SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-KSB [X] Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 [Fee Required] For the fiscal year ended Commission File Number: March 31, 1996 0-16106

[] Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 [No Fee Required]

For the transition period from _____ to _____

APA OPTICS, INC. (exact name of registrant as specified in its charter)

Minnesota 41-1347235 (State of incorporation) (I.R.S. Employer ID No.)

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

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

Securities registered pursuant to Section 12(b) of the Act: None

Securities registered pursuant to Section 12(g) of the Act:

Common Stock, par value \$.01 per share (Title of class)

Check whether the issuer (1) filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the past 12 months and (2) has been subject to the filing requirements for the past 90 days. Yes $X = N_0$

Check if there is no disclosure of delinquent filers in response to item 405 of Regulation S-B in this form, and no disclosure will be contained to the best of issuer's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-KSB. []

The issuer's revenues for its most recent fiscal year were \$2,485,833.

The aggregate market value of the voting stock held by non-affiliates of the registrant as of May 17, 1996, was approximately \$21,870,000.

The shares of Common Stock outstanding as of May 17, 1996 were 7,990,007.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the annual report to shareholders for the fiscal year ended March 31, 1996 (the "1996 Annual Report"), are incorporated by reference into Part II. The Annual Report is filed with this report as Exhibit 13.

Portions of the proxy statement for the annual shareholders meeting to be held on August 21, 1996 ("Proxy Statement") are incorporated by reference into Part III.

PART I

Item 1. Description of Business.

(a) General Development of Business.

APA Optics, Inc. (the "Company"), a Minnesota corporation organized in 1979, is engaged in the business of developing, designing, and fabricating optical components and optical systems for laser and other industrial applications; Developing and fabricating optical coatings and thin film optical devices; Research and development of optoelectronic technology and related devices.

(b) Description of Business.

Products and Services

(i) Optical Lens Systems. The Company designs and builds multi-element lens systems and components, including mounting structures, for precision quality optical needs. Many applications such as laser industrial imaging systems and display systems require precision quality optics.

A lens is a transparent optical component, the surface of which

converges or diverges the light transmitted through it to form a real or virtual image of an object. A lens system consists of two or more lenses and is generally required for photographic and laser devices, microscopes, and telescopes. The design of a lens system involves selection of suitable optical glass and a delicate balance of various radii of lenses, lens thickness, and separation between various lenses. To accomplish these tasks, the Company uses sophisticated computer design programs, some of which it has purchased and some of which have been internally developed.

The Company has designed and built lens systems for various applications. These applications include laser-based systems, imaging systems, inspection systems, display systems, display optics, focusing optics for ultraviolet fire alarms, alignment verification optics for dual magnetic recording heads, and multi-magnification optics systems for optical comparators.

(ii) Optical Thin Film Coatings. The Company custom designs, develops, and fabricates optical thin film coatings for optical components of lasers, laser systems, optical instruments, and optical devices.

The Company uses its optical thin film coating services in two major ways. Antireflective coatings are deposited onto fabricated lens components. The Company also uses its thin film coating facility to design, develop, and fabricate coatings for lens components supplied by customers.

Applications for thin film coatings services are concentrated primarily in optical components used in lasers and laser systems. The Company provides high quality coatings to meet the delicate demands required in these systems.

(iii) Binary Optic Laser Scanner (BOLS): The BOLS provides twodimensional scanning of laser beams without any motors or rotating platforms. BOLS will find many applications due to its many unique features including compactness and ruggedness. BOLS can create multiple beams from a single input laser beam, and scan all of these in twodimensions and receive the returns from the scanned beams. Some of the potential applications include: laser radar; 3-dimensional surface profiling; on-site, non-contact inspection during manufacturing etc.

(iv) Optoelectronics Devices. The Company is focusing its research and development effort on several optoelectronics devices. Optoelectronic devices will be vital components of future communication systems and optical instruments. To foster development of fiber-optic high data rate communication systems, certain miniature lightweight modules, including amplifiers, switches, couplers, filters, and isolators, need to be created. These modules must then be integrated into microcircuit chips. Solving the problems of this technology is the current focus of the Company's development effort.

The Company is developing the following major optoelectronic devices:

Wavelength Divisional Multiplexed (WDM) Modulator

Recently, the Company demonstrated the feasibility of a WDM optical modulator-which is capable of transmitting several channels through a single optical fiber for communication applications. APA Optics developed the optical modulator (single channel) technology during the early 90's for fiber optic communication. These modulators have the capability of direct high speed (several billion bits per second) data loading and unloading on laser beams going through optical fibers, either for short distance or long distance. The WDM consists of a Gallium Arsenide material chip (fabricated using conventional semiconductor processing techniques) on which both laser beams and electrical beams can travel independently or interact with each other. This device, therefore, provides an easy way of mixing computer data, video or cable information (which are electrical in nature) with the laser beam going through the optical fiber. As a result, the modulator will be very valuable for fiber optic communication system including Local Area Networks (LANs). The WDM optical modulator, developed recently, provides a major break-through in which the information can travel on several different channels within a single fiber (A simple analogy is the expansion of a single lane highway to a multi-lane throughway). As a result, the WDM due to its multiple channels provides: higher speed, increased and regulated data handling capabilities as compared to a single channel modulator.

The Company filed a patent for WDM optical modulator in June 1994, which was allowed on May 8, 1995. The Company is building three (3) sets of WDM optical modulators for internal testing and characterization. The Company plans to build several prototype and pre-production sets prior to manufacturing of the WDM modulators.

UV Detector

The UV Detector ia a high response solid state detector based on single-crystal gallium nitride. The GaN detector is expected to have applications in spectrometry, solar radiation measurement, excimer-laser measurement and calibration, biomedical instrumentation, and flame detection and monitoring. The detector is visible blind, which allows detection of UV radiation in the presence of room lights without a filter. The company believes the GaN detector has advantages over photomultiplier tubes because of its ruggedness and chemical inertness, which suit it for application in high-vibration and harsh environments as well as hightemperature operation.

Other Products

The Company is performing contract research on at least two additional AlGaN based devices, namely: a UV/blue laser; and transistor, which may form the basis for future products.

Major Customers

Revenues from sales and contract fees to the following unrelated customers constituted more than ten percent of the Company's total operating revenues in the last two fiscal years:

Year Ended March 31,		
Name	1996	1995
Government Agencies(1)	89%	78%

(1) Represents services to several operating agencies of the U.S. Government, as follows:

	1996	1995
Navy	58%	36%
Air Force	38	55
Army	4	9
Total	100%	100%

Backlog

The Company's backlog of uncompleted contracts at March 31, 1996, was approximately \$4,000,000, about the same as the backlog at March 31, 1995. Of the current year's backlog, all contracts will be completed within the next year except for several multi-year contracts, of which approximately \$2,000,000 will be completed in the following year.

Competition

Competition in the optics fabrication business is significant. Many of the companies engaged in the business are well-financed and have significantly greater research, development, production, and marketing resources than those of the Company. The Company believes that it has a competitive advantage in the important factors of quality and performance since it has a complete facility for the development, design, and fabrication of optical systems. Also, the geographical location of the Company gives it a competitive advantage in marketing its products to companies located in the Midwest, since most of the Company's competitors are located on the East and West Coasts.

There is also significant competition for research and development

contracts for the development of optics technologies. Many potential competitors have significantly greater resources for product research and development than the Company. However, the Company believes that an early start in relatively new technologies will provide an edge in procuring various development contracts.

