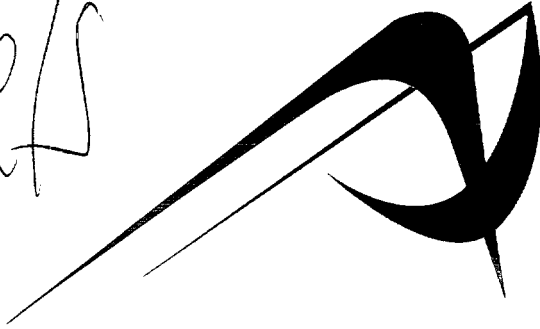


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Annual Report

2005

APA Enterprises, Inc. was established in 1979. Since then the Company has focused on leading edge research in electronic system areas. APA Enterprises, Inc. now consists of the Optronics group and the Cables & Networks group. Optronics is active in the development, design, manufacture and marketing of ultraviolet (UV) measurement instruments for consumers and industrial customers, and gallium nitride (GaN) based transistors for power amplifiers and other commercial applications. Cables & Networks, established in 2003 by acquisitions from two companies with over twenty years apiece in the telecom industry, designs, manufactures and markets a variety of fiber optic and copper components to the data communication and telecommunication industries. Its broad range of product offerings includes fiber distribution systems, optical components and fiber and copper cable assemblies that serve Fiber-to-the-Premise, Large Enterprise, and Original Equipment Manufacturer markets.

## Market for Common Equity and Related Stockholder Matters

Our common stock is traded on the Nasdaq National Market under the symbol "APAT".  
The following table sets forth the quarterly high and low sales prices for our common stock for each quarter of the past two fiscal years as reported by Nasdaq.

<b>Fiscal 2005</b>	<u>High</u>	<u>Low</u>
Quarter ended June 30, 2004	\$ 3.75	\$ 2.22
Quarter ended September 30, 2004	2.28	1.37
Quarter ended December 31, 2004	2.48	1.37
Quarter ended March 31, 2005	2.21	1.36
<b>Fiscal 2004</b>	<u>High</u>	<u>Low</u>
Quarter ended June 30, 2003	\$ 2.70	\$ 1.23
Quarter ended September 30, 2003	3.04	2.07
Quarter ended December 31, 2003	2.99	2.00
Quarter ended March 31, 2004	3.27	2.19

## Selected Financial Data

<b>Statement of Operations Data:</b>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>	<u>2001</u>
Revenues	\$ 13,886,486	\$ 11,909,465	\$ 436,157	\$ 595,955	\$ 885,740
Net loss applicable to common shareholder	(3,420,038)	(6,535,147)	(5,009,434)	(4,738,199)	(3,261,446)
Net loss per share, basic and diluted	(0.29)	(0.55)	(0.42)	(0.40)	(0.29)
Weighted average number of shares, basic and diluted	11,872,331	11,872,331	11,873,914	11,896,976	11,180,165
<b>Balance Sheet Data:</b>					
Total assets	\$ 22,074,014	\$ 26,083,516	\$ 31,844,526	\$ 36,396,410	\$ 41,914,451
Long-term obligations, including current portion	1,578,836	1,811,759	2,173,682	2,461,363	2,836,831
Shareholders' equity	18,922,161	22,363,061	28,918,943	33,504,917	38,280,299

The above selected financial data should be read in conjunction with the financial statements and related notes included in this Annual Report and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

To Our Shareholders, Employees and Customers:

2005 was a year in which the company recognized record revenues and experienced decreased losses. In comparison to FY04, revenues increased 17% while losses decreased 48%.

Key to the increased revenue was the continuing market success at our subsidiary APA Cables & Networks, Inc. (APACN). Instrumental to the reduction in losses were improved manufacturing efficiencies and reduced products costs at APACN as well as the discontinuation of optics manufacturing and the streamlining of operations within the company's GaN and R&D areas. As a result of this focus, the overall cash consumed during fiscal 2005 was the lowest since fiscal 1999. The Company used approximately \$2.0 million cash in operations and \$2.7 million overall during fiscal 2005, down 64% and 69%, respectively, from fiscal 2004.



