

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 the quarterly period ended June 30, 2002, or

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

For the transition period from NA to NA.

Commission File Number 0-16106

APA OPTICS, INC.

(Exact name of Registrant as specified in its charter)

MINNESOTA
(State or other jurisdiction of incorporation or organization)

41-1347235
(I.R.S. Employer Identification No.)

2950 N.E. 84TH LANE, BLAINE, MINNESOTA 55449
(Address of principal executive offices and zip code)

(763) 784-4995
(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 the filing requirement for the past 90 days.

Yes No

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

Class:	Outstanding at July 19, 2002
Common stock, par value \$.01	11,875,131

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PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

APA OPTICS, INC.
CONDENSED BALANCE SHEETS

	June 30, 2002	March 31, 2002
<S>	<C>	<C>
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 30,121,157	\$ 31,606,403
Accounts receivable	48,320	20,613
Inventories:		
Raw materials	14,932	21,448
Work-in-process & finished goods	-	18,627
Prepaid expenses	65,267	103,588
Bond reserve funds	18,750	70,000
TOTAL CURRENT ASSETS	30,268,426	31,840,679
PROPERTY, PLANT AND EQUIPMENT, NET	3,647,813	3,748,004
OTHER ASSETS	764,800	807,727
TOTAL ASSETS	\$ 34,681,039	\$ 36,396,410

LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT LIABILITIES:		
Current portion of long-term debt	\$ 1,589,697	\$ 1,996,345
Accounts payable	70,403	127,926
Accrued expenses	307,886	302,204

TOTAL CURRENT LIABILITIES	1,967,986	2,426,475
LONG-TERM DEBT	449,015	465,018
COMMITMENTS AND CONTINGENCIES	-	-
SHAREHOLDERS' EQUITY:		
Undesignated shares; 4,999,500 shares authorized - none issued	-	-
Common stock, \$.01 par value:		
Authorized - 50,000,000		
Issued and outstanding shares:		
11,875,131 shares on June 30, 2002 and 11,875,881 shares on March 31, 2002	118,751	118,759
Paid-in-capital	51,590,308	51,578,185
Deficit	(19,445,021)	(18,192,027)
TOTAL SHAREHOLDERS' EQUITY	32,264,038	33,504,917
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY	\$ 34,681,039	\$ 36,396,410

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APA OPTICS, INC.
CONDENSED STATEMENTS OF OPERATIONS

	Three Months Ended June 30	
	2002	2001
<S>	<C>	<C>
REVENUES	\$ 72,451	\$ 434,335
COSTS AND EXPENSES:		
Cost of sales	753,720	942,853
Research and development	355,712	182,593
Selling, general and administrative	321,579	436,615
	1,431,011	1,562,061
LOSS FROM OPERATIONS	(1,358,560)	(1,127,726)
OTHER INCOME (EXPENSE):		
Interest income	133,092	519,589
Interest expense	(27,276)	(35,925)
	105,816	483,664
LOSS BEFORE INCOME TAXES	(1,252,744)	(644,062)
INCOME TAXES	(250)	(1,000)
NET LOSS	\$ (1,252,994)	\$ (645,062)
NET LOSS PER SHARE:		
Basic and diluted	\$ (0.11)	\$ (0.05)
WEIGHTED AVERAGE SHARES OUTSTANDING:		
Basic and diluted	11,875,840	11,917,291

