### UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

FORM 10-Q

(Mark one)
( X ) QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

FOR THE QUARTERLY PERIOD ENDED JANUARY 31, 1998

) 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)

DELAWARE

23-2725311

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

920 ELKRIDGE LANDING ROAD, LINTHICUM, MD (Address of Principal Executive Offices)

21090

(Zip Code)

(410) 865-8500

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES (X) NO ( )  $\,$ 

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date:

CLASS

OUTSTANDING AT FEBRUARY 19, 1998 100,100,080

Common stock. \$.01 par value

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## ITEM 1. FINANCIAL STATEMENTS

## CIENA CORPORATION

CONSOLIDATED STATEMENTS OF OPERATIONS (IN THOUSANDS, EXCEPT PER SHARE DATA) (UNAUDITED)

Quarter Ended January 31, 1998 1997 ----------Revenue 53,933 \$ 134,267 Cost of goods sold 20,832 50,575 Gross profit 33,101 83,692 Operating expenses: Research and development 3,050 10,203 Selling and marketing 2,598 9,350 General and administrative 6,295 3,186 Total operating expenses 11,943 22,739 Income from operations 21,158 60,953 Interest and other income (expense), net 392 3,786 Interest expense (102) (76) Income before income taxes 21,448 64,663 Provision for income taxes 24,895 8,365 Net income \$ 13,083 \$ 39,768 Basic net income per common share 0.99 \$ \$ 0.40 Diluted net income per common share and dilutive potential common share 0.13 \$ 0.37 ============ ========== Weighted average basic common shares outstanding 13,216 99,641

\_\_\_\_\_

99,128

\_\_\_\_\_

\_\_\_\_\_

106,552

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

Weighted average basic common and dilutive potential

common shares outstanding

# CONSOLIDATED BALANCE SHEETS (IN THOUSANDS, EXCEPT SHARE DATA)

	October 31, 1997	January 31, 1998
	(Audited)	(Unaudited)
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 263,085	\$ 251,919
Marketable debt securities	<del>-</del>	31,089
Accounts receivable, net	63, 227	79,258
Inventories, net	41,109	61,388
Deferred income taxes	9,006	9,556
Prepaid expenses and other	2,220	3,734
Total current assets	378,647	436,944
Equipment, furniture and fixtures, net	67,412	83, 356
Goodwill and other intangible assets, net	, <u>-</u>	10, 978
Other assets	1,169	2,227
Total assets	\$ 447,228	\$ 533,505
TOTAL ASSETS	=======================================	=======================================
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 20,373	\$ 28,687
Accrued liabilities	31,463	34,754
Income taxes payable	-	16,322
Deferred revenue	776	-
Other current obligations	985	988
Total current liabilities	53,597	80,751
Deferred income taxes	28,167	29,146
Other long-term obligations	1,880	1,942
Schol long commoditions		
Total liabilities	83,644	111,839
Commitments and contingencies	-	-
Stockholders' equity:		
Preferred stock - par value \$.01; 20,000,000 shares authorized;		
zero shares issued and outstanding	-	-
Common stock - par value \$.01; 180,000,000 shares authorized;		
99,287,653 and 100,093,109 shares issued and outstanding	993	1,001
Additional paid-in capital	245, 151	263,509
Notes receivable from stockholders	(64)	(116)
Retained earnings	117,504	157,272
Total stockholders' equity	363,584	421,666
Total liabilities and stockholders' equity	\$ 447,228	\$ 533,505
	===========	=======================================

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

# CONSOLIDATED STATEMENTS OF CASH FLOWS (IN THOUSANDS) (UNAUDITED)

1997 1998 Cash flows from operating activities: 13,083 39,768 Net income Adjustments to reconcile net income to net cash provided by operating activities: Non-cash charges from equity transactions 10 10 Amortization of premiums on marketable debt securities 77 Depreciation and amortization 1,071 6,027 Provision for inventory excess and obsolescence 1,383 750 Provision for warranty and other contractual obligations 1,131 1,721 Changes in assets and liabilities: Increase in accounts receivable (16,031)(9,372)(903) Increase in prepaid expenses and other (1,225)Increase in inventories (3,667)(21,662)Increase in deferred income tax asset (1,934)(550) Increase in other assets (337) (1,223)Increase in accounts payable and accruals 10,605 9,546 Increase in income taxes payable 7,453 16,322 Increase in deferred income tax liability 979 Increase (decrease) in deferred revenue and other obligations 238 (465) Net cash provided by operating activities Cash flows from investing activities: Additions to equipment, furniture and fixtures Purchase of marketable debt securities (8,535)(21, 312)(31, 166)(1,005) Net cash paid for business combination Net cash used in investing activities (8,535) (53, 483) Cash flows from financing activities: Proceeds from issuance of common stock and warrants 20 1,059 Tax benefit related to exercise of stock options and warrants 6,827 Repayment of other obligations (246) (230) Net cash provided by (used in) financing activities 7,640 (210) Net increase (decrease) in cash and cash equivalents 9.383 (11, 166)Cash and cash equivalents at beginning of period 22,557 263,085 Cash and cash equivalents at end of period \$ 31,940 \$ 251,919 \_\_\_\_\_

Quarter Ended January 31,

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

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

## (1) SIGNIFICANT ACCOUNTING POLICIES

#### Interim Financial Statements

The interim financial statements included herein for CIENA Corporation (the "Company") have been prepared by the Company, without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. In the opinion of management, financial statements included in this report reflect all normal recurring adjustments which the Company considers necessary for the fair presentation of the results of operations for the interim periods covered and of the financial position of the Company at the date of the interim balance sheet. Certain information and footnote disclosures normally included in the annual financial statements prepared in accordance with generally accepted accounting principles have been condensed or omitted pursuant to such rules and regulations. However, the Company believes that the disclosures are adequate to understand the information presented. The operating results for interim periods are not necessarily indicative of the operating results for the entire year. These financial statements should be read in conjunction with the Company's October 31, 1997 audited consolidated financial statements and notes thereto included in the Company's Form 10-K annual report for the fiscal year ended October 31, 1997.

## Revenue Recognition

The Company recognizes product revenue in accordance with the shipping terms specified. For transactions where the Company 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. Amounts received in excess of revenue recognized are included as deferred revenue in the accompanying balance sheets. For distributor sales where risks of ownership have not transferred, the Company recognizes revenue when the product is shipped through to the end user.

### 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. As of January 31, 1998 all of the marketable debt securities are corporate debt securities with contractual maturities of six months or less.

## Goodwill and other intangibles

The Company's goodwill and other intangibles are the result of external purchases of technology and goodwill and are recorded at either their cost or the fair market value disbursed in conjunction with the purchase. The goodwill and other intangibles are amortized over the useful life of the asset, determined by management to be five years, on a straight-line basis. For the period ended January 31, 1998, the Company recorded goodwill amortization of approximately \$379,000, resulting in accumulated amortization of the same amount as of January 31, 1998.

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

The following is a reconciliation of the numerators and denominators of the basic net income per common share ("basic EPS") and diluted net income per common share 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 and shares issued upon conversion of all outstanding shares of Mandatorily Redeemable Preferred Stock.