#### **APACN Records a Profit for the Year**

APACN demonstrated market acceptance in its second year of existence, evidenced by increasing demand for its broadband and OEM products as well as the introduction of new products for Fiber-to-the-Premise (FTTP). Increased market penetration combined with expense reductions and improved production operations resulted in a substantial turnaround for this division, reversing a \$1.2 million loss in FY04 to a small profit in FY05.

To bring focus on APACN's manufacturing and sales development activities, the subsidiary made an investment in several new personnel in FY05. The coordination of manufacturing activities across our multiple sites has resulted in significant improvements in production efficiency. Also, additional sales personnel have improved the market awareness of the company and its products.

#### **GaN Group Overcomes Production Issues and Readies for Market Introduction**

APA Optronics' GaN product group successfully resolved manufacturing issues within its consumer segment and is now focused on sales of its Personal UV Monitors (PUVMs). The GaN product group is working closely with our new facility in India on software enhancements for the industrial products area and has brought the Profiler M radiometer to market for the printing industry.

#### **Research and Development Meets Technology Goals in FY05**

APA Optronics R&D group continues to pursue development of GaN based transistor and power amplifiers. The power amplifiers have the potential of simplifying amplifier architecture, dramatically improving amplifier efficiency and increasing power and bandwidth of cellular base station and military systems while decreasing overall costs, due mainly to their improved efficiency and increased power density.

The Company consolidated its Metal Organic Chemical Vapor Deposition (MOCVD) operations into a leased facility reducing overall operations and leasehold improvement costs. Our multi-wafer MOCVD system is now operational and providing state-of-the-art epitaxial layers on 2-inch and 3-inch substrates. Teamed with our existing intellectual property, the technology advancements within the past year will be instrumental in forming strategic partnerships and potential licensing options.

#### **APA Optronics (India) Private Limited Established**

The Company acquired a wholly owned subsidiary in NOIDA Special Export Zone (NSEZ), near New Delhi, India to focus upon lowering manufacturing costs along with supporting other business activities, including software development. The Subsidiary currently operates in a leased facility, but has initiated activities to build a larger and more functional stand alone building to meet its requirements in NSEZ.

The new Subsidiary is in the early stages of establishing manufacturing activities in support of both our fiber optics and GaN business areas. The Company anticipates manufacturing to begin in low volume later in calendar year 2005.

#### **Moving Forward**

Our challenge for fiscal 2006 and beyond is to attain profitability by expanding sales activities in both APACN and Optronics. Profitability will be strongly dependent upon our ability to realize significant additional revenues from our Gallium Nitride (GaN) related products. We must also continue to focus upon decreasing manufacturing costs to effectively compete in a highly competitive market.

We appreciate your continued support during the past year and going forward as we pursue these objectives through aggressive marketing of our products and services and implementing cost-effective manufacturing.

A handwritten signature in black ink, appearing to read "Anil K. Jain", with a horizontal line underneath.

Dr. Anil K. Jain  
Chairman, President and  
Chief Executive Officer

**Company Achieves Profitability in 2nd Full Year of Operation**

APA Cables & Networks, while delivering "A Personalized Approach" to cables and networks, posted a small profit for the fiscal year and firmly established the subsidiary's foundation in its target markets. Our management team and dedicated employees have



From left (clockwise): Gary Alick, VP of Operations, Doug Davis, VP of Sales, Johnny Hill, Director of Product Development, Cheryl Podzimek, President

established APACN within our target markets by gaining product acceptance within a growing customer base. With a series of innovative product introductions and

focused marketing this past year, the subsidiary achieved an increase in revenues of 18% to \$13.8 million. Although the Company competes against firms significantly larger in size and scope, APACN customers have responded to the Company's ability to rapidly deliver a unique solution to their specific requirements.

