the Annual Report on Form 10-K for the year ended December 31, 2004, and that these measures have been effective to ensure that information required to be disclosed in this annual report has been recorded, processed, summarized and reported correctly. Management believes that its controls and procedures will continue to improve as a result of the further implementation of these measures.

Material weaknesses in internal control over financial reporting may materially impact the Company's reported financial results and the market price of its stock could significantly decline. Since the Company's auditors have disclaimed an opinion on management's assessment on the effectiveness of internal control over financial reporting, it is unclear what legal effect this will have on the Company's compliance with the rules and regulations of the SEC and the continued listing standards of the American Stock Exchange. Additionally, adverse publicity related to a material failure of internal control over financial reporting could have a negative impact on the Company's reputation and business.

## ***Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures***

Under the supervision and with the participation of the Company's management, including the Company's principal executive officer and principal accounting officer, the Company evaluated the effectiveness of its disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based upon that evaluation, the Company's principal executive officer and principal accounting officer concluded that the Company's disclosure controls and procedures were ineffective as of December 31, 2004 with regard to the material weaknesses identified and discussed above, under "Management's Report on Internal Control over Financial Reporting."

## ***Report of Independent Registered Public Accounting Firm***

We were engaged to audit management's assessment, included in the accompanying *Management's Report on Internal Control over Financial Reporting*, that RAE Systems Inc. and subsidiaries (the "Company") internal control over financial reporting was not effective as of December 31, 2004, because of the effects of the material weaknesses described below, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO Framework"). As described in Management's Report on Internal Control over Financial Reporting, management excluded from their assessment the internal control over financial reporting at RAE KLH (Beijing) Co. Ltd., which was acquired on May 27, 2004 and whose financial statements reflect total assets and total revenues constituting 25% and 17%, respectively, of related consolidated financial statement amounts as of and for the year ended December 31, 2004. Accordingly, our engagement did not include the internal control over financial reporting at RAE KLH (Beijing) Co. Ltd. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting.

The Company was required to make an assessment of its internal control over financial reporting as of December 31, 2004. During the month of April 2005, the Company completed its documentation, testing and remediation of a significant portion of its internal control processes. This timetable did not enable us to perform all of the procedures necessary in order for us to form an opinion on management's assessment of internal control over financial reporting and an opinion on the effectiveness of internal control over financial reporting. A material weakness is a significant control deficiency, or combination of significant control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. The following material weaknesses have been identified and included in management's assessment as of December 31, 2004: (i) inadequate codification of the Company's revenue recognition policies and review procedures to ensure that revenues are recorded in the proper period; (ii) inadequate training and supervision practices necessary to ensure that all of the Company's key controls are effective; (iii) inadequate record retention policies and procedures to ensure that all key documents in support of the Company's transactions are obtained, retained and safeguarded; (iv) inadequate controls pertaining to the segregation of duties relative to certain of the Company's processes, especially in locations where the Company has limited staff; (v) inadequate controls pertaining to the preparation or maintenance of adequate documentation in support of all disbursements made at the newly acquired KLH subsidiary; (vi) inadequate controls pertaining to the Company's review and oversight of its subsidiary's financial information originating at the newly acquired KLH subsidiary; (vii) inadequate controls pertaining to the Company's information technology infrastructure in the area of security and data protection; and (viii) and inadequate planning, organization and supervision of the Company's Sarbanes-Oxley 404 process. None of the foregoing material weaknesses resulted in adjustments to the 2004 annual or interim consolidated financial statements. However, with respect to the Company's interim financial statements, management is in the process of evaluating the impact, if any, of the material weakness concerning its revenue recognition practices on such interim financial statements. Furthermore, each of the material weaknesses results in more than a remote likelihood that a material misstatement to the Company's annual or interim financial statements will not be presented or detected. These material weaknesses were either considered in determining the nature, timing, and extent of audit tests applied in our audit of the Company's consolidated financial statements as of and for the year ended December 31, 2004 or were evaluated in context with the Company's consolidated financial statements as of and for the year ended December 31, 2004, and this report does not affect our report dated March 16, 2005 on those consolidated financial statements.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in

accordance with accounting principles generally accepted in the United States of America, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company' s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or the degree of compliance with the policies or procedures may deteriorate.

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Since management did not complete its documentation, testing and remediation of a significant portion of its internal control processes on a timely basis and we were unable to apply other procedures to satisfy ourselves as to the effectiveness of the company' s internal control over financial reporting, the scope of our work was not sufficient to enable us to express, and we do not express, an opinion either on management' s assessment or on the effectiveness of the Company' s internal control over financial reporting.

We do not express an opinion or any other form of assurance on management' s statements regarding corrective action taken by the Company after December 31, 2004.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of RAE Systems Inc. and subsidiaries as of December 31, 2004 and 2003, and the related consolidated statements of operations, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2004 and our report dated March 16, 2005 expressed an unqualified opinion thereon.

/s/ BDO Seidman, LLP

San Jose, California

May 2, 2005

#### **PART IV.**

#### **ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULE**

(a) Documents filed as part of this report:

(1) Exhibits

See Index to Exhibits.