(in thousands except per share amounts)	For the Quarter Ended January 31, 1998				
	Income (Numerator)		Shares (Denominator)	Per-Share Amount	
BASIC EPS Income availabe to common stockholders	\$	39,768	99,641 =	\$ ======	0.40
EFFECT OF DILUTIVE SECURITIES Stock options		-	6,911		
DILUTED EPS Income available to common stockholders + assumed conversions	\$ ======	39,768	106,552 ===================================	\$ ======	0.37
		For the	Quarter Ended January	31, 1997	
	Income (Numerator)		Shares (Denominator)	Per-Si Amou	
BASIC EPS Income availabe to common stockholders	\$	13,083	13,216 =	\$ =======	0.99 ======
EFFECT OF DILUTIVE SECURITIES Stock options and warrants Conversion of Preferred Stock		- -	12,596 73,316		
DILUTED EPS Income available to common stockholders + assumed conversions	\$	13,083	99,128	\$	0.13

Stock options to purchase 188,950 shares of common stock were outstanding during the quarter ended January 31, 1998 but were not included in the computation of diluted EPS because the options' exercise price was greater than the average market price of the common shares.

## (2) INVENTORIES

Inventories are comprised of the following (in thousands):

	Octobe 19 (audi	997	Januai 199 (unaud	
Raw materials Work-in-process Finished goods	\$	27,716 5,679 15,180	\$	34,789 17,097 17,794
Less reserve for excess and obsolescence		48,575 (7,466)		69,680 (8,292)
	\$ ======	41,109 ======	\$ ======	61,388 ======

## (3) EQUIPMENT, FURNITURE AND FIXTURES

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

	October 31, 1997 (audited)	January 31, 1998 (unaudited)
Equipment, furniture and fixtures Leasehold improvements	\$ 64,502 13,953	\$ 82,717 13,953
Accumulated depreciation and amortization Construction-in-progress	78,455 (11,543) 500	96,670 (17,026) 3,712
	\$ 67,412 	\$ 83,356

## (4) ACCRUED LIABILITIES - COMMITMENTS AND CONTINGENCIES

Legal and related costs

During the fiscal year ended October 31, 1997 the Company accrued approximately \$7.5 million for legal and related costs associated with its involvement in certain litigation; \$2.6 million of that accrual is remaining at January 31, 1998. While the Company believes its estimate of legal and related costs is adequate based on its current understanding of the overall facts and circumstances, the estimate may be increased in future periods depending on the course of the legal proceedings. See Part II, Item 1, "Legal Proceedings".

Accrued Liabilities

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

Accided Habilities are complised of the following (in thousands).	October 31, 1997 (audited)	January 31, 1998 (unaudited)
Warranty and other contractual obligations Accrued compensation Legal and related costs Consulting and outside services Unbilled construction-in-process and leasehold improvements Other	\$ 12,205 \$ 14,8 7,725 7,0 4,577 2,7 3,219 3,6 1,427 2,1 2,310 4,3	
	\$ 31,463 =========	\$ 34,754 ===========

### (5) ACQUISITION

### 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 169,754 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.

## (6) SUBSEQUENT EVENTS

### ATI Telecom

During January 1998 the Company signed a definitive agreement to acquire ATI Telecom International Ltd., ("Alta"), a Canadian corporation headquartered in Norcross, 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 agreement, as amended in February 1998, the Company acquired all of the outstanding shares of Alta in exchange for approximately 1,000,000 shares of CIENA common stock. The transaction closed in the Company's second quarter of fiscal 1998 and is to be recorded using the pooling of interests accounting method and accordingly no effect has been given to the transaction in the consolidated financial statements presented in this Form 10-Q for the period ended January 31, 1998. All future historical and current period consolidated financial statements will be restated or presented, whichever the case maybe, to reflect the combined companies as if they had always been combined. The operations of Alta are not material to the consolidated financial statements of the Company, and accordingly, separate pro forma financial information has not been presented.

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

This Management's Discussion and Analysis of Financial Condition and Results of Operations contains certain forward-looking statements that involve risks and uncertainties. The Company has set forth in Form 10-K Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations-Risk Factors," as filed with the Securities and Exchange Commission on December 10, 1997, and in a Form 8-K filed on December 29, 1997, a detailed statement of risks and uncertainties relating to the Company's business. In addition, set forth below under the heading "Risk Factors" is a further discussion of certain of those risks as they relate to the period covered by this report, the Company's near term outlook with respect thereto, and the forward-looking statements set forth herein; however, the absence in this quarterly report of a complete recitation of or update to all risk factors identified in the Form 8-K or Form 10-K should not be interpreted as modifying or superseding any such risk factor, except to the extent set forth below. Investors should review this quarterly report in combination with the Form 8-K and Form 10-K in order to have a more complete understanding of the principal risks associated with an investment in the Company's Common Stock.

## OVERVIEW

CIENA Corporation is a leading supplier of dense wavelength division multiplexing ("DWDM") systems for fiberoptic communications networks. CIENA's DWDM systems alleviate capacity constraints and enable flexible provisioning of additional bandwidth on high-traffic routes in carriers' networks.

First quarter 1998 revenues of \$134.3 million were largely the result of MultiWave(R) 1600 and MultiWave Sentry(TM) systems sales to Sprint Corporation ("Sprint") and to LDDS WorldCom ("WorldCom"). During the first quarter of 1998, the Company also recognized initial product acceptance and revenue recognition from MultiWave Sentry systems supplied to Mercury Communications Limited, a U.K. based subsidiary of Cable and Wireless

Communications Group ("Cable and Wireless"), and through the Company's distributor, NISSHO Electronics Corporation ("NISSHO"), to Teleway Japan Corporation ("Teleway") and to Japan Telecom Co., Ltd ("Japan Telecom") networks in Japan. Revenue recognition for the Cable and Wireless, Teleway and Japan Telecom shipments had been previously deferred until completion of initial field testing and product acceptance.

During the first quarter of 1998 the Company continued its effort to expand its manufacturing capabilities by leasing an additional facility of approximately 35,000 square feet located in the Linthicum, Maryland area. This facility is expected to be used for manufacturing and customer service activities. With the addition of this new facility the Company has a total of three facilities with approximately 142,500 square feet that can be used for manufacturing operations. By the end of April 1998 the Company intends to complete the transfer of its principal executive, sales, and marketing functions located in Linthicum in a portion of its a 96,000 square foot facility to an approximately 60,000 square foot facility also located in Linthicum. During the first quarter of 1998, the Company began the process of renovating the vacated portions of the 96,000 square foot facility for the purpose of accommodating expanding research and development functions. These renovations are expected to be completed by the end of April 1998. The Company also expects to lease an additional manufacturing facility in the Linthicum area of approximately 50,000 square feet during the second half of 1998.

As of January 31, 1998 the Company employed 993 persons, which was an increase of 152 persons over the 841 persons employed on October 31, 1997.

#### RESULTS OF OPERATIONS

THREE MONTHS ENDED JANUARY 31, 1997 COMPARED TO THREE MONTHS ENDED JANUARY 31, 1998

REVENUE. The Company recognized \$53.9 million in MultiWave 1600 system revenue and \$134.3 million in combined MultiWave 1600 and MultiWave Sentry system revenue for the first quarters ended January 31, 1997 and 1998, respectively. The approximate \$80.4 million or 149% increase in revenues in the first quarter 1998 compared to the first quarter 1997 was largely the result of increased sales to Sprint and WorldCom. The increase was also attributable to first quarter 1998 sales to Cable and Wireless, Teleway, and Japan Telecom compared to no sales for these customers in the first quarter 1997. A portion of the revenues from each of the Company's first quarter 1998 customers was attributed to sales of the Company's MultiWave Sentry system, which was not available for sale in the first quarter of 1997. The Company expects revenues, in the near term to be largely dependent upon sales to Sprint, several new customers and depending on the results of ongoing testing and evaluation, AT&T Corporation ("AT&T") and to be largely derived from sales of the Multiwave Sentry and new product sales of the Multiwave 4000, the Company's 40 channel version of the MultiWave Sentry, and the MultiWave Firefly(TM), the Company's short distance 24 channel product. There are material risks associated with the Company's dependence on these customers, as well as its transition to multiple product lines. See "Risk Factors".