Through a combination of cost reductions and improved manufacturing processes, the subsidiary increased gross profit 5% to nearly 28%. These efforts were in part due to the tight integration of the acquired companies processes as well as streamlining labor standards as evidenced in a highly trained labor force. Expenses decreased while efficiencies were achieved in sales and overhead expenses, leading to the first profit posted for the company after a \$1.2 million loss in the prior year. Some highlights of the past year follow.

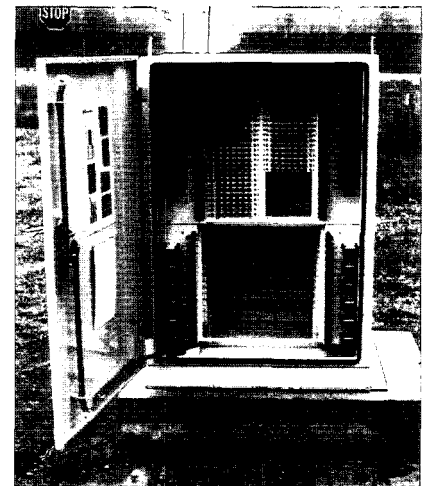
**APACN gains market acceptance in the Fiber to the Premise (FTTP) marketplace with introduction of an outside plant cabinet line.**

The Fiber Scalability Center (FSC) is a line of Outside Plant (OSP) cabinets for any FTTP architecture. It provides a modular and scalable fiber distribution platform minimizing installation costs and maximizing network efficiency. This allows rollout of FTTP services by communication service providers without a large initial expense. The FSC product has been designed to scale with the application environment as demand requires and to reduce service turn-up time for the end user.

The product is a combined design effort by APACN and Emerson Network Power, Energy Systems, North America (formerly Marconi Communications), a worldwide designer and manufacturer of leading edge Outside Plant (OSP) enclosures. APACN took the FSC line a step further by teaming with Charles Industries, Ltd., a technology driven manufacturer of outside plant environmental protection solutions to set the standard for a flood proof design.

Paul Bunyan Telephone, located in Northern Minnesota, selected the FSC for its FTTP fiber distribution and management requirements.

Vince Tyson, plant manager at Paul Bunyan Telephone said, "After evaluating the rigid product designs of competing products, we found only the APACN cabinet line offers the modular and scalable solution we required. The FSC-576 cabinet allows us to turn-on new lines as our take rates increase, letting us quickly generate new revenue."



### **APACN Builds Upon Successes with Contract Manufacturing Partners**

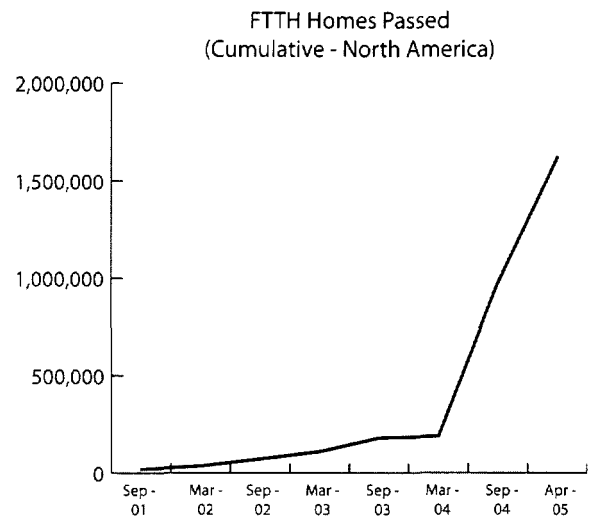
Consistent with a long history of meeting the connectivity needs of large original equipment manufacturers and enterprise networks, APACN stepped up its activities in several high growth markets, including storage area networking and security. In addition, APACN has been successful in working as a subcontracting source for large, multinational contract manufacturing operations that require an outsourcing partner for the "high-touch" demands of custom copper and fiber optic termination. Coined the "second generation of outsourcing," APACN has been able to win business by providing a combination of high mix/low volume production runs and superior engineering services for target customers that demand a higher level of service than would be available from overseas providers.