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APA OPTICS, INC.
CONDENSED STATEMENTS OF CASH FLOWS

Three Months Ended

	June 30	
	2002	2001
<S>	<C>	<C>
OPERATING ACTIVITIES:		
Net loss	\$ (1,252,994)	\$ (645,062)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	156,551	146,578
Deferred compensation expense	13,402	14,392
Changes in operating assets and liabilities:		
Accounts receivable	(27,707)	61,544
Inventories	25,143	11,472
Prepaid expenses	38,321	11,096
Accounts payable and accrued expenses	(51,841)	(401,513)
Other	42,927	(4,438)
Net cash used in operating activities	(1,056,198)	(805,931)
INVESTING ACTIVITIES:		
Purchases of property and equipment	(56,360)	(446,203)
Proceeds from the sale of short-term investments	-	15,759,000
Net cash used in investing activities	(56,360)	15,312,797
FINANCING ACTIVITIES:		
Proceeds from the sale of common stock	-	24,433
Payment of long-term debt	(422,651)	(335,036)
Repurchase of common stock	(1,287)	-
Bond reserve funds	51,250	47,500
Net cash provided by (used in) financing activities	(372,688)	(263,103)
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	(1,485,246)	14,243,763
CASH AND CASH EQUIVALENTS, beginning of period	31,606,403	21,225,492
CASH AND CASH EQUIVALENTS, end of period	\$30,121,157	\$35,469,255

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NOTES TO CONDENSED FINANCIAL STATEMENTS

NOTE 1. BASIS OF PRESENTATION

The accompanying condensed financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission. Accordingly, they do not include all of the information and footnotes required by generally accepted accounting principles for complete financial statements. For further information, refer to the financial statements and accompanying footnotes included in the Company's annual report on Form 10-K for the year ended March 31, 2002. This report is accessible through the Company's web site at www.apaoptics.com under "Investor Relations," on the Securities and Exchange Commission's web site at www.sec.gov, or you may request a copy directly from the Company at the address listed on the front of this report.

In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included.

NOTE 2. NET LOSS PER SHARE

The following table sets forth the computation of basic and diluted net loss per share:

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	Three Months Ended June 30	
	2002	2001
<S>	<C>	<C>

Numerator:
Numerator for basic and diluted
net loss per share-loss available

to common shareholders	\$ (1,252,994)	\$ (645,062)
	=====	=====
Denominator for basic and diluted net loss per share-weighted- average shares	11,875,840	11,917,291
	=====	=====
Basic and diluted net loss per share	\$ (0.11)	\$ (0.05)
	=====	=====

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Basic net loss per share is computed by dividing net loss by the weighted average number of common shares outstanding. Diluted net loss per share is computed by dividing net loss by the weighted average number of common shares and common share equivalents related to stock options and warrants, when dilutive.

Common stock options and warrants to purchase 775,872 and 333,175 shares of common stock with a weighted average exercise price of \$9.01 and \$14.80 were outstanding on June 30, 2002 and June 30, 2001 respectively. These warrants and options were excluded in calculating the diluted net loss per share because they were antidilutive.

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ITEM 2. MANAGEMENT'S DISCUSSION
AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS

Some of the statements contained in this report on Form 10-Q that are not purely historical are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including, without limitations, statements regarding the Company's expectations, hopes, beliefs, anticipations, commitments, intentions and strategies regarding the future. Forward-looking statements include, but are not limited to, statements contained in "Management's Discussion and Analysis of Financial Condition and Results of Operations." Actual results could differ from those projected in any forward-looking statements for the reasons, among others, detailed under "Factors That May Affect Future Results" in this Report. We believe that many of the risks detailed in this Report are part of doing business in the industries in which we compete and will likely be present in all periods reported. The fact that certain risks are characteristic of an industry does not lessen the significance of the risk. The forward-looking statements are made as of the date of this Form 10-Q. We assume no obligation to update the forward-looking statements or to update the reasons why actual results could differ from those projected in the forward-looking statements.

OVERVIEW

We are engaged in designing, manufacturing, and marketing various optical components (primarily dense wavelength multiplexer / demultiplexers or "DWDMs"), ultraviolet (UV) detection and measurement devices, and optical components. For several years, we also received significant revenues from research and development services projects sponsored by various government agencies. In fiscal 1998, we shifted our emphasis from research and development to product development, with the intent to eventually manufacture and market our own proprietary products.

