[TEXT]

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

X Quarterly report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the quarterly period ended June 30, 1999 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 0-16106

APA Optics, Inc.
(exact name of Registrant as specified in its charter)

Minnesota
41-1347235
(State or other jurisdiction of
(I.R.S. Employer Identification No.)
incorporation or organization)

2950 N.E. 84th Lane, Blaine, Minnesota 55449
(Address of principal executive offices and zip code)

Registrant's telephone number, including area code:
(612) 784-4995

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 X 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 June 30, 1999
Common stock, par value $.01
8,512,274

Page 2 of 8
<TABLE>
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PART 1, FINANCIAL INFORMATION

ITEM 1, FINANCIAL STATEMENTS

APA OPTICS, INC.
CONDENSED BALANCE SHEETS

ASSETS	June 30, 1999	March 31, 1999
<S>	<C>	<C>
CURRENT ASSETS:	(Unaudited)	(Audited) *

Cash and short-term investments	$ 1,912,833	$2,812,849
Accounts receivable	88,851	85,091
Inventories:		
Raw materials	78,715	54,208
Work-in-process & finished goods	175,258	167,659
Prepaid expenses	16,509	18,911
Bond reserve funds	16,250	60,000
TOTAL CURRENT ASSETS	2,288,416	3,198,718
PROPERTY AND EQUIPMENT NET	2,553,994	2,592,503
OTHER ASSETS	991,435	1,013,755
	$ 5,833,845	$ 6,804,976
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Current portion of long-term debt	$ 133,200	$ 133,200
Accounts payable	75,363	53,416
Accrued expenses	158,688	147,553
TOTAL CURRENT LIABILITIES	367,251	334,169
LONG-TERM DEBT	2,993,889	3,081,512
SHAREHOLDERS' EQUITY		
Undesignated shares; 5,000,00 shares authorized; none issued	---	---
Common stock, $.01 par value; 15,000,000 shares authorized; 8,512,274 & 8,512,274 issued	85,123	85,123
Paid-in capital	9,700,258	9,700,258
Retained earnings (deficit)	(7,312,676)	(6,396,086)
	2,472,705	3,389,295
	$ 5,833,845	$ 6,804,976

</TABLE>
*Derived from audited financial statements

<TABLE>
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APA OPTICS, INC.
CONDENSED STATEMENTS OF OPERATIONS
(UNAUDITED)

	Three months ended June 30	
	1999	1998
<S>	<C>	<C>
REVENUES	$ 66,597	$ 248,557
COSTS AND EXPENSES:		
Cost of sales and services	651,260	524,519

Selling, general & administrative	209,860	132,417
Research & development	118,112	91,003
	979,232	747,939
Gain/loss from operations:	(912,635)	(499,382)
INTEREST INCOME & EXPENSE:		
Interest Income	32,213	66,913
Interest Expense	(35,918)	(45,676)
	(3,705)	21,237
Loss before income taxes	(916,340)	(478,145)
Income taxes	250	0
Net loss	$ (916,590)	$ (478,145)
Net loss per share		
Basic and diluted	$ (.11)	$ (.06)
Weighted average shares outstanding		
Basic and diluted	8,512,274	8,512,274

</TABLE>

APA OPTICS, INC.
CONDENSED STATEMENTS OF CASH FLOWS
(UNAUDITED)

<TABLE>
<CAPTION>

Three Months Ended

June 30,

1999 1998

<S> <C> <C>

	1999	1998
OPERATING ACTIVITIES		
Net income (loss)	$ (916,590)	$ (478,145)
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	109,545	109,251
Changes in operating assets and liabilities:		
Accounts receivable	(3,760)	32,963
Inventories and prepaid expenses	14,046	442
Accounts payable and accrued expenses	33,082	13,759
Other	(2,375)	(8,341)
Net cash used in operating activities	(766,052)	(330,071)
INVESTING ACTIVITIES		
(Purchases) Sales of property and equipment	(47,036)	(46,122)
Net cash used in investing activities		

