

ADE CORP
Form 10-Q
December 14, 2001

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**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

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

For Quarter Ended: **October 31, 2001**

Commission File Number **0-26714**

ADE CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts

(State or other jurisdiction of
incorporation or organization)

04-2441829

(I.R.S. Employer
Identification Number)

80 Wilson Way, Westwood, Massachusetts 02090

(Address of principal executive offices, including zip code)

(781) 467-3500

(Registrant's telephone number, including area code)

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 period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

YES /x/ NO //

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Common Stock, par value \$.01 per share
Class

13,623,627 shares
Outstanding at December 13, 2001

**ADE CORPORATION
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ADE CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEET

(in thousands)

	October 31, 2001	April 30, 2001
	(Unaudited)	
Assets		
Current assets:		
Cash and cash equivalents	\$ 31,227	\$ 29,220
Marketable securities	1,638	1,913
Accounts receivable, net	19,242	24,424
Inventories	34,559	39,025
Prepaid expenses and other current assets	1,576	1,566
Deferred income taxes		6,514
	<u>88,242</u>	<u>102,662</u>
Total current assets	88,242	102,662
Fixed assets, net	29,173	29,569
Deferred income taxes		4,076
Investments	3,289	3,221
Intangible assets, net	2,944	3,286
Restricted cash	3,425	3,525
Other assets	186	368
	<u>127,259</u>	<u>146,707</u>
Total assets	\$ 127,259	\$ 146,707

	October 31, 2001	April 30, 2001
Liabilities and stockholders' equity		
Current liabilities:		
Current portion of long-term debt	\$ 633	\$ 621
Accounts payable	5,878	6,833
Accrued expenses and other current liabilities	17,575	21,134
Deferred income on sales to affiliates	2,893	2,116
Total current liabilities	26,979	30,704
Long-term debt	11,028	11,339
Stockholders' equity:		
Common stock	136	136
Capital in excess of par value	103,051	102,429
Retained earnings (Accumulated deficit)	(15,073)	686
Accumulated other comprehensive income	1,138	1,413
Total stockholders' equity	89,252	104,664
Total liabilities and stockholders' equity	\$ 127,259	\$ 146,707

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ADE CORPORATION
CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
(in thousands, except per share data, unaudited)

	Three months ended October 31,		Six months ended October 31,	
	2001	2000	2001	2000
Net Revenue:				
System and parts	\$ 19,526	\$ 20,894	\$ 42,618	\$ 40,159
Service	2,384	2,777	4,663	4,899
Total revenue	21,910	23,671	47,281	45,058
Cost of revenue:				
System and parts	11,315	8,362	23,385	16,455
Service	2,414	3,604	5,264	6,621
Total cost of revenue	13,729	11,966	28,649	23,076

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	Three months ended October 31,		Six months ended October 31,	
	8,181	11,705	18,632	21,982
Gross profit				
Operating expenses:				
Research and development	5,961	5,176	12,076	10,331
Marketing and sales	3,551	4,284	7,138	8,545
General and administrative	2,796	2,624	5,108	4,851
Total operating expenses	12,308	12,084	24,322	23,727
Loss from operations	(4,127)	(379)	(5,690)	(1,745)
Interest and other income, net	48	326	360	665
Loss before provision for income taxes, equity in net earnings (loss) of affiliated companies and cumulative effect of change in accounting principle	(4,079)	(53)	(5,330)	(1,080)
Provision for income taxes	10,598	64	10,605	64
Loss before equity in net earnings (loss) of affiliated companies and cumulative effect of change in accounting principle	(14,677)	(117)	(15,935)	(1,144)
Equity in net earnings (loss) of affiliated companies	109	304	177	(418)
Income (loss) before cumulative effect of change in accounting principle	(14,568)	187	(15,758)	(1,562)
Cumulative effect of change in accounting principle, net of tax				(1,785)
Net income (loss)	\$ (14,568)	\$ 187	\$ (15,758)	\$ (3,347)
Net earnings (loss) per share:				
Basic				
Earnings (loss) before cumulative effect of change in accounting principle	\$ (1.07)	\$ 0.01	\$ (1.16)	\$ (0.12)
Cumulative effect of change in accounting principle	\$	\$	\$	\$ (0.13)
Basic earnings (loss) per share	\$ (1.07)	\$ 0.01	\$ (1.16)	\$ (0.25)
Diluted				
Earnings (loss) before cumulative effect of change in accounting principle	\$ (1.07)	\$ 0.01	\$ (1.16)	\$ (0.12)
Cumulative effect of change in accounting principle	\$	\$	\$	\$ (0.13)
Diluted earnings (loss) per share	\$ (1.07)	\$ 0.01	\$ (1.16)	\$ (0.25)
Weighted average shares outstanding				
Basic	13,607	13,497	13,587	13,490
Diluted	13,607	13,781	13,587	13,490

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ADE CORPORATION

CONDENSED CONSOLIDATED STATEMENT OF CASH FLOWS

(in thousands, unaudited)