We received no revenues from government sponsored research in fiscal 2001 or in fiscal 2002 and do not expect any revenues from this source in fiscal 2003, however, one of our research and development areas, Gallium Nitride (GaN) based transistors, has drawn significant attention from various government agencies over the past few years. We may seek future involvement in government sponsored research projects that are closely related to our internal development efforts to capitalize on the synergies the two activities generate; but our primary focus will remain the commercialization of products based on this research.

Two of our GaN based products, the TRUVMETER™ and the SunUVWatch(R), have required extended engineering and prototyping phases that have resulted in delays in their full rollout to the market. Recent efforts to resolve these issues appear to be successful and we currently expect both of these products to be released before the end of our third fiscal quarter on December 31, 2002.

Most companies in the communications equipment industry have been affected by the slowdown in telecommunications equipment spending. Continued weakness in the general economy, and the telecom sector in particular, has resulted in downward pressure on DWDM component pricing, margins and profits. While we have recently seen a limited increase in requests for quotes for DWDM components, we do not know if or when demand will return to levels allowing profitable production of the components.

In response to these market conditions, we are seeking to expand our optical components product offering through both internally developed and externally sourced products. We are also aggressively seeking lower cost components and more efficient assembly processes to reduce the manufacturing costs of our DWDM products. We have identified multiple sources for lower costs components and complementary products and expect to see some initial benefits of these efforts in the current fiscal year. We intend to utilize our experience in core technologies upon which various fiber optic components are based, our understanding of our customers' needs, our own products, our relationships with suppliers, and our experience in developing solutions to industry problems to develop future business opportunities in this arena.

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RESULTS OF OPERATIONS

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REVENUES

Revenues for the three-month period ended June 30, 2002, were \$72,451, reflecting an 83% decrease compared to the same period in the preceding fiscal year. The majority of the decrease occurred in sales of DWDM components that totaled \$415,031 for the first quarter of fiscal 2002 compared to \$45,790 for the first quarter of fiscal 2003. The slowdown in the telecommunications market has significantly reduced demand for this type of component. It is unclear at this time when demand for these components will return. Moreover, decline in the average selling prices of DWDM components will require increased units sales in order to achieve previous levels of revenue.

COST OF SALES

Cost of sales decreased \$189,133 for the three-month period ended June 30, 2002 to \$753,720, reflecting a 20% decrease compared to the same period in the preceding fiscal year. The decrease in the cost of sales was related to decreased sales and the realignment of our work force in November of 2001, which reduced the number of employees in the production area. Gross margins for sales were negative in both periods. The fluctuation in cost of sales and the negative gross margins are influenced by the low unit production and sales levels relative to the capital equipment and personnel committed to production of our DWDM products. We expect to continue to experience negative gross margins until there is a significant increase in sales volume and production levels.

RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses increased by \$173,119 from the three-month period ended June 30, 2001, to \$355,712 for the three-month period ended June 30, 2002. This represents an increase of 95%. The increase is the result of the addition of personnel and equipment as we increase our development efforts, particularly with respect to GaN based transistors. We plan to further expand our research and product development activities and expect to incur increased expenses related to these activities in the future.

SELLING, GENERAL AND ADMINISTRATIVE

Selling, general and administrative expenses decreased \$115,036 for the three-month period ended June 30, 2002, to \$321,579 reflecting a 26% decrease from the three-month period ended June 30, 2001. The decrease was primarily due to a decrease in personnel as a result of our realignment in November of 2001.

OTHER INCOME AND EXPENSE

Other income decreased \$377,848 for the three-month period ended June 30, 2002 to \$105,816, from the comparable period in the preceding fiscal year. The decrease was due to a decline in interest income that resulted from a combination of a decline in interest rates on short-term securities and a decline in cash invested as a result of the use of cash in operations and for capital expenditures. We expect to generate less interest income in fiscal 2003 compared to the prior fiscal year.

LIQUIDITY AND CAPITAL RESOURCES

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APA's cash and cash equivalents primarily consist of certificates of deposits, US Government instruments or commercial paper with maturities of less than three months. The balance of cash and cash equivalents at June 30, 2002 is \$30,121,157 compared to \$31,606,403 at March 31, 2002.