	(47,036)	(46,122)
FINANCING ACTIVITIES		
Repayment of Long Term Debt	(87,623)	(77,061)
Bond reserve funds	695	17,155
Net cash used in financing activities	(86,928)	(59,906)
decrease in cash	(900,016)	(436,099)
Cash at Beginning of Period	2,812,849	5,184,215
Cash at End of Period	$ 1,912,833	$ 4,748,116

</TABLE>

NOTE TO CONDENSED FINANCIAL STATEMENTS

1. In the opinion of management, the information furnished reflects all adjustments which are necessary to a fair statement of the results of the interim periods presented. All adjustments were of a normal recurring nature. The results of any interim period are not necessarily indicative of results for the full year.

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

General

The Company is engaged in the business of designing, manufacturing, and marketing optical components and various optoelectronic products. For the last several years the Company's goal has been to manufacture and market products/components based on its technology developments. The Company selected two product areas: dense wavelength division multiplexer (DWDM) components for fiber optic communications and gallium nitride-based ultraviolet (UV) detectors (both components and integrated detector/electronic/display packages.) These areas were selected due to significant potential markets and the Company's expertise and/or patent positions.

In order to perform product development and production, the Company must devote its personnel and facilities to that effort. For several years, the Company received significant revenues from providing research and development services in connection with projects sponsored by various government agencies. In fiscal 1998, the Company determined to shift its emphasis from research and development to product development, realizing that this shift would significantly reduce revenues and increase losses until the Company realized revenues from its products. If the Company is successful in manufacturing and marketing these products, the Company expects to significantly increase its revenues and achieve profitability. Although the Company has purchased a significant amount of equipment in recent fiscal years, it will still need additional equipment as well as additional personnel to meet its objectives.

Results of Operations

Operating revenues for the first quarter of fiscal year 2000, ended June 30, 1999, were $66,597, a decrease of 73% from operating revenues of $248,557 for the same period in the prior year. The decrease in revenues reflects the Company's decision to focus on product development rather than contract research and development. Sales of new products in fiscal 1999 were minimal; however, the Company believes it has made significant progress in developing its new products and the related manufacturing process and that revenues from sales of such products will increase in fiscal 2000.

Cost of sales increased by approximately 24% to $651,260, in first quarter 2000 from $524,519 in first quarter 1999. Gross margin for sales was negative in both periods, reflecting continued personnel and product development costs. This deterioration is the result of decreased contract revenues. Research and development expenses increased by approximately 30% in first quarter 2000, to $118,112 from $91,003, and selling, general and administrative expenses increased by 58% to $209,860 compared to $132,417 in first quarter 1999. The increase in costs of sales, research and development and selling, general

and administrative expenses reflects the Company's focus on product development, including the hiring of additional personnel for production, marketing, and sales.

The Company reported a loss from operations for the first quarter of fiscal 2000 of $912,635, a substantial increase over the loss from operations of $499,362 in the first quarter of the prior year. This loss results from the combination of significantly decreased revenues without a corresponding decrease in costs and expenses.

The Company realized $32,213 in interest income for the first quarter of fiscal 2000, down 52% from $66,913 in the prior period, reflecting lower average cash balances during the year. Interest expenses in first quarter 2000 totaled $35,918, down 21% from $45,676 in the prior period, reflecting reduced balances on outstanding obligations.

Liquidity and Capital Resources:

The Company's cash and equivalents balance at June 30, 1999 is $1,912,833 as compared to $2, 812,849 at March 31, 1999. This reduction primarily results from the use of $766,052 net cash in operating activities, of which the most significant cause was the Company's net loss of $916,590. The Company used $47,036 net cash in investing activities during the first quarter, all for purchase of property and equipment. This compares to use of net cash of $46,122 in first quarter 1999. In both periods, such property and equipment was purchased primarily for the Aberdeen facility. During the first quarter of fiscal 2000, the Company used $86,625 net cash in financing activities, primarily for repayment of debt associated with the Aberdeen facility.

