

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-QSB

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

For the quarterly period ended September 30, 1996 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 small business issuer 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)

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

Indicate whether the issuer (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 issuer 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, 1996 Common stock, par value \$.01 8,304,624

PART 1, FINANCIAL INFORMATION

ITEM 1, FINANCIAL STATEMENTS

APA OPTICS, INC. CONDENSED BALANCE SHEETS

<TABLE> <CAPTION> ASSETS September 30 March 31 1996 1996 <S> <C> CURRENT ASSETS: (Unaudited) (Audited) * Cash and short-term investments \$4,499,123 \$2,256,309 Accounts receivable

824,961	406,852
Inventories:	
Raw materials	
18,385	24,806
Work-in-process & finished goods	
146,139	105,993
Costs in excess of billings on research contracts	
0	210,658
Prepaid expenses	
12,850	30,305
Bond reserve funds	
17,500	66,667
TOTAL CURRENT ASSETS	
5,518,958	3,101,590
PROPERTY AND EQUIPMENT, NET	
1,234,307	1,157,570
OTHER ASSETS	
2,835,645	497,189
\$ 9,588,910	\$ 4,756,349

LIABILITIES AND SHAREHOLDERS' EQUITY

CURRENT LIABILITIES:

Current portion of long-term debt	
\$ 152,517	\$ 100,000
Accounts payable	
59,884	112,857
Accrued expenses	
107,724	91,264
TOTAL CURRENT LIABILITIES	
320,125	304,121

LONG-TERM DEBT	
3,950,574	345,000

SHAREHOLDERS' EQUITY

Undesignated shares; 5,000,000 shares authorized; none issued

Common stock, \$.01 par value; 15,000,000 shares authorized; 8,304,624 & 7,990,000 issued	
83,046	79,900
Paid-in capital	
8,208,943	6,930,826
Retained earnings (deficit)	
(2,973,778)	(2,903,498)

5,318,211	4,107,228
\$ 9,588,910	\$ 4,756,349

</TABLE>

Derived from audited financial statements

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

<TABLE>
<CAPTION>

Three months ended	Six months ended	
September 30	September 30	
1996	1995	1996
1995		
<S>		
<C>	<C>	<C>
<C>		
REVENUES		\$
672,666	\$ 682,828	\$1,211,054
\$1,274,845		

COSTS AND EXPENSES:

Cost of sales and services

442,328	547,409	799,068
992,735		
Selling, general & administrative		
157,263	126,732	306,489
279,359		
Research & development		117,650
- ---	226,006	2,467
717,241	674,141	1,331,563
1,274,561		
Gain/Loss from Operations:		(44,575)
8,687	(120,509)	284

INTEREST INCOME & EXPENSE:

Interest Income		
94,355	15,465	115,543
17,910		
Interest Expense		
(56,293)	(9,107)	(64,814)
(19,386)		
38,062	6,358	50,729
(1,476)		
INCOME (LOSS)		
BEFORE INCOME TAXES		(6,513)
15,045	(69,780)	(1,192)
INCOME TAX EXPENSE (BENEFIT)		
250	250	500
500		

NET INCOME (LOSS)		\$ (6,763)
\$ 14,795	\$ (70,280)	\$ (1,692)

EARNINGS (LOSS) PER COMMON & COMMON EQUIVALENT SHARE (EXHIBIT 11)		\$ (.00)
\$.00	\$ (.01)	\$ (.00)

WEIGHTED AVERAGE SHARES OUTSTANDING		8,160,736
7,623,839	8,081,197	7,482,477

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

<TABLE>
<CAPTION>

Six Months Ended

September 30

1996 1995

<S>		
<C>	<C>	
OPERATING ACTIVITIES		
Net income (loss)		
\$ (70,280)	\$ (1,692)	
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization		
219,768	215,689	
Changes in operating assets and liabilities:		
(Increase) decrease in accounts receivable		
(418,109)	(361,021)	
(Increase) decrease in inventories and prepaid expenses		
32,897	83,375	
Costs in excess of billings on research contracts		
210,658	---	