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We used \$1,056,198 in operating activities for the three months ended June 30, 2002, compared to \$805,931 for the comparable period in the preceding fiscal year. Our use of cash in operations was primarily the result of our net loss and was partially offset by non-cash charges such as depreciation, amortization and non-cash compensation to employees.

We used net cash of \$56,360 in investing activities in the three months ended June 30, 2002, all of which was used for the purchase of property and equipment additions. Investing activities provided \$15,312,797 of cash in the comparable period of the preceding fiscal year. Our limited use of cash for investing activities in the first quarter of the current fiscal year reflects our decision to delay capital expenditures and conserve cash in response to the slowdown in capital expenditures by telecommunication companies. The significant cash provided by investing activities in the preceding fiscal year was primarily the result of short-term investments maturing and investment of the proceeds in instruments that were classified as cash.

Net cash used in financing activities in the three months ended June 30, 2002 totaled \$372,688. We used \$422,651 for the scheduled reduction of debt. The reduction of bond reserve funds provided \$51,250 of cash. We used \$1,287 to repurchase 750 shares of common stock during the quarter at an average of \$1.70 per share.

Our principal source of liquidity is our cash of \$30,121,157. We believe our current cash is sufficient to fund our operations for at least the next 12 months. However, we may also consider the acquisition of, or investment in, products or businesses complementary to our business. Any such acquisition or investment could require additional capital. Additionally, these activities could require the early retirement of our debt. We cannot provide any assurance that we will not seek additional capital through public or private equity or debt financing within this timeframe or that this additional capital, if necessary, will be available to us at all or on acceptable terms.

Our contractual obligations and commitments are summarized in the table below:

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	Total	Less than 1 Year	1-3 years	4-5 years	After 5 years
<S>	<C>	<C>	<C>	<C>	<C>
Long-term debt	\$2,039,000	\$1,806,000	\$ 53,000	\$ 35,000	\$145,000
Operating leases	274,000	110,000	161,000	3,000	-
Total Contractual Cash Obligations	\$2,313,000	\$1,916,000	\$ 214,000	\$ 38,000	\$145,000

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Application of Critical Accounting Policies

We have reviewed our use of estimates in applying our accounting policies and determined that significant changes in our various estimates would not have a material impact on the presentation of our financial condition, changes in financial condition or results of operations. Accordingly, we do not consider any of our estimates to be "critical estimates" as defined in the rules of the Securities and Exchange Commission. See Note A of Notes to Financial Statements under Item 8 of our Report on Form 10-K for descriptions of the use of estimates in our accounting policies. Our management and the audit committee of our board of directors have discussed our use of estimates and have approved our disclosure relating to it in this report.

In April 2002, SFAS 144, "Accounting for the Impairment or Disposal of Long-Lived Assets" became effective for our company. SFAS 144 clarifies the guidance used to measure impairment and clarifies the accounting for disposals of long-lived assets. We have reviewed the effect of this Statement on our financial statements and do not believe our adoption of the Statement has had or will have a significant impact on our financial statements.

FACTORS THAT MAY INFLUENCE FUTURE RESULTS

Unless we significantly increase our revenues, our increasing expenses and negative cash flow will significantly harm our financial position.

We have not been profitable since fiscal 1990. As of June 30, 2002, we had an accumulated deficit of \$19.4 million. We expect to incur operating losses for the foreseeable future, and these losses may be substantial. Further, we may continue to incur negative operating cash flow in the future. We have funded our operations primarily through the sale of equity securities and borrowings. We have significant fixed expenses and we expect to continue to incur significant and increasing manufacturing, sales and marketing, product development and administrative expenses. As a result, we will need to generate significantly higher revenues while containing costs and operating expenses if we are to achieve profitability.

Declining average selling prices for our DWDM products will require us to reduce

production costs to effectively compete and market these products.

