

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form 10-K

(Mark One)

Annual Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the fiscal year ended October 31, 2000

OR

Transition Report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 For the transition period from _____ to _____

Commission file number 0-21969

CIENA Corporation

(Exact name of registrant as specified in its charter)

(State or other jurisdiction of incorporation or organization) **Delaware**

(I.R.S. Employer Identification No.) **23-2725311**

(Address of principal executive offices) **1201 Winterson Road, Linthicum, MD**

(Zip Code) **21090-2295**

(Registrant's telephone number, including area code) **(410) 865-8500**

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

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

Indicate by check mark whether the registrant: (1) has filed all reports to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of the 286,530,631 shares of Common Stock of the Registrant issued and outstanding as of October 31, 2000, excluding 6,030,520 shares of Common Stock held by affiliates of the Registrant was \$29,606,786,716. This amount is based on the average bid and asked price of the Common Stock on the Nasdaq Stock Market of \$105.55 per share on October 27, 2000.

Documents Incorporated by Reference

Part III of the Form 10-K incorporates by reference certain portions of the Registrant's proxy statement for its 2001 annual meeting of stockholders to be filed with the Commission not later than 120 days after the end of the fiscal year covered by this report.

Part I *The information in this Form 10-K contains certain forward-looking statements, including statements related to markets for the Company's products and trends in its business that involve risks and uncertainties. The Company's actual results may differ materially from the results discussed in the forward-looking statements. Factors that might cause such a difference include, but are not limited to, those discussed in "Management's Discussion and Analysis of Financial Condition and Results of Operations—Risk Factors" and "Business" as well as those discussed elsewhere in this Form 10-K.*

Item 1. Business

Company

CIENA Corporation (the "Company" or "CIENA") was incorporated in Delaware in November 1992. The Company completed its initial public offering on February 7, 1997 and a secondary offering on July 2, 1997. CIENA's principal executive offices are located at 1201 Winterson Road, Linthicum, Maryland 21090. Its telephone number is (410) 865-8500.

General

Overview

CIENA is a leader in the rapidly growing intelligent optical networking equipment market. We offer a comprehensive portfolio of products for communications service providers worldwide. Our customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, wireless and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. We have pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

The Company had revenues of \$858.8 million for its fiscal year ended October 31, 2000, an increase of approximately 78% when compared with fiscal 1999 revenues of \$482.1 million. Net income for fiscal 2000 was \$81.4 million. This compares with a net loss of \$3.9 million for fiscal year 1999.

For the fiscal year ended October 31, 2000, the Company recorded revenue from sales of intelligent optical networking equipment to a total of thirty-two service provider customers. This represents an increase of more than 18% over 1999's customer base of twenty-seven. During fiscal 2000, three customers each represented more than 10 percent of CIENA's total revenues.

Historically, the significant majority of CIENA's revenues have come from the sale of products in a single product category: long-distance optical transport equipment. CIENA believes it is one of the worldwide market leaders in field deployment of open-architecture long-distance optical transport equipment utilizing dense wavelength division multiplexing, or DWDM, technology. The majority of CIENA's fiscal 2000 revenue was derived from sales of its long distance optical transport products, including MultiWave CoreStream™ and MultiWave Sentry 4000™. During the fiscal year 2000, CIENA also recognized revenue from the sale of seven optical networking products including sales of its metropolitan optical transport product, MultiWave® Metro and its intelligent optical core switch, MultiWave CoreDirector™.

Our research and development efforts as well as potential future acquisition and partnership activities are targeted at capitalizing on our installed base of carrier customers and leveraging our position as a leader in the rapidly growing optical networking market.

Industry Background

The world's tele- and data-communications infrastructure is formed by fiber optic networks owned and operated by service providers. In recent years, the combination of several factors, including global deregulation which fueled competition among service providers and increased bandwidth demand resulting from the proliferation of the Internet and the emergence of electronic commerce, gave rise to the increased deployment of communications equipment utilizing dense wavelength division multiplexing technology ("DWDM").

DWDM replaces the single beam of light that traverses fiberoptic cable in legacy networks with multiple colors of light, each of which is capable of carrying tens of thousands of voice conversations or data transmissions. Prior to the emergence of DWDM, service providers could increase network capacity either by adding new physical fibers to their network or by increasing the rate of transmission through the fiber. In many cases DWDM has proven to be more cost efficient than physically deploying new fibers and it has enabled the delivery of significantly more traffic by service providers. DWDM adds "virtual lanes to the information highway" as opposed to simply "raising the speed limit within the existing lane."

The widespread adoption of DWDM enabled carriers to efficiently and economically expand network capacity, or bandwidth, while reducing bandwidth costs. CIENA believes that the application of products using DWDM has led to a dramatic decline in service providers' capital cost per bit from 1995 to present, thereby enabling pricing competition between carriers and significant bandwidth price declines of up to 80% in some US regions.

Network Scalability Challenges

For the past several years DWDM has been implemented by carriers to increase capacity between discrete points in their long-distance networks. To construct a network using DWDM equipment as its backbone, a carrier must interconnect the point-to-point high-capacity links and manage all traffic flowing through them. An important element enabling this interconnection in traditional architectures has been the SONET/SDH add/drop multiplexer, or ADM. In most network architectures, a SONET ADM is used to transmit the information-carrying signal for each DWDM optical channel. A second ADM then is used to receive the information-carrying signal from each DWDM optical channel. As a result, every time an additional optical channel is deployed, two additional SONET ADMs must be purchased, installed and maintained—one for each end of the traffic-carrying route. For example, in order to transmit/receive the traffic from a DWDM optical transport system with 96 channels of DWDM, a service provider would require a total of 192 SONET ADMs.

Though DWDM gave carriers the ability to solve the bandwidth problem in the core of their networks, the technology created operational and scalability challenges for carriers. Historically this method has been the only way available to service providers to scale their networks. Unfortunately, this approach creates upwardly spiraling costs. In addition to the capital equipment costs associated with the equipment, each SONET ADM uses valuable central office space and power. Furthermore, as the number of DWDM channels and links increases, the carrier's management of the network grows more complex, making manual service provisioning and network operation more difficult and costly.

Escalating Operational Costs

In addition to the problems inherent in scaling traditional network architectures, carriers are challenged to scale their operating staff as quickly as they can grow their networks. According to information filed by carriers with the United States

Securities and Exchange Commission, many service providers are spending more on operating, growing, and managing their networks than they are on capital expenditures. In some cases, service providers are spending two to four dollars on network operations and support expenses for every dollar spent on capital equipment. In addition, in many cases, network operations and support expenses are increasing at a significantly faster rate than revenues.

CIENA's Solutions

CIENA's intelligent optical networking equipment was designed to enable service providers to transition from inefficient, legacy, voice-centric networks to more efficient data-optimized, intelligent optical networks. CIENA's systems address both the network scalability challenges and the escalating operational costs faced by service providers.

- CIENA leverages its expertise in optics, software, systems and Application Specific Integrated Circuits, or ASICs, to develop innovative products designed to dramatically lower the cost of constructing service provider networks.
- CIENA's intelligent optical networking equipment is designed to replace multiple legacy network elements with fewer, more intelligent network elements, thereby simplifying the network and lowering carriers' capital and operations costs.
- With the bandwidth availability enabled by CIENA's optical transport equipment, service providers should be able to ramp their network bandwidth with growing Internet demand.
- CIENA's intelligent optical networking equipment is designed to lower ongoing network operating costs by enabling carriers that utilize our equipment to more efficiently manage network traffic.
- CIENA's intelligent optical networking equipment also is designed to enable carriers to shorten the time it takes to provision services, in some cases from months to real-time, thereby accelerating the generation of revenue.
- In addition to capital and operational cost savings, CIENA's intelligent optical networking equipment and recently introduced network management software is designed to enable new, revenue-generating and service-differentiating optical services.

Our optical networking product portfolio is targeted at the critical areas of service provider networks: long-distance optical transport, short-distance optical transport and intelligent core switching.

- **Optical Transport.** CIENA's long-distance optical transport products, MultiWave CoreStream™, MultiWave Sentry™, MultiWave 1600, and our short distance products, MultiWave Metro™, Metro One™ and MultiWave Firefly™, utilize DWDM technology and should enable carriers to cost effectively add critical network bandwidth when and where they need it. As a result, service providers should be better able to scale their networks to meet demand.
- **Intelligent Optical Core Switching.** Our intelligent optical core switches, MultiWave CoreDirector™, and MultiWave CoreDirector CI™ enable carriers to manage the bandwidth created with optical transport products. CoreDirector and CoreDirector CI help carriers solve both the issues of network scalability and escalating operating costs by incorporating the functionality of multiple network elements into single elements with previously unavailable switching capabilities and management.
- **Network Management.** ON-Center, CIENA's recently introduced fully integrated family of software-based tools for comprehensive element, network and service layer management, is designed to enable accelerated deployment of new, differentiating optical services. ON-Center should also reduce network operating and management costs.

CIENA calls the network architecture created by these products "CIENA LightWorks." The components of CIENA's LightWorks can be sold together as a complete network solution or separately as best-of-breed solutions. CIENA's LightWorks architecture is designed to dramatically simplify a carrier's network by reducing the number of network elements. We believe this network simplification will lead to lower capital equipment cost and lower operating cost.

Strategy

CIENA's strategy is to maintain and build upon its market leadership in the deployment of intelligent optical networking systems and to leverage the Company's technologies in order to provide solutions for both voice and data communications-based network architectures. The Company believes that the technological, operational and cost benefits of the Company's optical networking solutions create competitive advantages for service providers worldwide. We believe our solutions will become increasingly important as these service

providers are being pressed by their customers to deliver services to address the dramatic growth in Internet and other data communications traffic. CIENA's strategy includes the following:

- ***Expand Our Base of Customers Using Our Optical Networking Solutions.*** We believe that achieving early widespread operational deployment of our systems in a particular carrier's network will provide CIENA significant competitive advantages with respect to additional optical networking deployments and will enhance our marketing to other carriers as a field-proven supplier. While continuing to aggressively serve our existing customers, we intend to actively pursue additional optical networking deployment opportunities among fiber optic carriers in domestic and foreign long distance, interoffice and local exchange markets.
- ***Expand Sales and Marketing Efforts.*** The nature of the target customer base for all our product lines requires a focused sales effort on a customer-by-customer basis. We will continue to increase our sales and marketing efforts aimed at the worldwide market of service providers. CIENA increased the number of revenue generating optical networking customers from twenty-seven during 1999 to thirty-two in 2000. In addition, CIENA has a significant international presence, particularly in Europe. Market analyst RHK estimates that CIENA holds the leading share of the European optical networking market at 37%. Revenues from international customers represented 33.0% of CIENA's total revenues in fiscal 2000. CIENA plans to continue to strengthen its marketing programs and to increase its domestic and international presence through both direct sales and distributor relationships.
- ***Continue to Emphasize Technical Support and Customer Service.*** CIENA markets technically advanced systems to sophisticated customers. The nature of CIENA's systems and market require a high level of technical support and customer service. We believe we have a good reputation for our technical support and customer service and we intend to emphasize our global service and support excellence and capabilities as differentiating factors in our efforts to maintain and enhance our market position. CIENA offers complete engineering, furnishing and installation services in addition to full-time customer support from strategic locations worldwide.

- **Continue to Enhance World Class Manufacturing Capability.** CIENA's optical networking systems play a critical role in our customers' networks. Quality assurance and manufacturing excellence are necessary for CIENA to achieve success. CIENA believes it has developed a world class optical manufacturing capability and this capability provides CIENA with a significant competitive advantage. CIENA achieved ISO 9001 certification in July 1997 in further support of this element of its strategy. CIENA expects to continue to invest in both the capital and the human resources necessary to maintain and leverage this advantage. In addition, CIENA expects to utilize this expertise to leverage our manufacturing capability with contract manufacturers.
- **Leverage the Company's High Bandwidth Technologies and Know-How.** We believe the overall growth in demand for bandwidth and the need for intelligent high bandwidth services in telecommunications networks will lead to transmission bottlenecks in other segments of the networks where the application of optical technologies and other high bandwidth enabling technologies may provide solutions, either within existing network architectures, or as part of the design and development of alternative data communications-based network architectures. CIENA expects to leverage the core competencies it has developed in the design, development and manufacturing of its optical transport and intelligent optical switching product lines by pursuing new product development efforts, and strategic alliances or acquisitions, to address these expected opportunities. CIENA intends to move aggressively to maintain leadership in the design and development of intelligent optical networking equipment and software which will both respond to customer needs and help customers move toward newer, higher capacity, more cost-efficient network designs for the future.

Products

Our optical networking product portfolio is targeted at the critical areas of service provider networks: long-distance optical transport, short-distance optical transport and intelligent optical core switching. CIENA's "open architecture" design means its products interoperate with most carriers' existing fiber optic transmission systems, and network elements, including connecting directly to either traditional SONET equipment, ATM switches or IP routers.

Long-Distance Optical Transport

<u>Product</u>	<u>Features</u>
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MultiWave CoreStream	<ul style="list-style-type: none">▪ CIENA's fourth generation carrier-class intelligent optical transport product.▪ First commercially deployed 96-channel DWDM system with commercial shipments beginning in fiscal Q3 1999.▪ Utilizes DWDM technology to deliver up to 96 optical channels at 2.5 gigabits per second (240 gigabits) or up to 48 channels at 10 gigabits per second (480 gigabits).▪ Architected for in-service growth; scalable to handle 2 terabits of traffic in the future.▪ With its longer reach feature set, will ultimately be capable of transporting signals up to 5,000 kilometers without electrical regeneration.
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MultiWave Sentry 4000	<ul style="list-style-type: none">▪ CIENA's third generation carrier-class intelligent optical transport product.▪ First commercially deployed 40-channel system with commercial shipments beginning in fiscal Q2 1998.▪ Utilizes DWDM technology to deliver up to 40 channels at 2.5 gigabits per second (100 gigabits).
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MultiWave Sentry 1600	<ul style="list-style-type: none">▪ CIENA's second generation carrier-class intelligent optical transport product.▪ First commercially deployed 16-channel system with commercial shipments beginning in the second half of fiscal 1996.▪ Utilizes DWDM technology to deliver up to 16 channels at 2.5 gigabits per second (40 gigabits).▪ Incorporated performance monitoring capabilities, not previously available in DWDM equipment.
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MultiWave 1600	<ul style="list-style-type: none">▪ CIENA's first generation carrier-class intelligent optical transport product.▪ First commercially deployed 16-channel system with commercial shipments beginning in the first half of fiscal 1996.▪ Utilizes DWDM technology to deliver 16 channels at 2.5 gigabits per second (40 gigabits).
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Short-Distance Optical Transport

<u>Product</u>	<u>Features</u>
MultiWave Metro MultiWave Metro One	<ul style="list-style-type: none">▪ A carrier-class optical transport product designed specifically to address the performance and economic requirements of metropolitan markets.▪ Provides up to 24 duplex channels over a single fiber pair, enabling a service provider to transport up to 60 gigabits per second.▪ Supports multiple network topologies, such as rings, hubs, and stars.▪ Offers a wide range of interfaces from 100 megabits per second up to 10 gigabits per second.▪ Offers the same carrier-class reliability and functionality as MultiWave Metro, but for a single channel in a reduced size and reduced power consumption package.
MultiWave Firefly	<ul style="list-style-type: none">▪ MultiWave Firefly was developed specifically for use by carriers in short-distance, point-to-point applications.▪ This system multiplexes up to 24 channels at 2.5 gigabits per second, over a single fiber pair, allowing a carrier to transport up to 60 gigabits per second.

Intelligent Optical Core Switching

<u>Product</u>	<u>Features</u>
MultiWave CoreDirector	<ul style="list-style-type: none">▪ Provides traffic management and switching capability beyond current network solutions of up to 256 ports of OC-48 or up to 640 gigabits per second in a single 7 foot bay.▪ Designed to reduce capital equipment costs by displacing multiple legacy network devices.▪ CoreDirector's intelligence is designed to simplify service provisioning, in some cases reducing provisioning times from months to real-time.▪ CoreDirector offers the ability to switch at the wavelength level or at levels of granularity down to an STS-1.▪ CoreDirector should enable new revenue opportunities for service providers through new optical layer capabilities and services.
CoreDirector CI	<ul style="list-style-type: none">▪ CoreDirector CI delivers CoreDirector functionality in a smaller package and at a lower entry cost that is ideal for lower capacity networks or smaller switching sites.▪ When available, CoreDirector CI will provide up to 64 ports of OC-48 or up to 160 gigabits per second in a half bay.

Network Management

<u>Product</u>	<u>Features</u>
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LightWorks ON-Center	<ul style="list-style-type: none">▪ A fully integrated family of software-based tools for comprehensive element, network and service layer management across service provider networks.▪ ON-Center is designed to enable accelerated deployment of new, differentiating optical services, reduced network operating and management costs, and innovative customer service solutions.▪ Designed so that service providers can select any or all components necessary to meet their particular network's management needs, LightWorks ON-Center is comprised of:<ul style="list-style-type: none">▪ an Optical Service Layer Management System for cross-vendor end-to-end service management,▪ an Optical Network Management System for integrated management across all of CIENA's intelligent optical transport, switching and access systems, and;▪ a Modeling and Planning System for network design.
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New Optical Services

In addition to offering significant capital equipment and operational cost savings, CIENA's intelligent optical networking equipment is designed to enable its customers to offer new, revenue generating optical layer services. CIENA's LightWorks Toolkit™ is designed to allow carriers to offer dynamic high-bandwidth services and handle real-time service provisioning and prioritization. By mixing and matching CIENA's ToolKit tools, carriers will be able to offer customized services and further differentiate themselves from their competition.

<u>Service</u>	<u>Description</u>
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Optical Priority Provisioning	<p>Tools in the LightWorks ToolKit will ultimately include:</p> <ul style="list-style-type: none">▪ Optical Priority Provisioning is designed to allow carriers to turn-up optical services in real time, and to specify priority levels for further differentiation of optical services. For instance, a carrier may elect to offer multiple levels of optical bandwidth, ranging from "premium" to "best-effort" service, with each level of service being priced and delivered differently. Optical Priority Provisioning is designed to help carriers more easily meet service level agreements by assigning and adjusting traffic priorities in real time, potentially allowing carriers to unlock more revenue from data services.
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- Optical Priority Provisioning should simplify the delivery of differentiated optical services by providing access to service templates of predefined restoration priorities, preemptability, and linear, ring and mesh protection schemes. Using these simplified templates, service provisioners should be able to deliver optical services, at any service level, in just a few clicks of a mouse.

Flexible Concatenation

- In legacy networks, bandwidth demand is arbitrarily shoehorned into SONET/SDH-sized transport containers where the size of the container is fixed. For example, if a customer requires OC-15 service, the customer must purchase OC-48 service, even though only a fraction of the 48 time slots in the transport container will be filled with bits. In this scenario, the customer is paying for bandwidth it is not using and the carrier is losing valuable network bandwidth. CIENA is using a combination of silicon and software to redefine how carriers access and deliver bandwidth.
- When available, Flexible Concatenation will allow carriers to access all time slots within the SONET/SDH frame—even when those frames are fractionally filled. That means carriers will be able to create true OC-“N” services in which “N” can be any number between 1 and 48 and in the future will be 192 and eventually 768 instead of the current restrictions of SONET which sets fixed sizes on transport containers. Flexible concatenation is designed to enable carriers to maximize their network bandwidth and deliver customer-specific service.

Rate Adaptive Gigabit Ethernet

- CIENA’s Rate-Adaptive Gigabit Ethernet technology uses software and ASICs to enable service providers to sell “any-size” Gigabit Ethernet services in increments of 50Mbps (STS-1) up to 1.25Gbps.
- When available, service providers will be able to use Rate Adaptive Gigabit Ethernet to create a wide range of customized optical service options for end-users and deliver those services over more efficient access and core networks that leverage the economies of Gigabit Ethernet transmission.

VSR Optics

- For increased profitability, carriers must continually drop their cost per bit. However, to stay competitive, carriers must continue to increase the value of their services. VSR (Very Short Reach) Optics are designed to provide lower-cost, high-capacity connections between Internet and optical networking systems within a service provider’s central office. VSR Optics leverage Vertical Cavity Surface Emitting Laser (VCSEL) technology and Gigabit Ethernet standards to make variable-rate optical services possible and economical—a valuable service for unpredictable bandwidth demands. When available, CIENA will apply this data rate-scalable technology to 10Gbps network connections.