	Six months ended October 31,	
	2001	2000
Cash flows from operating activities:		
Net loss	\$ (15,758)	\$ (3,347)
Adjustments to reconcile net loss to net cash provided by (used in) operating activities:		
Depreciation and amortization	2,835	3,292
Deferred income taxes	10,590	
Equity in net earnings (loss) of affiliated companies, net of dividends received	(68)	482
Cumulative effect of change in accounting principle		1,785
Changes in assets and liabilities:		
Accounts receivable, net	5,181	(7,643)
Inventories	4,466	(5,820)
Prepaid expenses and other current assets	(11)	(711)
Accounts payable	(955)	2,379
Accrued expenses and other current liabilities	(3,559)	6,979
Deferred income on sales to affiliate	777	828
Net cash provided by (used in) operating activities	3,498	(1,776)
Cash flows from investing activities:		
Purchases of fixed assets	(2,096)	(931)
Change in restricted cash	100	30
Advances to affiliated company		(449)
(Increase) decrease in other assets	182	(22)
Net cash used in investing activities	(1,814)	(1,372)
Cash flows from financing activities:		
Repayment of long-term debt	(298)	(291)
Proceeds from issuance of common stock	621	432
Net cash provided by financing activities	323	141
Net increase (decrease) in cash and cash equivalents	2,007	(3,007)
Cash and cash equivalents, beginning of period	29,220	35,001
Cash and cash equivalents, end of period	\$ 31,227	\$ 31,994

The accompanying notes are an integral part of these unaudited condensed consolidated financial statements.

ADE CORPORATION

NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Preparation

The accompanying unaudited condensed consolidated financial statements of ADE Corporation (the "Company") include, in the opinion of management, all adjustments (consisting only of normal and recurring adjustments) necessary for a fair statement of the Company's financial position, results of operations and cash flows at the dates and for the periods indicated. Results of operations for interim periods are not necessarily indicative of those to be achieved for full fiscal years.

Pursuant to accounting requirements of the Securities and Exchange Commission applicable to quarterly reports on Form 10-Q, the accompanying unaudited condensed consolidated financial statements and these notes do not include all disclosures required by generally accepted accounting principles for complete financial statements. Accordingly, these statements should be read in conjunction with the financial statements included in the Company's Annual Report on Form 10-K for the fiscal year ended April 30, 2001.

2. Change in Accounting Principle

In December 1999, the SEC issued Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 101 summarizes certain areas of the Staff's views in applying generally accepted accounting principles to revenue recognition in financial statements. Historically, for some of the Company's sales transactions, a portion of the sales price, usually 10%, was not due until installation occurs and the customer accepts the product. Under SAB 101 and the new accounting method adopted retroactive to May 1, 2000, the Company now defers recognition of the portion of the sales price not due until the customer has accepted the product. Effective during the first quarter of the year ended April 30, 2001, the Company implemented the SEC's SAB 101 guidelines, which was reported as a cumulative effect of a change in accounting principle as of May 1, 2000. The cumulative effect of the change in accounting principle resulted in a charge to income of \$1.8 million (net of income taxes of \$0), or \$0.13 per share, in the first quarter of fiscal 2001. The results for the three and six months ended October 31, 2000 have been adjusted to reflect the adoption of SAB 101.

3. Comprehensive Income (Loss)

Comprehensive income (loss) was as follows:

	Three months ended		Six months ended	
	October 31, 2001	October 31, 2000	October 31, 2001	October 31, 2000
	(in thousands)		(in thousands)	
Net income (loss)	\$ (14,568)	\$ 187	\$ (15,758)	\$ (3,347)
Other comprehensive income loss:				
Unrealized loss on marketable securities, net of \$0 tax	(304)		(275)	
Other comprehensive loss	(304)		(275)	
Comprehensive income (loss)	\$ (14,872)	\$ 187	\$ (16,033)	\$ (3,347)

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4. Inventories

Inventories consist of the following:

	October 31, 2001	April 30, 2001
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	October 31, 2001	April 30, 2001
	(unaudited)	
	(in thousands)	
Raw materials and purchased parts	\$ 15,436	\$ 16,910
Work-in-process	15,782	18,749
Finished goods	3,341	3,366
	<u>\$ 34,559</u>	<u>\$ 39,025</u>

5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities consist of the following:

	October 31, 2001	April 30, 2001
	(unaudited)	
	(in thousands)	
Accrued salaries, wages and vacation pay	\$ 2,310	\$ 2,342
Accrued commissions	2,055	1,341
Accrued warranty costs	1,670	1,899
Deferred revenue	9,075	11,655
Other	2,465	3,897
	<u>\$ 17,575</u>	<u>\$ 21,134</u>

6. Earnings (Loss) Per Share

Basic and diluted earnings (loss) per share is computed by dividing income (loss) available to common stockholders by the weighted average number of common shares outstanding for the period. For the three months ended October 31, 2001 and 2000, respectively, 735,450 and 144,200 common shares issuable upon the exercise of stock options have been excluded from the computation of diluted earnings per share, as their effect would have been antidilutive. For the six months ended October 31, 2001 and 2000, respectively, 524,690 and 150,240 common shares issuable upon the exercise of stock options have been excluded from the computation of diluted earnings per share, as their effect would have been antidilutive. For the three months ended October 31, 2001 and the six months ended October 31, 2001 and 2000, respectively, basic and diluted loss per share is the same due to the antidilutive effect of potential common shares outstanding.

7. Segment Reporting

The Company has three reportable segments: ADE Semiconductor Systems Group ("SSG"), ADE Phase Shift ("PST") and ADE Technologies ("ATI"). SSG manufactures and markets metrology and inspection systems to the semiconductor wafer and device manufacturing industries that are used to improve yield and capital productivity. Sales of the Company's stand-alone software products and software consulting services are also included in the SSG segment. PST manufactures and markets high performance, non-contact surface metrology equipment using advanced interferometric technology that

provides enhanced yield management to the data storage, semiconductor and optics industries. ATI manufactures and markets high precision magnetic characterization and non-contact dimensional metrology gaging systems primarily to the data storage industry.