Since the time we first introduced our DWDM components to the marketplace, we have seen the average selling price of this type of component decline. We expect this trend to continue. To achieve profitability in this environment, we must continually decrease our costs of production. In order to reduce our production costs, we will continue to pursue one or more of the following:

- Seek lower cost suppliers of raw materials, components, or assemblies within the United States, or internationally;
- Work to further automate our assembly process; or
- Develop and/or source value-added components.

We will also seek to form strategic alliances with companies that can supply these components or services. Decreases in average selling prices also require that we increase unit sales to maintain or increase our revenue. Our efforts to increase revenues could include:

- Expansion of our product offerings, both through internally developed and externally sourced products; and
- Expansion of both domestic and international marketing efforts.

There can be no guarantee that we will achieve these objectives or goals. Our inability to significantly decrease production costs or increase our unit sales could seriously harm our business, financial condition and results of operations.

Our SunUVWatch(R) personal ultraviolet monitor is a relatively new consumer product concept that may be adopted more slowly than projected.

The SunUVWatch(R) is an innovative product that helps consumers monitor and plan their exposure to the UV radiation in sunlight. Personal UV monitoring is a relatively new concept for consumers. Adoption and widespread use of the product by consumers could take a substantial period of time and may not ever achieve levels of acceptance necessary to make commercial production viable. In addition, creation of brand identity and consumer awareness requires the commitment of substantial capital and could divert resources from our development efforts. Even if we are successful in developing a market for the SunUVWatch(R), large consumer product manufacturers with strong name brand identity could develop competing devices resulting in declining average selling prices and increased marketing costs for this type of product. Moreover, we have limited experience in designing for, and marketing to, the retail consumer market.

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We have limited experience in the development, manufacturing, marketing and distribution of products internationally.

If our effort to reduce the development and manufacturing costs of our products and/or seek more international customers requires the expansion of offshore subcontracting or the establishment of facilities outside of the United States, we will be subject to inherent risks, including, without limitation:

- Reduced protection of intellectual property rights in foreign countries in which we may choose to operate;
- Difficulties in attracting, training and retaining qualified staff;
- Political and economic instability, terrorism or war;
- The increased burden of complying with foreign laws and tax structures; and
- Risks associated with fluctuations in the value of foreign currencies.

Demand for our products is subject to significant fluctuation. Market conditions in the telecommunications market in particular may harm our financial condition.

Demand for our optical components is dependent on several factors including capital expenditures in the telecommunications industry. Capital expenditures can be cyclical in nature and there may be protracted periods of reduced demand for component parts. Similarly, periods of slow economic expansion or recession can result in periods of reduced demand for our products. The current economic slowdown has hit the telecommunications market particularly hard, resulting in a significant reduction in capital expenditures for products such as our DWDMs. It is impossible to predict how long the slowdown will last. Such periods of reduced demand harm our business, financial condition and results of operations.

We must increase our manufacturing capacity or we will not be able to deliver our products to our customers in a timely manner.

Manufacturing of our products is a complex and precise process. We have limited experience in rapidly increasing our manufacturing capacity or in manufacturing products at high volumes. We will be required to hire, train and manage additional manufacturing personnel and improve our production processes in order to increase our production capacity. There are numerous risks associated with rapidly increasing capacity, including:

- Difficulties in achieving adequate yields from new manufacturing lines;
- Difficulty maintaining the precision manufacturing processes required by our products while increasing capacity;
- The inability to timely procure and install the necessary equipment;
- The lack of availability of qualified manufacturing personnel; and
- The inability to timely procure outsourced components.

Our manufacturing expansion and related capital expenditures have been or are being made in anticipation of a level of customer orders that have not and may not be realized. If anticipated levels of customer orders are not received, we will not be able to generate positive gross margins and profitability. Our dependence on outside manufacturers may result in product delivery delays.

We purchase components that are incorporated into our products from outside vendors. If these vendors fail to supply us with components on a timely basis, we could experience significant delays in shipping our products. Any significant interruption in the supply or support of any components could seriously harm our sales and our relationships with our customers.