Research and Development

During the fiscal years ended March 31, 1996, and 1995 the Company spent approximately \$30,000 and \$228,000, respectively, on research and development sponsored by the Company. In addition, in each of those years, the Company spent approximately \$1,559,000, and \$1,125,000, respectively, on research activities sponsored by customers.

Employees

As of March 31, 1996, the Company employed 20 full-time employees and two part-time employees (including its executive officers).

Item 2. Description of Property.

The Company's offices, manufacturing facilities, and laboratories are located in an industrial building at 2950 N.E. 84th Lane, Blaine, Minnesota. The Company currently leases 23,500 square feet of space in the building under a sublease from Jain-Olsen Properties, a partnership consisting of Anil K. Jain and Kenneth A. Olsen, officers and directors of the Company. See Note 10 of Notes to Financial Statements in the 1996 Annual Report included as Exhibit 13 to this Report. The Company owns land directly west of the Company and may use it for future expansion.

Item 3. Legal Proceedings.

There are no material pending legal proceedings in which the Company is a party or of which any of its property is the subject.

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

No matter was submitted to a vote of security holders during the fourth quarter of the fiscal year covered by this report.

PART II

Item 5. Market for Common Equity and Related Stockholder Matters.

"Common Stock Information" on page 17 of the 1996 Annual Report is incorporated herein by reference.

Item 6. Management's Discussion and Analysis of Financial Condition and Results of Operations.

"Management's Discussion and Analysis of Financial Condition and Results of Operations" on page 9 of the 1996 Annual Report is incorporated herein by reference.

Item 7. Financial Statements.

The financial statements included on pages 10-16 of the 1996 Annual Report are incorporated herein by reference.

Item 8. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

PART III

Item 9. Directors, Executive Officers, Promoters, and Control Persons; Compliance with Section 16(a) of the Exchange Act.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following is a list of APA Optics, Inc. executive officers, their ages, positions and offices as of March 31, 1996.

Name Age Position Dr. Anil K. Jain 50 President and Treasurer M. Asif Khan 45 Vice President of Optoelectronic Products Kenneth A. Olsen 52 Vice President and Secretary Randal J. Becker 43 Principal Accounting Officer

BUSINESS EXPERIENCE

Dr. Anil K. Jain, has been a Director and President and Treasurer since March 1979. From 1973 until October 15, 1983, when Dr. Jain commenced full time employment with the Company, he was employed at the Systems and Research Center at Honeywell Inc. as a Senior Research Fellow, coordinating optics-related development.

M. Asif Khan has been with the Company since 1986 and has been Vice President of Optoelectronic Products since June 1989. Prior to joining the Company, he had been with 3M Corp., St. Paul, Minnesota.

Kenneth A. Olsen has been a Director since 1980, Secretary since 1983, and Vice President since 1992. Prior to joining the Company, he had been with 3M Corp., St. Paul, Minnesota.

Randal Becker has been Principal Accounting Officer since joining the Company in 1987. Prior to joining the Company he was with Apache Corporation, Minneapolis, Minnesota.

Information regarding Directors is incorporated herein by reference from the Proxy Statement.

Item 10. Executive Compensation.

Item 11. Security Ownership of Certain Beneficial Owners and Management.

Item 12. Certain Relationships and Related Transactions.

The information requested by the above items 10, 11, and 12 is included in the Proxy Statement, which is incorporated herein by reference.

Item 13. Exhibits and Reports on Form 8-K.

(a) Exhibits: See Exhibit Index on Page 9

(b) Exhibit 10.2a(ii): Amendment to Agreement of Intent and Due Diligence dated August 15, 1995.

(c) Exhibit 11: Statement RE: Computation of pershare earnings.

(d) Exhibit 13: Annual Report to Shareholders for year ended March 31, 1996.

(e) Exhibit 27: Financial Data Schedules.

No reports on Form 8-K were filed during the fourth quarter of the fiscal year ended March 31, 1996.

SIGNATURES

Registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

APA OPTICS, INC.

Date: June 21, 1996 By s/s Anil K. Jain Anil K. Jain, President

In accordance with the Exchange Act, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

s/s Anil K. Jain Anil K. Jain	President, chief executive officer, treasurer, chief financial officer, and director	June 21, 1996
s/s Kenneth A. Olsen Kenneth A. Olsen	Secretary, Vice President, and director	June 21, 1996
s/s Randal J. Becker Randal J. Becker	Principal accounting officer	June 21, 1996
s/s Lincoln Hudson Lincoln Hudson	Director	June 21, 1996

EXHIBIT INDEX

Exhibit Number	Description	Page Number or Incorporated by Reference to
3.1	Restated Articles of Incorporation, as amended to date, and Statement regarding establishment of class of shares	Exhibit 3.1 to Registrant's Report on Form 10-KSB for the fiscal year ended March 31, 1995 (the "1995 10-KSB")
3.2	Bylaws	Exhibit 3.2 to the Registration Statement on Form S-18 filed with the Chicago Regional Office of the Securities and Exchange Commission on June 26, 1986 (the "Registration Statement")
4.1a	First Restated and Amended Loan Agreement by and between the Minnesota Agricultural and Economic Development Board (the "Board") and the Registrant dated July 1, 1990	Exhibit 4.1a to Registrant's Report on Form 10-K for the fiscal year ended March 31, 1991 ("1991 10-K")
4.1b	Security Agreement from the Registrant to the Board dated as of July 1, 1990	Exhibit 4.1b to the 1991 10-K
4.1c	Registrant's Restated and Amended Promissory Note in the amount of \$1.5 million payable to the Board	Exhibit 4.1c to the 1991 10-K
4.1d	Intercreditor Agreement and Consent by and among the Board, the Registrant, and other parties dated July 1, 1990	Exhibit 4.1d to the 1991 10-K
10.1	Sublease Agreement between the Registrant and Jain-Olsen Properties and Sublease Amendment and Option Agreement between the Registrant and Jain-Olsen Properties	Exhibit 10.1 to the Registration Statement
10.2a(i)	Agreement of Intent and Due Diligence effective May 8, 1995, by and between the Registrant and Aberdeen Corporation	Exhibit 10.2a to the 1995 10-KSB

10.2a(ii)	Amendment to Agreement of Intent and Due Diligence dated August 15, 1995 EXHIBIT INDEX (cont'd)	Page 11
Exhibit Number	Description	Page Number or Incorporated by Reference to
10.2b	Letter dated February 24, 1995, to the Registrant from the South Dakota Governor's Office of Economic Development regarding funding of Aberdeen project	Exhibit 10.2b to the 1995 10-KSB
* 10.3a	Stock Option Plan for Nonemployee Directors	Exhibit 10.3a to Registrant's Report on Form 10-KSB for the fiscal year ended March 31, 1994 (the "1994 10-KSB")
* 10.3b	Form of option agreement issued under the plan	Exhibit 10.3b to 1994 10- KSB
10.4	Insurance agreement by and between the Registrant and Anil K. Jain	Exhibit 10.5 to Registrant's Report on Form 10-K for the fiscal year ended March 31, 1990
11	Statement regarding computation of per share earnings	Page 14
13	Annual Report to Shareholders for year ended March 31, 1996	Page 15

 * Indicates management contract or compensation plan or arrangements required to be filed as an exhibit to this form.

"A SPECTRUM OF OPPORTUNITY..."

APA OPTICS, INC.

1996 Annual Report

An innovative, research-oriented company, APA Optics, Inc. is involved primarily in the areas of optoelectronics and precision optical systems for lasers and other applications.