Transparent Service Multiplexing

- As opposed to traditional SONET/SDH multiplexing, CIENA's "transparent" multiplexing is designed to enable optical services to be delivered without compromising the SONET/SDH overheads of individual tributaries that make up the aggregate signal. Enabling multiple signals to be transparently multiplexed, transported and demultiplexed means signals are delivered as if they were connected directly to the destination equipment by their own unique wavelength, maintaining the customers' signal security and integrity. When available, Transparent Service Multiplexing (TSM) should be ideal for delivering IP traffic, wavelength services and other new optical services that CIENA's Toolkit enables. With TSM, each end device appears to communicate over its own unique wavelength while actually being economically consolidated with other signals.

Wavelength Binding

- With unprecedented traffic growth and changing traffic demands, Internet-centric carriers are looking for ways to better match the changes in IP router traffic demands with the provisioned bandwidth capacities available within their networks. To meet this need, CIENA is developing Wavelength Binding.
- Wavelength Binding will leverage intellectual property to enable a device of any speed to be connected to a network operating at a lower speed by building "virtual channels" of multiple wavelengths bound together in a single, very high capacity bitstream. As a result, when Wavelength binding is available CIENA's customers will be able to deliver 40 gigabits per second without changing their transport infrastructure. Wavelength Binding will also give carriers previously unavailable network flexibility by enabling them to bundle and unbundle wavelengths as network capacity demands change.

Product Development

We believe the overall growth in utilization of fiber optic telecommunications networks will lead to transmission bottlenecks in other segments of the networks where the application of optical networking technologies may provide solutions. We also believe there may be opportunities for us to develop products and technologies complementary to existing optical networking technologies which may broaden our ability to provide, facilitate and/or interconnect with high bandwidth solutions offered throughout fiber optic networks. CIENA intends to focus its product development efforts and possibly pursue strategic alliances or acquisitions to address expected opportunities in these areas.

Customers

CIENA has announced publicly relationships with the following thirty-five customers:

Domestic

1. Alltel Corporation
2. Bell South Telecommunications, Inc.
3. Broadwing Communications Services, Inc. (formerly IXC)
4. Cable & Wireless USA, Inc.
5. Digital Teleport, Inc.
6. Enron Communications, Inc.
7. Genuity Solutions Inc.
8. Intermedia Communications Inc.
9. WorldCom Inc.
10. PSINet, Inc.
11. Qwest Communications Corporation
12. RCN of Pennsylvania, Inc.
13. Sprint Corporation
14. Verizon Communications, Inc. (formerly Bell Atlantic)
15. Williams Communications, Inc.
16. XO Communications, Inc. (formerly Nextlink)

International

1. Cable & Wireless Communications Services Limited, UK
2. CompleTel SAS, France
3. Crosswave Communications, Inc., Japan
4. Daini Deuden Inc., Japan
5. Dynegy Inc., Austria
6. ESAT Telecom, Ireland
7. Global Crossing (UK) Telecommunications Limited, UK
8. GTS Network (Ireland) Limited, Belgium
9. HanseNet Telekommunikation GmbH, Germany
10. Interoute Telecommunications (UK) Limited, UK
11. Japan Telecom, Co., Ltd., Japan
12. KDD/Teleway Japan Corporation, Japan
13. Korea Telecom, Korea
14. MobilCom AG, Germany
15. WorldCom, Inc., Europe
16. Operadora Protel, S.A. de C.V., Mexico
17. Fibernet UK Limited (formerly TANet, UK)
18. Telecom Developpement, France
19. Telia AB, Sweden

In addition, CIENA has several unannounced customer relationships.

Customers by Category

Interexchange Carriers (IXCs)

The initial deployments of CIENA's bandwidth enhancing optical transport equipment occurred in the core of the U.S. long-distance network with the interexchange carriers or IXCs. IXCs provide connections between local exchanges in different geographic areas. In recent years, incumbent IXCs such as Sprint, WorldCom and AT&T have seen increased competition from emerging long-distance carriers such as Qwest Communications, Global Crossing, Broadwing Communications Services, Inc., and Level 3 Communications. We expect that continued competition in long-distance call rates, as well as the carriers' desire for market and service differentiation, will continue to drive demand for the increased capacity and features offered by CIENA's optical networking equipment.

Competitive Local Exchange Carriers (CLECs)

Deregulation has fueled the growth of U.S. competitive local exchange carriers or CLECs. CIENA believes that in the short-term, CLECs could benefit from the hesitancy of incumbent local exchange carriers, such as the Regional Bell Operation Companies ("RBOCs"), to open their local markets to competitors, and that these CLECs are likely to move aggressively to capitalize on opportunities in the local area. CIENA recognized revenues from CLEC customers in fiscal 2000 and expects that tactical CLEC applications for its long-haul products, as well as the short-distance products, will be well-suited to CLEC network applications.

International Competitive Carriers

New competitive carriers are emerging as a result of deregulation in the international telecommunications markets as well. CIENA has concentrated its sales efforts on these emerging carriers as opposed to the traditional carriers or PTTs. During Fiscal 2000, CIENA increased its announced international customer base from fourteen to eighteen customers. In many cases, these new competitive carriers do not have the installed fiber base of the larger carriers and therefore are in need of the scalable bandwidth CIENA's optical transport systems offer. In addition, because of the economies and flexibility afforded by the application of DWDM technology, CIENA's equipment is being used on several new builds where the service provider is physically constructing the network. CIENA expects that in the near-term, the majority of its international revenue will come from these smaller, more aggressive competitive carriers, and will continue to concentrate its sales efforts accordingly.

Non-Traditional Telecommunication Service Providers

The growth of the Internet has produced traffic growth substantial enough to attract new, non-traditional telecommunication service providers to compete in this market as well. Both domestically and internationally, companies with rights-of-way, such as utility companies, cable TV providers, and railroads are capitalizing on their “network” (whether a pipeline, a railroad, or a highway), and in some cases, are laying optical fiber and constructing telecommunications networks along those rights-of-way. The transmission capabilities of CIENA’s optical networking equipment enables these new carriers to provide competitive services while purchasing and laying a minimal amount of fiber optic cable.

Incumbent Local Exchange Carriers

Incumbent local exchange carriers, such as the RBOCs, are very active in inter-office and local exchange markets and, under the Telecommunications Act of 1996, RBOCs are eligible to enter the long distance market once they have met certain requirements for opening their local markets to competition. CIENA believes that over time the RBOCs will continue to gain approval to offer long distance services, although the timing of that move is uncertain, and the question of how such a move will be implemented is unclear—e.g., through the establishment of owned network facilities, through the purchase of long distance capacity from other long distance carriers, or through some combination of the two. Regardless of the timing of any such move, CIENA believes there are opportunities for in-region deployment of CIENA’s long distance and metropolitan optical transport products at certain RBOCs.

Marketing and Distribution

CIENA’s intelligent optical networking systems require substantial investment, and our target customers in the fiber optic telecommunications market—where network capacity and reliability are critical—are highly demanding and technically sophisticated. There are only a small number of such customers in any country or geographic market. Also, every network operator has unique configuration requirements, which impact the integration of optical networking systems with existing transmission equipment. The convergence of these factors leads to a very long sales cycle for optical networking equipment, often more than a year between initial introduction to the Company and commitment to purchase, and has further led CIENA to pursue sales efforts on a focused, customer-by-customer basis. See Item 7. “Management’s Discussion and Analysis of Financial Conditions and Results of Operations—Risk Factors.”

CIENA has organized its resources for the separate but coordinated approach to United States and international customers. In the United States market, a sales team, comprised of an account manager, systems engineers and technical support and training personnel, is assigned responsibility for each customer account, and for the coordination and pursuit of sales contacts. In the international market, CIENA pursues prospective customers through direct sales efforts, as well as through distributors, independent marketing representatives and independent sales consultants. CIENA established CIENA Communications, Inc. as a wholly owned subsidiary to coordinate worldwide sales, marketing, customer service and installation support functions. CIENA Communications Japan, Ltd. is a wholly owned subsidiary established to coordinate sales, marketing and customer service efforts in Japan, the Pacific Rim and other Asian areas. CIENA established CIENA Limited as a wholly owned subsidiary in the U.K. to coordinate European, and Middle Eastern sales, marketing, customer service and installation support functions. Through its subsidiaries, CIENA has established offices in the U.S., Europe and Latin America, including offices in the U.K., Germany, France, Spain, Mexico and Brazil. CIENA has distributor or marketing representative arrangements, including agreements with agents in Italy, the Republic of Korea, Japan, Venezuela, Columbia and Chile.

In support of its worldwide selling efforts, CIENA conducts marketing communications programs intended to position and promote its products within the telecommunications industry. Marketing personnel also coordinate our participation in trade shows and conduct media relations activities with trade and general business publications.

Manufacturing

CIENA conducts most of the optical assembly, final assembly and final component, module and system test functions for its optical transport products at its manufacturing facilities in Maryland. It also manufactures the in-fiber Bragg gratings used in its optical transport product lines. We expect the majority of the manufacturing associated with our MultiWave CoreDirector and CoreDirector CI products will be performed by third-party manufacturers, with only final system test and assembly performed by CIENA. We also rely on third-party manufacturers to manufacture some of our components for our products and continue to evaluate whether additional portions of our manufacturing can be done on a reliable and cost-effective basis by third-party manufacturers.

CIENA believes that portions of its manufacturing technologies and processes represent a key competitive advantage. Accordingly, we have invested significantly in automated production capabilities and manufacturing process improvements and expect to further enhance our manufacturing process with additional production process control systems. Certain critical manufacturing functions require a highly skilled work force, and CIENA puts significant efforts into training and maintaining the quality of its manufacturing personnel and in maintaining its proprietary information in this area.

CIENA's optical transport product lines utilize hundreds of individual parts, many of which are customized for the Company. Component suppliers in the specialized, high technology end of the optical communications industry are generally not as plentiful or, in some cases, as reliable, as component suppliers, in more mature industries. CIENA works closely with its strategic component suppliers to pursue new component technologies that could either reduce cost or enhance the performance of our products.

Competition

Competition in the telecommunications equipment industry is intense, particularly in that portion of the industry focused to delivering higher bandwidth and more cost effective services throughout the telecommunications network. CIENA believes that its position as a leading supplier of open architecture optical networking equipment and the field-tested design and performance of its optical transport products give it a competitive advantage and expects to leverage that advantage in bringing its core switching products to market. However, competition has been and will continue to be very intense. See Item 7. "Management's Discussion and Analysis of Financial Conditions and Results of Operations—Risk Factors."

The competition faced by CIENA is dominated by a small number of very large, usually multinational, vertically integrated companies, each of which has substantially greater financial, technical and marketing resources, and greater manufacturing capacity as well as more established customer relationships with long distance carriers than CIENA. Included among CIENA's competitors are Lucent Technologies Inc., ("Lucent"), Northern Telecom Inc. ("Nortel"), Alcatel Alsthom Group ("Alcatel"), NEC Corporation ("NEC"), Cisco, by virtue of its acquisition of Pirelli SpA, Siemens AG ("Siemens"), Fujitsu Group ("Fujitsu"), Hitachi Ltd. ("Hitachi") and Telefon AB LM Ericsson ("Ericsson"). CIENA also believes that several new companies, such as ONI Systems, Sycamore Networks, Corvis Systems,

and Tellium, Inc., will attempt to break into the rapidly emerging optical networking market. Each of CIENA's major competitors is believed to be in various stages of development, introduction or deployment of products directly competitive with CIENA's optical transport, core switching and service delivery systems.

In addition to optical networking equipment suppliers, traditional TDM-based transmission equipment suppliers compete with CIENA in the market for transmission capacity. Lucent, Alcatel, Nortel, Fujitsu, Hitachi and NEC are already providers of a full complement of such transmission equipment. These and other competitors have introduced or are expected to introduce equipment that will offer 10 Gb/s transmission capability.

Patents and Other Intellectual Property Rights

CIENA has licensed intellectual property from third parties, including certain key enabling technologies with respect to the production of in-fiber Bragg gratings, utilized publicly available technology associated with Erbium-doped fiber amplifiers, and applied its design, engineering and manufacturing skills to develop its optical transport systems. These licenses expire when the last of the licensed patents expires or is abandoned. CIENA also licenses from third parties certain software components for its network management products. These licenses are perpetual but will generally terminate after an uncured breach of the agreement by CIENA. We have registered trademarks for CIENA, WaveWatcher, MODULE SCOPE, CIENA Optical Communications, Multiwave, and Multiwave Sentry. CIENA also relies on contractual rights, trade secrets and copyrights to establish and protect its proprietary rights in its products.

CIENA intends to enforce vigorously its intellectual property rights if infringement or misappropriation occurs.

CIENA's practice is to require its employees and consultants to execute non-disclosure and proprietary rights agreements upon commencement of employment or consulting arrangements with CIENA. These agreements acknowledge CIENA's exclusive ownership of all intellectual property developed by the individual during the course of his or her work with CIENA, and require that all proprietary information disclosed to the individual will remain confidential. CIENA's employees generally also sign agreements not to compete with CIENA for a period of twelve months following any termination of employment.

As of November 2000, CIENA had received fifty-eight (58) United States patents, and had one hundred sixteen (116) pending U.S. patent applications. We also have a number of foreign patents and patent applications. Of the United

States patents that have been issued to CIENA, the earliest any will expire is 2012. Pursuant to an agreement between CIENA and General Instrument Corporation dated March 10, 1997, CIENA is a co-owner with General Instrument Corporation of a portfolio of 27 United States and foreign patents relating to optical communications, primarily for video-on-demand applications. See Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Risk Factors.”

Employees

As of October 31, 2000, CIENA and its subsidiaries employed 2,775 persons, of whom 527 were primarily engaged in research and development activities, 1,233 in manufacturing, 412 in installation services, 372 in sales, marketing, customer support and related activities and 231 in administration. None of CIENA’s employees are currently represented by a labor union. CIENA considers its relations with its employees to be good.

Directors and Executive Officers

The table below sets forth certain information concerning each of the directors and executive officers of CIENA:

Name	Age	Position
Patrick H. Nettles, Ph.D. ⁽¹⁾	57	Chief Executive Officer, Chairman of the Board of Directors
Gary B. Smith ⁽¹⁾	40	President, Chief Operating Officer and Director
Stephen B. Alexander	41	Senior Vice President, Chief Technology Officer
Steve W. Chaddick	49	Senior Vice President, Systems and Technology
Joseph R. Chinnici	46	Senior Vice President, Finance and Chief Financial Officer
Mark Cummings	49	Senior Vice President, Operations
Larry P. Huang	48	Senior Vice President, Business Development
Jesús León	56	Senior Vice President, Transport Products and Technology
Michael O. McCarthy III	35	Senior Vice President, General Counsel and Secretary
Elizabeth S. Perry	37	Senior Vice President, Core Switching and NMS
Rebecca K. Seidman	54	Senior Vice President, Human Resources Development
Chris V. Simpson	53	Senior Vice President, Global Sales
A. Perry Kamel	35	Vice President, Marketing
Andrew C. Petrik	37	Vice President, Controller and Treasurer
Stephen P. Bradley, Ph.D. ⁽¹⁾⁽³⁾	59	Director

Name	Age	Position
Harvey B. Cash ⁽¹⁾⁽²⁾	62	Director
John R. Dillon ⁽¹⁾⁽³⁾	59	Director
Lawton W. Fitt ⁽¹⁾⁽³⁾	47	Director
Judith M. O'Brien ⁽¹⁾⁽²⁾	50	Director
Gerald H. Taylor ⁽¹⁾⁽²⁾	59	Director

⁽¹⁾ The Company's Directors hold staggered terms of office, expiring as follows: Ms. Fitt and Messrs Dillon and Nettles in 2001; Ms. O'Brien and Messrs Smith and Cash in 2002; Messrs Bradley and Taylor in 2003

⁽²⁾ Member of the Human Resources Committee

⁽³⁾ Member of the Audit Committee

Patrick H. Nettles, Ph.D., has served as Chairman of the Board of Directors and Chief Executive Officer since October 2000 and as President, Chief Executive Officer and Director of the Company since April 1994, and as Director, and Chief Executive Officer since February 1994. Dr. Nettles serves as a Trustee for the California Institute of Technology and also serves on the Advisory Board to the President at Georgia Institute of Technology. From 1992 until 1994, Dr. Nettles served as Executive Vice President and Chief Operating Officer of Blyth Holdings Inc., a publicly-held supplier of client/server software. From late 1990 through 1992, Dr. Nettles was President and Chief Executive Officer of Protocol Engines Inc., a development stage enterprise, formed as an outgrowth of Silicon Graphics Inc., and targeted toward very large scale integration based solutions for high-performance computer networking. From 1989 to 1990, Dr. Nettles was Chief Financial Officer of Optilink, a venture start-up that was acquired by DSC Communications. Dr. Nettles received his B.S. degree from the Georgia Institute of Technology and his Ph.D. from the California Institute of Technology.

Gary B. Smith has served as President, Chief Operating Officer and Director since October 2000 and Senior Vice President, Chief Operating Officer from August 1999 to October 2000. Mr. Smith served as Senior Vice President Worldwide Sales from September 1998 to August 1999, and was previously Vice President of International Sales since joining the Company in November 1997. From June 1995 to October 1997, Mr. Smith served as Vice President, Sales and Marketing for Intelsat and from August 1991 to May 1995, Mr. Smith served as Vice President of Sales and Marketing for Cray Communications, Inc. Mr. Smith received an M.B.A. from Ashridge Management College, U.K.

Stephen B. Alexander has served as Senior Vice President, Chief Technology Officer since January 2000, Vice President, Chief Technology Officer from September 1998 to January 2000, and Vice President, Transport Products from September 1996 to August 1998. He was previously Director of Lightwave Systems at the Company since joining it in 1994. From 1982 until joining the Company, he was employed at MIT Lincoln Laboratory, where he last held the position of Assistant Leader of the Optical Communications Technology Group. Mr. Alexander is an Associate Editor for the Journal of Lightwave Technology and a General Chair of the conference on Optical Fiber Communication (OFC) for 1997. Mr. Alexander received both his B.S. and M.S. degrees in electrical engineering from the Georgia Institute of Technology.

Steve W. Chaddick has served as Senior Vice President, Systems and Technology since January 2000, and was previously President, Core Switching Division from September 1999 to January 2000. Mr. Chaddick served as Senior Vice President, Strategy and Corporate Development from August 1998 to September 1999, and from September 1996 to August 1998, he served as Senior Vice President, Products and Technologies, and was previously Vice President of Product Development for the Company since joining it in 1994. Prior to joining the Company, Mr. Chaddick was Vice President of Engineering at AT&T Tridom, a company he co-founded in 1983 and which was acquired by AT&T in 1988. Mr. Chaddick holds several patents in the area of WDM systems and techniques, and serves on the Advisory Board of the School of Electrical and Computer Engineering at Georgia Institute of Technology. Mr. Chaddick received both his B.S. and M.S. degrees in electrical engineering from the Georgia Institute of Technology.

Joseph R. Chinnici has served as Senior Vice President, Finance and Chief Financial Officer since August 1997, and was previously Vice President, Finance and Chief Financial Officer from May 1995 to August 1997. Mr. Chinnici served previously as Controller since joining the Company in September 1994. From 1993 through 1994, Mr. Chinnici served as a financial consultant for Halston Borghese Inc. From 1977 to 1993, Mr. Chinnici held a variety of accounting and finance assignments for Playtex Apparel, Inc. (now a division of Sara Lee Corporation), ending this period as Director of Operations Accounting and Financial Analysis. Mr. Chinnici currently serves on the board of directors for Online Technologies Group, Inc. Mr. Chinnici holds a B.S. degree in accounting from Villanova University and an M.B.A. from Southern Illinois University.

Mark Cummings has served as Senior Vice President, Manufacturing since August 1997, and was previously Vice President, Manufacturing since joining the Company in May 1996. From 1985 to 1996, Mr. Cummings was Vice President, Operations for Cray Communications, Inc., an international manufacturer of communications equipment. Mr. Cummings holds a B.S. degree in electronic technology from the State University of New York at Buffalo, and is currently in the Masters program in advanced manufacturing systems at the University of Maryland.