Increase (decrease) in accounts payable and accrued expenses	
16,004	(56,055)
Other	
19,682	(57,538)
Net cash provided by (used in) operating activities	
10,620	(177,242)
INVESTING ACTIVITIES	
Purchases of property and equipment	
(272,505)	(32,039)
Net cash (used in) investing activities	
(272,505)	(32,039)
FINANCING ACTIVITIES	
Proceeds from the sale of common stock	
1,281,263	1,828,101
Long-term debt proceeds	
3,722,483	---
Earnest money deposit on bond financing	
(315,000)	---
Debt placement costs	
(286,869)	---
Bond reserve funds	
(1,780,269)	---
Repayment of long-term debt	
(116,909)	(95,000)
Net cash provided by financing activities	
2,504,699	1,733,101
Increase in cash	
2,242,814	1,523,820
Cash at Beginning of Period	
2,256,309	401,034
Cash at End of Period	
\$ 4,499,123	\$ 1,924,854

</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 result of any interim period are not necessarily indicative of results for the full year.

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

Results of Operations:

Revenues for the second quarter of fiscal 1997 ended September 30, 1996 were \$672,666, a decrease of 1% from the second quarter of fiscal 1996 ended September 30, 1995. The second quarter revenues of fiscal 1997 are up 25% as compared to the first quarter of fiscal 1997 attributed to additional contract revenues. Revenues for the first two quarters of fiscal 1997 are down five percent as compared to the first two quarters of fiscal 1996. The Company continues to devote personnel toward product development associated with the Aberdeen project.

For the second quarter of fiscal 1997, the Company is reporting a loss of \$6,763 as compared to a loss of \$63,517 in the first quarter of fiscal 1997. For the first two quarters of fiscal 1997, the Company is reporting a loss of \$70,280 as compared to a loss of \$1,692 for fiscal 1996. Although the Company has an increased loss for the first six months of fiscal 1997 as compared to the first six months of fiscal 1996, the Company has increased its gross profit margin from 22% in fiscal 1996 to 34% in fiscal 1997. The main reason for the increased losses in spite of the increased gross profit margin in 1997, is the significant increase in internal research and development and administrative costs relative to the move toward product manufacturing. Research and development costs have increased from \$ 2,467 for the first six months of fiscal 1996 to \$226,006 for the first six months of fiscal 1997. The Company plans to continue these IR&D costs attributed to further

development of the WDM receiver in the following quarters.

Liquidity and Capital Resources:

The Company's cash balance at September 30, 1996 is \$4,499,123 compared to \$2,256,309 at March 31, 1996. The Company's account receivable balance has increased to \$824,961 at September 30, 1996 compared to \$406,852 at March 31, 1996. The increase in receivables is due to the delay in payment on government contracts, which will all be paid during the third quarter of fiscal 1997. The cash increase during the second quarter can be attributed to the Company completing additional financing with Aberdeen, South Dakota. The Company received an additional \$700,000 in equity financing and \$75,000 in loans during the second quarter. Following the end of the second quarter the Company began construction of the Aberdeen facility and plans to complete construction by March 1997.

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PART II. OTHER INFORMATION

ITEMS 1 - 5. Not Applicable.

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

(a) Exhibit 11: Statement RE: Computation of per share earnings.

(b) Exhibit 27: Financial Data Schedules

There were no reports on Form 8-K filed during the three months ended September 30, 1996.

Signatures

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

APA OPTICS, INC.

November 6, 1996
Anil K. Jain

Date

Anil K. Jain

President

Principal Executive Officer

Treasurer & Principal Financial

Officer

November 6, 1996
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-31-1997
<PERIOD-END>	SEP-30-1996
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<COMMON>	83,046
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<INTEREST-EXPENSE>	64,814
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</TABLE>

Exhibit 11

APA OPTICS, Inc.

Statement RE: Computation
of Per Share Earnings

months ended		Three Six months ended
September 30		September 30
1996	1995	1996
1995		
<S>		<C>
<C>	<C>	<C>
Average common		
shares outstanding		8,160,736
7,583,161	8,081,197	7,482,477
Dilutive stock options and warrants (A)		
0	40,678	0
0		
Total		
8,160,736	7,623,839	8,081,197
7,482,477		
Net income (loss)		\$
(6,763)	\$ 14,795	\$ (70,280)
\$ (1,692)		
Per share amount		
\$ (.00)	\$.00	\$ (.01)
\$ (.00)		

</TABLE>

(A) Calculated using the "treasury stock" method.