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The Company's reportable segments are determined based upon the nature of the products, the external customers and customer industries and the sales and distribution methods used to market the products. The Company evaluates performance based upon profit or loss from operations. The Company does not measure the assets allocated to the segments. Management fees representing certain services provided by corporate offices have been allocated to each of the reportable segments based upon the usage of those services by each segment. Additionally, other income (loss), the provision for (benefit from) income taxes and the equity in net earnings (loss) of affiliated companies are not included in segment profitability.

	SSG	PST	ATI	Total
(in thousands)				
For the quarter ended October 31, 2001				
Revenue from external customers	\$ 17,142	\$ 2,590	\$ 1,947	\$ 21,679
Intersegment revenue	199		212	411
Loss from operations	(3,410)	(344)	(461)	(4,215)
Depreciation and amortization expense	1,195	94	57	1,346
Capital expenditures	1,139		17	1,156
For the quarter ended October 31, 2000				
Revenue from external customers	\$ 19,071	\$ 1,883	\$ 2,326	\$ 23,280
Intersegment revenue	11		211	222
Income (loss) from operations	440	(483)	(444)	(487)
Depreciation and amortization expense	1,306	63	102	1,471
Capital expenditures	301	61	57	419
	SSG	PST	ATI	Total
(in thousands)				
For the six months ended October 31, 2001				
Revenue from external customers	\$ 36,699	\$ 3,744	\$ 3,683	\$ 44,126
Intersegment revenue	397		515	912
Loss from operations	(4,946)	(1,625)	(777)	(7,348)
Depreciation and amortization expense	2,533	189	113	2,835
Capital expenditures	1,959	49	88	2,096
For the six months ended October 31, 2000				
Revenue from external customers	\$ 37,845	\$ 3,124	\$ 5,380	\$ 46,349
Intersegment revenue	288		342	630
Income (loss) from operations	205	(870)	(425)	(1,090)
Depreciation and amortization expense	2,952	127	213	3,292
Capital expenditures	773	88	70	931

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The following is a reconciliation for the above items where aggregate reportable segment amounts differ from amounts contained in the Company's consolidated financial statements.

	Three months ended October 31,		Six months ended October 31,	
	2001	2000	2001	2000
Total external revenue for reportable segments	\$ 21,679	\$ 23,280	\$ 44,126	\$ 46,349
Net impact of revenue recognition on sales to affiliate	231	391	3,155	(1,291)

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	Three months ended October 31,		Six months ended October 31,	
Total consolidated revenue	\$ 21,910	\$ 23,671	\$ 47,281	\$ 45,058
Total operating loss for reportable segments	\$ (4,215)	\$ (487)	\$ (7,348)	\$ (1,090)
Net impact of intercompany gross profit eliminations and deferred profit on sales to affiliate	88	108	1,658	(655)
Total consolidated operating loss	\$ (4,127)	\$ (379)	\$ (5,690)	\$ (1,745)

8. New Accounting Pronouncements

In July 2001, the FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 requires that all business combinations be accounted for under the purchase method only and that certain acquired intangible assets in a business combination be recognized as assets apart from goodwill. SFAS No. 142 requires that ratable amortization of goodwill be replaced with periodic tests of the goodwill's impairment and that intangible assets other than goodwill be amortized over their useful lives. SFAS No. 141 is effective for all business combinations initiated after June 30, 2001 and for all business combinations accounted for by the purchase method for which the date of acquisition is after June 30, 2001. The provisions of SFAS No. 142 will be effective for fiscal years beginning after December 15, 2001, and will thus be adopted by the Company, as required, in fiscal year 2003. The Company is currently assessing the impact of SFAS No. 141 and SFAS No. 142 on its consolidated financial position and results of operations and has not yet determined the impact of this adoption.

In October 2001, the Financial Accounting Standards Board issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" effective January 1, 2002. SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of" and provides a single accounting model for long-lived assets to be disposed of. The Company is currently assessing the impact of this new statement on its consolidated financial position and results of operations and has not yet determined the impact of this adoption.

9. Income Taxes

The Company has deferred tax assets, which have arisen primarily as a result of operating losses incurred in prior years, as well as other temporary differences between book and tax accounting. Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes," requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. As a result of current year operating losses to date, anticipated additional operating losses for the third quarter of 2002, an expected operating loss for fiscal 2002, and uncertainty as to the extent and timing of profitability in future periods, the Company recorded an additional valuation allowance to reserve

the remaining deferred tax assets during the three months ended October 31, 2001, resulting in income tax expense of \$10.6 million. As of October 31, 2001 the company has a full valuation allowance. As of October 31, 2001, the Company has available unused operating loss carryforwards, which may be applied against future taxable income.

10. Pending Litigation

On October 12, 2000, the Company filed a patent infringement lawsuit against KLA-Tencor (KLA), a competitor, in the U.S. District Court in Delaware. The Company seeks damages and a permanent injunction against further infringement of United States Patent Number 6,118,525, entitled "Wafer Inspection System for Distinguishing Pits and Particles." On November 22, 2000, KLA filed a counterclaim in the United States District Court in Delaware alleging that ADE has infringed three patents owned by KLA. KLA is seeking damages for the alleged patent infringement and a permanent injunction against future infringement. In addition, KLA has asked the District Court for a declaration that United States Patent Number 6,118,525, owned by ADE, is invalid and not infringed by KLA. At this time, the Company cannot predict the outcome or the amount of gain or loss, if any.

ADE CORPORATION

**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS**

Introduction

ADE Corporation (the "Company") designs, manufactures, markets and services highly precise, automated measurement, defect detection and handling equipment with current applications in the production of semiconductor wafers, semiconductor devices and computer disks.

The following information should be read in conjunction with the unaudited condensed consolidated financial statements and notes thereto included in this Quarterly Report and the audited consolidated financial statements and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in the Company's Annual Report on Form 10-K for the fiscal year ended April 30, 2001.