From its founding in 1979, the company has concentrated on leading edge research in a range of sophisticated optoelectronic and optical system areas. A primary goal has been to identify and develop high technology innovations emerging from its research activities

that have substantial commercial potential and produce them for original equipment manufacturing markets. APA Optics, Inc. expects to begin fabricating Wavelength Divisional Multiplexer optical modulator components later this year, with complete systems produced subsequently.

APA Optics, Inc. has its headquarters in Blaine, Minnesota, a suburb of Minneapolis, and will soon begin constructing an optoelectronics manufacturing center in Aberdeen, South Dakota.

CONTENTS

1

LETTER TO SHAREHOLDERS: I am pleased to report that your Company has experienced a rewarding and auspicious year, one which has seen APA Optics set on a firm course for future success.

Dramatic progress was made in restoring the Company to profitability while APA Optics worked actively to advance its product development programs. With the assistance of a favorable financing program, APA Optics will soon be engaged in the design and construction of a facility in Aberdeen, S.D., which will become the Company's optoelectronics manufacturing center.

The development agreement concluded with the State of South Dakota and the Aberdeen Development Corporation will provide important assistance in establishing this key product fabrication facility. The Aberdeen facility project totals \$7.6 million, with APA Optics contributing \$2 million. The Company expects to complete and occupy the building by early 1997.

The Aberdeen facility will produce Wavelength Division Multiplexed (WDM) optical modulator components and, ultimately, completely integrated units. To take advantage of current market opportunities, the Company has decided to manufacture and introduce its components first and then produce the integrated units following successful testing of commercial units. WDM optical modulator products were selected for APA's entry into product fabrication because of the vast marketing potential presented by the fast growing fiber optic communications industry.

In reviewing financial performance, APA Optics made substantial progress in becoming profitable in fiscal 1996, posting profits in two quarters. For fiscal 1996, however, the Company had a loss of \$92,474, a reduction of 81 percent from the loss of \$468,681 experienced in fiscal 1995.

Overall revenues increased by 23 percent in fiscal 1996, totaling \$2,485,833, as compared to \$2,028,485 in the 1995 fiscal year.

The Company ended the fiscal year 1996 with a substantial contract backlog and a cash balance of \$2,256,309. This large cash balance is mainly due to the proceeds from a private placement of common stock which netted the Company \$1,805,061. The Company also retired \$95,000 of long term debt.

Total shareholders' equity at year end, March 31, 1996, was \$4,107,228, as compared to \$2,385,037 at the end of the 1995 fiscal year. The Company's strengthened balance sheet will better position the Company to capitalize on future opportunities.

The 1997 fiscal year promises to be a dynamic and fruitful year for APA Optics. As our

theme for this report suggests, the Company is faced with an entire spectrum of opportunity. The final development agreement with South Dakota and Aberdeen has been completed and we are proceeding briskly to make APAOptics' new manufacturing center a reality.

We are bolstering our staff capabilities in the product fabrication area and, at the same time, expanding our product marketing programs. APA will be fully prepared to seize our new opportunities for the benefit of the Company and its shareholders.

I appreciate your support and understanding as we position the Company for an era of new prosperity and product progress.

Sincerely, Anil K. Jain Juune 26, 1996

2

PRODUCT FOCUS AND IMPROVED FINANCIALS ARE 1996 HALLMARKS The development agreement provides APA Optics, Inc. with financial assistance in excess of \$5.5 million. The Company will invest an additional \$2 million in the project.

The WDM optical modulator is the primary focus of the Company's product development activities, given its enormoMoving strategically to position itself for improved profitability and the accomplishment of its long term goals, APA Optics, Inc. took several key steps in the 1996 fiscal year. The Company's plans to begin product manufacturing and marketing were advanced with the focus on commercial development of the Wavelength Division Multiplexed (WDM) optical modulator.

An important element of this move toward product development and marketing was the decision to build an optoelectronics manufacturing center. Early in the 1996 fiscal year, a preliminary agreement was announced for construction of such a fabrication facility in Aberdeen, South Dakota. A letter of understanding was signed with the State of South Dakota and the Aberdeen Development Corporation to build the facility and a final agreement was recently concluded. Construction is expected to begin shortly.

Tus commercial potential. The innovative device, now in the final stages of product development, offers the opportunity to dramatically multiply the capacity of fiber optics, since several communications channels are created within a single fiber using only one laser. APA anticipates that the technology will be introduced initially as WDM modulator components, followed by the complete optical modulator. APA Optics, Inc. completed the 1996 fiscal year with greatly improved financial results. Overall, the Company reported a loss of \$.01 a share in fiscal 1996, as compared to a loss of \$.06 a share in fiscal 1995. APA was able to report small profits in two of the four quarters of fiscal 1996. Management expects its Blaine operations to be profitable in fiscal 1997. However, the Company expects to incur significant costs in establishing its Aberdeen facility. The Company expects to post an overall profit in fiscal 1998.

Business outlook...

While the Company's major emphasis is firmly on the move toward manufacturing and marketing products that have emerged from research and development programs, the Company will continue to benefit from its research activities. Research activities represent an important revenue source for the Company.

"The WDM optical modulator is the primary focus of the Company's product development activities at this time, given its enormous commercial potential"

R&D AGENDA

APA Optics will continue aggressive and targeted research efforts in the coming year, a reflection of the importance of the development of technologically advanced and marketable products for the future.

Contract research revenues exceeded \$2.2 million in fiscal 1996, representing an increase of

41 percent over those realized in fiscal 1995. APA Optics expects that its contract research work will remain strong. In addition, the Company continues to enjoy a significant contract backlog, ensuring substantial contract research revenues in the months ahead.

With its sound base in Aluminum Gallium Nitride (AlGaN) technologies, APA will continue active development of three promising devices, the Ultraviolet (UV) detector, both UV and blue lasers, and transistors.

R&D activities at APA Optics are targeted, in large measure, on the development of high quality materials that may be used in fabricating optoelectronic devices. With vertically integrated in-house research and development capabilities, including microelectronic fabrication and test and package facilities, the Company is a leader in the development of AlGaN/InGaN (Indium Gallium Nitride) materials systems. 3

Research and development activities, completely supported by Department of Defense contracts, focus on three devices: Ultraviolet Detectors for medical imaging, flame sensing and other commercial applications. High frequency transistors for high power amplifiers. Blue-green LEDs for optical data storage and display applications.

The progress made so far has resulted in approximately 30 papers published in international journals and invitations to participate in large R&D consortia in each of the subject areas.

AlGaN Ultraviolet Detector Development

APA is presently fabricating and packaging ultraviolet detectors for commercial flame sensing and UV power measurement needs. While they have the same responsivity as currently used silicon detectors, APA's GaN detectors show no visible radiation response, making them highly desirable and superior to silicon based detectors.

Current work emphasizes improving fabrication procedures to increase reproducibility. APA also is increasing the aluminum content to further increase their insensitivity to visible radiation. Research also has begun to make imaging arrays, as opposed to individual devices.

Several R&D detector samples have been supplied to commercial users and government laboratories for full evaluation of system

needs. These fully packaged devices are the first commercial GaN based devices available in the U.S.