Lawrence P. Huang has served as Senior Vice President, Corporate Development since May 2000 and was previously Senior Vice President, Strategic Account Sales, from September 1998 to May 2000 and Senior Vice President, Sales and Marketing, from November 1996 to September 1998. From April 1994, when he joined the company, to September 1998, Mr. Huang served as Vice President, Sales and Marketing of the Company. Prior to joining CIENA, Mr. Huang was Vice President/General Manager and Vice President of Sales and Marketing of AT&T Tridom, which he co-founded in 1983. Mr. Huang holds a B.S. degree in industrial management from the Georgia Institute of Technology and an M.B.A. from Georgia State University.

Jesús León has served as Senior Vice President, Products and Technology since September 1998 and Vice President, Access Products since joining the Company in November 1996. From December 1995 to October 1996, Mr. León served as Vice President, Engineering, for the Access Systems Division of Alcatel (“Alcatel”). Prior to December 1996, Mr. León served in various positions with Alcatel with responsibility for over 1,200 engineers in Europe, Australia and South Africa. Mr. León holds a B.S.E.E. and M.E. degrees from the University of Florida, an A.B.D. (all but doctoral dissertation) from the Georgia Institute of Technology and an M.B.A. degree from Georgia State University.

Michael O. McCarthy III has served as Senior Vice President, General Counsel and Secretary since October 2000 and was previously Vice President, General Counsel and Secretary from July 1999 to October 2000. Mr. McCarthy served as the Assistant General Counsel since joining the Company in September 1997. From June 1996 to September 1997, Mr. McCarthy was a Corporate Counsel in MCI Communications Corporation’s mergers and acquisitions group. Prior to joining MCI, Mr. McCarthy was an attorney with Hogan & Hartson’s corporate and securities group where he served as outside counsel for a variety of emerging companies. Mr. McCarthy holds a B.A. degree in Mathematical Economics from Colgate University and a J.D. degree from Vanderbilt University’s School of Law.

Elizabeth S. Perry has served as Senior Vice President of the Core Switching Products and Network Management Systems since January 2000, and was previously Vice President, Core Switching Products, from August 1999 to January 2000. Ms. Perry also served as Director of Network Management strategy since joining the Company in April 1999. From August 1997 to March 1999, Ms. Perry served as Senior Director of SONET Software Development at Hitachi Telecom. Ms. Perry served from June 1993 to July 1997 as Director, High Capacity Lightwave Software Development for Alcatel. Ms. Perry received her M.S.E.E. degree with Telecommunications specialty, as well as her B.S.E.M./E.E. degrees from Southern Methodist University.

Rebecca K. Seidman has served as Senior Vice President, Human Resources since August 1999 and was previously Vice President, Human Resources from June 1996 to August 1999. Ms. Seidman also served as Director of Human Resources Development since joining the Company in April 1996. From 1984 until joining the Company, Ms. Seidman served consecutively as Director of Marketing, Vice President, Administration, and Principal of Walpert, Smullian & Blumenthal, P.A., a regional accounting and consulting firm. Ms. Seidman holds a B.A. degree in economics and political science from Goucher College and is the co-author of Total Quality Distribution, a book discussing practical applications of Total Quality in the wholesale distribution industry.

Chris V. Simpson has served as Senior Vice President, Global Sales since joining the Company in April 2000. Prior to joining the Company, Mr. Simpson served as Vice President of Sales, Marketing and International Operations for Harris Corporation's RF Communications. From 1988 to 1998, Mr. Simpson held several senior sales and marketing positions at Qualcomm, Inc., including Senior Vice President and General Manager, Worldwide Sales and Marketing and Senior Vice President, Strategic Marketing. Mr. Simpson received his B.S. degree in Accounting from Oklahoma State University.

A. Perry Kamel has served as Vice President, Marketing since joining the Company in May 2000. Prior to joining the Company, Mr. Kamel founded BroadPoint Communications, an e-commerce start-up, where he served as a Director, President and Chief Executive Officer from October 1997 to March 2000. From August 1996 to October 1997, Mr. Kamel served as Director of Strategic Planning and Business Development at MCI Communications. From May 1994 to August 1996, Mr. Kamel was employed by McKinsey & Company where he consulted leading service providers in strategy and operations. Mr. Kamel received his M.S.E.E. and B.S.E.E. degrees from Cornell University and holds an M.B.A. degree from the Wharton Business School of the University of Pennsylvania.

Andrew C. Petrik has served as Vice President, Controller and Treasurer since August 1997, as Controller and Treasurer from December 1996 to August 1997 and as Controller since joining the Company in July 1996. From 1989 to 1996, Mr. Petrik was employed by Microdyne Corporation where he was the Assistant Vice President of Marketing and Product Planning from 1994 to 1996 and the Assistant Controller from 1989 to 1994. Mr. Petrik holds a B.S. degree in Accounting from the University of Maryland and is a Certified Public Accountant.

Stephen P. Bradley, Ph.D. has served as a Director of the Company since April 1998. Professor Bradley is a William Ziegler Professor of Business Administration and the Chairman of the Program for Management Development at the Harvard Business School. A member of the Harvard faculty since 1968, Professor Bradley is also Chairman of Harvard's Executive Program in Competition and Strategy and teaches in Harvard's Delivering Information Services program. Professor Bradley has written extensively on the telecommunications industry and the impact of technology on competitive strategy. Professor Bradley received his B.E. degree in Electrical Engineering from Yale University in 1963 and his M.S. degree and Ph.D. in Operations Research from the University of California, Berkeley, in 1965 and 1968 respectively.

Harvey B. Cash has served as a Director of the Company since April 1994. Mr. Cash is a general partner of InterWest Partners, a venture capital firm in Menlo Park, California that he joined in 1985. Mr. Cash serves on the board of directors of Liberté, Inc., Panja Corporation, and i2 Technologies Inc. He is also an advisor to Austin Ventures. Mr. Cash received a B.S. degree in electrical engineering from Texas A&M University and an M.B.A. degree from Western Michigan University. Mr. Cash served on the board of directors of Benchmark Microelectronics from 1990 to 1999, and on the board of directors of Aurora Electronics, Inc. from 1991 to 1999.

John R. Dillon has served as a Director of the Company since October 1999. Mr. Dillon serves on the board of directors of Airgate PCS. Mr. Dillon's experience includes a variety of positions at such companies as The Coca-Cola Company, Scientific Atlanta and Fuqua National, where he served as President. Mr. Dillon was instrumental in taking Cox Communications private in 1985 and merging it with Cox Newspapers to form Cox Enterprises, at which time he was elected Senior Vice President, CFO and a member of the board of directors. At Cox Enterprises, he was responsible for all corporate financial activities as well as planning and development until his retirement in December 1996. He continued to serve on the Boards of TCG and Cox Communications for two years following his retirement from Cox Enterprises. Mr. Dillon holds an MBA degree from

Harvard Business School and a BEE degree from Georgia Institute of Technology, where he was elected to the Academy of Distinguished Engineering Alumni in 1997. He was a founding director of the Georgia Center for Advanced Telecommunications Technology and served on the Georgia Institute of Technology National Advisory Board.

Lawton W. Fitt became a Director of the Company in November 2000. Ms. Fitt was elected a partner at Goldman Sachs in 1994 and has been a managing director since 1996. She has been involved in investment banking and equity underwriting for high-technology companies, including numerous initial public offerings in the Internet, software and communications equipment sectors. Ms. Fitt is currently co-head of Goldman Sachs' European High Technology Investment Banking Group. In addition to chairing the Corporate Financing Committee of the National Association of Securities Dealers, Ms. Fitt serves as a director on the boards of Wink Communications, Inc. and e-Steel Corporation. Ms. Fitt is a trustee of the Darden School Foundation. Ms. Fitt received an A.B. degree in European History from Brown University and her M.B.A. degree from the Darden School of the University of Virginia.

Judith M. O'Brien has served as a Director of the Company since July 2000. Since 1984, Ms. O'Brien has been a partner with Wilson Sonsini Goodrich & Rosati, where she specializes in corporate finance, mergers and acquisitions and general corporate matters. In July 1993, Ms. O'Brien was named as one of the top 25 lawyers under 45 in California by the California Law Business, and in 1997 she was named one of the top five women attorneys in Northern California by the California Lawyer as well as one of the leading women securities lawyers by The Recorder. In April 2000, she was named one of the top twelve Dealmakers of the Year for 1999 by American Lawyer magazine. Ms. O'Brien received her B.A. from Smith College and her law degree from UCLA.

Gerald H. Taylor has served as a Director of the Company since January 2000. Mr. Taylor serves as a Managing Member of mortonsgroup and serves on the board of directors of Lafarge Corporation. Mr. Taylor brings 29 years of experience from MCI. During his employment with MCI, Mr. Taylor was integrally involved in establishing MCI as one of the world's largest telecommunications companies. In addition to his roles as Chief Executive Officer from November 1996 to October 1998, as President from July 1994 to November 1996, and as Chief Operating Officer from 1993 until 1996, Mr. Taylor held key roles in operations, sales and marketing. Mr. Taylor received a B.S. degree in physics from San Francisco State University.

Item 2. Properties

As of October 31, 2000, all of CIENA's properties are leased. CIENA's principal executive offices, sales, and marketing functions are currently located in a 68,000 square foot facility in Linthicum, Maryland. CIENA has leased an additional 19,000 square foot facility in Linthicum, Maryland, where it intends to add additional space for its sales and marketing functions. CIENA's product development functions are located in a 96,000 square foot facility in Linthicum, Maryland; and a 27,500 square foot facility in Alpharetta, Georgia. CIENA has leased an additional 25,000 square foot facility in Linthicum, Maryland where it intends to add additional space for its product development functions. Combined product development and manufacturing functions are also located in a 43,000 square foot facility in Marlborough, Massachusetts; and a 116,000 square foot facility in Cupertino, California. CIENA also has manufacturing facilities located in both Savage and Linthicum, Maryland which consist of 5 facilities with a total of 300,000 square feet that are used for such functions as manufacturing production, systems integration and test, pilot production, and customer service and support. CIENA's primary engineering, furnishment and installation facility is located in a 26,000 square foot facility located in Duluth, Georgia. CIENA has sales, marketing and customer support offices located in Overland Park, Kansas; Richardson, Texas; Plano, Texas; Tulsa, Oklahoma; Middletown, New Jersey; Boca Raton, Florida; Denver, Colorado; Minneapolis, Minnesota; Portland, Oregon; Bellevue, Washington; Chevy Chase, MD; South Bury, Connecticut; Clinton, Michigan; Edmonton, Canada; London, England; Paris, France; Brussels, Belgium; Frankfurt, Germany; Tokyo, Japan; Sao Paulo, Brazil; Mexico City, Mexico; Lyons, France; Madrid, Spain, and Hong Kong, China.

Item 3. Legal Proceedings

On July 19, 2000, CIENA and CIENA Properties, Inc., a wholly owned subsidiary of CIENA, filed a complaint in the United States District Court for the District of Delaware requesting damages and injunctive relief against Corvis Corporation. The complaint charges Corvis Corporation with infringing three patents relating to CIENA's optical networking communication systems and technology. On September 8, 2000, Corvis filed an Answer and Counterclaim alleging invalidity, non-infringement and unenforceability of the asserted patents, and tortious interference with prospective economic advantage. CIENA believes that Corvis' counterclaims are without merit, and intends to defend itself vigorously.

On October 3, 2000, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into CIENA's products infringe U.S. Patent No. 4,859,016. We are unable to estimate what impact, if any, an adverse outcome would have on the Company. We intend to defend this suit vigorously.

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

No matters were submitted to a vote of security holders during the fourth quarter of fiscal 2000.

Part II Item 5. Market for Registrant's Common Stock and Related Stockholder Matters

CIENA's Common Stock is traded on the NASDAQ National Market under the symbol CIEN. The following table sets forth for the fiscal periods indicated the high and low sales prices of the Common Stock, as reported on the NASDAQ National Market, adjusted to reflect the two-for-one stock split of the Common Stock, which became effective on September 18, 2000.

	Price Range of Common Stock	
	High	Low
Fiscal Year 1998		
First Quarter ended January 31, 1998	\$ 31.78	\$23.72
Second Quarter ended April 30, 1998	\$ 29.13	\$18.63
Third Quarter ended July 31, 1998	\$ 46.19	\$23.44
Fourth Quarter ended October 31, 1998	\$ 37.94	\$ 4.06
Fiscal Year 1999		
First Quarter ended January 31, 1999	\$ 11.50	\$ 6.22
Second Quarter ended April 30, 1999	\$ 14.63	\$ 8.31
Third Quarter ended July 31, 1999	\$ 18.88	\$11.35
Fourth Quarter ended October 31, 1999	\$ 21.41	\$14.53
Fiscal Year 2000		
First Quarter ended January 31, 2000	\$ 39.69	\$16.75
Second Quarter ended April 30, 2000	\$ 94.50	\$30.03
Third Quarter ended July 31, 2000	\$ 90.13	\$44.94
Fourth Quarter ended October 31, 2000	\$151.00	\$64.19

The closing sale price for the Common Stock on October 27, 2000 was \$104.375.

The market price of CIENA's Common Stock has fluctuated significantly and may be subject to significant fluctuations in the future. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations—Overview and Risk Factors."

As of October 31, 2000, there were approximately 1,482 holders of record of CIENA's Common Stock and 286,530,631 shares of Common Stock outstanding.

CIENA has never paid cash dividends on its capital stock. CIENA currently intends to retain earnings for use in its business and does not anticipate paying any cash dividends in the foreseeable future.

Item 6. Selected Consolidated Financial Data

The following selected consolidated financial data should be read in conjunction with Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and the consolidated financial statements and the notes thereto included in Item 8. “Financial Statements and Supplementary Data.” CIENA has a 52 or 53 week fiscal year which ends on the Saturday nearest to the last day of October in each year. For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 1997, 1998, 1999 and 2000 comprised 52 weeks and fiscal 1996 comprised 53 weeks.

<i>(in thousands, except per share data)</i>	Year Ended October 31,				
	1996	1997	1998	1999	2000
Statement of Operations Data:					
Revenue	\$88,463	\$413,215	\$508,087	\$482,085	\$858,750
Cost of goods sold	47,315	166,472	256,014	299,769	477,393
Gross profit	41,148	246,743	252,073	182,316	381,357
Operating expenses:					
Research and development	8,922	23,773	73,756	104,641	129,069
Selling and marketing	5,641	22,627	47,343	61,603	90,922
General and administrative	6,346	11,476	18,468	22,736	34,000
Settlement of accrued contract obligation	—	—	—	—	(8,538)
Purchased research and development	—	—	9,503	—	—
Pirelli litigation	—	7,500	30,579	—	—
Merger related costs	—	—	2,548	13,021	—
Provision for doubtful accounts	76	489	806	250	28,010
Total operating expenses	20,985	65,865	183,003	202,251	273,463
Income (loss) from operations	20,163	180,878	69,070	(19,935)	107,894
Other income (expense), net	653	7,178	12,830	13,944	12,680
Income (loss) before income taxes	20,816	188,056	81,900	(5,991)	120,574
Provision (benefit) for income taxes	3,553	72,488	36,200	(2,067)	39,187
Net income (loss)	\$17,263	\$115,568	\$ 45,700	\$ (3,924)	\$ 81,387
Basic net income (loss) per common share	\$ 0.62	\$ 0.76	\$ 0.19	\$ (0.01)	\$ 0.29
Diluted net income (loss) per common and dilutive potential common share	\$ 0.09	\$ 0.55	\$ 0.18	\$ (0.01)	\$ 0.27
Weighted average basic common shares outstanding	27,634	151,928	235,980	267,042	281,621
Weighted average basic common and dilutive potential common shares outstanding	184,814	209,686	255,788	267,042	299,662

<i>(in thousands)</i>	October 31,				
	1996	1997	1998	1999	2000
Balance Sheet Data:					
Cash and cash equivalents	\$24,040	\$273,286	\$250,714	\$143,440	\$ 143,187
Working capital	42,240	338,078	391,305	427,471	639,675
Total assets	79,676	468,247	602,809	677,835	1,027,201
Long-term obligations, excluding current portion	3,465	1,900	3,029	4,881	4,882
Mandatorily redeemable preferred stock	40,404	—	—	—	—
Stockholders' equity	\$10,783	\$377,278	\$501,036	\$530,473	\$ 809,835

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with "Selected Consolidated Financial Data" and the Company's consolidated financial statements and notes thereto included elsewhere in this report on Form 10-K.

Overview

CIENA is a leader in the rapidly growing intelligent optical networking equipment market. We offer a comprehensive portfolio of products for communications service providers worldwide. Our customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers, wireless and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. We have pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

CIENA's LightWorks is an optical networking architecture designed to change the fundamental economics of building service provider networks. LightWorks focuses on the three critical areas of optical networking: long-distance optical transport, short-distance optical transport and intelligent core switching. The products in CIENA's LightWorks combine the functionality of several current network elements into a single network element, thereby lowering the capital equipment requirements of a service provider and simplifying the network, in order to reduce a carrier's network operating costs.

The products of CIENA's LightWorks architecture can be sold together as a complete network solution or separately as best-of-breed solutions. Products include four generations of long distance optical transport systems: MultiWave 1600, MultiWave Sentry 1600, MultiWave Sentry 4000, and MultiWave CoreStream. LightWorks also includes CIENA's short distance optical transport products: MultiWave Firefly, MultiWave Metro, and MultiWave Metro One. CIENA's LightWorks architecture also includes its MultiWave CoreDirector family of optical core switching products. The recently introduced MultiWave CoreDirector is an intelligent optical core switch that allows carriers to deliver a full range of transport services, without costly SONET/SDH (synchronous optical networks/synchronous digital hierarchy) multiplexers and with more flexibility than "wavelength only" devices. The first release of the MultiWave CoreDirector became available during the third fiscal quarter ended July 31, 2000.

In November 1999, CIENA announced it was pursuing enhancements to its MultiWave CoreStream product that will enable the system to offer the optimal combination of longer reach transport functionality and channel count to further lower network costs for service providers. Using forward error correction (FEC), nonlinearity management, and dispersion mapping technologies, plus embedded system intelligence, MultiWave CoreStream ultimately will be able to support optical spans of up to 5,000 kilometers without additional optical-to-electrical signal regeneration. We expect to begin customer shipments of the longer reach features of this product in the first quarter of fiscal 2001. See "Risk Factors."

During January 2000, CIENA announced the LightWorks Toolkit for Optical Services, a series of new optics-, silicon- and software-based service enablers. CIENA's LightWorks Toolkit is designed to assist carriers with the transition from static service provisioning to real-time, on demand bandwidth delivery; from bandwidths limited by traditional SONET/SDH to optical bandwidth of any size; and from a single wavelength quality of service to a range of service qualities that can be dynamically configured and monitored. These service-enabling tools began to be integrated into CIENA's LightWorks products during the second half of calendar 2000. See "Risk Factors."

During May 2000, CIENA announced the introduction of its newest intelligent optical core switching product, MultiWave CoreDirector CI, an entry version of CIENA's market-leading MultiWave CoreDirector switch. MultiWave CoreDirector CI is designed to offer network operators all the intelligence, real-time provisioning, dynamic network protection, and comprehensive network management capabilities of MultiWave CoreDirector, but optimized for smaller

central offices predominant in regional and metropolitan portions of service provider networks. The initial release of MultiWave CoreDirector CI is expected in limited availability for customer trials during the first quarter of calendar 2001. See "Risk Factors."

During May 2000, CIENA also announced the launch of its LightWorks ON-Center™ Management Suite, a new fully integrated family of software-based tools for comprehensive element, network and service layer management across service provider networks. ON-Center is designed to enable accelerated deployment of new, differentiating optical services, reduced network operating and management costs, and innovative customer service solutions. The ON-Center management suite is designed to help service providers use the built-in networking intelligence of CIENA's LightWorks Toolkit for Optical Services and network architecture to enable real-time service deployment, dynamic service level agreement (SLA) management, multi-vendor optical service monitoring, full Fault, Configuration, Accounting, Performance and Security (FCAPS) management across CIENA systems, and Web-based customer service awareness tools. The initial release of ON-Center became available during October 2000.