Forward-Looking Statements

This quarterly report on Form 10-Q contains certain forward-looking statements that are subject to known and unknown risks and uncertainties that could cause actual results to differ materially from those expressed by such statements. Those statements that make reference to the Company's expectations, predictions and anticipations should be considered forward-looking statements. These statements include, but are not limited to, risks and uncertainties associated with the strength of the semiconductor and hard disk markets, wafer pricing and wafer demand, the results of its product development efforts, the success of ADE's product offerings to meet customer needs within the timeframes required by customers in these markets, further increases in backlog, our visibility and the Company's predictions of future financial outcomes. Further information on potential factors that could affect ADE Corporation's business is described in "Other Risks" appearing at the end of this Management's Discussion and Analysis of Financial Condition and Results of Operations and in the Company's reports on file with the Securities and Exchange Commission, including its Form 10-K for the fiscal year ended April 30, 2001.

Results of Operations

Three Months Ended October 31, 2001 compared to Three Months Ended October 31, 2000

Revenue. Revenue decreased 7% to \$21.9 million in the second quarter of fiscal 2002 from \$23.7 million in the second quarter of fiscal 2001. Decreased sales of the Company's products in the Semiconductor Systems Group ("SSG") segment reflected a decrease in demand for capital equipment in the semiconductor wafer and device industries as a result of the current severe down cycle. The decrease in revenue in the SSG segment was somewhat offset by an increase in revenue from the ADE Phase Shift ("PST") segment due to industry acceptance and the related shipments of PST's NanoMapper tool. Wafer manufacturer's capital equipment purchases have been focused on advanced industry requirements rather than on capacity expansion, which resulted in technology purchases of the Company's next generation of products. For the three months ended October 31, 2001, 84% of the Company's revenue was derived from the semiconductor industry compared to 88% for the year earlier period. The Company sells its semiconductor products to both wafer and device manufacturers. Historically, the Company's semiconductor revenue has been derived to a greater extent from wafer manufacturers compared to device manufacturers. For the three months ended October 31, 2001, 81% of semiconductor revenue was derived from wafer manufacturers while 19% was derived from device manufacturers compared to 73% and 27%, respectively, for the year earlier period. An increase in short-term chip demand or increases in semiconductor market capital expenditures is expected to

impact device manufacturers prior to wafer manufacturers as wafer manufacturers are further down on the overall semiconductor industry supply chain.

The data storage industry has continued to experience extreme pricing pressure, consolidation and excess supply in many data storage market segments, which has resulted in reduced production and capital equipment purchases. Consequently, revenues in each of the metrology product lines that are marketed to the data storage industry by the Company's ADE Technologies ("ATI") segment have decreased in the second quarter of fiscal 2002 compared with the year earlier period. Data storage industry revenue comprised 16% of total revenue for the three months ended October 31, 2001, compared to 12% for the year earlier period.

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Gross Margin. Gross margin decreased to 37% in the second quarter of fiscal 2002 from 49% in the second quarter of fiscal 2001. The decrease in gross margin was due primarily to the higher volume of shipments of 300mm products in the SSG segment, which carry lower margins in their initial stages than the Company's legacy products. The Company expects these lower margins to continue in the short term due to expected shipments of newer technologies. Also contributing to the decrease in gross margins was a decline in factory utilization during the second quarter of fiscal 2002 due to the decrease in demand for the Company's products. The decrease in gross margins at the SSG and ATI segments was somewhat offset by an increase in the gross margin of the PST segment.

Research and Development. Research and development expense increased \$785,000, or 15%, to \$6.0 million in the second quarter of fiscal 2002 from \$5.2 million in the second quarter of 2001 and increased as a percentage of revenue to 27% compared to 22% in the second quarter of fiscal 2001. The increase in expense resulted primarily from continued investment by the SSG segment to develop its Advanced Flatness System ("AFS") and Advanced Wafer Inspection System ("AWIS") to capitalize on the next wave of worldwide capital spending, which is expected to be focused on 300mm wafer production. Also contributing to the overall increase was an increased investment in research and development at the PST segment. The Company also continues to develop new products for the data storage industry, including those that measure the magnetic properties of materials used in manufacturing disk drives. The Company is committed to continuing its investment in research and development to maintain its position as a technological leader, which may necessitate continued research and development spending at or above current levels.

Marketing and Sales. Marketing and sales expense decreased \$733,000, or 17%, to \$3.6 million in the second quarter of fiscal 2002 from \$4.3 million in the second quarter of 2001 and decreased as a percentage of revenue to 16% from 18% in the second quarter of fiscal 2001. The decreased expense resulted primarily from decreased commissions expense on sales made through internal and external sales representatives. The mix of sales channels through which the Company's products are sold may have a significant impact on the Company's marketing and sales expense and the results in any period may not be indicative of marketing and sales expense for future periods. Also contributing to the decrease in expense was decreased travel and tradeshow expenses during the second quarter of fiscal 2002. The decrease in marketing and sales expense as a percentage of revenue resulted from the decrease in expense during the second quarter of fiscal 2002, partially offset by the decrease in revenue as discussed above.

General and Administrative. General and administrative expense increased \$172,000 or 7% to \$2.8 million in the second quarter of fiscal 2002 from \$2.6 million in the second quarter of fiscal 2001 and increased as a percentage of revenue to 13% from 11% in the second quarter of 2001. Expenses

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increased primarily due to an increase in legal expenses, which was partially offset by a decrease in recruiting and consulting expenses.