GROSS PROFIT. Gross profits were \$33.1 million and \$83.7 million for the first quarters ended January 31, 1997 and 1998, respectively. The approximate \$50.6 million or 153% increase in gross profit in the first quarter 1998 compared to the first quarter 1997 was the result of increased revenues in the first quarter 1998 compared to first quarter 1997. Gross margin as a percentage of revenues was 61.4% and 62.3% for the first quarters 1997 and 1998, respectively. The increase in gross margin percentage for the first quarter 1998 compared to the first quarter 1997 was the result of reductions in component costs and increased manufacturing volumes and efficiencies offset by a reduction in selling price. The Company expects that gross margins in the future will decrease primarily due to competitive market pricing, although the Company's manufacturing efficiencies and improvements in component costs should moderate the rate and magnitude of any decrease. The Company's future gross margins may also decrease because of the mix of product features and configurations sold in a period as well as the extent of services provided. See "Risk Factors."

RESEARCH AND DEVELOPMENT EXPENSES. Research and development expenses were \$3.1 million and \$10.2 million for the first quarters ended January 31, 1997 and 1998, respectively. During the first quarters 1997 and 1998, research and development expenses were 5.7% and 7.6% of revenue, respectively. The approximate \$7.2 million or 235% increase in research and development expenses in the first quarter 1998 compared to the first quarter 1997 was the result of increases in staffing levels and usage of prototype materials. The Company expects that its research and development expenditures will continue to increase during the remainder of fiscal year 1998 to support the continued development of the MultiWave system, the exploration of new or complementary

technologies, and the pursuit of various cost reduction strategies. The Company expenses research and development costs as incurred.

SELLING AND MARKETING EXPENSES. Selling and marketing expenses were \$2.6 million and \$9.4 million for the first quarters ended January 31, 1997 and 1998, respectively. During the first quarters 1997 and 1998, selling and marketing expenses were 4.8% and 7.0% of revenue, respectively. The approximate \$6.8 million or 260% increase in selling and marketing expenses in the first quarter 1998 compared to the first quarter 1997 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, promotional costs, travel expenditures and rent expense. The Company anticipates that its selling and marketing expenses will increase during the remainder of fiscal year 1998 as additional personnel are hired and offices opened, particularly in support of international market development, to allow the Company to pursue new market opportunities.

GENERAL AND ADMINISTRATIVE EXPENSES. General and administrative expenses were \$6.3 million and \$3.2 million for the first quarters ended January 31, 1997 and 1998, respectively. During the first quarters 1997 and 1998, general and administrative expenses were 11.7% and 2.4% of revenue, respectively. The approximate \$3.1 million or 49.4% decrease in general and administrative expenses from the first quarter 1997 compared to the first quarter 1998 was primarily due to the recording of a \$5.0 million accrual for estimated legal and related costs associated with certain patent litigation during the first quarter 1997. See Part II, Item 1 "Legal Proceedings". Comparative general and administrative expenses for the first quarters 1997 and 1998 outside of the \$5.0 million legal and related cost accrual in first quarter 1997, resulted in an increase of approximately \$1.9 million or 146% from first quarter 1998 compared to first quarter 1997. This increase was primarily the result of increased staffing levels and outside consulting services. The Company believes that its general and administrative expenses for the remainder of fiscal 1998 will increase due to the expansion of the Company's administrative staff required to support its expanding operations.

OPERATING MARGINS. The Company's operating margins were \$21.2 million and \$61.0 million for the first quarters ended January 31, 1997 and 1998, respectively. During the first quarters 1997 and 1998, operating margins were 39.2% and 45.4% of revenue, respectively, or 48.5% of revenue for first quarter 1997 exclusive of the approximate \$5.0 million accrual for estimated legal and related costs. The Company expects that its operating margins will decrease as it continues to hire additional personnel and increase operating expenses to support its business. The results of operations for the first quarter 1998 are not necessarily indicative of results to be expected in future periods. See "Risk Factors."

INTEREST AND OTHER INCOME (EXPENSE), NET. Interest income and other income (expense), net were \$0.4 million and \$3.8 million for the first quarters ended January 31, 1997 and 1998, respectively. The approximate \$3.4 million or 866% increase in interest income and other income (expense), net was attributable to higher invested cash balances.

PROVISION FOR INCOME TAXES. The Company's provision for income taxes were \$8.4 million and \$24.9 million for the first quarters ended January 31, 1997 and 1998, respectively. During the first quarters 1997 and 1998, the provision for income taxes were 39.0% and 38.5% of income before income taxes, respectively. The decline in the income tax rate in first quarter 1998 compared to first quarter 1997 was the result of a lower combined effective state income tax expenses and an increase in expected tax credits derived from research and development activities.

## LIQUIDITY AND CAPITAL RESOURCES

At January 31, 1998, the Company's principal source of liquidity was its cash and cash equivalents of \$251.9 million and its marketable debt securities of \$31.1 million, which when combined represent an increase of approximately \$19.9 million from the October 31, 1997 cash and cash equivalent balance. The Company's marketable debt securities have maturities no longer than six months.

Cash generated from operations was \$34.7 million for the first quarter ended January 31, 1998. This amount was principally attributable to net income, the non-cash charges of depreciation, amortization, provisions for inventory obsolescence and warranty, increases in accounts payable, accrued expenses and income tax

payable; offset by increases in accounts receivable and inventory due to increased revenue and to the general increase in business activity.

Investment activities in the first quarter ended January 31, 1998 included the purchase of \$31.2 million worth of corporate marketable debt securities, \$21.3 million invested in capital expenditures and \$1.0 million used in the acquisition of Astracom. Of the amount invested in capital expenditures, \$18.1 million was used for additions to capital equipment and furniture and the remaining \$3.2 million was invested in leasehold improvements. The Company expects to use an additional \$11.0 million to \$12.0 million of capital during the remainder of fiscal 1998 to complete the construction of leasehold improvements for its new facilities and the conversion to full research and development activities of its current 96,000 square foot facility.

The Company believes that its existing cash balance and cash flows from future operations will be sufficient to meet the Company's capital requirement for at least the next 18 to 24 months.

#### YEAR 2000 READINESS

The Company has taken actions to understand the nature and extent of the work required to make its systems, products and infrastructure Year 2000 compliant. The Company began work this year to change its main financial, manufacturing and information system to a company-wide Year 2000 compliant enterprise resource planning ("ERP") computer-based system and expects to have the ERP system fully installed by the second half of 1998. The Company believes, based on available information, that it will be able to manage its Year 2000 transition without any material adverse effect on the Company's business, financial condition and results of operations.

## RISK FACTORS

CONCENTRATION OF POTENTIAL CUSTOMERS; DEPENDENCE ON MAJOR CUSTOMERS. The Company is currently dependent on two customers, Sprint and WorldCom, and has relatively few potential customers, consisting almost exclusively of long distance and other telecommunications carriers using fiberoptic networks. The number of potential customers may also decrease if and as customers merge with or acquire one another. In November 1997, WorldCom and MCI announced an agreement to merge. The distraction and/or reorganization sometimes attendant to such mergers could delay, limit or otherwise adversely affect the capital equipment purchasing patterns of the parties to them, with a corresponding adverse effect on the Company's sales, even if the customer is otherwise satisfied with the Company's products and intends to purchase more.