GaN Transistor Development GaN transistor development activities at APA, funded by the U.S. Navy and the Strategic Defense Initiative Office, are aimed at developing needed fabrication technologies for transistors capable of operating at frequencies as high as 40GHz and temperatures up to 5000 C. This should significantly reduce the size and weight of amplifiers used in device applications, such as radars, mobile phones and satellites. Significant technical progress in fiscal 1996 resulted in working devices and the emphasis is now on packaging and reliability testing. APA devices have demonstrated power amplification far beyond that of competitive technologies. Blue-Green Light Emitters The Company's activities are focused on developing high power blue-green LEDs and lasers. Worldwide, several research groups are currently working in this area. APA's work has resulted in bright blue-green LEDs that are desirable for display applications, devices which, with further development, could be translated into commercial products. The green LED market is estimated at 10 million devices per month, as new uses such as traffic lights are addressed. U.S. Air Force supported activity at APA is aimed at developing blue-purple lasers. Able to increase data storage on an optical disk by a factor of four, or more, these lasers can also replace the argon-ion lasers presently used extensively in lab applications. The optoelectronics group is also engaged in developing GaN-AlGaN based integrated optics modulators that potentially could be long term replacements for GaAs or LiNbO3 (Lithium Niobate) based devices. The GaN devices have the advantage of being operational from visible to IR wavelengths, without requiring a change of materials. APA also is continuing its research efforts in materials improvement, process development and the exploration of new substrate materials. 4 OUTSTANDING OPTICS The precision optical systems group at APA Optics had a most successful and productive year, establishing a firm basis for the future. The optics development and manufacturing group provides companies with custom precision optics design and fabrication services. The optics group also works to advance APA's own internal research and development programs and product development efforts. Major achievements in optics during the 1996 fiscal year enhanced the group's future design and fabrication prospects and contributed significantly to APA's product marketing emphasis. A Challenging Assignment The optics group successfully designed and fabricated a challenging custom optical system for a new customer on a quick turnaround basis with excellent results. Specifically, the project called for a complex lens system which could be incorporated in a projection system that would display computer screen images on a screen for flight simulators.

While other companies had projected that several months would be required to complete the project, APA was able to accomplish it in less than a month.

The successful completion of this project led to APA receiving another project assignment from this customer, which also produced excellent results. APA Optics expects to receive additional project assignments from this company in the future.

WDM Contributions

In support of the company's R & D activities, the optics group developed two compact zoom lenses and other unique optical assemblies for the WDM optical modulator project. The Company plans to use these optical assemblies in the WDM optical modulator's tunable receiver system.

The zoom lenses also have the potential of becoming independent products. Specifically, the Company has developed two compact zoom lenses for laser applications, one for visible lasers and the other for lasers in the near infrared spectral band.

While zoom lenses are used routinely for several applications, including both video and still cameras, these newly developed lenses will find utilization in laser and fiber optic communication applications. 5 MOVING AHEAD ON PRODUCT MARKETING STRATEGY AND MANUFACTURING CENTER APA Optics is moving rapidly in implementing its product

development, fabrication and marketing plans to capitalize on growing demand in the exploding fiber communications market. These markets, discussed in detail on pages 6 and 7, are expected to provide immediate demand for APA's innovative WDM optical modulator technology.

WDM Technology

The Company's patented WDM modulator system offers several advantages over competing WDM technologies. Essentially, optical fibers have the capability of handling data rates of up to 25 million millions, or 25 Terra Hertzs, per second, but they are not fully utilized because of the limitations of existing transmitter and receiver devices. One of the most promising technologies to increase the capabilities of these devices is the use of different portions of the light spectrum to carry data, creating multichannel capacity.

The three core aspects of such multi-channel utilization involve: light sources of different colors; devices to modulate the data on different light waves and feed it into the fiber; and, finally, a device to receive the signals and sort out the data from the different color waves.

Other companies are pursuing WDM technology, but most utilize several very expensive lasers, one for each color, called Distributed Feed-Back (DFB) lasers. APA's patented approach, on the other hand, uses a single, low cost, laser diode to provide color waves for WDM transmission. Both approaches are expected to be utilized extensively in fiber communications markets. Using a low cost laser diode, APA has demonstrated the feasibility of its single laser WDM technology in the laboratory. The Company has developed a multi-channel modulator and multi-channel receiver which can be used with the laser diode to provide a four channel WDM transmitter and receiver. The integrated laser/modulator/optics/mechanical assembly system was developed for the laboratory demonstration.

Marketing Strategy

In assessing its WDM production and marketing options, APA looked at pursuing $% \left[{\left[{{{\rm{APA}}} \right]_{\rm{APA}}} \right]$

the entire device and/or its various modular components. While the integrated device $% \left({{{\left[{{{\rm{c}}} \right]}_{{\rm{c}}}}_{{\rm{c}}}} \right)$

would have the advantage of being unique, it would have to compete directly with all of the

DFB-based devices at the outset. Further, this course would require significantly more effort, time and financial resources to take the successful laboratory demonstration to the status of a market-ready WDM optical modulator. On the other hand, the modulator components could be configured so that they would work with either DFB lasers or

low cost laser diodes. As a result, the Company has decided to

introduce its multi-channel receiver at the earliest possible time, followed by the multi-channel high speed modulator. The integrated WDM optical modulator would be the final stage of this marketing strategy.

This marketing course provides early entry into the WDM market, permits the Company to work in the larger market common to all approaches and significantly lowers the costs of product development and introduction. Initially, APA Optics would be working with the manufacturers and distributors of DFB-based lasers, rather than competing with them. 6 This strategy also offers benefits in product fabrication, in that optical and electronic components may either be manufactured by APA or purchased from others and then assembled and tested at the new Aberdeen facility. Overall, the phased approach also promises an earlier flow of significant revenues from APA's WDM technology

ABERDEEN'S VITAL ROLE

APA Optics new optoelectronic manufacturing facility is slated to come on line at precisely the right time. Having recently closed on the \$5.5 million financial assistance package from the Aberdeen Development Corporation and the State of South Dakota, APA is moving ahead on construction. Design work is underway on the 24,000-square foot facility and construction and equipment procurement will be accomplished this summer. The advanced manufacturing center will be completed in early 1997. Initially, the facility will be able to manufacture and package optoelectronic devices, such as the 4-channel receiver. Testing and packaging of GaAs modulator devices also will be

possible at the Aberdeen center. In the later part of 1997 and early 1998, additional equipment in excess of \$1.5 million will be purchased and installed. This will allow for the processing of GaAs

modulators, assembly and inspection of the GaAs modulators and the integrated WDM optical modulator.

Aberdeen Financing Sources Uses of Funds On APA Optics Aberdeen Facility

THE ENORMOUS POTENTIAL OF THE FIBER COMMUNICATIONS MARKET

The capacity demands for both data and voice transmission over fiber optic communications networks are expanding dramatically, with more and more computer and technological applications being added on an almost daily basis. The combination of demand factors places enormous burdens on communications organizations to gear up to meet the service demands of the 21st Century.

The inventor of Ethernet and founder of 3Com Corporation, Robert M. Metcalfe, writes in InfoWorld that wavelength division multiplexing (WDM) will help meet the burgeoning demands of interactive media on the information superhighway. "Meeting such demands would require U.S. telcos to increase the capacity of their optical-fiber infrastructure-now a boggling 250,000 route miles costing \$250 billion--by as much as 1,000 times before 2001," he asserts.

"In today's exploding telecommunications market, our customers are demanding more and more capacity from our network," says Fred Briggs, the chief engineering officer of MCI Communications Corp. MCI's current backbone network operates at 2.5 gigabits per second, or 2.5 billion bits of capacity over a single strand of fiber optic glass. The company is now moving toward introduction of Four-Wavelength WDM, which would quadruple its network capacity without the cost of adding additional fiber optic lines.