Interest and Other Income, Net. Net interest and other income was \$48,000 in the second quarter of fiscal 2002 compared to net interest and other income of \$326,000 in the second quarter of fiscal 2001. The decrease in interest and other income resulted primarily from lower interest returns due to lower interest rates during the second quarter of fiscal 2002 compared to the year earlier period.

Income Taxes. There was a provision for income taxes of \$10.6 million in the second quarter of fiscal 2002 compared to a provision for income taxes of \$64,000 in the second quarter of fiscal 2001. The provision for income taxes in the second quarter of fiscal 2002 consists of an increase in the valuation allowance against the Company's deferred tax assets. The Company has deferred tax assets, which have arisen primarily as a result of operating losses incurred in prior years, as well as other temporary differences between book and tax accounting. Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes," requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. As a result of current year operating losses to date, anticipated additional operating losses for the third quarter of 2002, an expected operating loss for fiscal 2002, and uncertainty as to the extent and timing of profitability in future periods, the Company recorded an additional valuation allowance to reserve the remaining deferred tax assets during the three months ended October 31, 2001, resulting in income tax expense of \$10.6 million. As of October 31, 2001 the Company has a full valuation allowance. As of October 31, 2001, the Company has available unused operating loss carryforwards, which may be applied against future taxable income.

Equity in Net Earnings (Loss) of Affiliated Companies. Equity in net earnings of affiliated companies was \$109,000 in the second quarter of fiscal 2002 compared to equity in earnings of affiliated companies of \$304,000 in the second quarter of fiscal 2001. The Company's Japanese affiliate sells primarily to the semiconductor industry and the current period earnings reflect the timing of shipments and the recognition of revenue by the affiliate.

Six Months Ended October 31, 2001 compared to Six Months Ended October 31, 2000

Revenue. Revenue increased 5% to \$47.3 million in the six months ended October 31, 2001 from \$45.1 million in the year earlier period. Increased sales of the Company's products in the Semiconductor Systems Group ("SSG") and ADE Phase Shift ("PST") segments reflected a

higher level of demand for capital equipment in the semiconductor wafer industry during the six months ended October 31, 2001, which was somewhat offset by a decline in demand in the semiconductor device industry. Also contributing to the increase in revenue was the industry acceptance and the related shipments of the PST segment's NanoMapper tool. Currently, the semiconductor industry is in the midst of a severe down cycle. As a result, wafer manufacturers' capital equipment purchases have focused on advanced industry requirements rather than capacity expansion, which has resulted in technology purchases of the Company's next generation of products. For the six months ended October 31, 2001 and 2000, 86% of the Company's revenue was derived from the semiconductor industry. The Company sells its semiconductor products to both wafer and device manufacturers. Historically, the Company's semiconductor revenue has been derived to a greater extent from wafer manufacturers compared to device manufacturers. For the six months ended October 31, 2001, 87% of semiconductor revenue was derived from wafer manufacturers while 13% was derived from device manufacturers compared to 79% and 21%, respectively, for the year earlier period. An increase in short-term chip demand or increases in semiconductor market capital expenditures is expected to

impact device manufacturers prior to wafer manufacturers as wafer manufacturers are further down on the overall semiconductor industry supply chain.

The data storage industry has been experiencing extreme pricing pressure, consolidation and excess supply in many data storage market segments, which has resulted in reduced production and capital equipment purchases. Consequently, revenues in each of the metrology product lines that are marketed to the data storage industry by the Company's ADE Technologies ("ATI") segment have decreased in the six months ended October 31, 2001 compared with the year earlier period. Data storage industry revenue comprised 14% of total revenue for the six months ended October 31, 2001 and 2000.

Gross Margin. Gross margin decreased to 39% in the six months ended October 31, 2001 from 49% in the year earlier period. The decrease in gross margin was due primarily to the higher volume of shipments of 300mm products in the SSG segment, which carry lower margins in their initial stages than the Company's legacy products. The Company expects these lower margins to continue in the short term due to expected shipments of newer technologies. Also contributing to the decrease in gross margins was a decline in factory utilization during the second quarter of fiscal 2002 in all of the Company's segments.

Research and Development. Research and development expense increased \$1.7 million, or 17%, to \$12.1 million in the six months ended October 31, 2001 from \$10.3 million in the year earlier period and increased as a percentage of revenue at 26% compared to 23% in the year earlier period. The increase in expense resulted primarily from continued investment by the SSG segment to develop its AFS and AWIS products to capitalize on the next wave of worldwide capital spending, which is expected to be focused on 300mm wafer production. Also contributing to the overall increase was continued investment in research and development at the PST segment. The Company also continues to develop new products for the data storage industry, including those that measure the magnetic properties of materials used in manufacturing disk drives. The Company is committed to continuing its investment in research and development to maintain its position as a technological leader, which may necessitate continued research and development spending at or above current levels.

Marketing and Sales. Marketing and sales expense decreased \$1.4 million, or 16%, to \$7.1 million in the six months ended October 31, 2001 from \$8.5 million in the year earlier period and decreased as a percentage of revenue to 15% from 19% in the year earlier period. The decreased expense resulted primarily from decreased commissions expense on sales made through external sales representatives. The mix of sales channels through which the Company's products are sold may have a significant impact on the Company's marketing and sales expense and the results in any period may not be indicative of marketing and sales expense for future periods. Also contributing to the decrease in expense was decreased payroll expense as well as a decrease in travel and tradeshow expenses during the six months ended October 31, 2001. The decrease in marketing and sales expense as a percentage of revenue resulted both from the increase in revenue and the decrease in expense during the six months ended October 31, 2001 as discussed above.

General and Administrative. General and administrative expense increased \$257,000 or 5% to \$5.1 million in the six months ended October 31, 2001 from \$4.9 million in the year earlier period and remained consistent as a percentage of revenue at 11% compared to the year earlier period. Expenses increased due primarily to an increase in payroll and legal expenses offset by a decrease in recruiting and consulting expenses.

