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 September 30, 1999 or

Transition report pursuant to Section 13 or 15(d) of the Securities Exchange Act 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 checkmark 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 September 30, 1999
Common stock, par value $.01
8,823,774

<TABLE>
<CAPTION>

PART I. FINANCIAL INFORMATION

ITEM 1. Financial Statements

APA OPTICS, INC.
CONDENSED BALANCE SHEETS

ASSETS	September 30 1999	March 31 1999
<S>	<C>	<C>
CURRENT ASSETS:	(Unaudited)	(Audited) *
Cash and short-term investments	$2,097,810	$2,812,849
Accounts receivable		

	81,907	85,091
Inventories:		
Raw materials	237,271	54,208
Work-in-process & finished goods	148,607	167,659
Prepaid expenses	11,913	18,911
Bond reserve funds	32,500	60,000
TOTAL CURRENT ASSETS	2,610,008	3,198,718
PROPERTY AND EQUIPMENT, NET	2,515,511	2,592,503
OTHER ASSETS	979,982	1,013,755
	$ 6,105,501	$ 6,804,976
LIABILITIES AND SHAREHOLDERS' EQUITY		
CURRENT LIABILTIES:		
Current portion of long-term debt	$ 133,200	$ 133,200
Accounts payable	66,803	53,416
Accrued expenses	159,283	147,553
TOTAL CURRENT LIABILITIES	359,286	334,169
LONG-TERM DEBT	2,976,321	3,081,512
SHAREHOLDERS' EQUITY		
Undesignated shares; 5,000,000 shares Authorized; none issued	---	---
Common stock, $.01 par value; 15,000,000 shares authorized; 8,823,774 & 8,512,274 Issued	88,238	85,123
Paid-in-capital	10,949,843	9,700,258
Retained earnings (deficit)	(8,268,187)	(6,396,086)
	2,769,894	3,389,295
	$ 6,105,501	$ 6,804,976

</TABLE>

* Derived from audited financial statements

<TABLE>

<CAPTION>

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

	Three months ended September 30		Six months ended September 30	
	1999	1998	1999	1998
<S>	<C>	<C>	<C>	<C>
REVENUES	$ 36,029	$ 246,437	$ 102,626	$ 494,994

COSTS AND EXPENSES:				
Cost of sales and services	661,835	549,292	1,313,095	1,073,811
Selling, general & administrative	214,504	251,625	424,364	384,042
Research & development	95,022	129,629	213,134	220,632
	971,361	930,546	1,950,593	1,678,485
Gain/loss from operations:	(935,332)	(684,109)	(1,847,967)	(1,183,491)
INTEREST INCOME & EXPENSE:				
Interest income	15,744	59,526	47,957	126,439
Interest expense	(35,674)	(35,145)	(71,592)	(80,821)
	(19,930)	24,381	(23,635)	45,618
Loss before income taxes	(955,262)	(659,728)	(1,871,602)	(1,137,873)
Income taxes	250	500	500	500
Net Loss	$ (955,512)	$ (660,228)	$(1,872,102)	$(1,138,373)
Net loss per share-basic and diluted	$ (.11)	$ (.08)	$ (.22)	$ (.13)
Weighted average shares outstanding- Basic and diluted	8,522,741	8,512,274	8,517,508	8,512,274

</TABLE>

<TABLE>
<CAPTION>

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

Six Months Ended

September 30

1999 1998

OPERATING ACTIVITIES

<S> <C> <C>

Net income (loss)	$(1,872,102)	$(1,138,373)
Adjustments to reconcile net income to net cash Provided by operating activities:		
Depreciation and amortization	214,157	220,724
Changes in operating assets and liabilities:		
Accounts receivable	3,184	88,293
Inventories and prepaid expenses	(129,513)	69,344
Accounts payable and accrued expenses	25,117	68,692
Other	(10,509)	(11,833)
Net cash used in operating activities	(1,769,666)	(703,153)
INVESTING ACTIVITIES		
(Purchases) Sales of property and equipment	(89,164)	(93,241)
Net cash used in investing activities	(89,164)	(93,241)
FINANCING ACTIVITIES		
Proceeds from the sale of common stock	1,252,700	---
Repayment of long term debt	(105,191)	(324,562)
Bond reserve funds	(3,718)	132,388
Net cash (used in) provided by financing activities	1,143,791	(192,174)
Decrease in cash	(715,039)	(988,568)
Cash at Beginning of Period	2,812,849	5,184,215
Cash at End of Period	$2,097,810	$4,195,647

</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 is focused on 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), both 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:

Revenues for the second quarter and the first six months of fiscal year 2000, ended September 30, 1999, were $36,029 and $102,626, respectively, decreases of 85% and 79%, respectively, from revenues of $246,437 and $494,994 for the same periods in the prior year. The decreases in revenues reflect the Company's decision to focus on product development and reduce its emphasis on contract research and development. Although sales of new products have been minimal, the Company believes it has made significant progress in developing its new products and the related manufacturing process.

Cost of sales increased by approximately 20% and 22% to $661,835 and $1,313,095, respectively, in the second quarter and first six months of fiscal 2000 from $549,292 and $1,073,811 in the same periods of fiscal 1999. Research and development expenses decreased by 27% and 3% to $95,022 and $213,134, respectively, for the second quarter and the first six months of fiscal 2000 as compared to $129,629 and $220,632 in the same periods of the prior year. Selling, general and administrative expenses in the second quarter of fiscal 2000 decreased by 15% from $251,625 in fiscal 1999 to $214,504 and increased by 10% during the first six months of fiscal 2000, from $384,042 in fiscal 1999 to $424,364. The decrease during the second quarter reflects a large expenditure for legal fees in the second quarter of fiscal 1999, and the increase during the six months 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 second quarter and first six months of fiscal 2000 of $935,332 and $1,847,967 respectively, substantial increases over the loss from operations of $684,109 and $1,183,491 in the comparable periods of the prior year. This loss resulted from the combination of significantly decreased revenues without a corresponding decrease in costs and expenses.