During August 2000, CIENA announced that it had added Rate-Adaptive Gigabit Ethernet technology to the LightWorks Toolkit for Optical Services. CIENA's Rate-Adaptive Gigabit Ethernet technology uses software and ASICs to enable service providers to sell "any-size" Gigabit Ethernet services in increments of 50 Mbps (STS-1), up to 1.25 Gbps. The service rate is adaptive to end-users' needs, allowing service providers to tailor pricing to a finer granularity of data rates. Additionally, the technology enables providers to transport fractional Gigabit Ethernet traffic from up to 10 different customers over a single 2.5 Gbps wavelength. As a result, service providers can create a wide range of customized optical service options for end-users and deliver those services over more efficient access and core networks that leverage the economies of Gigabit Ethernet transmission. Rate-Adaptive Gigabit Ethernet technology is expected to be available for customer trials on CIENA's MultiWave Metro systems in the first half of calendar 2001.

CIENA has increased the number of revenue generating optical networking equipment customers from a total of twenty-seven customers during the fiscal 1999 to thirty-two customers for fiscal 2000. We intend to preserve and enhance our market leadership and eventually build on our installed base with new and additional products. CIENA believes that its product and service quality,

manufacturing experience, and proven track record of delivery will enable it to endure competitive pricing pressure while concentrating on efforts to reduce product costs and maximize production efficiencies. See “Risk Factors.”

As of October 31, 2000, the Company and its subsidiaries employed approximately 2,775 persons, which was an increase of 847 persons over the approximate 1,928 employed on October 31, 1999.

Results of Operations

Fiscal Years Ended 2000, 1999 and 1998

Revenue. The Company recognized \$858.8 million, \$482.1 million and \$508.1 million in revenue for the fiscal years ended October 31, 2000, 1999 and 1998, respectively. The approximate \$376.7 million or 78.1% increase in revenue from fiscal 1999 to fiscal 2000 was due primarily to an increase in product shipments across all product lines. The approximate \$26.0 million or 5.1% decrease in revenue from fiscal 1998 to fiscal 1999 was largely the result of reduced selling prices.

CIENA recognized revenues from a total of thirty-two, twenty-seven, and fourteen optical equipment customers during fiscal 2000, 1999, and 1998, respectively. During fiscal year 2000, Sprint, Qwest Communications and GTS Network Ltd. each accounted for at least 10% or more of CIENA’s revenue and all three combined accounted for 60.9% of the Company’s fiscal 2000 revenue. During fiscal year 1999 Sprint, WorldCom, and GTS Network Ltd., each accounted for at least 10% or more of CIENA’s revenue and all three combined accounted for 46.2% of CIENA’s fiscal 1999 revenue. This compares to fiscal 1998 in which Sprint was the only 10% customer and in total accounted for 52.5% of CIENA’s fiscal 1998 revenue. Revenue derived from foreign sales accounted for approximately 33.0%, 44.3%, and 23.0% of the Company’s total revenues during fiscal 2000, 1999, and 1998, respectively.

For fiscal 2000, CIENA’s optical network equipment revenues were derived from sales of the MultiWave Sentry 4000, MultiWave CoreStream configured for both 2.5 gigabits per second (“Gbps”) and 10.0 Gb/s transmission rates, MultiWave Sentry 1600, MultiWave Metro, MultiWave 1600, MultiWave CoreDirector, MultiWave Firefly systems and MultiWave MetroOne. During fiscal 1999, the Company recognized revenues from sales of MultiWave Sentry 4000, MultiWave Sentry 1600, MultiWave 1600, MultiWave Metro, MultiWave Firefly, and MultiWave CoreStream systems. During fiscal 1998, the Company recognized revenues from sales of MultiWave Sentry 1600, MultiWave 1600, MultiWave

Firefly, and MultiWave Sentry 4000 systems. The revenues for fiscal 2000 improved as compared to fiscal 1999 due to increased sales of MultiWave Sentry 4000, MultiWave CoreStream, MultiWave Sentry 1600, MultiWave Metro, and MultiWave Firefly systems, and also from the introduction of revenues from MultiWave CoreDirector and MultiWave MetroOne systems. The amount of revenue recognized from MultiWave Sentry 1600 and MultiWave 1600 declined in fiscal 1999 as compared to fiscal 1998. This decline in MultiWave Sentry 1600 sales in fiscal 1999 was offset by the introduction of new revenues from the MultiWave CoreStream, and MultiWave Metro products in fiscal 1999. Fiscal 1999 revenues from MultiWave Sentry 4000 and MultiWave Firefly were comparable to the revenues recognized for these products in fiscal 1998. Revenues derived from engineering, furnishing and installation services as a percentage of total revenue were 8.4%, 12.1%, and 9.2% for the fiscal years 2000, 1999, and 1998, respectively.

Gross Profit. Cost of goods sold consists of component costs, direct compensation costs, warranty and other contractual obligations, royalties, license fees, inventory obsolescence costs and overhead related to the Company's manufacturing and engineering, furnishing and installation operations. Gross profit was \$381.4 million, \$182.3 million, and \$252.1 million for fiscal years 2000, 1999, and 1998, respectively. Gross margin was 44.4%, 37.8%, and 49.6% for fiscal 2000, 1999, and 1998, respectively. The increase in gross profit from fiscal 1999 to fiscal 2000 was due primarily to lower component costs and improved production efficiencies. The decrease in gross profit from fiscal 1998 to fiscal 1999 was largely attributable to lower selling prices.

CIENA's gross margins may be affected by a number of factors, including product mix, continued competitive market pricing, outsourcing of manufacturing, manufacturing volumes and efficiencies, competition for skilled labor, and fluctuations in component costs. Downward pressures on our gross margins may be further impacted by an increased percentage of revenues from EF&I services or additional service requirements. CIENA will continue to concentrate on efforts to reduce product costs and maximize production efficiencies and, if successful in these efforts, may be able to improve gross margins in the future. See "Risk Factors."

Research and Development Expenses. Research and development expenses were \$129.1 million, \$104.6 million, and \$73.8 million for fiscal 2000, 1999, and 1998, respectively. The approximate \$24.4 million or 23.3% increase from fiscal 1999 to 2000 and the approximate \$30.9 million or 41.9% increase from fiscal 1998 to 1999 in research and development expenses related to increased staffing levels, purchases of materials used in development of new or

enhanced product prototypes, and outside consulting services in support of certain developments and design efforts. During fiscal 2000, 1999, and 1998 research and development expenses were 15.0%, 21.7%, and 14.5% of revenue, respectively. CIENA expects that its research and development expenditures will continue to increase in absolute dollars and perhaps as a percentage of revenue during fiscal 2001 to support the continued development of CIENA's intelligent optical networking products, the exploration of new or complementary technologies, and the pursuit of various cost reduction strategies. CIENA has expensed research and development costs as incurred.

Selling and Marketing Expenses. Selling and marketing expenses were \$90.9 million, \$61.6 million, and \$47.3 million for fiscal 2000, 1999, and 1998, respectively. The approximate \$29.3 million or 47.6% increase from fiscal 1999 to 2000 and the approximate \$14.3 million or 30.1% increase from fiscal 1998 to 1999 in selling and marketing expenses was primarily the result of increased staffing levels in the areas of sales, technical assistance and field support, and increases in commissions earned, trade show participation and promotional costs. During fiscal 2000, 1999, and 1998 selling and marketing expenses were 10.6%, 12.8%, and 9.3% of revenue, respectively. The Company anticipates that its selling and marketing expenses may increase in absolute dollars and perhaps as a percentage of revenue during fiscal 2001 as additional personnel are hired and additional offices are opened to allow the Company to pursue new customers and market opportunities. The Company also expects the portion of selling and marketing expenses attributable to technical assistance and field support, specifically in Europe, Latin America, and Asia, will increase as the Company's installed base of operational MultiWave systems increases.

General and Administrative Expenses. General and administrative expenses were \$34.0 million, \$22.7 million and \$18.5 million for fiscal 2000, 1999, and 1998, respectively. The approximate \$11.2 million or 49.5% increase from fiscal year 1999 to 2000 and the approximate \$4.3 million or 23.1% increase from fiscal year 1998 to 1999 in general and administrative expenses was primarily the result of increased staffing levels and outside consulting services. During fiscal 2000, 1999, and 1998 general and administrative expenses were 4.0%, 4.7%, and 3.6% of revenue, respectively. The Company believes that its general and administrative expenses will increase in absolute dollars and perhaps as a percentage of revenue during fiscal 2001 as a result of the expansion of the Company's administrative staff required to support its expanding operations.

Settlement of Accrued Contract Obligation. The \$8.5 million gain from settlement of accrued contract obligation relates to the July 2000 termination of certain accrued contract obligations that CIENA received from iaxis Limited, one of CIENA's European customers. In September 2000, CIENA was informed that an administrative order had been issued by a London court against iaxis Limited. As a result of this order, joint administrators were appointed to manage the business of iaxis Limited while they marketed the business for sale and formulated a reorganization of the company. See "Provision for Doubtful Accounts" below.

Purchased Research and Development. Purchased research and development costs were \$9.5 million for the fiscal year 1998. These costs were for the purchase of technology and related assets associated with the acquisition of Terabit during the second quarter of fiscal 1998.

Pirelli Litigation. The Pirelli litigation costs of \$30.6 million in fiscal 1998 were attributable to a \$30.0 million payment made to Pirelli during the third quarter of 1998 and to additional other legal and related costs incurred in connection with the settlement of this litigation.

Merger Related Costs. The merger costs for fiscal 1999 of approximately \$13.0 million were costs related to CIENA's acquisition of Omnia and Lightera. These costs include an \$8.1 million non-cash charge for the acceleration of warrants based upon CIENA's Common stock price on June 30, 1999 and \$4.9 million for fees, legal and accounting services and other costs. The warrants were issued to one of Omnia's potential customers and became exercisable upon the consummation of the merger between CIENA and Omnia. The merger related costs for fiscal 1998 were costs related to the contemplated merger between CIENA and Tellabs. These costs include approximately \$1.2 million in Securities and Exchange Commission filing fees and approximately \$1.3 million in legal, accounting, and other related expenses.

Provision for Doubtful Accounts. CIENA performs ongoing credit evaluations of its customers and generally does not require collateral from its customers. CIENA maintains an allowance for potential losses when identified. CIENA's allowance for doubtful accounts as of October 31, 2000 was \$29.6 million. Approximately \$27.8 million relates to provisions made for doubtful accounts associated with iaxis Limited, one of CIENA's European customers. In September 2000, CIENA was informed that an administrative order had been issued by a London court against iaxis Limited. As a result of this order, joint administrators were appointed to manage the business of iaxis Limited while they

marketed the business for sale and formulated a reorganization of the company. In November 2000, CIENA was notified that Dynegy Inc. and its subsidiaries had entered into a proposed agreement to acquire the assets and stock of iaxis Limited from the administrators. As a consequence of the terms of (a) the proposed agreement between the administrators of iaxis Limited, Dynegy and its subsidiaries, and of (b) a related sales agreement between CIENA and Dynegy, CIENA expects to realize approximately \$8.9 million of the gross outstanding accounts receivable balance due from iaxis Limited as of October 31, 2000. While the proposed purchase agreement between the administrators of iaxis Limited and Dynegy is subject to certain administrative and judicial approvals, CIENA believes that such approvals will be ultimately obtained and that CIENA will be successful in collecting the net \$8.9 million outstanding accounts receivable balance from the customer. However, should such approvals not occur, additional write-offs might be required.

Other Income (Expense), Net. Other income (expense), net, consists of interest income earned on the Company's cash, cash equivalents and marketable debt securities, net of interest expense associated with the Company's debt obligations. Other income (expense), net, was \$12.7 million, \$13.9 million, and \$12.8 million for fiscal 2000, 1999, and 1998, respectively. The decrease in other income (expense) from fiscal 1999 to fiscal 2000 was due to lower balances of cash, cash equivalents and marketable debt securities in fiscal 2000 as compared to fiscal 1999. The increase in the Company's other income (expense) from fiscal 1998 to fiscal 1999 was primarily the result of the investment of the net proceeds of the Company's stock offerings and net earnings.

Provision (Benefit) for Income Taxes. CIENA's provision (benefit) for income taxes was 32.5%, (34.5%), and 44.2% of pre-tax earnings (loss) for fiscal 2000, 1999 and 1998, respectively. The income tax provision for 2000 was lower than the expected 35% primarily due to benefits from research and development tax credits. The benefit for fiscal 1999 was less than the expected statutory benefit of 35% due to non-deductible merger costs. The income tax provision for 1998 was higher than the expected statutory rate of 35%, due primarily to charges for purchased research and development and state tax charges related to the Alta acquisition. Purchased research and development charges are not deductible for tax purposes. Exclusive of the effect of these charges, the Company's provision for income taxes was 38.6% of income before income taxes in fiscal 1998. As of October 31, 2000 CIENA's deferred tax asset was \$143.0 million. The realization of this asset could be adversely affected if future earnings are lower than anticipated.

Quarterly Results of Operations. The tables below set forth the operating results and percentage of revenue represented by certain items in the Company's statements of operations for each of the eight quarters in the period ended October 31, 2000. This information is unaudited, but in the opinion of the Company reflects all adjustments (consisting only of normal recurring adjustments) that the Company considers necessary for a fair presentation of such information in accordance with generally accepted accounting principles. The results for any quarter are not necessarily indicative of results for any future period.

	Jan. 31, 1999	Apr. 30, 1999	Jul. 31, 1999	Oct. 31, 1999	Jan. 31, 2000	Apr. 30, 2000	Jul. 31, 2000	Oct. 31, 2000
Revenue	\$100,417	\$111,490	\$128,826	\$141,352	\$152,213	\$185,679	\$233,268	\$287,590
Cost of goods sold	65,778	71,238	79,361	83,392	87,003	104,205	128,172	158,013
Gross profit	34,639	40,252	49,465	57,960	65,210	81,474	105,096	129,577
Operating expenses:								
Research and development	22,218	24,094	28,402	29,927	29,742	29,965	32,697	36,665
Selling and marketing	13,608	13,092	16,839	18,064	18,122	20,331	24,375	28,094
General and administrative	5,036	5,849	5,433	6,418	6,621	7,176	9,339	10,864
Settlement of accrued contract obligation	—	—	—	—	—	—	(8,538)	—
Merger related costs	—	2,253	10,768	—	—	—	—	—
Provision for doubtful accounts	—	—	—	250	250	—	8,538	19,222
Total operating expenses	40,862	45,288	61,442	54,659	54,735	57,472	66,411	94,845
Income (loss) from operations	(6,223)	(5,036)	(11,977)	3,301	10,475	24,002	38,685	34,732
Other income (expense), net	3,301	3,583	3,492	3,568	2,950	3,268	3,026	3,436
Income (loss) before income taxes	(2,922)	(1,453)	(8,485)	6,869	13,425	27,270	41,711	38,168
Provision (benefit) for income taxes	(1,041)	(468)	(2,928)	2,370	4,363	8,863	13,556	12,405
Net income (loss)	\$ (1,881)	\$ (985)	\$ (5,557)	\$ 4,499	\$ 9,062	\$ 18,407	\$ 28,155	\$ 25,763
Basic net income (loss) per common share ⁽¹⁾	\$ (0.01)	\$ 0.00	\$ (0.02)	\$ 0.02	\$ 0.03	\$ 0.07	\$ 0.10	\$ 0.09
Diluted net income (loss) per common share and dilutive potential common share ⁽¹⁾	\$ (0.01)	\$ 0.00	\$ (0.02)	\$ 0.02	\$ 0.03	\$ 0.06	\$ 0.09	\$ 0.09
Weighted average basic common share	262,404	265,060	266,032	267,616	276,182	280,162	282,258	285,177
Weighted average basic common and dilutive potential common share	262,404	265,060	266,032	290,604	295,806	299,126	299,790	301,582

	Jan. 31, 1999	Apr. 30, 1999	Jul. 31, 1999	Oct. 31, 1999	Jan. 31, 2000	Apr. 30, 2000	Jul. 31, 2000	Oct. 31, 2000
Revenue	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of goods sold	65.5	63.9	61.6	59.0	57.2	56.1	54.9	54.9
Gross profit	34.5	36.1	38.4	41.0	42.8	43.9	45.1	45.1
Operating expenses:								
Research and development	22.1	21.6	22.0	21.2	19.5	16.1	14.0	12.7
Selling and marketing	13.6	11.7	13.1	12.8	11.9	10.9	10.4	9.8
General and administrative	5.0	5.2	4.2	4.5	4.3	3.9	4.0	3.8
Settlement of accrued contract obligation	—	—	—	—	—	—	(3.7)	—
Merger related costs	—	2.0	8.4	—	—	—	—	—
Provision for doubtful accounts	—	—	—	0.2	0.2	—	3.7	6.7
Total operating expenses	40.7	40.5	47.7	38.7	35.9	30.9	28.4	33.0
Income (loss) from operations	(6.2)	(4.4)	(9.3)	2.3	6.9	13.0	16.7	12.1
Other income (expense), net	3.3	3.2	2.7	2.5	1.9	1.8	1.3	1.2
Income (loss) before income taxes	(2.9)	(1.2)	(6.6)	4.8	8.8	14.8	18.0	13.3
Provision (benefit) for income taxes	(1.0)	(0.4)	(2.3)	1.7	2.9	4.8	5.8	4.3
Net income (loss)	(1.9)%	(0.8)%	(4.3)%	3.1%	5.9%	10.0%	12.2%	9.0%

⁽¹⁾ All share and per share information has been retroactively restated to reflect the two-for-one stock split effective September 18, 2000.

CIENA's quarterly operating results have varied and are expected to vary in the future. The Company's detailed discussion of risk factors addresses the many factors that have caused such variation in the past, and may cause similar variations in the future. See "Risk Factors." CIENA's revenues have increased in each of the last eight quarters due to strong demand across existing products and introduction of new products such as MultiWave CoreStream configured for both 2.5 Gb/s and 10.0 Gb/s transmission rates. CIENA's gross margin percentage has improved from the first quarter fiscal 1999 to the fourth quarter fiscal 2000 as a result of component cost reductions, production efficiencies, and relative stable sales pricing. CIENA's operating expenses have increased in each of the last eight quarters due to continued investments in research and development, selling and marketing, and infrastructure activities. Exclusive of provisions for doubtful accounts and merger related costs, the Company's operating expenses as a percentage of revenues have generally decreased each of the last eight quarters. During fiscal 2001, CIENA's operating expenses will continue to increase in absolute dollars and may increase as percentage of revenue. We expect to preserve and enhance our market leadership and build on our installed base with new and additional products in conjunction with increased investments in selling, marketing, and customer service activities. See "Risk Factors."

Liquidity and Capital Resources

At October 31, 2000, CIENA's principal source of liquidity was its cash and cash equivalents. The Company had \$143.2 million in cash and cash equivalents, and \$95.1 million in corporate debt securities and U.S. Government obligations. The Company's corporate debt securities and U.S. Government obligations have contractual maturities of six months or less.

The Company's operating activities provided cash of \$59.0 million, \$28.7 million, and \$48.8 million for fiscal 2000, 1999, and 1998, respectively. Cash provided by operations in fiscal 2000 was primarily attributable to a net gain adjusted for the non-cash charges of depreciation, amortization, tax benefit related to exercise of stock options, provisions for doubtful accounts, inventory obsolescence, and warranty, increases in accounts payable, and accrued expenses, offset by increases in accounts receivable and inventories.

Cash used in investing activities in fiscal 2000, 1999, and 1998 was \$103.2 million, \$149.7 million, and \$107.0 million, respectively. Included in investment activities were additions to capital equipment and leasehold improvements in fiscal 2000, 1999, and 1998 of \$123.9 million, \$46.8 million, and \$88.9 million, respectively. The capital equipment expenditures were primarily for test, manufacturing and computer equipment. The Company expects additional combined capital equipment and leasehold improvement expenditures of approximately \$208 million to be made during fiscal 2001 to support selling and marketing, manufacturing and product development activities and the construction of leasehold improvements for its facilities.

We generated \$43.9 million, \$13.8 million, and \$35.6 million in cash from financing activities in fiscal 2000, 1999, and 1998, respectively. During fiscal 2000, CIENA received \$44.0 million from the exercise of stock options and the sale of stock through our employee stock purchase plan. During fiscal 1999 CIENA received \$11.3 million from the exercise of stock options, the sale of stock through our employee stock purchase plan, and from the additional capitalization of Omnia and Lightera. During fiscal 1998, CIENA received approximately \$34.3 million from the issuance of stock associated with the capitalization of Omnia and Lightera, and from the exercise of stock options.