In connection with the construction of the manufacturing facility in Aberdeen, the Company took advantage of certain economic incentive programs offered by the State of South Dakota and the City of Aberdeen. At June 30, 1999, the total principal outstanding on the several loans obtained in connection with these financing packages was $3,127,089. Interest on the loans ranges from 0% to 6.75%, and the loans are due between 2003 and 2016. These loans require that the Company maintain certain minimum levels of net worth and income to outstanding debt ratios. The Company was out of compliance with these covenants in fiscal 1999. Such noncompliance does not constitute an event of default but triggers further covenants under the loan agreement, with which the Company was in compliance at June 30, 1999.

The Company anticipates approximately $250,000 in capital in fiscal 2000, primarily for equipment. The funds for these purchases will come from funds available under the financing packages with the State of South Dakota and the City of Aberdeen. The Company also expects to receive reimbursement from certain bond funds for purchases of equipment made in fiscal 1999.

The Company's use of net cash in operating activities during fiscal 1999 and the first quarter of fiscal 2000 and the related decrease in its cash balance emphasizes the Company's need to increase sales in order to maintain its operations. The auditor's report on the fiscal 1999

financial statements contained a qualification as to the

Company's ability to continue as a going concern in light of its low sales and high costs. For the past several years, the Company has been working on the design and development of new optoelectronic products, in particular a dense wavelength division multiplexer and products based on Gallium Nitride technology. In order to focus on these efforts, beginning in fiscal 1998 the Company reduced its emphasis on contract research and development, resulting in significantly reduced revenues. This shift in emphasis was necessary to utilize the Company's personnel and facilities in the product development effort. The Company believes that design of the new products and the manufacturing process is now essentially complete, and it has stepped up its efforts to market these products. A marketing team hired during fiscal 1999 has identified several potential markets and customers. The Company believes that it can generate sufficient revenues from sales of these products to sustain its operations through the rest of the fiscal year. If the Company does not adequately increase revenues, it plans to decrease expenses by reducing inventory and personnel and to discontinue one or more products. In addition, the Company will investigate sources of additional capital. There can be no assurance, however, that the Company will be successful in achieving its plans or obtaining additional financing, if needed.

Year 2000 Readiness

The Company's year 2000 plan has been primarily directed toward ensuring that the Company will be able to perform critical functions, such as manufacturing, handling of all financial transactions, and maintaining integrity of other business operations, controls, financial reporting, security and other matters. The Company has engaged in an assessment of year 2000 readiness both internally and with its various business partners, including vendors and service providers. The Company has determined that substantially all software, operating systems, and accounting systems have been corrected or are year 2000 ready. Its security system and telephone systems are year 2000 compliant. The Company has contacted its various business partners to receive assurances that such entities are year 2000 ready. The Company intends to develop a contingency plan prior to the end of 1999. The cost associated with the Company's year 2000 readiness program has not been material to date and the Company expects that any future costs will also not be material and will have no adverse effect on the Company's earnings or financial position.

Forward Looking Statements

Statements in this Report with respect to future sales prospects and other matters to occur in the future are forward looking statements and are subject to uncertainties from factors, many of which are beyond the Company's control. These factors include, but are not limited to, the continued development of the Company's products, acceptance of those products by potential customers, the Company's ability to sell such products at a profitable price, the Company's readiness for year 2000, and the Company's ability to fund its operations.

ITEM 3. Quantitative and Qualitative Disclosures about Market Risk.

The Company's operations are not currently subject to market risks for interest rates, foreign rates, commodity prices or other market price risks of a material nature.

Part II

ITEM 1-5. Not Applicable

ITEM 6. Exhibits and Reports on Form 8-K.

(a) Exhibit 27: Financial Data Schedules

(b) There were no reports on Form 8-K filed during the three months ended June 30, 1999.

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.

8/13/99

/s/ Anil K. Jain

Date

Anil K. Jain

President

Principal Executive Officer

Treasurer & Principal Financial

Officer

8/13/99

/s/ Randal J. Becker

Date

Randal J. Becker

Principal Accounting Officer

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