The Company believes WorldCom is very satisfied with the Company's products, and intends to continue significant purchases; however, WorldCom informed the Company in February 1998 that its DWDM system requirements for 1998 will be substantially reduced, based on a change in WorldCom's capital equipment acquisition policies. According to information shared with the Company in February 1998, WorldCom purchased equipment during 1997, based on a policy designed to meet an estimated two years worth of anticipated network capacity requirements. The new policy calls for purchasing activity and bandwidth deployment to more closely coincide with just in time inventory management, which according to WorldCom, means significant purchasing from CIENA may resume in the latter part of calendar 1998. Because this news was received early in the quarter, the impact is difficult to assess, but it appears likely that revenue in the second quarter of fiscal 1998 will be sequentially flat or possibly lower than in the first quarter.

Although the Company has previously announced a trial evaluation agreement and a five year agreement to supply 16-channel MultiWave Sentry systems to AT&T, before AT&T would become a purchasing customer, the Company will have to be successful in rigorous testing and evaluation which are ongoing over the next several months. The Company believes it is making important progress and that it ultimately will be successful in such testing and evaluation, but there is no assurance of that outcome, nor is there assurance as to when the period of testing will be completed. Testing is an interactive and dynamic process which is unpredictable, frequently subject to unanticipated delay, and not often accelerated. Even if testing is successfully completed, the Company does not expect shipments to begin until late in the first half or early in the second half of 1998 (with acceptance and revenue recognition to follow), and in any event the Company is unable to predict the volume, duration or timing of any purchases which might ensue from AT&T. Additionally, AT&T recently announced plans to test and deploy a proposed 80-channel DWDM system being developed by Lucent Technologies, Inc. ("Lucent"). Lucent has announced that this proposed product is expected to be commercially available worldwide in the fourth quarter. If such a product is in fact developed, performs as advertised, and is manufacturable by Lucent in volume quantities

by the fourth quarter of this year, and if core demand for bandwidth is sufficient to prompt interest in such a product, the likelihood of significant orders from AT&T for the Company's MultiWave Sentry system may diminish. See "Competition". The Company currently believes the impact of Lucent's announcement on AT&T's likely orders for the Company's systems will not be material; however, timing of shipments and revenue recognition from AT&T, if delayed by reason of extended testing of MultiWave Sentry, or for any other reason, could and likely would cause substantial swings, and potentially material and adverse effects, on the Company's quarterly financial condition and results of operations.

The reduction, delay or cancellation of orders for, or a delay in shipment of the Company's products to, Sprint or WorldCom, or the inability to develop AT&T as a significant customer, as well as additional customers in the telecommunications market, likely would have a material adverse affect on the Company's business, financial condition and results of operations.

Additionally, the size and complexity of the Company's potential customers, and the typically long and unpredictable sales cycles associated with them, require the Company to make considerable early investments in account management personnel, product customization efforts in both engineering and manufacturing, and in some cases, facilities in proximity to the customer's locations, without assurance of future revenues. Due to the size and complexity of the AT&T network, the Company has invested and expects over fiscal 1998 to continue to invest considerable financial, engineering, manufacturing and logistics support resources in positioning the commercial relationship to be successful. The Company's recently announced acquisition of Alta, an installation services company, is an example of this risk. This acquisition brings approximately 150 installation personnel to the Company, and was undertaken in large part to position the Company to be able to service the installation requirements associated with any AT&T deployment, even though the Company has no assurance as to the volume, duration or timing of any purchases which might ensue from AT&T. The Company also intends to invest in developing customer relationships with the RBOCs and CLECs, as well as internationally. Over the near term, this investment of resources will be evident in increased operating expenses and in a rise in the Company's general overhead structure, with the result that even without the impact of the WorldCom change in purchasing policy, the Company's near term earnings may moderate or decline, even if revenues increase. If revenues are flat or decline as a result of the WorldCom change, or for any other reason, the adverse effect on earnings would be increased. In any case, if the Company is unable to convert these investments into significant revenue generating relationships by the second half of fiscal 1998, the Company's business, financial condition and results of operations for the year could be materially and adversely affected.

DEPENDENCE ON EFFECTIVE TRANSITION TO MULTIPLE PRODUCT LINES. The Company believes the largest portion of its production capacity for the balance of fiscal 1998 will be shifted to the Multiwave Sentry, the MultiWave 4000 and, to a lesser extent, the MultiWave Firefly systems. While much of the manufacturing process for these systems is identical to that involved in the manufacture of the MultiWave 1600, there are important differences in raw materials and components, as well as even more precise performance specifications. Manufacturing yields in the first several months of production may be adversely impacted as the transition is made to full production of these new systems. Additionally, not all of the component suppliers for these new systems have demonstrated the ability to ramp up their production to keep pace with the Company's needs, and certain of the new components are critical to system operation, such as the apparatus for multiplexing and demultiplexing of signals in the 24-channel Firefly system. One of the Company's planned vendors for this apparatus has notified the Company that it is having difficulty in achieving overall yield and process stability, and is declining to accept new orders pending resolution of the problems. See "Dependence on Suppliers", "Competitors as Suppliers". The Company is comfortable that its immediate needs for this component can be met by another vendor, but neither vendor has yet demonstrated the ability to ramp up as may be necessary to meet the Company's future needs. The Company must effectively manage the transition in manufacturing with a minimum of delay or disruption in product deliveries. The failure to do so would likely have an adverse effect on the Company's customer relationships, with attendant risk of adverse effects on the level and timing of ongoing customer orders, as well as on the development of new customers. The Company believes that its experience in accomplishing the ramp up of manufacturing capacity for the MultiWave 1600 will facilitate an effective manufacturing transition to the MultiWave Sentry, MultiWave 4000, and MultiWave Firefly, but there can be no assurance that the Company will be successful in doing so. Even if effectively managed, new products like the MultiWave Sentry, MultiWave 4000 and MultiWave Firefly are typically subjected by the customers to lengthier initial acceptance testing periods than will occur with later shipments. The timing of these lengthier acceptance periods would affect the timing of revenue recognition for these products, which may cause substantial differences in quarter to quarter operating results. These differences could lead to increased volatility in the Company's stock price, irrespective of the Company's overall performance or actual longer term prospects. See "Fluctuation in Quarterly and Annual Results".

MANAGEMENT OF EXPANSION. The Company is experiencing rapid expansion in all areas of its operations, particularly in manufacturing, and the Company anticipates that this expansion will continue in the near future. Total personnel grew from 841 at October 31, 1997, to 993 at January 31, 1998. The Company's Atlanta, Georgia research and development support organization grew from 12 personnel at October 31, 1997 to 32 at January 31, 1998. Approximately 150 more employees are joining the Company as a result of the Company's acquisition of Alta, an installation services provider.