We believe that our existing cash balances and investments, together with cash flow from operations, will be sufficient to meet our liquidity and capital spending requirements at least through the end of fiscal 2001. However, possible investments in or acquisitions of complementary businesses, products or technologies may require additional financing prior to such time. There can be no assurance that additional debt or equity financing will be available when required or, if available, can be secured on terms satisfactory to us.

Effects of Recent Accounting Pronouncements

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133 (SFAS No. 133), "Accounting for Derivative Instruments and Hedging Activities." This Statement requires companies to record derivatives on the balance sheet as assets or liabilities, measured at fair value. Gains or losses resulting from changes in the values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. SFAS No. 133, as amended by SFAS No. 137 "Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date for SFAS No. 133", will be effective for the Company's fiscal year ending October 31, 2000. The Company believes the adoption of SFAS No. 133 and SFAS No. 137 will not have a material effect on the consolidated financial statements.

In December 1999, the Securities and Exchange Commission released Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements," (SAB 101) which clarifies the Securities and Exchange Commission's view on revenue recognition. Subsequently, the SEC released SAB 101B, which delayed the implementation date of SAB 101 for registrants with fiscal years that begin between December 16, 1999 and March 15, 2000. CIENA is required to be in conformity with the provisions of SAB 101, as amended, no later than January 31, 2001, with the impact of such adoption being treated on a cumulative basis as of November 1, 2000. While management will continue to assess SAB 101, CIENA presently believes its existing revenue recognition policies and procedures are generally in compliance with SAB 101 and, therefore, SAB 101's adoption will have no material impact on CIENA's financial condition, results of operations or cash flows.

In July 2000, the FASB's Emerging Issues Task Force ("EITF") reached a final consensus that the income tax benefit realized by a company upon the exercise of a nonqualified stock option or the disqualifying disposition of an incentive

stock option should be classified in the operating section of the statement of cash flows. The consensus is effective for the Company's quarters ending after July 20, 2000. All comparative cash flow statements as presented have been restated to comply with this consensus.

In September 2000, the FASB issued SFAS No. 140, "Accounting for the Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." SFAS No. 140 is effective for transfers occurring after March 31, 2001 and for disclosures relating to the securitization transactions and collateral for fiscal years ending after December 15, 2000. The company believes the adoption of SFAS No. 140 will not have a material effect on the consolidated financial statements.

Risk Factors

Investing in our securities involves a high degree of risk. In addition to the other information contained in this annual report, including the reports we incorporate by reference, you should consider the following factors before investing in our securities.

Our Results Can Be Unpredictable

Our ability to recognize revenue during a quarter from a customer depends upon our ability to ship product and satisfy other contractual obligations of a customer sale in that quarter. In general, revenue and operating results in any reporting period may fluctuate due to factors including:

- loss of a customer;
- the timing and size of orders from customers;
- changes in customers' requirements, including changes to orders from customers;
- the introduction of new products by us or our competitors;
- changes in the price or availability of components for our products;
- readiness of customer sites for installation;
- satisfaction of contractual customer acceptance criteria and related revenue recognition issues;
- manufacturing and shipment delays and deferrals;
- increased service, warranty or repair costs;
- the timing and amount of employer payroll tax to be paid on employee gains on stock options exercised; and
- changes in general economic conditions as well as those specific to the telecommunications and intelligent optical networking industries.

Our intelligent optical networking products require a relatively large investment and our target customers are highly demanding and technically sophisticated. There are only a limited number of potential customers in each geographic market and each customer has unique needs. As a result, the sales cycles for our products are long, often more than a year between our initial contact with the customer and their commitment to purchase.

We budget expense levels on our expectations of long-term future revenue. These budgets reflect our substantial investment in the financial, engineering, manufacturing and logistics support resources we think we may need for large potential customers, even though we do not know the volume, duration or timing of any purchases from them. In addition, we make a substantial investment in financial, manufacturing and engineering resources for the development of new and enhanced products. As a result, we may continue to experience high inventory levels, operating expenses and general overhead.

We have experienced rapid expansion in all areas of our operations, particularly in the manufacturing of our products. Our future operating results will depend on our ability to continue to expand our manufacturing facilities in a timely manner so that we can satisfy our delivery commitments to our customers. Our failure to expand these facilities in a timely manner and meet our customer delivery commitments would harm our business, financial condition and results of operations.

Our product development efforts will require us to incur ongoing development and operating expenses and any delay in the contributions from new products, such as the MultiWave CoreDirector product line and enhancements to our existing optical transport products, could harm our business.

Changes in Technology or the Delays in the Deployment of New Products Could Hurt Our Near Term Prospects

The market for optical networking equipment is changing at a rapid pace. The accelerated pace of deregulation and the adoption of new technology in the telecommunications industry likely will intensify the competition for improved optical networking products. Our ability to develop, introduce and manufacture new and enhanced products will depend upon our ability to anticipate changes in technology, industry standards and customer requirements. Our failure to introduce new and enhanced products in a timely manner could harm our competitive position and financial condition. Several of our new products,

including the MultiWave CoreDirector and the enhancements to the MultiWave CoreStream products, are based on complex technology which could result in unanticipated delays in the development, manufacture or deployment of these products. In addition, our ability to recognize revenue from these products could be adversely affected by the extensive testing required for these products by our customers. The complexity of technology associated with support equipment for these products could also result in unanticipated delays in their deployment. These delays could harm our competitive and financial condition.

Competition from competitive products, the introduction of new products embodying new technologies, a change in the requirements of our customers, or the emergence of new industry standards could delay or hinder the purchase and deployment of our products and could render our existing products obsolete, unmarketable or uncompetitive from a pricing standpoint. The long certification process for new telecommunications equipment used in the networks of the regional Bell operating companies, referred to as RBOCs, has in the past resulted in and may continue to result in unanticipated delays which may affect the deployment of our products for the RBOC market.

We Face Intense Competition Which Could Hurt Our Sales and Profitability

The market for optical networking equipment is extremely competitive. Competition in the optical networking installation and test services market is based on varying combinations of price, functionality, software functionality, manufacturing capability, installation, services, scalability and the ability of the system solution to meet customers' immediate and future network requirements. A small number of very large companies, including Alcatel, Cisco Systems, Fujitsu Group, Hitachi, Lucent Technologies, NEC Corporation, Nortel Networks, Siemens AG and Telefon AB LM Ericsson, have historically dominated the telecommunications equipment industry. These companies have substantial financial, marketing, manufacturing and intellectual property resources. In addition, these companies have substantially greater resources to develop or acquire new technologies than we do and often have existing relationships with our potential customers. We sell systems that compete directly with product offerings of these companies and in some cases displace or replace equipment they have traditionally supplied for telecommunications networks. As such, we represent a specific threat to these companies. The continued expansion of our product

offerings with the MultiWave CoreDirector product line and enhancements to our MultiWave CoreStream product line likely will increase this perceived threat. We expect continued aggressive tactics from many of these competitors, including:

- price discounting;
- early announcements of competing products and other marketing efforts;
- “one-stop shopping” appeals;
- customer financing assistance;
- marketing and advertising assistance; and
- intellectual property disputes.

These tactics can be particularly effective in a highly concentrated customer base such as ours. Our customers are under increasing competitive pressure to deliver their services at the lowest possible cost. This pressure may result in pricing for optical networking systems becoming a more important factor in customer decisions, which may favor larger competitors that can spread the effect of price discounts in their optical networking products across a larger array of products and services and across a larger customer base than ours. If we are unable to offset any reductions in the average sales price for our products by a reduction in the cost of our products, our gross profit margins will be adversely affected. Our inability to compete successfully against our competitors and maintain our gross profit margins would harm our business, financial condition and results of operations.

Many of our customers have indicated that they intend to establish a relationship with at least two vendors for optical networking products. With respect to customers for whom we are the only supplier, we do not know when or if these customers will select a second vendor or what impact the selection might have on purchases from us. If a second optical networking supplier is chosen, these customers could reduce their purchases from us, which could in turn have a material adverse effect on us.

New competitors are emerging to compete with our existing products as well as our future products. There has been an increase in funding for new companies focused on the development of new products for the optical networking market. We expect new competitors to continue to emerge as the optical networking market continues to expand. These companies may achieve commercial availability of their products more quickly due to the narrow and exclusive focus

of their efforts. Several of these competitors have raised significantly more cash and they have in some cases offered stock in their companies, positions on technical advisory boards, or have provided significant vendor financing to attract new customers. In particular, a number of companies, including several start-up companies and recently public companies that have raised substantial equity capital, have announced products that compete with our MultiWave CoreStream, MultiWave Metro, and MultiWave CoreDirector products. Our inability to compete successfully against these companies would harm our business, financial condition and results of operations.

We May Not Be Able to Successfully Complete Development and Achieve Commercial Acceptance of New Products

During the third quarter of fiscal 2000, the first version of our MultiWave CoreDirector became available. Our MultiWave CoreDirector CI product and enhancements to the MultiWave CoreDirector and MultiWave CoreStream product lines are in the development phase and are not yet ready for commercial manufacturing or deployment. We expect to offer additional releases of the MultiWave CoreDirector product over the life of the product and continue to enhance features of our MultiWave CoreStream product, including the longer reach and higher channel count functionality of our product line. The initial release of MultiWave CoreDirector CI is expected in limited availability for customer trials during the first quarter of calendar 2001. The maturing process from laboratory prototype to customer trials, and subsequently to general availability involves a number of steps, including:

- completion of product development;
- the qualification and multiple sourcing of critical components, including application-specific integrated circuits, referred to as ASICs;
- validation of manufacturing methods and processes;
- extensive quality assurance and reliability testing, and staffing of testing infrastructure;
- validation of embedded software validation;
- establishment of systems integration and systems test validation requirements; and
- identification and qualification of component suppliers.

Each of these steps in turn presents serious risks of failure, rework or delay, any one of which could decrease the speed and scope of product introduction and marketplace acceptance of the product. Specialized ASICs and intensive software testing and validation, in particular, are key to the timely introduction of enhancements to the MultiWave CoreDirector product line, and schedule delays are common in the final validation phase, as well as in the manufacture of specialized ASICs. In addition, unexpected intellectual property disputes, failure of critical design elements, and a host of other execution risks may delay or even prevent the introduction of these products. If we do not develop and successfully introduce these products in a timely manner, our business, financial condition and results of operations would be harmed.

The markets for our MultiWave CoreDirector product line are relatively new. We have not established commercial acceptance of these products, and we cannot assure you that the substantial sales and marketing efforts necessary to achieve commercial acceptance in traditionally long sales cycles will be successful. If the markets for these products do not develop or the products are not accepted by the market, our business, financial condition and results of operations would suffer.

We Depend on a Limited Number of Suppliers and for Some Items We Do Not Have a Substitute Supplier

We depend on a limited number of suppliers for components of our products, as well as for equipment used to manufacture and test our products. Our products include several higher performance components for which reliable, high volume suppliers are particularly limited. Furthermore, certain key optical and electronic components we use in our optical transport systems are currently available only from sole sources, and in some cases, that sole source is also a competitor. A worldwide shortage of some electrical components has caused an increase in the price of components. Any delay in component availability for any of our products could result in delays in deployment of these products and in our ability to recognize revenues. These delays could harm our customer relationships.

Failures of components can affect customer confidence in our products and could adversely affect our financial performance and the reliability and performance of our products. On occasion, we have experienced delays in receipt of

components and have received components that do not perform according to their specifications. Any future difficulty in obtaining sufficient and timely delivery of components could result in delays or reductions in product shipments which, in turn, could harm our business. A recent wave of consolidation among suppliers of these components, such as the recent purchases of E-TEK and SDL by JDS Uniphase, could adversely impact the availability of components on which we depend. Delayed deliveries of key components from these sources could adversely effect our business.

Any delays in component availability for any of our products or test equipment could result in delays in deployment of these products and in our ability to recognize revenue from them. These delays could harm our customer relationships and our results of operations.

We Rely on Contract Manufacturers for Our Products

We rely on a small number of contract manufacturers to manufacture our CoreDirector product line and some of the components for our other products. The qualification of these manufacturers is an expensive and time consuming process and these contract manufacturers build modules for other companies, including for our competitors. In addition, we do not have contracts in place with each of these manufacturers. We may not be able to effectively manage our relationships with our manufacturers and we cannot be certain that they will be able to fill our orders in a timely manner. If we cannot effectively manage these manufacturers or they fail to deliver components in a timely manner it may have an adverse affect on our business and results of operations.

Some of Our Suppliers Are Also Our Competitors

Some of our component suppliers are both primary sources for components and major competitors in the market for system equipment. For example, we buy components from:

- Alcatel;
- Lucent Technologies;
- NEC Corporation;
- Nortel Networks; and
- Siemens AG.

Each of these companies offers optical communications systems and equipment, which are competitive with our products. Also, Lucent is the sole source of two components and is one of two suppliers of two others. Recently, Lucent has announced that it intends to spin off a portion of its components business. Our supply of components from Lucent may be adversely effected by this restructuring. Alcatel and Nortel are suppliers of lasers used in our products and NEC is a supplier of an important piece of testing equipment. A decline in reliability or other adverse change in these supply relationships could harm our business.

Sales to Emerging Carriers May Increase the Unpredictability of Our Results

As we continue to address emerging carriers, timing and volume of purchasing from these carriers can also be more unpredictable due to factors such as their need to build a customer base, acquire rights of way and interconnections necessary to sell network service, and build out new capacity, all while working within their capital budget constraints. Sales to these carriers may increase the unpredictability of our financial results because even these emerging carriers purchase our products in multi-million dollar increments.

Unanticipated changes in customer purchasing plans also create unpredictability in our results. A portion of our anticipated revenue over the next several quarters is comprised of orders of less than \$25 million each from several customers, some of which may involve extended payment terms or other financing assistance. Our ability to recognize revenue from financed sales to emerging carriers will depend on the relative financial condition of the specific customer, among other factors. Further, we will need to evaluate the collectibility of receivables from these customers if their financial conditions deteriorate in the future. Purchasing delays and changes in the financial condition or the amount of purchases by any of these customers, could have a material adverse effect on us. In the past we have had to make provisions for the accounts receivables from customers that experienced financial difficulty. If additional customers face similar financial difficulties, our receivables from these customers may become uncollectible, we would have to write off the asset or decrease the value of the asset to the extent the receivable could not be collected. These write-downs or write-offs would adversely affect our financial performance.

Our Ability to Compete Could Be Harmed If We Are Unable to Protect and Enforce Our Intellectual Property Rights or If We Infringe on Intellectual Property Rights of Others

We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We also enter into non-disclosure and proprietary rights agreements with our employees and consultants, and license agreements with our corporate partners, and control access to and distribution of our products, documentation and other proprietary information. Despite our efforts to protect our proprietary rights, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our products is difficult and we cannot be certain that the steps we have taken will prevent unauthorized use of our technology, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. If competitors are able to use our technology, our ability to compete effectively could be harmed. We are involved in an intellectual property dispute regarding the use of our technology and may become involved with additional disputes in the future. Such lawsuits can be costly and may significantly divert time and attention from some members of our personnel.

We have received and may receive in the future, notices from holders of patents in the optical technology field that raise issues of possible infringement by our products. Questions of infringement in the optical networking equipment market often involve highly technical and subjective analysis. There can be no assurance that any of these patent holders or others will not in the future initiate legal proceedings against us, or that we will be successful in defending against these actions. We are involved in an intellectual property dispute regarding the possible infringement of our products. In the past, we have been forced to take a license from the owner of the infringed intellectual property, or to redesign or stop selling the product that includes the challenged intellectual property. If we are sued for infringement and are unsuccessful in defending the suit, we could be subject to significant damages and our business and customer relationships could be adversely affected.

Product Performance Problems Could Limit Our Sales Prospects

The production of new optical networking products and systems with high technology content involves occasional problems as the technology and manufacturing methods mature. If significant reliability, quality or network monitoring problems develop, including those due to faulty components, a number of negative effects on our business could result, including:

- costs associated with reworking our manufacturing processes;
- high service and warranty expenses;
- high inventory obsolescence expense;
- high levels of product returns;
- delays in collecting accounts receivable;
- reduced orders from existing customers; and
- declining interest from potential customers.

Although we maintain accruals for product warranties, actual costs could exceed these amounts. From time to time, there will be interruptions or delays in the activation of our products at a customer's site. These interruptions or delays may result from product performance problems or from aspects of the installation and activation activities, some of which are outside our control. If we experience significant interruptions or delays that we can not promptly resolve, confidence in our products could be undermined, which could harm our business.

Our Prospects Depend on Demand Which We Cannot Reliably Predict or Control

We may not anticipate changes in direction or magnitude of demand for our products. The product offerings of our competitors could adversely affect the demand for our products. In addition, unanticipated reductions in demand for our products could adversely affect us.

Our products enable long distance optical transport, metropolitan optical transport, intelligent core switching and network management. Demand for our product depends on our customers' requirements. These requirements may vary significantly from quarter to quarter due to factors such as:

- the type and quantity of optical equipment needed by our customers;
- the timing of the deployment of optical equipment by our customers;
- the rate at which our current customers fund their network build-outs; and
- the equipment configurations and network architectures our customers want.

Customer determinations are subject to abrupt changes in response to their own competitive pressures, capital requirements and financial performance expectations. These changes could harm our business.

Recently we have experienced an increased level of sales activity that could lead to an upsurge in demand that is reflected in the overall increase in demand for optical networking and similar products in the telecommunications industry. Our results may suffer if we are unable to address this demand adequately by successfully scaling up our manufacturing capacity and hiring additional qualified personnel. To date we have largely depended on our own manufacturing and assembly facilities to meet customer expectations, but we cannot be sure that we can satisfy our customers' expectations in all cases by internal capabilities. In that case, we face the challenge of adequately managing customer expectations and finding alternative means of meeting them. If we fail to manage these expectations we could lose customers or receive smaller orders from customers.

Our Success Largely Depends on Our Ability to Retain Key Personnel

Our success has always depended in large part on our ability to attract and retain highly-skilled technical, managerial, sales and marketing personnel, particularly those skilled and experienced with optical communications equipment. Our key founders and employees, together with the key founders and employees of acquired companies have received a substantial number of our shares and vested options that can be sold at substantial gains. In many cases, these individuals could become financially independent through these sales, before our future products have matured into commercially deliverable products. These circumstances may make it difficult to retain and motivate these key personnel.

As we have grown and matured, competitors' efforts to hire our employees have intensified, particularly among competitive start-up companies and other early stage companies. We have agreements in place with most of our employees that limit their ability to work for a competitor and prohibit them from soliciting our other employees and our customers following termination of their employment. Our employees and our competitors may not respect these agreements. We have in the past been required to enforce, and are currently in the process of enforcing, some of these agreements. We expect in the future to continue to be required to resort to legal actions to enforce these agreements and could incur substantial costs in doing so. We may not be successful in these legal actions, and we may not be able to retain all of our key employees or attract new personnel to add to or replace them. The loss of key personnel would likely harm our business.

Part of Our Strategy Involves Pursuing Strategic Acquisitions That May Not Be Successful

As part of our strategy for growth, we will consider acquiring businesses that are intended to accelerate our product and service development processes and add complementary products and services. We may issue equity or incur debt to finance these acquisitions. Acquisitions involve a number of operational risks, including risks that the acquired business will not be successfully integrated, may distract management attention and may involve unforeseen costs and liabilities.

Our Stock Price May Exhibit Volatility

Our Common stock price has experienced substantial volatility in the past, and is likely to remain volatile in the future. Volatility can arise as a result of the activities of short sellers and risk arbitrageurs, and may have little relationship to our financial results or prospects. Volatility can also result from any divergence between our actual or anticipated financial results and published expectations of analysts, and announcements that we, our competitors, or our customers may make.

Divergence between our actual results and our anticipated results, analyst estimates and public announcements by us, our competitors, or by customers will likely occur from time to time in the future, with resulting stock price volatility, irrespective of our overall year-to-year performance or long-term prospects. As long as we continue to depend on a limited customer base, and particularly when a substantial majority of their purchases consist of newly-introduced products like the MultiWave CoreStream, MultiWave CoreDirector and MultiWave Metro, there is substantial risk that our quarterly results will vary widely.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

The following discussion about the Company's market risk disclosures involves forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements. The Company is exposed to market risk related to changes in interest rates and foreign currency exchange rates. The Company does not use derivative financial instruments for speculative or trading purposes.