Interest and Other Income, Net. Net interest and other income was \$360,000 in the six months ended October 31, 2001 compared to net interest and other income of \$665,000 in the year earlier period. The decrease in interest and other income resulted primarily from lower interest returns due to lower interest rates during the six months ended October 31, 2001 compared to the year earlier period.

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Income Taxes. There was a provision for income taxes of \$10.6 million in the six months ended October 31, 2001 compared to a provision for income taxes of \$64,000 in the year earlier period. The provision for income taxes in the six months ended October 31, 2001 consists of an increase in the valuation allowance against the Company's deferred tax assets. The Company has deferred tax assets, which have arisen primarily as a result of operating losses incurred in prior years, as well as other temporary differences between book and tax accounting. Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes," requires the establishment of a valuation allowance to reflect the likelihood of the realization of deferred tax assets. As a result of current year operating losses to date, anticipated additional operating losses for the third quarter of 2002, an expected operating loss for fiscal 2002, and uncertainty as to the extent and timing of profitability in future periods, the Company recorded an additional valuation allowance to reserve the remaining deferred tax assets during the six months ended October 31, 2001, resulting in income tax expense of \$10.6 million. As of October 31, 2001 the Company has a full valuation allowance. As of October 31, 2001, the Company has available unused operating loss carryforwards, which may be applied against future taxable income.

Equity in Net Earnings (Loss) of Affiliated Companies. Equity in net earnings of affiliated companies was \$177,000 in the six months ended October 31, 2001 compared to equity in net loss of affiliated companies of \$418,000 in the year earlier period. The net earnings from affiliated companies in the six months ended October 31, 2001 compared to the loss in the year earlier period was due primarily to the absence of the losses incurred by the Company's former affiliate, Microspec, which was sold during the first quarter of fiscal 2001. The Company's Japanese affiliate sells primarily to the semiconductor industry and the current period earnings reflect the timing of shipments and the recognition of revenue by the affiliate.

Liquidity and Capital Resources

At October 31, 2001, the Company had \$31.2 million in cash and cash equivalents and \$61.3 million in working capital. In addition, the Company had \$3.4 million in restricted cash used as security for a tax-exempt Industrial Development Bond issued through the Massachusetts Industrial Finance Agency in December 1997. Under the terms of the bond agreement, the Company may substitute a letter of credit in an amount equal to approximately 105% of the outstanding principal balance as collateral for the Company's obligations under the IDB, assuming the Company has the ability to borrow under a credit facility. Such actions would allow the restricted cash balance to be used for general corporate purposes.

Cash provided by operating activities for the six months ended October 31, 2001 was \$3.5 million. This amount resulted from net loss of \$15.8 million adjusted for non-cash charges of \$13.3 million and a \$5.9 million net decrease in working capital accounts. Non-cash items consisted primarily of a deferred income tax charge of \$10.6 million and \$2.8 million of depreciation and amortization. Working capital items consisted primarily of decreases in accounts receivable of \$5.2 million, inventories of \$4.5 million, accounts payable of \$1.0 million and accrued expenses and other current liabilities of \$3.6 million, which were offset by an increase in deferred income on sales to affiliate of \$0.8 million. The decrease in accounts receivable was due to improved collections in the first six months of fiscal

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2002. The decrease in inventory was due to the high volume of shipments during the first six months of fiscal 2002 as well as a decrease in the purchase of raw materials. The decrease in accounts payable was due to the timing of payments and the decrease in inventory purchases. The decrease in accrued expenses and other current liabilities was primarily due to the decrease in deferred revenue and other accrued expenses. The increase in deferred income on sales to affiliate is due to the timing of shipments and revenue recognition by the Company's Japanese affiliate.

Cash used in investing activities was \$1.8 million, and consisted primarily of \$2.1 million for purchases of fixed assets, which was partially offset by a combined decrease in other assets and restricted cash of \$282,000.

Cash provided by financing activities was \$323,000, which consisted of \$621,000 of aggregate proceeds from the issuance of common stock from the exercise of stock options and stock purchased through the employee stock purchase plan, partially offset by \$298,000 in repayments of long-term debt.

The Company expects to meet its near-term working capital needs and capital expenditures primarily through cash generated from operations and its available cash and cash equivalents.

Other Risk Factors

Capital expenditures by semiconductor wafer and device manufacturers historically have been cyclical as they in turn depend upon the current and anticipated demand for integrated circuits. While the semiconductor industry is in the midst of a severe down cycle, it is not clear when semiconductor wafer manufacturers, who account for approximately 75% of the Company's revenue, will be in a position to increase their purchases of capital equipment. The data storage industry has been in a period of oversupply and excess manufacturing capacity for an extended period of time and this has also had an adverse impact on the Company. At October 31, 2001, the Company's backlog was \$33.3 million. The

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Company remains uncertain about when sustained growth in revenue will return. The Company continues to evaluate its cost structure relative to expected revenue and will continue to implement aggressive cost containment measures where necessary.

Furthermore, the Company's success is dependent upon supplying technologically superior products to the marketplace at appropriate times to satisfy customer needs. Product development requires substantial investment and is subject to technological risks. Delays or difficulties in product development or market acceptance of newly developed products could adversely affect the future performance of the Company.