### **APACN Improves Financial Viability through Continual Operational Improvements**

Key to achieving profitability has been the Company's ability to streamline manufacturing operations while reducing component costs. Through a combination of improved manufacturing capacity utilization at its Minnesota facility and broader implementation of lower cost manufacturing at the Company's South Dakota facility, APACN has successfully initiated programs to use overseas sources to lower its overall cost of manufacturing. The Company aims to continue in this process while maintaining its long standing commitment to quality and customer responsiveness.

### **Looking Forward: Expanding the Reach of APACN**

As reported by Render Vanderslice & Associates, FTTP have shown significant gains in deployments with significant roll-outs expected in the years ahead. To expand upon APACN's value proposition after a successful 2005, the Company will be responding to rapid growth potential of the FTTP marketplace. APACN plans to introduce new technologies targeting the expanding FTTP marketplace as well as the contract manufacturing arena. While the Company expects to continue to see



significant price pressure within both of these markets, APACN has initiated cost reduction programs, both through key supplier relationships and in house investments, to reduce its cost of goods.

Further, APACN is making investments in additional sales personnel to increase the Company's penetration in "feet on the street" across the U.S. The Company expects that these investments, along with its ability to rapidly respond to customer needs, will allow it to demonstrate revenue growth in the later part of FY06.



## ***Focus Moves to Sales as Manufacturing Improves, Product Line Expands***

Optronic's GaN (Gallium Nitride) Products group serves consumer and industrial markets with products built around our core competency of ultraviolet (UV) detection. In FY05, we resolved production issues encountered with the manufacture of some of the consumer models and in addition introduced a new product. Our primary focus has now shifted to developing opportunities and closing sales.

### ***Consumer Products: Personal UV Monitor***

The SunUV® Personal UV Monitor (PUVM, formerly called the SunUVWatch®) is a watch-sized ultraviolet radiation monitor that also incorporates a time/day/date function. It detects UV radiation that is hazardous to human health, tracks the total UV exposure of the user and estimates a maximum exposure time according to government guidelines based on skin type and widely accepted research on exposure limits.



As new skin cancer cases continue to exceed one million

per year in the USA, the media routinely provides stories about the connection of these health problems to too much sun. This is driving demand for APA's products. There is also a strong US government push for school districts to educate children and young adults about sun risks, helping us build a future customer base.

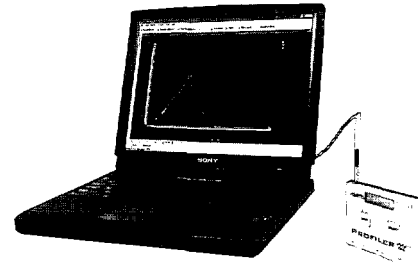
### ***Industrial Products: Profiler M***

APA has applied its technology expertise to a product for UV-curing processes used by the printing, coating and adhesive markets. The product, called a radiometer, is sold to industry as the "Profiler M." It is a compact instrument that measures UV intensity and distribution inside the curing chambers of printers and processing equipment. It provides a separate readout for each of the four UV bands, called A, B, C and V, and data can be obtained directly from the LCD display on the instrument or by using custom software included with the instrument kit to view the data on a personal computer.

There are many thousands of US printers, and tens of thousands worldwide, who have processes using UV curing and have potential need for a radiometer to set up and control their presses.

There are also many thousands of

manufacturers using UV-curing for wood coatings, automotive coatings, adhesives and other applications.



### ***Going Forward: Plastic Monitor Models Ready for Volume Production, Profiler M Available through Distribution***

APA is confident that the market for UV detection products remains attractive, both within the consumer marketplace as the public's awareness about the health issues caused by sun overexposure continues to grow, and within the industrial marketplace as printers and other industries turn to the superior quality and environmental friendliness of UV-cured products.