The Company realized interest income of $15,744 and $47,957 respectively, during the second quarter and the first six months of fiscal 2000, down 74% and 62%, respectively, from $59,526 and $126,439 in the same periods of the prior year, reflecting lower average cash balances during fiscal 2000. Interest expense in the second quarter and the first six months of fiscal 2000 totaled $35,674 and $71,592,respectively, decreases of 2% and 11%, respectively, from $35,145 and 80,821 in the comparable prior periods.

Liquidity and Capital Resources:

The Company's cash and equivalents at September 30, 1999 is $2,097,810 as compared to $2,812,849 at March 31, 1999. This reduction primarily results from the use of $1,847,967 net cash in operating activities, of which the most significant cause was the Company's net loss of $1,872,102. The Company increased raw materials to $237,271 during the first six months of fiscal 2000 as compared to $54,208 at fiscal 1999 year end. The increase is mainly due to long lead time parts for the DWDM modulator.

The Company used $89,164 net cash in investing activities during the first six months, all for purchases of property and equipment. This compares to use of net cash of $93,241 in the first six months of fiscal 1999. In both periods, the property and equipment was purchased primarily for the Aberdeen facility.

During the first six months of fiscal 2000, the Company received $1,143,791 from financing activities, the principal portion of which was $1,252,700 from a private placement of the Company's Common Stock. The Company raised an additional $625,000 during the third quarter.

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 September 30, 1999, the total principal outstanding on the several loans obtained in connection with these financing packages was $3,109,521. 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 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 September 30, 1999.

The Company anticipates approximately $250,000 in capital expenditures 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 two quarters of fiscal 2000 and the related decrease in its cash balance emphasize the Company's need to increase sales in order to maintain 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. During September and October 1999, the Company raised approximately $1,800,000 in a private placement of its common stock. These funds should enable the Company to keep operating through fiscal year 2000. There can be no assurance, that the Company will be successful in increasing sales of its new products, 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 is in process of evaluating its voice-mail system with regards to Y2K compliance. If there are any non-compliance issues in the voice-mail, either these will be corrected or voice-mail will be discontinued until the corrections can be made. The Company has contacted its various business partners to receive assurances that such entities are year 2000 ready. 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 many factors, some 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 currency exchange rates, commodity prices or other market price risks of a material nature.

Part II

ITEMS 1, 3 and 4. Not Applicable

ITEM 2. Changes in Securities and Use of Proceeds.

The Company recently completed a private placement of its common stock, par value $.01 per share (the "Stock"). On September 28, 1999, the Company sold 310,000 shares, and on October 15, 1999 the Company sold 155,000 shares of the Stock. The shares were sold at a price of $4.375 per share, or an aggregate consideration of $2,034,375. The shares were purchased only by accredited investors and were exempt from registration pursuant to Rule 506 of Regulation D of the Securities and Exchange Commission. Broker-dealers involved in placing the Stock will receive up to 8% of the placement price of the shares, plus three-year warrants to purchase, at a price of $4.875 per share, not more than 10% of the number of shares sold.

ITEM 5. Other Information.

The Company announced that Senator Larry Pressler, who had been reelected as a director at the shareholders meeting in August 1999, has resigned as a director. Senator Pressler noted that the time required by his other professional commitments did not allow him to devote adequate attention to his duties as a director of the Company.

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 September 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.

November 9, 1999
/s/ Anil K. Jain

Date
Anil K. Jain

President

Principal Executive Officer

Treasurer & Principal Financial

Officer

November 9, 1999
/s/ Randal J. Becker

Date
Randal J. Becker

Principal Accounting Officer

<TABLE> <S> <C>

<ARTICLE> 5

<S>	<C>
<PERIOD-TYPE>	6-MOS
<FISCAL-YEAR-END>	MAR-31-2000
<PERIOD-END>	SEP-30-1999
<CASH>	2,097,810
<SECURITIES>	0
<RECEIVABLES>	81,907
<ALLOWANCES>	0
<INVENTORY>	385,878
<CURRENT-ASSETS>	2,610,008
<PP&E>	6,541,756
<DEPRECIATION>	4,026,245
<TOTAL-ASSETS>	6,105,501
<CURRENT-LIABILITIES>	359,286
<BONDS>	0
<PREFERRED-MANDATORY>	0
<PREFERRED>	0
<COMMON>	88,238
<OTHER-SE>	2,681,656
<TOTAL-LIABILITY-AND-EQUITY>	6,105,501
<SALES>	102,626
<TOTAL-REVENUES>	102,626
<CGS>	1,313,095
<TOTAL-COSTS>	1,313,095
<OTHER-EXPENSES>	637,498
<LOSS-PROVISION>	0
<INTEREST-EXPENSE>	(71,592)
<INCOME-PRETAX>	(1,871,602)
<INCOME-TAX>	500
<INCOME-CONTINUING>	(1,872,102)
<DISCONTINUED>	0
<EXTRAORDINARY>	0
<CHANGES>	0
<NET-INCOME>	(1,872,102)
<EPS-BASIC>	(.22)
<EPS-DILUTED>	(.22)

</TABLE>