Interest Rate Sensitivity

The Company maintains a short-term investment portfolio consisting mainly of corporate debt securities and U.S. government agency discount notes with an average maturity of less than six months. These held-to-maturity securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10 percent from levels at October 31, 2000, the fair value of the portfolio would decline by approximately \$2.6 million. The Company has the ability to hold its fixed income investments until maturity, and therefore the Company would not expect its operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on its securities portfolio.

Foreign Currency Exchange Risk

As a global concern, the Company faces exposure to adverse movements in foreign currency exchange rates. These exposures may change over time as business practices evolve and could have a material adverse impact on the Company's financial results. Historically the Company's primary exposures have been related to nondollar-denominated operating expenses in Canada, Europe and Asia where the Company sells primarily in U.S. dollars. The introduction of the Euro as a common currency for members of the European Monetary Union began during the Company's fiscal year 2000. The foreign currency exposure resulting from the introduction of the Euro has been immaterial to the operating results of the Company. The Company is prepared to hedge against fluctuations in the Euro if this exposure becomes material. As of October 31, 2000, the assets and liabilities of the Company related to non-dollar denominated currencies was not material. Therefore an increase or decrease of 10 percent in the foreign exchange rate would not have a material impact on the Company's financial position.

Item 8. Financial Statements and Supplementary Data

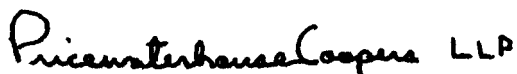
The following is an index to the consolidated financial statements and supplementary data:

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Report of Independent Accountants

To the Board of Directors and
Stockholders of CIENA Corporation

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of cash flows and of changes in stockholders' equity present fairly, in all material respects, the financial position of CIENA Corporation and its subsidiaries at October 31, 2000 and 1999, and the results of their operations and their cash flows for each of the three years in the period ended October 31, 2000, in conformity with accounting principles generally accepted in the United States of America. 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 of these statements in accordance with auditing standards generally accepted in the United States of America, which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The image shows a handwritten signature in black ink that reads "PricewaterhouseCoopers LLP". The signature is written in a cursive, flowing style.

PricewaterhouseCoopers LLP
McLean, VA
December 6, 2000

Consolidated Balance Sheets

<i>(in thousands, except share data)</i>	1999	October 31, 2000
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 143,440	\$ 143,187
Marketable debt securities	118,956	95,131
Accounts receivable (net allowance of \$1,703 and \$29,581)	144,348	248,950
Inventories, net	79,608	141,279
Deferred income taxes	25,385	143,029
Prepaid expenses and other	21,262	41,438
Total current assets	532,999	813,014
Equipment, furniture and fixtures, net	125,252	189,231
Goodwill and other intangible assets, net	12,635	9,049
Other assets	6,949	15,907
Total assets	\$677,835	\$1,027,201
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 34,399	\$ 70,250
Accrued liabilities	58,486	84,163
Income taxes payable	8,697	7,483
Deferred revenue	2,954	10,731
Other current obligations	992	712
Total current liabilities	105,528	173,339
Deferred income taxes	36,953	39,145
Other long-term obligations	4,881	4,882
Total liabilities	147,362	217,366
Commitments and contingencies		
Stockholders' equity:		
Preferred stock—par value \$0.01; 20,000,000 shares authorized; zero shares issued and outstanding	—	—
Common stock—par value \$0.01; 360,000,000 and 460,000,000 shares authorized; 276,374,712 and 286,530,631 shares issued and outstanding	2,764	2,865
Additional paid-in capital	358,700	557,257
Notes receivable from stockholders	(210)	(30)
Accumulated other comprehensive income	(40)	(903)
Retained earnings	169,259	250,646
Total stockholders' equity	530,473	809,835
Total liabilities and stockholders' equity	\$677,835	\$1,027,201

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Operations

<i>(in thousands, except per share data)</i>	Year Ended October 31,		
	1998	1999	2000
Revenue	\$508,087	\$482,085	\$858,750
Cost of goods sold	256,014	299,769	477,393
Gross profit	252,073	182,316	381,357
Operating expenses:			
Research and development	73,756	104,641	129,069
Selling and marketing	47,343	61,603	90,922
General and administrative	18,468	22,736	34,000
Settlement of accrued contract obligation	—	—	(8,538)
Purchased research and development	9,503	—	—
Pirelli litigation	30,579	—	—
Merger related costs	2,548	13,021	—
Provision for doubtful accounts	806	250	28,010
Total operating expenses	183,003	202,251	273,463
Income (loss) from operations	69,070	(19,935)	107,894
Interest and other income (expense), net	13,143	14,448	13,020
Interest expense	(313)	(504)	(340)
Income (loss) before income taxes	81,900	(5,991)	120,574
Provision (benefit) for income taxes	36,200	(2,067)	39,187
Net income (loss)	\$ 45,700	\$ (3,924)	\$ 81,387
Basic net income (loss) per common share	\$ 0.19	\$ (0.01)	\$ 0.29
Diluted net income (loss) per common share and dilutive potential common share	\$ 0.18	\$ (0.01)	\$ 0.27
Weighted average basic common shares outstanding	235,980	267,042	281,621
Weighted average basic common and dilutive potential common shares outstanding	255,788	267,042	299,662

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Changes in Stockholders' Equity

<i>(dollars in thousands)</i>	Common Stock		Additional	Notes	Accumu-	Retained	Total
	Shares	Amount	Paid-in- Capital	Receivable From Stock- holders	lated Other Compre- hensive Income	Earnings	Stockholders' Equity
Balance at October 31, 1997	219,398,540	\$2,194	\$249,295	\$ (68)	\$ (5)	\$125,862	\$377,278
Net income	—	—	—	—	—	45,700	45,700
Translation adjustment	—	—	—	—	(102)	—	(102)
Comprehensive income	—	—	—	—	—	—	\$ 45,598
Exercise of stock options	5,295,814	52	6,189	(392)	—	—	5,849
Compensation cost of stock options	—	—	54	—	—	—	54
Issuance of Common stock, net of issuance costs	43,908,340	440	28,254	(225)	—	—	28,469
Tax benefit from the exercise of stock options	—	—	22,634	—	—	—	22,634
Repayment of receivables from stockholders	—	—	—	99	—	—	99
Purchase of Terabit and Astracom net of issuance costs	608,288	6	20,814	—	—	—	20,820
Issuance of warrants for technology rights	—	—	235	—	—	—	235
Balance at October 31, 1998	269,210,982	\$2,692	\$327,475	\$(586)	\$(107)	\$171,562	\$501,036
Net loss	—	—	—	—	—	(3,924)	(3,924)
Translation adjustment	—	—	—	—	67	—	67
Comprehensive loss	—	—	—	—	—	—	\$ (3,857)
Exercise of warrants	807,902	8	—	—	—	—	8
Exercise of stock options	3,442,768	34	8,198	—	—	—	8,232
Compensation cost of stock options and warrants	—	—	8,521	—	—	—	8,521
Issuance of Common stock, net of issuance costs	2,913,060	30	3,502	(481)	—	—	3,051
Tax benefit from the exercise of stock options	—	—	11,004	—	—	—	11,004
Repayment of receivables from stockholders	—	—	—	857	—	—	857
Adjustment to conform fiscal year ends of pooled acquisition	—	—	—	—	—	1,621	1,621
Balance at October 31, 1999	276,374,712	\$2,764	\$358,700	\$(210)	\$ (40)	\$169,259	\$530,473
Net income	—	—	—	—	—	81,387	81,387
Translation adjustment	—	—	—	—	(863)	—	(863)
Comprehensive income	—	—	—	—	—	—	\$ 80,524
Exercise of warrants	286,084	3	—	—	—	—	3
Exercise of stock options	9,166,133	91	38,144	—	—	—	38,235
Compensation cost of stock options and warrants	—	—	40	—	—	—	40
Issuance of common stock, net of issuance costs	703,702	7	5,732	—	—	—	5,739
Tax benefit from the exercise of stock options	—	—	154,641	—	—	—	154,641
Repayment of receivables from stockholders	—	—	—	180	—	—	180
Balance at October 31, 2000	286,530,631	\$2,865	\$557,257	\$(30)	\$(903)	\$250,646	\$809,835

The accompanying notes are an integral part of these consolidated financial statements.

Consolidated Statements of Cash Flows

<i>(in thousands)</i>	1998	Year Ended October 31,	
		1999	2000
Cash flows from operating activities:			
Net income (loss)	\$ 45,700	\$ (3,924)	\$ 81,387
Adjustments to reconcile net income to net cash provided by operating activities:			
Adjustment to conform fiscal year ends of pooled acquisitions	—	1,621	—
Tax benefit related to exercise of stock options and warrants	22,634	11,004	154,641
Non-cash charges from equity transactions	289	8,521	40
Amortization of premiums on marketable debt securities	464	1,776	1,016
Effect of translation adjustment	(102)	67	(863)
Purchased research and development	9,503	—	—
Write down of leasehold improvements and equipment	1,605	—	—
Depreciation and amortization	33,623	50,418	63,604
Provision for doubtful accounts	806	250	28,010
Provision for inventory excess and obsolescence	9,617	6,534	15,022
Provision for warranty	10,523	8,396	15,804
Settlement of accrued contract obligation	—	—	(8,538)
Changes in assets and liabilities:			
Increase in accounts receivable	(7,026)	(65,807)	(132,612)
Increase in prepaid expenses and other assets	(18,528)	(13,222)	(27,153)
(Increase) decrease in prepaid income taxes	(11,688)	11,688	—
Increase in inventories	(39,416)	(15,234)	(76,693)
Increase in deferred income tax assets	(7,282)	(8,964)	(117,644)
Increase (decrease) in accounts payable and accrued expenses	(6,288)	22,159	54,262
Increase (decrease) in income taxes payable	(46)	8,697	(1,214)
Increase in deferred income tax liabilities	5,958	2,828	2,192
Increase (decrease) in deferred revenue and other obligations	(1,507)	1,870	7,777
Net cash provided by operating activities	48,839	28,678	59,038
Cash flows from investing activities:			
Additions to equipment, furniture and fixtures	(88,913)	(46,776)	(123,947)
Purchase of marketable debt securities	(93,869)	(274,897)	(269,149)
Maturities of marketable debt securities	77,876	171,934	289,927
Net cash paid for business combinations	(2,070)	—	—
Net cash used in investing activities	(106,976)	(149,739)	(103,169)
Cash flows from financing activities:			
Net proceeds from (repayment of) other obligations	1,148	1,639	(279)
Net proceeds from issuance of Common stock	34,318	11,291	43,977
Repayment of notes receivable from stockholders	99	857	180
Net cash provided by financing activities	35,565	13,787	43,878
Net decrease in cash and cash equivalents	(22,572)	(107,274)	(253)
Cash and cash equivalents at beginning of period	273,286	250,714	143,440
Cash and cash equivalents at end of period	\$250,714	\$ 143,440	\$ 143,187
Supplemental disclosure of cash flow information:			
Cash paid during the period for:			
Interest	\$ 265	\$ 504	\$ 340
Income taxes	\$ 30,203	\$ 313	\$ 1,231
Supplemental disclosure of non-cash financing activities:			
Issuance of Common stock for notes receivable from stockholders	\$ 617	\$ 481	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

Notes to Consolidated Financial Statements

(1) The Company and Significant Accounting Policies

Description of Business

CIENA is a leader in the rapidly growing intelligent optical networking equipment market. CIENA offers a comprehensive portfolio of products for communications service providers worldwide. CIENA's customers include long-distance carriers, competitive and incumbent local exchange carriers, Internet service providers and wholesale carriers. CIENA offers optical transport and intelligent optical switching systems that enable service providers to provision, manage and deliver high-bandwidth services to their customers. The Company has pursued a strategy to develop and leverage the power of disruptive technologies to change the fundamental economics of building carrier-class tele- and data-communications networks, thereby providing our customers with a competitive advantage. CIENA's intelligent optical networking products are designed to enable carriers to deliver any time, any size, any priority bandwidth to their customers.

Principles of Consolidation

The Company has fifteen wholly owned U.S. and international subsidiaries which have been consolidated in the accompanying financial statements. The Company completed a merger with Omnia Communications, Inc. ("Omnia"), a Delaware company headquartered in Marlborough, Massachusetts, on July 1, 1999. On March 31, 1999 the Company completed a merger with Lightera Networks, Inc. ("Lightera"), a Delaware company headquartered in Cupertino, California. On February 19, 1998, the Company completed a merger with ATI Telecom International Ltd. ("Alta"). Each of these transactions constituted a tax-free reorganization and have been accounted for as pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of each of the companies as though they had been a part of CIENA.

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All material intercompany accounts and transactions have been eliminated in consolidation.

Fiscal Year

The Company has a 52 or 53 week fiscal year, which ends on the Saturday nearest to the last day of October in each year (October 28, 2000, October 30, 1999 and October 31, 1998). For purposes of financial statement presentation, each fiscal year is described as having ended on October 31. Fiscal 2000, 1999, and 1998 were comprised of 52 weeks. Prior to the merger, Omnia's fiscal year ended on December 31.

Since the fiscal years for CIENA and Omnia differed prior to the merger, the periods combined for the purposes of the consolidated financial statements are as follows:

CIENA	Omnia
Fiscal year ended October 31, 1997	June 3, 1997 (date of inception) to December 31, 1997
Fiscal year ended October 31, 1998	January 1, 1998 to December 31, 1998

The fiscal year ended October 31, 1999 contains two months of Omnia's financial results, which are also recorded in the fiscal year ending October 31, 1998. The net loss for these two months, November and December 1998, was \$1,621,000.

Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires the Company to make estimates, judgements and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses, together with amounts disclosed in the related notes to the financial statements. Actual results could differ from the recorded estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments purchased with original maturities of three months or less to be cash equivalents.

Marketable Debt Securities

The Company has classified its investments in marketable debt securities as held-to-maturity securities as defined by Statement of Financial Accounting Standards No. 115, "Accounting for Certain Investments in Debt and Equity Securities." Such investments are recorded at their amortized cost in the accompanying consolidated balance sheets. All of the marketable debt securities are corporate debt securities with contractual maturities of six months or less and such instruments have \$11,000 and \$70,255 of unrealized gains and \$108,000 and \$32,000 of unrealized loss, as of October 31, 1999 and 2000, respectively. See Note 3.

Inventories

Inventories are stated at the lower of cost or market, with cost determined on the first-in, first-out basis. The Company records a provision for excess and obsolete inventory whenever such an impairment has been identified.

Equipment, Furniture and Fixtures

Equipment, furniture and fixtures are recorded at cost. Depreciation and amortization are computed using the straight-line method over useful lives of 2–5 years for equipment, furniture and fixtures and 2–10 years for leasehold improvements.

Goodwill

The Company has recorded goodwill from three purchase transactions. See Note 2. It is the Company's policy to periodically assess the carrying amount of its goodwill to determine if there has been an impairment to its carrying value. The Company would record any such impairment when identified.

Concentrations

Substantially all of the Company's cash and cash equivalents are custodied at four major U.S. financial institutions. The majority of the Company's cash equivalents include U.S. Government Federal Agency Securities, short-term marketable securities, and overnight repurchase agreements. Deposits held with banks may exceed the amount of insurance provided on such deposits. Generally these deposits may be redeemed upon demand and, therefore, bear minimal risk.

Historically, the Company has relied on a limited number of customers for a substantial portion of its revenue. During fiscal year 2000, Sprint, Qwest Communications and GTS Network Ltd. each accounted for at least 10% or more

of CIENA's revenue and all three combined accounted for 60.9% of the Company's fiscal 2000 revenue. During fiscal year 1999 Sprint, MCI WorldCom, and GTS Network Ltd. each accounted for at least 10% or more of CIENA's revenue and all three combined accounted for 46.2% of the Company's fiscal 1999 revenue. During fiscal 1998 Sprint was the only 10% customer and in total accounted for 52.5 % of the Company's fiscal 1998 revenue. The Company expects that a significant portion of its future revenue will continue to be generated by a limited number of customers. The loss of any one of these customers or any substantial reduction in orders by any one of these customers could materially adversely affect the Company's financial condition or operating results. Additionally, the Company's access to certain raw materials is dependent upon single and sole source suppliers. The inability of any supplier to fulfill supply requirements of the Company could impact future results.

CIENA performs ongoing credit evaluations of its customers and generally does not require collateral from its customers. CIENA maintains an allowance for potential losses when identified. CIENA's allowance for doubtful accounts as of October 31, 2000 was \$29.6 million. Approximately \$27.8 million relates to provisions made for doubtful accounts associated with iaxis Limited, one of CIENA's European customers. In September 2000, CIENA was informed that an administrative order had been issued by a London court against iaxis Limited. As a result of this order, joint administrators were appointed to manage the business of iaxis Limited while they marketed the business for sale and formulated a reorganization of the company. In November 2000, CIENA was notified that Dynegy Inc. and its subsidiaries had entered into a proposed agreement to acquire the assets and stock of iaxis Limited from the administrators. As a consequence of the terms of (a) the proposed agreement between the administrators of iaxis Limited and Dynegy, and of (b) a related sales agreement between CIENA and Dynegy, CIENA expects to realize approximately \$8.9 million of the gross outstanding accounts receivable balance due from iaxis Limited as of October 31, 2000. While the proposed purchase agreement between the administrators of iaxis Limited and Dynegy is subject to certain administrative and judicial approvals, CIENA believes that such approvals will be ultimately obtained and that CIENA will be successful in collecting the net \$8.9 million outstanding accounts receivable balance from the customer. However, should such approvals not occur, additional write-offs might be required.

As of October 31, 2000, the trade accounts receivable included three customers who each accounted for 28%, 16%, and 13% of the trade accounts receivable, respectively. As of October 31, 1999, the trade accounts receivable included three customers who each accounted for 30%, 14%, and 12% of the trade accounts receivable, respectively.

Revenue Recognition

CIENA recognizes product revenue in accordance with the shipping terms specified and where collection is probable. For transactions where CIENA has yet to obtain customer acceptance, revenue is deferred until the terms of acceptance are satisfied. Revenue for installation services is recognized as the services are performed unless the terms of the supply contract combine product acceptance with installation, in which case revenues for installation services are recognized when the terms of acceptance are satisfied and installation is completed. Revenues from installation service fixed price contracts are recognized on the percentage-of-completion method, measured by the percentage of costs incurred to date compared to estimated total costs for each contract. Amounts received in excess of revenue recognized are included as deferred revenue in the accompanying balance sheets. For transactions involving the sale of software, revenue is recognized in accordance with Statement of Position No. 97-2 (SOP 97-2), "Software Revenue Recognition," including deferral of revenue recognition in instances where vendor specific objective evidence for undelivered elements is not determinable. For distributor sales where risks of ownership have not transferred, CIENA recognizes revenue when the product is shipped through to the end user.

Revenue-Related Accruals

The Company provides for the estimated costs to fulfill customer warranty and other contractual obligations upon the recognition of the related revenue. Such reserves are determined based upon actual warranty cost experience, estimates of component failure rates, and management's industry experience. The Company's contractual sales arrangements generally do not permit the right of return of product by the customer after the product has been accepted.

Research and Development

The Company charges all research and development costs to expense as incurred.

Income Taxes

The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards No. 109 (SFAS No. 109), "Accounting for Income Taxes." SFAS No. 109 is an asset and liability approach that requires the recognition of deferred tax assets and liabilities for the expected future tax consequences attributable to differences between the carrying amounts of assets and liabilities for financial reporting purposes and their respective tax bases, and for operating loss and tax credit carryforwards. In estimating future tax consequences, SFAS No. 109 generally considers all expected future events other than the enactment of changes in tax laws or rates. Valuation allowances are provided if, based upon the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Tax savings resulting from deductions associated with stock options and certain stock warrants are credited directly to additional paid in capital when realization of such benefit is fully assured and to deferred tax liabilities prior to such point. See Note 9.

Fair Value of Financial Instruments

The carrying amounts of the Company's financial instruments, which include marketable debt securities, accounts receivable, accounts payable, and other accrued expenses, approximate their fair values due to their short maturities.

Foreign Currency Translation

The majority of the Company's foreign branches and subsidiaries use the U.S. dollar as their functional currency, as the U.S. parent exclusively funds the branches and subsidiaries' operations with U.S. dollars. For those subsidiaries using the local currency as their functional currency, assets and liabilities are translated at exchange rates in effect at the balance sheet date. Resulting translation adjustments are recorded directly to a separate component of stockholders' equity. Where the U.S. dollar is the functional currency, translation adjustments are recorded in other income. The net gain (loss) on foreign currency re-measurement and exchange rate changes for fiscal 1998, 1999 and 2000 was immaterial for separate financial statement presentation.