This expansion, which now includes the assimilation of a large number of new employees through the acquisition of Alta, and the attendant separation and relocation of various functions to different facilities, has placed strains on the material, financial and personnel resources of the Company and will continue to do so. The pace of the Company's expansion, in combination with the complexity of the technology involved in the manufacture of the Company's systems, demands an unusually high level of managerial effectiveness in anticipating, planning, coordinating and meeting the operational needs of the Company and the needs of the Company's customers, who are among the most demanding customers in the world in terms of requirements for quality, reliability, timely delivery and post-installation field support. The rapid pace and volume of new hiring, the timely build out of new facilities, and the accelerated ramp up in manufacturing capacity, if not effectively managed, could adversely affect the quality or efficiency of the Company's manufacturing process. The conversion to full scale production in fiscal 1998 of the Company's new MultiWave Sentry, MultiWave 4000 and MultiWave Firefly product lines will also present substantial management and manufacturing challenges, as the scope of material planning and labor involvement are different and more expansive than was the case with the Company's original MultiWave 1600 product line. The assimilation of Alta and the effective utilization of its installation services personnel, will also be critical to the Company's efforts to satisfy its larger customers and, ultimately, to further ramp up its production and sales volume to those customers

The Company also continues to increase its flow of materials, optical assembly, final assembly and final component module and system test functions, as well as the size of its sales and marketing organization for all product lines, in anticipation of a level of customer orders that may not be achieved. Many of the highest cost components in the Company's new products are also those with the longest lead ordering times. As a result, the importance of effective coordination between component ordering relative to anticipated customer orders is increased, and the inability to manage this effectively may result in increased inventory levels, and potentially, inventory obsolescence, particularly if there are slips in delivery and final acceptance of the Company's newest products. Increased inventory levels could also result from any significant deferral of material purchases from any of the Company's major customers. This may occur as a result of the recent communication from WorldCom regarding its plans for substantially reduced DWDM system purchases. See "Concentration of Potential Customers; Dependence on Major Customers."

Given the small number of existing and potential customers for the Company's systems, as well as the widely varying volume requirements they may have once a purchasing decision has been made, the adverse effect on the Company resulting from a lack of effective management in any of these areas will be substantially magnified, and the potential exists for additional stock price volatility if investor expectations do not account for this risk. See "Stock Price Volatility". Prolonged inability to manage the expansion of the Company's business would also have a material adverse effect on the Company's longer term business prospects, financial condition and results of operations.

ANTICIPATING DEMAND FOR BANDWIDTH. The Company's systems enable high capacity transmission over long distance, and with the introduction of MultiWave Firefly, certain short-haul portions of, optical communications networks; however, the Company's customers and target customers determine how much capacity is required, when it will be deployed, and what equipment configurations will be used, if any. The Company has encountered a wide variety of customer views of how much capacity will be needed over what periods of time and, more importantly, how to convert such capacity into revenue. Those views reflect the carriers' differing competitive strategies and financial and marketing resources, and result in widely varying patterns and timing of evaluation, purchase and deployment of the Company's systems, other DWDM systems or other capacity solutions. Certain carriers have believed the deployment of maximum capacity quickly will be a competitive advantage--i.e., they have assumed the accelerating demand for bandwidth will continue and the capacity will be utilized quickly. This viewpoint leads to prompt and widespread deployment of high-channel count DWDM systems. Other carriers have adopted more of a wait-and-see approach, which dictates a more gradual channel by channel deployment of

higher capacity systems. These views are also subject to abrupt change, as competition and the evolving marketplace may demand. As an example, WorldCom informed the Company in February 1998 that its DWDM system requirements for 1998 will be substantially below last year's purchases, due to a change in its purchasing policies. See "Concentration of Potential Customers; Dependence on Major Customers". WorldCom's information in February indicates there can be surprises as network operators and their purchasing groups grapple with unprecedented changes and challenges to network planning.

Under these circumstances, for so long as the Company remains dependent on two or even three customers, the Company will be vulnerable to significant quarterly fluctuations, and to difficulty in predicting the direction or magnitude of future demand for the Company's systems. While the Company remains very optimistic about the year to year outlook for growth in demand for DWDM systems, and also is confident that its products are well targeted toward the most visible emerging points of congestion in the networks, the Company is less certain whether it will be able to accurately anticipate changes in direction or magnitude of near term demand. Unanticipated reductions in demand would adversely affect the Company's profitability and, depending on the size of the gap between actual, reduced demand, and investor expectation of such demand, could result in further stock price volatility irrespective of the Company's overall competitive position and long term prospects. "See "Concentration of Potential Customers; Dependence on Major Customers".

RECENT PRODUCT INTRODUCTION. The Company first began commercial shipments of its MultiWave systems in May 1996 and its first operational systems began carrying live traffic in October 1996. Accordingly, the Company's systems do not have a history of live traffic operation over an extended period of time. The Company's history of installation activity indicates that the newness and high precision nature of DWDM equipment may require enhanced customer training and installation support from the Company. The Company is aware of instances domestically and internationally in which installation and activation of certain MultiWave systems have been delayed due to faulty components found in certain portions of these systems. The Company is aware of few performance issues once the systems are installed and operational. However, if recurring or material reliability, quality or network monitoring problems should develop, a number of material and adverse effects could result, including manufacturing rework costs, high service and warranty expense, high levels of product returns, delays in collecting accounts receivable, reduced orders from existing customers and declining level of interest from potential customers. Although the Company maintains accruals for product warranties, there can be no assurance that actual costs will not exceed these amounts. There is a considerable number of the Company's systems scheduled to be turned up for live traffic operation over the next several months, and many already activated systems may be scheduled to add new operating channels. The Company expects there will be interruptions or delays from time to time in the activation of the systems and the addition of channels, particularly because the Company does not control all aspects of the installation and activation activities. The Company believes its record to date of problem identification, diagnosis and resolution has been good, but if significant interruptions or delays occur, or if their cause is not promptly identified, diagnosed and resolved, confidence in the MultiWave systems could be undermined. An undermining of confidence in the MultiWave systems would have a material adverse effect on the Company's customer relationships, business, financial condition and results of operations.

NEW PRODUCT DEVELOPMENT DELAYS. The Company's ability to anticipate changes in technology, industry standards, customer requirements and product offerings and to develop and introduce new and enhanced products in a timely fashion relative customer expectations of increasingly short product development cycles, will be significant factors in the Company's ability to remain a market leader in the deployment of DWDM systems. The complexity of the technology involved in product development efforts in the DWDM field, including product customization efforts for individual customers, can result in unanticipated delays. The qualification and ramping up of new suppliers for new or customized products requires extensive planning and can result in unanticipated delays which affect the Company's ability to deliver such products in a timely fashion. The failure to deliver new and improved products, or appropriately customized products, in a timely fashion relative to customer expectations (which expectations are shaped in part by competitors' announcements of competing products), would have a material adverse effect on the Company's competitive position and financial condition. See "Competition". The Company is currently facing its first major test in this area, with its general commitment to the delivery of MultiWave Sentry, MultiWave 4000 and MultiWave Firefly in the first half of calendar 1998. The Company's performance on

this commitment relative to customer expectations will likely have a material impact on the Company's ability to further solidify its position in the telecom industry as a credible, long-term supplier of multiple products and successive next-generation solutions. The Company believes it will be successful in this effort, but there is no assurance of that, and there will likely be few objective "leading indicators" of the Company's success or failure, other than continued purchasing by its customers.

COMPETITION. The Company believes the rapid pace at which the need for higher and more cost-effective bandwidth has developed was not widely anticipated in the global telecommunications industry. The Company further believes its MultiWave 1600 is the only commercially deployed and operational full 16-channel open architecture DWDM system anywhere in the world, and further believes the commercial manufacturability of its MultiWave 4000 system gives the Company's high-capacity product offerings a level of credibility not possessed by its competitors. However, competition in the global telecommunications industry historically has been dominated by a small number of very large companies, each of which have greater financial, technical and marketing resources, greater manufacturing capacity and more extensive and established customer relationships with network operators than the Company. Each of Lucent, Alcatel, Nortel, NEC, Pirelli, Siemens and Ericsson are moving very aggressively to capture market share in the DWDM market. The Company expects aggressive competitive moves from industry participants, which have to date included early announcement of competing or alternative products, and substantial price discounting. Such early announcements of competing products can cause confusion and delay in customer purchasing decisions, particularly if the announcements are viewed as credible in terms of both the performance of the announced product, and the time within which it will be available. For example, Lucent recently announced a proposed high-capacity DWDM system which it claims will handle 400 Gb/s of capacity per fiber, and which it further claims will be commercially available worldwide in the fourth quarter of 1998. There can be no assurance that announcements like those of Lucent or others in the industry will not cause confusion and delay in customer purchasing decisions. Further, if new products announced by competitors are in fact developed, perform as advertised, and are manufacturable in volume quantities by the fourth quarter of this year, the likelihood of significant orders from AT&T and other customers for the Company's 16-channel MultiWave Sentry and 40-channel MultiWave 4000 systems may diminish. The timing of shipments by the Company and corresponding revenue, if delayed by reason of deferred deployment of MultiWave Sentry or MultiWave 4000 systems pending evaluation of a competitor's product, could and likely would cause substantial swings, potentially material and adverse effects, on the Company's quarterly financial condition and results of operations.