The potential demand for increased data and voice transmission capability is almost beyond measurement, largely because of new products and applications that are surfacing on almost a daily basis. Some relate to the growth of home

on fiber optic lines to tie them with their base company, or entrepreneurs who must be linked with clients and suppliers. While much of the increased capacity demand is PC driven, another development suggests even wider needs. Oracle Corporation plans to introduce the network computer (NC) late this year, an appliance-like device that consumers may use to tap into the Internet, the World Wide Web, low cost wide area networks and local area networks (LANS) inside of nest organizations. Far simpler than the typical PC, the NC doesn't require a separate monitor and can be hooked up to a television set. It is expected to be marketed at less than \$500 per device, making NC's accessible by a large segment of the American public. Currently, somewhat less than 30 percent of U.S. households are estimated to have PC's, but the lower cost of the NC is envisioned as pressing penetration to 90 percent or more, since the required investment is in the range of a TV set.

offices, which rely almost entirely

Assessing market potential on the basis of the most developed markets can be misleading. While the growth anticipated in the U.S. and other developed economies is most impressive, it is dwarfed by the staggering demands expected to be posed

worldwide by technological progress in less developed countries. Fiber optics systems will be called upon to meet challenges that were hardly imagined at the time networking was being introduced.

APA Optics, Inc., in examining the market potential for its WDM optical modulator, performed market estimates based upon applications in cable television (CATV), LANs, data communications, telecommunications and joint activities.

In the cable television area, experts estimate that technologies or devices that could reduce the number of fiber strands in the fiber cable from the currently envisioned 100 strands to 10 strands will significantly lower both initial and

operational costs of fiber optic installations.

Depending on the existing standards for down stream communications, each major fiber optic network may need 200,000 WDM optical modulators, based on one device for every 500 homes and 100,000,000 cable users, overall. Aggressive system architecture designs, which would make possible upstream fiber optic communication between 72-home end nodes and intermediate nodes, could increase demand for WDM optical

and intermediate nodes, could increase demand for WDM optical modulators to 15,000,000.

Local area and metropolitan area networks will provide significant markets for WDM optical modulators. With similar gigabit technology employed in both LAN and MAN, building-sized and campus-sized networks, respectively, WDM is viewed as playing a major role in upgrading existing systems and enabling the use of new system architectures. APA Optics estimates that potential LANs/MANs demand will be in the area of several billion dollars annually, worldwide.

As we see computing systems become increasingly powerful and versatile, the data communications networks, which facilitate the exchange of data between these systems, must also evolve to support new applications. When data networks were originally developed, applications such as e-mail were not even foreseen. Now, the focus is on inter networking, utilizing a set of protocols to govern the way computers communicate over a network and

rules for internetworks, allowing any computer to communicate with any other network.

Telecommunications networks, primarily designed to transmit high quality voice sounds between telephones, are being used increasingly to transmit data, such as computer data and faxes. With a 20 percent annual growth rate for data as compared to growth of 3 percent for voice, most telephone companies see their data communications services becoming an ever more important part of their business. Telephone networks are now becoming digital, blurring the distinctions between computer and telephone networks.

The introduction of new services to consumers in their homes and the convergence of the computer, data and telephone industries will all contribute to substantial future demand for WDM products.

8

A RANGE OF USES

Cable Television Home Office Suburban Business Campus New Housing Development Public School Network Government Services Network Metropolitan Business Network Business Campus College Campus Medical Campus Mitary Base Voice Data Communication Remote monitoring, testing and repair of networks

Operating revenues for fiscal 1996 were \$2,485,833, an increase of approximately 23 percent over the operating revenues of \$2,028,485 for fiscal 1995. This significant increase in revenue was due to an increase in government contract fees from \$1,572,603 in fiscal 1995 to \$2,205,318 in fiscal 1996. This \$632,715 increase in contract fees was due to our substantial contract backlog, excellent performance from our research team, contract work support from our optics group and the addition of new members to our research team. The Company's contract backlog was approximately \$4,000,000 (\$3 million in contracts and \$1 million in options) at the end of fiscal 1996, about the same as at the end of fiscal 1995, despite the increased revenues. The Company also is currently negotiating several new contracts, worth approximately \$2,750,000. Production revenues for fiscal year 1996 were \$280,515, as compared to \$455,882 for the 1995 fiscal year. The decrease in production revenues was anticipated, as the Company continues to emphasize the development of optoelectronic products, utilizing all of its available resources for future production and expansion of facilities to Aberdeen, South Dakota.

The Company is reporting a net loss of \$92,474, (\$.01 per share) for fiscal 1996, as compared to a loss of \$468,681 (\$.06 per share) for fiscal 1995. Although the 1996 loss was a substantial improvement over the 1995 loss, the Company had forecast a profit for the year. At the end of the third quarter of this year, the Company was showing a slight profit. The loss for the fourth quarter was the result of delay in funding of one government contract in the amount of approximately \$157,000. The Company has already expensed most of the costs associated with this contract.

With the strong backlog at year-end and ongoing contract negotiations, the Company anticipates profitability from its Blaine, Minnesota operations during fiscal 1997. The Company, however, plans to incur significant expenses in establishing its Aberdeen facilities for optoelectronic product development and manufacturing during the 1997 fiscal year.

Liquidity & Capital Resources:

The Company has substantial cash reserves at fiscal year end, March 31, 1996, of \$2,256,309, as compared to a cash balance of \$401,034 for the fiscal year ended March 31, 1995. This large

increase in cash was accomplished through a private placement of the Company's stock, netting the Company approximately \$1,800,000. The Company's current ratio of 10 to 1 for fiscal 1996 compares to 5 to 1 for fiscal 1995. In June 1996, the Company concluded the funding assistance arrangements with the City of Aberdeen, South Dakota, and the State of South Dakota. Most of the funds raised through the private placement will be used in the South Dakota expansion. The Company believes it has sufficient cash for operations through fiscal 1997 and beyond. 10 Balance Sheets March 31 <TABLE> <CAPTION> 1995 1996 Assets <S> <C> <C> Current assets: Cash \$2,256,309 \$ 401,034 Accounts receivable 406,852 421,943 Inventories: Raw materials 24,806 61,791 Work-in-process and finished goods 105,993 146,414 Costs in excess of billings on research contracts 210,658
 Bond reserve funds
 30,305
 31,225

 Bond reserve funds
 66,667
 63,333

 Total current assets
 3,101,590
 1,125,7
 Prepaid expenses 30,305 31,225 1,125,740 Property and equipment 1,157,570 1,492,282 Other assets: Bond reserve funds 151,278 151,278 Bond placement costs -20,629 Receivable from officer 220,695 180,730 Other 125,216 92,438 497,189 445,075 Total assets \$4,756,349 \$3,063,097 Liabilities and shareholders' equity Current liabilities: \$ \$ 112,857 Accounts payable 97,584 Accrued expenses 91,264 40,476 Current maturities of long-term debt 100,000 95,000 233,060 Total current liabilities 304,121 Long-term debt 345,000 445,000 Shareholders' equity: Undesignated shares; 5,000,000 shares authorized, none issued Common stock, \$.01 par value: Authorized shares - 15,000,000 Issued and outstanding shares - 7,990,007 in 1996 and 7,376,923 in 1995 79,900 73,769 Additional paid-in capital 6,930,826 5,122,292 Retained earnings (deficit) (2,903,498) (2,811,024) Total shareholders' equity 4,107,228 2,385,037 Total liabilities and shareholders' equity \$4,756,349 \$3,063,097 </TABLE> See accompanying notes. 11 Statements of Operations Year ended March 31 <TABLE> <CAPTION> 1995 1996 <S> <C> <C> Revenues:
 Net sales \$
 280,515
 \$
 455,882