Computation of Basic Net Income (Loss) per Common Share and Diluted Net Income (Loss) per Common and Dilutive Potential Common Share

The Company calculates earnings per share in accordance with the Statement of Financial Accounting Standards No. 128, "Earnings per Share" (SFAS No. 128). SFAS No. 128 simplifies the earnings per share (EPS) computation and replaces the presentation of primary EPS with a presentation of basic EPS. This statement also requires dual presentation of basic and diluted EPS on the face of the income statement for entities with a complex capital structure and requires a reconciliation of the numerator and denominator used for the basic and diluted EPS computations. See Note 7.

Software Development Costs

Statement of Financial Accounting Standards No. 86, "Accounting for the Costs of Computer Software to be Sold, Leased or Otherwise Marketed", requires the capitalization of certain software development costs incurred subsequent to the date technological feasibility is established and prior to the date the product is generally available for sale. The capitalized cost is then amortized over the estimated product life. The Company defines technological feasibility as being attained at the time a working model is completed. To date, the period between achieving technological feasibility and the general availability of such software has been short and software development costs qualifying for capitalization have been insignificant. Accordingly, the Company has not capitalized any software development costs.

Accounting for Stock Options

In October 1995, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 123 (SFAS No. 123), "Accounting for Stock-Based Compensation," which is effective for the Company's consolidated financial statements for fiscal years 1998, 1999, and 2000. SFAS No. 123 allows companies to either account for stock-based compensation under the new provisions of SFAS No. 123 or using the intrinsic value method provided by Accounting Principles Board Opinion No. 25 (APB No. 25), "Accounting for Stock Issued to Employees," but requires pro forma disclosure in the footnotes to the financial statements as if the measurement provisions of SFAS No. 123 had been adopted. The Company has elected to continue to account for its stock based compensation in accordance with the provisions of APB No. 25 as interpreted by FASB Interpretation No. 44, "Accounting for Certain Transactions Involving Stock Compensation, and Interpretation of APB Opinion No. 25", ("FIN 44") and present the pro forma disclosures required by SFAS No. 123. See Note 10.

Segment Reporting

In June 1997, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 131 (SFAS No. 131), "Disclosures about Segments of an Enterprise and Related Information." The Statement is effective for the Company's fiscal year 1999. SFAS No. 131 establishes annual and interim reporting standards for operating segments of a company. It also requires entity-wide disclosures about the products and services an entity provides, the material countries in which it holds assets and reports revenues, and its major customers. The Company is not organized by multiple operating segments for the purpose of making operating decisions or assessing performance. Accordingly, the Company operates in one operating segment and reports only certain enterprise-wide disclosures.

Newly Issued Accounting Standards

In June 1998, the Financial Accounting Standards Board issued Statement of Financial Accounting Standards No. 133 (SFAS No. 133), "Accounting for Derivative Instruments and Hedging Activities." This Statement requires companies to record derivatives on the balance sheet as assets or liabilities, measured at fair value. Gains or losses resulting from changes in the values of those derivatives would be accounted for depending on the use of the derivative and whether it qualifies for hedge accounting. SFAS No. 133, as amended by SFAS No. 137, "Accounting for Derivative Instruments and Hedging Activities—Deferral of the Effective Date for SFAS No. 133," will be effective for the Company's fiscal year ending October 31, 2001. The Company believes the adoption of SFAS No. 133 and SFAS No. 137 will not have a material effect on the consolidated financial statements.

In December 1999, the Securities and Exchange Commission released Staff Accounting Bulletin No. 101, "Revenue Recognition in Financial Statements," (SAB 101) which clarifies the Securities and Exchange Commission's view on revenue recognition. Subsequently, the SEC released SAB 101B, which delayed the implementation date of SAB 101 for registrants with fiscal years that begin between December 16, 1999 and March 15, 2000. The Company is required to be in conformity with the provisions of SAB 101, as amended, no later than January 31, 2001, with the impact of such adoption being treated on a cumulative basis as of November 1, 2000. While management will continue to assess SAB 101, CIENA presently believes its existing revenue recognition policies and procedures are generally in compliance with SAB 101 and, therefore, SAB 101's adoption will have no material impact on CIENA's financial condition, results of operations or cash flows.

In July 2000, the FASB's Emerging Issues Task Force ("EITF") reached a final consensus that the income tax benefit realized by a company upon the exercise of a nonqualified stock option or the disqualifying disposition of an incentive stock option should be classified in the operating section of the statement of cash flows. The consensus is effective for the Company's quarters ending after July 20, 2000. All comparative cash flow statements as presented have been restated to comply with this consensus.

In September 2000, the FASB issued SFAS No. 140, "Accounting for the Transfers and Servicing of Financial Assets and Extinguishments of Liabilities." SFAS No. 140 is effective for transfers occurring after March 31, 2001 and for disclosures relating to the securitization transactions and collateral for fiscal years ending after December 15, 2000. The company is reviewing the provisions of SFAS No. 140.

Reclassification

Certain prior year amounts have been reclassified to conform to current year consolidated financial statement presentation.

(2) Business Combinations

Omnia

On July 1, 1999, the Company completed a merger with Omnia in a transaction valued at approximately \$483 million. Omnia is a telecommunications equipment supplier which focuses on developing solutions to allow public telephone network operators to offer services cost effectively over integrated metropolitan fiberoptic access and transport networks. Under the terms of the merger agreement, the Company acquired all of the outstanding shares and assumed the stock options of Omnia in exchange for approximately 30.4 million shares of CIENA Common stock and 1.6 million CIENA shares issuable upon exercise of stock options. The transaction constituted a tax-free reorganization and has been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Omnia as though it had been a part of CIENA.

The following table shows the separate historical results of CIENA and Omnia for the periods prior to the consummation of the merger of the two entities. No financial information has been presented for the fiscal year ended 1996 as Omnia did not commence operations until June 1997. Omnia's fiscal year end was December 31. CIENA's results for the years ended October 31, 1997 and 1998 include Omnia's financial results from June 3, 1997 (date of inception) to December 31, 1997 and January 1, 1998 to December 31, 1998, respectively (in thousands).

	Year Ended October 31, 1997	Year Ended October 31, 1998	Nine Months Ended July 31, 1999
Revenues:			
CIENA	\$413,215	\$508,087	\$340,733
Omnia	—	—	—
Intercompany eliminations	—	—	—
Consolidated revenues	\$413,215	\$508,087	\$340,733
Net income (loss):			
CIENA	\$115,967	\$ 51,113	\$ (1,020)
Omnia	(399)	(5,413)	(7,403)
Consolidated net income (loss)	\$115,568	\$ 45,700	\$ (8,423)

Lightera

On March 31, 1999 the Company completed a merger with Lightera in a transaction valued at approximately \$459 million. Lightera is a developer of carrier class optical core switches for fiberoptic communications networks. Under the terms of the merger agreement, the Company acquired all of the outstanding shares and assumed outstanding stock options and warrants of Lightera in exchange for approximately 35.0 million shares of CIENA Common stock and 5.8 million CIENA shares issuable upon exercise of stock options and warrants. The transaction constituted a tax-free reorganization and has been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Lightera as though it had been a part of CIENA.

The following table shows the separate historical results of CIENA and Lightera for the periods prior to the consummation of the merger of the two entities. No financial information has been presented for the fiscal year ended 1997 as Lightera did not commence operations until April 1998 (in thousands).

	Year Ended: October 31, 1998	Six Months Ended April 30, 1999
Revenues:		
CIENA	\$508,087	\$211,907
Lightera	—	—
Intercompany eliminations	—	—
Consolidated revenues	\$508,087	\$211,907
Net income (loss):		
CIENA	\$ 53,194	\$ 8,046
Lightera	(2,081)	(6,169)
Consolidated net income	\$ 51,113	\$ 1,877

Terabit

During April 1998, the Company completed an Agreement and Plan of Reorganization with Terabit Technology, Inc. (“Terabit”), a developer of optical components known as photodetectors or optical receivers. Terabit is located in Santa Barbara, California. The purchase price was approximately \$11.5 million and consisted of the issuance of 268,780 shares of CIENA Common stock, the payment of \$1.1 million in cash, and the assumption of certain stock options. The transaction was recorded using the purchase accounting method with the purchase price representing approximately \$9.5 million in purchased research and development, \$1.8 million in goodwill and other intangibles, and approximately \$0.2 million in net assets assumed. The amortization period for the intangibles, based on management’s estimate of the useful life of the acquired technology, is five years. The operations of Terabit are not material to the consolidated financial statements of the Company and, accordingly, separate pro forma financial information has not been presented.

In connection with the Terabit acquisition, the Company recorded a \$9.5 million charge in the year ended October 31, 1998 for purchased research and development. This generally represents the estimated value of purchased in-process technology related to Terabit's avalanche photodiodes (APD) that had not yet reached technological feasibility and had no alternative future use at the time of the acquisition.

The amount of purchase price allocated to in-process research and development was determined using the discounted cash flow method. This method consisted of estimating future net cash flows attributable in-process APD technology for a discrete projection period and discounting the net cash flows back to their present value. The discount rate includes a factor that takes into account the uncertainty surrounding the successful development of the purchased in-process technology. The estimated revenue associated with the APD technology future net cash flows assumed a five year compound annual growth rate of between 5% to 43%. The revenue growth rates were developed considering, among other things, the current and expected industry trends and acceptance of the technologies in historical growth rates for similar industry products. Management's estimates or projections were based upon an estimated period of ten years with revenues reaching a peak in 2002 and declining through 2008. The estimated net cash flows were discounted to present value at a rate of return, which considers the relative risk of achieving the net cash flows and the time value of money. A 30% discount rate was used to effect the risk associated with Terabit's APD technology. This rate is higher than the Company's normal discount rate due to inherent uncertainties surrounding the successful development of purchase in-process technology, the useful life of the technology, and the profitability levels of such technology.

The resulting net cash flows from the APD project was based on management's estimates of revenues, cost of sales, research and development costs, selling general and administrative costs, and income taxes associated with the project.

Alta

On February 19, 1998, the Company completed a merger with ATI Telecom International Ltd., ("Alta"), a Canadian corporation headquartered near Atlanta, Georgia, in a transaction valued at approximately \$52.5 million. Alta provides a range of engineering, furnishing and installation services for telecommunications service providers in the areas of transport, switching and wireless communications. Under the terms of the merger agreement, the Company exchanged 2 million shares of its Common stock for all the Common stock of Alta. The merger constituted a tax-free reorganization and has been accounted for as a pooling of interests under Accounting Principles Board Opinion No. 16. Accordingly, all prior period consolidated financial statements presented have been restated to include the combined results of operations, financial position and cash flows of Alta as though it had been a part of CIENA.

Prior to the merger, Alta's year ended on December 31. In recording the business combination, Alta's prior period financial statements have been restated to conform to CIENA's fiscal year end.

All intercompany transactions between CIENA and Alta have been eliminated in consolidation. Certain reclassifications were made to Alta financial statements to conform to CIENA's presentation. No material adjustments were made to conform to CIENA's accounting policies.

The following table shows the separate historical results of CIENA and Alta for the periods prior to the consummation of the merger of the two entities (in thousands):

	Year Ended October 31,	
	1996	1997
Revenues:		
CIENA	\$54,838	\$373,827
Alta	33,625	39,531
Intercompany eliminations	—	(143)
Consolidated revenues	\$88,463	\$413,215
Net income (loss):		
CIENA	\$14,718	\$112,945
Alta	2,545	3,022
Consolidated net income	\$17,263	\$115,967

Astracom

During December 1997, the Company completed an Agreement and Plan of Merger with Astracom, Inc. ("Astracom"), an early stage telecommunications company located in Atlanta, Georgia. The purchase price was approximately \$13.1 million and consisted of the issuance of 339,508 shares of CIENA Common stock, the payment of \$2.4 million in cash, and the assumption of certain stock options. The transaction was recorded using the purchase accounting method with the purchase price representing approximately \$11.4 million in goodwill and other intangibles, and approximately \$1.7 million in net assets assumed. The amortization period for the intangibles, based on management's estimate of the useful life of the acquired technology, is five years. The operations of Astracom are not material to the consolidated financial statements of the Company and, accordingly, separate pro forma financial information has not been presented.

(3) Marketable Debt Securities

Marketable debt securities are comprised of the following (in thousands):

	October 31,	
	1999	2000
Commercial paper	\$ 105,215	\$ 90,745
U.S. Government obligations	13,741	4,386
	\$ 118,956	\$ 95,131

(4) Inventories

Inventories are comprised of the following (in thousands):

	October 31,	
	1999	2000
Raw materials	\$ 49,298	\$ 52,576
Work-in-process	16,386	48,300
Finished goods	26,369	58,641
	92,053	159,517
Reserve for excess and obsolescence	(12,445)	(18,238)
	\$ 79,608	\$ 141,279

(5) Equipment, Furniture and Fixtures

Equipment, furniture and fixtures are comprised of the following (in thousands):

	1999	October 31, 2000
Equipment, furniture and fixtures	\$ 182,794	\$ 290,726
Leasehold improvements	30,231	43,394
	213,025	334,120
Accumulated depreciation and amortization	(88,716)	(147,638)
Construction-in-progress	943	2,749
	\$ 125,252	\$ 189,231

(6) Accrued Liabilities

Accrued liabilities are comprised of the following (in thousands):

	1999	October 31, 2000
Warranty and other contractual obligations	\$28,582	\$27,605
Accrued compensation and payroll related tax	15,471	34,163
Other	14,433	22,395
	\$58,486	\$84,163

(7) Earnings (Loss) Per Share Calculation

The following is a reconciliation of the numerators and denominators of the basic net income (loss) per common share ("basic EPS") and diluted net income (loss) per common and dilutive potential common share ("diluted EPS"). Basic EPS is computed using the weighted average number of common shares outstanding.

Diluted EPS is computed using the weighted average number of common shares outstanding, stock options and warrants using the treasury stock method (in thousands except per share amounts).

	1998	October 31, 1999	2000
Net income (loss)	\$ 45,700	\$ (3,924)	\$ 81,387
Weighted average shares—basic	235,980	267,042	281,621
Effect of dilutive securities:			
Employee stock options and warrants	19,808	—	18,041
Weighted average shares—diluted	255,788	267,042	299,662
Basic EPS	\$ 0.19	\$ (0.01)	\$ 0.29
Diluted EPS	\$ 0.18	\$ (0.01)	\$ 0.27

Approximately 1,538,000, 23,772,000 and 1,203,123 options and restricted stock were outstanding during fiscal 1998, 1999 and 2000 respectively, but were not included in the computation of the Diluted EPS as the effect would be anti-dilutive.

(8) Stockholders' Equity

Authorized Shares

On March 16, 2000, the shareholders of the Company approved an increase to the authorized number of shares of Common stock from 360 million to 460 million shares.

Stock Split

The Board of Directors authorized the splitting of the Company's Common stock on a two-for-one basis for shareholders of record on August 28, 2000 and the resulting shares from the split were distributed on September 18, 2000. All references to share and per-share data for all periods presented have been adjusted to give effect to this two-for-one stock split.

Stockholder Rights Plan

In December 1997, the Company's Board of Directors adopted a Stockholder Rights Plan. This plan is designed to deter any potential coercive or unfair takeover tactics in the event of an unsolicited takeover attempt. It is not intended to prevent a takeover of the Company on terms that are favorable and fair to all shareholders and will not interfere with a merger approved by the Board of Directors. Each right entitles shareholders to buy a "unit" equal to one one-thousandth of a share of Preferred Stock of the Company. The rights will be exercisable only if a person or a group acquires or announces a tender or exchange offer to acquire 15% or more of the Company's Common stock or if the Company enters into certain other business combination transactions not approved by the Board of Directors.

In the event the rights become exercisable, the rights plan allows for CIENA shareholders to acquire stock of the surviving corporation, whether or not CIENA is the surviving corporation, having a value twice that of the exercise price of the rights. The rights were distributed to shareholders of record in January 1998. The rights will expire December 2007 and are redeemable for \$0.001 per right at the approval of the Company's Board of Directors.

Other Offerings

During 1998 and 1999, Omnia issued 10,753,330 and 368,990 shares of Common stock in exchange for approximately \$12,801,000 and \$66,000, respectively.

During 1998, Lightera issued a total of 33,155,010 shares of Common stock in exchange for certain technology rights, notes receivable totaling \$211,000 and proceeds of approximately \$15,893,000. In 1999, Lightera issued 1,937,022 shares of Common stock in exchange for approximately \$104,000.

Accumulated Comprehensive Income

The components of accumulated comprehensive income (loss) are as follows (in thousands):

	1999	October 31, 2000
Net income (loss)	\$(3,924)	\$81,387
Change in accumulated translation adjustments	67	(863)
Total comprehensive income (loss)	\$(3,857)	\$80,524

(9) Income Taxes

Income (loss) before income taxes and the provision (benefit) for income taxes consists of the following (in thousands):

	1998	October 31, 1999	2000
Income (loss) before income taxes.	\$81,900	\$(5,991)	\$120,574
Provision (benefit) for income taxes:			
Current:			
Federal	36,865	5,175	44,914
State	4,444	235	4,640
Foreign	40	75	250
Total current	41,349	5,485	49,804
Deferred:			
Federal	(4,496)	(7,477)	(10,013)
State	(653)	(75)	(604)
Foreign	—	—	—
Total deferred	(5,149)	(7,552)	(10,617)
Provision (benefit) for income taxes	\$36,200	\$(2,067)	\$ 39,187

The tax provision (benefit) reconciles to the amount computed by multiplying income before income taxes by the U.S. federal statutory rate of 35% as follows:

	1998	October 31, 1999	2000
Provision at statutory rate	35.0%	35.0%	35.0%
Non-deductible purchased research and development	4.3	—	—
State taxes, net of federal benefit	4.3	(2.6)	2.2
Research and development credit	(4.0)	48.9	(5.5)
Foreign sales corporation benefit	(1.6)	28.7	(0.7)
Non-deductible merger costs and other	6.2	(75.5)	1.5%
	44.2%	(34.5)%	32.5%

The significant components of deferred tax assets and liabilities were as follows (in thousands):

	1999	October 31, 2000
Deferred tax assets:		
Reserves and accrued liabilities	\$ 14,931	\$ 33,846
Other	637	1,178
Net operating loss and credit carry forward	11,244	109,410
Gross deferred tax assets	26,812	144,434
Valuation allowance	(1,427)	(1,405)
Net current deferred tax asset	\$25,385	\$143,029
Deferred tax liabilities:		
Equipment leases	\$ 8,738	\$ 8,885
Services	23,916	24,319
Depreciation and other	4,299	5,941
Deferred long-term tax liabilities	\$36,953	\$ 39,145

As of October 31, 2000, the Company has a \$249.2 million net operating loss carry forward and an \$18.1 million income tax credit which begin to expire in fiscal 2016 and 2014, respectively. Management believes that, after considering the anticipated future operating results of the Company, the net deferred tax assets will be realized. However, there cannot be complete assurance that this will occur.

The income tax provision does not reflect the tax savings resulting from deductions associated with the Company's stock option plans. Tax benefits from exercises of stock options of approximately \$11.0 million and \$154.6 million in fiscal 1999 and fiscal 2000, respectively, were credited directly to additional paid-in-capital.

The IRS is currently examining the Company's federal income tax returns for fiscal 1997 and fiscal 1998. Management does not expect the outcome of these examinations to have a material adverse affect on the Company's consolidated financial position, results of operations or cash flows.

(10) Employee Benefit Plans

Stock Incentive Plans

In August of 1999, the Company approved the 1999 Non-Officer Incentive Stock Plan (the “1999 Plan”). Under the 1999 Plan, 24,000,000 shares of the Company’s authorized but unissued Common Stock are reserved for options issuable to employees who are not executive officers of the Company. These options vest to the employee over four years and are exercisable once vested. Options under the 1999 Plan are categorized as non-qualified, and the exercise price for each option shall be established by the Board of Directors provided the price is not less than 85% of fair market value.