## INDEX TO EXHIBITS

### Exhibit

#### Number Description of Document

- 2.1 Merger Agreement and Plan of Reorganization by and between RAE Systems Inc., RAES Acquisition Corporation and Nettare.com dated January 9, 2002 (1)
- 2.2 Joint Venture Contract between Registrant and KLH dated May 27, 2004 (2)
- 2.3 Subscription Agreement between Registrant and KLH dated May 27, 2004 (2)
- 3.1 Certificate of Incorporation of Registrant (3)
- 3.2 Bylaws of Registrant (3)
- 4.1 Specimen certificate representing the common stock of Registrant (3)
- 4.2 Registration Rights Agreement by and between RGC International Investors, LDC and Nettare.com, dated as of April 28, 2000 (4)
- 10.0 Purchase and Sale Agreement dated November 1, 2004 by and between RAE Systems Inc. and CarrAmerica Realty Operating Partnership, L.P. (5)
- 10.1 Form of Indemnity Agreement between the Registrant and the Registrant's directors and officers (3)
- 10.2 RAE Systems Inc. 2002 Stock Option Plan (3)
- 10.3 RAE Systems Inc. 1993 Stock Plan (3)
- 10.8 Lease Agreement by and between Aetna Life Insurance Company and the Registrant dated June 1, 1999 (3)
- 10.9 First Amendment to Lease by and between Moffett Office Park Investors LLC and the Registrant dated effective November 1, 2002 amending Lease Agreement between Aetna Life Insurance Company and the Registrant dated June 1, 1999 (6)
- 10.10 Manufacturing Building Lease Agreement by and between Shanghai China Academic Science High Tech Industrial Park Development Co., Ltd. and RAE Systems (Asia), Ltd., incorporated in Hong Kong, dated September 15, 2001 (3)
- 10.11 Lease Agreement by and between Shanghai Institute of Metallurgy Research, Chinese Academy of Sciences and WARAE Instrument (Shanghai) Incorporated, incorporated in Jiading, Shanghai, dated January 8, 1999 (3)
- 10.14 Warrant Agreement by and between Nettare.com and Mr. Michael Gardner dated April 9, 2002 (7)
- 21.1 Subsidiaries of the Registrant (8)
- 23.1 Consent of BDO Seidman, LLP (8)
- 23.2 Consent of BDO Seidman, LLP

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- 24.1 Power of Attorney (included on signature page) (8)
- 31.1 Certifications of Robert I. Chen, President and Chief Operating Officer of Registrant pursuant to Rule 13a-14 adopted under the Securities Exchange Act of 1934, as amended, and Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certifications of Donald W. Morgan, Vice President and Chief Financial Officer of Registrant pursuant to Rule 13a-14 adopted under the Securities Exchange Act of 1934, as amended, and Section 302 of the Sarbanes-Oxley act of 2002.
- 32.1 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (8)
- 32.2 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (8)
- (1) Previously filed on January 10, 2002 as an exhibit to Nettaxi.com' s Current Report on Form 8-K and incorporated herein by reference.
  - (2) Previously filed on June 9, 2004 as an exhibit to the Registrant' s Current Report on Form 8-K and incorporated herein by reference.
  - (3) Previously filed as an exhibit to the Registrant' s quarterly report on Form 10-Q, for the quarter ended March 31, 2002 and incorporated herein by reference.
  - (4) Previously filed on June 2, 2000 as an exhibit to Nettaxi.com' s Registration Statement on Form S-1 and incorporated herein by reference.
  - (5) Previously filed on November 2, 2004 as an exhibit to the Registrant' s Current Report on Form 8-K and incorporated herein by reference.
  - (6) Previously filed on February 28, 2003 as an exhibit to the Registrant' s annual report on Form 10-K, for the year ended December 31, 2002 and incorporated herein by reference.
  - (7) Previously filed on April 8, 2002 as an exhibit to Nettaxi.com' s Registration statement on Form S-8 and incorporated herein by reference.
  - (8) Previously filed on March 18, 2005 as an exhibit to the Registrant' s annual report on Form 10-K and incorporated herein by reference.

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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Amendment No. 1 to the report to be signed on its behalf by the undersigned, thereunto duly authorized on May 2, 2005.

**RAE SYSTEMS INC.**

By: \_\_\_\_\_ /s/ ROBERT I. CHEN

**Robert I. Chen**  
**President, Chief Executive Officer**  
**and Chairman of the Board**

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

RAE Systems Inc.  
Sunnyvale, California

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (Nos. 333-113437; 333-109840) and Form S-8 (Nos. 333-105368; 333-88684; 333-85720; and 333-32678) of RAE Systems Inc. of our report dated May 2, 2005, relating to RAE Systems Inc. management' s assessment of the effectiveness of internal control over financial reporting, and the effectiveness of RAE Systems Inc.' s internal control over financial reporting, which appears in this Form 10-K/A. In our report, we disclaim an opinion on management' s assessment and on the effectiveness of the Company' s internal control over financial reporting.

/s/ BDO Seidman, LLP  
BDO Seidman, LLP

San Jose, California  
May 2, 2005

## CERTIFICATION

I, Robert I. Chen, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K/A of RAE Systems Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

May 2, 2005

By: /s/ Robert I. Chen

Robert I. Chen  
President, Chief Executive Officer  
and Chairman of the Board

## CERTIFICATION

I, Donald W. Morgan, certify that:

1. I have reviewed this Amendment No. 1 to the annual report on Form 10-K/A of RAE Systems Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors:
  - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

May 2, 2005

By: /s/ Donald W. Morgan

Donald W. Morgan

Vice President and Chief Financial Officer