Change in Accounting Principle

In December 1999, the SEC issued Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements" ("SAB 101"). SAB 101 summarizes certain areas of the Staff's views in applying generally accepted accounting principles to revenue recognition in financial statements. Historically, for some of the Company's sales transactions, a portion of the sales price, usually 10%, was not due until installation occurs and the customer accepts the product. Under SAB 101 and the new accounting method adopted retroactive to May 1, 2000, the Company now defers recognition of the portion of the sales price not due until the customer has accepted the product. Effective during the first quarter of the year ended April 30, 2001, the Company implemented the SEC's SAB 101 guidelines, which was reported as a cumulative effect of a change in accounting principle as of May 1, 2000. The cumulative effect of the change in accounting principle resulted in a charge to income of \$1.8 million (net of income taxes of \$0), or \$0.13 per share, in the first quarter of fiscal 2001. The results for the three and six months ended October 31, 2000 have been adjusted to reflect the adoption of SAB 101.

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New Accounting Pronouncements

In July 2001, the FASB issued SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 141 requires that all business combinations be accounted for under the purchase method only and that certain acquired intangible assets in a business combination be recognized as assets apart from goodwill. SFAS No. 142 requires that ratable amortization of goodwill be replaced with periodic tests of the goodwill's impairment and that intangible assets other than goodwill be amortized over their useful lives. SFAS No. 141 is effective for all business combinations initiated after June 30, 2001 and for all business combinations accounted for by the purchase method for which the date of acquisition is after June 30, 2001. The provisions of SFAS No. 142 will be effective for fiscal years beginning after December 15, 2001, and will thus be adopted by the Company, as required, in fiscal year 2003. The Company is currently assessing the impact of SFAS No. 141 and SFAS No. 142 on its consolidated financial position and results of operations and has not yet determined the impact of this adoption.

In October 2001, the Financial Accounting Standards Board issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" effective January 1, 2002. SFAS No. 144 supersedes SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of" and provides a single accounting model for long-lived assets to be disposed of. The Company is currently assessing the impact of this new statement on its consolidated financial position and results of operations and has not yet determined the impact of this adoption.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

There were no material changes in the Company's exposure to market risk from April 30, 2001.

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PART II.

OTHER INFORMATION

Item 1. Legal Proceedings:

On October 12, 2000, the Company filed a patent infringement lawsuit against KLA-Tencor (KLA), a competitor, in the U.S. District Court in Delaware. The Company seeks damages and a permanent injunction against further infringement upon United States Patent Number 6,118,525, entitled "Wafer Inspection System for Distinguishing Pits and Particles." On November 22, 2000, KLA filed a counterclaim in the United States

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District Court in Delaware that ADE has infringed upon three patents owned by KLA. KLA is seeking damages for patent infringement and a permanent injunction against any future infringement activity. In addition, KLA has asked the District Court for a declaration that United States Patent Number 6,118,525, owned by ADE, is invalid and not infringed upon by KLA. At this time, the Company cannot predict the outcome or the amount of gain or loss, if any.

Item 2. Changes in Securities:

None

Item 3. Defaults Upon Senior Securities:

None

Item 4. Submission of Matters to a Vote of Security Holders:

The Annual Meeting of Stockholders was held on September 20, 2001. The stockholders voted on the following matters:

1. Election of Directors

Nominee	For	Against
Robert C. Abbe	11,137,855	607,330
Harris Clay	11,735,840	9,345
Landon T. Clay	11,735,840	9,345
H. Kimball Faulkner	11,733,440	9,345
Chris L. Koliopoulos	11,737,390	7,795
Francis B. Lothrop, Jr.	11,732,840	9,945
Kendall Wright	11,735,440	9,745

There were no abstentions and 1,855,876 broker non-votes with respect to this matter.

2. Proposal to fix the size of the Board of Directors at seven.

For	Against	Abstain
10,706,657	1,024,120	10,096

There were 1,860,188 broker non-votes with respect to this matter.

3. Appointment of PricewaterhouseCoopers LLP as the Company's independent public accountants for the fiscal year ending April 30, 2002.

For	Against	Abstain
11,730,137	6,836	3,900

There were 1,860,188 broker non-votes with respect to this matter.

Item 5. Other Information:

None

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Item 6. Exhibits and Reports on Form 8-K:

- a. See Exhibit Index, Page 21
- b. Reports on Form 8-K
None

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

ADE CORPORATION

Date: December 14, 2001

/s/ BRIAN C. JAMES

Brian C. James
*Executive Vice President, Treasurer and
Chief Financial Officer*

Date: December 14, 2001

/s/ ROBERT C. ABBE

Robert C. Abbe
President and Chief Executive Officer

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EXHIBIT INDEX

Exhibit Number	Description
2.1	Agreement and Plan of Merger dated as of February 27, 1997 by and between ADE Corporation, ADE Technologies, Inc., Digital Measurement Systems, Inc., Dennis E. Speliotis, Elias Speliotis, Evanthia Speliotis, Ismene Speliotis, Advanced Development Corporation, David C. Bono and Alan Sliski (filed as Exhibit 10.18 to the Company's Form 10-K for the fiscal year ended April 30, 1997 and incorporated herein by reference).
2.2	Agreement and Plan of Merger dated as of May 31, 1998 by and among ADE Corporation, Theta Acquisition Corp., Phase Shift Technology, Inc., Chris Koliopoulos and David Basila (filed as Exhibit 2 to the Company's Form 8-K dated June 25, 1998 and incorporated herein by reference).
2.3	Purchase and Sale Agreement dated as of February 28, 1997 by and between ADE Corporation and Dennis E. Speliotis, individually and as Trustee of Thouria Investment Trust under a Declaration of Trust dated August 18, 1992, Elias Speliotis,