In the consumer marketplace, our focus is to aggressively market the models of the personal monitors that are ready for volume production through a variety of channels including national retail chains, catalogs, Internet sales, and direct sales to schools and other institutions.

In the industrial marketplace, we intend to access our customers through general distributors of UV process supplies, makers of UV equipment who provide the radiometer with their machines, and makers of UV coatings and adhesives who use the radiometers to help customers set up processes and solve production problems. We have an agreement in place with a leading supplier to the UV curing industry to distribute the instrument, and are pursuing additional distribution agreements with equipment manufacturers and coatings suppliers in the USA and internationally.

## ***Milestones Reached within Product Development; Technology Development to be Continued in FY06***

Power amplifiers for cellular base transceiver stations represent a multi-billion dollar industry. Gallium nitride based transistors and power amplifiers, due to their improved efficiency and increased power density, have the potential to simplify amplifier architecture, dramatically improve overall amplifier efficiency, and increase power and bandwidth of cellular base station and military system power amplifiers while decreasing overall costs.

We are in a unique position to leverage the Company's long-standing expertise and intellectual property within GaN technologies, into an exciting growth market associated with cellular base stations and military radar and communications systems. As our technologies are in the research and development stage, we had three goals for this technology group that were successfully met in FY05:

### ***Improve Product Stability Performance***

Over the course of the year we have refined our quick-turn processing capability, resulting in better performing devices. We have also studied the thermal conduction characteristics of the packaged device and published our transistor stability improvement results in *Electronics Letters*.

### ***Reduce Costs***

In the 3rd quarter of fiscal year 2005 we completed the installation and startup of our multi-wafer Metal Organic Chemical Vapor Deposition System (MOCVD). The system is located in a leased facility that provides state-of-the-art electrical, optical, and structural characterization capability. This arrangement has eliminated potential leasehold improvement costs and characterization equipment expenses that would have been required to locate the system in our Blaine plant.

### ***Customer Qualification***

In the latter part of fiscal year 2005, we delivered our first two-inch diameter wafers to key companies that have provided vital feedback showing APA's material quality is among the best in the industry. Recently, we have developed a three-inch diameter wafer process that exceeds current customer requirements for uniformity and performance.

### ***Going Forward***

Our immediate goal is to build revenue through the epi foundry while we architect power amplifiers that exploit the technical advantages of this technology.

We anticipate:

- Finalizing agreements with both our raw material suppliers and those interested in building power amplifiers.
- Teaming with other companies in submission of government contract proposals that are relevant and aligned with our long term strategic interests.
- Strengthening our licensing position, and thereby advancing our power amplifier business interests through cooperative alliances with both transistor manufacturers and those with power amplifier experience.



## Board of Directors

Dr. Anil K. Jain  
Chief Executive Officer and President

Kenneth A. Olsen  
Vice President and Secretary

Ronald G. Roth  
Semi-retired consultant

Dr. Stephen L. Zuckerman  
Aspen Medical Group, Minneapolis, Minnesota

John G. Reddan  
Retired marketing executive

## Shareholders Meeting

### Annual Meeting

The Annual Meeting of Shareholders will be held on August 18, 2005 at 3:00 PM at the Four Points Sheraton, 1330 Industrial Blvd., Minneapolis, Minnesota

### Availability of Form 10-K

Shareholders of record on July 5, 2005 may obtain, exclusive of exhibits, a copy of the annual report to the Securities and Exchange Commission (Form 10-K) for the year ended March 31, 2005 by request from the Comptroller

### Corporate Officers

Anil K. Jain, Chief Executive Officer, President and Chief Financial Officer; Kenneth A. Olsen, Vice President and Secretary

### Stock Transfer Agent

Wells Fargo Bank Minnesota, N.A., 161 N., Concord Exchange, South St. Paul, MN 55075

### Counsel

Moss & Barnett, A Professional Association, Minneapolis, MN

### Independent Registered Public Accountants

Grant Thornton LLP, Minneapolis, MN



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