In addition, Lucent, Alcatel, Nortel, NEC and Siemens are already providers of a full complement of switches, fiberoptic transmission terminals and fiberoptic signal regenerators and thereby can position themselves as vertically integrated, "one-stop shopping" solution providers to potential customers.

While competition in general is broadly based on varying combinations of price, manufacturing capacity, timely delivery, system reliability, service commitment and installed customer base, as well as on the comprehensiveness of the system solution in meeting immediate network needs and foreseeable scaleability requirements, the Company's customers are themselves under increasing competitive pressure to deliver their services at the lowest possible cost. This pressure may result in pricing for DWDM systems becoming a more important factor in customer decisions, which may favor larger competitors which can spread the effect of price discounts in their DWDM product lines across an array of products and services, and a customer base, which are larger than the Company's.

Intellectual property disputes may also be asserted as part of a competitive effort to reduce the Company's leadership position and limit its ability to achieve greater market share, even if the merits of specific disputes are doubtful. Some of the Company's competitors are also key suppliers of components for the Company's systems. See "Competitors as Suppliers".

There can be no assurance that the Company will be able to compete successfully with its competitors or that aggressive competitive moves faced by the Company will not result in lower prices for the Company's products, decreased gross profit margins, and otherwise have a material adverse effect on its business, financial condition and results of operations.

LEGAL PROCEEDINGS. See Part II, "Legal Proceedings" for disclosure concerning recent developments in certain litigation proceedings to which the Company is a party.

FLUCTUATION IN QUARTERLY AND ANNUAL RESULTS. The Company's revenue and operating results are likely to vary significantly from quarter to quarter and from year to year as a result of a number of factors, including the size and timing of orders, product mix and shipments of systems. The timing of order placement, size of orders, satisfaction of contractual customer acceptance criteria, as well as order delays or deferrals and shipment delays and deferrals, may cause material fluctuations in revenue. Delays or deferrals in purchasing decisions may increase as competitors introduce new competing products, and as the Company develops or introduces other DWDM products, as the MultiWave Sentry, MultiWave 4000, MultiWave Firefly and the MultiWave Metro. Consolidation among the Company's customers and target customers, such as that involved in the WorldCom/MCI merger, and the distraction and/or reorganization attendant to such consolidation, may also lead to delay or deferral of purchasing decisions. Changes in customers' approaches to bandwidth deployment can also materially impact purchasing decisions. See "Anticipating Demand for Bandwidth." The Company's dependence on a small number of existing and potential customers increases the revenue impact of each customer's actions relative to these factors. The Company's expense levels in the future will be partially based on its expectations of long term future revenue and as a result net income for any quarterly period in which material orders are shipped or delayed or not forthcoming could vary significantly. The Company's expense levels for the next two quarters are expected to reflect substantially increased investment in financial, engineering, manufacturing and logistics support resources in positioning the AT&T, RBOC, international and other potential commercial relationships to be successful, even though there is no assurance as to the volume, duration or timing of any purchases which might ensue from AT&T or others. Over the near term, this investment of resources will be evident in increased inventory levels and operating expenses, and in a rise in the Company's general overhead and expense structure, with the result that even without the impact of the WorldCom change in purchasing policy, the Company's near term earnings may moderate or decline, even if revenues increase. If revenues are flat or decline as a result of the WorldCom change, or for any other reason, the adverse effect on earnings would be increased. See "Concentration of Potential Customers; Dependence on Major Customers." In general, quarter-to-quarter sequential revenue in the first two or three years of operations are likely to vary widely and therefore may not be reliable indicators of annual performance.

DEPENDENCE ON SUPPLIERS. Suppliers in the specialized, high technology sector of the optical communications industry are generally not as plentiful or, in some case, as reliable, as suppliers in more mature industries. The Company is dependent on a limited number of suppliers for components of the MultiWave systems as well as equipment used to manufacture the MultiWave systems. The MultiWave 1600 system has over 600 components, and the commencement of full production of the MultiWave Sentry, MultiWave Firefly and MultiWave 4000 systems will increase the number and variety of components significantly. Not all of the component suppliers for these new systems have demonstrated the ability to ramp up their production to keep pace with the Company's needs, and certain of the new components are critical to system operation, such as the apparatus for multiplexing and demultiplexing of signals in the 24-channel Firefly system. One of the Company's planned vendors for this apparatus has notified the Company that it is having difficulty in achieving overall yield and process stability, and is declining to accept new orders pending resolution of the problems. The Company believes that its immediate needs for this component can be met by another vendor, but neither vendor has yet demonstrated the ability to ramp up as may be necessary to meet the Company's future needs. Certain key optical and electronic components are currently available only from a sole source, where the Company has identified no other suppliers for the component. While alternative suppliers have been identified for certain other key optical and electronic components, those alternative sources have not been qualified by the Company. The Company has to date conducted the majority of its business with suppliers through the issuance of conventional purchase orders against the Company's forecasted requirements. The Company is seeking to negotiate long term supply agreements with key suppliers, but currently has only a few such agreements. The Company has from time to time experienced minor delays in the receipt of key components, and has noticed a lengthening of lead times in the ordering of certain components. Any future difficulty in obtaining sufficient and timely delivery of components could and likely would result in delays or reductions in product shipments which, in turn, could have a material adverse effect on the company's business, financial condition and results of operations.

COMPETITORS AS SUPPLIERS. Certain of the Company's component suppliers are both primary sources for such components and major competitors in the market for system equipment. For example, the Company buys certain key components from Lucent, Alcatel, Nortel, NEC and Siemens, each of which offers optical communications systems and equipment which are competitive with the Company's DWDM systems. Lucent is the sole source of two integrated circuits and is one of two suppliers of Erbium-doped fiber. Alcatel and Nortel are suppliers of lasers used in the MultiWave systems. NEC is a supplier of certain testing equipment. The Company's business, financial condition and results of operations could be materially and adversely affected if

these supply relationships were to decline in reliability or otherwise change in any manner adverse to the Company. Although the Company has been notified by one of these vendors of certain manufacturability problems in certain high performance components used in the Company's MultiWave Firefly system, the Company has not experienced to date any general decline in reliability among these vendors. See "Dependence on Suppliers" for a further discussion of the issues relating to the component used in the Firefly system. However, this risk factor increases in importance given the Company's expansion efforts, new products, and the increasingly competitive environment in which the Company operates.