 Contract fees
 2,205,318
 1,572,603
 2,485,833 2,028,485 Costs and expenses: Cost of sales 479,022 Cost of contract fees 559,080 1,559,101 1,124,485 Research and development 30,435 227,384

Selling, general and administrative 531,922 556,107 2,600,480 2,467,056 Loss from operations (114,647) (438,571) Interest income 59,601 14,059 Interest expense (36,428) (43,169) Loss before income taxes (91,474) (467,681) Income taxes 1,000 1,000 Net loss \$ (92,474) \$ (468,681) Net loss per share \$(.01) \$(.06) Weighted average shares outstanding 7,734,082 7,325,970 See accompanying notes. Statements of Shareholders' Equity Common Stock Retained Paid-In Earnings Shares Par Value Capital (Deficit) <C> <C> <C> <C> Balance March 31, 1994 7,274,923 \$72,749 \$4,855,733 \$(2,342,343) Stock options exercised, net 2,000 20 730 Shares issued under private stock offering, net of issuance costs 100,000 1,000 265,829 - (468,681) --Net loss -Balance March 31, 1995 7,376,923 73,769 5,122,292 (2,811,024) Stock options exercised, net 12,084 121 6,183 Warrants exercised 1,000 10 3,290 Shares issued under private stock offering, net of issuance costs 600,000 offering, net of issuance cc 6,000 1,799,061 -Net loss - - - (92,474 Balance March 31, 1996 7,990,007 \$79,900 \$6,930,826 \$(2,903,498) </TABLE> See accompanying notes. 12 Statements of Cash Flows Year ended March 31 1996 1995 Operating activities Net loss \$ (92,474) \$(468,681) Adjustments to reconcile net loss to net cash provided by (used in) operating activities: Depreciation and amortization 450,584 445,736 857 Loss on sale of equipment -Changes in operating assets and liabilities: Accounts receivable 15,091 (9,576 Inventories 77,406 55,953) Costs in excess of billings on research contracts (210,658) Prepaid expenses and other assets (99,193) (710) Accounts payable and accrued expenses 66,061 (33,508) Net cash provided by (used in) operating activities 206,817 (9,929) Investing activities Proceeds from sale of property and equipment -125,000 Purchases of property and equipment (67,873) (110,213) (53,940) Other Net cash used in investing activities (67,873) (39,153) Financing activities Proceeds from sales of Common Stock 1,814,665 267,579 Repayment of long-term debt (95,000) (85,000) Bond reserve funds (3,334) (6,667) Net cash provided by financing activities 1,716,331 175,912 Increase in cash 1,855,275 126,830 Cash at beginning of year 401,034 274,204

See accompanying notes.

```
Notes To Financial Statements
13
1.Summary of Significant Accounting Policies
```

Nature of Business APA Optics, Inc. (the "Company") is engaged in the business of developing, designing and fabricating optical components and optical systems for laser and other industrial applications.

Inventories Inventories are stated at the lower of cost or market. Cost is determined by the first-in, first-out (FIFO) method for raw materials, actual cost for direct labor and average cost for factory overhead in work in process.

Property and Equipment Property and equipment are stated at cost. Depreciation of property and equipment is provided on the straight-line method over the following estimated useful lives of the assets: Years

Manufacturing equipment 7 - 10 Tools 3 - 7 Office equipment 5 - 18 Leasehold improvements 15 - 18

Revenue Recognition Revenue on contract fees is recorded on the percentage of completion method of accounting for long-term government contracts. A portion of the total contract price is recognized on the basis of contract costs incurred to date as compared to the expected total cost of the contract. Contract costs include direct materials, labor and manufacturing overhead. Estimated losses on uncompleted contracts are recorded in their entirety in the period in which they are determined.

Summary of Significant Accounting Policies (continued) Use of Estimates The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results differ from those estimates.

Income Taxes The Company accounts for income taxes using the liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to temporary differences between the financial statement carrying amounts of assets and liabilities and their respective tax basis.

Stock-Based Compensation In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation." The Company has not determined the impact of the new statement on its financial statements.

Net Loss Per Share The net loss per share has been determined by dividing net loss by the weighted average number of common shares outstanding during each year. Shares issuable upon exercise of stock options and warrants were not considered in the computations since their effect would be anti-dilutive.

Impairment of Long-Lived Assets The Company records losses on long-lived assets in operations when indicators of impairment are present and the undiscounted cash flows estimated to be generated by those assets are less than the assets' carrying amount.

2. Accounts Receivable Accounts receivable includes \$56,076 billed under retainage provisions of government contracts in 1996 (\$86,801 in 1995). There is no allowance for doubtful accounts.

3. Property and Equipment Property and equipment consists of the following:

March 31

19961995Manufacturing equipment \$3,116,862\$3,075,069Tools76,59775,696Office equipment198,832207,985Leasehold improvements536,447536,447

Land 60,000 60,000 3,988,738 3,955,197 Less accumulated depreciation 2,831,168 2,462,915 \$1,157,570 \$1,492,282 4. Receivable From Officer The receivable from officer represents premiums paid by the Company on a life insurance policy owned by the Company's president. 5. Costs in Excess of Billings on Research Contracts Costs in excess of billings on research contracts represents unbilled costs on Phase I government contracts which will be billed in fiscal 1997. 6. Long-Term Debt Long-term debt consists of the following: March 31 1996 1995 7% Minnesota Agricultural and Economic Development Board Bond, due in increasing serial maturities through fiscal year ending March 31, 2000, secured by manufacturing equipment \$445,000 \$540,000 Less current portion 100,000 95,000 \$345,000 \$445,000 In December 1989, the Company entered into a loan agreement with the Minnesota Agricultural and Economic Development Board to provide financing for the expansion of manufacturing facilities. At March 31, 1996 and 1995, the Company had on deposit with trustees \$217,945 and \$214,611 in reserve 14 Long-Term Debt (continued) for future payments on these bonds of which \$66,667 and \$63,333 is held in escrow for the payment of current bond maturities. The loan agreement requires the Company to maintain certain minimum levels of net worth and to maintain certain income to outstanding debt ratios. The Company was in compliance with these covenants in fiscal 1996. The carrying value of the bonds approximate market value at March 31, 1996. Interest paid during fiscal year 1996 and 1995 was \$36,428 and \$43,169, respectively. Maturities of long-term debt through 2001 are as follows: 1997-\$100,000; 1998- \$105,000; 1999- \$115,000; 2000- \$125,000. As of March 31, 1996, the Company has 7. Income Taxes operating loss carryovers for federal income tax purposes of approximately \$3,262,000, which expire in fiscal years 2001 to 2010 and \$43,000 in research and development credits which can be used to offset federal income taxes. Credits will expire in fiscal years 2000 to 2005. Deferred income taxes reflect the net tax effects of temporary differences between the carrying amounts used for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred taxes are as follows: March 31 1995 1996 Net operating losses \$1,120,000 Depreciation (215,000) (181,000) \$1,110,000 Research and development credits 43,000 43,000 Other 52,000 20,000 Total deferred tax asset 1,000,000 992,000) (992,000) Less valuation allowance (1,000,000 Net deferred taxes \$ Income tax expense consists of state taxes in 1996 and 1995. Differences between income taxes and the amounts derived by applying the statutory federal income tax rate to loss before income taxes are as follows: Year ended March 31

Statutory rate 34 % 34 %

1996 1995

 Federal income taxes (benefit)
 \$ (31,000)
 \$ (159,000)

 State taxes, net of federal tax effect 1,000
 1,000

Loss carryovers, without tax benefit 10,000 159,000 Effect of graduated tax rates 12,000 -Other 9,000 -\$ 1,000 \$ 1,000

8. Shareholders Equity The Board of Directors may by resolution establish from the undesignated shares different classes or series of shares and may fix the relative rights and preferences of shares in any class or series.