Our products may have defects that are not detected before delivery to our customers.

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Some of our products are designed to be deployed in large and complex optical networks and must be compatible with other components of the system, both current and future. In addition, our products may not operate as expected over long periods of time. Our customers may discover errors or defects in our products only after they have been fully deployed. If we are unable to fix errors or other problems, we could lose customers, lose revenues, suffer damage to our brand and reputation, and lose our ability to attract new customers or achieve market acceptance. Each of these factors would negatively impact cash flow and would seriously harm our business, financial condition and results of operations.

We must introduce new products and product enhancements to increase revenue.

The successful operation of our business depends on our ability to anticipate market needs and to develop and introduce new products and product enhancements that respond to technological changes or evolving industry standards on a timely and cost-effective basis. Our products are complex, and new products may take longer and/or cost more to develop than originally anticipated. These products may contain defects or have unacceptable manufacturing yields when first introduced or as new versions are released. Our products could quickly become obsolete as new technologies are introduced. We must continue to develop new products and introduce them to the commercial market quickly in order to be successful. Our failure to produce technologically competitive products in a cost-effective manner and on a timely basis will seriously harm our business, financial condition and results of operations.

Our markets are characterized by rapid technological changes and evolving standards.

The markets we serve are characterized by rapid technological change, frequent new product introductions, changes in customer requirements and evolving industry standards. In developing our products, we have made, and will continue to make, assumptions with respect to which standards will be adopted within our industry. If the standards that are actually adopted are different from those that we have chosen to support, our products may not achieve significant market acceptance.

Our products may infringe on the intellectual property rights of others.

Our products are sophisticated and rely on complicated manufacturing processes. We have received several patents on certain aspects of our design and manufacturing processes and we have applied for several more. Third parties may still assert claims that our products or processes unlawfully utilize their intellectual property. Defense against these claims, even if they lack merit, may be time consuming, result in expensive litigation and divert management attention from operational matters. If such a claim was successful, we could be prevented from manufacturing or selling our current products, we could be forced to redesign our products, or we could be required to license the relevant intellectual property at a significant cost. Any of these actions could harm our business, financial condition or results of operations.

We may be required to litigate to enforce and protect our intellectual property rights.

Litigation against persons who infringe our intellectual property rights could be expensive and may divert management resources from operating the Company. Even if we prevail in such litigation, the costs incurred may adversely affect us.

Acquisitions or investments could have an adverse effect on our business.

As part of our strategy to expand our product offerings, develop internal sources of components and materials, and acquire new technologies, we periodically review acquisition and investment prospects. There are inherent risks associated with making acquisitions and investments, including but not limited to:

- Challenges associated with integrating the operations, personnel, etc., of an acquired company;
- Potentially dilutive issuances of equity securities;
- Reduced cash balances and/or increased debt and debt service costs;
- Large one-time write-offs of intangible assets;
- Risks associated with geographic or business markets different than those we are familiar with; and
- Diversion of management attention from current responsibilities.

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ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES
ABOUT MARKET RISK.

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. We invest in short-term securities of high credit issuers with maturities ranging from overnight up to 24 months. The average maturity of the portfolio does not exceed 12 months. The portfolio includes only marketable securities with active secondary or resale markets to ensure liquidity. We have no investments denominated in foreign country currencies and, therefore, our investments are not subject to foreign exchange risk. See "Cash and Equivalents" and "Short-term Investments" in Note A of Notes to Financial Statements included under Item 8 of our Report on Form 10-K for the fiscal year ended March 31, 2002.

PART II

ITEMS 1 THROUGH 6 NOT APPLICABLE

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.

APA OPTICS, INC.

8/1/02

/s/ Anil K. Jain

Date

Anil K. Jain
President and
Chief Executive Officer

8/1/02

/s/ Robert M. Ringstad

Date

Robert M. Ringstad
Chief Financial Officer

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