STOCK PRICE VOLATILITY. The Company's Common Stock price has experienced substantial price volatility, and is likely to continue to do so. Such volatility can arise as a result of any divergence between the Company's actual or anticipated financial results and published expectations of analysts and as a result of announcements by the Company and its competitors. The Company attempts to address this possible divergence through its public announcements and reports; however, the degree of specificity the Company can offer in such announcements, and the likelihood that any forward-looking statements made by the Company will prove correct in actual results, can and will vary, due primarily to the uncertainties associated with the Company's dependence on a small number of existing and potential customers, long and unpredictable sales cycles and customer purchasing programs, the absence of unconditional minimum purchase commitments from any customer, a declining level of visibility into its customers' deployment plans over the course of the capital equipment procurement year, and the lack of reliable data on which to anticipate core demand for high bandwidth transmission capacity. An example of this uncertainty is evidenced in the recent communication from WorldCom that its DWDM system requirements for 1998 will be substantially reduced relative to last year's purchases, due to a change in its purchasing policies. See "Concentration of Potential Customers; Dependence on Major Customers.

The WorldCom example indicates that divergence between the Company's actual or anticipated financial results and published expectations of stock analysts can occur notwithstanding the Company's efforts to address those expectations through public announcements and reports. Such divergence will likely occur from time to time in the future, with resulting stock price volatility, irrespective of the Company's overall year to year performance or long term prospects. For so long as the Company remains highly dependent on two or three customers, and particularly in years, like the current fiscal year, when substantial majority of purchases by these customers are likely to be focused on products, such as MultiWave Sentry, MultiWave 4000, and MultiWave Firefly, being introduced for the first time, there is substantial risk of widely varying quarterly results, including the so-called "missed quarter" relative to investor expectations which do not account for these issues, with attendant risk of higher volatility in the Company's stock price. See "Concentration of Potential Customers; Dependence on Major Customers"; "Dependence on Effective Transition to Multiple Product Lines"; and "Anticipating Demand for Bandwidth".

LONG AND UNPREDICTABLE SALES CYCLES. The purchase of network equipment such as DWDM equipment is typically carried out by network operators pursuant to multiyear purchasing programs which may increase or decrease annually as the operators adjust their capital equipment budgets and purchasing priorities. The Company's customers do not typically share detailed information on the duration or magnitude of planned purchasing programs, nor do they consistently provide to the Company advance notice of contemplated changes in their capital equipment budgets and purchasing priorities. See "Concentration of Potential Customers; Dependence on Major Customers" for discussion of a major change in WorldCom's purchasing policies. Additionally, a typical year end wind-down of customers' annual capital equipment procurement cycles, or a seasonal slow down in purchasing at year end, neither of which was experienced by the Company in its first year of product shipments, may be experienced in this and future years. These uncertainties substantially complicate the Company's manufacturing planning, and may lead to substantial and unanticipated fluctuations in the timing of orders and revenue. The Company has in fact experienced such unanticipated fluctuations in prior quarters, but any unanticipated reduction in orders from one customer has previously been offset in part or in whole by unanticipated increases in orders for other routes with the same customer or in orders from another customer. There can be no assurance that this historical ability to offset reductions will continue. For example, the Company may be unable to mitigate the anticipated effect of the recently announced reduction in order levels from WorldCom.

Any curtailment or termination of customer purchasing programs, decreases in customer capital budgets or reduction in the purchasing priority assigned to equipment such as DWDM equipment, particularly if significant and unanticipated by the Company and not offset by increased purchasing from other customers, could

have a material adverse effect on the Company's business, financial condition and results of operations. Further, as is the case with most manufacturing companies, the Company has manufactured, and from time to time in the future likely will manufacture finished products on the basis of non-binding customer forecasts rather than actual purchase orders. However, in contrast to most manufacturing companies, given the Company's dependence on very few customers, and the relatively high cost of the Company's DWDM systems, the potentially adverse financial consequences of mismatches between what is built and what is actually ordered can be magnified. Long distance carriers may also encounter delays in their build out of new routes or in their installation of new equipment in existing routes, with the result that orders for the MultiWave systems may be delayed or deferred. Any such delay with any major customer, as well as any other delay or deferral of orders for MultiWave systems, and any material mismatch between what is built and what is later ordered could result in material fluctuations in the timing of orders and revenue, and could have material adverse effect on the Company's business, financial condition and results of operations.

DEPENDENCE ON KEY PERSONNEL. The Company's success will also depend in large part upon its ability to attract and retain highly-skilled technical, managerial, sales and marketing personnel, particularly those skilled and experienced with optical communications equipment. Competition for such personnel is intense and there can be no assurance that the Company will be successful in retaining its existing key personnel and in attracting and retaining the personnel it requires. There are also some indications that the Company is beginning to exhaust the local market for skilled engineers, and will have to expand this portion of its workforce through the establishment of regional facilities, such as the research and development support center in Atlanta, Georgia. This geographical broadening of the Company's product development efforts will place strains on the management, coordination and control of such efforts. Failure to attract and retain key personnel, and the failure to coordinate their activities efficiently despite large geographic distances between facilities, will have a material adverse effect on the Company's business, financial condition and results of operations.

### PART II. - OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

PIRELLI LITIGATION - CHRONOLOGICAL SEQUENCE OF LITIGATION. On December 20, 1996, a U.S. affiliate of Pirelli SpA ("Pirelli") filed suit in U.S. District Court in Delaware, alleging willful infringement by the Company of five U.S. patents held by Pirelli. The lawsuit (the "First Pirelli Lawsuit") seeks treble damages, attorneys' fees and costs, as well as preliminary and permanent injunctive relief against the alleged infringement. On February 10, 1997, the Company filed its answer denying infringement, alleging inequitable conduct on the part of Pirelli in the prosecution of certain of its patents, and stating a counterclaim against the relevant Pirelli parties for a declaratory judgment finding the Pirelli patents invalid and/or not infringed. Following the filing of the Company's answer, Pirelli dedicated to the public and withdrew from the lawsuit all infringement claims relating to one of the five patents. In September 1997, Pirelli withdrew another patent from the suit, leaving three patents at issue in the First Pirelli Lawsuit.

In February 1997, the Company filed a complaint against Pirelli with the International Trade Commission ("ITC"), based on the Company's belief that a 32 channel DWDM system announced by Pirelli infringed at least two of the Company's patents. The Company's complaint sought a ban on the importation by Pirelli into the U.S. of any infringing 32 channel system. A formal investigative proceeding was instituted by the ITC on April 3, 1997. On November 24, 1997, the parties settled the matter by entry of a Consent Order. Under the Consent Order, Pirelli has agreed not to import into the United States WDM components and or systems which infringe the Company's patented in fiber Bragg gratings-based WDM systems.

On March 14, 1997, the Company filed suit against Pirelli in U.S. District Court in the Eastern District of Virginia, alleging willful infringement by Pirelli of three U.S. patents held or co-owned by the Company. In September 1997, the Company withdrew one of the three patents from the suit. The two patents which remained at issue related to certain of Pirelli's cable television equipment, and to certain Pirelli fiberoptic communications equipment announced by Pirelli in January 1997 as being deployed in a field trial in the MCI network. As to the second of the two patents, on December 5, 1997, the court issued an order granting partial summary judgment for Pirelli on the issue of non-infringement, and denying Pirelli's motion for summary judgment of invalidity of this patent. The court later amended its ruling to specifically affirm the validity of this patent. The Company has elected to appeal the partial summary judgment of non-infringement, and has agreed to dismiss its other claims,

with the right to reassert certain of them, pending the outcome of the appeal. The appellate decision is not expected until late 1998 at the earliest.