9. Stock Options and Warrants In fiscal year 1992, pursuant to a sale of Common Stock, the Company issued warrants to purchase 46,000 shares of its Common Stock at \$3.30 per share to the underwriter of the offering. The warrants are exercisable through July 1996. In fiscal year 1995, pursuant to a sale of Common Stock, the Company issued warrants to purchase 10,000 shares of its Common Stock at \$3.30 per share to the underwriter of the offering. The warrants are exercisable through November 1999.

9. 9. Stock Options and Warrants (continued)

In fiscal year 1996, pursuant to a sale of Common Stock, the Company issued warrants to purchase 60,000 shares of its Common Stock at \$3.75 per share to the underwriter and additional warrants to purchase 300,000 shares of its Common Stock at \$6.75 per share to the investors in the offering. The warrants are exercisable through September 2001. As of March 31, 1996, there were 415,000 warrants outstanding.

In fiscal years 1996 and 1995, certain shareholders tendered 13,416 and 2,500 shares of Common Stock as substantial payment for 25,500 and 4,500 shares purchased upon exercise of their stock options.

Changes in stock options are as follows:

	Shares		Option	s Outstan	nding			
	Available	for	Total			Share	S	
Price		Grant	S	hares		Exerc	isabl	Le
Per Share								
Balance Ma	arch 31, 19	994						
	271,338		83,000	68,00	00		\$2.25	5 -
\$5.00								
Granted	(5,000)	5,00	0	-		3.50	
Exercised	-		(4,500)	(4,50)0)		2.25
Shares bec	coming							
exercisabl	le	-		-		15,00	0	
Balance Ma	arch 31, 19	995						
	266,338		83,500		78,50	00		2.25
5.00								
Granted	(5,000))	5,00	0	-		4.375	5
Exercised	-			(25,500	D)		(25,5	500)
2.25 - 5	5.00 Cance	eled		(25,000)				
(53,000)	(48,0	000)	2.25					
Balance Ma	arch 31, 19	996						
	236.338		10.000		5.000)		
\$3.50 -	\$4.375		, 0 0 0		2,000			
	,							

10. Commitments The Company leases office and manufacturing facilities from a partnership whose two partners are major shareholders and officers of the Company. The lease agreement, classified as an operating lease, expires November 30, 1999 and provides for periodic increases of the rental rate based on increases in the consumer price index. Future minimum lease obligations under the lease as of March 31, 1996 are as follows: Year ending March 31: 1997 \$118,000 1998 118,000 1999 118,000 2000 79,000 \$433,000 Rental expense was \$117,000 and \$117,041 during the fiscal years

ended March 31, 1996 and 1995, respectively, all of which was paid to the partnership.

11. Major Customer Several operating agencies of the U.S. Government account for more than 10% of the Company's net sales and contract fees. Total revenue from the agencies was \$2,205,318 in 1996 (\$1,572,603 in 1995). The breakdown is as follows:

양

1990	TSSD			
Air Force		38%		55
Army		4		9
Navy	58		36	
Total		100%	100%	

12. Agreements In May 1995, the Company announced its intention to build a new production facility in Aberdeen, South Dakota to

fabricate wavelength division multiplexed modulators. As part of its financing of the facility, the Company has received letters of intent from the State of South Dakota Governor's Office of Economic Development and the Aberdeen Development Corporation (the parties) to provide the Company with economic assistance.

16

12. Agreements (continued) The assistance package is as follows:

Bond financing for building construction and equipment \$1,920,000

Low int	erest loans	1,250,000
Forgiva	ble loans	750,000
Grants	550 , 000	
Equity	investment	1,200,000
	\$5,670,000	

The equity investment is for Common Stock of the Company. The forgivable loans are contingent upon employment levels at the facility meeting preset criteria. In exchange for any loans forgiven, the Company will issue warrants to purchase Common Stock of the Company at a predetermined price. Also, in accordance with the intent letters, the Company has raised approximately \$2,000,000 in equity from other sources.

The Company expects to use approximately \$4,500,000 to construct the building and to purchase equipment. The remaining financing and equity funds will be used for product development, marketing and working capital.

Report of Independent Auditors APA Optics, Inc.

We have audited the accompanying balance sheets of APA Optics, Inc. as of March 31, 1996 and 1995, and the related statements of operations, shareholders' equity and cash flows for the years then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of APA Optics, Inc. at March 31, 1996 and 1995, and the results of its operations and its cash flows for the years then ended in conformity with generally accepted accounting principles.

Minneapolis, Minnesota May 3, 1996 Ernst & Young LLP.

17

COMMON STOCK INFORMATION AND TRADE PRICES

 FY '96
 High
 Low
 FY '95
 High
 Low

 1st
 Qtr
 \$4.88
 \$3.00

 \$4.75
 \$3.75
 \$3.75
 \$3.00

 2nd
 Qtr
 8.50
 4.13
 4.25
 3.50

 3rd
 Qtr
 8.00
 5.25
 4.25
 3.50

 4th
 Qtr
 6.00
 5.00
 3.75
 3.00

There were 422 shareholders of record on March 31, 1996. APA Optics, Inc. has not paid dividends on its common stock and does not anticipate doing so in the foreseeable future.

ANNUAL MEETING The Annual Meeting of Shareholders will be held on August 21, 1996 at 3:30 PM at the Sheraton Minneapolis Metrodome, 1330 Industrial Blvd., Minneapolis, Minn.

LISTING OF SECURITIES The Common Stock of APA Optics, Inc. is listed on the quotation system of The Nasdaq Small-Cap Market under the symbol APAT.

AVAILABILITY OF FORM 10-KSB Shareholders may obtain, exclusive

of exhibits, a copy of the annual report to the Securities and Exchange Commission (Form 10-KSB) for the year ended March 31, 1996 by writing to the Company.

STOCK TRANSFER AGENT Norwest Bank, 161 N. Concord Exchange, So. St. Paul, MN 55075

CORPORATE OFFICERS Anil K. Jain, President and Treasurer Kenneth A. Olsen, Vice President and Secretary M. Asif Khan, Vice President, Optoelectronics Randal J. Becker, Principal Accounting Officer

APA Optics, Inc. 2950 N.E. 84th Lane Blaine, Minnesota 55449 612-784-4995- phone 612-784-2038- fax Internet address: http:\\www.apaoptics.com

Counsel: Moss & Barnett, Minneapolis, Minnesota Accountants: Ernst & Young, Minneapolis, Minnesota Investor Relations: The Wallace Group, Minneapolis, Minnesota

Board of Directors (from left to right): Lincoln Hudson, Independent Management Consultant, Anil K. Jain, Chairman, and Kenneth A. Olsen, Secretary

APA OPTICS, INC. 2950 N.E. 84th Lane Blaine, MN 55449 phone-612-784-4995 fax-784-2038 internet: http:\\www.apaoptics.com Aberdeen Development Corporation P.O. Box 1179, Aberdeen S.D. 57402-1179, 800-874-9198 . Fax. 605-229-6839

August 4, 1995 REVISED AUGUST 15, 1995

Dr. Anil Jain, President APA Optics, Inc. 2950 N.E. 84th Lane Blaine, Minnesota 55449

Dear Dr. Jain:

Reference is made to the Agreement of Intent and Due Diligence dated May 8, 1995 (the "Agreement") by and between Aberdeen Development Corporation ("ADC") and APA Optics, Inc. ("APA Optics").