The Company has an Amended and Restated 1994 Stock Option Plan (the “1994 Plan”). Under the 1994 Plan, 40,100,000 shares of the Company’s authorized but unissued Common Stock are reserved for options issuable to employees. Certain of these options are immediately exercisable upon grant, and both the options and the shares issuable upon exercise of the options generally vest to the employee over a four year period. The Company has the right to repurchase any exercised and non-vested shares at the original purchase price from the employees upon termination of employment. In June 1996, the Company approved the 1996 Outside Directors Stock Option Plan (the “1996 Plan”). Under the 1996 Plan, 1,500,000 shares of the Company’s authorized but unissued Common Stock are reserved for options issuable to outside members of the Company’s Board of Directors. These options vest to the director over periods from one to three years, depending on the type of option granted, and are exercisable once vested. Under the 1994 Plan and the 1996 Plan, options may be incentive stock options or non-qualified options, and the exercise price for each option shall be established by the Board of Directors provided, however, that the exercise price per share shall not be not less than the fair market value for incentive stock options and not less than 85% of fair market value for non-qualified stock options.

As a result of the Company's merger with Omnia, the Company assumed the Omnia 1997 Stock Plan Option Plan ("the 1997 Plan"). The 1997 Plan provided for the granting of stock options to employees and consultants of Omnia. Options granted under the 1997 Plan were either incentive stock options or non-statutory stock options. Incentive stock options ("ISO") could be granted only to Omnia employees (including officers and directors who were also employees). Nonstatutory stock options ("NSO") could be granted to Omnia employees and consultants. The Company has reserved 1,519,778 shares of Common Stock for outstanding options under the plan. Options exercised are immediately subject to a repurchase right held by the Company which lapse over a maximum period of four years at such times and under such conditions as determined by the Board of Directors. To date, options granted generally vest over four years.

As a result of the Company's merger with Lightera, the Company assumed the Lightera 1998 Stock Option Plan ("the 1998 Plan"). The 1998 Plan provided for the granting of stock options to employees and consultants of Lightera. Options granted under the 1998 Plan were either incentive stock options or nonstatutory stock options. Incentive stock options ("ISO") could be granted only to Lightera employees (including officers and directors who were also employees). Nonstatutory stock options ("NSO") could be granted to Lightera employees and consultants. The Company has reserved 5,058,322 shares of Common Stock for outstanding options under the plan. Options exercised are immediately subject to a repurchase right held by the Company which lapse over a maximum period of five years at such times and under such conditions as determined by the Board of Directors. To date, options granted generally vest over four years.

Following is a summary of the Company's stock option activity (shares in thousands):

	Shares	Weighted Average Exercise Price
Balance at October 31, 1997	18,220	\$ 3.67
Granted	12,828	9.50
Exercised	(5,296)	1.20
Canceled	(6,680)	20.06
Balance at October 31, 1998	19,072	2.41
Granted	16,262	11.73
Exercised	(3,456)	2.33
Canceled	(1,756)	6.65
Balance at October 31, 1999	30,122	7.22
Granted	12,529	98.85
Exercised	(9,383)	4.10
Canceled	(2,547)	17.13
Balance at October 31, 2000	30,721	\$44.72

During September 1998, the Company canceled and reissued outstanding employee stock options with exercise prices in excess of the fair market value, except those options held by outside directors and officers of the Company. A total of 5.8 million options with an average exercise price of \$21.44 were canceled and reissued at \$6.19 per share. At October 31, 2000, approximately 0.4 million shares of Common Stock subject to repurchase by the Company had been issued upon the exercise of options and restricted stock purchase agreements, 7.0 million of the total outstanding options were vested and not subject to repurchase by the Company upon exercise. As of October 31, 2000, approximately 14.5 million shares are available for issuance under these plans.

The following table summarizes information with respect to stock options outstanding at October 31, 2000 (shares in thousands):

Range of Exercise Price	Options Outstanding			Options Not Subject to Repurchase Upon Exercise		
	Number Outstanding at Oct. 31, 2000	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number at Oct. 31, 2000	Weighted Average Exercise Price	
\$ 0.01-\$ 1.13	3,279	7.10	\$ 0.12	1,392	\$ 0.17	
\$ 1.15-\$ 6.19	5,202	6.23	3.15	4,127	2.39	
\$ 6.28-\$ 14.83	3,519	8.20	9.65	878	9.40	
\$ 14.91-\$ 15.78	3,879	8.96	14.93	64	15.20	
\$ 16.13-\$ 57.66	4,566	8.97	24.25	541	16.89	
\$ 58.25-\$127.88	4,028	9.67	84.05	—	—	
\$130.00-\$149.50	6,248	9.97	130.96	—	—	
\$ 0.01-\$149.50	<u>30,721</u>	8.51	\$ 44.72	<u>7,002</u>	\$26.01	

Employee Stock Purchase Plan

In March 1998, the shareholders approved the Corporation's 1998 Stock Purchase Plan ("the Purchase Plan") under which 5.0 million shares of Common stock have been reserved for issuance. Eligible employees may purchase a limited number of shares of the Company's stock at 85% of the market value at certain plan-defined dates. Approximately 693,000 and 607,000 shares of Common stock have been issued for \$5.8 million and \$3.3 million during fiscal 2000 and fiscal 1999, respectively. As of October 31, 2000, approximately 3.7 million shares are available for issuance under this plan.

Pro forma Stock-Based Compensation

Had compensation cost for the Company's stock option plans and the Purchase Plan been determined based on the fair value at the grant date for awards in fiscal years 1998, 1999 and 2000 consistent with the provisions of SFAS No. 123, the Company's net income and net income per share for fiscal 1998 and 2000 would have been decreased and the net loss and the net loss per share for fiscal 1999 would have been increased to the pro forma amounts indicated below (in thousands, except per share):

	1998	October 31, 1999	2000
Net income (loss) applicable to common stockholders—as reported	\$45,700	\$ (3,924)	\$ 81,387
Net income (loss) applicable to common stockholders—pro forma	\$20,816	\$(40,067)	\$(26,244)
Basic net income (loss) per share—as reported	\$ 0.19	\$ (0.01)	\$ 0.29
Basic net income (loss) per share—pro forma	\$ 0.09	\$ (0.15)	\$ (0.09)
Diluted net income (loss) per share—as reported	\$ 0.18	\$ (0.01)	\$ 0.27
Diluted net income (loss) per share—pro forma	\$ 0.08	\$ (0.15)	\$ (0.09)

The above pro forma disclosures are not necessarily representative of the effects on reported net income or loss for future years.

The weighted average fair value of each option granted under the various stock option plans for 1998, 1999 and 2000 is \$7.59, \$9.45 and \$64.99 respectively. The fair value of each option grant is estimated on the date of grant using the Black-Scholes Option Pricing Model with the following weighted average assumptions for fiscal years 1998, 1999 and 2000:

	Employee Stock Option Plans			Employee Stock Purchase Plan	
	October 31,			October 31,	
	1998	1999	2000	1999	2000
Expected volatility	109%	88%	106%	88%	106%
Risk-free interest rate	4.4%	5.5%	6.1%	5.5%	6.1%
Expected life (years)	3.0	2.8	2.7	0.5	0.5
Expected dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%

The Black-Scholes option pricing model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option pricing models require the input of highly subjective assumptions including the expected stock price volatility. The Company uses projected volatility rates, which are based upon historical volatility rates trended into future years. Because the Company's employee stock options have characteristics significantly different from those of traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in management's opinion, the existing models do not necessarily provide a reliable single measure of the fair value of the Company's options.

Employee 401(k) Plan

The Company has a 401(k) defined contribution profit sharing plan. The plan covers all full-time employees who have completed three months of service and are not covered by a collective bargaining agreement where retirement benefits are subject to good faith bargaining. Participants may contribute up to 15% of pre-tax compensation, subject to certain limitations. The Company may make discretionary annual profit sharing contributions of up to the lesser of \$30,000 or 25% of each participant's compensation. The plan includes an employer matching contribution equal to 100% of the first 3% of participating employee contributions, with a five year vesting plan applicable to the Company's contribution with the exception that participants vest immediately upon turning age fifty-five. The Company has made no profit sharing contributions to date. During fiscal 1998, 1999 and 2000, the Company made matching contributions of approximately \$1.1 million, \$1.7 million and \$2.3 million, respectively.

(11) Commitments and Contingencies

Operating Lease Commitments

The Company has certain minimum obligations under non-cancelable operating leases expiring on various dates through 2006 for equipment and facilities. Future annual minimum rental commitments under non-cancelable operating leases at October 31, 2000 are as follows (in thousands):

Fiscal Year Ending October 31,	
2001	\$14,102
2002	12,293
2003	10,731
2004	10,706
2005	10,111
Thereafter	22,668
	<u>\$80,611</u>

Rental expense for fiscal 1998, 1999 and 2000 was approximately \$6.1 million, \$9.5 million and \$13.7 million, respectively.

Litigation

On October 3, 2000, Stanford University and Litton Systems filed a complaint in U.S. District Court for the Central District of California alleging that optical fiber amplifiers incorporated into CIENA's products infringe U.S. Patent No. 4,859,016. Due to the early stage of this litigation, CIENA is unable to determine whether the litigation will have an adverse effect on the Company. The Company intends to defend this suit vigorously.

On July 19, 2000, CIENA and CIENA Properties, Inc., a wholly owned subsidiary of CIENA, filed a complaint in the United States District Court for the District of Delaware requesting damages and injunctive relief against Corvis Corporation. The complaint charges Corvis Corporation with infringing three patents relating to CIENA's optical networking communication systems and technology. On September 8, 2000, Corvis filed an Answer and Counterclaim alleging invalidity, non-infringement and unenforceability of the asserted patents, and tortious interference with prospective economic advantage. CIENA believes that Corvis' counterclaims are without merit, and intends to defend itself vigorously.

On June 1, 1998, the Company resolved the long-standing litigation with Pirelli S.p.A. The terms of the settlement involve dismissal of Pirelli's three lawsuits against CIENA previously pending in Delaware, dismissal of CIENA's legal proceedings against Pirelli in the United States International Trade Commission, a worldwide, non-exclusive cross-license to each party's patent portfolios, and a five-year moratorium on future litigation between the parties. As a result of the settlement, CIENA recorded a charge for the fiscal year ended October 31, 1998 of \$30.6 million relating to the Pirelli settlement and associated legal fees.

(12) Foreign Sales

The Company has sales and marketing operations outside the United States in Canada, the United Kingdom, Belgium, France, Germany, Japan, Mexico and Brazil. The Company has distributor or marketing representative arrangements covering Italy, the Republic of Korea, Japan, Venezuela, Columbia and Chile. Included in revenues are export sales of approximately \$117.1 million, and \$213.6 million and \$283.1 in fiscal years 1998, 1999 and 2000, respectively.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Part III Item 10. Directors and Executive Officers of the Registrant

Information relating to the directors and executive officers of the Company is set forth in Part I of this report under the caption Item 1. Business—"Directors and Executive Officers" and is incorporated by reference herein.

Section 16(a) Beneficial Ownership Reporting Compliance

Larry Huang and Perry Kamel each filed one late Form 4 reporting a single transaction. Steve Chaddick filed one late Form 4 reporting a single transaction and one late Form 5 reporting a single transaction.

Item 11. Executive Compensation

The information is incorporated herein by reference to the Company's definitive 2001 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management

The information is incorporated herein by reference to the Company's definitive 2001 Proxy Statement.

Item 13. Certain Relationships and Related Transactions

The information is incorporated herein by reference to the Company's definitive 2001 Proxy Statement.

Item 14. Exhibits, Financial Statement Schedules and Reports on Form 8-K

- (a) 1. The information required by this item is included in Item 8 of Part II of this Form 10-K.

2. Financial Statement Schedule

Valuation and Qualifying Accounts

<i>(in thousands)</i>	Balance at beginning of period	Provisions	Deductions	Balance at end of period
Year ended October 31, 1998				
Allowance for doubtful accounts	\$ 722	\$ 806	\$ —	\$ 1,528
Allowance for excess and obsolete inventory	\$ 7,466	\$ 9,617	\$5,929	\$11,154
Year ended October 31, 1999				
Allowance for doubtful accounts	\$ 1,528	\$ 250	\$ 75	\$ 1,703
Allowance for excess and obsolete inventory	\$11,154	\$ 6,534	\$5,243	\$12,445
Year ended October 31, 2000				
Allowance for doubtful accounts	\$ 1,703	\$28,010	\$ 132	\$29,581
Allowance for excess and obsolete inventory	\$12,445	\$15,021	\$9,228	\$18,238

Report of Independent Accountants on Financial Statement Schedule

To the Board of Directors
and Stockholders of CIENA Corporation:

Our audits of the consolidated financial statements referred to in our report dated December 6, 2000, appearing in the Annual Report on Form 10-K for the year ended October 31, 2000 of CIENA Corporation also included an audit of the financial statement schedule listed in Item 14(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

PricewaterhouseCoopers LLP

McLean, VA
December 6, 2000

3. Exhibits: See Index to Exhibits on page 94. The Exhibits listed in the accompanying Index to Exhibits are filed or incorporated by reference as part of this report.
- (b) Reports on Form 8-K: Form 8-K (items 5 and 7 reported) filed on September 5, 2000.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Linthicum, County of Anne Arundel, State of Maryland, on the 7th day of December 2000.

CIENA Corporation

By: /s/ Patrick H. Nettles, Ph.D.

Patrick H. Nettles, Ph.D.

Chief Executive Officer

and Chairman of the Board of Directors

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons in the capacities and on the date indicated.

<u>Signatures</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Patrick H. Nettles, Ph.D.</u> Patrick H. Nettles, Ph.D. (Principal Executive Officer)	Chief Executive Officer, Chairman of the Board of Directors	December 7, 2000
<u>/s/ Joseph R. Chinnici</u> Joseph R. Chinnici (Principal Financial Officer)	Sr. Vice President, Finance and Chief Financial Officer	December 7, 2000
<u>/s/ Andrew C. Petrik</u> Andrew C. Petrik (Principal Accounting Officer)	Vice President, Controller and Treasurer	December 7, 2000
<u>/s/ Stephen P. Bradley</u> Stephen P. Bradley	Director	December 7, 2000
<u>/s/ Harvey B. Cash</u> Harvey B. Cash	Director	December 7, 2000
<u>/s/ John R. Dillon</u> John R. Dillon	Director	December 7, 2000
<u>/s/ Lawton W. Fitt</u> Lawton W. Fitt	Director	December 7, 2000
<u>/s/ Gary B. Smith</u> Gary B. Smith	President, Chief Operating Officer and Director	December 7, 2000
<u>/s/ Judith M. O'Brien</u> Judith M. O'Brien	Director	December 7, 2000
<u>/s/ Gerald H. Taylor</u> Gerald H. Taylor	Director	December 7, 2000

Index to Exhibits

Exhibit Number	Description
3.1 ⁽¹⁾	Certificate of Amendment to Third Restated Certificate of Incorporation
3.2 ⁽¹⁾	Third Restated Certificate of Incorporation
3.3 ⁽¹⁾	Amended and Restated Bylaws
3.5 ⁽¹⁾⁽⁹⁾	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 23, 1998
3.6 ⁽¹⁾⁽⁹⁾	Certificate of Amendment to Third Restated Certificate of Incorporation dated March 16, 2000
4.1 ⁽¹⁾	Specimen Stock Certificate
4.2 ⁽⁸⁾	Rights Agreement dated December 29, 1997
4.3 ⁽⁹⁾	Amendment to Rights Agreement
4.4 ⁽¹¹⁾	Amendment No. 2 to Rights Agreement dated September 13, 1998
4.5 ⁽⁹⁾	Amendment No. 3 to Rights Agreement dated October 19, 1998
10.1 ⁽¹⁾	Form of Indemnification Agreement for Directors and Officers
10.2 ⁽¹⁾	Amended and Restated 1994 Stock Option Plan
10.3 ⁽¹⁾	Form of Employee Stock Option Agreements
10.4 ⁽¹⁾	1996 Outside Directors Stock Option Plan
10.5 ⁽¹⁾	Forms of 1996 Outside Directors Stock Option Agreement
10.6 ⁽¹⁾	Series C Preferred Stock Purchase Agreement dated December 20, 1995
10.7 ⁽¹⁾	Lease Agreement dated October 5, 1995 between the Company and CS Corridor-32 Limited Partnership
10.8 ⁽¹⁾⁽⁸⁾	Purchase Agreement Between Sprint/United Management Company and the Company dated December 14, 1995
10.9 ⁽¹⁾⁽⁸⁾	Basic Purchase Agreement between WorldCom Network Services, Inc. and the Company dated September 19, 1996
10.10 ⁽¹⁾	Settlement Agreement and Mutual Release, between the Company and William K. Woodruff & Company, dated August 26, 1996
10.13 ⁽¹⁾	Employment Agreement dated April 9, 1994 between the Company and Patrick Nettles

Exhibit Number	Description
10.14 ⁽¹⁾	Lease Agreement dated November 1, 1996 by and between the Company and Aetna Life Insurance Company
10.15 ⁽¹⁾	Revolving Note and Business Loan Agreement dated November 25, 1996 between the Company and Mercantile-Safe Deposit & Trust Company
10.16 ⁽¹⁾⁽⁸⁾	First Addendum to Procurement Agreement between the Registrant and Sprint/United Management Company dated December 19, 1996
10.17 ⁽⁵⁾	Third Addendum to Procurement Agreement between the Registrant and Sprint/United Management Company
10.18 ⁽⁵⁾	Form of Transfer of Control/Severance Agreement
10.19 ⁽⁶⁾	Lightera 1998 Stock Option Plan and Form of Stock Option Agreement
10.20 ⁽⁷⁾	Omnia Communications, Inc. 1997 stock plan and form of agreements
10.21 ⁽⁹⁾	Employment Agreement dated August 18, 1999 between the Company and Gary B. Smith
10.22 ⁽⁹⁾	1999 Non-Officer Stock Option Plan and Form of Stock Option Agreement
10.23 ⁽⁹⁾	Lease Agreement dated June 1, 1999 between the Company and Ridgeview Court Associates, L.L.C.
21 ⁽²⁾	Subsidiaries of registrant
23.1	Consent of Independent Accountants
27.1	Financial Data Schedule

⁽¹⁾ Incorporated by reference from the Company's Registration Statement on Form S-1 (333-17729).

⁽²⁾ Incorporated by reference from the Company's Registration Statement on Form S-1 (333-28525).

⁽³⁾ Incorporated by reference from the Company's Form 8-K dated December 29, 1997.

⁽⁴⁾ Incorporated by reference from the Company's Form 8-K dated October 14, 1998.

⁽⁵⁾ Incorporated by reference from the Company's Form 10-K dated December 10, 1998.

⁽⁶⁾ Incorporated by reference from the Company's Form 10-Q dated May 21, 1999.

⁽⁷⁾ Incorporated by reference from the Company's Form 10-Q dated August 19, 1999.

⁽⁸⁾ Confidential treatment has been granted by the Securities and Exchange Commission with respect to certain portions of these exhibits.

⁽⁹⁾ Incorporated by reference from the Company's Form 10-K dated December 10, 1999.

⁽¹⁰⁾ Incorporated by reference from the Company's Form 10-Q dated May 18, 2000.

⁽¹¹⁾ Incorporated by reference from the Company's Form 8-K dated September 14, 1998.

Corporate Information

Corporate Headquarters

CIENA Corporation
1201 Winterson Road
Linthicum, MD 21090-2205
Telephone: (800) 921-1144 or (410) 865-8500
Website: <http://www.CIENA.com>

Annual Meeting

CIENA's annual shareholder meeting will be held at 3:00 p.m. on Monday, March 12, 2001, at the BWI Airport Marriott Hotel, Linthicum, MD.

Independent Certified Public Accountants

PricewaterhouseCoopers LLP
McLean, VA

General Counsel

Hogan & Hartson
Baltimore, MD

Transfer Agent

Fleet National Bank
c/o EquiServe
P.O. Box 43010
Providence, RI 02940-3010
Investor Relations Number: (781) 575-3120
Internet Address: <http://www.equiserve.com>

Common Stock Market Data

Since its initial public offering on February 7, 1997, the Company's Common Stock has traded on the Nasdaq Stock Market under the symbol CIEN and appears in most daily newspaper stock tables as CIEN. As of January 11, 2001, there were approximately 1,478 stockholders of record and 287,595,957 shares of Common Stock outstanding.

Investor Relations

For additional copies of this report or other financial information, contact:
Investor Relations
CIENA Corporation
1201 Winterson Road
Linthicum, MD 21090-2205
IR Hotline: (888) 243-6223 or (410) 865-8500

Additional information is available on CIENA's website at <http://www.CIENA.com>