RECENT DEVELOPMENTS IN LITIGATION. In the First Pirelli Lawsuit, the so-called "Markman" hearing was conducted in September 1997. Markman hearings are pre-trial proceedings typically required in patent infringement litigation, and result in rulings by the trial judge on certain issues of patent claim construction. These rulings then become the basis for later jury determination of the infringement claims, and can be very influential in determining the outcome of the litigation. The Delaware court's Markman ruling in the First Pirelli Lawsuit was issued in November. The Company believes the Markman ruling is generally favorable to the Company's position, and nothing in the ruling, including the ruling as recently amended in response to Pirelli's motion for reargument, has changed the Company's view that its MultiWave systems do not infringe any valid claim of the three remaining Pirelli patents and that certain of the Pirelli patents and/or claims are invalid.

The Company anticipated, and continues to anticipate, that as the First Pirelli Lawsuit approaches trial, either or both parties might take actions to amend or add to the patent infringement claims already pending.

On December 26, 1997, the Company received word that Pirelli filed on December 23, 1997, a new complaint in U.S. District Court in Delaware, alleging willful infringement by the Company of two additional U.S. patents held by Pirelli (the "Second Pirelli Lawsuit"). Further, after the Court ruled in early January 1998, that Pirelli's attempts to allege infringement against products other than the MultiWave 1600 were not timely in the First Pirelli Lawsuit, on January 14, 1998, Pirelli filed a third complaint in Delaware (the "Third Pirelli Lawsuit"), alleging willful infringement of the same three patents still at issue in the First Pirelli Lawsuit, but alleging the infringement against unspecified other products of the Company. The Second Pirelli Lawsuit and the Third Pirelli Lawsuit seek treble damages, attorneys' fees and costs, as well as preliminary and permanent injunctive relief against the alleged infringement.

On February 4, 1998, the Company filed its answer to the Third Pirelli Lawsuit, denying infringement, and stating a counterclaim against the relevant Pirelli parties for a declaratory judgment finding the Pirelli patents invalid and/or not infringed.

On February 13, 1998, and based upon the Court's Markman ruling in the First Pirelli Lawsuit, the Company filed a motion for summary judgment of non-infringement on two of the three remaining patents in the First Pirelli Lawsuit, and of invalidity on portions of the third. Pirelli filed a motion for summary judgment of literal infringement of a single claim of the patent as to which the Company has filed for summary judgment of invalidity. There is no assurance that Pirelli's motion will not be granted, or that the Company's motions will result in complete disposition of the First Pirelli Lawsuit. The Company continues to plan on going to trial in all litigation.

On February 17, 1998, the Company filed its answer to the Second Pirelli Lawsuit, denying infringement, alleging inequitable conduct on the part of Pirelli in the prosecution of the two patents, and stating a counterclaim against the relevant Pirelli parties for a declaratory judgment finding the Pirelli patents invalid and/or not infringed.

Concurrent with the filing of its answer to the Second Pirelli Lawsuit, the Company filed a motion to consolidate the First, Second and Third Lawsuits for purposes of trial. If the motion is not granted, trial in First Lawsuit, or perhaps a consolidation of the First and Third Lawsuits, will likely commence in or around fall of 1998. If the motion to consolidate all three lawsuits is granted, the start of trial may be delayed, although it is not presently clear as to how long the delay might be.

The patent claims cited in the Second Pirelli Lawsuit had been evaluated by the Company prior to the lawsuit, as had the patent claims cited in the Third Pirelli Lawsuit. The Company continues to believe that its MultiWave systems do not infringe any valid claims of any patents held by Pirelli. The Company further believes certain of the Pirelli patents and/or claims are invalid, and that certain of the patents were obtained through inequitable conduct. The Company is defending itself vigorously, and is planning on the litigation proceeding through trial. In light of the complexity and likely time-consuming nature of the litigation, including the ITC proceeding, and the Company's patent infringement lawsuit against Pirelli in the Eastern District of Virginia, the Company recorded a charge of approximately \$7.5 million in estimated legal and related costs associated with these proceedings during fiscal 1997. While the Company believes its estimate of legal and related costs is

adequate based on its current understanding of the overall facts and circumstances, the estimate may be increased in future periods depending on the course of the legal proceedings.

The Pirelli proceedings have been and will continue to be costly and involve a substantial diversion of the time and attention of some members of management. Further, the Company believes Pirelli and other competitors have used the existence of the Delaware litigation to raise questions in customers' and potential customers' minds as to the Company's ability to manufacture and deliver MultiWave systems. There can be no assurance that such efforts by Pirelli and others will not disrupt the Company's existing and prospective customer relationships.

There can be no assurance that the Company will be successful in the Pirelli litigation, and an adverse determination in the Delaware court, either on a motion for summary judgment or in trial, could result from a finding of infringement of only one claim of a single patent. The Company may settle the litigation due to the costs and uncertainties associated with litigation in general and patent infringement litigation in particular and due to the fact that an adverse determination in the litigation could preclude the Company from producing MultiWave systems until it were able to implement a non-infringing alternative design to any portion of any system to which such a determination applied. However, there can be no assurance that any settlement will be reached by the parties. The Company is planning on all litigation proceeding through trial. An adverse determination in, or settlement of, the Pirelli litigation could involve the payment of significant amounts, or could include terms in addition to such payments, which could have a material adverse effect on the Company's business, financial condition and results of operations.

## ITEM 2. CHANGE IN SECURITIES

On December 23, 1997 the Board of Directors of the Company adopted a Stockholder Rights Plan. The Stockholders Rights Plan is designed to protect all stockholders of the Company against hostile acquirers who may seek to take advantage of the Company and its stockholders through coercive or unfair tactics aimed at gaining control of the Company without paying all stockholders of the Company a full and fair price. As part of this Plan, a special type of dividend was declared on the Common Stock of the Company in the form of a distribution rights to all stockholders of record on January 8, 1998.

The rights are not intended to prevent a fair and equitable takeover of the Company and will not do so. However, the rights should discourage any effort to acquire the Company in a manner or on terms not approved by the Board of Directors. The distribution of the rights will not alter the financial strength of the Company or interfere with its business plans. The distribution will not change the way in which stockholders can currently trade the Company's shares and will not be dilutive of affect reported per share results. While the distribution of the rights was not taxable either to stockholders or to the Company, stockholders may, depending on their individual circumstances, recognize taxable income should the rights become exercisable. See Form 8-K filed with the Securities and Exchange Commission on December 29, 1997 for further information.

Also during the quarter ended January 31, 1998, the Company issued an aggregate of 169,754 shares of Common Stock to the shareholders of Astracom for the purchase of the Astracom business. These shares were not registered in reliance on the exemption provided under Section 4(2) of the Securities Act of 1933, as amended, and Registration D promulgated thereunder.

## ITEM 6. EXHIBITS AND REPORTS ON FORM 8-K

- (a) Exhibit Description
  - 11.0 Statement of Computation of Per Share Earnings see Note 1 of Notes to Consolidated Financial Statements
  - 27.0 Financial Data Schedule (filed only electronically with the SEC)
- (b) Reports on Form 8-K:

Form 8-K filed December 29, 1997, reporting on the adoption of a Shareholders Rights Plan under Item 5.

## **SIGNATURES**

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

## CIENA CORPORATION

Date: February 19, 1998 By: /s/ Patrick H. Nettles -----

Patrick H. Nettles President, Chief Executive Officer

and Director

(Duly Authorized Officer)

By: /s/ Joseph R. Chinnici Date: February 19, 1998

Joseph R. Chinnici Vice President, Finance and Chief Financial Officer (Principal Financial Officer) This schedule contains Summary Financial Information extracted from The Balance Sheet, Statement of Operation and Statement of Cash Flows included in the Company's Form 10-Q for the period ending January 31, 1998, and is qualified in its entirety by reference to such financial statements.

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