ADC and APA Optics hereby agree to amend and supplement the Agreement as follows:

1. APA Optics agrees to raise \$750,000 of new capital through a sale of equity securities of APA Optics as a condition to ADC providing any of the funding described in paragraphs 6, 7 and 8 of the Agreement for the project (the "Project") described in the Agreement. In addition to such \$750,000, APA Optics agrees to raise another \$1,250,000 of new capital through the sale of equity securities. Of such amount, \$250,000 would be obtained prior to June 1, 1996, and the other \$1,000,000 would be obtained prior to June 1, 1997. If the first \$750,000 of new capital is not received by APA Optics prior to the closing of the transactions described in the Agreement but APA Optics provides ADC with reasonable assurance that such \$750,000 of financing will be obtained within 90 days after the closing date, ADC agrees to consider closing on all or a portion of the funding to be provided to APA Optics in 1995 pursuant to paragraphs 6, 7 and 8 of the Agreement.

2. Once APA Optics has raised the initial \$750,000 of new equity capital referred to in paragraph 1 above (or, if ADC, in its sole discretion, has determined that APA Optics will be able to obtain such financing), ADC will close on the 1995 financing transactions described in paragraphs 6, 7 and 8 of the Agreement (i.e., the \$700,000 loan with an annual interest rate of three percent, the \$500,000 of equity financing (which will not be included in the equity financing APA Optics is required to obtain in accordance with paragraph 1 above) and the \$250,000 interest free loan, respectively). Except for \$200,000 of the interest free loan, all such funding will upon closing be immediately available to APA Optics for use on the Project. Of the \$250,000 interest free loan, \$50,000 will upon closing be available to APA Optics for use with respect to the Project. The remaining \$200,000 would be available to APA Optics only upon receipt by ADC of verification that APA Optics has contributed \$200,000 of its own funds to the Project (exclusive of the \$750,000 of new equity financing described in paragraph 1 above). Such \$200,000 may be provided by APA Optics from available working capital or from new financing over and above the \$750,000 of new equity capital referred to in paragraph 1 above. The \$200,000 of funding provided by APA Optics shall not include any amounts expended on the Project by APA Optics prior to May 8, 1995. The \$200,000 of funding to be provided by APA Optics shall reduce the amount of equity to be obtained prior to June 1, 1996, and any portion of the equity remaining to be raised shall be included in the amount of equity to be raised prior to June 1, 1997 (e.g. \$1,050,000 if the full \$200,000 is applied).

3. The 20-year note relating to the \$250,000 interest-free loan to APA Optics will not require any payments until the midpoint of the first quarter following a 24-month grace period. As a result, the initial payment and each of the 17 remaining annual payments will be \$13,889.00.

4. ADC agrees, in accordance with paragraph 5 of the Agreement, that all utilities shall be brought to the location of APA's building site, all environmental investigation and remediation shall be completed, and the excess material from the storm water retention pond shall be deposited on the project site prior to the closing date for the 1995 funding provided for in paragraphs 6, 7 and 8 of the Agreement. On such closing date, ADC will transfer title to the property comprising the Project site to APA Optics. APA Optics will be prohibited from selling or otherwise transferring such property for a period of five years from the date on which the property is transferred, unless APA Optics pays ADC \$250,000 for such property.

5.In order to secure ADC's loans to APA Optics, APA Optics agrees to provide ADC with a mortgage and security interest in APA Optics's land, facilities and equipment located in Blaine, Minnesota subject, however, to approval of the grant of any such mortgage or security interest by the existing mortgage and lender, only after the best efforts of APA Optics with the involvement of the Aberdeen Development Corporation. Such mortgage and security interest will be subordinated to any currently existing mortgages or security interests with respect to such land, facilities and equipment. ADC agrees to release its mortgage and security interest on the earlier of (a) the date on which the total unpaid principal balance on the \$700,000 and \$300,000 loans described in paragraph 6 of the Agreement is less than \$250,000 or (b) the date the balloon payment with respect to the \$300,000 loan is paid (i.e., six years after the date of such loan).

6. Until August 15, 1995, APA Optics shall have the right to determine not to proceed with the Project. If APA Optics elects not to proceed with the Project, APA Optics shall reimburse ADC for all costs and expenses incurred by ADC in connection with the Project up to an amount not exceeding \$7,500.

7. All funding to be provided by ADC to APA Optics pursuant to paragraphs 6, 7 and 8 of the Agreement is contingent upon the South Dakota Office of Economic Development providing APA Optics with the financing described in the Agreement.

Except as otherwise provided herein, the Agreement shall remain unchanged.

If this letter and the Agreement correctly set forth the terms on which APA Optics is willing to pursue the Project, please sign one copy of this letter in the space provided below and return it to me.

very truly yours,

ABERDEEN DEVELOPMENT CORPORATION

Rodney W. Fouberg Rodney W. Fouberg, President

Accepted and agreed this 15th day of August, 1995.

APA Optics, Inc.

Anil K. Jain Anil K. Jain, President Exhibit 11 - STATEMENT RE: COMPUTATION OF PER SHARE EARNINGS <TABLE> <CAPTION>

	Year ended March 31, 1996	Year ended March 31, 1995
<s></s>	<c></c>	<c></c>
PRIMARY Average shares outstanding Net effect of dilutive stock options and warrantsbased on the treasury stock method using	7,734,082	7,325,970
average market price TOTAL	N/A 7,734,082	N/A 7,325,970
Net income (loss)	\$ (92,474)	\$ (468,681)
Per share amount	\$ (.01)	\$ (.06)
FULLY DILUTED Average shares outstanding Net effect of dilutive stock options and warrantsbased on	7,734,082	7,325,970
the treasury stock method using the year-end market price, if higher than the average market price	N/A	N/A
TOTAL	7,734,082	7,325,970
Net income (loss)	\$ (92,474)	\$ (468,681)
Per share amount	\$ (.01)	\$ (.06)

</TABLE>

Shares issuable upon exercise of stock options and warrants were not considered in the computations in 1996 and 1995 since the <ARTICLE> 5

<s></s>	<c></c>	
<period-type></period-type>	12-MOS	
<fiscal-year-end></fiscal-year-end>		MAR-31-1996
<period-end></period-end>		MAR-31-1996
<cash></cash>		2,256,309
<securities></securities>		0
<receivables></receivables>		406,852
<allowances></allowances>		0
<inventory></inventory>		130,799
<current-assets></current-assets>		3,101,590
<pp&e></pp&e>		1,157,570
<depreciation></depreciation>		450,584
<total-assets></total-assets>		4,756,349
<current-liabilities></current-liabilities>		304,121
<bonds></bonds>		0
<common></common>		79 , 900
<preferred-mandatory></preferred-mandatory>		0
<preferred></preferred>		0
<other-se></other-se>		4,027,328
<total-liability-and-equity></total-liability-and-equity>		4,756,349
<sales></sales>		2,485,833
<total-revenues></total-revenues>		2,485,833
<cgs></cgs>		2,038,123
<total-costs></total-costs>		2,038,123
<other-expenses></other-expenses>		562 , 357
<loss-provision></loss-provision>		0
<interest-expense></interest-expense>		36,428
<income-pretax></income-pretax>		(91,474)
<income-tax></income-tax>		1,000
<income-continuing></income-continuing>		(92,474)
<discontinued></discontinued>		0
<extraordinary></extraordinary>		0
<changes></changes>		0
<net-income></net-income>		(92,474)
<eps-primary></eps-primary>		(.01)
<eps-diluted></eps-diluted>		(.01)

</TABLE>