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Exhibit Number	Description
	Evanthia Speliotis and Ismene Speliotis (filed as Exhibit 10.20 to the Company's Form 10-K for the fiscal year ended April 30, 1997 and incorporated herein by reference).
3.1	Restated Articles of Organization (filed as Exhibit 3.1 to the Company's Registration Statement on Form S-1 (33-96408) or amendments thereto and incorporated herein by reference).
3.2	By-laws (filed as Exhibit 3.2 to the Company's Registration Statement on Form S-1 (33-96408) or amendments thereto and incorporated herein by reference).
4.1	Registration Rights Agreement dated as of February 28, 1997 by and between ADE Corporation and Dennis E. Speliotis, individually and as Trustee of Thouria Investment Trust under a Declaration of Trust dated August 18, 1992 recorded in the Middlesex South District Registry of Deeds at Book 22305, Page 375 filed as Exhibit 10.21 to the Company's Form 10-K for the fiscal year ended April 30, 1997 and incorporated herein by reference).
4.2	Registration Rights Agreement dated as of February 27, 1997, by and among ADE Corporation and Advanced Development Corporation, David C. Bono and Alan Sliski (filed as Exhibit 10.19 to the Company's Form 10-K for the fiscal year ended April 30, 1997 and incorporated herein by reference).
4.3	Registration Rights Agreement dated as of May 31, 1998 by and among ADE Corporation, Chris Koliopoulos and David Basila (filed as Exhibit 4.6 to the Company's Form 8-K dated June 25, 1998 and incorporated herein by reference).
10.1	Form of Employee Confidentiality Agreement (filed as Exhibit 10.1 to the Company's Registration Statement on Form S-1 (333-96408) or amendments thereto and incorporated herein by reference).
10.2	2000 Stock Option Plan (filed as Exhibit A to the Company's Proxy Statement with respect to its Annual Meeting of Shareholders for the fiscal year ended April 30, 2000 and incorporated herein by reference).*
10.3	1997 Stock Option Plan (filed as Exhibit 4.3 to the Company's Registration Statement on Form S-8 (333-46505) or amendments thereto and incorporated herein by reference). *
10.4	Amendment to 1997 Stock Option Plan dated April 7, 1999 (filed as Exhibit 10.3 to the Company's Form 10-K for the fiscal year ended April 30, 1999 and incorporated herein by reference). *
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10.5	1995 Stock Option Plan (filed as Exhibit 10.4 to the Company's Registration Statement on Form S-1 (33-96408) or amendments thereto and incorporated herein by reference).*
10.6	1992 Stock Option Plan (filed as Exhibit 10.5 to the Company's Registration Statement on Form S-1 (33-96408) or amendments thereto and incorporated herein by reference).*
10.7	Amendment to 1992 Stock Option Plan dated April 7, 1999 (filed as Exhibit 10.6 to the Company's Form 10-K for the fiscal year ended April 30, 1999 and incorporated herein by reference). *
10.8	1982 Stock Option Plan (filed as Exhibit 4.5 to the Company's Registration Statement on Form S-8 (333-2280) and incorporated herein by reference).*
10.9	Employee Stock Purchase Plan (as amended) (filed herewith).*
10.11	Purchase and Sale Agreement for 80 Wilson Way, Westwood, Massachusetts, dated January 11, 1996, between Met Path New England, Inc., and the Company, with Schedules (filed as Exhibit 10.12 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
10.12	Loan Agreement dated as of June 7, 1996, among GE Capital Public Finance, Inc., Massachusetts Industrial Finance Agency and the Company (filed as Exhibit 10.9 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
10.13	Certificate as to Nonarbitrage and Tax Compliance, dated as of June 7, 1996, from the Company to Massachusetts Industrial Finance Agency (filed as Exhibit 10.10 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and

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incorporated herein by reference).

- 10.14 Letter of Credit Agreement, dated June 7, 1996, between Citizens Bank of Massachusetts and the Company (filed as Exhibit 10.11 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
- 10.15 Mortgage, Security Agreement, and Assignment, dated June 7, 1996, from the Company to Citizens Bank of Massachusetts (filed as Exhibit 10.13 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
- 10.16 Pledge Agreement, dated June 7, 1996, from the Company to Citizens Bank of Massachusetts (filed as Exhibit 10.14 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
- 10.17 Oil and Hazardous Materials Indemnification Agreement, dated June 7, 1996, between the Company and Citizens Bank of Massachusetts (filed as Exhibit 10.15 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
- 10.18 Indemnification Agreement, dated as of February 28, 1996, among MetPath of New England, Inc., Corning Life Sciences, Inc. and the Company (filed as Exhibit 10.16 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
- 10.19 Letter Agreement regarding collateral assignment of Indemnification from the Company to Citizens Bank of Massachusetts, with attachment, (filed as Exhibit 10.17 to the Company's Form 10-K for the fiscal year ended April 30, 1996 and incorporated herein by reference).
- 10.20 Noncompetition Agreement dated as of May 31, 1998 by and between ADE Corporation and Chris Koliopoulos (filed as Exhibit 10.21 to the Company's Form 10-K for the fiscal year ended April 30, 1998, and incorporated herein by reference).

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- 10.21 Noncompetition Agreement dated as of May 31, 1998 by and between ADE Corporation and David Basila (filed as Exhibit 10.22 to the Company's Form 10-K for the fiscal year ended April 30, 1998, and incorporated herein by reference).
- 21.1 Subsidiaries of the Company (filed as Exhibit 21.1 to the Company's Form 10-Q for the quarter ended October 31, 2000 and incorporated herein by reference).
- 23.1 Consent of PricewaterhouseCoopers LLP (filed as exhibit 23.1 to the Company's Form 10-K for the fiscal year ended April 30, 2001 and incorporated herein by reference).

*

Compensatory plan or agreement applicable to management and employees.

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